

Appendix C1

Preliminary Traffic Study

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A. Introduction

A traffic study was conducted to examine traffic operations during the weekday AM and PM peak travel periods at existing and future conditions for design Concepts 1, 5, 6, 7, and 9 that are under consideration. The study included the NYS Route 33 Kensington Expressway as well as the network of local streets in the immediate vicinity of the project limits. A total of 61 intersections (41 signalized, 20 unsignalized) along the local street network were selected for analysis. These intersections were chosen because they are along the minor arterials surrounding the Kensington Expressway and other main roadways that cross over and connect these arterials.

B. Existing Traffic Data

Existing turning movement counts were obtained in October 2021 and November 2021 in order to have current information when determining the impact of the various concepts. Additionally, 31 locations were selected to have an Automatic Traffic Recorder (ATR) installed during the same time period as the turning movement counts. These ATR counts were selected at key points along the expressway and major roadways within the project area and used to compare the current volumes to historical records.

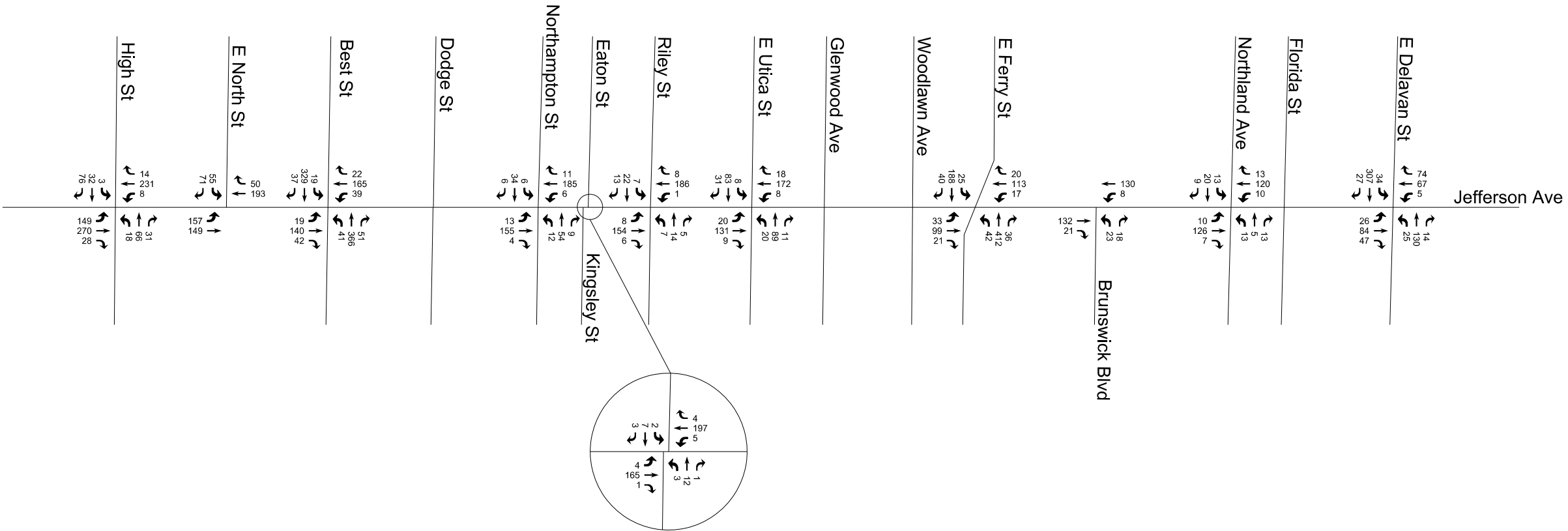
Circumstances created by the COVID-19 pandemic have had an effect on travel patterns such that the current traffic volumes collected in October and November of 2021 may not be completely representative of typical volumes during pre-COVID-19 conditions. Therefore, the current traffic volumes were compared to historic volume data and projections contained in NYSDOT's Traffic Data Viewer along NYS Route 33 from the NYS Route 198 Interchange to Jefferson Avenue.

Table C-1: COVID-19 Peak Hour AADT Comparison

NYS Route 33 Roadway Segment	Direction	2019 Historical Counts (NYSDOT)		2021 Counts		Percent Change in Peak Hour Volumes
		AADT	Peak Hour Volume	AADT	Peak Hour Volume	
NYS Route 198 to E. Utica St.	EB (Out of the City Center)	36,260	1,914 AM	35,268	1,861 AM	-2.77% AM
			4,596 PM		3,877 PM	-15.64% PM
	WB (Into the City Center)	38,332	4,627 AM	35,958	4,006 AM	-13.42% AM
			2,792 PM		2,477 PM	-11.28% PM
E. Utica St. to Best St.	EB (Out of the City Center)	38,804	2,066 AM	37,888	2,048 AM	-0.87% AM
			4,838 PM		4,190 PM	-13.39% PM
	WB (Into the City Center)	40,986	4,820 AM	38,524	4,329 AM	-10.19% AM
			2,991 PM		2,736 PM	-8.53% PM
Best St. to Jefferson Ave.	EB (Out of the City Center)	28,509	1,772 AM	29,958	1,825 AM	2.99% AM
			3,864 PM		3,100 PM	-19.77% PM
	WB (Into the City Center)	30,878	4,676 AM	33,111	4,003 AM	-14.39% AM
			1,956 PM		2,175 PM	11.20% PM

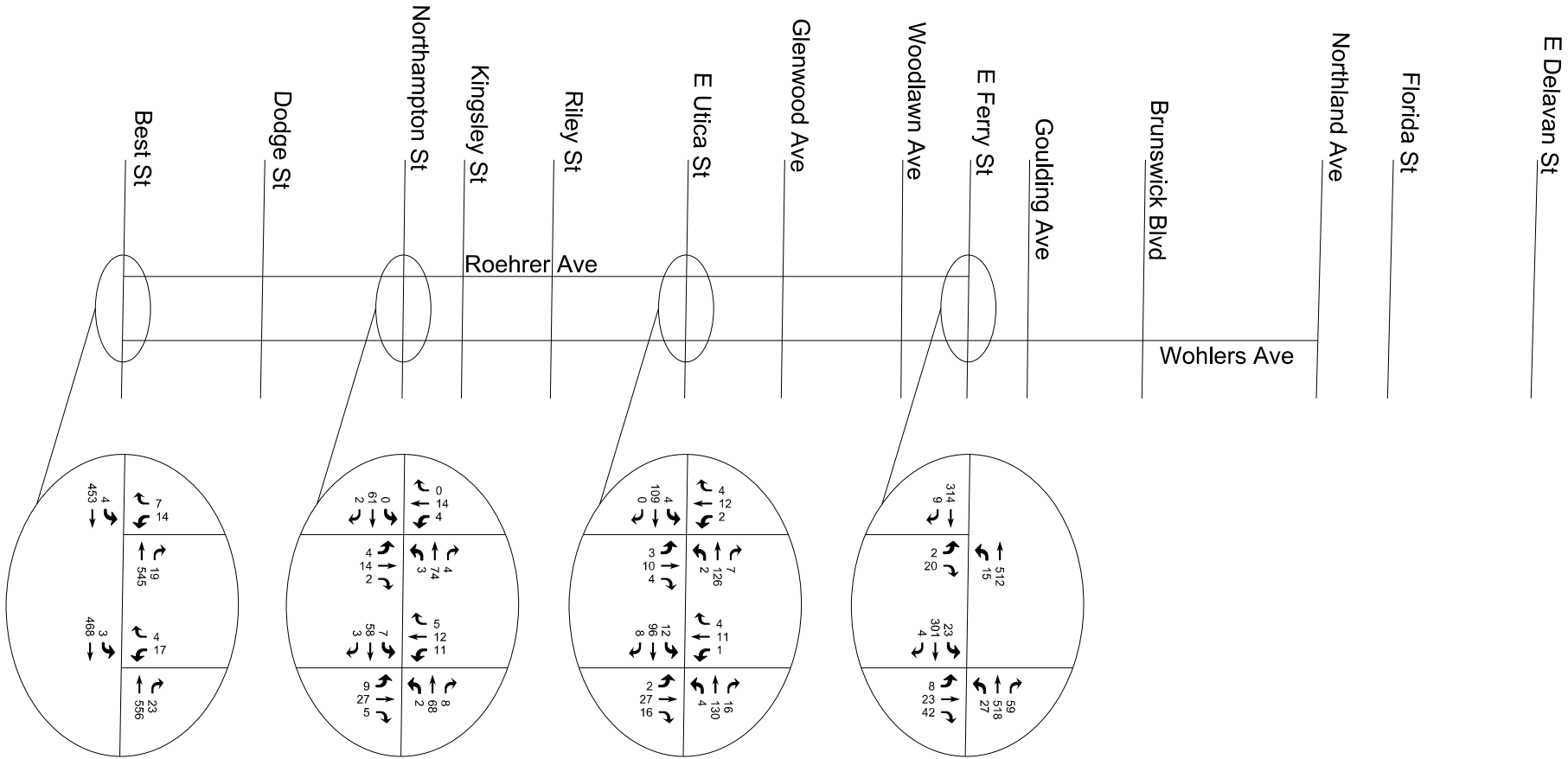
The comparison showed that the current traffic volumes are lower when compared to pre-COVID-19 volumes and this could be due to the circumstances created by the COVID-19 pandemic. Therefore, to represent the typical condition, the counted traffic volumes from Fall 2021 were increased by 9.07% during the AM peak hour and 11.8% during the PM peak hour. The adjusted existing traffic volumes are shown in Figures C-1 through C-8.

Figure C-1



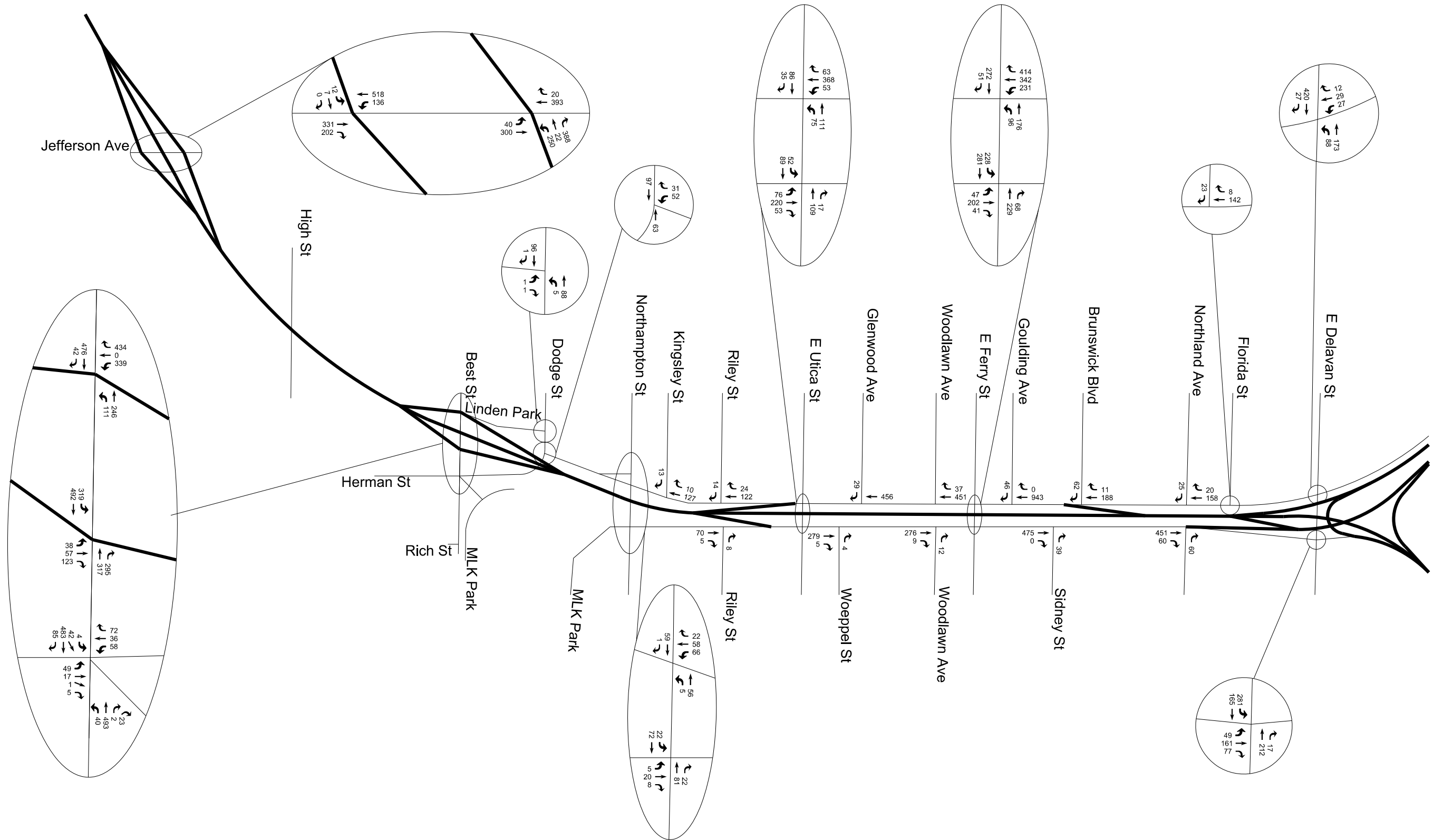
AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS: ----- ----- ----- -----	KENSINGTON EXPRESSWAY	PIN 5512.52	BRIDGES	CULVERTS	ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED	CONTRACT NUMBER			
	NY ROUTE 33								
							NULL 2021 AM PEAK HOUR SECTION 1 TRAFFIC VOLUME FIGURES	DRAWING NO.	TMC-1
	CITY OF BUFFALO							SHEET NO.	1
	COUNTY: ERIE				REGION: 5				
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Figure C-2



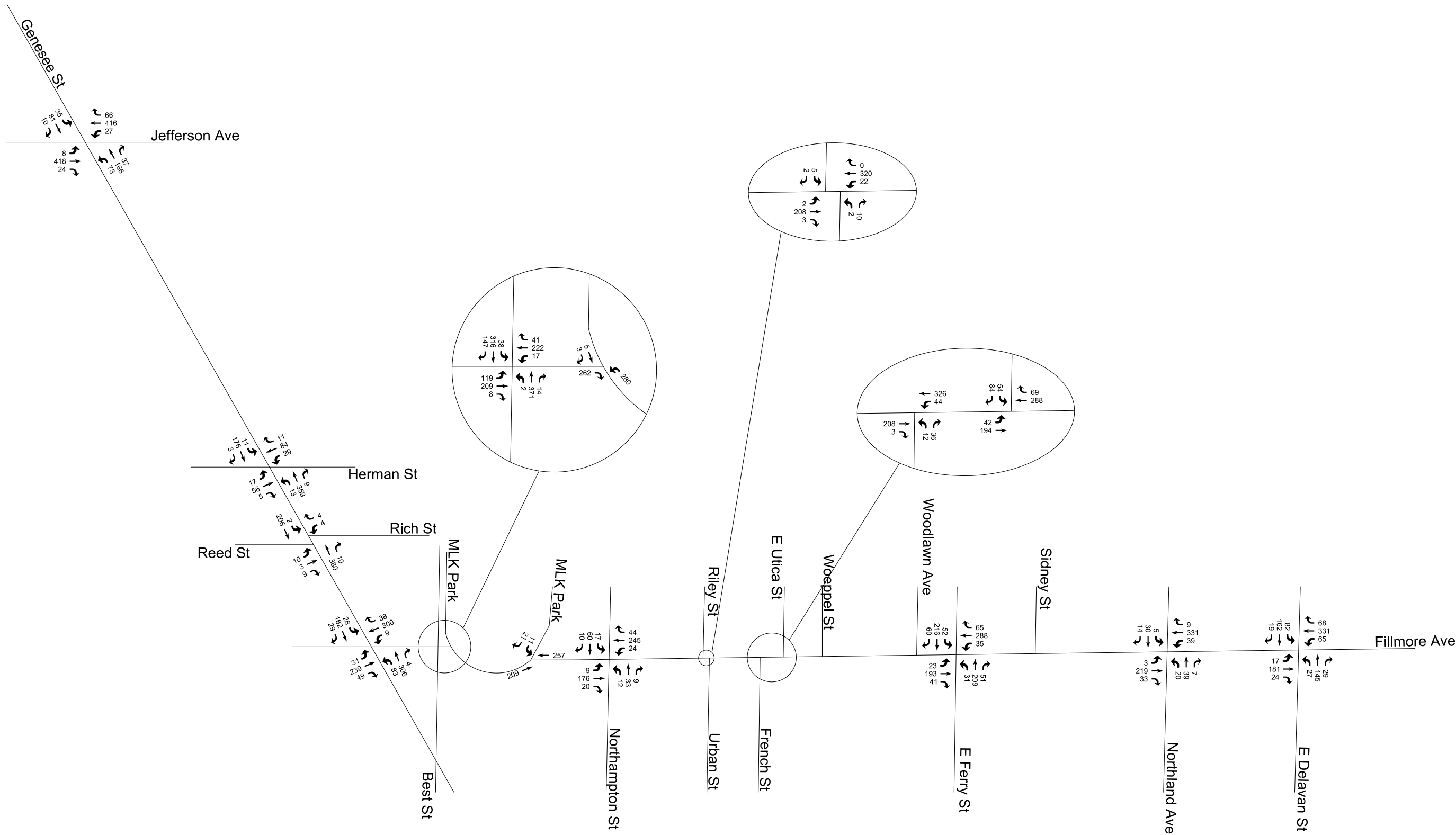
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	NY ROUTE 33				NULL 2021 AM PEAK HOUR SECTION 2 TRAFFIC VOLUME FIGURES	DRAWING NO. TMC-2 SHEET NO. 2	
	CITY OF BUFFALO						
	COUNTY: ERIE REGION: 5						
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Figure C-3



AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS: ----- ----- ----- ----- -----	KENSINGTON EXPRESSWAY	PIN 5512.52	BRIDGES	CULVERTS	ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED	CONTRACT NUMBER			
	NY ROUTE 33								
							NULL 2021 AM PEAK HOUR SECTION 3 TRAFFIC VOLUME FIGURES	DRAWING NO.	TMC-3
	CITY OF BUFFALO							SHEET NO.	3
	COUNTY: ERIE				REGION: 5				
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Figure C-4



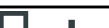
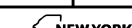
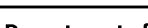
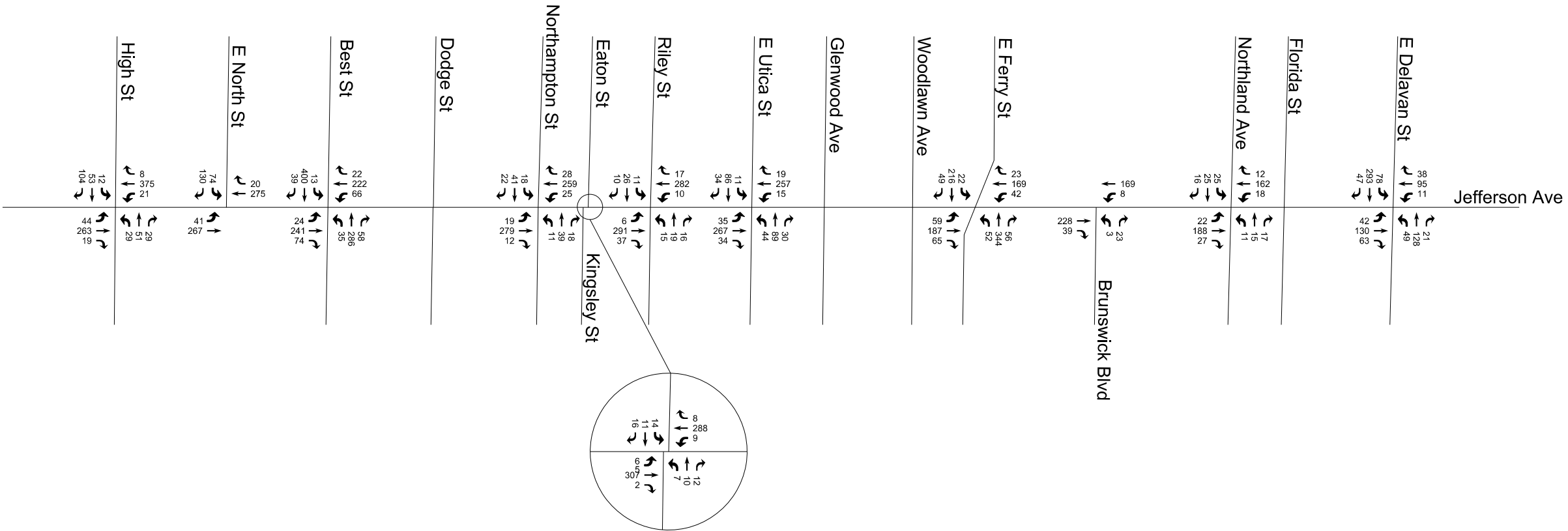
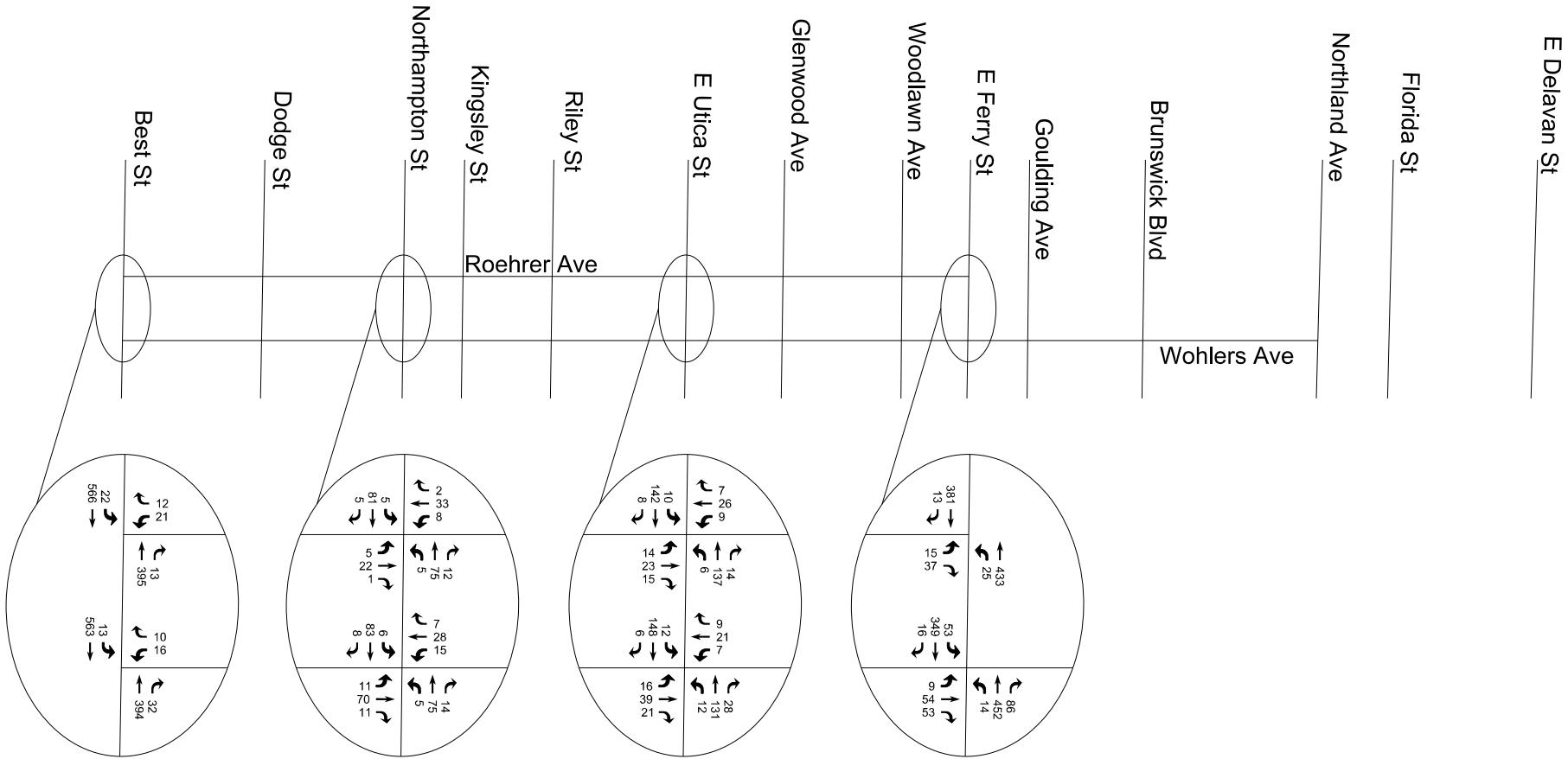
AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS: ----- ----- ----- ----- -----	KENSINGTON EXPRESSWAY		PIN 5512.52	BRIDGES	CULVERTS	ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED		CONTRACT NUMBER			
	NY ROUTE 33					NULL 2021 AM PEAK HOUR SECTION 4 TRAFFIC VOLUME FIGURES		DRAWING NO. TMC-4			
	CITY OF BUFFALO							SHEET NO. 4			
	COUNTY: ERIE REGION: 5										
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Figure C-5



AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS: ----- ----- ----- -----	KENSINGTON EXPRESSWAY	PIN 5512.52	BRIDGES	CULVERTS	ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED	CONTRACT NUMBER	
	NY ROUTE 33				NULL 2021 PM PEAK HOUR SECTION 5 TRAFFIC VOLUME FIGURES	DRAWING NO. TMC-5	
						SHEET NO. 5	
	CITY OF BUFFALO						
	COUNTY: ERIE REGION: 5						
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Figure C-6



AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS: ----- ----- ----- ----- -----	KENSINGTON EXPRESSWAY	PIN 5512.52	BRIDGES	CULVERTS	ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED	CONTRACT NUMBER	
	NY ROUTE 33						
						NULL 2021 PM PEAK HOUR SECTION 6 TRAFFIC VOLUME FIGURES	DRAWING NO. TMC-6
	CITY OF BUFFALO						SHEET NO. 6
	COUNTY: ERIE REGION: 5						
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GRID NORTH

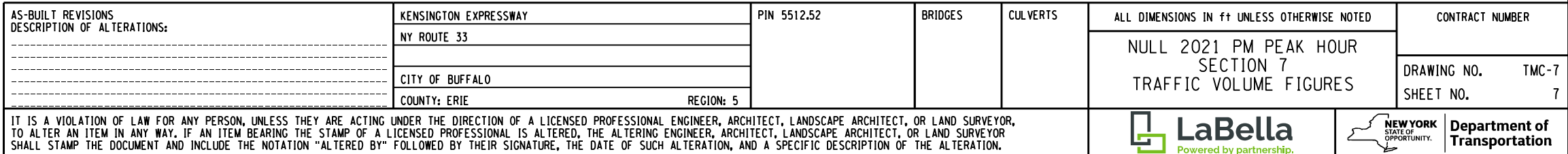
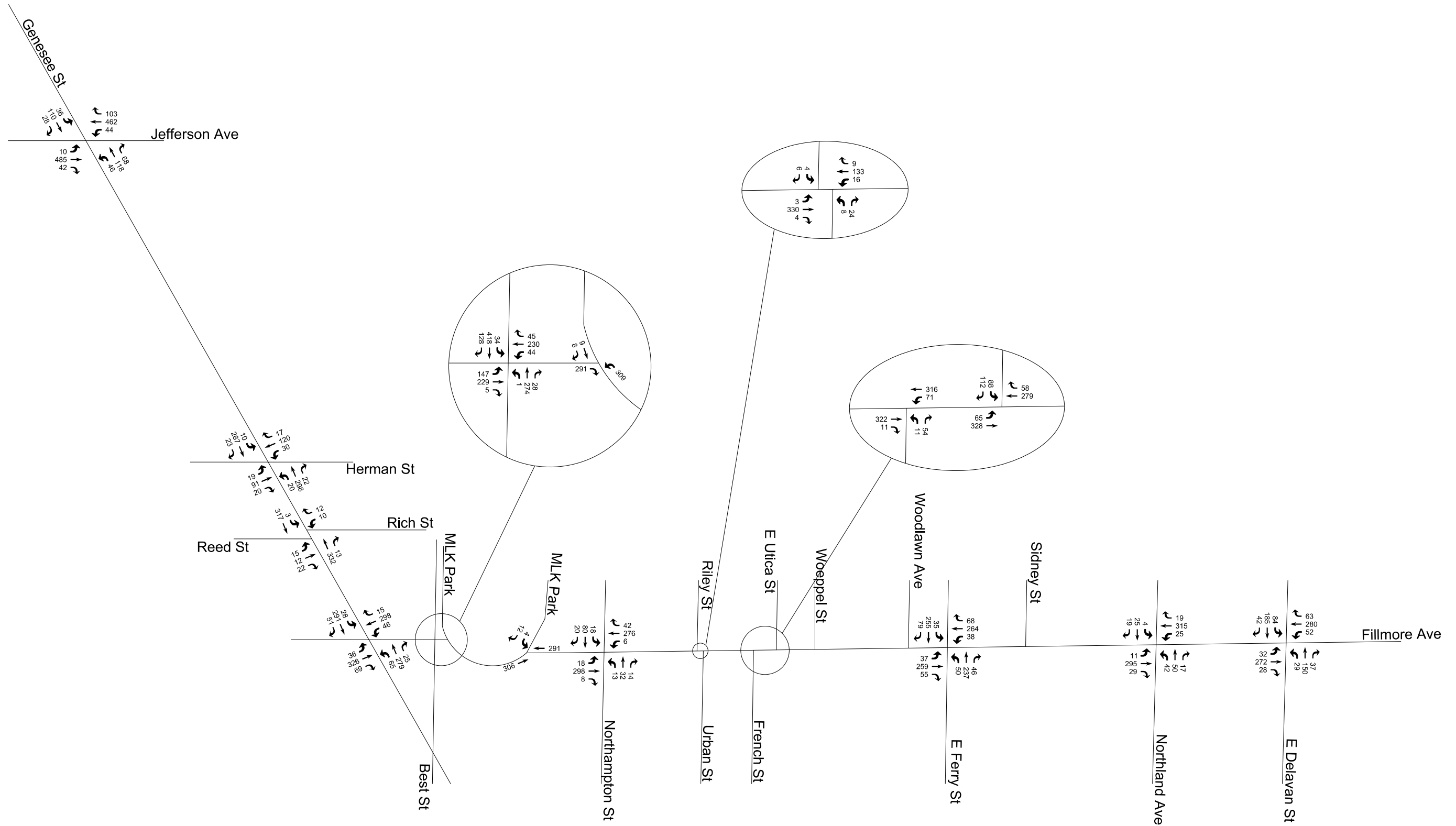


Figure C-8



AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS: ----- ----- ----- ----- -----	KENSINGTON EXPRESSWAY	PIN 5512.52	BRIDGES	CULVERTS	ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED	CONTRACT NUMBER	
	NY ROUTE 33				NULL 2021 PM PEAK HOUR SECTION 8 TRAFFIC VOLUME FIGURES	DRAWING NO. TMC-8	
						SHEET NO. 8	
	CITY OF BUFFALO						
	COUNTY: ERIE REGION: 5						
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C. Methodology

The concepts were analyzed using PTV Vissim 2022 and Synchro 11 software during the AM and PM peak hours. Model scenarios were run for the following conditions:

1. Existing Condition - using traffic volumes collected in the Fall of 2021 that were raised using the COVID-19 adjustments described in Section B.
2. Estimated Time of Completion (ETC) - using existing traffic volumes projected by 0.25% per year to 2027 which is the assumed time a project would be built and operational.

A background growth rate is used to predict the assumed increase in traffic volumes due to new development and re-development of existing properties in the future. In consultation with GBNRTC and NYSDOT it was determined that a growth rate of 0.25% per year was acceptable. This rate was determined by comparing census data and historical vehicle counts as well as guidance from the NYSDOT Highway Design Manual.

3. Estimated Time of Completion plus 20 Years (ETC+20) - using existing traffic volumes projected by 0.25% per year to 2047 which is considered the design life of the project over which traffic must operate satisfactorily.

Vissim is a traffic operations software model that provides the ability to analyze freeways and interchanges, as well as adjacent local streets, in one seamless model with the flexibility to model more complex intersections. Being a microscopic model, Vissim collects individual data for each vehicle traveling through the modeled system, providing cumulative statistics for the overall model period. The program is used to accurately determine vehicle densities, travel times and speeds for traffic traveling through the study area.

The Vissim model area for this study included the mainline NYS Route 33 expressway from Elm Street/Oak Street in downtown Buffalo to the Scajaquada Expressway (NYS Route 198) interchange to the northeast. This includes the interchanges with NYS Route 198, Delavan Avenue, Humboldt Parkway, Best Street, Jefferson Avenue, Cherry Street and BFNC Drive as well as local street intersections at each interchange that control flow of traffic on and off the expressway. The western terminus is at Oak/Elm to capture downtown traffic entering the roadway system. The eastern terminus for Concept 7 (4-lane expressway) was extended from the NYS Route 198 interchange further east to Suffolk Street to capture travel time delay and speed impacts due to chokepoint for oversaturated conditions at Rte 33/Rte 198 interchange.

In order to properly calibrate the Vissim model, “travel time” runs were performed in the field during peak traffic periods along the major roadways modelled as part of the study. Additionally, queueing observations were recorded at all of the signalized intersections to better understand existing conditions in the field. The Vissim Development and Calibration Report is attached at the end of this Appendix.

Synchro is another traffic operations software that provides the ability to model the local street network. Being a microscopic model, Synchro collects individual data for each vehicle traveling through the modeled system, providing cumulative statistics for the overall model period. The program is used to accurately determine vehicle densities, travel times and speeds for traffic traveling through the study area. The Synchro model area for this study includes the 61 intersections of the local roadway network which were analyzed for all concepts. Concept 9 included the proposed mainline boulevard within the local roadway network model.

D. Capacity Analysis

Traffic operation is evaluated and reported using Level of Service (LOS), which is an indication of how an intersection operates and the amount of delay a driver is likely to experience. LOS is reported using six letters ranging from “A” to “F” that correspond with the average delay that a vehicle is expected to experience while completing a turning movement at an intersection. LOS “A” indicates nearly free-flow operation with minimal delay, while LOS “F” indicates significant congestion and delay. Typically, a LOS between “A” and “D” for an overall intersection or individual approach is considered acceptable. A summary of LOS and corresponding delay for signalized and unsignalized intersections is provided in Table C-2.

Table C-2: Intersection Level of Service Criteria

Level of Service	Signalized Intersection Control Delay per Vehicle (seconds)	Unsignalized Intersection Control Delay per Vehicle (seconds)
A	< 10	< 10
B	10 to 20	10 to 15
C	20 to 35	15 to 25
D	35 to 55	25 to 35
E	55 to 80	35 to 50
F	> 80	> 50

Traffic Analysis Results

Concept 1 – Existing / Null Alternative Analysis Results

Mainline NYS Route 33: Vissim Analysis

The Null Concept assumes no improvements would be made to the corridor other than those planned by others or implemented by routine maintenance. Although this concept does not address identified needs or meet the stated purpose and objectives for corridor improvements, the Null option must be carried forward to serve as the baseline condition against which the potential benefits and impacts of build concepts are evaluated.

AM Peak Hour

The AM peak analysis indicates that the mainline expressway under current traffic conditions is generally operating with average travel times of approximately 3.3 minutes from Oak Street to East Delavan Avenue and average operating speeds around 50 mph. The mainline expressway in the westbound direction is operating with average travel times of approximately 5.0 minutes from Suffolk Street to Michigan Avenue and average operating speeds around 54 mph. Existing traffic operations are generally maintained through 2027.

For the ETC+20 condition (year 2047), the AM peak analysis indicates that the eastbound direction will continue to operate with average travel time of 3.3 minutes at an average speed of 49 mph. The westbound mainline expressway will see slightly higher vehicles densities, but similar travel time around 5.0 minutes, and average speeds around 54 mph during the AM peak hour.

PM Peak Hour

The PM peak mainline expressway is generally operating with an average travel time of 3.3 minutes at an average speed of 49 mph in the eastbound direction and average travel time of 5.0 minutes at an average speed of 54 mph in the westbound direction during the PM peak hour. There are some longer queues and traffic densities noted on the NYS Route 33 westbound offramps at Best Street and Jefferson Avenue, which are a result of limited capacity at the traffic signals and are not indicative of any expressway operational issue. Existing traffic operations are generally maintained through 2027. During the PM peak hour, the eastbound mainline expressway will operate with an average travel time of 3.4 minutes at an average speed of 49 mph, while the westbound mainline will operate with an average travel time of 5.0 minutes at an average speed of 54 mph.

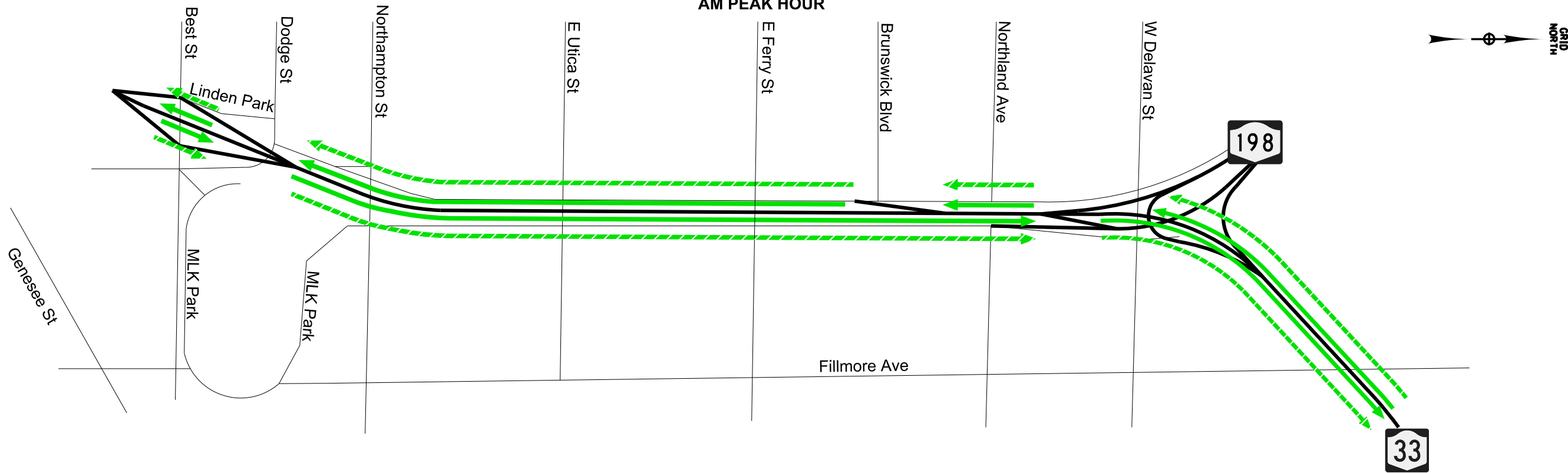
In conclusion, the overall travel time and operating speeds for the null condition are predicted to be acceptable through year 2047 (ETC+20) as summarized in Table C-3:

Table C-3: Overall Average Travel Times & Average Travel Speeds – Null Alternative

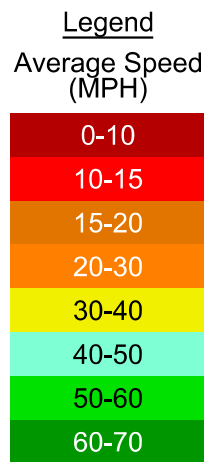
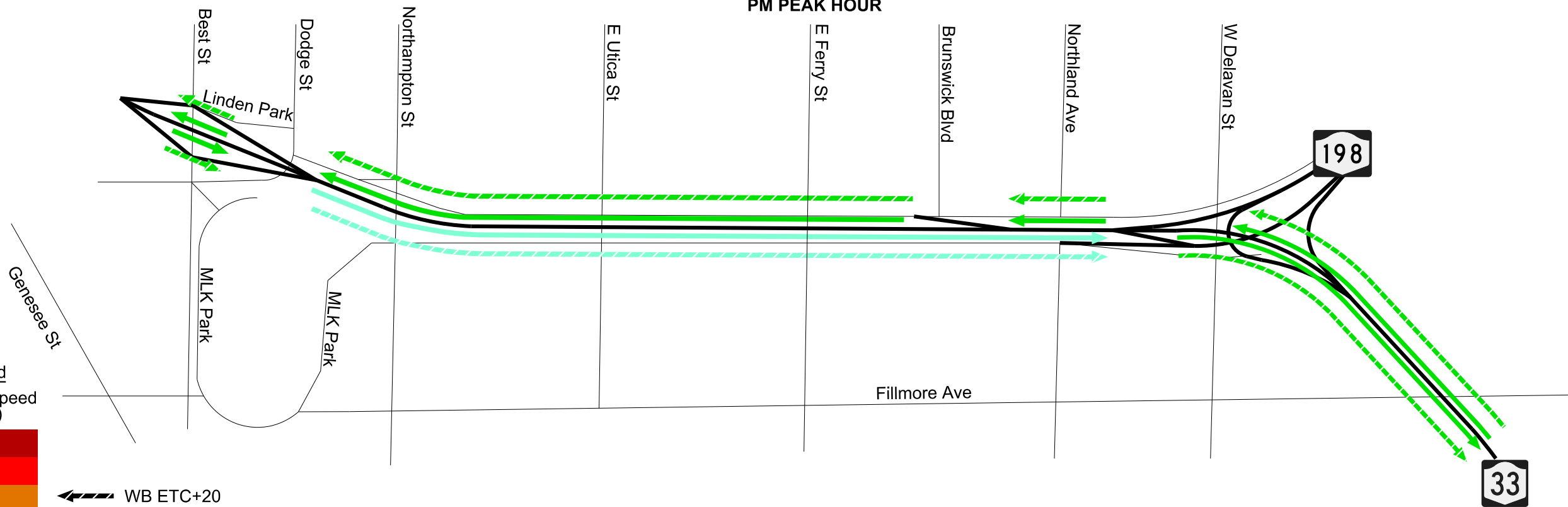
Segment	AM Peak Hour			PM Peak Hour		
	2021	2027	2047	2021	2027	2047
<i>Eastbound – Oak to Delavan – 2.72 miles</i>						
Average Travel Time (minutes)	3.3	3.3	3.4	3.3	3.3	3.4
Average Travel Speed (mph)	50	50	49	49	49	49
<i>Westbound – Suffolk to Michigan – 4.50 miles</i>						
Average Travel Time (minutes)	5.0	5.0	5.0	5.0	5.0	5.0
Average Travel Speed (mph)	54	54	54	54	54	54

Figure C-9 shows the average speed along each segment of the mainline expressway.

Figure C-9
AM PEAK HOUR



PM PEAK HOUR



- ↔ WB ETC+20
↔ WB ETC
→ EB ETC
↔ EB ETC+20

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	NY ROUTE 33				SEGMENT AVERAGE SPEED PEAK HOURS EXISTING/NULL		DRAWING NO. NULL SEG SHEET NO. 1			
	CITY OF BUFFALO									
	COUNTY: ERIE REGION: 5									
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Local Street Network: Synchro Analysis

Most of the intersections and corridors within the study area operate at LOS C or better. While none of the intersections have an overall LOS F, one or more movements at the following intersections operate at LOS E or F during the PM Peak Hour (numbering is preserved from the Traffic Analysis reports):

- #1 Best Street and NYS Route 33 EB Ramps
- #2 Best Street and NYS Route 33 WB Ramps
- #8 Humboldt Parkway SB & East Ferry Street
- #9 Humboldt Parkway NB & East Ferry Street
- #16 Fillmore Avenue & Best Street

Traffic signals were analyzed using the existing signal timings for the current year. Signal timings were optimized for all future design years. No additional infrastructure changes were made at these intersections. Further analysis will be required to determine the proper methods needed to improve these intersections so that they operate at an acceptable LOS.

Table C-4 shows the LOS analysis results for all of the intersections in the study area.

Table C-4
Intersection Level of Service
Existing - Null

#	Intersection	Control	Dir.	Lanes	AM Peak Hour			PM Peak Hour		
					2021	2027	2047	2021	2027	2047
1	Best Street & EB Ramps	S	EB	LT/T	B (10.4)	D (37.4)	E (60.1)	E(57.5)	E (63.2)	F (86.6)
			WB	T/TR	A (3.9)	A (8.2)	A (9.2)	A (6.6)	A (5.4)	A (8.6)
			NB	LTR	B (19.8)	A (7.1)	A (7.7)	B (19.0)	B (16.5)	C (24.5)
		Overall			A (9.2)	C (22.5)	C (34.2)	C (33.5)	D (35.6)	D (49.4)
2	Best Street & WB Ramps	S	EB	T/TR	A (5.2)	B (13.2)	B (14.7)	B (11.7)	B (10.2)	B (13.6)
			WB	LT/T	A (4.4)	A (9.2)	B (10.1)	A (8.8)	A (7.5)	B (10.7)
			SB	LTR	F (428.6)	F (83.7)	F (85.0)	F (93.3)	F (111.3)	F (119.9)
		Overall			F (203.7)	D (45.4)	D (46.8)	D (42.3)	D (48.4)	D (53.7)
3	Best Street & Herman Street & West Parade Avenue	S	EB	LT/TR	B (10.4)	B (12.1)	B (12.1)	B (10.4)	B (13.9)	B (14.0)
			WB	LT/TR	C (20.8)	C (22.7)	C (21.9)	C (20.8)	C (25.1)	C (22.7)
			NB	LTR	B (12.3)	B (13.0)	B (15.2)	B (16.5)	B (15.2)	B (18.1)
			SB	LTR	A (9.2)	A (9.2)	B (11.3)	B (15.8)	B (13.9)	B (17.0)
		Overall			B (14.5)	B (16.0)	B (16.1)	B (15.4)	B (18.2)	B (17.9)
4	Humboldt Parkway SB & Northampton Street	S	EB	TR	A (4.5)	B (11.8)	B (11.7)	A (4.7)	B (11.4)	B (11.3)
			WB	LT	A (2.9)	B (10.6)	A (9.7)	A (2.9)	A (6.7)	A (6.6)
			SB	LTR	C (24.7)	A (4.5)	A (4.7)	B (16.9)	A (6.8)	A (7.1)
		Overall			B (15.3)	A (7.5)	A (7.4)	B (10.1)	A (8.0)	A (8.1)
5	Humboldt Parkway NB & Northampton Street	S	EB	LT	A (6.7)	B (11.7)	B (11.6)	A (6.2)	B (11.9)	B (11.9)
			WB	TR	A (3.9)	B (11.2)	B (11.2)	A (3.8)	A (9.9)	A (9.7)
			NB	LTR	B (18.4)	A (4.0)	A (4.0)	B (17.9)	A (5.7)	A (5.9)
		Overall			A (7.1)	B (10.4)	B (10.3)	A (5.9)	B (10.7)	B (10.6)
6	Humboldt Parkway SB & E Utica Street	S	EB	TR	A (3.6)	B (10.1)	B (10.2)	A (4.9)	B (12.9)	B (13.0)
			WB	L	A (7.8)	B (10.3)	B (10.5)	A (8.1)	A (9.9)	B (10.1)
				T	B (8.1)	A (9.5)	A (9.5)	A (9.3)	A (9.8)	A (9.8)
			SB	LT/TR	B (13.9)	A (5.2)	A (5.3)	B (18.0)	A (7.7)	A (8.0)
		Overall			B (10.9)	A (7.0)	A (7.2)	B (13.2)	A (9.3)	A (9.5)
7	Humboldt Parkway NB & E Utica Street	S	EB	L	A (7.2)	A (9.6)	A (9.5)	A (7.2)	A (10.0)	B (10.0)
				T	A (7.7)	A (9.4)	A (9.3)	A (6.9)	A (8.8)	A (8.7)
			WB	TR	A (4.3)	B (11.7)	B (11.8)	A (3.8)	A (9.2)	A (9.2)
			NB	LT	D (41.1)	A (6.6)	A (6.8)	D (49.4)	A (9.5)	A (9.9)
				R	A (8.2)	A (2.5)	A (2.5)	A (9.2)	A (3.1)	A (3.1)
		Overall			C (23.1)	A (7.9)	A (8.0)	C (23.0)	A (8.8)	A (8.9)
8	Humboldt Parkway SB & E Ferry Street	S	EB	TR	B (11.9)	B (18.8)	B (14.1)	A (7.1)	B (18.0)	B (18.7)
			WB	L	A (7.2)	B (11.0)	A (8.7)	A (5.8)	B(13.8)	B (15.9)
				T	A (6.3)	A (8.1)	A (6.6)	A (4.7)	A (8.1)	A (8.3)
				LT	C (28.9)	C (24.6)	C (33.6)	F (405.9)	F (94.4)	F (93.9)
		SB	R	A (3.4)	A (3.0)	A (3.3)	A (7.4)	A (3.6)	A (3.8)	
Overall			B (14.9)	B (15.1)	B (17.2)	F (146.1)	D (40.3)	D (40.4)		
9	Humboldt Parkway NB & E Ferry Street	S	EB	L	B (19.8)	D (39.6)	C (30.2)	B (14.5)	E (65.8)	F (83.1)
				T	B (11.9)	B (15.7)	B (12.2)	A (9.6)	C (21.3)	C (25.4)
			WB	TR	B (10.7)	B (17.3)	B (12.6)	A (6.3)	B(15.6)	B (16.2)
			NB	LT	B (11.2)	B (12.6)	B (11.4)	D (50.0)	B (19.9)	C (22.1)
		R		A (3.8)	A (4.3)	A (3.8)	A (5.0)	A (4.4)	A (4.6)	
Overall			B (12.8)	B (20.0)	B (15.6)	B (18.5)	C (27.6)	C (32.7)		
10	Jefferson Avenue & Cherry Street & EB On Ramp	S	EB	LTR	A (8.4)	A (8.4)	A (8.8)	A (8.0)	A (8.0)	B (11.8)
			NB	T/TR	A (6.6)	A (6.6)	A (8.2)	A (4.0)	A (4.1)	A (4.0)
			SB	LT/T	A (9.9)	B (10.7)	B (15.8)	B (14.8)	B (16.3)	B (17.4)
		Overall			A (8.4)	A (8.9)	B (12.3)	B (10.5)	B (11.4)	B (12.1)
11	Jefferson Avenue & BNFC Drive & WB Off Ramp	S	WB	LTR	C (31.7)	C (23.3)	C (31.4)	D (37.0)	D (36.6)	D (55.0)
			NB	LT/T	A (6.0)	A (6.1)	A (7.1)	A (4.3)	A (4.4)	A (4.3)
			SB	T/TR	A (9.5)	A (9.6)	B (12.1)	A (7.7)	A (7.8)	A (7.5)
		Overall			B (19.0)	B (19.4)	B (19.9)	B (13.6)	B (16.3)	B (17.6)

Table C-4
Intersection Level of Service
Existing - Null

#	Intersection	Control	Dir.	Lanes	AM Peak Hour			PM Peak Hour		
					2021	2027	2047	2021	2027	2047
12	Jefferson Avenue & Genesee Street	S	EB	LT/TR	B (10.6)	B (11.6)	B (11.6)	B (12.2)	B (12.2)	B (12.1)
			WB	LT/TR	B (11.9)	B (12.7)	B (12.7)	B (12.8)	B (12.8)	B (12.8)
			NB	LT/TR	A (5.7)	A (4.7)	A (4.9)	A (5.1)	A (5.2)	A (5.4)
			SB	LT/TR	A (5.7)	A (4.9)	A (5.1)	A (5.6)	A (5.7)	A (6.0)
		Overall			A (7.4)	A (7.2)	A (7.2)	A (7.2)	A (7.3)	A (7.5)
13	Herman Street & Genessee Street	S	EB	LT/TR	A (3.2)	A (3.2)	A (3.2)	A (4.3)	A (4.3)	A (4.5)
			WB	LT/TR	A (3.6)	A (3.6)	A (3.7)	A (4.4)	A (4.4)	A (4.6)
			NB	LTR	B (12.5)	B (12.5)	B (12.5)	B (12.5)	B (12.5)	B (12.5)
			SB	LTR	B (13.2)	B (13.2)	B (13.2)	B (13.1)	B (13.1)	B (13.1)
		Overall			A (6.6)	A (8.0)	A (6.0)	A (7.0)	A (7.0)	A (7.1)
14	Reed Street & Rich Street & Genesee Street	S	EB	LT/T	A (2.1)	A (2.1)	A (2.1)	A (2.9)	A (2.9)	A (3.0)
			WB	T/TR	A (2.4)	A (2.4)	A (2.5)	A (2.9)	A (2.9)	A (3.0)
			NB	LTR	B (13.3)	B (13.3)	B (13.3)	B (13.1)	B (13.1)	B (13.1)
			SB	LR	B (13.1)	B (13.1)	B (13.0)	B (12.6)	B (12.6)	B (12.6)
		Overall			A (1.7)	A (3.2)	A (2.9)	A (3.9)	A (3.9)	A (4.0)
15	Fillmore Avenue & Genesee Street	S	EB	LT/TR	B (11.4)	B(11.3)	B (11.3)	B (14.3)	B (12.0)	B (14.2)
			WB	LT/TR	B (12.6)	B(12.6)	B (12.5)	B (14.9)	B (12.3)	B (14.9)
			NB	LTR	A (6.1)	A (6.2)	A (6.6)	A (8.4)	A (9.2)	A (9.5)
			SB	LTR	A (6.3)	A (6.4)	A (6.8)	A (7.5)	A (8.0)	A (8.3)
		Overall			B (10.3)	B (12.9)	A (9.3)	B (11.2)	B (10.4)	B (11.7)
16	Fillmore Avenue & Best Street	S	EB	LTR	C (26.1)	C (28.0)	D (35.5)	F (91.0)	F (87.3)	F (96.4)
			WB	LTR	B (16.2)	B (16.4)	B (17.1)	E (73.6)	C (22.4)	E (78.2)
			NB	LTR	B (14.2)	B (14.6)	B (16.2)	D (40.1)	D (54.2)	E (65.1)
			SB	LT	A (2.8)	A (2.8)	A (3.1)	A (4.8)	A (5.2)	A (5.3)
				R	A (0.2)	A (0.2)	A (0.2)	A (0.2)	A (0.3)	A (0.2)
		Overall			B (16.5)	B (17.2)	C (20.3)	E (58.8)	D (48.6)	E (67.6)
17	Fillmore Avenue & East Park	S	EB	L	A (8.2)	A (8.2)	A (8.2)	B (10.0)	A (8.3)	B (11.0)
				R	A (6.3)	A (6.3)	A (6.3)	A (6.0)	A (5.2)	A (6.4)
			NB	T	A (4.5)	A (4.7)	A (4.9)	A (6.1)	A (5.2)	A (6.3)
				SB	T	A (8.9)	A (8.9)	A (9.1)	B (11.5)	A (9.8)
		Overall			A (6.8)	A (6.9)	A (7.1)	A (8.9)	A (7.5)	A (9.3)
18	Fillmore Avenue & MLK Park	S	EB	L	B (14.5)	B (16.5)	B (14.3)	B (16.5)	B (16.5)	B (16.5)
				R	A (8.5)	B (10.5)	A (8.3)	B (10.5)	B (10.5)	B (10.4)
			NB	T	A (1.6)	A (1.5)	A (1.6)	A (1.5)	A (1.5)	A (1.5)
				SB	T	A (1.6)	A (1.4)	A (1.7)	A (1.4)	A (1.4)
		Overall			A (2.2)	A (1.7)	A (2.2)	A (1.7)	A (1.7)	A (1.7)
19	Fillmore Avenue & Northampton Street	S	EB	LTR	B (13.0)	B (13.0)	B (13.0)	B (13.4)	B (13.4)	B (13.4)
			WB	LTR	B (12.5)	B (12.5)	B (12.5)	B (12.4)	B (12.4)	B (12.4)
			NB	LTR	A (3.3)	A (3.3)	A (3.4)	A (4.3)	A (4.4)	A (4.5)
			SB	LTR	A (3.8)	A (3.8)	A (4.0)	A (4.4)	A (4.4)	A (4.5)
		Overall			A (6.1)	A (7.5)	A (6.3)	A (7.5)	A (7.6)	A (7.8)
21	Fillmore Avenue & Riley Street & Urban Street	S	EB	LTR	B (13.2)	B (13.2)	B (13.2)	B (12.9)	B ((12.9)	B (12.8)
			WB	LTR	B (13.4)	B (13.4)	B (13.4)	B (13.3)	B (13.3)	B (13.3)
			NB	LTR	A (2.2)	A (2.2)	A (2.3)	A (3.2)	A (3.2)	A (3.3)
			SB	LTR	A (2.6)	A (2.6)	A (2.7)	A (3.2)	A (3.2)	A (3.4)
		Overall			A (1.4)	A (2.4)	A (1.4)	A (2.4)	A (2.4)	A (3.5)
22	Fillmore Avenue & French Street	S	WB	LR	A (9.9)	A (9.5)	A (9.9)	A (9.5)	A (8.0)	B (10.8)
			NB	TR	A (2.5)	A (3.5)	A (2.5)	A (3.5)	A (4.0)	A (3.3)
			SB	LT	A (3.0)	A (5.3)	A (3.1)	A (5.3)	A (5.7)	A (5.3)
		Overall			A (3.3)	A (4.9)	A (3.4)	A (4.9)	A (5.1)	A (4.9)
		Overall			A (3.3)	A (4.9)	A (3.4)	A (4.9)	A (5.1)	A (4.9)
23	Fillmore Avenue & E Utica Street	S	EB	LR	A (9.0)	B (11.8)	A (9.0)	B (11.8)	A (9.6)	B (15.1)
			NB	LT	A (5.5)	B (10.8)	A (5.8)	B (10.8)	A (9.5)	B (12.8)
			SB	TR	A (5.2)	A (6.3)	A (5.5)	A (6.3)	A (6.7)	A (6.3)
		Overall			A (6.0)	A (9.3)	A (6.2)	A (9.3)	A (8.5)	B (10.9)

Table C-4
Intersection Level of Service
Existing - Null

#	Intersection	Control	Dir.	Lanes	AM Peak Hour			PM Peak Hour		
					2021	2027	2047	2021	2027	2047
24	Fillmore Avenue & E Ferry Street	S	EB	LT/TR	B (12.7)	B (12.6)	B (11.4)	B (12.5)	B (12.5)	B (12.4)
			WB	LT/TR	B (12.3)	B (12.2)	B (10.7)	B (12.4)	B (12.4)	B (12.3)
			NB	LT/TR	A (4.6)	A (4.6)	A (5.1)	A (5.8)	A (5.9)	A (6.2)
			SB	LT/TR	A (5.0)	A (5.1)	A (5.5)	A (5.9)	A (5.9)	A (6.3)
		Overall			A (8.0)	A (8.7)	A (8.1)	A (8.7)	A (8.8)	A (9.0)
25	Fillmore Avenue & Northland Avenue	S	EB	LTR	B (12.7)	B (12.7)	B (12.7)	B (12.4)	B(12.4)	B (12.4)
			WB	LTR	B (12.8)	B (12.8)	B (12.8)	B (13.3)	B (13.3)	B (13.3)
			NB	LTR	A (3.4)	A (3.4)	A (3.5)	A (4.3)	A (4.3)	A (4.5)
			SB	LTR	A (4.0)	A (4.0)	A (4.2)	A (4.5)	A (4.5)	A (4.7)
		Overall			A (5.0)	A (7.6)	A (5.1)	A (7.6)	A (7.6)	A (7.9)
26	Fillmore Avenue & E Delavan Avenue	S	EB	LTR	B (15.7)	C (20.5)	B (15.7)	B (15.6)	B (15.7)	B (15.8)
			WB	LTR	B (14.6)	B (14.5)	B (14.6)	B (13.8)	B (13.8)	B (13.7)
			NB	LTR	A (5.1)	A (7.7)	A (5.4)	A (7.8)	A (8.0)	A (8.5)
			SB	LTR	A (7.0)	B (11.4)	A (7.7)	A (8.8)	A (9.0)	A (9.8)
		Overall			B (13.1)	B (13.3)	B (13.9)	B (15.3)	B (15.6)	B (16.7)
27	Humboldt Parkway NB & E Delavan Avenue	S	EB	LT/T	A (3.0)	A (3.6)	A (5.5)	A (3.5)	A (5.8)	A (6.3)
			WB	T/TR	A (3.9)	A (5.2)	A (5.7)	A (4.3)	A (6.5)	A (6.9)
			NB	LT	D (35.8)	B (17.8)	B (14.8)	D (46.0)	B (19.2)	B (19.2)
				R	A (7.8)	A (4.8)	A (4.0)	A (6.8)	A (4.0)	A (3.9)
		Overall			B (10.7)	A (7.2)	A (7.5)	B (14.1)	A (9.0)	A (9.2)
28	Humboldt Parkway SB & E Delavan Avenue	S	EB	TR	A (6.0)	A (8.0)	A (9.2)	A (7.3)	B (11.9)	B (13.1)
			WB	LT/T	A (3.5)	A (4.0)	A (4.3)	A (4.0)	A (5.4)	A (5.7)
			SB	LT	C (24.2)	B (12.7)	B (10.5)	C (25.0)	B (12.7)	B (12.6)
				R	A (7.0)	A (2.4)	A (2.0)	A (9.9)	A (4.7)	A (4.8)
		Overall			A (6.5)	A (6.9)	A (7.5)	A (8.0)	A (9.5)	B (10.2)
29	Jefferson Avenue & E Delavan Avenue	S	EB	LTR	B (13.4)	B (18.9)	B (13.6)	B (14.8)	B (15.0)	B (14.1)
			WB	LTR	B (10.7)	B (10.9)	B (10.6)	B (10.2)	B (10.3)	B (10.5)
			NB	LTR	A (6.9)	A (7.2)	A (7.4)	A (9.4)	A (9.3)	B (10.8)
			SB	LTR	A (6.9)	A (5.6)	A (7.3)	A (8.3)	A (8.1)	A (9.4)
		Overall			B (12.7)	B (12.8)	B (13.3)	B (15.9)	B (16.7)	B (16.0)
30	Jefferson Avenue & Northland	S	EB	LTR	B (13.0)	B (13.0)	B (12.9)	B (12.9)	B (12.9)	B (12.9)
			WB	LTR	B (12.8)	B (12.8)	B (12.7)	B (12.6)	B (12.6)	B (12.6)
			NB	LTR	A (2.7)	A (2.7)	A (2.8)	A (3.5)	A (3.5)	A (3.6)
			SB	LTR	A (2.7)	A (2.7)	A (2.8)	A (3.2)	A (3.2)	A (3.4)
		Overall			A (3.5)	A (3.5)	A (4.6)	A (4.9)	A (4.9)	A (5.8)
31	Jefferson Avenue & Brunswick Boulevard	S	WB	LR	B (12.6)	B (12.6)	B (12.4)	B (11.7)	B (11.7)	B (11.4)
			NB	TR	A (2.3)	A (2.3)	A (2.4)	A (2.7)	A (2.7)	A (2.9)
			SB	LT	A (2.5)	A (2.5)	A (2.6)	A (2.7)	A (2.7)	A (2.8)
		Overall			A (3.7)	A (3.7)	A (3.7)	A (3.5)	A (3.5)	A (3.6)
32	Jefferson Avenue & E Ferry Street	S	EB	LTR	B (10.7)	B (10.6)	B (10.5)	B (11.8)	B (11.7)	B (10.69)
			WB	LTR	B (14.4)	B (14.6)	B (15.2)	B (15.1)	B (15.3)	B (15.2)
			NB	LTR	A (9.6)	A (9.8)	B (10.5)	B (11.6)	B (12.0)	B (12.8)
			SB	LTR	A (9.5)	A (9.7)	B (10.4)	B (10.2)	B (10.5)	B (11.0)
		Overall			B (15.8)	B (16.1)	B (17.0)	B (16.8)	B (17.1)	B (17.6)
33	Jefferson Avenue & E Utica Street	S	EB	LTR	B (13.2)	B (11.3)	B (13.2)	B (12.6)	B (12.6)	B (12.6)
			WB	LTR	B (13.1)	B (13.2)	B (13.1)	B (13.1)	B (13.1)	B (13.1)
			NB	LTR	A (3.6)	A (5.5)	A (3.7)	A (5.4)	A (5.5)	A (5.8)
			SB	LTR	A (3.8)	A (5.5)	A (3.9)	A (5.0)	A (5.1)	A (5.3)
		Overall			A (8.2)	A (8.2)	A (8.3)	A (9.0)	A (9.0)	A (9.4)
34	Jefferson Avenue & Riley Street	S	EB	LTR	B (13.0)	A (9.8)	B (13.0)	B (12.7)	B (12.7)	B (12.7)
			WB	LTR	B (12.7)	B (10.6)	B (12.7)	B (12.8)	B (12.8)	B (12.8)
			NB	LTR	A (2.8)	A (2.0)	A (2.8)	A (3.9)	A (3.9)	A (4.1)
			SB	LTR	A (2.8)	A (2.0)	A (3.0)	A (3.7)	A (3.7)	A (3.9)
		Overall			A (3.2)	A (3.2)	A (4.4)	A (4.6)	A (4.6)	A (4.7)

Table C-4
Intersection Level of Service
Existing - Null

#	Intersection	Control	Dir.	Lanes	AM Peak Hour			PM Peak Hour		
					2021	2027	2047	2021	2027	2047
35	Jefferson Avenue & Northampton Street	S	EB	LTR	B (12.5)	B (11.3)	B (12.5)	B (12.9)	B (12.9)	B (12.9)
			WB	LTR	B (13.0)	B (12.6)	B (13.0)	B (12.7)	B (12.7)	B (12.7)
			NB	LTR	A (3.2)	A (4.4)	A (3.3)	A (4.1)	A (4.1)	A (4.3)
			SB	LTR	A (3.3)	A (4.4)	A (3.4)	A (4.2)	A (4.2)	A (4.3)
		Overall			A (6.2)	A (6.3)	A (6.3)	A (6.3)	A (6.3)	A (6.4)
36	Jefferson Avenue & Best Street	S	EB	LT/TR	B (12.0)	B (11.3)	B (11.9)	B (13.1)	B (12.8)	B (12.8)
			WB	LT/TR	B (12.7)	B (12.6)	B (12.7)	B (10.8)	B (12.4)	B (12.4)
			NB	LT/TR	A (5.5)	A (6.2)	A (5.9)	A (6.6)	A (6.1)	A (6.4)
			SB	LT/TR	A (5.6)	A (7.2)	A (6.0)	A (8.0)	A (6.0)	A (6.3)
		Overall			B (10.2)	B (10.3)	B (10.4)	A (10.0)	A (9.8)	A (10.0)
37	Jefferson Avenue & E North Street	S	EB	LR	B (11.5)	B (11.4)	B (13.3)	A (8.9)	B (10.7)	A (9.2)
			NB	LT	A (6.4)	A (6.5)	A (6.3)	A (6.9)	A (6.6)	A (7.8)
			SB	TR	A (4.2)	A (4.3)	A (4.0)	A (6.3)	A (6.0)	A (7.0)
		Overall			A (6.5)	A (6.6)	A (6.8)	A (7.2)	A (7.5)	A (7.9)
38	Jefferson Avenue & High Street	S	EB	LTR	C (21.1)	B (11.0)	C (21.1)	B (13.2)	C (20.4)	B (15.9)
			WB	LTR	C (20.9)	B (19.5)	C (20.9)	B (12.1)	B (18.6)	B (14.4)
			NB	LTR	A (4.6)	A (7.4)	A (5.1)	A (5.5)	A (4.8)	A (5.5)
			SB	LTR	A (3.2)	A (4.4)	A (3.3)	A (6.1)	A (5.2)	A (6.1)
		Overall			A (8.4)	A (8.5)	A (9.0)	A (7.9)	A (8.7)	A (8.3)
39	Wohlers Avenue & E Ferry Street	S	EB	LTR	B (10.0)	B (11.4)	A (9.7)	B (11.2)	B (11.5)	B (11.2)
			WB	LTR	B (14.5)	C (21.2)	B (14.1)	B (13.8)	B (15.3)	B (14.6)
			NB	LTR	A (9.8)	A (7.6)	B (11.1)	B (11.5)	B (11.2)	B (12.6)
		Overall			B (16.8)	B (17.0)	B (16.4)	B (16.9)	B (18.6)	B (18.0)
40	Wohlers Avenue & E Utica Street	S	EB	LTR	B (12.7)	B (12.6)	B (12.7)	B (13.0)	B (13.0)	B (13.0)
			WB	LTR	B (13.2)	B (13.1)	B (13.2)	B (13.1)	B (13.1)	B (13.1)
			NB	LTR	A (3.2)	A (4.0)	A (3.3)	A (3.8)	A (3.9)	A (4.0)
			SB	LTR	A (3.0)	A (4.6)	A (3.2)	A (3.6)	A (3.7)	A (3.8)
		Overall			B (11.2)	B (11.3)	B (11.3)	B (11.5)	B (11.6)	B (11.8)
42	Humboldt Parkway SB & Glenwood Avenue	U	EB	R	B (11.6)	B (11.6)	B (11.9)	B (12.6)	B (12.7)	B (13.1)
43	Humboldt Parkway SB & Riley Street	U	EB	R	A (9.0)	A (9.1)	A (9.1)	A (9.5)	A (9.6)	A (9.6)
44	Humboldt Parkway SB & Kingsley Street	U	EB	R	A (9.0)	A (9.1)	A (9.1)	A (9.5)	A (9.5)	A (9.6)
45	Humboldt Parkway SB & W Parade Avenue	U	EB	T	A (7.8)	A (7.8)	A (7.8)	A (8.6)	A (8.6)	A (8.8)
			WB	T	A (7.6)	A (7.6)	A (7.6)	A (8.1)	A (8.1)	A (8.2)
			SB	LR	A (7.7)	A (7.7)	A (7.8)	A (8.6)	A (8.6)	A (8.7)
		Overall			A (7.7)	A (7.7)	A (7.7)	A (8.5)	A (8.5)	A (8.6)
46	Linden Park & Dodge Street & W Parade Avenue	U	WB	LT	A (7.4)	A (7.4)	A (7.4)	A (9.2)	A (9.2)	A (7.6)
			NB	LR	A (9.2)	A (9.2)	A (9.3)	A (7.6)	A (7.6)	A (9.2)
47	Humboldt Parkway NB & Riley Street	U	WB	R	A (8.7)	A (8.7)	A (8.7)	A (8.8)	A (8.8)	A (8.9)
48	Humboldt Parkway NB & Woepfel Street	U	WB	R	A (9.9)	A (9.9)	B (10.0)	B (10.6)	B (10.6)	B (10.8)
49	Humboldt Parkway NB & Woodlawn Avenue	U	WB	R	B (10.0)	B (10.0)	B (10.1)	B (10.7)	B (10.7)	B (10.9)
50	Humboldt Parkway SB & Florida Street	U	EB	R	A (9.3)	A (9.2)	A (9.2)	A (9.7)	A (9.8)	A (9.9)
51	Humboldt Parkway SB & Northland Avenue	U	EB	R	A (9.3)	A (9.3)	A (9.4)	B (10.0)	B (10.1)	B (10.2)
52	Humboldt Parkway SB & Brunswick Boulevard	U	EB	R	A (7.1)	A (7.1)	A (7.1)	A (7.4)	A (7.4)	A (7.5)
			SB	TR	A (8.3)	A (8.3)	A (8.4)	A (9.3)	A (9.3)	A (9.5)
		Overall			A (8.0)	A (8.0)	A (8.1)	A (8.9)	A (8.9)	A (9.1)
53	Humboldt Parkway SB & Goulding Avenue	U	EB	R	B (12.8)	B (12.9)	B (13.3)	B (13.2)	B (13.3)	B (13.7)
54	Humboldt Parkway NB & Sidney Street	U	WB	R	B (11.9)	B (12.0)	B (12.3)	B (13.3)	B (13.5)	B (14.0)
55	Humboldt Parkway NB & Northland Avenue	U	WB	R	B (12.3)	B (12.4)	B (12.7)	B (13.9)	B (14.0)	B (14.6)
56	Roehrer Avenue & E Ferry Street	U	WB	LT	A (0.2)	A (8.0)	A (8.1)	A (0.5)	A (8.4)	A (8.5)
			NB	LR	B (11.0)	B (11.1)	B (11.3)	C (15.3)	C (15.4)	C (16.3)
57	Roehrer Avenue & E Utica Street	U	EB	LTR	A (7.8)	A (7.5)	A (7.9)	A (8.8)	A (8.2)	A (9.0)
			WB	LTR	A (7.9)	A (7.9)	A (8.0)	A (8.7)	A (8.8)	A (8.9)
			NB	LTR	A (7.5)	A (7.9)	A (7.6)	A (8.2)	A (8.8)	A (8.3)
			SB	LTR	A (7.5)	A (7.5)	A (7.6)	A (8.2)	A (8.2)	A (8.3)
		Overall			A (7.8)	A (7.9)	A (7.9)	A (8.6)	A (8.7)	A (8.8)

#	Intersection	Control	Dir.	Lanes	AM Peak Hour			PM Peak Hour		
					2021	2027	2047	2021	2027	2047
58	Wohlers Avenue & Northampton Street	U	EB	LTR	A (7.6)	A (7.5)	A (7.6)	A (8.2)	A (8.2)	A (8.3)
			WB	LTR	A (7.5)	A (7.6)	A (7.6)	A (8.1)	A (8.2)	A (8.2)
			NB	LTR	A (7.5)	A (7.6)	A (7.6)	A (8.2)	A (8.1)	A (8.4)
			SB	LTR	A (7.5)	A (7.5)	A (7.5)	A (8.0)	A (8.0)	A (8.1)
		Overall			A (7.5)	A (7.6)	A (7.6)	A (8.1)	A (8.1)	A (8.3)
59	Roehrer Avenue & Northampton Street	U	EB	LTR	A (7.4)	A (7.4)	A (7.5)	A (7.9)	A (7.7)	A (7.9)
			WB	LTR	A (7.5)	A (7.4)	A (7.6)	A (7.8)	A (7.9)	A (7.9)
			NB	LTR	A (7.4)	A (7.5)	A (7.4)	A (7.7)	A (7.8)	A (7.8)
			SB	LTR	A (7.4)	A (7.4)	A (7.5)	A (7.8)	A (7.8)	A (7.9)
		Overall			A (7.4)	A (7.4)	A (7.5)	A (7.9)	A (7.8)	A (7.9)
60	Best Street & Wohlers Avenue	U	EB	LT	A (0.1)	A (8.8)	A (8.9)	A (0.2)	A (8.5)	A (8.6)
			SB	LR	C (20.5)	C (20.8)	C (22.5)	C (20.7)	C (21.1)	C (22.8)
61	Best Street & Roehrer Avenue	U	EB	LT	A (0.1)	A (8.7)	A (8.8)	A (0.2)	A (8.4)	A (8.5)
			SB	LR	C (18.5)	C (18.8)	C (20.2)	C (21.1)	C (21.6)	C (23.7)
62	Jefferson Avenue & Eaton Street & Kingsley Street	S	EB	LTR	B (13.1)	B (13.2)	B (13.2)	B (13.0)	B (13.0)	B (12.9)
			WB	LTR	B (13.9)	B (13.3)	B (13.2)	B (12.8)	B (12.8)	B (12.8)
			NB	LTR	A (1.6)	A (2.3)	A (2.3)	A (3.4)	A (3.5)	A (3.6)
			SB	LTR	A (1.6)	A (2.4)	A (2.5)	A (3.4)	A (3.4)	A (3.6)
		Overall			A (2.4)	A (3.1)	A (3.1)	A (4.4)	A (4.4)	A (4.5)

Concepts 5 and 6 – 6 Lane Tunnel Analysis Results

Mainline NYS Route 33: Vissim Analysis

Concepts 5 and 6 include the full reconstruction of Kensington Expressway within a tunnel structure. The tunnel would extend approximately 4,100 feet, with the southern portal at Dodge Street and the northern portal at Sidney Street. The partial interchange between Northampton Street and East Utica Street would be eliminated. Within this area, Humboldt Parkway and affected city streets would be reconstructed and reconnected similar to the historic street grid. The newly created green space above the expressway (between the NB and SB Humboldt Parkway) would be an at-grade median with landscaping and pedestrian amenities.

AM Peak Hour

For the ETC condition (year 2027), the AM peak analysis indicates the mainline expressway will generally operate with an average travel time of 3.2 minutes at an average speed of 51 mph in the eastbound direction, and an average travel time of 5.0 minutes at an average speed of 54 mph in the westbound direction during the AM peak hour.

For the ETC+20 condition (year 2047), the AM peak hour analysis indicates the eastbound mainline expressway will operate with an average travel time of 3.2 minutes at an average speed of 51 mph, and the westbound direction operating with an average travel time of 5.1 minutes at an average speed of 53 mph.

PM Peak Hour

For the ETC condition (year 2027), the PM peak analysis indicates the mainline expressway will generally operate with an average travel time of 3.2 minutes at an average speed of 51 mph in the eastbound direction, and an average travel time of 5.0 minutes at an average speed of 54 mph in the westbound direction during the PM peak hour.

For the ETC+20 condition (year 2047), the PM peak analysis indicates the mainline expressway will operate with eastbound travel time of 3.3 minutes at an average speed 50 mph, and westbound travel time of 5.0 minutes at an average speed 54 mph.

In conclusion, the overall travel times and operating speeds are generally consistent with the null condition analysis and considered acceptable. The results are summarized below:

Table C-5: Overall Average Travel Times & Average Travel Speeds – Concept 5 and 6 – 6-Lane Tunnel

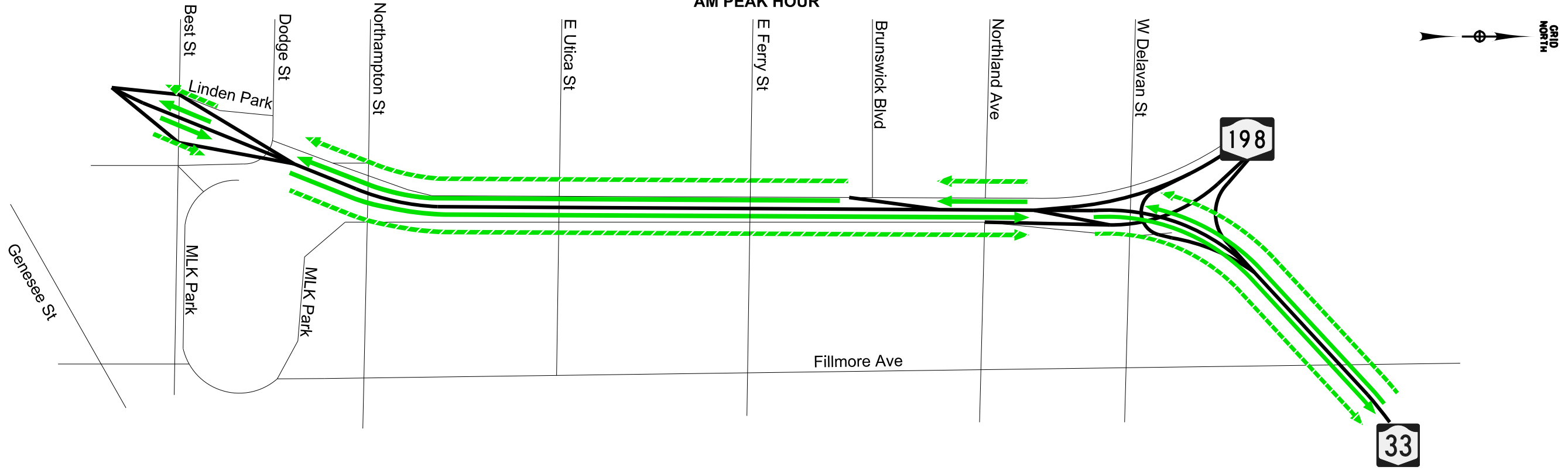
Segment	AM Peak Hour		PM Peak Hour	
	2027	2047	2027	2047
<i>Eastbound – Oak to Delavan – 2.72 miles</i>				
Average Travel Time (minutes)	3.2	3.2	3.2	3.3
Average Travel Speed (mph)	51	51	51	50
<i>Westbound – Suffolk to Michigan – 4.50 miles</i>				
Average Travel Time (minutes)	5.0	5.1	5.0	5.0
Average Travel Speed (mph)	54	53	54	54

Figure C-10 shows the average speed along each segment of the mainline expressway.

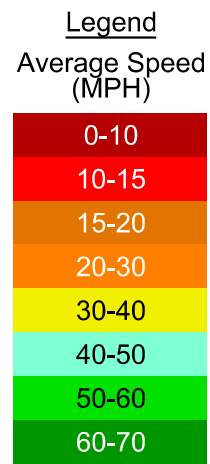
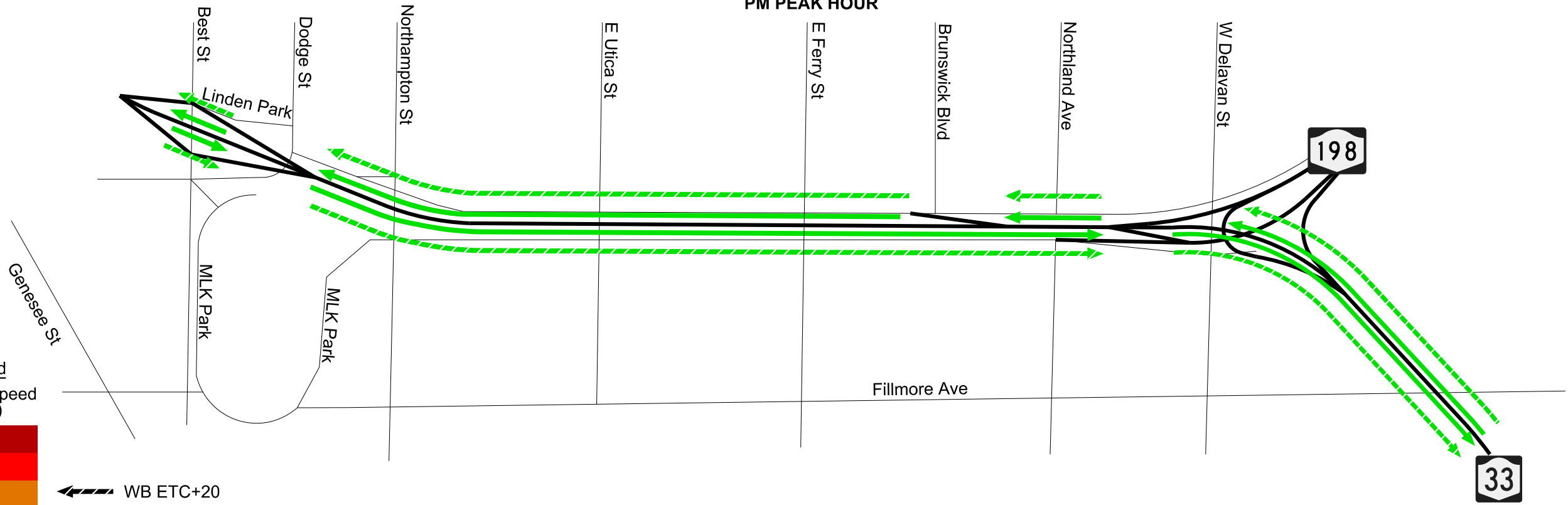
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DATE : 3/31/2022
TIME : 11:33:15 AM

DESIGN SUPERVISOR **B. MILLER** JOB MANAGER **L. ROTOLI** DESIGN **T. MILLER** CHECK **L. ROTOLI** DRAFTING **M. MCCADDEN** CHECK **T. MILLER** PROJECT MANAGER **B. MILLER**

Figure C-10
AM PEAK HOUR



PM PEAK HOUR



- WB ETC+20
- WB ETC
- EB ETC
- EB ETC+20

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS: ----- ----- -----	KENSINGTON EXPRESSWAY	PIN 5512.52	BRIDGES	CULVERTS	ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED	CONTRACT NUMBER	
	NY ROUTE 33						
					SEGMENT AVERAGE SPEED PEAK HOURS CONCEPT #6 6-LANE TUNNEL	DRAWING NO. CON 6 SEG SHEET NO. 1	
	CITY OF BUFFALO						
	COUNTY: ERIE REGION: 5						
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.					 LaBella Powered by partnership.	 NEW YORK STATE OF OPPORTUNITY.	Department of Transportation

Local Street Network: Synchro Analysis

Most of the intersections and corridors within the study area operate at overall LOS C or better. While none of the intersections have an overall LOS F, one or more movements at the following intersections operate at LOS E or F during the PM Peak Hour (numbering is preserved from the Traffic Analysis reports):

- #1 Best Street and NYS Route 33 EB Ramps
- #2 Best Street and NYS Route 33 WB Ramps
- #3 Best Street and Herman Street and West Parade Avenue
- #8 Humboldt Parkway SB & East Ferry Street
- #9 Humboldt Parkway NB & East Ferry Street
- #11 Jefferson Avenue and BNFC Drive and NYS Route 33 WB Ramp
- #16 Fillmore Avenue & Best Street

All intersections were evaluated with optimized signalized timings. No additional infrastructure changes were made at these intersections that were not part of the conceptual design. Further analysis will be required to determine the proper methods needed to improve these intersections so that they operate at an acceptable LOS.

Table C-6 shows the LOS analysis results for all of the intersections in the study area.

Table C-6
Intersection Level of Service
Concepts 5 and 6

#	Intersection	Control	Dir.	Lanes	AM Peak Hour			PM Peak Hour		
					2021	2027	2047	2021	2027	2047
1	Best Street & EB Ramps	S	EB	L	A (7.2)	A (7.4)	A (7.7)	A (7.2)	A (7.5)	A (7.5)
				LT/T	A (5.9)	A (6.0)	A (6.3)	A (5.6)	A (5.9)	A (6.1)
			WB	T/TR	D (44.7)	D (48.7)	E (67.1)	F (90.1)	F (89.6)	E (67.1)
				LT	D (37.2)	D (37.4)	D (38.0)	D (44.8)	D (42.2)	D (36.7)
			NB	R	A (7.7)	A (7.7)	A (7.7)	A (7.5)	A (7.2)	A (7.5)
		Overall				C (22.2)	C (23.6)	C (30.0)	D (39.1)	D (38.8)
2	Best Street & WB Ramps	S	EB	T/TR	D (47.1)	D (48.3)	D (53.0)	E (69.8)	E (79.9)	E (76.3)
				WB	L	A (5.6)	A (5.6)	A (5.6)	A (7.1)	A (6.8)
			T		A (5.0)	A (4.9)	A (5.3)	A (7.6)	A (7.3)	A (5.0)
			LT	E (77.2)	F (81.1)	F (92.9)	F (81.7)	F (88.1)	E (76.9)	
				SB	R	C (30.2)	C (31.8)	A (5.9)	D (38.2)	D (41.4)
		Overall				D (39.6)	D (41.2)	D (38.7)	D (52.4)	E (58.2)
3	Best Street & Herman Street & West Parade Avenue	S	EB	L	A (7.9)	A (7.8)	A (7.5)	A (7.5)	A (7.4)	A (7.5)
				T	D (50.6)	D (53.5)	E (57.9)	C (26.3)	C (28.1)	E (57.9)
				R	A (2.1)	A (2.1)	A (1.8)	A (2.1)	A (2.1)	A (1.8)
			WB	LTR	D (38.4)	D (39.2)	D (35.7)	C (33.8)	C (34.5)	D (35.7)
				LT	B (16.1)	B (16.2)	B (18.5)	B (19.4)	B (19.6)	B (18.5)
			LT	B (16.2)	B (16.2)	B (18.6)	B (19.0)	B (19.3)	B (18.6)	
				SB	R	A (2.2)	A (2.3)	A (3.4)	A (4.4)	A (4.5)
		Overall				D (35.3)	D (36.7)	D (37.4)	C (24.5)	C (25.4)
4	Humboldt Parkway SB & Northampton Street	S	EB	TR	B (12.0)	B (12.0)	B (12.0)	D (38.7)	D (38.8)	B (16.5)
			WB	LT	A (9.9)	A (9.7)	A (8.9)	B (11.4)	B (11.3)	A (9.8)
			SB	LTR	A (6.3)	A (6.4)	A (6.8)	A (5.1)	A (5.2)	A (5.6)
		Overall				A (7.4)	A (7.5)	A (7.6)	B (12.7)	B (12.8)
5	Humboldt Parkway NB & Northampton Street	S	EB	LT	B (12.2)	B (12.1)	B (11.9)	D (37.6)	D (38.4)	B (16.9)
			WB	TR	B (11.1)	B (11.1)	B (11.1)	D (35.8)	D (36.0)	B (15.3)
			NB	LTR	A (4.0)	A (4.0)	A (4.0)	A (3.0)	A (3.1)	A (3.5)
		Overall				B (10.5)	B (10.5)	B (10.4)	C (34.4)	C (34.8)
6	Humboldt Parkway SB & E Utica Street	S	EB	TR	B (10.4)	B (10.5)	B (10.4)	B (12.9)	B (12.9)	B (10.4)
			WB	L	A (9.0)	A (9.1)	A (9.1)	A (8.6)	A (8.7)	A (9.1)
				T	A (8.4)	A (8.4)	A (8.4)	A (8.5)	A (8.6)	A (8.4)
			SB	LT/TR	A (4.7)	A (4.7)	A (4.9)	A (7.2)	A (7.3)	A (4.9)
		Overall				A (6.4)	A (6.4)	A (6.6)	A (8.9)	A (9.0)
7	Humboldt Parkway NB & E Utica Street	S	EB	L	A (10.0)	B (10.0)	B (10.1)	B (10.2)	B (10.2)	B (10.1)
				T	A (9.8)	A (9.8)	A (9.8)	A (8.9)	A (8.9)	A (9.8)
			WB	TR	B (12.1)	B (12.1)	B (12.1)	A (9.3)	A (9.3)	B (12.1)
				LT	A (5.7)	A (5.7)	A (5.9)	A (8.3)	A (8.4)	A (5.9)
			NB	R	A (2.4)	A (2.4)	A (2.4)	A (3.2)	A (3.2)	A (2.4)
		Overall				A (8.0)	A (8.0)	A (8.1)	A (8.6)	A (8.6)
8	Humboldt Parkway SB & E Ferry Street	S	EB	TR	B (13.1)	B (15.0)	B (15.3)	B (18.7)	B (19.1)	B (15.3)
			WB	L	A (7.5)	A (8.5)	A (8.8)	B (13.2)	B (13.6)	A (8.8)
				T	A (6.2)	A (6.8)	A (6.8)	A (7.6)	A (7.7)	A (6.8)
			LT	C (21.9)	C (20.6)	C (26.8)	F (85.3)	F (87.0)	C (26.8)	
				SB	R	A (3.2)	A (3.0)	A (3.1)	A (3.2)	A (3.2)
		Overall				B (12.7)	B (12.7)	B (15.1)	D (38.2)	D (39.0)
9	Humboldt Parkway NB & E Ferry Street	S	EB	L	B (19.6)	C (25.6)	C (29.9)	E (60.6)	E (69.3)	C (29.9)
				T	B (11.0)	B (12.7)	B (12.9)	C (20.5)	C (25.4)	B (12.9)
			WB	TR	B (11.0)	B (12.7)	B (12.9)	B (14.3)	B (14.5)	B (12.9)
				LT	B (10.2)	B (10.2)	B (10.4)	B (14.5)	B (14.7)	B (10.4)
			NB	R	A (3.9)	A (3.7)	A (3.7)	A (3.8)	A (3.8)	A (3.7)
		Overall				B (12.4)	B (14.6)	B (15.7)	C (25.0)	C (28.2)
10	Jefferson Avenue & Cherry Street & EB On Ramp	S	EB	LTR	A (8.5)	A (8.3)	A (8.3)	A (9.9)	A (6.8)	C (21.8)
			NB	T/TR	A (6.6)	A (6.6)	A (6.8)	A (4.1)	A (4.2)	A (4.4)
			SB	LT/T	B (10.2)	B (10.7)	B (13.2)	B (15.7)	B (16.5)	A (8.3)
		Overall				A (8.6)	A (8.9)	B (10.2)	B (11.0)	B (11.5)
11	Jefferson Avenue & BNFC Drive & WB Off Ramp	S	WB	LTR	C (27.9)	C (29.5)	C (34.3)	D (42.6)	D (46.9)	F (265.0)
			NB	LT/T	A (6.0)	A (5.8)	A (6.0)	A (4.2)	A (4.2)	A (3.6)
			SB	T/TR	A (9.5)	A (9.5)	A (9.8)	A (7.6)	A (7.7)	A (5.9)
		Overall				B (17.1)	B (17.8)	C (20.1)	B (15.0)	B (16.0)

Table C-6
Intersection Level of Service
Concepts 5 and 6

#	Intersection	Control	Dir.	Lanes	AM Peak Hour			PM Peak Hour			
					2021	2027	2047	2021	2027	2047	
12	Jefferson Avenue & Genesee Street	S	EB	LT/TR	B (10.6)	B (10.6)	B (10.5)	B (10.9)	B (10.9)	B (10.5)	
			WB	LT/TR	B (11.8)	B (11.8)	B (11.9)	A (9.9)	A (9.9)	B (11.9)	
			NB	LT/TR	A (6.1)	A (6.2)	A (6.4)	A (6.4)	A (6.5)	A (6.4)	
			SB	LT/TR	A (6.0)	A (6.1)	A (6.4)	A (6.5)	A (6.6)	A (6.4)	
		Overall				A (7.8)	A (7.8)	A (8.0)	A (7.6)	A (7.7)	A (8.0)
13	Herman Street & Genesee Street	S	EB	LT/TR	A (5.5)	A (5.5)	A (5.6)	A (7.8)	A (7.8)	A (5.6)	
			WB	LT/TR	A (5.7)	A (5.8)	A (6.0)	A (8.0)	A (8.0)	A (6.0)	
			NB	LTR	B (11.3)	B (11.2)	B (11.2)	A (10.0)	B (10.0)	B (11.2)	
			SB	LTR	B (14.5)	B (14.6)	B (14.7)	B (17.0)	B (17.2)	B (14.7)	
		Overall				A (7.9)	A (8.0)	A (8.1)	B (10.4)	B (10.5)	A (8.1)
14	Reed Street & Rich Street & Genesee Street	S	EB	LT/T	A (1.3)	A (1.3)	A (1.3)	A (2.7)	A (2.7)	A (1.3)	
			WB	T/TR	A (1.3)	A (1.3)	A (1.4)	A (2.7)	A (2.7)	A (1.4)	
			NB	LTR	B (12.0)	B (12.0)	B (11.7)	A (10.0)	A (10.0)	B (11.7)	
			SB	LR	A (1.3)	A (1.3)	A (1.3)	A (5.0)	A (5.0)	A (1.3)	
		Overall				A (1.7)	A (1.7)	A (1.7)	A (3.2)	A (3.2)	A (1.7)
15	Fillmore Avenue & Genesee Street	S	EB	LT/TR	A (9.7)	A (9.7)	A (9.7)	B (14.8)	B (14.9)	A (9.7)	
			WB	LT/TR	B (13.3)	B (13.4)	B (13.5)	B (16.3)	B (16.5)	B (13.5)	
			NB	LTR	A (8.9)	A (9.0)	A (9.6)	B (11.6)	B (11.9)	A (9.6)	
			SB	LTR	A (9.4)	A (9.6)	A (10.2)	B (10.8)	B (11.1)	B (10.2)	
		Overall				B (10.5)	B (10.6)	B (11.0)	B (13.3)	B (13.5)	B (11.0)
16	Fillmore Avenue & Best Street	S	EB	LTR	C (29.0)	C (32.2)	C (33.3)	F (91.2)	F (95.7)	D (35.0)	
			WB	LTR	B (15.9)	B (16.1)	B (15.9)	E (72.2)	E (76.6)	B (16.3)	
			NB	LTR	B (14.6)	B (14.9)	B (18.8)	E (59.3)	E (64.0)	B (18.1)	
			SB	LT	A (2.8)	A (2.9)	A (3.3)	A (5.0)	A (5.2)	A (3.2)	
				R	A (0.2)	A (0.2)	A (0.2)	A (0.2)	A (0.2)	A (0.2)	
		Overall				B (17.6)	B (18.8)	C (20.0)	E (64.3)	E (68.0)	C (20.6)
17	Fillmore Avenue & East Park	S	EB	L	A (8.2)	A (8.2)	A (8.0)	A (9.5)	B (10.8)	A (8.2)	
				R	A (6.3)	A (6.3)	A (6.0)	A (5.7)	A (6.2)	A (6.0)	
			NB	T	A (4.6)	A (4.8)	A (5.5)	A (6.4)	A (7.0)	A (5.4)	
			SB	T	A (9.0)	A (9.0)	B (10.5)	B (12.3)	B (13.6)	B (10.3)	
		Overall				A (6.9)	A (7.0)	A (8.1)	A (9.3)	B (10.2)	A (7.9)
18	Fillmore Avenue & MLK Park	S	EB	L	B (14.5)	B (14.5)	B (14.3)	B (16.5)	B (16.5)	B (14.3)	
				R	A (8.5)	A (8.5)	A (8.3)	B (10.5)	B (10.5)	A (8.3)	
			NB	T	A (1.6)	A (1.6)	A (1.6)	A (1.5)	A (1.5)	A (1.6)	
			SB	T	A (1.6)	A (1.6)	A (1.7)	A (1.4)	A (1.4)	A (1.7)	
		Overall				A (2.2)	A (2.2)	A (2.2)	A (1.7)	A (1.7)	A (2.2)
19	Fillmore Avenue & Northampton Street	S	EB	LTR	B (12.2)	B (12.2)	B (12.2)	B (12.6)	B (12.6)	B (12.2)	
			WB	LTR	B (11.1)	B (11.1)	B (11.0)	B (10.4)	B (10.4)	B (11.0)	
			NB	LTR	A (3.4)	A (3.4)	A (3.5)	A (5.5)	A (5.6)	A (3.5)	
			SB	LTR	A (3.7)	A (3.8)	A (3.9)	A (5.2)	A (5.3)	A (3.9)	
		Overall				A (5.2)	A (5.2)	A (5.3)	A (6.7)	A (6.7)	A (5.3)
21	Fillmore Avenue & Riley Street & Urban Street	S	EB	LTR	A (0.5)	A (0.5)	A (0.5)	A (2.5)	A (2.5)	A (0.5)	
			WB	LTR	A (3.6)	A (3.6)	A (3.6)	A (7.1)	A (7.1)	A (3.6)	
			NB	LTR	A (1.2)	A (1.2)	A (1.2)	A (2.2)	A (2.2)	A (1.2)	
			SB	LTR	A (1.4)	A (1.4)	A (1.5)	A (2.1)	A (2.1)	A (1.5)	
		Overall				A (1.4)	A (1.4)	A (1.4)	A (2.4)	A (2.4)	A (1.4)
22	Fillmore Avenue & French Street	S	WB	LR	A (9.9)	A (9.8)	A (9.7)	A (7.9)	A (9.6)	A (9.7)	
			NB	TR	A (2.5)	A (2.6)	A (2.6)	A (3.3)	A (3.6)	A (2.6)	
			SB	LT	A (3.0)	A (3.0)	A (3.2)	A (3.8)	A (4.9)	A (3.2)	
		Overall				A (3.4)	A (3.4)	A (3.5)	A (3.9)	A (4.7)	A (3.5)
		23	Fillmore Avenue & E Utica Street	S	EB	LR	A (8.9)	A (9.1)	A (9.0)	B (11.4)	B (11.4)
NB	LT				A (4.8)	A (5.4)	A (5.6)	A (8.2)	A (8.3)	A (5.6)	
SB	TR				A (4.5)	A (5.0)	A (5.2)	A (5.5)	A (5.6)	A (5.2)	
Overall				A (5.4)	A (5.8)	A (6.0)	A (7.8)	A (7.9)	A (6.0)		
24	Fillmore Avenue & E Ferry Street			S	EB	LT/TR	B (11.1)	B (11.1)	B (11.2)	B (10.6)	B (10.6)
		WB	LT/TR		B (10.6)	B (10.6)	B (10.7)	B (11.8)	B (11.9)	B (10.7)	
		NB	LT/TR		A (4.8)	A (4.8)	A (5.0)	A (5.9)	A (6.0)	A (5.0)	
		SB	LT/TR		A (5.0)	A (5.1)	A (5.3)	A (5.8)	A (5.9)	A (5.3)	
		Overall				A (7.8)	A (7.9)	A (8.0)	A (8.4)	A (8.5)	A (8.0)

#	Intersection	Control	Dir.	Lanes	AM Peak Hour			PM Peak Hour			
					2021	2027	2047	2021	2027	2047	
25	Fillmore Avenue & Northland Avenue	S	EB	LTR	B (10.4)	B (10.4)	B (10.3)	A (8.4)	A (8.4)	B (10.3)	
			WB	LTR	B (12.1)	B (12.1)	B (12.1)	B (13.8)	B (13.9)	B (12.1)	
			NB	LTR	A (3.4)	A (3.4)	A (3.5)	A (6.3)	A (6.3)	A (3.5)	
			SB	LTR	A (4.0)	A (4.0)	A (4.2)	A (6.6)	A (6.7)	A (4.2)	
		Overall				A (5.0)	A (5.0)	A (5.1)	A (7.5)	A (7.6)	A (5.1)
26	Fillmore Avenue & E Delavan Avenue	S	EB	LTR	B (19.5)	B (19.6)	C (25.3)	C (22.4)	C (22.7)	C (20.2)	
			WB	LTR	B (14.6)	B (14.6)	B (17.8)	B (14.2)	B (14.2)	B (14.9)	
			NB	LTR	A (7.3)	A (7.4)	A (7.1)	B (10.7)	B (10.9)	A (7.7)	
			SB	LTR	B (10.8)	B (11.0)	B (10.6)	B (12.2)	B (12.5)	B (11.8)	
		Overall				B (10.7)	B (12.8)	B (14.4)	B (14.6)	B (14.8)	B (13.4)
27	Humboldt Parkway NB & E Delavan Avenue	S	EB	LT/T	A (4.9)	A (5.0)	A (3.9)	A (5.6)	A (5.6)	A (5.4)	
			WB	T/TR	A (5.5)	A (5.6)	A (5.3)	A (6.2)	A (6.3)	A (5.7)	
			NB	LT	B (14.5)	B (14.6)	B (17.8)	B (18.9)	B (19.1)	B (14.7)	
				R	A (4.2)	A (4.2)	A (4.8)	A (4.1)	A (4.1)	A (4.1)	
		Overall				A (7.1)	A (7.1)	A (7.3)	A (8.6)	A (8.7)	A (7.3)
28	Humboldt Parkway SB & E Delavan Avenue	S	EB	TR	A (8.4)	A (8.5)	A (8.2)	B (10.9)	B (11.1)	A (9.0)	
			WB	LT/T	A (4.2)	A (4.2)	A (4.1)	A (5.0)	A (5.1)	A (4.3)	
			SB	LT	B (10.6)	B (10.5)	B (12.8)	B (12.9)	B (13.0)	B (10.6)	
				R	A (1.9)	A (1.9)	A (2.6)	A (4.8)	A (4.8)	A (2.1)	
		Overall				A (7.0)	A (7.1)	A (7.1)	A (8.9)	A (9.0)	A (7.4)
29	Jefferson Avenue & E Delavan Avenue	S	EB	LTR	B (18.6)	B (18.9)	B (19.8)	C (23.0)	C (23.4)	B (19.7)	
			WB	LTR	B (10.7)	B (10.7)	B (10.9)	B (11.9)	B (12.0)	B (10.9)	
			NB	LTR	A (7.2)	A (7.2)	A (7.5)	B (10.8)	B (11.0)	A (7.5)	
			SB	LTR	A (5.6)	A (5.6)	A (5.7)	A (8.7)	A (8.8)	A (5.7)	
		Overall				B (12.6)	B (12.8)	B (13.3)	B (15.9)	B (16.1)	B (13.2)
30	Jefferson Avenue & Northland	S	EB	LTR	B (10.3)	B (10.3)	B (11.5)	B (11.2)	B (11.2)	B (11.5)	
			WB	LTR	A (8.9)	A (8.9)	A (9.6)	A (9.2)	A (9.2)	A (9.6)	
			NB	LTR	A (2.0)	A (2.0)	A (3.1)	A (3.5)	A (3.5)	A (3.1)	
			SB	LTR	A (1.9)	A (1.9)	A (3.0)	A (3.5)	A (3.5)	A (3.0)	
		Overall				A (3.5)	A (3.5)	A (4.6)	A (4.9)	A (4.9)	A (4.6)
31	Jefferson Avenue & Brunswick Boulevard	S	WB	LR	B (12.6)	B (12.6)	B (12.4)	B (11.7)	B (11.7)	B (12.4)	
			NB	TR	A (2.3)	A (2.3)	A (2.4)	A (2.7)	A (2.7)	A (2.4)	
			SB	LT	A (2.5)	A (2.5)	A (2.6)	A (2.7)	A (2.7)	A (2.6)	
			Overall				A (3.7)	A (3.6)	A (3.7)	A (3.5)	A (3.5)
		32	Jefferson Avenue & E Ferry Street	S	EB	LTR	B (10.8)	B (10.8)	B (11.0)	B (12.4)	B (12.4)
WB	LTR				C (20.6)	C (20.6)	C (22.6)	C (22.6)	C (23.0)	C (22.6)	
NB	LTR				B (12.1)	B (12.1)	B (12.6)	B (15.3)	B (15.7)	B (12.6)	
SB	LTR				B (12.0)	B (12.0)	B (12.5)	B (13.8)	B (14.1)	B (12.5)	
Overall				B (15.7)	B (15.7)	B (16.8)	B (17.0)	B (17.2)	B (16.8)		
33	Jefferson Avenue & E Utica Street	S	EB	LTR	B (11.3)	B (11.3)	B (11.4)	B (10.8)	B (10.8)	B (11.4)	
			WB	LTR	B (13.3)	B (13.3)	B (13.4)	B (13.5)	B (13.6)	B (13.4)	
			NB	LTR	A (5.6)	A (5.6)	A (5.8)	A (7.6)	A (7.7)	A (5.8)	
			SB	LTR	A (5.6)	A (5.6)	A (5.8)	A (7.0)	A (7.1)	A (5.8)	
		Overall				A (8.3)	A (8.3)	A (8.4)	A (9.0)	A (9.1)	A (8.4)
34	Jefferson Avenue & Riley Street	S	EB	LTR	A (9.8)	A (9.8)	B (10.9)	B (11.0)	B (11.0)	B (10.9)	
			WB	LTR	B (10.6)	B (10.6)	B (11.6)	B (10.3)	B (10.3)	B (11.6)	
			NB	LTR	A (2.0)	A (2.0)	A (3.1)	A (3.6)	A (3.7)	A (3.1)	
			SB	LTR	A (2.0)	A (2.0)	A (3.2)	A (3.7)	A (3.7)	A (3.2)	
		Overall				A (3.2)	A (3.2)	A (4.3)	A (4.6)	A (4.6)	A (4.3)
35	Jefferson Avenue & Northampton Street	S	EB	LTR	B (11.2)	B (11.2)	B (11.1)	B (11.3)	B (11.3)	B (11.1)	
			WB	LTR	B (12.7)	B (12.7)	B (12.7)	B (10.8)	B (10.8)	B (12.7)	
			NB	LTR	A (4.4)	A (4.4)	A (4.5)	A (5.2)	A (5.2)	A (4.5)	
			SB	LTR	A (4.4)	A (4.4)	A (4.5)	A (5.1)	A (5.2)	A (4.5)	
		Overall				A (6.3)	A (6.4)	A (6.4)	A (6.3)	A (6.3)	A (6.4)
36	Jefferson Avenue & Best Street	S	EB	LT/TR	B (11.5)	B (11.6)	B (11.7)	B (12.6)	B (12.7)	B (11.7)	
			WB	LT/TR	B (12.6)	B (12.7)	B (12.9)	B (11.0)	B (11.1)	B (12.9)	
			NB	LT/TR	A (7.5)	A (7.5)	A (7.7)	A (6.7)	A (6.7)	A (7.7)	
			SB	LT/TR	A (7.1)	A (7.1)	A (7.3)	A (8.0)	A (8.1)	A (7.3)	
		Overall				B (10.6)	B (10.6)	B (10.8)	A (9.9)	B (10.0)	B (10.8)

Table C-6
Intersection Level of Service
Concepts 5 and 6

#	Intersection	Control	Dir.	Lanes	AM Peak Hour			PM Peak Hour		
					2021	2027	2047	2021	2027	2047
37	Jefferson Avenue & E North Street	S	EB	LR	B (11.5)	B (11.4)	B (13.3)	A (8.9)	A (8.9)	B (13.3)
			NB	LT	A (6.4)	A (6.5)	A (6.3)	A (6.9)	A (7.0)	A (6.4)
			SB	TR	A (4.3)	A (4.3)	A (4.1)	A (6.3)	A (6.4)	A (4.1)
		Overall			A (6.5)	A (6.6)	A (6.8)	A (7.2)	A (7.2)	A (6.8)
38	Jefferson Avenue & High Street	S	EB	LTR	B (11.0)	B (11.0)	B (10.8)	A (8.7)	A (8.8)	B (10.8)
			WB	LTR	B (19.5)	B (19.5)	B (19.9)	B (11.8)	B (11.8)	B (19.9)
			NB	LTR	A (7.3)	A (7.5)	A (8.2)	A (7.0)	A (7.1)	A (8.2)
			SB	LTR	A (4.4)	A (4.4)	A (4.6)	A (7.5)	A (7.6)	A (4.6)
		Overall			A (8.5)	A (8.6)	A (9.0)	A (8.0)	A (8.1)	A (9.0)
39	Wohlers Avenue & E Ferry Street	S	EB	LTR	B (11.7)	B (11.3)	B (11.3)	B (15.7)	B (15.9)	B (11.3)
			WB	LTR	C (20.8)	C (19.5)	C (20.4)	B (19.0)	B (19.3)	C (20.4)
			NB	LTR	A (7.5)	A (8.3)	A (8.6)	A (9.4)	A (9.5)	A (8.6)
		Overall			B (16.8)	B (15.9)	B (16.4)	B (16.7)	B (16.9)	B (16.4)
40	Wohlers Avenue & E Utica Street	S	EB	LTR	B (12.9)	B (12.9)	B (13.0)	B (14.3)	B (14.4)	B (13.0)
			WB	LTR	B (12.9)	B (12.9)	B (13.0)	B (13.0)	B (13.1)	B (13.0)
			NB	LTR	A (3.9)	A (3.9)	A (4.0)	A (4.9)	A (4.9)	A (4.0)
			SB	LTR	A (4.4)	A (4.4)	A (4.6)	A (4.9)	A (4.9)	A (4.6)
		Overall			B (10.8)	B (10.8)	B (10.9)	B (11.2)	B (11.3)	B (10.9)
42	Humboldt Parkway SB & Glenwood Avenue	U	EB	R	B (11.1)	B (11.2)	B (11.4)	B (12.1)	B (12.2)	B (11.4)
			SB	T	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
43	Humboldt Parkway SB & Riley Street	U	EB	TR	B (11.6)	B (11.7)	B (12.0)	B (12.1)	B (12.1)	B (12.0)
			WB	TL	B (13.4)	B (13.4)	B (13.9)	B (13.7)	B (13.8)	B (13.9)
44	Humboldt Parkway SB & Kingsley Street	U	EB	R	B (10.9)	B (11.0)	B (11.2)	B (11.3)	B (11.3)	B (11.2)
			SB	TR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
45	Humboldt Parkway SB & W Parade Avenue	U	EB	T	A (7.8)	A (7.8)	A (7.8)	A (8.6)	A (8.6)	A (7.8)
			WB	T	A (7.6)	A (7.6)	A (7.6)	A (8.1)	A (8.1)	A (7.6)
			SB	LR	A (7.7)	A (7.7)	A (7.7)	A (8.6)	A (8.6)	A (7.7)
		Overall			A (7.7)	A (7.7)	A (7.7)	A (8.5)	A (8.5)	A (7.7)
46	Linden Park & Dodge Street & W Parade Avenue	U	WB	LT	A (0.4)	A (0.4)	A (0.4)	A (0.3)	A (0.3)	A (0.4)
			NB	LR	A (9.2)	A (9.2)	A (9.3)	A (9.2)	A (9.2)	A (9.3)
47	Humboldt Parkway NB & Riley Street	U	EB	TL	B (11.0)	B (11.2)	B (11.1)	B (11.9)	B (12.0)	B (11.2)
		U	WB	TR	B (10.5)	B (10.6)	B (10.7)	B (11.1)	B (11.2)	B (10.7)
48	Humboldt Parkway NB & Woepfel Street	U	WB	R	A (9.8)	A (9.8)	A (9.9)	B (10.4)	B (10.4)	A (9.9)
			NB	TR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
49	Humboldt Parkway NB & Woodlawn Avenue	U	WB	R	A (9.8)	A (9.9)	B (10.0)	B (10.5)	B (10.5)	B (10.0)
			NB	TR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
50	Humboldt Parkway SB & Florida Street	U	EB	R	A (9.2)	A (9.2)	A (9.2)	A (9.8)	A (9.8)	A (9.2)
		U	SB	TR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
51	Humboldt Parkway SB & Northland Avenue	U	EB	R	A (9.3)	A (9.3)	A (9.4)	B (10.1)	B (10.2)	A (9.4)
52	Humboldt Parkway SB & Brunswick Boulevard	U	EB	R	A (7.0)	A (7.0)	A (7.0)	A (7.4)	A (7.4)	A (7.0)
			SB	TR	A (8.0)	A (8.1)	A (8.2)	A (9.3)	A (9.4)	A (8.2)
		Overall			A (7.7)	A (7.8)	A (7.9)	A (8.9)	A (9.0)	A (7.9)
53	Humboldt Parkway SB & Goulding Avenue	U	EB	R	B (12.7)	B (12.8)	B (13.2)	B (13.1)	B (13.2)	B (13.2)
54	Humboldt Parkway NB & Sidney Street	U	WB	R	B (11.9)	B (12.0)	B (12.3)	B (13.1)	B (13.2)	B (12.3)
55	Humboldt Parkway NB & Northland Avenue	U	WB	R	B (12.3)	B (12.4)	B (12.7)	B (13.6)	B (13.8)	B (12.7)
56	Roehrer Avenue & E Ferry Street	U	WB	LT	A (0.2)	A (0.2)	A (0.2)	A (0.5)	A (0.5)	A (0.2)
			NB	LR	B (11.2)	B (11.2)	B (11.4)	C (15.2)	C (15.3)	B (11.4)
57	Roehrer Avenue & E Utica Street	U	EB	LTR	A (7.9)	A (7.9)	A (7.9)	A (8.8)	A (8.8)	A (7.9)
			WB	LTR	A (8.0)	A (8.0)	A (8.0)	A (8.7)	A (8.8)	A (8.0)
			NB	LTR	A (7.5)	A (7.6)	A (7.6)	A (8.2)	A (8.2)	A (7.6)
			SB	LTR	A (7.5)	A (7.6)	A (7.6)	A (8.2)	A (8.2)	A (7.6)
		Overall			A (7.9)	A (7.9)	A (7.9)	A (8.6)	A (8.7)	A (7.9)
58	Wohlers Avenue & Northampton Street	U	EB	LTR	A (7.7)	A (7.7)	A (7.8)	A (8.5)	A (8.6)	A (7.8)
			WB	LTR	A (7.7)	A (7.7)	A (7.8)	A (8.4)	A (8.4)	A (7.8)
			NB	LTR	A (7.7)	A (7.7)	A (7.7)	A (8.6)	A (8.6)	A (7.7)
			SB	LTR	A (7.6)	A (7.6)	A (7.6)	A (8.2)	A (8.2)	A (7.6)
		Overall			A (7.7)	A (7.7)	A (7.7)	A (8.5)	A (8.5)	A (7.7)

#	Intersection	Control	Dir.	Lanes	AM Peak Hour			PM Peak Hour		
					2021	2027	2047	2021	2027	2047
59	Roehrer Avenue & Northampton Street	U	EB	LTR	A (7.5)	A (7.5)	A (7.5)	A (8.0)	A (8.0)	A (7.5)
			WB	LTR	A (7.6)	A (7.6)	A (7.6)	A (7.9)	A (7.9)	A (7.6)
			NB	LTR	A (7.4)	A (7.4)	A (7.4)	A (7.8)	A (7.8)	A (7.4)
			SB	LTR	A (7.5)	A (7.5)	A (7.5)	A (7.9)	A (7.9)	A (7.5)
		Overall			A (7.5)	A (7.5)	A (7.5)	A (7.9)	A (7.9)	A (7.5)
60	Best Street & Wohlers Avenue	U	EB	LT	A (0.1)	A (0.1)	A (0.1)	A (0.2)	A (0.2)	A (0.1)
			SB	LR	C (19.9)	C (20.3)	C (21.7)	C (21.3)	C (21.8)	C (21.7)
61	Best Street & Roehrer Avenue	U	EB	LT	A (0.1)	A (0.1)	A (0.1)	A (0.2)	A (0.2)	A (0.1)
			SB	LR	C (17.8)	C (18.1)	C (19.3)	C (22.1)	C (22.6)	C (19.3)
62	Jefferson Avenue & Eaton Street & Kingsley Street	S	EB	LTR	B (13.1)	B (13.1)	B (13.0)	A (9.1)	A (9.1)	B (13.0)
			WB	LTR	B (13.9)	B (13.9)	B (13.9)	A (9.2)	A (9.2)	B (13.9)
			NB	LTR	A (1.6)	A (1.6)	A (1.6)	A (2.2)	A (2.2)	A (1.6)
			SB	LTR	A (1.6)	A (1.6)	A (1.6)	A (2.2)	A (2.2)	A (1.6)
		Overall			A (2.4)	A (2.4)	A (2.4)	A (2.9)	A (2.9)	A (2.4)
63	Humboldt Parkway SB & Winslow Ave	S	EB	LTR	B (11.7)	B (11.7)	B (12.0)	B (12.7)	B (12.8)	B (12.0)
			WB	LTR	B (13.0)	B (13.1)	B (13.5)	B (14.8)	B (14.9)	B (13.5)
64	Jefferson Avenue & Eaton Street & Kingsley Street	S	EB	LTR	B (11.3)	B (11.3)	B (11.3)	B (11.5)	B (12.4)	B (11.5)
			WB	LTR	B (10.6)	B (10.6)	B (10.6)	B (10.8)	B (11.5)	B (10.8)

Concept 7 – 4 Lane Tunnel Analysis Results

Mainline NYS Route 33: Vissim Analysis

Concept 7 includes the full reconstruction of the Kensington Expressway within a tunnel structure. Concept 7 is similar to Concepts 5 and 6 in many ways, however a differentiating feature is that the number of expressway travel lanes is reduced from 6 lanes to 4 lanes (two in each direction). The tunnel would extend approximately 4,100 feet, with the southern portal at Dodge Street and the northern portal at Sidney Street. The partial interchange between Northampton Street and East Utica Street would be eliminated. Within this area, Humboldt Parkway and affected city streets would be reconstructed and reconnected similar to the historic street grid. The newly created green space above the expressway (between the NB and SB Humboldt Parkway) would be an at-grade median with landscaping and pedestrian amenities.

AM Peak

For the ETC (year 2027) during the AM peak hour, the eastbound mainline expressway is predicted to operate with an average travel time of 3.2 minutes at an average speed of 51 mph, and ETC+20 (year 2047) conditions with an average travel time of 3.1 minutes at an average speed of 52 mph). The westbound mainline expressway (East Suffolk Street to Michigan Avenue) is predicted to operate during the ETC condition (year 2027) with an average travel time of 5.4 minutes at an average speed of 50 mph, and in the ETC+20 condition (year 2047) with an average travel time of 9.7 minutes at an average speed of 28 mph.

The traffic analysis for Concept 7 also identifies vehicle queuing (congestion) issues that would develop east of the NYS Route 198 interchange. The analysis and speed heat maps show merging congestion issues at the NYS Route 198/ NYS Route 33 junction in the AM peak westbound direction. The Vissim model was extended to Suffolk Street to capture the travel time delay and speed impacts due to the roadway system chokepoint which causes NYS Route 33 westbound failure for the 4-lane tunnel option. The results of the extended analysis show a queue forming to Suffolk Street, approximately 1.8 miles from the NYS Route 198/ NYS Route 33 interchange. The analysis indicates that there is insufficient capacity to adequately accommodate the projected traffic volumes in the westbound direction during the AM peak under ETC+20 conditions (year 2047).

PM Peak

During the PM peak hour, there is sufficient capacity with 2 lanes to adequately accommodate the projected eastbound traffic under the ETC condition (year 2027). Average travel times are increased to approximately 3.3 minutes with average speeds reduced to 49 mph. Under the ETC+20 condition (year 2047), there is marginally sufficient capacity on the eastbound expressway with average travel time of 3.9 minutes at an average speed of 42 mph. The westbound mainline expressway would operate under both the 2027 and 2047 scenarios with an average travel time of 5.0 minutes at an average speed of 54 mph.

In conclusion, with a reduction in the number of lanes, the travel times and operating speeds are substantially impacted in the predominant direction of flow which is towards the City center in the AM peak hour and out of the City center in the PM hour. Travel times increase by as much as 94% over the existing condition in the westbound direction during the AM peak hour and by as much as 18% over the existing condition in the eastbound direction during the PM peak hour.

Table C-7: Overall Average Travel Times & Average Travel Speeds – Concept 7 – 4-Lane Tunnel

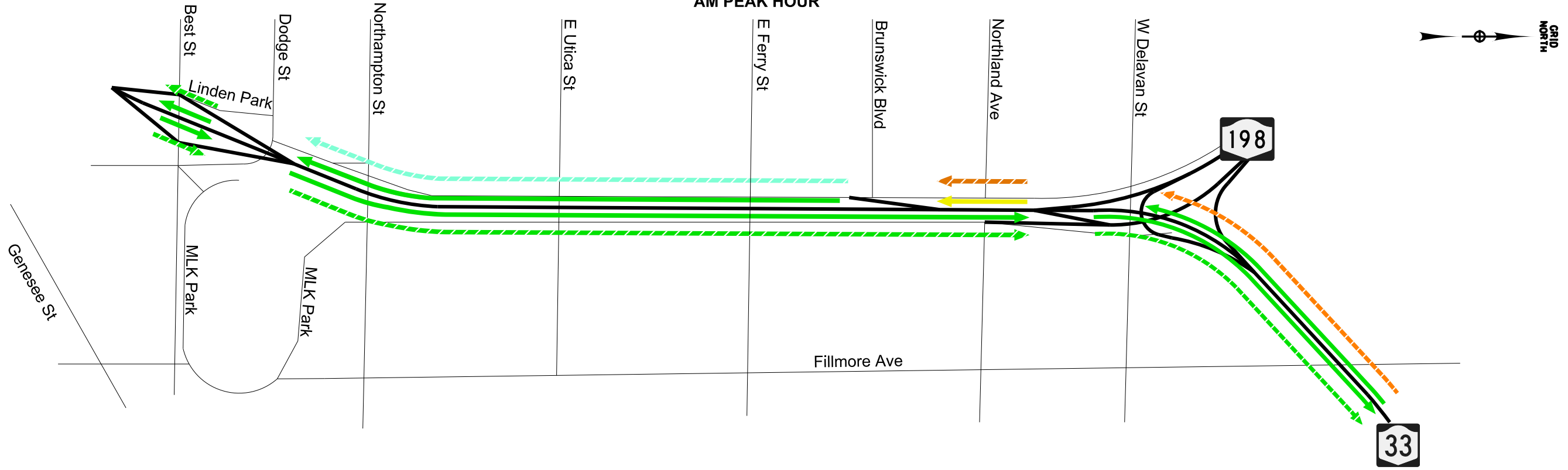
Segment	AM Peak Hour		PM Peak Hour	
	2027	2047	2027	2047
<i>Eastbound – Oak to Delavan – 2.72 miles</i>				
Average Travel Time (minutes)	3.2	3.1	3.3	3.9
Average Travel Speed (mph)	51	52	49	42
<i>Westbound – Suffolk to Michigan – 4.50 miles</i>				
Average Travel Time (minutes)	5.4	9.7	5.0	5.0
Average Travel Speed (mph)	50	28	54	54

Figure C-11 shows the average speed along each segment of the mainline expressway.

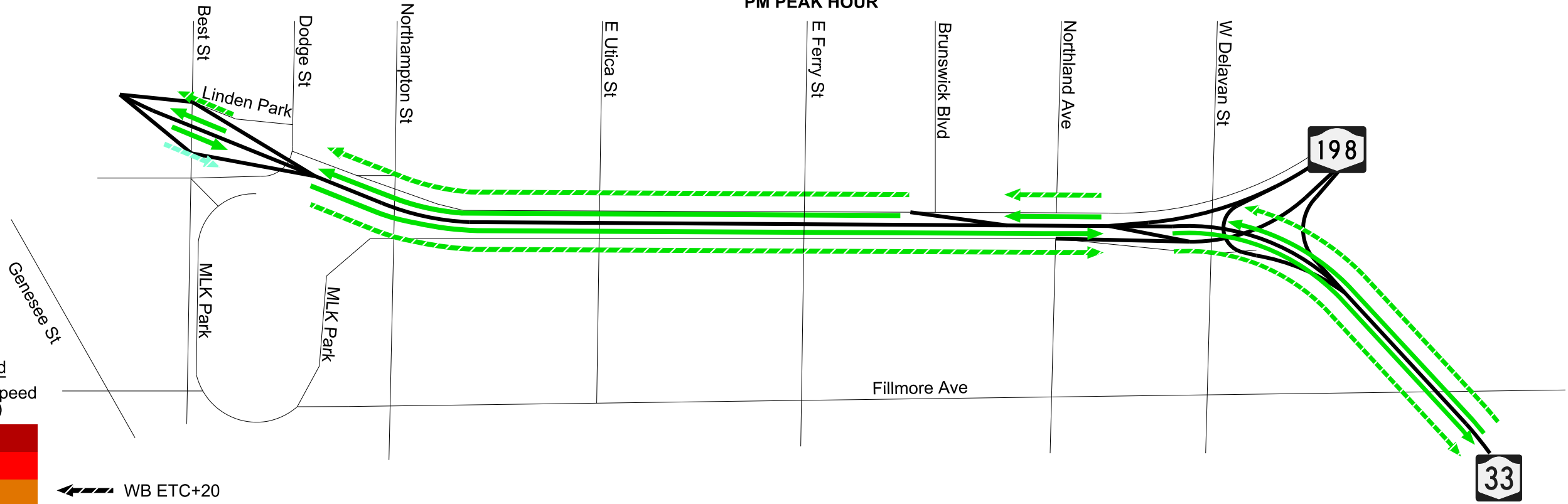
FILE NAME : \\cashlab\p\NY\WSDOT\750716.01 Kensington Preliminary Design\Traffic Data Figures\Segment Speeds.dgn
DATE : 3/31/2022
TIME : 1:27:46 PM

DESIGN SUPERVISOR: B. MILLER JOB MANAGER: L. ROTOLI DESIGN: T. MILLER CHECK: L. ROTOLI DRAFTING: M. MCCADDEN CHECK: T. MILLER PROJECT MANAGER: B. MILLER

Figure C-11
AM PEAK HOUR



PM PEAK HOUR



Legend
Average Speed (MPH)

0-10	WB ETC+20
10-15	WB ETC
15-20	
20-30	EB ETC
30-40	EB ETC+20
40-50	
50-60	
60-70	

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS: ----- ----- ----- -----	KENSINGTON EXPRESSWAY	PIN 5512.52	BRIDGES	CULVERTS	ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED	CONTRACT NUMBER	
	NY ROUTE 33				SEGMENT AVERAGE SPEED PEAK HOURS CONCEPT #7 4-LANE TUNNEL	DRAWING NO. CON 7 SEG SHEET NO. 1	
	CITY OF BUFFALO						
	COUNTY: ERIE REGION: 5						
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.					 LaBella Powered by partnership.	 NEW YORK STATE OF OPPORTUNITY.	Department of Transportation

Local Street Network: Synchro Analysis

Most of the intersections and corridors within the study area operate at LOS C or better. While only one of the intersections has an overall LOS F, some of the movements operate at LOS E or F at the following intersections during the AM and PM Peak Hours. These intersections are (numbering is preserved from Traffic Analysis reports):

- #1 Best Street and NYS Route 33 EB Ramps
- #2 Best Street and NYS Route 33 WB Ramps
- #8 Humboldt Parkway SB & East Ferry Street
- #9 Humboldt Parkway NB & East Ferry Street
- #10 Jefferson Avenue and Cherry Street & EB On Ramp
- #11 Jefferson Avenue and BNFC Drive and NYS Route 33 WB Ramp
- #16 Fillmore Avenue & Best Street

All intersections were evaluated with optimized signalized timings. No additional infrastructure changes were made at these intersections that were not part of the conceptual design. Further analysis will be required to determine the proper methods needed to improve these intersections so that they operate at an acceptable LOS.

Table C-8 shows the LOS analysis results for all of the intersections in the study area.

Table C-8
Intersection Level of Service
Concept 7

#	Intersection	Control	Dir.	Lanes	AM Peak Hour			PM Peak Hour		
					2021	2027	2047	2021	2027	2047
1	Best Street & EB Ramps	S	EB	L	A (5.2)	A (7.0)	B (10.5)	C (32.7)	A (8.6)	A (6.2)
				LT/T	A (4.8)	A (5.7)	A (8.0)	A (7.6)	A (6.6)	A (4.9)
			WB	T/TR	E (67.2)	D (48.7)	F (81.6)	B (14.0)	F (85.5)	F (98.1)
				NB	LT	C (31.7)	C (34.0)	D (50.0)	C (28.8)	D (54.4)
			R		A (7.1)	A (7.8)	A (7.7)	A (6.7)	A (7.8)	A (8.4)
		Overall				C (29.4)	C (23.4)	D (41.4)	B (15.4)	D (38.4)
2	Best Street & WB Ramps	S	EB	T/TR	D (45.8)	D (46.9)	F (130.4)	B (15.4)	F (110.7)	D (46.0)
				WB	L	A (5.9)	A (5.5)	A (5.8)	A (9.0)	A (6.3)
			T		A (5.1)	A (4.8)	A (6.3)	B (15.9)	A (6.8)	A (5.7)
			SB		LT	E (56.3)	E (72.5)	F (107.9)	C (34.5)	F (83.9)
				R	C (22.8)	C (27.9)	D (54.4)	A (7.1)	B (19.6)	D (45.1)
		Overall				C (33.2)	D (37.8)	F (84.3)	B (17.8)	E (70.9)
3	Best Street & Herman Street & West Parade Avenue	S	EB	L	A (7.2)	A (7.8)	A (7.1)	A (7.7)	A (7.7)	A (7.2)
				T	D (47.0)	D (51.1)	D (44.5)	C (28.8)	C (31.0)	D (52.6)
				R	A (2.0)	A (2.1)	A (2.2)	A (2.1)	A (2.1)	A (2.2)
			WB	LTR	D (35.6)	D (38.8)	C (33.2)	C (32.7)	C (33.4)	C (31.3)
				NB	LTR	B (17.2)	B (16.2)	C (21.2)	B (19.4)	B (19.6)
			SB	LT	B (17.2)	B (16.4)	C (20.7)	B (18.7)	B (19.0)	C (20.9)
				R	A (2.4)	A (2.7)	A (4.8)	A (4.3)	A (4.5)	A (5.3)
		Overall				C (33.0)	D (35.4)	C (30.6)	C (24.8)	C (25.8)
4	Humboldt Parkway SB & Northampton Street	S	EB	TR	B (17.1)	B (19.8)	B (15.1)	D (39.0)	D (39.2)	B (14.4)
			WB	LT	B (15.0)	B (16.1)	A (7.4)	B (10.7)	B (10.8)	B (13.1)
			SB	LTR	A (6.1)	A (4.8)	A (7.7)	A (5.3)	A (5.3)	A (6.3)
		Overall				A (7.9)	A (7.8)	A (9.2)	B (12.7)	B (12.8)
5	Humboldt Parkway NB & Northampton Street	S	EB	LT	B (16.3)	B (19.4)	B (14.0)	D (39.4)	D (40.6)	B (13.5)
			WB	TR	B (15.7)	B (18.2)	B (12.7)	D (36.9)	D (37.4)	B (13.2)
			NB	LTR	A (3.3)	A (3.0)	A (4.6)	A (3.0)	A (3.1)	A (3.6)
		Overall				B (13.8)	B (16.0)	B (12.7)	D (35.7)	D (36.6)
6	Humboldt Parkway SB & E Utica Street	S	EB	TR	B (10.4)	B (10.5)	B (12.9)	B (13.0)	B (13.0)	B (10.5)
				WB	L	A (9.0)	A (9.1)	A (8.7)	A (8.8)	A (8.8)
			T		A (8.4)	A (8.5)	A (8.5)	A (8.7)	A (8.7)	A (8.6)
			SB	LT/TR	A (4.7)	A (4.8)	A (7.7)	A (7.4)	A (7.5)	A (5.0)
		Overall				A (6.4)	A (6.4)	A (9.2)	A (9.0)	A (9.0)
7	Humboldt Parkway NB & E Utica Street	S	EB	L	A (10.0)	B (10.2)	B (10.2)	B (10.0)	B (10.1)	B (10.2)
				T	A (9.8)	A (9.9)	A (8.8)	A (8.9)	A (8.9)	A (9.9)
			WB	TR	B (12.1)	B (12.1)	A (9.2)	A (9.2)	A (9.2)	B (12.1)
				NB	LT	A (5.7)	A (5.8)	A (8.8)	A (8.7)	A (8.8)
			R		A (2.4)	A (2.4)	A (3.3)	A (3.1)	A (3.1)	A (2.4)
		Overall				A (8.0)	A (8.0)	A (8.7)	A (8.6)	A (8.6)
8	Humboldt Parkway SB & E Ferry Street	S	EB	TR	B (13.1)	B (16.0)	C (27.5)	C (20.2)	C (21.2)	B (18.8)
				WB	L	A (7.5)	A (9.3)	C (27.0)	B (15.5)	B (16.5)
			T		A (6.2)	A (7.3)	A (7.9)	A (8.8)	A (9.2)	A (8.0)
			SB		LT	C (21.9)	B (19.5)	F (86.0)	F (89.9)	F (91.4)
				R	A (3.2)	A (2.9)	A (3.1)	A (3.3)	A (3.3)	A (3.3)
		Overall				B (12.7)	B (12.6)	D (41.5)	D (40.8)	D (41.6)
9	Humboldt Parkway NB & E Ferry Street	S	EB	L	B (19.6)	C (29.0)	F (119.0)	E (71.8)	E (78.8)	D (36.2)
				T	B (11.0)	B (13.6)	D (49.1)	C (27.6)	C (32.9)	B (15.4)
			WB	TR	B (11.0)	B (13.8)	B (15.2)	B (15.6)	B (16.5)	B (16.8)
				NB	LT	B (10.2)	A (9.7)	B (12.6)	B (17.2)	B (18.2)
			R		A (3.9)	A (3.3)	A (3.3)	A (3.9)	A (3.9)	A (4.7)
		Overall				B (12.4)	B (15.5)	D (44.4)	C (29.9)	C (33.1)
10	Jefferson Avenue & Cherry Street & EB On Ramp	S	EB	LTR	A (8.5)	A (8.4)	A (1.8)	A (3.9)	A (3.9)	B (17.4)
			NB	T/TR	A (6.6)	A (6.4)	A (5.6)	A (4.1)	A (4.1)	A (4.5)
			SB	LT/T	B (10.2)	A (8.4)	F (126.6)	B (12.1)	B (12.8)	A (7.4)
		Overall				A (8.6)	A (7.5)	E (77.7)	A (8.7)	A (9.1)
11	Jefferson Avenue & BNFC Drive & WB Off Ramp	S	WB	LTR	C (27.9)	C (20.8)	B (16.4)	C (26.9)	C (27.2)	F (133.8)
			NB	LT/T	A (6.0)	A (5.8)	A (5.8)	A (4.5)	A (4.5)	A (4.2)
			SB	T/TR	A (9.5)	A (9.2)	B (11.0)	A (7.6)	A (7.7)	A (6.7)
		Overall				B (17.1)	B (13.2)	B (11.0)	B (10.8)	B (10.9)

#	Intersection	Control	Dir.	Lanes	AM Peak Hour			PM Peak Hour		
					2021	2027	2047	2021	2027	2047
12	Jefferson Avenue & Genesee Street	S	EB	LT/TR	B (10.6)	B (10.6)	B (11.0)	B (11.2)	B (11.2)	B (10.5)
			WB	LT/TR	B (11.8)	B (11.8)	A (10.0)	A (9.9)	A (9.9)	B (12.0)
			NB	LT/TR	A (6.1)	A (6.2)	A (6.8)	A (6.4)	A (6.4)	A (6.6)
			SB	LT/TR	A (6.0)	A (6.0)	A (7.0)	A (6.5)	A (6.6)	A (6.5)
		Overall			A (7.8)	A (7.9)	A (7.9)	A (7.7)	A (7.8)	A (8.2)
13	Herman Street & Genesee Street	S	EB	LT/TR	A (5.5)	A (5.6)	A (8.1)	A (8.2)	A (8.2)	A (5.8)
			WB	LT/TR	A (5.7)	A (5.9)	A (8.4)	A (8.2)	A (8.3)	A (6.2)
			NB	LTR	B (11.3)	B (11.1)	B (10.0)	A (9.9)	A (9.9)	B (11.1)
			SB	LTR	B (14.5)	B (14.6)	B (17.5)	B (17.4)	B (17.5)	B (14.8)
		Overall			A (7.9)	A (8.0)	B (10.8)	B (10.7)	B (10.7)	A (8.3)
14	Reed Street & Rich Street & Genesee Street	S	EB	LT/T	A (1.3)	A (1.3)	A (2.8)	A (2.7)	A (2.7)	A (1.4)
			WB	T/TR	A (1.3)	A (1.3)	A (2.7)	A (2.7)	A (2.7)	A (1.4)
			NB	LTR	B (12.0)	B (12.0)	A (9.9)	A (10.0)	A (10.0)	B (11.7)
			SB	LR	A (1.3)	A (1.3)	A (5.2)	A (5.0)	A (5.0)	A (1.3)
		Overall			A (1.7)	A (1.7)	A (3.3)	A (3.2)	A (3.2)	A (1.7)
15	Fillmore Avenue & Genesee Street	S	EB	LT/TR	A (9.7)	A (9.7)	B (12.0)	B (15.0)	B (15.0)	B (11.8)
			WB	LT/TR	B (13.3)	B (13.5)	B (13.3)	B (16.7)	B (16.8)	B (16.6)
			NB	LTR	A (8.9)	A (9.2)	B (17.4)	B (11.7)	B (12.1)	A (9.1)
			SB	LTR	A (9.4)	A (9.7)	B (14.7)	B (11.0)	B (11.3)	A (9.6)
		Overall			B (10.5)	B (10.7)	B (14.4)	B (13.6)	B (13.8)	B (12.1)
16	Fillmore Avenue & Best Street	S	EB	LTR	C (29.0)	C (33.8)	F (90.1)	F (95.9)	F (100.8)	F (91.0)
			WB	LTR	B (15.9)	B (16.1)	E (72.0)	E (77.3)	E (77.6)	E (78.7)
			NB	LTR	B (14.6)	B (15.2)	F (105.8)	E (60.7)	E (67.6)	B (20.0)
			SB	LT	A (2.8)	A (2.9)	A (5.9)	A (5.2)	A (5.2)	A (3.0)
				R	A (0.2)	A (0.2)	A (0.3)	A (.02)	A (0.2)	A (0.2)
		Overall			B (17.6)	B (19.4)	E (74.6)	E (67.5)	E (70.9)	E (55.6)
17	Fillmore Avenue & East Park	S	EB	L	A (8.2)	A (8.2)	A (8.1)	B (10.8)	B (10.2)	B (12.6)
				R	A (6.3)	A (6.3)	A (4.9)	A (6.2)	A (6.0)	A (8.7)
			NB	T	A (4.6)	A (4.8)	A (5.6)	A (7.4)	A (7.1)	A (6.2)
			SB	T	A (9.0)	A (9.0)	B (11.4)	B (13.6)	B (12.9)	B (12.8)
		Overall			A (6.9)	A (7.0)	A (8.5)	B (10.4)	A (9.9)	A (9.7)
18	Fillmore Avenue & MLK Park	S	EB	L	B (14.5)	B (14.5)	B (16.5)	B (16.5)	B (16.5)	B (15.8)
				R	A (8.5)	A (8.5)	B (10.4)	B (10.5)	B (10.5)	A (9.0)
			NB	T	A (1.6)	A (1.6)	A (1.5)	A (1.5)	A (1.5)	A (2.4)
			SB	T	A (1.6)	A (1.6)	A (1.4)	A (1.4)	A (1.4)	A (2.5)
		Overall			A (2.2)	A (2.2)	A (1.7)	A (1.7)	A (1.7)	A (3.0)
19	Fillmore Avenue & Northampton Street	S	EB	LTR	B (12.2)	B (12.2)	B (12.7)	B (12.7)	B (12.7)	B (12.8)
			WB	LTR	B (11.1)	B (11.1)	B (10.4)	B (10.4)	B (10.5)	B (11.5)
			NB	LTR	A (3.4)	A (3.4)	A (5.8)	A (5.6)	A (5.7)	A (4.3)
			SB	LTR	A (3.7)	A (3.8)	A (5.5)	A (5.3)	A (5.3)	A (5.0)
		Overall			A (5.2)	A (5.2)	A (6.9)	A (6.7)	A (6.7)	A (6.2)
21	Fillmore Avenue & Riley Street & Urban Street	S	EB	LTR	A (0.5)	A (0.5)	A (2.4)	A (2.5)	A (2.5)	A (0.5)
			WB	LTR	A (3.6)	A (3.6)	A (8.2)	A (7.1)	A (7.1)	A (3.6)
			NB	LTR	A (1.2)	A (1.2)	A (3.3)	A (2.2)	A (2.2)	A (1.3)
			SB	LTR	A (1.4)	A (1.5)	A (3.2)	A (2.2)	A (2.2)	A (1.5)
		Overall			A (1.4)	A (1.4)	A (3.5)	A (2.4)	A (2.4)	A (1.4)
22	Fillmore Avenue & French Street	S	WB	LR	A (9.9)	A (9.6)	A (8.0)	A (9.6)	A (9.6)	B (10.8)
			NB	TR	A (2.5)	A (2.6)	A (4.2)	A (3.7)	A (3.7)	A (2.4)
			SB	LT	A (3.0)	A (3.1)	A (5.6)	A (5.0)	A (5.1)	A (2.9)
		Overall			A (3.4)	A (3.4)	A (5.2)	A (4.8)	A (4.8)	A (3.4)
23	Fillmore Avenue & E Utica Street	S	EB	LR	A (8.9)	A (9.1)	A (9.6)	B (11.4)	B (13.2)	B (12.6)
			NB	LT	A (4.8)	A (5.4)	A (10.0)	A (8.5)	A (8.3)	A (4.9)
			SB	TR	A (4.5)	A (5.1)	A (6.5)	A (5.6)	A (5.2)	A (4.4)
		Overall			A (5.4)	A (5.9)	A (8.6)	A (7.9)	A (8.0)	A (6.0)
24	Fillmore Avenue & E Ferry Street	S	EB	LT/TR	B (11.1)	B (11.1)	B (10.8)	B (10.8)	B (10.8)	B (11.2)
			WB	LT/TR	B (10.6)	B (10.8)	B (12.0)	B (11.9)	B (12.0)	B (10.8)
			NB	LT/TR	A (4.8)	A (4.8)	A (6.3)	A (6.2)	A (6.3)	A (5.0)
			SB	LT/TR	A (5.0)	A (5.1)	A (6.2)	A (6.0)	A (6.1)	A (5.5)
		Overall			A (7.8)	A (7.8)	A (8.7)	A (8.6)	A (8.7)	A (8.0)

#	Intersection	Control	Dir.	Lanes	AM Peak Hour			PM Peak Hour		
					2021	2027	2047	2021	2027	2047
25	Fillmore Avenue & Northland Avenue	S	EB	LTR	B (10.4)	B (10.4)	A (8.4)	A (8.4)	A (8.4)	B (10.3)
			WB	LTR	B (12.1)	B (12.1)	B (13.8)	B (13.8)	B (13.9)	B (12.0)
			NB	LTR	A (3.4)	A (3.4)	A (6.6)	A (6.5)	A (6.6)	A (3.5)
			SB	LTR	A (4.0)	A (4.0)	A (7.1)	A (6.7)	A (6.8)	A (4.2)
		Overall				A (5.0)	A (5.0)	A (7.9)	A (7.6)	A (7.7)
26	Fillmore Avenue & E Delavan Avenue	S	EB	LTR	B (19.5)	B (19.7)	C (34.8)	C (22.4)	C (22.8)	C (20.8)
			WB	LTR	B (14.6)	B (14.9)	B (18.0)	B (14.3)	B (14.3)	B (15.3)
			NB	LTR	A (7.3)	A (7.5)	B (10.2)	B (11.2)	B (11.4)	A (7.9)
			SB	LTR	B (10.8)	B (11.2)	B (11.8)	B (12.6)	B (12.9)	B (12.9)
		Overall				B (12.7)	B (12.9)	B (18.0)	B (14.8)	B (15.1)
27	Humboldt Parkway NB & E Delavan Avenue	S	EB	LT/T	A (4.9)	A (5.2)	A (6.1)	A (5.7)	A (5.8)	A (3.9)
			WB	T/TR	A (5.5)	A (5.6)	A (6.5)	A (6.3)	A (6.5)	A (5.3)
			NB	LT	B (14.5)	B (14.6)	B (19.0)	B (19.3)	B (19.1)	C (22.2)
				R	A (4.2)	A (4.1)	A (4.0)	A (4.1)	A (4.0)	A (5.2)
		Overall				A (7.1)	A (7.3)	A (8.9)	A (8.9)	A (8.9)
28	Humboldt Parkway SB & E Delavan Avenue	S	EB	TR	A (8.4)	A (8.7)	B (12.1)	B (11.4)	B (11.7)	A (8.7)
			WB	LT/T	A (4.2)	A (4.3)	A (5.4)	A (5.2)	A (5.3)	A (4.4)
			SB	LT	B (10.6)	B (10.6)	B (12.9)	B (12.9)	B (12.9)	B (15.1)
				R	A (1.9)	A (2.1)	A (4.9)	A (4.9)	A (4.9)	A (4.6)
		Overall				A (7.0)	A (7.2)	A (9.6)	A (9.2)	A (9.5)
29	Jefferson Avenue & E Delavan Avenue	S	EB	LTR	B (18.6)	B (18.8)	C (28.3)	C (23.4)	C (23.8)	B (18.1)
			WB	LTR	B (10.7)	B (10.6)	B (12.4)	B (11.7)	B (11.8)	B (10.4)
			NB	LTR	A (7.2)	A (7.2)	B (10.2)	B (11.0)	B (11.1)	A (9.8)
			SB	LTR	A (5.6)	A (5.6)	A (7.9)	A (8.8)	A (8.9)	A (6.8)
		Overall				B (12.6)	B (12.7)	B (18.0)	B (16.1)	B (16.3)
30	Jefferson Avenue & Northland	S	EB	LTR	B (10.3)	B (10.3)	B (11.9)	B (11.2)	B (11.2)	B (11.5)
			WB	LTR	A (8.9)	A (8.9)	A (9.5)	A (9.2)	A (9.2)	A (9.7)
			NB	LTR	A (2.0)	A (2.0)	A (4.5)	A (3.6)	A (3.6)	A (3.1)
			SB	LTR	A (1.9)	A (1.9)	A (4.4)	A (3.5)	A (3.5)	A (3.1)
		Overall				A (3.5)	A (3.5)	A (5.8)	A (4.9)	A (4.9)
31	Jefferson Avenue & Brunswick Boulevard	S	WB	LR	B (12.6)	B (12.6)	B (11.4)	B (11.7)	B (11.7)	B (12.3)
			NB	TR	A (2.3)	A (2.3)	A (2.8)	A (2.7)	A (2.7)	A (2.4)
			SB	LT	A (2.5)	A (2.5)	A (2.8)	A (2.7)	A (2.7)	A (2.6)
		Overall				A (3.7)	A (3.7)	A (3.6)	A (3.5)	A (3.5)
32	Jefferson Avenue & E Ferry Street	S	EB	LTR	B (10.8)	B (10.8)	B (11.3)	B (12.6)	B (12.5)	B (11.2)
			WB	LTR	C (20.6)	C (21.8)	C (20.6)	C (23.8)	C (22.7)	C (27.2)
			NB	LTR	B (12.1)	B (12.3)	C (20.1)	B (14.7)	B (16.1)	B (11.6)
			SB	LTR	B (12.0)	B (12.1)	B (16.8)	B (13.0)	B (14.3)	B (11.5)
		Overall				B (15.7)	B (16.4)	B (17.7)	B (17.0)	B (17.3)
33	Jefferson Avenue & E Utica Street	S	EB	LTR	B (11.3)	B (11.3)	B (10.9)	B (10.7)	B (10.7)	B (14.2)
			WB	LTR	B (13.3)	B (13.3)	B (13.9)	B (13.6)	B (13.7)	B (16.5)
			NB	LTR	A (5.6)	A (5.7)	A (8.2)	A (8.3)	A (8.5)	A (5.4)
			SB	LTR	A (5.6)	A (5.6)	A (7.4)	A (7.3)	A (7.4)	A (5.4)
		Overall				A (8.3)	A (8.3)	A (9.4)	A (9.3)	A (9.4)
34	Jefferson Avenue & Riley Street	S	EB	LTR	A (9.8)	A (9.8)	B (11.0)	B (11.0)	B (11.0)	B (10.9)
			WB	LTR	B (10.6)	B (10.6)	B (10.3)	B (10.3)	B (10.3)	B (11.6)
			NB	LTR	A (2.0)	A (2.0)	A (3.8)	A (3.9)	A (3.9)	A (3.1)
			SB	LTR	A (2.0)	A (2.0)	A (3.8)	A (3.8)	A (3.8)	A (3.2)
		Overall				A (3.2)	A (3.2)	A (4.7)	A (4.6)	A (4.7)
35	Jefferson Avenue & Northampton Street	S	EB	LTR	B (11.2)	B (11.0)	B (11.4)	B (11.3)	B (11.3)	B (10.9)
			WB	LTR	B (12.7)	B (12.7)	B (10.9)	B (10.8)	B (10.8)	B (12.7)
			NB	LTR	A (4.4)	A (4.4)	A (5.4)	A (5.3)	A (5.4)	A (4.6)
			SB	LTR	A (4.4)	A (4.5)	A (5.3)	A (5.1)	A (5.2)	A (4.8)
		Overall				A (6.3)	A (6.2)	A (6.5)	A (6.3)	A (6.3)
36	Jefferson Avenue & Best Street	S	EB	LT/TR	B (11.5)	B (11.5)	B (12.8)	B (12.5)	B (12.6)	B (11.7)
			WB	LT/TR	B (12.6)	B (12.9)	B (11.2)	B (11.9)	B (12.0)	B (13.2)
			NB	LT/TR	A (7.5)	A (6.4)	A (7.1)	A (7.3)	A (7.4)	A (6.7)
			SB	LT/TR	A (7.1)	A (7.3)	A (8.5)	A (8.1)	A (8.2)	A (7.6)
		Overall				B (10.6)	B (10.4)	B (10.2)	B (10.2)	B (10.3)

Table C-8
Intersection Level of Service
Concept 7

#	Intersection	Control	Dir.	Lanes	AM Peak Hour			PM Peak Hour		
					2021	2027	2047	2021	2027	2047
37	Jefferson Avenue & E North Street	S	EB	LR	B (11.5)	B (13.2)	B (15.6)	A (8.9)	A (8.9)	A (9.5)
			NB	LT	A (6.4)	A (6.0)	A (6.1)	A (6.9)	A (7.0)	A (8.8)
			SB	TR	A (4.3)	A (4.4)	A (5.6)	A (7.1)	A (7.1)	A (5.7)
		Overall			A (6.5)	A (6.6)	A (8.2)	A (7.5)	A (7.5)	A (7.6)
38	Jefferson Avenue & High Street	S	EB	LTR	B (11.0)	A (9.7)	B (14.4)	A (8.6)	A (8.6)	A (8.4)
			WB	LTR	B (19.5)	B (16.8)	C (22.3)	B (12.1)	B (12.2)	B (14.3)
			NB	LTR	A (7.3)	A (7.6)	A (6.1)	A (6.9)	A (7.0)	B (10.3)
			SB	LTR	A (4.4)	A (4.9)	A (6.5)	A (7.4)	A (7.5)	A (5.5)
		Overall			A (8.5)	A (8.3)	A (9.5)	A (8.0)	A (8.1)	A (9.3)
39	Wohlers Avenue & E Ferry Street	S	EB	LTR	B (11.7)	B (11.0)	B (16.4)	B (16.1)	B (16.3)	B (11.0)
			WB	LTR	C (20.8)	B (19.5)	C (20.1)	B (19.2)	B (19.5)	C (21.1)
			NB	LTR	A (7.5)	A (8.4)	A (9.9)	A (9.4)	A (9.5)	A (8.7)
		Overall			B (16.8)	B (15.8)	B (17.6)	B (17.0)	B (17.2)	B (16.9)
40	Wohlers Avenue & E Utica Street	S	EB	LTR	B (12.9)	B (12.8)	B (14.6)	B (14.5)	B (14.5)	B (12.8)
			WB	LTR	B (12.9)	B (13.0)	B (13.3)	B (12.7)	B (12.7)	B (13.1)
			NB	LTR	A (3.9)	A (3.9)	A (5.0)	A (4.9)	A (5.0)	A (4.0)
			SB	LTR	A (4.4)	A (4.5)	A (5.0)	A (4.9)	A (4.9)	A (4.7)
		Overall			B (10.8)	B (10.7)	B (11.4)	B (11.0)	B (11.1)	B (10.8)
42	Humboldt Parkway SB & Glenwood Avenue	U	EB	R	B (11.1)	B (11.5)	B (12.5)	B (12.5)	B (12.6)	B (11.8)
			SB	T	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
43	Humboldt Parkway SB & Riley Street	U	EB	TR	B (12.1)	B (12.5)	B (12.4)	B (12.3)	B (12.4)	B (12.6)
			WB	TL	B (13.7)	B (13.8)	B (14.2)	B (14.1)	B (14.2)	B (14.6)
44	Humboldt Parkway SB & Kingsley Street	U	EB	R	B (11.1)	B (11.1)	B (11.1)	B (11.4)	B (11.5)	B (11.6)
			SB	TR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
45	Humboldt Parkway SB & W Parade Avenue	U	EB	T	A (7.8)	A (7.8)	A (8.8)	A (8.6)	A (8.6)	A (7.9)
			WB	T	A (7.6)	A (7.6)	A (8.2)	A (8.1)	A (8.1)	A (7.7)
			SB	LR	A (7.7)	A (7.7)	A (8.7)	A (8.6)	A (8.6)	A (7.8)
		Overall			A (7.7)	A (7.7)	A (8.6)	A (8.5)	A (8.5)	A (7.8)
46	Linden Park & Dodge Street & W Parade Avenue	U	WB	LT	A (9.2)	A (0.4)	A (0.3)	A (0.3)	A (0.3)	A (0.4)
			NB	LR	A (7.4)	A (9.2)	A (9.2)	A (9.2)	A (9.2)	A (9.3)
47	Humboldt Parkway NB & Riley Street	U	EB	TL	B (11.9)	B (12.0)	B (12.0)	B (12.2)	B (12.2)	B (12.5)
		U	WB	TR	B (11.1)	B (11.2)	B (11.2)	B (11.3)	B (11.4)	B (11.5)
48	Humboldt Parkway NB & Woepfel Street	U	WB	R	A (9.8)	A (9.9)	B (10.6)	B (10.8)	B (10.9)	B (10.1)
			NB	TR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
49	Humboldt Parkway NB & Woodlawn Avenue	U	WB	R	A (9.8)	B (10.0)	B (10.6)	B (10.9)	B (10.9)	B (10.2)
			NB	TR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
50	Humboldt Parkway SB & Florida Street	U	EB	R	A (9.2)	A (9.3)	A (9.9)	A (9.9)	B (10.0)	A (9.4)
		U	SB	TR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
51	Humboldt Parkway SB & Northland Avenue	U	EB	R	A (9.3)	A (9.3)	B (10.3)	B (10.0)	B (10.0)	A (9.4)
52	Humboldt Parkway SB & Brunswick Boulevard	U	EB	R	A (7.0)	A (7.0)	A (7.5)	A (7.4)	A (7.5)	A (7.0)
			SB	TR	A (8.0)	A (8.0)	A (9.6)	A (9.4)	A (9.5)	A (8.1)
		Overall			A (7.7)	A (7.7)	A (9.2)	A (9.0)	A (9.1)	A (7.8)
53	Humboldt Parkway SB & Goulding Avenue	U	EB	R	B (12.7)	B (13.0)	B (13.6)	B (13.5)	B (13.6)	B (13.7)
54	Humboldt Parkway NB & Sidney Street	U	WB	R	B (11.9)	B (12.2)	B (13.7)	B (14.1)	B (14.3)	B (12.7)
55	Humboldt Parkway NB & Northland Avenue	U	WB	R	B (12.3)	B (12.6)	B (14.3)	B (14.8)	C (15.0)	B (13.2)
56	Roehrer Avenue & E Ferry Street	U	WB	LT	A (0.2)	A (0.2)	A (0.5)	A (0.5)	A (0.5)	A (0.4)
			NB	LR	B (11.2)	B (11.1)	C (16.1)	C (15.3)	C (15.5)	B (11.4)
57	Roehrer Avenue & E Utica Street	U	EB	LTR	A (7.9)	A (7.9)	A (9.0)	A (8.8)	A (8.8)	A (8.0)
			WB	LTR	A (8.0)	A (8.0)	A (8.9)	A (8.8)	A (8.8)	A (8.1)
			NB	LTR	A (7.5)	A (7.6)	A (8.3)	A (8.2)	A (8.2)	A (7.6)
			SB	LTR	A (7.5)	A (7.6)	A (8.3)	A (8.2)	A (8.2)	A (7.6)
		Overall			A (7.9)	A (7.9)	A (8.8)	A (8.7)	A (8.7)	A (8.0)
58	Wohlers Avenue & Northampton Street	U	EB	LTR	A (7.7)	A (7.7)	A (8.7)	A (8.4)	A (8.4)	A (7.8)
			WB	LTR	A (7.7)	A (7.7)	A (8.5)	A (8.4)	A (8.4)	A (7.8)
			NB	LTR	A (7.7)	A (7.6)	A (8.8)	A (8.5)	A (8.5)	A (7.7)
			SB	LTR	A (7.6)	A (7.6)	A (8.3)	A (8.1)	A (8.2)	A (7.7)
		Overall			A (7.7)	A (7.7)	A (8.6)	A (8.4)	A (8.4)	A (7.8)

#	Intersection	Control	Dir.	Lanes	AM Peak Hour			PM Peak Hour		
					2021	2027	2047	2021	2027	2047
59	Roehrer Avenue & Northampton Street	U	EB	LTR	A (7.5)	A (7.5)	A (8.1)	A (7.9)	A (7.7)	A (7.5)
			WB	LTR	A (7.6)	A (7.5)	A (8.0)	A (7.8)	A (7.9)	A (7.6)
			NB	LTR	A (7.4)	A (7.4)	A (7.8)	A (7.7)	A (7.8)	A (7.4)
			SB	LTR	A (7.5)	A (7.5)	A (7.9)	A (7.7)	A (7.8)	A (7.5)
		Overall			A (7.5)	A (7.5)	A (8.0)	A (7.8)	A (7.8)	A (7.5)
60	Best Street & Wohlers Avenue	U	EB	LT	A (8.8)	A (0.1)	A (0.2)	A (0.2)	A (0.2)	A (0.1)
			SB	LR	C (19.9)	C (20.0)	C (23.5)	C (21.0)	C (21.4)	C (22.4)
61	Best Street & Roehrer Avenue	U	EB	LT	A (8.6)	A (0.1)	A (0.2)	A (0.2)	A (0.2)	A (0.1)
			SB	LR	C (17.8)	C (19.5)	C (24.7)	C (23.5)	C (24.1)	C (21.4)
62	Jefferson Avenue & Eaton Street & Kingsley Street	S	EB	LTR	B (13.1)	B (13.1)	B (10.2)	A (9.1)	A (9.1)	B (13.0)
			WB	LTR	B (13.9)	B (13.9)	B (10.1)	A (9.2)	A (9.2)	B (13.9)
			NB	LTR	A (1.6)	A (1.6)	A (3.5)	A (2.3)	A (2.3)	A (1.6)
			SB	LTR	A (1.6)	A (1.7)	A (3.6)	A (2.2)	A (2.2)	A (1.7)
		Overall			A (2.4)	A (2.4)	A (4.2)	A (2.9)	A (2.9)	A (2.4)
63	Humboldt Parkway SB & Winslow Ave	S	EB	LTR	B (11.9)	B (12.0)	B (13.1)	B (13.0)	B (13.2)	B (12.3)
			WB	LTR	B (13.4)	B (13.4)	C (15.6)	C (15.5)	C (15.6)	B (14.2)
64	Jefferson Avenue & Eaton Street & Kingsley Street	S	EB	LTR	B (11.5)	B (11.5)	B (12.7)	B (12.4)	B (12.5)	B (11.8)
			WB	LTR	B (10.8)	B (10.8)	B (11.7)	B (11.5)	B (11.6)	B (11.1)

Concept 9 – 4 Lane Boulevard Analysis Results

NYS Route 33 Mainline: Synchro Analysis

Concept 9 considers the conversion of the expressway to an at-grade boulevard which has two lanes in each direction. The traffic model predicts that vehicles would experience extreme delay while proceeding through the 4 signalized intersections at East Ferry Street, East Utica Street, Northampton Street and Dodge Street. Excessive queue length would be formed between each intersection with the PM peak hour seeing the queue persist for the entire length between the intersections.

During the AM peak hour, the eastbound boulevard is predicted to operate in the ETC (year 2027) condition with an average travel time of 4.1 minutes at an average speed of 11 mph) and ETC+20 (year 2047) conditions with an average travel time of 3.9 minutes at an average speed of 11 mph. The westbound boulevard is predicted to operate in the ETC condition (year 2027) with an average travel time of 30.3 minutes at an average speed of 2 mph and in the ETC+20 condition (year 2047) with an average travel time of 33.8 minutes at an average speed of 1 mph).

During the PM peak hour, the eastbound boulevard is predicted to operate in the ETC (year 2027) condition with an average travel time of 36.2 minutes at an average speed of 1 mph, and ETC+20 (year 2047) conditions with an average travel time of 36.4 minutes at an average speed of 1 mph. The westbound boulevard is predicted to operate in the ETC condition (year 2027) with an average travel time of 23.1 minutes at an average speed of 2 mph, and in the ETC+20 condition (year 2047) with an average travel time of 23.5 minutes at an average speed of 2 mph).

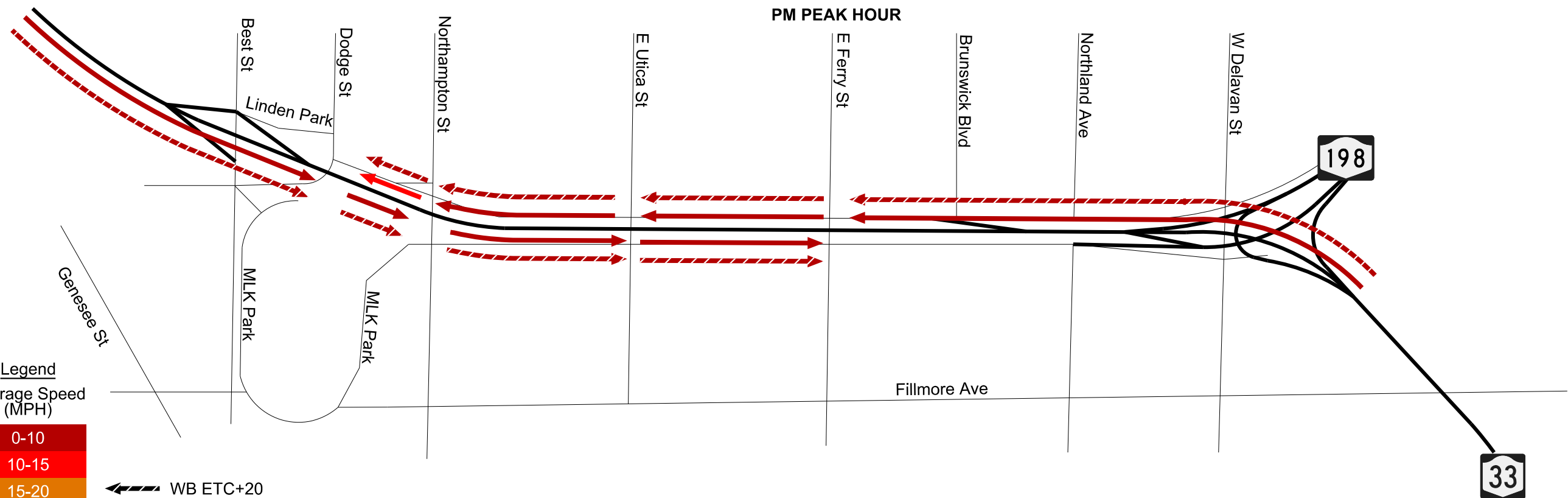
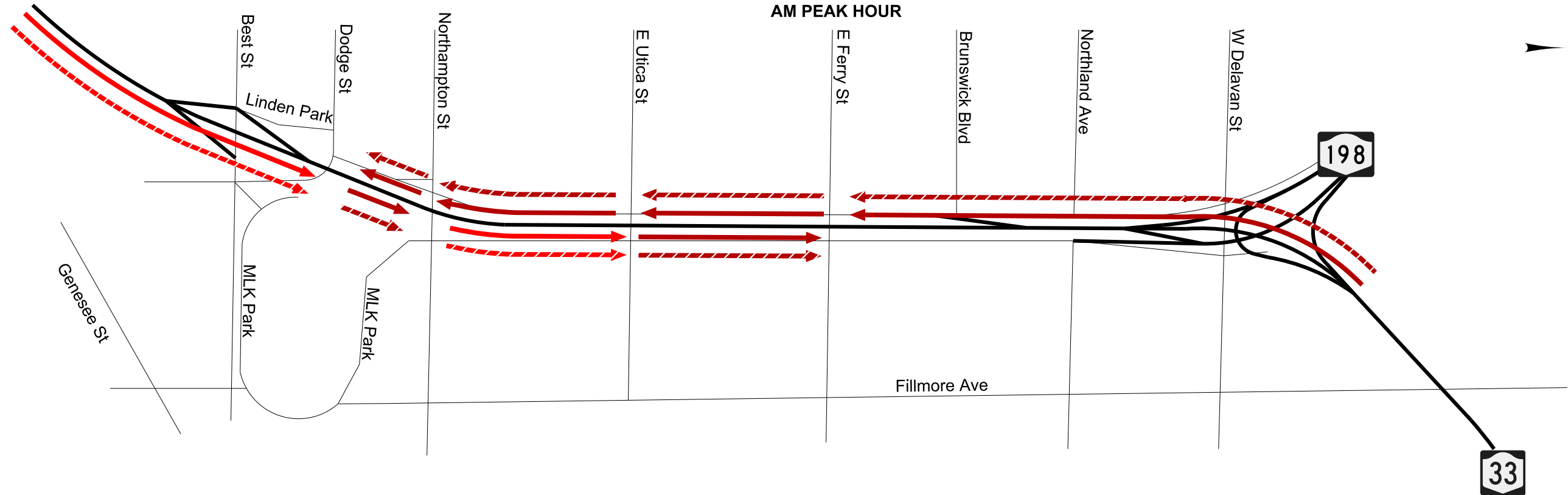
In conclusion, travel times and operating speeds are substantially impacted by creating an at-grade boulevard. The intersections created along the boulevard cannot handle the amount of traffic utilizing the boulevard.

Table C-9: Overall Average Travel Times & Average Travel Speeds – Concept 9 – 4-Lane Boulevard

Segment	AM Peak Hour		PM Peak Hour	
	2027	2047	2027	2047
<i>Eastbound – Best to Delavan – 0.75 miles</i>				
Average Travel Time (minutes)	4.1	3.9	36.2	36.4
Average Travel Speed (mph)	11	11	1	1
<i>Westbound – Delavan to Best – 0.78 miles</i>				
Average Travel Time (minutes)	30.3	33.8	23.1	23.5
Average Travel Speed (mph)	2	1	2	2

Figure C-12 shows the average speed along each segment of the mainline boulevard.

GRID NORTH



0-10
10-15
15-20
20-30
30-40
40-50
50-60
60-70

[illegible]

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

DRAWING NO. CON 9 SEG
SHEET NO. 1

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



NEW YORK
STATE OF
OPPORTUNITY.

Department of
Transportation

Local Street Network: Synchro Analysis

The analysis indicates that Concept 9 would have significant operational impacts on the local network. In addition to the overall boulevard operating poorly at LOS F, the Northampton, E Utica, and E Ferry intersections along the boulevard have the overall intersection or individual movements that operate at LOS E or F. The queues resulting from the failing intersections along the boulevard extend back several hundred feet and impact the operation of adjacent intersections.

All intersections were evaluated with optimized signalized timings. No additional infrastructure changes were made at these intersections that were not part of the conceptual design. Further analysis will be required to determine the proper methods needed to improve these intersections so that they operate at an acceptable LOS.

Table C-10 shows the LOS analysis results for all of the intersections in the study area.

#	Intersection	Control	Dir.	Lanes	AM Peak Hour			PM Peak Hour		
					2021	2027	2047	2021	2027	2047
1	Best Street & EB Ramps	S	EB	TT	A (9.0)	A (9.0)	A (9.1)	A (9.1)	A (9.1)	A (9.2)
			WB	TT	A (8.8)	A (8.9)	A (8.9)	A (8.8)	A (8.8)	A (8.8)
			NB	LR	A (4.2)	A (4.2)	A (4.3)	A (4.3)	A (4.4)	A (4.5)
		Overall		A (6.7)	A (6.7)	A (6.8)	A (6.5)	A (6.6)	A (6.7)	
2	Best Street & WB Ramps	S	EB	LT/TR	A (9.9)	A (10.0)	B (10.2)	B (10.4)	B (10.5)	B (10.7)
			WB	LT/TR	B (15.6)	B (16.0)	B (18.0)	B (16.9)	B (17.7)	C (20.6)
			SB	LTR	A (6.5)	A (6.5)	A (6.5)	A (7.9)	A (7.9)	A (8.0)
		Overall		B (12.2)	B (12.4)	B (13.5)	B (13.3)	B (13.7)	B (15.1)	
3	Best Street & Herman Street & West Parade Avenue	S	EB	LT/TR	B (13.2)	B (13.5)	B (13.8)	C (32.0)	C (35.0)	D (43.1)
			WB	LTR	C (26.2)	C (27.7)	C (25.8)	C (24.1)	C (25.6)	D (47.7)
			NB	LTR	B (15.4)	B (16.0)	B (18.6)	C (22.7)	C (22.8)	C (26.8)
		Overall		B (12.3)	B (12.5)	B (15.4)	C (25.4)	C (25.8)	D (54.3)	
Overall		B (19.5)	C (20.4)	B (20.0)	C (27.4)	C (29.2)	D (45.7)			
4	Humboldt Parkway SB & Northampton Street	S	EB	TR	E (61.8)	E (62.0)	E (63.4)	E (69.4)	E (69.6)	E (70.7)
			WB	LT	A (4.0)	A (4.0)	A (4.0)	A (5.2)	A (3.4)	A (5.3)
			SB	LTR	F (791.1)	F (809.8)	F (871.3)	F (1023.5)	F (1286.3)	F (1121.7)
		Overall		F (601.7)	F (615.6)	F (662.3)	F (755.6)	F (948.3)	F (828.1)	
5	Humboldt Parkway NB & Northampton Street	S	EB	LT	A (4.4)	A (4.6)	A (5.0)	A (7.2)	B (10.30)	B (10.6)
			WB	TR	E (74.0)	E (74.7)	E (76.2)	F (87.0)	F (87.9)	F (92.6)
			NB	LTR	D (52.1)	D (51.9)	D (52.3)	D (46.1)	D (46.4)	D (46.8)
		Overall		B (17.4)	B (17.7)	B (18.3)	C (22.9)	C (25.4)	C (26.5)	
6	Humboldt Parkway SB & E Utica Street	S	EB	TR	F (80.2)	F (80.9)	F (83.2)	F (173.7)	F (180.9)	F (178.5)
			WB	L	A (0.3)	A (0.2)	A (0.5)	A (0.2)	A (0.2)	A (0.5)
				T	A (1.3)	A (1.1)	A (1.4)	A (3.2)	A (3.0)	A (3.5)
			SB	LT/TR	F (393.7)	F (387.9)	F (452.4)	F (482.2)	F (494.7)	F (540.4)
		Overall		F (181.9)	F (179.3)	F (208.1)	F (202.8)	F (208.6)	F (224.6)	
7	Humboldt Parkway NB & E Utica Street	S	EB	L	A (1.3)	A (1.3)	A (1.4)	A (1.6)	A (1.6)	A (1.8)
				T	A (1.4)	A (1.4)	A (1.5)	A (2.0)	A (1.9)	A (2.2)
			WB	TR	E (76.3)	E (76.8)	E (78.4)	E (71.9)	E (77.8)	E (76.3)
			NB	LT	F (236.2)	F (242.9)	F (247.5)	F (280.6)	F (267.1)	F (294.1)
				R	A (4.1)	A (4.2)	A (4.7)	B (10.6)	B (10.7)	B (12.2)
		Overall		F (122.9)	F (126.1)	F (128.6)	F (125.5)	F (121.0)	F (131.7)	
8	Humboldt Parkway SB & E Ferry Street	S	EB	TR	F (461.0)	F (472.0)	F (514.6)	F (677.7)	F (228.3)	F (743.8)
			WB	L	A (0.9)	A (0.9)	A (1.0)	A (0.7)	A (0.2)	A (0.7)
				T	A (5.9)	A (6.4)	A (8.6)	B (18.1)	F (1277.8)	C (22.6)
		SB	R	F (1069.1)	F (1091.3)	F (1166.6)	F (1095.8)	F (2076.2)	F (1199.0)	
Overall		F (495.5)	F (506.4)	F (544.0)	F (523.4)	F (1195.9)	F (574.7)			
9	Humboldt Parkway NB & E Ferry Street	S	EB	L	A (1.0)	A (1.1)	A (1.0)	A (1.3)	A (1.5)	A (1.4)
				T	A (1.1)	A (1.2)	A (1.6)	A (4.8)	B (10.8)	A (7.1)
			WB	TR	F (92.1)	F (95.3)	F (107.9)	F (130.2)	F (101.7)	F (153.1)
			NB	LT	F (204.0)	F (200.9)	F (216.3)	F (302.5)	F (380.3)	F (344.5)
		R		C (25.3)	C (24.1)	C (27.2)	C (30.6)	C (21.2)	C (32.4)	
Overall		E (68.5)	E (68.6)	E (75.2)	F (104.7)	F (118.1)	F (121.2)			
10	Jefferson Avenue & Cherry Street & EB On Ramp	S	EB	LTR	A (8.3)	A (8.3)	A (8.3)	A (3.1)	A (3.1)	A (4.6)
			NB	T/TR	A (3.6)	A (3.7)	A (3.4)	A (4.6)	A (4.6)	A (4.3)
			SB	LT/T	A (7.8)	A (7.8)	A (7.3)	B (14.8)	B (15.2)	B (15.2)
		Overall		A (5.7)	A (5.7)	A (5.3)	B (10.2)	B (10.4)	B (10.2)	
11	Jefferson Avenue & BNFC Drive & WB Off Ramp	S	WB	LTR	A (6.7)	A (6.8)	A (7.2)	A (7.9)	A (8.0)	A (8.2)
			NB	LT/T	A (7.6)	A (7.7)	A (8.7)	B (10.7)	B (10.8)	B (11.0)
			SB	T/TR	A (9.8)	A (9.8)	A (10.0)	B (18.3)	B (12.1)	B (12.4)
		Overall		A (8.1)	A (8.2)	A (8.7)	B (14.5)	B (11.1)	B (11.4)	

#	Intersection	Control	Dir.	Lanes	AM Peak Hour			PM Peak Hour		
					2021	2027	2047	2021	2027	2047
12	Jefferson Avenue & Genesee Street	S	EB	LT/TR	A (8.2)	A (8.2)	A (8.3)	A (7.7)	A (7.8)	A (7.8)
			WB	LT/TR	A (1.4)	A (1.4)	B (17.6)	B (14.3)	B (14.5)	B (14.7)
			NB	LT/TR	A (9.9)	A (9.9)	B (10.1)	B (10.6)	B (10.6)	B (10.9)
			SB	LT/TR	A (4.9)	A (5.1)	A (6.8)	B (10.9)	B (11.0)	B (11.4)
		Overall				A (6.1)	A (6.2)	B (10.5)	B (10.9)	B (11.0)
13	Herman Street & Genesee Street	S	EB	LT/TR	A (8.8)	A (8.8)	B (13.2)	B (11.2)	B (11.2)	B (11.3)
			WB	LT/TR	A (1.5)	A (1.5)	B (15.0)	B (13.2)	B (13.5)	B (14.0)
			NB	LTR	A (8.7)	A (8.7)	A (8.8)	A (8.6)	A (8.6)	A (8.7)
			SB	LTR	A (8.8)	A (8.9)	A (8.9)	B (10.6)	B (10.6)	B (10.9)
		Overall				A (4.9)	A (4.9)	B (13.1)	B (11.4)	B (11.6)
14	Reed Street & Rich Street & Genesee Street	S	EB	LT/T	B (10.9)	B (11.0)	A (7.7)	B (11.8)	B (11.9)	B (12.4)
			WB	T/TR	B (10.1)	B (10.1)	B (10.3)	A (9.9)	A (9.9)	B (10.1)
			NB	LTR	A (6.8)	A (6.8)	A (6.7)	A (6.1)	A (6.1)	A (6.1)
			SB	LR	A (0.4)	A (0.4)	A (0.4)	A (3.3)	A (3.3)	A (3.5)
		Overall				B (10.2)	B (10.2)	A (9.2)	B (10.4)	B (10.5)
15	Fillmore Avenue & Genesee Street	S	EB	LT/TR	A (9.7)	A (9.7)	A (9.7)	B (12.5)	B (12.5)	B (12.7)
			WB	LT/TR	B (13.4)	B (13.4)	B (13.6)	B (13.6)	B (13.6)	B (14.2)
			NB	LTR	A (8.9)	A (9.1)	A (9.6)	B (14.1)	B (14.7)	B (16.6)
			SB	LTR	A (9.3)	A (9.5)	B (10.0)	B (11.8)	B (12.1)	B (12.9)
		Overall				B (10.5)	B (10.6)	B (10.9)	B (13.0)	B (13.3)
16	Fillmore Avenue & Best Street	S	EB	LTR	E (79.4)	F (80.3)	F (82.9)	F (103.3)	F (106.8)	F (145.0)
			WB	LTR	E (73.3)	E (73.4)	E (74.8)	F (90.5)	F (90.0)	F (96.2)
			NB	LTR	B (18.0)	B (18.9)	C (22.6)	F (98.1)	F (100.4)	F (115.2)
			SB	LT	A (3.8)	A (3.9)	A (4.3)	A (6.5)	A (6.6)	A (6.9)
				R	A (0.2)	A (0.2)	A (0.3)	A (0.3)	A (0.3)	A (0.3)
		Overall				D (52.1)	D (52.6)	D (54.6)	F (83.1)	F (84.6)
17	Fillmore Avenue & East Park	S	EB	L	A (7.6)	A (7.6)	A (7.6)	B (10.4)	B (10.1)	B (11.0)
				R	A (5.7)	A (5.7)	A (5.7)	A (5.9)	A (5.8)	A (6.1)
			NB	T	A (7.4)	A (7.4)	A (7.6)	B (12.2)	B (11.5)	B (11.5)
			SB	T	B (11.2)	B (11.3)	B (11.5)	B (17.2)	B (16.2)	B (16.7)
		Overall				A (9.3)	A (9.4)	A (9.6)	B (14.4)	B (13.6)
18	Fillmore Avenue & MLK Park	S	EB	L	A (5.8)	A (5.8)	A (5.8)	A (5.7)	A (5.7)	A (5.6)
				R	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	
			NB	T	B (11.0)	B (11.1)	B (11.3)	B (15.0)	B (15.2)	B (16.0)
			SB	T	B (12.1)	B (12.2)	B (12.5)	B (12.8)	B (12.9)	B (13.3)
		Overall				B (11.3)	B (11.4)	B (11.6)	B (13.8)	B (14.0)
19	Fillmore Avenue & Northampton Street	S	EB	LTR	B (12.6)	B (12.6)	C (21.1)	B (18.8)	B (18.8)	C (21.9)
			WB	LTR	B (11.8)	B (11.8)	B (18.5)	B (14.9)	B (14.9)	B (16.9)
			NB	LTR	A (8.2)	A (8.3)	A (3.3)	A (5.7)	A (5.8)	A (5.7)
			SB	LTR	B (14.7)	B (15.0)	A (5.2)	A (6.8)	A (6.9)	A (6.9)
		Overall				B (12.7)	B (13.0)	A (6.9)	A (8.0)	A (8.1)
21	Fillmore Avenue & Riley Street & Urban Street	S	EB	LTR	A (1.8)	A (1.8)	A (3.0)	A (5.5)	A (5.5)	A (5.5)
			WB	TT	A (0.1)	A (0.0)	A (0.1)	B (12.6)	B (12.6)	B (12.2)
			NB	LTR	A (1.1)	A (1.1)	A (1.0)	A (3.5)	A (3.6)	A (3.9)
			SB	LTR	A (1.8)	A (1.6)	A (1.7)	A (3.1)	A (3.1)	A (3.4)
		Overall				A (1.5)	A (1.4)	A (1.5)	A (3.6)	A (3.6)
22	Fillmore Avenue & French Street	S	WB	LR	A (5.7)	A (5.6)	A (6.7)	A (7.3)	A (8.0)	A (8.9)
			NB	TR	B (10.9)	B (10.9)	A (9.9)	B (18.8)	B (18.1)	C (20.2)
			SB	LT	E (69.8)	E (70.1)	E (68.1)	F (84.1)	E (77.3)	F (80.6)
		Overall				D (43.1)	D (43.2)	D (41.8)	D (42.4)	D (39.5)
23	Fillmore Avenue & E Utica Street	S	EB	LR	A (8.7)	A (8.8)	A (8.8)	C (29.1)	C (25.9)	D (35.9)
			NB	LT	B (17.0)	B (17.8)	C (21.7)	E (76.7)	E (74.5)	E (74.3)
			SB	TR	B (15.5)	B (16.0)	B (17.9)	B (11.1)	B (10.5)	A (9.7)
		Overall				B (15.3)	B (15.8)	B (18.1)	D (40.4)	D (38.7)
24	Fillmore Avenue & E Ferry Street	S	EB	LT/TR	B (11.3)	B (11.2)	B (11.4)	B (13.4)	B (13.5)	B (16.6)
			WB	LT/TR	A (9.9)	A (9.7)	A (9.8)	B (13.8)	B (13.9)	B (16.8)
			NB	LT/TR	A (6.2)	A (6.5)	A (6.7)	A (9.0)	A (9.2)	A (9.4)
			SB	LT/TR	A (6.1)	A (6.4)	A (6.7)	A (6.0)	A (6.1)	A (6.2)
		Overall				A (8.0)	A (8.1)	A (8.3)	A (9.8)	A (10.0)

Table C-10
Intersection Level of Service
Concept 9

#	Intersection	Control	Dir.	Lanes	AM Peak Hour			PM Peak Hour			
					2021	2027	2047	2021	2027	2047	
25	Fillmore Avenue & Northland Avenue	S	EB	LTR	A (7.3)	A (7.3)	A (9.2)	A (9.5)	A (9.5)	A (9.6)	
			WB	LTR	A (8.3)	A (8.3)	B (10.5)	B (13.3)	B (13.3)	B (13.4)	
			NB	LTR	B (12.6)	B (12.7)	B (11.1)	B (13.9)	B (14.1)	B (15.1)	
			SB	LTR	C (20.2)	C (20.7)	B (16.1)	B (16.9)	B (17.1)	B (18.1)	
		Overall				B (15.8)	B (16.1)	B (13.4)	B (14.9)	B (15.1)	B (15.9)
26	Fillmore Avenue & E Delavan Avenue	S	EB	LTR	B (11.2)	B (11.3)	C (21.6)	C (26.9)	C (27.9)	C (26.8)	
			WB	LTR	A (9.8)	A (9.9)	B (19.4)	B (17.0)	B (17.2)	B (16.4)	
			NB	LTR	B (10.9)	B (11.1)	A (8.6)	C (21.8)	C (22.1)	C (26.2)	
			SB	LTR	C (28.8)	C (30.0)	B (14.4)	B (15.1)	B (15.4)	B (19.2)	
		Overall				B (18.5)	B (19.1)	B (15.0)	C (20.0)	C (20.5)	C (22.6)
27	Humboldt Parkway NB & E Delavan Avenue	S	EB	LT/T	B (12.5)	B (12.6)	B (13.1)	B (14.3)	B (14.30)	B (15.4)	
			WB	T/TR	A (8.6)	A (8.6)	A (8.7)	A (9.0)	A (9.1)	A (9.2)	
			NB	LT	A (9.0)	A (9.0)	A (9.1)	A (8.5)	A (8.5)	A (8.5)	
				R	A (3.6)	A (3.6)	A (3.8)	A (1.7)	A (1.7)	A (1.9)	
		Overall				B (10.6)	B (10.7)	B (11.0)	B (11.9)	B (12.1)	B (12.6)
28	Humboldt Parkway SB & E Delavan Avenue	S	EB	TR	B (17.9)	B (18.3)	B (14.4)	B (10.5)	B (10.8)	B (13.8)	
			WB	LT/T	B (10.1)	B (10.2)	A (9.5)	A (8.9)	A (9.0)	A (8.3)	
			SB	LT	A (8.2)	A (8.2)	B (11.3)	B (14.0)	B (14.0)	B (16.7)	
				R	A (1.9)	A (1.9)	A (3.6)	A (5.6)	A (5.6)	A (6.7)	
		Overall				B (14.0)	B (14.3)	B (12.3)	B (10.2)	B (10.4)	B (12.2)
29	Jefferson Avenue & E Delavan Avenue	S	EB	LTR	B (15.2)	B (15.4)	B (16.6)	B (16.7)	B (17.0)	B (18.8)	
			WB	LTR	A (9.3)	A (9.4)	A (9.5)	A (4.0)	A (4.1)	A (9.9)	
			NB	LTR	B (15.5)	B (15.6)	B (16.9)	B (15.9)	B (16.2)	B (16.9)	
			SB	LTR	A (6.1)	A (6.1)	A (6.1)	B (11.5)	B (11.5)	B (11.8)	
		Overall				B (12.5)	B (12.6)	B (13.4)	B (13.7)	B (13.9)	B (15.8)
30	Jefferson Avenue & Northland	S	EB	LTR	A (7.4)	A (7.4)	A (7.4)	A (7.5)	A (7.5)	A (7.6)	
			WB	LTR	A (6.3)	A (6.3)	A (6.3)	A (6.5)	A (6.5)	A (6.5)	
			NB	LTR	A (9.9)	A (10.0)	C (21.3)	C (23.9)	C (24.0)	C (24.2)	
			SB	LTR	B (10.1)	B (10.2)	B (10.4)	B (11.2)	B (11.3)	B (11.5)	
		Overall				A (9.4)	A (9.5)	B (14.0)	B (16.0)	B (16.1)	B (16.3)
31	Jefferson Avenue & Brunswick Boulevard	S	WB	LR	A (6.1)	A (6.1)	A (6.2)	A (5.9)	A (5.9)	A (5.8)	
			NB	TR	A (8.8)	A (8.9)	A (9.6)	B (12.5)	B (12.6)	B (13.1)	
			SB	LT	A (9.3)	A (9.3)	C (21.5)	C (22.2)	C (22.2)	C (22.3)	
			Overall				A (8.7)	A (8.8)	B (14.3)	B (15.4)	B (15.5)
		32	Jefferson Avenue & E Ferry Street	S	EB	LTR	B (13.0)	B (13.2)	A (9.3)	B (13.4)	B (13.5)
WB	LTR				B (19.9)	C (24.4)	B (16.7)	C (29.6)	C (31.0)	D (35.7)	
NB	LTR				A (9.6)	A (9.7)	C (20.3)	C (28.1)	C (29.4)	D (35.2)	
SB	LTR				A (3.7)	A (3.7)	B (19.4)	B (17.3)	B (17.7)	B (19.9)	
Overall				B (14.0)	B (16.0)	B (16.0)	C (23.6)	C (24.5)	C (28.6)		
33	Jefferson Avenue & E Utica Street	S	EB	LTR	A (7.9)	A (7.9)	A (8.1)	B (15.4)	B (15.7)	B (16.0)	
			WB	LTR	A (9.4)	A (9.4)	A (9.6)	B (19.3)	B (19.5)	C (20.1)	
			NB	LTR	A (4.4)	A (4.5)	B (17.9)	B (18.8)	B (19.3)	C (22.0)	
			SB	LTR	B (11.9)	B (12.0)	B (12.4)	B (11.1)	B (11.2)	B (11.8)	
		Overall				A (8.3)	A (8.4)	B (13.0)	B (16.1)	B (16.4)	B (17.9)
34	Jefferson Avenue & Riley Street	S	EB	LTR	A (6.9)	A (6.9)	A (6.9)	B (13.4)	B (13.4)	B (13.5)	
			WB	LTR	A (7.6)	A (7.6)	A (7.7)	B (12.1)	B (12.1)	B (12.2)	
			NB	LTR	B (13.8)	B (14.0)	B (13.2)	A (8.4)	A (8.8)	B (10.1)	
			SB	LTR	B (13.2)	B (13.3)	B (16.2)	B (11.6)	B (12.1)	B (14.0)	
		Overall				B (12.9)	B (13.0)	B (14.0)	B (10.2)	B (10.6)	B (12.1)
35	Jefferson Avenue & Northampton Street	S	EB	LTR	A (8.1)	A (8.1)	B (10.2)	B (13.4)	B (13.5)	B (13.8)	
			WB	LTR	A (8.4)	A (8.4)	B (10.6)	B (13.1)	B (13.1)	B (13.2)	
			NB	LTR	A (7.9)	A (8.0)	B (10.4)	B (13.2)	B (13.5)	B (14.4)	
			SB	LTR	A (3.8)	A (3.9)	A (6.4)	B (10.5)	B (11.1)	B (12.4)	
		Overall				A (5.9)	A (5.9)	A (8.2)	B (12.0)	B (12.4)	B (13.4)
36	Jefferson Avenue & Best Street	S	EB	LT/TR	A (9.3)	A (9.4)	A (9.5)	B (10.1)	B (10.2)	B (10.4)	
			WB	LT/TR	B (10.2)	B (10.3)	B (10.5)	A (9.4)	A (9.4)	A (9.7)	
			NB	LT/TR	A (7.1)	A (7.0)	A (7.6)	B (11.7)	B (12.1)	B (12.5)	
			SB	LT/TR	A (3.8)	A (3.9)	A (9.9)	B (10.8)	B (10.9)	B (11.3)	
		Overall				A (7.8)	A (7.8)	A (9.6)	B (10.5)	B (10.6)	B (11.0)

Table C-10
Intersection Level of Service
Concept 9

#	Intersection	Control	Dir.	Lanes	AM Peak Hour			PM Peak Hour		
					2021	2027	2047	2021	2027	2047
37	Jefferson Avenue & E North Street	S	EB	LR	A (5.5)	A (5.5)	A (9.4)	A (5.2)	A (5.2)	A (5.3)
			NB	LT	D (45.3)	D (53.0)	B (14.4)	C (20.5)	B (13.8)	B (14.5)
			SB	TR	A (8.2)	A (8.4)	A (9.3)	B (17.0)	B (17.2)	B (18.0)
		Overall			C (21.1)	C (24.0)	B (11.1)	B (15.4)	B (13.2)	B (13.8)
38	Jefferson Avenue & High Street	S	EB	LTR	A (6.8)	A (6.8)	A (6.9)	A (5.1)	A (6.3)	A (6.4)
			WB	LTR	B (11.3)	B (11.4)	B (11.5)	A (7.7)	A (9.7)	A (9.7)
			NB	LTR	B (13.8)	B (14.1)	B (15.3)	C (25.4)	B (11.8)	B (12.2)
			SB	LTR	A (9.4)	A (9.5)	A (9.7)	C (21.5)	B (13.8)	B (14.6)
		Overall			B (11.3)	B (11.5)	B (12.1)	B (18.8)	B (11.6)	B (12.1)
39	Wohlers Avenue & E Ferry Street	S	EB	LTR	C (20.7)	C (21.3)	A (9.8)	B (14.2)	B (14.6)	B (14.5)
			WB	LTR	F (184.1)	F (192.4)	C (25.8)	C (23.1)	C (24.3)	C (23.8)
			NB	LTR	A (5.0)	A (5.0)	B (11.7)	B (18.3)	B (18.5)	C (22.9)
		Overall			F (116.2)	F (121.4)	B (19.5)	B (19.4)	C (20.1)	C (20.5)
40	Wohlers Avenue & E Utica Street	S	EB	LTR	A (9.4)	A (9.4)	A (9.5)	B (10.7)	B (10.8)	B (11.0)
			WB	LTR	A (8.8)	A (8.8)	A (8.9)	A (8.8)	A (8.9)	A (9.0)
			NB	LTR	A (7.0)	A (7.0)	A (7.0)	B (10.4)	B (10.4)	B (10.8)
			SB	LTR	A (7.2)	A (7.2)	A (7.2)	A (7.5)	A (7.5)	A (7.6)
		Overall			A (8.3)	A (8.3)	A (8.4)	A (9.8)	A (9.8)	B (10.1)
42	Humboldt Parkway SB & Glenwood Avenue	U	EB	R	B (12.0)	B (12.1)	B (12.4)	B (11.9)	B (12.0)	B (12.3)
			SB	T	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
43	Humboldt Parkway SB & Riley Street	U	EB	R	C (16.0)	C (16.2)	C (17.0)	C (20.4)	C (20.7)	C (22.3)
			SB	TR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
44	Humboldt Parkway SB & Kingsley Street	U	EB	R	C (17.4)	C (17.7)	C (18.6)	B (11.7)	B (11.8)	B (12.0)
			SB	TR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
45	Humboldt Parkway SB & W Parade Avenue	U	EB	T	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
			WB	T	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
			SB	LR	A (9.5)	A (9.6)	A (9.6)	B (11.7)	B (11.8)	B (12.1)
		Overall			A (3.3)	A (3.3)	A (3.3)	A (3.5)	A (3.5)	A (3.6)
46	Linden Park & Dodge Street & W Parade Avenue	U	EB	TR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
			WB	LT	A (0.4)	A (0.4)	A (0.4)	A (0.3)	A (0.3)	A (0.3)
			NB	LR	A (9.2)	A (9.2)	A (9.3)	A (9.2)	A (9.2)	A (9.2)
47	Humboldt Parkway NB & Riley Street	U	WB	R	A (9.2)	A (9.2)	A (9.3)	A (9.0)	A (9.0)	A (9.1)
		U	NB	TR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
48	Humboldt Parkway NB & Woeppel Street	U	WB	R	B (10.1)	B (10.2)	B (10.3)	B (10.9)	B (10.9)	B (11.0)
			NB	TR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
49	Humboldt Parkway NB & Woodlawn Avenue	U	WB	R	B (10.2)	B (10.2)	B (10.3)	B (9.0)	B (11.0)	B (11.2)
			NB	TR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
50	Humboldt Parkway SB & Florida Street	U	EB	R	A (9.8)	A (9.9)	A (10.0)	B (10.2)	B (10.2)	B (10.4)
			SB	TR	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
51	Humboldt Parkway SB & Northland Avenue	U	EB	R	B (10.3)	B (10.4)	B (10.5)	B (10.3)	B (10.4)	B (10.5)
52	Humboldt Parkway SB & Brunswick Boulevard	U	EB	R	A (6.6)	A (6.6)	A (6.6)	A (7.0)	A (7.0)	A (7.1)
			SB	TR	A (7.0)	A (7.0)	A (7.1)	A (8.0)	A (8.0)	A (8.1)
		Overall			A (6.7)	A (6.7)	A (6.7)	A (7.7)	A (7.7)	A (7.8)
53	Humboldt Parkway SB & Goulding Avenue	U	EB	R	C (18.5)	C (18.8)	C (20.1)	C (17.0)	C (17.3)	C (18.4)
54	Humboldt Parkway NB & Sidney Street	U	WB	R	B (12.8)	B (13.0)	B (13.4)	B (14.8)	C (15.0)	C (15.6)
55	Humboldt Parkway NB & Northland Avenue	U	WB	R	A (0.0)	A (6.9)	A (6.9)	A (6.8)	A (6.8)	A (6.8)
			NB	TR	A (0.0)	A (7.7)	A (7.8)	A (7.4)	A (7.4)	A (7.5)
		Overall			A (0.0)	A (7.4)	A (7.5)	A (7.1)	A (7.1)	A (7.2)
56	Roehrer Avenue & E Ferry Street	U	WB	LT	A (0.2)	A (0.2)	A (0.2)	A (0.5)	A (0.5)	A (0.5)
			NB	LR	B (12.3)	B (12.4)	B (12.7)	C (17.8)	C (18.1)	C (19.5)
57	Roehrer Avenue & E Utica Street	U	EB	LTR	A (8.1)	A (8.1)	A (8.2)	A (9.2)	A (9.2)	A (9.4)
			WB	LTR	A (8.1)	A (8.2)	A (8.3)	A (9.1)	A (9.1)	A (9.3)
			NB	LTR	A (7.7)	A (7.7)	A (7.7)	A (8.4)	A (8.4)	A (8.5)
			SB	LTR	A (7.7)	A (7.7)	A (7.7)	A (8.4)	A (8.4)	A (8.5)
		Overall			A (8.1)	A (8.1)	A (8.2)	A (9.0)	A (9.0)	A (9.2)
58	Wohlers Avenue & Northampton Street	U	EB	LTR	A (8.2)	A (8.2)	A (8.3)	A (9.7)	A (9.8)	B (10.1)
			WB	LTR	A (8.0)	A (8.1)	A (8.2)	A (9.3)	A (9.3)	A (9.6)
			NB	LTR	A (8.4)	A (8.4)	A (8.5)	B (12.6)	B (12.8)	B (13.6)
			SB	LTR	A (8.2)	A (8.2)	A (8.3)	A (9.1)	A (9.2)	A (9.4)
		Overall			A (8.2)	A (8.3)	A (8.4)	B (11.1)	B (11.2)	B (11.7)

#	Intersection	Control	Dir.	Lanes	AM Peak Hour			PM Peak Hour			
					2021	2027	2047	2021	2027	2047	
59	Roehrer Avenue & Northampton Street	U	EB	LTR	A (7.5)	A (7.5)	A (7.5)	A (8.0)	A (8.0)	A (8.1)	
			WB	LTR	A (7.6)	A (7.6)	A (7.6)	A (7.9)	A (8.0)	A (8.1)	
			NB	LTR	A (7.4)	A (7.4)	A (7.4)	A (7.8)	A (7.8)	A (7.9)	
			SB	LTR	A (7.5)	A (7.5)	A (7.5)	A (7.9)	A (7.9)	A (8.0)	
		Overall				A (7.5)	A (7.5)	A (7.5)	A (7.9)	A (8.0)	A (8.1)
60	Best Street & Wohlers Avenue	U	EB	LT	A (0.1)	A (0.1)	A (0.1)	A (0.2)	A (0.2)	A (0.2)	
			SB	LR	C (17.3)	C (17.6)	C (18.6)	C (17.5)	C (17.8)	C (19.0)	
61	Best Street & Roehrer Avenue	U	EB	LT	A (0.1)	A (0.1)	A (0.1)	A (0.2)	A (0.2)	A (0.2)	
			SB	LR	C (16.6)	C (16.8)	C (17.9)	C (18.7)	C (19.0)	C (20.5)	
62	Jefferson Avenue & Eaton Street & Kingsley Street	S	EB	LTR	A (7.6)	A (7.6)	A (9.6)	B (11.2)	B (11.2)	B (11.3)	
			WB	LTR	A (8.2)	A (8.2)	B (10.4)	B (11.4)	B (11.4)	B (11.4)	
			NB	LTR	B (13.0)	B (13.2)	A (6.1)	A (9.3)	A (9.7)	B (11.7)	
			SB	LTR	A (8.4)	A (8.7)	B (14.0)	A (8.5)	A (8.6)	A (9.3)	
		Overall				B (10.1)	B (10.4)	B (10.8)	A (9.0)	A (9.3)	B (10.6)
65	Route 33 & W Parade Ave	S	EB	LTR	E (64.2)	F (91.5)	F (85.5)	D (52.3)	D (52.7)	D (53.8)	
			WB	LTR	B (18.1)	C (25.4)	C (33.8)	F (155.9)	F (163.9)	F (181.5)	
			NB	L	E (75.7)	F (82.3)	F (83.2)	F (103.2)	F (117.5)	F (136.7)	
				TT	A (6.8)	A (5.3)	A (5.8)	F (106.7)	F (114.1)	F (140.3)	
				R	A (0.0)	A (0.0)	A (0.0)	A (1.4)	A (1.4)	A (1.6)	
			SB	L	E (77.2)	C (34.6)	F (99.4)	F (103.3)	F (106.0)	F (102.6)	
				TT	E (72.5)	E (57.2)	F (80.4)	E (66.2)	E (69.4)	E (69.8)	
				R	A (0.5)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	
		Overall				D (54.0)	D (45.1)	E (61.4)	F (94.3)	F (99.9)	F (114.7)
		66	Route 33 & Northampton St	S	EB	LTR	C (24.4)	C (25.3)	C (28.3)	D (36.0)	F (81.8)
WB	LTR				A (5.7)	A (5.7)	A (6.8)	B (11.9)	B (11.6)	B (13.6)	
NB	L				F (168.5)	F (171.3)	F (91.1)	F (366.6)	E (69.7)	F (451.9)	
	TT				D (45.8)	D (43.6)	D (50.9)	F (679.0)	F (778.0)	F (751.9)	
	R				A (0.1)	A (0.7)	A (0.1)	A (6.3)	A (7.8)	A (7.5)	
SB	L				F (141.1)	F (145.7)	E (78.5)	F (84.8)	E (70.2)	F (91.2)	
	TT				F (482.0)	F (496.8)	F (623.9)	F (321.1)	D (377.4)	F (357.4)	
	R				C (25.2)	C (24.9)	C (27.8)	C (21.8)	C (28.4)	C (23.1)	
Overall				F (294.8)	F (303.1)	F (376.1)	F (438.0)	F (503.4)	F (429.9)		
67	Route 33 & E Utica St			S	EB	LT/TR	A (2.0)	A (1.9)	A (1.8)	A (4.0)	A (3.9)
		WB	LT/TR		A (2.2)	A (2.3)	A (2.3)	A (2.0)	A (1.9)	A (2.1)	
		NB	L		F (263.3)	F (267.7)	F (312.5)	F (430.3)	F (442.4)	F (481.6)	
			TT		B (16.1)	B (17.3)	C (22.3)	F (405.0)	F (430.0)	F (488.8)	
			R		A (0.6)	A (0.7)	A (0.8)	A (6.7)	A (5.2)	A (8.8)	
		SB	L		F (88.9)	F (101.0)	F (143.5)	F (82.1)	F (88.4)	F (82.1)	
			TT		F (378.3)	F (379.7)	F (443.0)	F (213.1)	F (234.1)	F (275.3)	
			R		B (15.6)	A (0.2)	B (16.7)	A (9.8)	A (0.9)	B (14.1)	
		Overall				F (237.1)	F (237.4)	F (279.0)	F (274.8)	F (293.3)	F (335.7)
68	Route 33 & E Ferry St	S	EB	LT/TR	A (9.8)	B (10.9)	B (18.0)	F (190.0)	F (682.2)	F (247.2)	
			WB	LT/TR	A (5.0)	A (5.1)	A (4.8)	A (9.5)	F (92.7)	B (11.1)	
			NB	L	F (617.9)	F (627.7)	F (680.1)	F (80.0)	F (1749.7)	F (1070.9)	
				TT	E (69.9)	E (72.1)	E (62.9)	F (629.2)	F (925.8)	F (697.2)	
				R	A (2.0)	A (2.5)	A (2.3)	C (20.9)	B (16.4)	C (23.7)	
			SB	L	F (188.3)	F (191.3)	F (207.1)	E (70.2)	F (88.4)	E (70.9)	
				TT	F (699.6)	F (716.3)	F (797.2)	F (580.7)	F (865.4)	F (646.1)	
				R	F (119.1)	F (126.0)	F (158.3)	E (79.3)	F (140.2)	F (103.0)	
		Overall				F (399.9)	F (410.1)	F (456.6)	F (469.8)	F (794.5)	F (527.6)

Results Summary

NYS Route 33 Mainline Summary

An overall NYS Route 33 mainline summary shows the baseline existing conditions and comparison with the viable concepts to identify traffic capacity impacts for travel times and speeds.

Table C-11: Mainline Summary Comparison AM Peak Hour

Segment	Existing / Null Scenario			Concepts 5/6 – 6-Lane Tunnel		Concept 7 – 4-Lane Tunnel		Concept 9 – 4-Lane Blvd (note 1)	
	2021	2027	2047	2027	2047	2027	2047	2027	2047
<i>Eastbound – Oak to Delavan – 2.72 miles</i>									
Average Travel Time (minutes)	3.3	3.3	3.4	3.2	3.2	3.2	3.1	4.1	3.9
Average Travel Speed (mph)	50	50	49	51	51	51	52	11	11
<i>Westbound – Suffolk to Michigan – 4.50 miles</i>									
Average Travel Time (minutes)	5.0	5.0	5.0	5.0	5.1	5.4	9.7	30.3	33.8
Average Travel Speed (mph)	54	54	54	54	53	50	28	2	1

Notes: (1) - Multi-lane Blvd length is 0.75 miles (Eastbound Best to Delavan) & 0.78 miles (Westbound Delavan to Best)

Table C-12: Mainline Summary Comparison PM Peak Hour

Segment	Existing / Null Scenario			Concepts 5/6 – 6-Lane Tunnel		Concept 7 – 4-Lane Tunnel		Concept 9 – 4-Lane Blvd (note 1)	
	2021	2027	2047	2027	2047	2027	2047	2027	2047
<i>Eastbound – Oak to Delavan – 2.72 miles</i>									
Average Travel Time (minutes)	3.3	3.3	3.4	3.2	3.3	3.3	3.9	36.2	36.4
Average Travel Speed (mph)	49	49	49	51	50	49	42	1	1
<i>Westbound – Suffolk to Michigan – 4.50 miles</i>									
Average Travel Time (minutes)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	23.1	23.5
Average Travel Speed (mph)	54	54	54	54	54	54	54	2	2

Notes: (1) - Multi-lane Blvd length is 0.75 miles (Eastbound Best to Delavan) & 0.78 miles (Westbound Delavan to Best)

Local Street Network Summary

Concepts 5, 6, and 7, were found to have similar impacts on the local network. Most of the intersections and corridors within the study area are projected to operate at LOS C or better. While none of the intersections have an overall LOS of F, some of the movements operate at LOS E or F at the following intersections (numbering is preserved from Traffic Analysis reports):

- #1 Best Street and NYS Route 33 EB Ramps
- #2 Best Street and NYS Route 33 WB Ramps
- #3 Best Street and Herman Street and West Parade Avenue
- #8 Humboldt Parkway SB & East Ferry Street
- #9 Humboldt Parkway NB & East Ferry Street
- #16 Fillmore Avenue & Best Street

All impacted intersections were evaluated with optimized signalized timings. No additional infrastructure changes were made at these intersections that were not part of the conceptual design. Further analysis will be required to determine the proper methods needed to improve these intersections so that they operate at an acceptable LOS.

Concept 9 had significant operational impacts on the local network. In addition to the overall boulevard operating poorly at LOS F, the Northampton, E Utica, and E Ferry intersections along the boulevard have the overall intersection or individual movements that operate at LOS E or F. The queues resulting from the failing intersections along the boulevard extend back several hundred feet and impact the operation of adjacent intersections.

E. Vissim Development and Calibration Report

NYS Route 33 Project – Kensington Expressway

Vissim Development & Calibration Report

December 2022

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Executive Summary

The New York State Department of Transportation (NYSDOT) is evaluating the Kensington Expressway (NYS Route 33) for potential modifications to the depressed highway section between the Route 198 interchange and the Best Street interchange in Buffalo, NY. As part of this effort, the Vissim microsimulation software is being used to evaluate existing conditions, future no build conditions, and alternative future build scenarios. The model study area includes approximately 2.75 miles of the mainline Kensington Expressway from the downtown Buffalo expressway terminus at Elm Street to the Route 198 (Scajaquada Expressway) interchange, including the interchanges at Jefferson Avenue, Best Street, Humboldt Parkway, East Delavan Avenue, and Route 198. This report addresses the existing conditions for the weekday morning and evening peak periods and the methodology used to calibrate the microsimulation models. The following table shows a summary of the calibration targets, and the results of the calibration efforts for the base year (2022) existing condition models.

Calibration Summary

Calibration Metric	Calibration Target	AM Peak	PM Peak
Sum of All Link Flows	Within 5% of all link counts	+2.8%	-0.2%
Individual Link Volumes	Within 100 veh if < than 700 veh Within 15% if 700-2700 veh Within 400 veh if > than 2700 veh	EB – 100% WB – 100%	EB – 100% WB – 100%
Corridor Travel Speeds	Within 15% of Observed Value or within 1 minute	EB – 100% WB – 100%	EB – 100% WB – 100%
Queue Lengths	Within 20% or within 12 veh	89%	94%
Visual Review	To satisfaction of the project team based on observed field conditions	Yes	Yes

All calibration targets were met for the metrics reviewed during both the morning and evening peaks.

1. Introduction

The New York State Department of Transportation (NYSDOT) is evaluating the Kensington Expressway (NYS Route 33) for potential modifications to the depressed highway section between the Route 198 interchange and the Best Street interchange in Buffalo, NY.

A critical piece of this evaluation is the development of the VISSIM traffic simulation model that is used to predict traffic operations and compare alternatives. In order to effectively evaluate future operations under each alternative, the existing conditions VISSIM models must first be calibrated to match observed existing operations.

The purpose of this report is to document the methodology and procedures used to calibrate the existing condition VISSIM models for the Kensington Expressway project.

2. VISSIM Model Development

2.1 VISSIM Overview

The study area was simulated and analyzed using Vissim11. Vissim is a microscopic, multi-modal traffic flow simulation software originally developed in 1992 by PTV Planung Transport Verkehr AG in Germany. The program models each specific vehicle using the basic car following logic developed by Rainer Wiedemann in 1974.

Vissim is an industry leader in advance traffic simulation and is a worldwide accepted standard for the simulation and analysis of traffic systems including local streets and intersection, expressways, interchanges, ramps and roundabouts. It provides the ability to model local streets as well as adjacent freeways and interchanges in one seamless model with the flexibility to model more complex intersections. The program is used to accurately determine the Levels of Service, queues and lane densities for traffic traveling through the study area. Vissim can also be used to view a real-time simulation of traffic operations in the study area, ideal for public presentation.

2.2 Simulation Model Study Area

The VISSIM model for this project is focused on expressway operations including mainline, ramp, and weave sections while the local street network analysis has been completed using Synchro11. The models include the full expressway section of NYS Route 33 between Downtown Buffalo and the interchange at the Scajaquada Expressway (Route 198). Specific traffic local street intersections that have the potential to meter traffic flow onto the expressway system were included in the VISSIM models but not specifically analyzed using VISSIM. These local street intersections include:

- East Tupper Street @ North Oak Street
- East Tupper Street @ Elm Street

- Jefferson Street @ NYS Route 33 EB & WB Ramps
- Best Street @ NYS Route 33 EB and WB Ramps
- Utica Street @ Humboldt Parkway SB
- East Delavan Street @ Humboldt Parkway NB/NYS 33 EB Ramp

The Figure 1 shows the limits of the VISSIM simulation model prepared for this project.

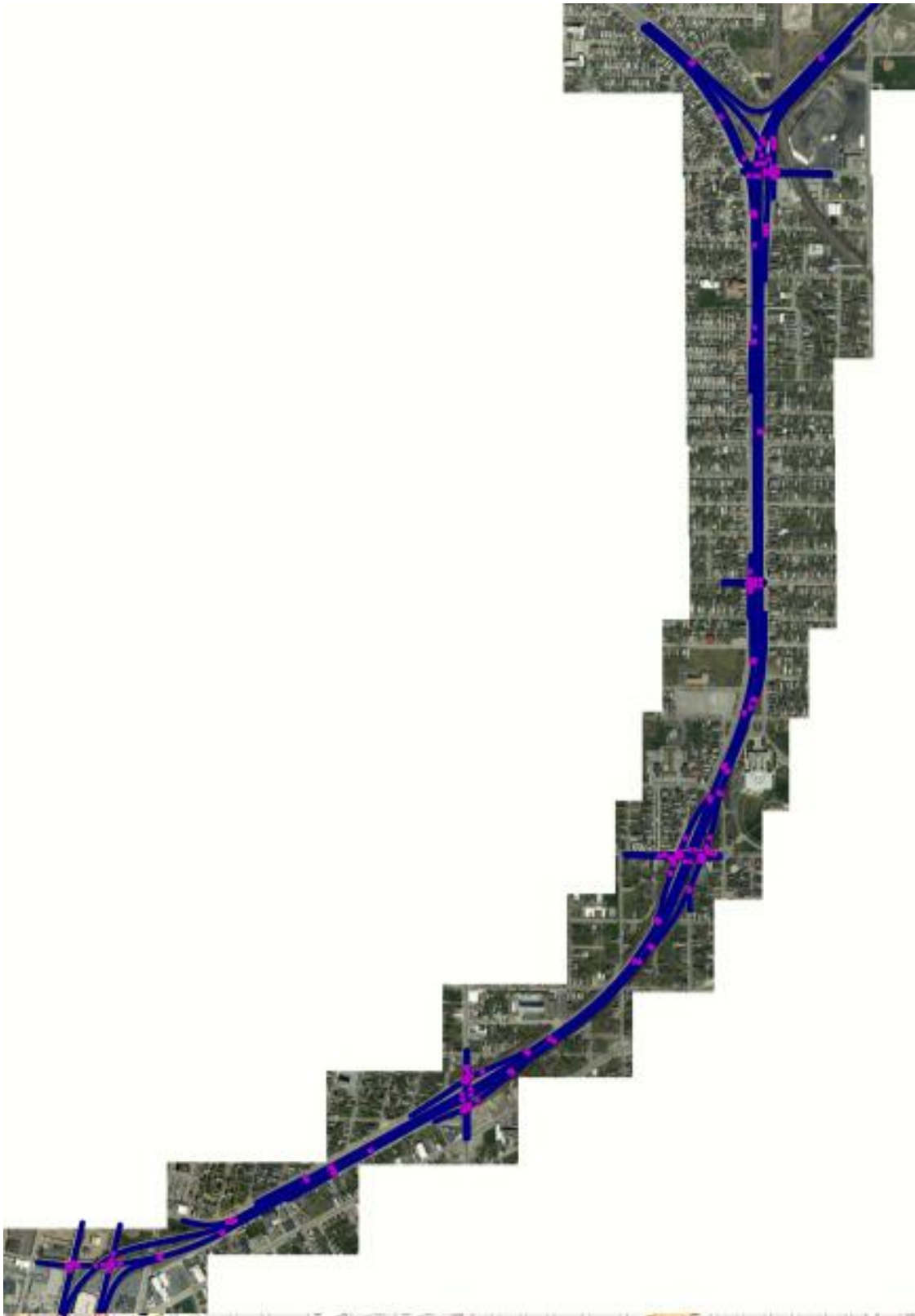
2.3 Base Year

The existing base year for the VISSIM traffic analysis is 2021. The future analysis years are ETC (2027) and ETC+20 (2047). The ETC year is the calendar year that the built project is expected to begin operation. The ETC+20 year is considered the end of the economic life of the planned highway improvement.

2.4 Analysis Peak Periods

The VISSIM modeling periods for this project are the typical morning and evening peak commuter hours between 7:30am-8:30am and 4:30pm to 5:30pm. The models have the peak hour traffic volumes input and are run for a 2½ hour (9000 second) simulation period. Model results are recorded for the two-hour period at the end of the simulation period (from 1800-9000 seconds) to allow a 30-minute loading period for traffic to “fill” the system and reach equilibrium.

Figure 1 – VISSIM Model Limits



2.5 Existing Conditions Data

Aerial imagery was taken from the NYS Interactive Mapping website (GIS.NY.GOV) and used as the base mapping for the VISSIM model. This provided lane configurations, acceleration/deceleration lane lengths and intersection configurations. Input desired travel speeds were set as the speed limits +/- 3 mph.

Traffic data was collected for three consecutive days at each location during the same time periods following protocols based on the HDM Section 5.2.1.2. The collection included: 61 intersection turning movement counts, 31 ATRs (expressway segments 11 ramps, 15 surface roads), travel time runs on expressways, and queue analysis at 40 signalized intersection approaches.

2.5.1 Existing Traffic Volume Data

Turning Movement Counts

- October 26-28, 2021, and November 2-4, 2021

Ramp, Mainline & Roadway Counts

- October 25-29, 2021, and November 18-19, 2021

Measured Intersection Queue Lengths

- October 26-28, 2021, and November 2-4, 9, 2021

Origin/destination data was not available to assist with programming routing decisions in the VISSIM Model. All traffic diverge areas are assumed to come proportionately from available upstream traffic sources.

2.5.2 Existing Travel Time Runs

Travel Time & Speed Runs (including video)

- October 26-28, 2021, and November 2-4, 2021

Travel-time and delay data was collected to determine the amount of time it takes to travel the Route 33 project limits. The data, combined with the length of the section, produces mean travel speed. Travel-time and delay field runs were conducted to gather information regarding the sources and amounts of delay occurring within the roadway.

The test vehicle method was used to drive at the average speed of traffic to make eight (8) roundtrip runs on the roadway segment of interest. The vehicle moved at roughly the average speed of the platoons. In addition to travel times, the analyst collected additional data during the field runs including detailed information about the effects and sources of delays.

The following tables summarize the average mainline expressway travel times and speeds used to calibrate the VISSIM models:

Morning Peak Hour – Average Travel Times

	Segment	Distance (mi)	Average Travel Time (min:sec)	Average Travel Speed (mph)
Route 33 EB	Michigan Ave to E. Delavan Ave	2.55	2.7 min	52.32
	Michigan Ave to Jefferson Street	0.65	0:53.75	44.14
	Jefferson Street to High Street	0.33	0:21.28	55.95
	High Street to Best Street	0.30	0:18.41	58.84
	Best Street to W. Parade Ave	0.12	0:7.77	55.84
	W. Parade Ave to Northampton St	0.15	0:9.56	56.74
	Northampton St to E. Utica St	0.25	0:16.44	54.97
	E. Utica St to E. Ferry St	0.25	0:15.99	56.54
	E. Ferry St to E. Delavan Ave	0.50	0:32.27	55.94
Route 33 WB	E. Delavan Ave to Michigan Ave	2.55	3.0 min	51.29
	E. Delavan Ave to E Ferry St	0.50	0:35.30	51.51
	E Ferry St to E Utica St	0.25	0:16.55	54.56
	E Utica Street to Northampton St	0.25	0:16.88	53.53
	Northampton St to W Parade Ave	0.15	0:9.59	56.65
	W Parade Ave to Best St	0.12	0:7.44	58.69
	Best St to High St	0.30	0:18.46	58.63
	High St to Jefferson St	0.33	0:20.42	61.61
	Jefferson Street to Michigan Ave	0.65	0:54.34	44.82

Evening Peak Hour – Average Travel Times

	Segment	Distance (mi)	Average Travel Time (min:sec)	Average Travel Speed (mph)
Route 33 EB	Michigan Ave to E. Delavan Ave	2.55	2.9 min	51.94
	Michigan Ave to Jefferson Street	0.65	0:51.28	46.26
	Jefferson Street to High Street	0.33	0:21.55	55.17
	High Street to Best Street	0.30	0:19.10	56.95
	Best Street to W. Parade Ave	0.12	0:8.14	54.02
	W. Parade Ave to Northampton St	0.15	0:10.06	54.17
	Northampton St to E. Utica St	0.25	0:16.76	54.16
	E. Utica St to E. Ferry St	0.25	0:16.17	56.83
	E. Ferry St to E. Delavan Ave	0.50	0:33.68	54.88
Route 33 WB	E. Delavan Ave to Michigan Ave	2.55	2.9 min	51.87
	E. Delavan Ave to E Ferry St	0.50	0:33.47	53.97
	E Ferry St to E Utica St	0.25	0:16.26	55.50
	E Utica Street to Northampton St	0.25	0:16.48	54.78
	Northampton St to W Parade Ave	0.15	0:9.54	56.78
	W Parade Ave to Best St	0.12	0:7.43	58.54
	Best St to High St	0.30	0:18.44	58.74
	High St to Jefferson St	0.33	0:20.67	57.58
	Jefferson Street to Michigan Ave	0.65	0:54.68	45.42

Calculated mean, median, and standard deviation for field collected travel times and speeds.

		AM Peak Hour		PM Peak Hour	
		Time (s)	Travel Speed (mph)	Time (s)	Travel Speed (mph)
Mainline Route 33 WB	Mean	178.27	51.50	177.39	51.75
	Median	173.00	53.06	176.00	52.16
	Standard Deviation	15.87	4.07	11.80	3.33
	Error Tolerance	-5.76%	1.41%	-8.68%	4.58%
Mainline Route 33 EB	Mean	176.99	51.87	176.69	51.96
	Median	175.50	52.31	172.00	53.37
	Standard Deviation	10.26	2.73	19.24	4.38
	Error Tolerance	-5.08%	3.38%	-4.92%	1.59%

2.5.3 Existing vehicle queue data

Intersection approach queuing

- October 26-28, 2021, and November 2-4, 2021

A queue study collected data to determine the stacking of vehicles waiting to be serviced by a traffic signal servicing Route 33. Vehicle queue length is the distance measurement of vehicles stopped at a traffic control device.

The queue length was collected manually to count the number of vehicles in a standing or slowly moving queue at a designated time interval. Observers made notations in the field by intersection approach leg. At signalized intersections, the observer recorded the number of vehicles at the start of the green interval and at the end of the yellow interval. Queue counts at unsignalized intersections are made in 1-minute intervals.

The following tables summarize the maximum intersection approach queues used to calibrate the VISSIM models:

Maximum Observed Traffic Queues

Segment	Morning Peak Hour (ft)	Evening Peak Hour (ft)
East Delavan Street @ Humboldt Parkway NB		
Eastbound	300	510
Westbound	225	575
Northbound	325	550
East Utica Street @ Humboldt Parkway SB		
Eastbound	175	135

Westbound	75	150
Southbound	350	300
Best Street @ Route 33 WB Ramps		
Eastbound	275	425
Westbound	200	225
Southbound	505	495
Best Street @ Route 33 EB Ramps		
Eastbound	350	375
Westbound	275	200
Northbound	125	200
Jefferson Street @ Route 33 WB Offramp/BFNC Dr.		
Westbound	175	225
Northbound	160	175
Southbound	175	350
Jefferson Street @ Route 33 EB Offramp/Cherry St.		
Westbound	50	75
Northbound	175	225
Southbound	200	400

2.6 VISSIM Base Model Development

The base VISSIM model was developed, calibrated based on existing traffic volume and travel run data, and then used for subsequent future condition null and alternative scenario analyses.

The primary steps completed in developing the base VISSIM model are as follows:

- Geometry Coding – Aerial mapping was imported into the VISSIM program, scaled, and then overlaid onto the background mapping within the program. Links, and link connectors were then created over the aerial imagery.
- Traffic Composition Coding – Separate entering link traffic compositions were developed for each entry link roadway in the model based on available data. Traffic was input with “car” and “heavy vehicle” percentages. The heavy vehicle model vehicle was changed from a standard European truck to a two segment US WB-65 tractor trailer combination (25%), a two segment US WB-40 tractor trailer (25%) and a single segment flat truck/box truck (50%).
- Entry Link and Reduced Speed Coding – Entry link speeds were set at posted speed limits +/- 3 mph. Reduced speed areas were set on curves and ramps based on observed advisory speeds in Google street views. Left turn movements at intersections were coded with reduced speeds at approximately 20 mph and right turn movements were coded with reduced speeds at approximately 15 mph.
- Conflict Area Coding – Conflicts areas were reviewed at merge locations and on local street intersections to replicate standard vehicle right of way operations.

- Vehicle Input & Routing Decision Coding – Vehicle inputs were coded at entry links with vehicle compositions previously developed. Given that origin-destination data was not available, routing decisions were coded at each diverge location as being proportionally split from all available upstream traffic sources.
- Travel Time Recorder Coding – Travel time markers were set in the models at the Michigan Avenue and East Delavan Avenue overpasses in the eastbound and westbound directions to record average travel times on the mainline for comparison to available data.

Output Result Coding – The models were set to run for a 2½ hour interval (9000 seconds) using the peak hourly volumes with link and travel time results being recorded for the end two hours (1800-9000 seconds) to allow for a 30-minute loading/equilibrium time.

3. Model Calibration

Default values used in the VISSIM input parameters are not calibrated using field data from the United States, therefore they need to be revised to produce valid output data consistent with observed local operating conditions.

3.1 Calibration Procedure

Calibrating a VISSIM model is an iterative process in which certain input parameters are adjusted to produce results that are reasonably consistent with measured existing traffic operations. For this project, existing traffic volumes, travel times and travel speeds were used as targeted values for the model calibration. The process uses a "trial and error" iterative approach by adjusting one variable at a time to best match model outputs to measured existing operations. The models were initially run using the default values and were then adjusted to mimic observed conditions.

3.2 Calibration Parameters

The calibration effort was focused on adjustments being made to the driver behaviors and vehicle parameters. The most common calibration parameters are included in the Wiedemann's 99 car following model (CC0-CC9). These parameters directly affect driver behavior and interaction along the mainline expressway and at merge diverge areas, impacting driver aggressiveness and ultimately traffic density and saturation flow rates.

3.3 Validation Measures of Effectiveness

The validation measures of effectiveness used to confirm adequacy of the existing condition VISSIM models are the peak hour traffic volumes (mainline and ramps segments), travel times/speeds along the mainline expressway, and traffic queues. A visual audit of the model was also completed by the project team to confirm that operations were consistent with field observations.

3.4 Validation Criteria & Targets

The following targets were used in calibrating the VISSIM models based on guidelines recommended by FHWA (Guidelines for Applying Traffic Microsimulation Modeling Software – Traffic Analysis Toolbox – Volume 3 – Table 4 – Page 64) and the NYSDOT Highway Design Manual – Section 5.2.3.3 – Page 5-16

Calibration Targets

Criteria & Measures	Calibration Target	Source
Sum of All Link Flows	Within 5% of all link counts	Wisconsin DOT Example from FHWA Toolbox Volume III
Individual Link Volumes	Within 100 veh if < than 700 veh Within 15% if 700-2700 veh Within 400 veh if > than 2700 veh Satisfied for > 85% of cases	Wisconsin DOT Example from FHWA Toolbox Volume III
Corridor Travel Speeds	Within 15% of Observed Value or within 1 minute Satisfied for > 85% of cases	Wisconsin DOT Example from FHWA Toolbox Volume III NYSDOT Highway Design Manual Section 5.2.3.3
Queue Lengths	Within 20% or within 12 veh Satisfied for > 85% of cases	NYSDOT Highway Design Manual Section 5.2.3.3
Visual Review	To satisfaction of the project team based on observed field conditions	Wisconsin DOT Example from FHWA Toolbox Volume III

Sum of All Link Flows

- Sum of all link volumes within 5% of sum of all link counts

Individual Link Traffic Volumes

- Volumes within 100 vehicles for volumes less than 700 vehicles
- Volumes within 15% volumes between 700-2700 vehicles
- Volumes within 400 vehicles for volumes over 2700 vehicles

Travel Speeds

- Travel speeds within 15% of observed values, or within 1 minute

Maximum Queues

- Within 20% or Within 12 vehicles

Visual Review

- Evaluate the model for reasonableness in terms of expected areas of congestion and speeds, to the satisfaction of the project team based on observed field conditions.

These targets must be met for more than 85% of the values reviewed.

3.5 Simulation Runs

The VISSIM model uses a random seed number to assign vehicles, vehicle types and vehicle behaviors as they enter the system. Because of this, a single model run using different random seed numbers can produce significant variations in overall results. Per typical industry standards, 10 simulation runs were completed using random seed numbers with the average results being used for model result reporting and calibration.

3.6 Parameter Refinement

Calibration parameters for driver behaviors were changed to be more aggressive based on Upstate NY cities, local commuter traffic, and field data & observations. Given that the VISSIM model for this project focuses on mainline and ramp merge/diverge operations, the following parameters were used in calibrating the models to known local operations:

- *Freeway Car Following Parameters (Wiedemann 99)*

The 10 car following parameters were reviewed and adjusted as needed to produce results in the existing models that were within the validation thresholds. These parameters are related to traffic headway times, variations in car following behavior, and acceleration/deceleration behaviors during break-down conditions or recovery from break-down conditions.

- *Lane Change Parameters*

Maximum and acceptable deceleration rates for merging and trailing vehicles directly affect lane changing behaviors and affect priority given to through traffic verses merging/diverging traffic.

The following table provides a summary of the default values and calibrated values that that have been adjusted in the existing condition VISSIM Models:

Calibration Parameters

Parameter	Default Value	Mainline Calibrated Value	Merge/Diverge Calibrated Value
<i>Car Following (Wiedemann 99)</i>			
CCO Standstill Distance	4.92 ft	4.92 ft	4.92 ft
CC1 Headway Time	0.90 sec	0.50 sec	0.90 sec
CC2 Following Variation	13.12 ft	13.12 ft	20.01 ft
CC3 Threshold for Entering 'Following'	-8.00 sec	-8.00 sec	-5.00 sec
CC4 Negative 'Following' Threshold	-0.35 ft/sec	-0.35 ft/sec	-0.25 ft/sec
CC5 Positive 'Following' Threshold	0.35 ft/sec	0.35 ft/sec	0.25 ft/sec
CC6 Speed Dependency of Oscillation	11.44	11.44	11.44
CC7 Oscillation Acceleration	0.82 ft/sec ²	0.82 ft/sec ²	0.82 ft/sec ²
CC8 Standstill Acceleration	11.48 ft/sec ²	11.48 ft/sec ²	12.01 ft/sec ²
CC9 Acceleration at 50mph	4.92 ft/sec ²	4.92 ft/sec ²	4.99 ft/sec ²
Look Ahead Distance	0ft – 820ft	80ft – 1000ft	0ft – 820ft
Look Back Distance	0ft – 492ft	25ft – 400ft	0ft – 492ft
<i>Lane Changing</i>			
Maximum Deceleration (Own)	-13.12 ft/sec ²	-13.12 ft/sec ²	-14.99 ft/sec ²
Maximum Deceleration (Trailing)	-9.84 ft/sec ²	-9.84 ft/sec ²	-12.01 ft/sec ²
-1 ft/sec ² per Distance	200 ft	200 ft	200 ft
Accepted Deceleration (Own)	-3.28 ft/sec ²	-3.28 ft/sec ²	-3.28 ft/sec ²
Accepted Deceleration (Trailing)	-1.64 ft/sec ²	-1.64 ft/sec ²	-1.64 ft/sec ²
Waiting Time Before Diffusion	60 sec	60 sec	30 sec
Min. Headway (front/rear)	1.64 ft	1.64 ft	1.51 ft
Safety Distance Reduction Factor	0.60	0.25	0.10
Max/ Dec. for Cooperative Braking	-9.84 ft/sec ²	-9.84 ft/sec ²	-29.53 ft/sec ²
Cooperative Lane Change	Unchecked	Checked	Checked

Car Following

- CCO – Standstill Distance – The default values were applied for both the mainline segments and merge/diverge areas.
- CC1 – Headway Time – The default values were used for the merge/diverge areas. The default value was reduced to 0.5 seconds for the mainline segments to represent conditions observed in the field. The value used is consistent with recent modeling efforts associated with both the Buffalo Skyway project and Syracuse I-81 project and is considered to be within an acceptable range of values for similar upstate New York urban freeways.
- CC2 – Following Variation – The default value was used for the mainline segments and adjusted to 20.01 feet for the merge/diverge areas to increase driver awareness of preceding slower vehicles. The adjustment is made based on more aggressive driver behaviors observed in the merge/diverge areas.

- CC3 – Threshold for “Entering” Following – The default value was used for the mainline segments and adjusted to -5.00 seconds for the merge/diverge areas to allow closer following. The adjustment is made based on more aggressive driver behaviors observed in the merge/diverge areas.
- CC4 & CC5 – Negative and Positive “Following Threshold” – The default value was used for the mainline segments and adjusted to -0.25 feet per second and +0.25 feet per second for the merge/diverge areas to allow for a more sensitive reaction to acceleration and deceleration of the proceeding vehicle. The adjustment is made based on more aggressive driver behaviors observed in the merge/diverge areas.
- CC6 – Speed Dependency of Oscillation – defaults values were used.
- CC7 – Oscillation Acceleration – default values were used.
- CC8 – Standstill Acceleration – The default value was used for the mainline segments and adjusted to 12.01 feet per second squared for the merge/diverge areas to allow more aggressive acceleration entering the merge areas. The adjustment is made based on more aggressive driver behaviors observed in the merge/diverge areas.
- CC9 – Acceleration at 50 mph – The default value was used for the mainline segments and adjusted to 4.99 feet per second squared for the merge/diverge areas to allow more aggressive acceleration merging into the expressway. The adjustment is made based on more aggressive driver behaviors observed in the merge/diverge areas.
- Look Ahead Distance and Look Back Distance – The default values were used for the merge/diverge areas and increased to 1,000 feet for the look ahead distance and reduced to 400 feet for the look back distance on the mainline segments to improve driver reaction to conditions ahead. The adjustment was made based on driver familiarity of conditions in the area given the heavy commuter nature.

Lane Changing

- Maximum Deceleration (Own and Trailing) – The default values were used for the mainline segments and adjusted to -14.99 feet per second squared (Own) and -12.01 feet per second squared (Trailing) for the merge/diverge areas to allow more aggressive behavior entering the merge areas. The adjustment is made based on more aggressive driver behaviors observed in the merge/diverge areas.
- -1 ft/sec² per distance – default values were used
- Accepted Deceleration (Own and Trailing) – default values were used.
- Waiting Time before Diffusion – The default value was used for the mainline segments and adjusted to 30 seconds for merge/diverge areas. This value was changed to account for the infrequent vehicle that would drive to the extreme end of a merge area and get trapped. The simulation reports that an average of less than 8 total vehicles were diffused during the 10 morning peak simulation

runs and 0 vehicles were diffused during the 10 evening peak simulation runs due to the reduced value.

- Minimum Headway (front/rear) - The default value was used for the mainline segments and adjusted to 1.51 feet for the merge/diverge areas to allow more aggressive lane changing. The adjustment is made based on more aggressive driver behaviors observed in the merge/diverge areas.
- Safety Distance Reduction Factor – The default value was reduced to 0.25 on the mainline segments and 0.10 in the merge/diverge areas. This adjustment was made to account for more aggressive lane changing behavior utilizing shorter headways observed. The values used are consistent with recent modeling efforts associated with both the Buffalo Skyway project and Syracuse I-81 project, and is considered to be within an acceptable range of values.
- Maximum Deceleration for Cooperative Braking – The default value was used for the mainline segments and adjusted to -29.53 feet per second squared for the merge/diverge areas to allow more aggressive merging into the mainline expressway and reactions for approaching vehicles in the right lane based on observed traffic operations during the peak periods. The value used is consistent with recent modeling efforts associated the Syracuse I-81 project, and is considered to be within an acceptable range of values.

4. Model Validation Results

Once the model calibration was completed, average model output statistics based on 10 simulation runs were collected for comparison to the actual volume, travel time, and queue field data. Each simulation run used a random seed number and was set to 9000 seconds, with the data being collected from 1800-9000 seconds to represent the morning (7:30-8:30am) and evening (4:30-5:30pm) peak hour periods.

In accordance with FHWA (Guidelines for Applying Traffic Microsimulation Modeling Software – Traffic Analysis Toolbox – Volume 3 – Table 4 – Page 64) and the NYSDOT Highway Design Manual – Section 5.2.3.3 – Page 5-16 , the model output was compared to collected field data with volume and speed model results to be within 15% of observed values, and model queue results to be within 20% of observed values. Traffic volumes, queues, and system travel times from the averaged model runs were examined and validated based on the criteria listed in section 3.4.

4.1 Traffic Volumes

The following calibration targets were used for the volume review:

Sum of All Link Flows

- Sum of all link volumes within 5% of sum of all link counts

Individual Hourly Link Traffic Volumes

- Volumes within 100 vehicles for volumes less than 700 vehicles

- Volumes within 15% volumes between 700-2700 vehicles
- Volumes within 400 vehicles for volumes over 2700 vehicles

Overall Volume Calibration Summary

Calibration Metric	Calibration Target	AM Peak	PM Peak
Sum of All Link Flows	Within 5% of all link counts	+2.8%	-0.2%
Individual Link Volumes Mainline	Within 100 veh if < than 700 veh Within 15% if 700-2700 veh Within 400 veh if > than 2700 veh	EB – 100% WB – 100%	EB – 100% WB – 100%
Individual Link Volumes Ramps	Within 100 veh if < than 100 veh Within 15% if 700-2700 veh Within 400 veh if > than 2700 veh	EB – 100% WB – 100%	EB – 100% WB – 100%

All of the traffic volume results from the existing morning and evening peak models were within the target calibration ranges compared to the traffic count data.

The following tables provide the detailed link validation summary for the morning and evening peak hour conditions with the actual traffic volumes and simulation output traffic volumes shown, as well as calibration threshold results.

Validation Summary – Traffic Volumes – Morning Peak Hour			
Roadway Segment	Actual Volume	Output Volume	Does Value Meet Validation/Target Criteria?
<i>Route 33 Eastbound Mainline</i>			
Tupper / Elm Merge Section	1033	1060	Yes – Within 15%
Tupper/Elm Merge to Cherry Merge	1033	1065	Yes – Within 15%
Cherry Merge Section	1176	1197	Yes – Within 15%
Cherry Merge to Jefferson Merge	1176	1209	Yes – Within 15%
Jefferson Merge Section	1516	1539	Yes – Within 15%
Jefferson Merge to Best Diverge	1516	1543	Yes – Within 15%
Best Diverge Section	1516	1505	Yes – Within 15%
Best Diverge to Best Merge	1387	1457	Yes – Within 15%
Best Merge Section	2048	2077	Yes – Within 15%
Best Merge to Humboldt Diverge	2048	2096	Yes – Within 15%
Humboldt Diverge Section	2048	1971	Yes – Within 15%
Humboldt Diverge to Route 198 Diverge	1830	1886	Yes – Within 15%
East of Route 198 Diverge	1208	1245	Yes – Within 15%
<i>Route 33 Westbound Mainline</i>			
East of Route 198 Merge	3326	3330	Yes – Within 400 Vehicles
Route 198 Merge Section	4682	4582	Yes – Within 400 Vehicles
Route 198 Merge to Humboldt Diverge	4682	4644	Yes – Within 400 Vehicles
Humboldt Diverge Section	4682	4538	Yes – Within 400 Vehicles
Humboldt Diverge to Humboldt Merge	4090	4145	Yes – Within 400 Vehicles
Humboldt Merge Section	4329	4327	Yes – Within 400 Vehicles
Humboldt Merge to Best Diverge	4329	4365	Yes – Within 400 Vehicles

Validation Summary – Traffic Volumes – Morning Peak Hour			
Roadway Segment	Actual Volume	Output Volume	Does Value Meet Validation/Target Criteria?
Best Diverge Section	4329	4360	Yes – Within 400 Vehicles
Best Diverge to Best Merge	3567	3616	Yes – Within 400 Vehicles
Best Merge Section	3717	3751	Yes – Within 400 Vehicles
Best Merge to Jefferson Diverge	3717	3763	Yes – Within 400 Vehicles
Jefferson Diverge Section	3717	3738	Yes – Within 400 Vehicles
Jefferson Diverge to BFNC Diverge	3067	3118	Yes – Within 400 Vehicles
BFNC Diverge Section	3067	3103	Yes – Within 400 Vehicles
BFNC Diverge to Goodell/Oak Split	2536	2574	Yes – Within 15%
<i>Ramps</i>			
EB Tupper Street Onramp	507	515	Yes – Within 100 Vehicles
EB Elm Street Onramp	526	547	Yes – Within 100 Vehicles
EB Cherry Street Onramp	143	141	Yes – Within 100 Vehicles
EB Jefferson Street Onramp	340	333	Yes – Within 100 Vehicles
EB Best Street Offramp	129	94	Yes – Within 100 Vehicles
EB Best Street Onramp	661	645	Yes – Within 100 Vehicles
EB Humboldt Parkway Offramp	218	223	Yes – Within 100 Vehicles
EB Offramp to Route 198 WB	622	716	Yes – Within 100 Vehicles
EB Route 198 Ramp to Route 33 EB	1513	1507	Yes – Within 15%
WB Route 33 Ramp to Route 198 WB	1296	1295	Yes – Within 15%
WB Route 198 Ramp to Route 33 WB	1356	1356	Yes – Within 15%
WB Humboldt Parkway Offramp	592	535	Yes – Within 100 Vehicles
WB Humboldt Parkway Onramp	239	234	Yes – Within 100 Vehicles
WB Best Street Offramp	762	746	Yes – Within 15%
WB Best Street Onramp	150	151	Yes – Within 100 Vehicles
WB Jefferson Street Offramp	650	651	Yes – Within 100 Vehicles
WB BFNC Drive Offramp	531	538	Yes – Within 100 Vehicles
WB Goodell Street Offramp	1833	1855	Yes – Within 15%
WB Oak Street Offramp	703	718	Yes – Within 15%

Validation Summary – Traffic Volumes – Evening Peak Hour			
Roadway Segment	Actual Volume	Output Volume	Meets Validation Criteria?
<i>Route 33 Eastbound Mainline</i>			
Tupper / Elm Merge Section	2395	2350	Yes – Within 15%
Tupper/Elm Merge to Cherry Merge	2395	2362	Yes – Within 15%
Cherry Merge Section	2780	2725	Yes – Within 400 Vehicles
Cherry Merge to Jefferson Merge	2780	2753	Yes – Within 400 Vehicles
Jefferson Merge Section	3414	3379	Yes – Within 400 Vehicles
Jefferson Merge to Best Diverge	3414	3389	Yes – Within 400 Vehicles
Best Diverge Section	3414	3308	Yes – Within 400 Vehicles
Best Diverge to Best Merge	3246	3277	Yes – Within 400 Vehicles
Best Merge Section	4190	4146	Yes – Within 400 Vehicles
Best Merge to Humboldt Diverge	4190	4176	Yes – Within 400 Vehicles
Humboldt Diverge Section	4190	3921	Yes – Within 400 Vehicles
Humboldt Diverge to Route 198 Diverge	3940	3951	Yes – Within 400 Vehicles
East of Route 198 Diverge	2763	2772	Yes – Within 400 Vehicles

Validation Summary – Traffic Volumes – Evening Peak Hour			
Roadway Segment	Actual Volume	Output Volume	Meets Validation Criteria?
<i>Route 33 Westbound Mainline</i>			
East of Route 198 Merge	2100	2100	Yes – Within 15%
Route 198 Merge Section	3120	3050	Yes – Within 400 Vehicles
Route 198 Merge to Humboldt Diverge	3120	3090	Yes – Within 400 Vehicles
Humboldt Diverge Section	3120	3023	Yes – Within 400 Vehicles
Humboldt Diverge to Humboldt Merge	2442	2518	Yes – Within 15%
Humboldt Merge Section	2736	2772	Yes – Within 400 Vehicles
Humboldt Merge to Best Diverge	2736	2796	Yes – Within 400 Vehicles
Best Diverge Section	2736	2793	Yes – Within 400 Vehicles
Best Diverge to Best Merge	2107	2184	Yes – Within 15%
Best Merge Section	2236	2302	Yes – Within 15%
Best Merge to Jefferson Diverge	2236	2308	Yes – Within 15%
Jefferson Diverge Section	2236	2294	Yes – Within 15%
Jefferson Diverge to BFNC Diverge	1892	1958	Yes – Within 15%
BFNC Diverge Section	1892	1950	Yes – Within 15%
BFNC Diverge to Goodell/Oak Split	1694	1750	Yes – Within 15%
<i>Ramps</i>			
EB Tupper Street Onramp	1688	1620	Yes – Within 15%
EB Elm Street Onramp	707	732	Yes – Within 15%
EB Cherry Street Onramp	385	382	Yes – Within 100 Vehicles
EB Jefferson Street Onramp	634	629	Yes – Within 100 Vehicles
EB Best Street Offramp	168	129	Yes – Within 100 Vehicles
EB Best Street Onramp	944	922	Yes – Within 15%
EB Humboldt Parkway Offramp	250	247	Yes – Within 100 Vehicles
EB Offramp to Route 198 WB	1177	1287	Yes – Within 15%
EB Route 198 Ramp to Route 33 EB	1614	1609	Yes – Within 15%
WB Route 33 Ramp to Route 198 WB	1673	1672	Yes – Within 15%
WB Route 198 Ramp to Route 33 WB	1020	1018	Yes – Within 15%
WB Humboldt Parkway Offramp	678	596	Yes – Within 100 Vehicles
WB Humboldt Parkway Onramp	294	288	Yes – Within 100 Vehicles
WB Best Street Offramp	629	611	Yes – Within 100 Vehicles
WB Best Street Onramp	129	128	Yes – Within 100 Vehicles
WB Jefferson Street Offramp	344	360	Yes – Within 100 Vehicles
WB BFNC Drive Offramp	198	205	Yes – Within 100 Vehicles
WB Goodell Street Offramp	980	1013	Yes – Within 15%
WB Oak Street Offramp	714	737	Yes – Within 15%

100% of the model output volumes on the mainline expressway links and ramp links are within the calibration threshold targets during both the morning and evening peaks.

4.2 Travel Times

The following calibration targets were used for the travel time review:

Travel Speeds

- Travel speeds within 15% of observed values, or within 1 minute

Overall Travel Speed Calibration Summary

Calibration Metric	Calibration Target	AM Peak	PM Peak
Corridor Travel Speeds	Within 15% of Observed Value or within 1 minute	EB – 100% WB – 100%	EB – 100% WB – 100%

All of the travel speed results from the existing morning and evening peak models were within the target calibration ranges compared to the travel time and speed data collected.

The following tables provides the detailed segment validation summary for the morning and evening peak hour conditions with the average travel times/speeds collected between East Delavan Ave and Michigan Avenue and simulation output travel times/speeds, as well as calibration threshold results.

Validation Summary – Travel Times / Speeds - Morning Peak Hour - Eastbound			
Roadway Segment	Actual Value	Output Value	Does Value Meet Validation/Target Criteria?
<i>Route 33 Eastbound – Michigan to Delavan</i>	2.55 miles	2.47 miles	
Total Average Travel Time – Min	2.7	2.8	
Overall Average Speed - MPH	52.32	53.62	Yes – Within 15%
<i>Route 33 Eastbound – Michigan to Jefferson</i>	0.65 miles	0.64 miles	
Average Travel Time – min:sec	0:53.75	0:43.45	
Average Speed - MPH	44.14	52.84	Yes, within 11 seconds
<i>Route 33 Eastbound – Jefferson to High</i>	0.33 miles	0.32 miles	
Average Travel Time - min:sec	0:21.28	0:21.53	
Average Speed - MPH	55.95	54.13	Yes – Within 15%
<i>Route 33 Eastbound – High to Best</i>	0.30 miles	0.28 miles	
Average Travel Time - min:sec	0:18.41	0:18.40	
Average Speed - MPH	58.84	54.06	Yes – Within 15%
<i>Route 33 Eastbound – Best to W Parade</i>	0.12 miles	0.10 miles	
Average Travel Time - min:sec	0:7.77	0:6.97	
Average Speed - MPH	55.84	54.20	Yes – Within 15%
<i>Route 33 Eastbound – W Parade to Northampton</i>	0.15 miles	0.14 miles	
Average Travel Time - min:sec	0:9.56	0:9.58	
Average Speed - MPH	56.74	53.19	Yes – Within 15%
<i>Route 33 Eastbound – Northampton to E Utica</i>	0.25 miles	0.25 miles	
Average Travel Time - min:sec	0:16.44	0:16.67	
Average Speed - MPH	54.97	53.53	Yes – Within 15%
<i>Route 33 Eastbound – E Utica to E Ferry</i>	0.25 miles	0.25 miles	
Average Travel Time - min:sec	0:15.99	0:16.54	
Average Speed - MPH	56.54	53.81	Yes – Within 15%
<i>Route 33 Eastbound – E Ferry to E Delevan</i>	0.50 miles	0.49 miles	
Average Travel Time - min:sec	0:32.27	0:32.68	
Average Speed - MPH	55.94	54.26	Yes – Within 15%

Validation Summary – Travel Times / Speeds – Morning Peak Hour - Westbound			
Roadway Segment	Actual Value	Output Value	Does Value Meet Validation/Target Criteria?
<i>Route 33 Westbound –Delavan to Michigan</i>	2.55 miles	2.43 miles	
Total Average Travel Time - min	3.0	2.8	
Overall Average Speed - MPH	51.29	52.22	Yes – Within 15%
<i>Route 33 Westbound –Delavan to E Ferry</i>	0.50 miles	0.49 miles	
Average Travel Time - min:sec	0:35.30	0:33.08	
Average Speed - MPH	51.51	53.60	Yes – Within 15%
<i>Route 33 Westbound – E Ferry to E Utica</i>	0.25 miles	0.24 miles	
Average Travel Time - min:sec	0:16.55	0:16.23	
Average Speed - MPH	54.56	53.87	Yes – Within 15%
<i>Route 33 Westbound – E Utica to Northampton</i>	0.25 miles	0.24 miles	
Average Travel Time - min:sec	0:16.88	0:16.48	
Average Speed - MPH	53.53	53.46	Yes – Within 15%
<i>Route 33 Westbound – Northampton to W Parade</i>	0.15 miles	0.14 miles	
Average Travel Time - min:sec	0:9.59	0:9.62	
Average Speed - MPH	56.65	51.12	Yes – Within 15%
<i>Route 33 Westbound –W Parade to Best</i>	0.12 miles	0.11 miles	
Average Travel Time - min:sec	0:7.44	0:7.42	
Average Speed - MPH	58.69	53.41	Yes – Within 15%
<i>Route 33 Westbound – Best to High</i>	0.30 miles	0.27 miles	
Average Travel Time - min:sec	0:18.46	0:18.44	
Average Speed - MPH	58.63	53.53	Yes – Within 15%
<i>Route 33 Westbound – High to Jefferson</i>	0.33 miles	0.31 miles	
Average Travel Time - min:sec	0:20.42	0:24.25	
Average Speed - MPH	61.61	45.98	Yes – within 4 seconds
<i>Route 33 Westbound – Jefferson Michigan</i>	0.65 miles	0.63 miles	
Average Travel Time - min:sec	0:54.34	0:41.99	
Average Speed - MPH	44.82	54.05	Yes – within 13 seconds

Validation Summary – Travel Times / Speeds – Evening Peak Hour - Eastbound			
Roadway Segment	Actual Value	Output Value	Does Value Meet Validation/Target Criteria?
<i>Route 33 Eastbound – Michigan to Delavan</i>	2.55 miles	2.47 miles	
Total Average Travel Time - min	2.9	2.8	
Overall Average Speed - MPH	51.94	52.78	Yes – Within 15%
<i>Route 33 Eastbound – Michigan to Jefferson</i>	0.65 miles	0.64 miles	
Average Travel Time - min:sec	0:51.28	0:43.70	
Average Speed - MPH	46.26	52.56	Yes – Within 15%
<i>Route 33 Eastbound – Jefferson to High</i>	0.33 miles	0.32 miles	
Average Travel Time - min:sec	0:21.55	0:21.64	
Average Speed - MPH	55.17	53.75	Yes – Within 15%
<i>Route 33 Eastbound – High to Best</i>	0.30 miles	0.28 miles	
Average Travel Time - min:sec	0:19.10	0:18.54	
Average Speed - MPH	56.95	53.70	Yes – Within 15%
<i>Route 33 Eastbound – Best to W Parade</i>	0.12 miles	0.11 miles	
Average Travel Time - min:sec	0:8.14	0:7.18	
Average Speed - MPH	54.02	53.33	Yes – Within 15%

Validation Summary – Travel Times / Speeds – Evening Peak Hour - Eastbound			
Roadway Segment	Actual Value	Output Value	Does Value Meet Validation/Target Criteria?
<i>Route 33 Eastbound – W Parade to Northampton</i>	0.15 miles	0.14 miles	
Average Travel Time - min:sec	0:10.06	0:10.60	
Average Speed - MPH	54.17	48.04	Yes – Within 15%
<i>Route 33 Eastbound – Northampton to E Utica</i>	0.25 miles	0.25 miles	
Average Travel Time - min:sec	0:16.76	0:17.22	
Average Speed - MPH	54.16	52.31	Yes – Within 15%
<i>Route 33 Eastbound – E Utica to E Ferry</i>	0.25 miles	0.24 miles	
Average Travel Time - min:sec	0:16.17	0:16.71	
Average Speed - MPH	56.83	52.46	Yes – Within 15%
<i>Route 33 Eastbound – E Ferry to E Delevan</i>	0.50 miles	0.49 miles	
Average Travel Time - min:sec	0:33.68	0:32.87	
Average Speed - MPH	54.88	54.11	Yes – Within 15%

Validation Summary – Travel Times / Speeds – Evening Peak Hour - Westbound			
Roadway Segment	Actual Value	Output Value	Does Value Meet Validation/Target Criteria?
<i>Route 33 Westbound –Delavan to Michigan</i>	2.55 miles	2.45 miles	
Total Average Travel Time - min	2.9	2.7	
Overall Average Speed - MPH	51.87	54.12	Yes – Within 15%
<i>Route 33 Westbound –Delavan to E Ferry</i>	0.50 miles	0.49 miles	
Average Travel Time - min:sec	0:33.47	0:32.78	
Average Speed - MPH	53.97	54.10	Yes – Within 15%
<i>Route 33 Westbound – E Ferry to E Utica</i>	0.25 miles	0.25 miles	
Average Travel Time - min:sec	0:16.26	0:16.41	
Average Speed - MPH	55.50	54.09	Yes – Within 15%
<i>Route 33 Westbound – E Utica to Northampton</i>	0.25 miles	0.25 miles	
Average Travel Time - min:sec	0:16.48	0:16.60	
Average Speed - MPH	54.78	53.88	Yes – Within 15%
<i>Route 33 Westbound – Northampton to W Parade</i>	0.15 miles	0.14 miles	
Average Travel Time - min:sec	0:9.54	0:9.18	
Average Speed - MPH	56.78	53.51	Yes – Within 15%

<i>Route 33 Westbound –W Parade to Best</i>	0.12 miles	0.11 miles	
Average Travel Time - min:sec	0:7.43	0:7.32	
Average Speed - MPH	58.54	54.07	Yes – Within 15%
<i>Route 33 Westbound – Best to High</i>	0.30 miles	0.27 miles	
Average Travel Time - min:sec	0:18.44	0:18.14	
Average Speed - MPH	58.74	54.06	Yes – Within 15%
<i>Route 33 Westbound – High to Jefferson</i>	0.33 miles	0.31 miles	
Average Travel Time - min:sec	0:20.67	0:20.65	
Average Speed - MPH	57.58	54.08	Yes – Within 15%
<i>Route 33 Westbound – Jefferson Michigan</i>	0.65 miles	0.63 miles	
Average Travel Time - min:sec	0:54.68	0:41.89	
Average Speed - MPH	45.42	54.14	Yes- within 14 seconds

The travel speeds are all within the calibration threshold targets during both the morning and evening peak hours.

4.3 Traffic Queues

The following calibration targets were used for the queue review:

Maximum Queues

- Within 20% or Within 12 vehicles

Overall Queue Calibration Summary

Calibration Metric	Calibration Target	AM Peak	PM Peak
Queue Lengths	Within 20% or within 12 veh	89%	94%

89% of the queue results from the existing morning peak model and 94% of the queue results from the evening peak model were within the target calibration ranges compared to the queue data collected.

The following tables provide the detailed validation queue summary by location for the morning and evening peak hour conditions with the actual traffic queues and simulation output traffic queues shown, as well as calibration threshold results.

Validation Summary - Maximum Traffic Queues – Morning Peak Hour			
Segment	Observed Queue (ft)	Output Value (ft)	Does Value Meet Validation/Target Criteria?
East Delavan Street @ Humboldt Parkway NB			
Eastbound	300	178	Yes – Within 5 vehicles
Westbound	225	144	Yes – Within 4 vehicles
Northbound	325	201	Yes – Within 5 vehicles
East Utica Street @ Humboldt Parkway SB			
Eastbound	175	132	Yes – Within 2 vehicles
Westbound	75	94	Yes – Within 1 vehicle
Southbound	350	504	Yes – Within 6 vehicles
Best Street @ Route 33 WB Ramps			
Eastbound	275	300	Yes – Within 1 vehicle
Westbound	200	202	Yes – Within 1 vehicle
Southbound	505	875	No – Not within 12 vehicles
Best Street @ Route 33 EB Ramps			
Eastbound	350	289	Yes – Within 3 vehicles
Westbound	275	205	Yes – Within 3 vehicles
Northbound	125	136	Yes – Within 1 vehicle
Jefferson Street @ Route 33 WB Offramp/BFNC Dr.			

Validation Summary - Maximum Traffic Queues – Morning Peak Hour			
Segment	Observed Queue (ft)	Output Value (ft)	Does Value Meet Validation/Target Criteria?
Westbound	175	1274	No – Not within 12 vehicles
Northbound	160	163	Yes – Within 1 vehicle
Southbound	175	206	Yes – Within 2 vehicles
Jefferson Street @ Route 33 EB Onramp/Cherry St.			
Eastbound	50	0	Yes – Within 2 vehicles
Northbound	175	182	Yes – Within 1 vehicle
Southbound	200	187	Yes – Within 1 vehicle

The queue on the Route 33 westbound off ramp at Best Street was marginally higher than the target threshold. The queue on the Route 33 WB offramp at Jefferson Avenue was significantly longer than the observed queues during the morning peak. Neither traffic queue had a significant impact on traffic volumes, speeds or travel times within the model. Since the queues were associated with traffic on offramps exiting expressway, the correct volumes with acceptable calibration ranges were entering the expressway at these interchanges, and Synchro was being used to evaluate the intersection operations at the interchanges, no further adjustments were made.

Validation Summary - Maximum Traffic Queues – Evening Peak Hour			
Segment	Observed Queue (ft)	Output Value (ft)	Does Value Meet Validation/Target Criteria?
East Delavan Street @ Humboldt Parkway NB			
Eastbound	510	286	Yes – Within 9 vehicles
Westbound	575	281	Yes – Within 8 vehicles
Northbound	550	271	Yes – Within 11 vehicles
East Utica Street @ Humboldt Parkway SB			
Eastbound	135	146	Yes – Within 1 vehicle
Westbound	150	91	Yes – Within 3 vehicles
Southbound	300	642	No – Not within 12 vehicles
Best Street @ Route 33 WB Ramps			
Eastbound	425	509	Yes – Within 4 vehicles
Westbound	225	181	Yes – Within 3 vehicles
Southbound	495	574	Yes – Within 4 vehicles
Best Street @ Route 33 EB Ramps			
Eastbound	375	312	Yes – Within 3 vehicles
Westbound	200	408	Yes – Within 8 vehicles
Northbound	200	131	Yes – Within 3 vehicles
Jefferson Street @			

Validation Summary - Maximum Traffic Queues – Evening Peak Hour			
Segment	Observed Queue (ft)	Output Value (ft)	Does Value Meet Validation/Target Criteria?
Route 33 WB Offramp/BFNC Dr.			
Westbound	225	388	Yes – Within 7 vehicles
Northbound	175	210	Yes – Within 2 vehicles
Southbound	350	497	Yes – Within 6 vehicles
Jefferson Street @ Route 33 EB Onramp/Cherry St.			
Eastbound	75	0	Yes – Within 3 vehicles
Northbound	225	176	Yes – Within 2 vehicles
Southbound	400	321	Yes – Within 4 vehicles

The queue on the Humboldt Parkway southbound approach to Utica Street was marginally higher than the target threshold. This queue has no impact on expressway operations and the intersection analysis was completed using Synchro.

89% of the model output maximum queues at the interchange intersections are within the calibration threshold targets during the morning and 94% are within calibration thresholds during the evening peak hours.

4.4 Visual Validation

When all of the calibration targets were met, the project team reviewed the models and determined that they provided reasonable representation of existing traffic operations in terms of areas of congestion, speeds and travel times.

5. Conclusion

The base year 2022 microsimulation models for the morning and evening peak periods are calibrated to the satisfaction of the modeling team. The results presented in this report indicate that all of the traffic volumes and speeds, and over 85% of the queues are within the calibration targets for the project. Visual observations of the simulation indicate that the conditions on the expressway are consistent with observed field conditions. Therefore, the models meet the criteria to be used as the base for analysis of the future no build conditions and evaluation of future build alternative scenarios.

Calibration Summary

Calibration Metric	Calibration Target	AM Peak	PM Peak
Sum of All Link Flows	Within 5% of all link counts	+2.8%	-0.2%
Individual Link Volumes	Within 100 veh if < than 700 veh Within 15% if 700-2700 veh Within 400 veh if > than 2700 veh	EB – 100% WB – 100%	EB – 100% WB – 100%

Corridor Travel Speeds	Within 15% of Observed Value or within 1 minute	EB – 100% WB – 100%	EB – 100% WB – 100%
Queue Lengths	Within 20% or within 12 veh	89%	94%
Visual Review	To satisfaction of the project team based on observed field conditions	Yes	Yes

Appendix C2

Synchro Outputs for Concept 1

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	314	485	0	0	312	291	37	56	121	0	0	0
Future Volume (vph)	314	485	0	0	312	291	37	56	121	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.928			0.924				
Flt Protected		0.981						0.991				
Satd. Flow (prot)	0	3472	0	0	3284	0	0	1706	0	0	0	0
Flt Permitted		0.604						0.991				
Satd. Flow (perm)	0	2138	0	0	3284	0	0	1706	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					316			86				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		249			205			354			335	
Travel Time (s)		5.7			4.7			8.0			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	341	527	0	0	339	316	40	61	132	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	868	0	0	655	0	0	233	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (s)	50.0	50.0			50.0		20.0	20.0				
Total Split (%)	71.4%	71.4%			71.4%		28.6%	28.6%				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max			C-Max		None	None				
Act Effct Green (s)		45.5			45.5			15.5				
Actuated g/C Ratio		0.65			0.65			0.22				
v/c Ratio		0.62			0.29			0.52				
Control Delay		9.8			2.9			19.8				
Queue Delay		0.6			1.0			0.0				
Total Delay		10.4			3.9			19.8				
LOS		B			A			B				
Approach Delay		10.4			3.9			19.8				
Approach LOS		B			A			B				
Intersection Summary												
Area Type:	Other											
Cycle Length: 70												
Actuated Cycle Length: 70												

Lanes, Volumes, Timings
1: EB Off Ramp/EB On Ramp & Best St

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	20.0
Total Split (%)	29%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

02/09/2022

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.89

Intersection Signal Delay: 9.2

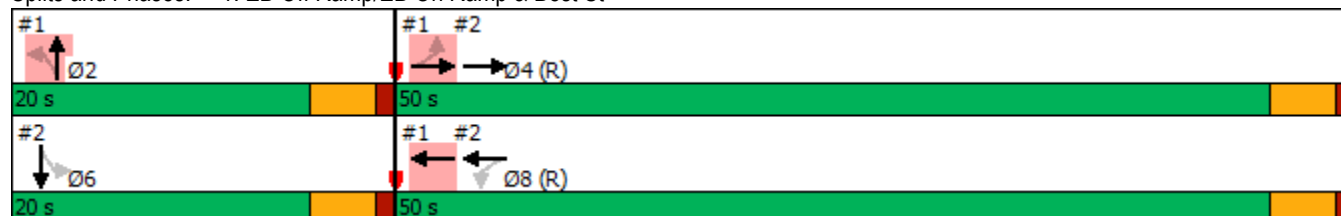
Intersection LOS: A

Intersection Capacity Utilization 64.2%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: EB Off Ramp/EB On Ramp & Best St



Lanes, Volumes, Timings
2: WB On Ramp/WB Off Ramp & Best St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑						↑↑	
Traffic Volume (vph)	0	469	41	109	242	0	0	0	0	334	0	428
Future Volume (vph)	0	469	41	109	242	0	0	0	0	334	0	428
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988									0.924	
Flt Protected					0.985						0.979	
Satd. Flow (prot)	0	3497	0	0	3486	0	0	0	0	0	1685	0
Flt Permitted					0.702						0.979	
Satd. Flow (perm)	0	3497	0	0	2485	0	0	0	0	0	1685	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27									85	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		473			249			324			375	
Travel Time (s)		10.8			5.7			7.4			8.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	510	45	118	263	0	0	0	0	363	0	465
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	555	0	0	381	0	0	0	0	0	828	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		50.0		50.0	50.0					20.0	20.0	
Total Split (%)		71.4%		71.4%	71.4%					28.6%	28.6%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0			0.0						0.0	
Total Lost Time (s)		4.5			4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max		C-Max	C-Max					None	None	
Act Effct Green (s)		45.5			45.5						15.5	
Actuated g/C Ratio		0.65			0.65						0.22	
v/c Ratio		0.24			0.24						1.89	
Control Delay		5.1			4.2						428.4	
Queue Delay		0.0			0.2						0.1	
Total Delay		5.2			4.4						428.6	
LOS		A			A						F	
Approach Delay		5.2			4.4						428.6	
Approach LOS		A			A						F	
Intersection Summary												

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	20.0
Total Split (%)	29%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

02/09/2022

Analysis Period (min) 15

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

02/09/2022

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	41	4	476	84	39	486	2	23	48	17	1	5
Future Volume (vph)	41	4	476	84	39	486	2	23	48	17	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr t			0.979			0.994				0.989		
Fl t Protected			0.996			0.996				0.967		
Satd. Flow (prot)	0	0	3451	0	0	1844	0	0	0	1781	0	0
Fl t Permitted			0.891			0.926				0.770		
Satd. Flow (perm)	0	0	3087	0	0	1715	0	0	0	1419	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			47			6				5		
Link Speed (mph)			30			30				30		
Link Distance (ft)			205			1418				1329		
Travel Time (s)			4.7			32.2				30.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	4	517	91	42	528	2	25	52	18	1	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	657	0	0	597	0	0	0	76	0	0
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		
Protected Phases			4			8				2		
Permitted Phases	4	4			8				2			
Detector Phase	4	4	4		8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			5.0	5.0		
Minimum Split (s)	22.5	22.5	22.5		22.5	22.5			22.5	22.5		
Total Split (s)	32.0	32.0	32.0		32.0	32.0			23.0	23.0		
Total Split (%)	58.2%	58.2%	58.2%		58.2%	58.2%			41.8%	41.8%		
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5			3.5	3.5		
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0			1.0	1.0		
Lost Time Adjust (s)			0.0			0.0				0.0		
Total Lost Time (s)			4.5			4.5				4.5		
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None		None	None			Max	Max		
Act Effect Green (s)			21.3			21.3				18.8		
Actuated g/C Ratio			0.43			0.43				0.38		
v/c Ratio			0.48			0.80				0.14		
Control Delay			10.1			20.8				12.3		
Queue Delay			0.3			0.0				0.0		
Total Delay			10.4			20.8				12.3		
LOS			B			C				B		
Approach Delay			10.4			20.8				12.3		
Approach LOS			B			C				B		
Intersection Summary												
Area Type:	Other											
Cycle Length: 55												
Actuated Cycle Length: 49.2												

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

02/09/2022



Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	57	35	71
Future Volume (vph)	57	35	71
Ideal Flow (vphpl)	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00
Fr't		0.941	
Flt Protected		0.983	
Satd. Flow (prot)	0	1723	0
Flt Permitted		0.886	
Satd. Flow (perm)	0	1553	0
Right Turn on Red			Yes
Satd. Flow (RTOR)		76	
Link Speed (mph)		30	
Link Distance (ft)		738	
Travel Time (s)		16.8	
Peak Hour Factor	0.92	0.92	0.92
Adj. Flow (vph)	62	38	77
Shared Lane Traffic (%)			
Lane Group Flow (vph)	0	177	0
Turn Type	Perm	NA	
Protected Phases		6	
Permitted Phases	6		
Detector Phase	6	6	
Switch Phase			
Minimum Initial (s)	5.0	5.0	
Minimum Split (s)	22.5	22.5	
Total Split (s)	23.0	23.0	
Total Split (%)	41.8%	41.8%	
Yellow Time (s)	3.5	3.5	
All-Red Time (s)	1.0	1.0	
Lost Time Adjust (s)		0.0	
Total Lost Time (s)		4.5	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	Max	Max	
Act Effct Green (s)		18.8	
Actuated g/C Ratio		0.38	
v/c Ratio		0.28	
Control Delay		9.2	
Queue Delay		0.0	
Total Delay		9.2	
LOS		A	
Approach Delay		9.2	
Approach LOS		A	
Intersection Summary			

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

02/09/2022

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 14.5

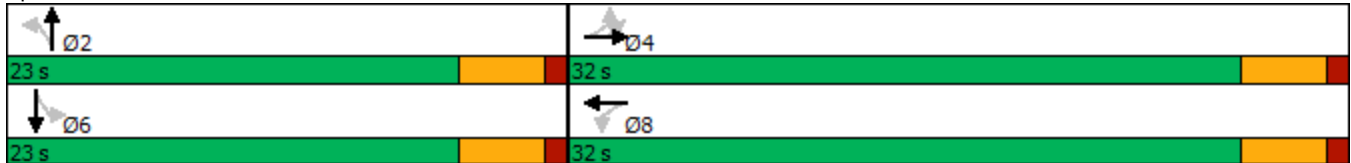
Intersection LOS: B

Intersection Capacity Utilization 67.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 3: Herman St/W Parade Ave & Best St



Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	58	1	5	55	0	0	0	0	65	57	22
Future Volume (vph)	0	58	1	5	55	0	0	0	0	65	57	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't		0.998									0.979	
Flt Protected					0.996						0.978	
Satd. Flow (prot)	0	1859	0	0	1855	0	0	0	0	0	1784	0
Flt Permitted					0.990						0.978	
Satd. Flow (perm)	0	1859	0	0	1844	0	0	0	0	0	1784	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1									12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1045			283			370			293	
Travel Time (s)		23.8			6.4			8.4			6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	63	1	5	60	0	0	0	0	71	62	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	64	0	0	65	0	0	0	0	0	157	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		50.0		50.0	50.0					20.0	20.0	
Total Split (%)		71.4%		71.4%	71.4%					28.6%	28.6%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0			0.0						0.0	
Total Lost Time (s)		4.5			4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max		C-Max	C-Max					Max	Max	
Act Effct Green (s)		45.5			45.5						15.5	
Actuated g/C Ratio		0.65			0.65						0.22	
v/c Ratio		0.05			0.05						0.39	
Control Delay		4.5			2.9						14.9	
Queue Delay		0.0			0.0						0.0	
Total Delay		4.5			2.9						14.9	
LOS		A			A						B	
Approach Delay		4.5			2.9						14.9	
Approach LOS		A			A						B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 70												
Actuated Cycle Length: 70												

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	20.0
Total Split (%)	29%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

02/09/2022

Offset: 33.6 (48%), Referenced to phase 4:EBT and 8:WBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 9.9

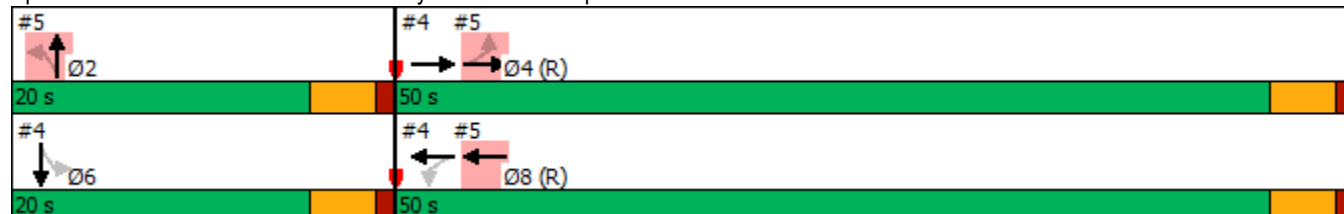
Intersection LOS: A

Intersection Capacity Utilization 22.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: Humboldt Parkway SB & Northhampton St



Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	71	0	0	80	22	5	20	8	0	0	0
Future Volume (vph)	22	71	0	0	80	22	5	20	8	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.971			0.966				
Flt Protected		0.988						0.993				
Satd. Flow (prot)	0	1840	0	0	1809	0	0	1787	0	0	0	0
Flt Permitted		0.941						0.993				
Satd. Flow (perm)	0	1753	0	0	1809	0	0	1787	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					24			9				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		283			1089			152				722
Travel Time (s)		6.4			24.8			3.5				16.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	77	0	0	87	24	5	22	9	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	101	0	0	111	0	0	36	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (s)	50.0	50.0			50.0		20.0	20.0				
Total Split (%)	71.4%	71.4%			71.4%		28.6%	28.6%				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max			C-Max		Max	Max				
Act Effct Green (s)		45.5			45.5			15.5				
Actuated g/C Ratio		0.65			0.65			0.22				
v/c Ratio		0.09			0.09			0.09				
Control Delay		6.8			3.9			18.4				
Queue Delay		0.0			0.0			0.0				
Total Delay		6.8			3.9			18.4				
LOS		A			A			B				
Approach Delay		6.8			3.9			18.4				
Approach LOS		A			A			B				
Intersection Summary												
Area Type:	Other											
Cycle Length: 70												
Actuated Cycle Length: 70												

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	20.0
Total Split (%)	29%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

02/09/2022

Offset: 33.6 (48%), Referenced to phase 4:EBT and 8:WBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 7.2

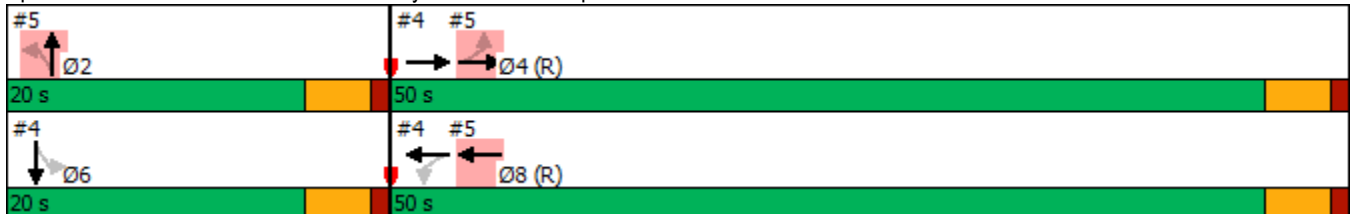
Intersection LOS: A

Intersection Capacity Utilization 23.3%

ICU Level of Service A

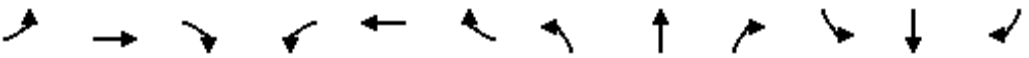
Analysis Period (min) 15

Splits and Phases: 5: Humboldt Parkway NB & Northhampton St



Lanes, Volumes, Timings
6: Humboldt Parkway SB & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰		↰	↰						↰↰	
Traffic Volume (vph)	0	85	34	74	109	0	0	0	0	52	363	62
Future Volume (vph)	0	85	34	74	109	0	0	0	0	52	363	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.961									0.981	
Flt Protected				0.950							0.995	
Satd. Flow (prot)	0	1790	0	1770	1863	0	0	0	0	0	3455	0
Flt Permitted				0.674							0.995	
Satd. Flow (perm)	0	1790	0	1255	1863	0	0	0	0	0	3455	0
Right Turn on Red			Yes			Yes				Yes		Yes
Satd. Flow (RTOR)		37									21	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1173			153			636			456	
Travel Time (s)		26.7			3.5			14.5			10.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	92	37	80	118	0	0	0	0	57	395	67
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	129	0	80	118	0	0	0	0	0	519	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		50.0		50.0	50.0					20.0	20.0	
Total Split (%)		71.4%		71.4%	71.4%					28.6%	28.6%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		4.5		4.5	4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max		C-Max	C-Max					Max	Max	
Act Effct Green (s)		45.5		45.5	45.5						15.5	
Actuated g/C Ratio		0.65		0.65	0.65						0.22	
v/c Ratio		0.11		0.10	0.10						0.66	
Control Delay		3.6		5.7	5.7						28.6	
Queue Delay		0.0		2.1	2.4						0.0	
Total Delay		3.6		7.8	8.1						28.6	
LOS		A		A	A						C	
Approach Delay		3.6			8.0						28.6	
Approach LOS		A			A						C	
Intersection Summary												

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	20.0
Total Split (%)	29%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

02/09/2022

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 20.0

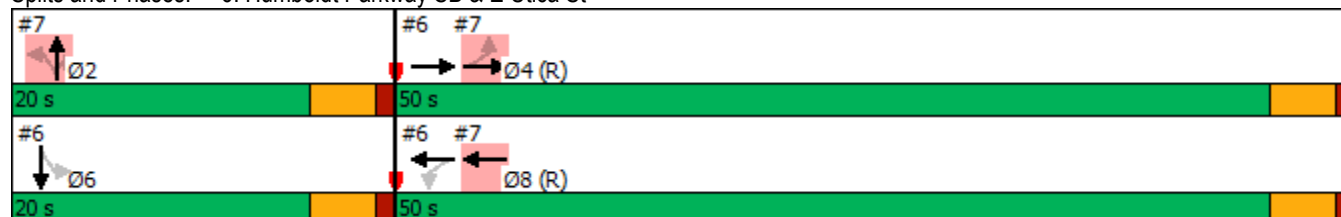
Intersection LOS: B

Intersection Capacity Utilization 51.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: Humboldt Parkway SB & E Utica St



Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	88	0	0	107	17	75	217	52	0	0	0
Future Volume (vph)	51	88	0	0	107	17	75	217	52	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.982				0.850			
Fl _t Protected	0.950							0.987				
Satd. Flow (prot)	1770	1863	0	0	1829	0	0	1839	1583	0	0	0
Fl _t Permitted	0.671							0.987				
Satd. Flow (perm)	1250	1863	0	0	1829	0	0	1839	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					18				57			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		153			1083			610			294	
Travel Time (s)		3.5			24.6			13.9			6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	55	96	0	0	116	18	82	236	57	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	55	96	0	0	134	0	0	318	57	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	50.0	50.0			50.0		20.0	20.0	20.0			
Total Split (%)	71.4%	71.4%			71.4%		28.6%	28.6%	28.6%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max			C-Max		Max	Max	Max			
Act Effct Green (s)	45.5	45.5			45.5			15.5	15.5			
Actuated g/C Ratio	0.65	0.65			0.65			0.22	0.22			
v/c Ratio	0.07	0.08			0.11			0.78	0.14			
Control Delay	5.6	5.7			4.3			41.1	8.2			
Queue Delay	1.5	2.1			0.0			0.0	0.0			
Total Delay	7.2	7.8			4.3			41.1	8.2			
LOS	A	A			A			D	A			
Approach Delay		7.5			4.3			36.1				
Approach LOS		A			A			D				
Intersection Summary												
Area Type:	Other											
Cycle Length: 70												
Actuated Cycle Length: 70												

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	20.0
Total Split (%)	29%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

02/09/2022

Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 23.1

Intersection LOS: C

Intersection Capacity Utilization 51.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 7: Humboldt Parkway NB & E Utica St



Lanes, Volumes, Timings
8: Humboldt Parkway SB & E Ferry St

02/09/2022

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	268	50	95	173	0	0	0	0	228	337	408	
Future Volume (vph)	0	268	50	95	173	0	0	0	0	228	337	408	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.979											0.850	
Flt Protected				0.950							0.980		
Satd. Flow (prot)	0	1824	0	1770	1863	0	0	0	0	0	1825	1583	
Flt Permitted				0.495							0.980		
Satd. Flow (perm)	0	1824	0	922	1863	0	0	0	0	0	1825	1583	
Right Turn on Red				Yes		Yes		Yes					
Satd. Flow (RTOR)	25											443	
Link Speed (mph)	30					30		30			30		
Link Distance (ft)	1179					147		319			270		
Travel Time (s)	26.8					3.3		7.3			6.1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	291	54	103	188	0	0	0	0	248	366	443	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	345	0	103	188	0	0	0	0	0	614	443	
Turn Type	NA		Perm		NA					Perm		NA	Perm
Protected Phases	4				8							6	
Permitted Phases			8							6		6	
Detector Phase	4		8		8					6		6	6
Switch Phase													
Minimum Initial (s)	5.0		5.0		5.0					5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5					22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5					22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%					50.0%		50.0%	50.0%
Yellow Time (s)	3.5		3.5		3.5					3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0					1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0							0.0	0.0
Total Lost Time (s)	4.5		4.5		4.5							4.5	4.5
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode	C-Max		C-Max		C-Max					Max		Max	Max
Act Effct Green (s)	18.0		18.0		18.0							18.0	18.0
Actuated g/C Ratio	0.40		0.40		0.40							0.40	0.40
v/c Ratio	0.46		0.28		0.25							0.84	0.49
Control Delay	11.7		6.4		5.5							26.3	3.4
Queue Delay	0.2		0.7		0.9							2.6	0.0
Total Delay	11.9		7.2		6.3							28.9	3.4
LOS	B		A		A							C	A
Approach Delay	11.9				6.6							18.2	
Approach LOS	B				A							B	
Intersection Summary													
Area Type:	Other												
Cycle Length: 45													
Actuated Cycle Length: 45													

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

02/09/2022

Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 14.9

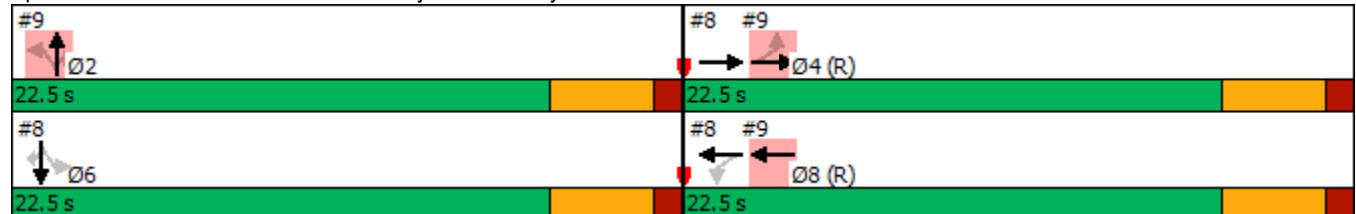
Intersection LOS: B

Intersection Capacity Utilization 86.0%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 8: Humboldt Parkway SB & E Ferry St



Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	225	277	0	0	226	67	46	199	40	0	0	0
Future Volume (vph)	225	277	0	0	226	67	46	199	40	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	75		0	0		0
Storage Lanes	1		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.969				0.850			
Flt Protected	0.950							0.991				
Satd. Flow (prot)	1770	1863	0	0	1805	0	0	1846	1583	0	0	0
Flt Permitted	0.526							0.991				
Satd. Flow (perm)	980	1863	0	0	1805	0	0	1846	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					40				43			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		147			1082			312			608	
Travel Time (s)		3.3			24.6			7.1			13.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	245	301	0	0	246	73	50	216	43	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	245	301	0	0	319	0	0	266	43	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max			C-Max		Max	Max	Max			
Act Effct Green (s)	18.0	18.0			18.0			18.0	18.0			
Actuated g/C Ratio	0.40	0.40			0.40			0.40	0.40			
v/c Ratio	0.62	0.40			0.43			0.36	0.07			
Control Delay	16.3	8.9			10.7			11.2	3.8			
Queue Delay	3.4	3.0			0.0			0.0	0.0			
Total Delay	19.8	11.9			10.7			11.2	3.8			
LOS	B	B			B			B	A			
Approach Delay		15.4			10.7			10.2				
Approach LOS		B			B			B				
Intersection Summary												

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

02/09/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 12.8

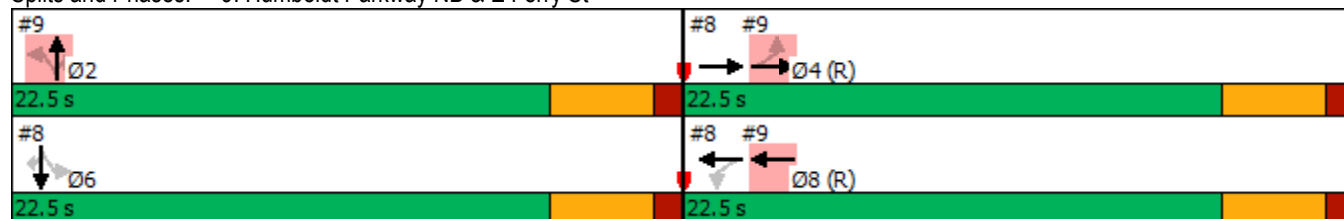
Intersection LOS: B

Intersection Capacity Utilization 86.0%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 9: Humboldt Parkway NB & E Ferry St



Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

02/09/2022

												
Lane Group	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	Ø8
Lane Configurations												
Traffic Volume (vph)	12	7	0	0	326	199	134	510	0	0	0	
Future Volume (vph)	12	7	0	0	326	199	134	510	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	
Fr't					0.943							
Flt Protected		0.950						0.990				
Satd. Flow (prot)	0	1770	0	0	3337	0	0	3504	0	0	0	
Flt Permitted		0.950						0.725				
Satd. Flow (perm)	0	1770	0	0	3337	0	0	2566	0	0	0	
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)					216							
Link Speed (mph)		30			30			30		30		
Link Distance (ft)		537			328			271		387		
Travel Time (s)		12.2			7.5			6.2		8.8		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	13	8	0	0	354	216	146	554	0	0	0	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	21	0	0	570	0	0	700	0	0	0	
Turn Type	Perm	Prot			NA		Perm	NA				
Protected Phases		4			2			6				8
Permitted Phases	4						6					
Detector Phase	4	4			2		6	6				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				5.0
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				22.5
Total Split (s)	22.5	22.5			22.5		22.5	22.5				22.5
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%				50%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				3.5
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				1.0
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			C-Max		C-Max	C-Max				None
Act Effct Green (s)		17.3			18.7			18.7				
Actuated g/C Ratio		0.38			0.42			0.42				
v/c Ratio		0.03			0.38			0.66				
Control Delay		8.4			6.6			9.9				
Queue Delay		0.0			0.0			0.0				
Total Delay		8.4			6.6			9.9				
LOS		A			A			A				
Approach Delay		8.4			6.6			9.9				
Approach LOS		A			A			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 45												

Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

02/09/2022

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.93

Intersection Signal Delay: 8.4

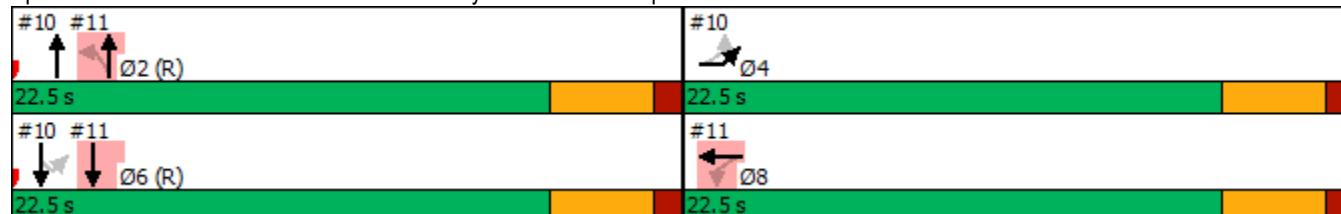
Intersection LOS: A

Intersection Capacity Utilization 48.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 10: Jefferson Ave & Cherry St & EB On Ramp



Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Traffic Volume (vph)	0	0	0	246	22	382	39	296	0	0	387	20
Future Volume (vph)	0	0	0	246	22	382	39	296	0	0	387	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt					0.921						0.993	
Flt Protected					0.981			0.994				
Satd. Flow (prot)	0	0	0	0	1683	0	0	3518	0	0	3514	0
Flt Permitted					0.981			0.877				
Satd. Flow (perm)	0	0	0	0	1683	0	0	3104	0	0	3514	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					190						14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			384			271			880	
Travel Time (s)		12.9			8.7			6.2			20.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	267	24	415	42	322	0	0	421	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	706	0	0	364	0	0	443	0
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8			2					
Detector Phase				8	8		2	2			6	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (%)				50.0%	50.0%		50.0%	50.0%			50.0%	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				None	None		C-Max	C-Max			C-Max	
Act Effect Green (s)					17.3			18.7			18.7	
Actuated g/C Ratio					0.38			0.42			0.42	
v/c Ratio					0.93			0.28			0.30	
Control Delay					31.7			6.0			9.5	
Queue Delay					0.0			0.0			0.0	
Total Delay					31.7			6.0			9.5	
LOS					C			A			A	
Approach Delay					31.7			6.0			9.5	
Approach LOS					C			A			A	
Intersection Summary												

Lanes, Volumes, Timings
11: Jefferson Ave & BFNC Dr/WB Off Ramp

02/09/2022

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

02/09/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.93

Intersection Signal Delay: 19.0

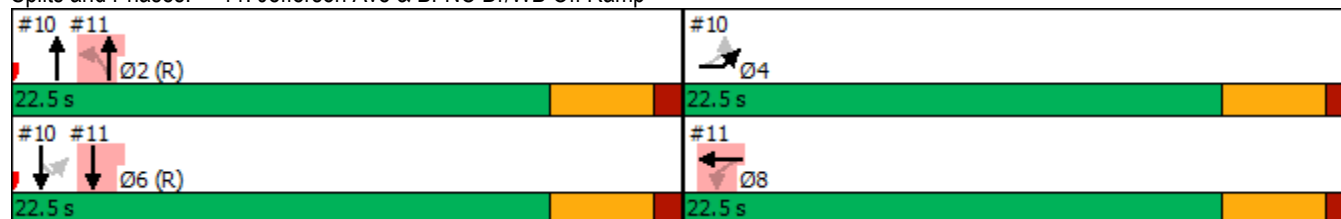
Intersection LOS: B

Intersection Capacity Utilization 70.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 11: Jefferson Ave & BFNC Dr/WB Off Ramp



Lanes, Volumes, Timings
12: Jefferson Ave & Genesee St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	80	10	72	164	36	8	412	24	27	410	65
Future Volume (vph)	34	80	10	72	164	36	8	412	24	27	410	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.988			0.980			0.992			0.980	
Flt Protected		0.986			0.987			0.999			0.997	
Satd. Flow (prot)	0	3448	0	0	3423	0	0	3507	0	0	3458	0
Flt Permitted		0.813			0.839			0.945			0.920	
Satd. Flow (perm)	0	2843	0	0	2910	0	0	3318	0	0	3191	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			39			15			44	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		737			2886			735			328	
Travel Time (s)		16.8			65.6			16.7			7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	87	11	78	178	39	9	448	26	29	446	71
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	135	0	0	295	0	0	483	0	0	546	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.7			8.7			20.0			20.0	
Actuated g/C Ratio		0.23			0.23			0.53			0.53	
v/c Ratio		0.20			0.42			0.27			0.32	
Control Delay		10.6			11.9			5.7			5.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.6			11.9			5.7			5.7	
LOS		B			B			A			A	
Approach Delay		10.6			11.9			5.7			5.7	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.8												

Lanes, Volumes, Timings

12: Jefferson Ave & Genesee St

02/09/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 7.4

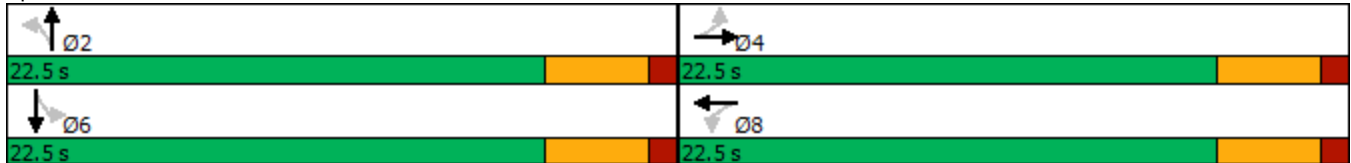
Intersection LOS: A

Intersection Capacity Utilization 53.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 12: Jefferson Ave & Genesee St



Lanes, Volumes, Timings
13: Herman St & Genesee St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	173	3	13	354	9	17	55	5	29	83	11
Future Volume (vph)	11	173	3	13	354	9	17	55	5	29	83	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.996			0.992			0.988	
Flt Protected		0.997			0.998			0.989			0.988	
Satd. Flow (prot)	0	3522	0	0	3518	0	0	1828	0	0	1818	0
Flt Permitted		0.933			0.946			0.928			0.893	
Satd. Flow (perm)	0	3295	0	0	3335	0	0	1715	0	0	1643	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			7			5			12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2886			671			575			1329	
Travel Time (s)		65.6			15.3			13.1			30.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	188	3	14	385	10	18	60	5	32	90	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	203	0	0	409	0	0	83	0	0	134	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effct Green (s)		25.1			25.1			7.7			7.9	
Actuated g/C Ratio		0.70			0.70			0.21			0.22	
v/c Ratio		0.09			0.18			0.22			0.36	
Control Delay		4.3			4.4			11.8			13.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		4.3			4.4			11.8			13.4	
LOS		A			A			B			B	
Approach Delay		4.3			4.4			11.8			13.4	
Approach LOS		A			A			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.9												

Lanes, Volumes, Timings

13: Herman St & Genesee St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.36

Intersection Signal Delay: 6.6

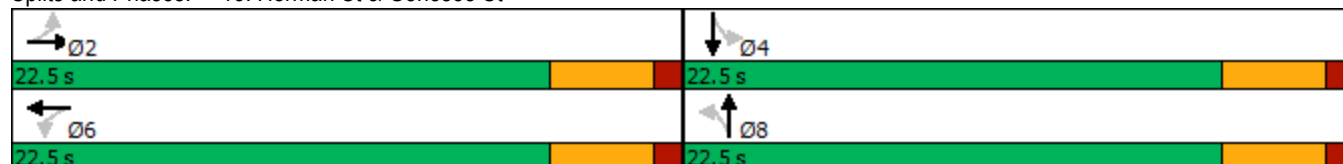
Intersection LOS: A

Intersection Capacity Utilization 36.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 13: Herman St & Genesee St



Lanes, Volumes, Timings
14: Reed St/Rich St & Genesee St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	203	0	0	374	10	10	3	9	4	0	4
Future Volume (vph)	2	203	0	0	374	10	10	3	9	4	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.996			0.944			0.932	
Fl _t Protected								0.978			0.976	
Satd. Flow (prot)	0	3539	0	0	3525	0	0	1720	0	0	1694	0
Fl _t Permitted		0.953										
Satd. Flow (perm)	0	3373	0	0	3525	0	0	1758	0	0	1736	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7			10			36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		671			961			780			839	
Travel Time (s)		15.3			21.8			17.7			19.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	221	0	0	407	11	11	3	10	4	0	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	223	0	0	418	0	0	24	0	0	8	0
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2						8			4		
Detector Phase	2	2			6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		None	None		None	None	
Act Effct Green (s)		35.2			35.2			6.0			5.8	
Actuated g/C Ratio		0.92			0.92			0.16			0.15	
v/c Ratio		0.07			0.13			0.08			0.03	
Control Delay		1.3			1.3			12.0			1.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		1.3			1.3			12.0			1.3	
LOS		A			A			B			A	
Approach Delay		1.3			1.3			12.0			1.3	
Approach LOS		A			A			B			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 38.2												

Lanes, Volumes, Timings

14: Reed St/Rich St & Genesee St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.13

Intersection Signal Delay: 1.7

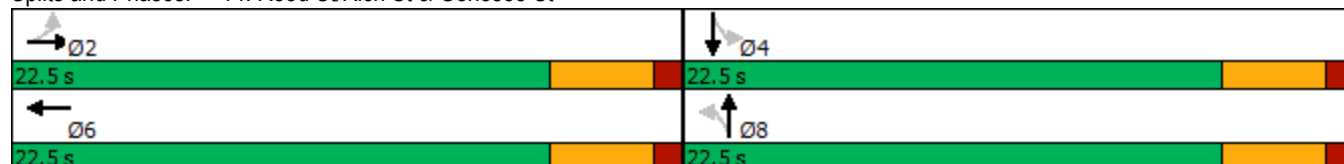
Intersection LOS: A

Intersection Capacity Utilization 22.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Reed St/Rich St & Genesee St



Lanes, Volumes, Timings
15: Fillmore Ave & Genesee St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	160	29	82	301	4	31	235	48	9	296	37
Future Volume (vph)	28	160	29	82	301	4	31	235	48	9	296	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.999			0.979			0.985	
Flt Protected		0.994			0.990			0.995			0.999	
Satd. Flow (prot)	0	3448	0	0	3500	0	0	1815	0	0	1833	0
Flt Permitted		0.871			0.830			0.943			0.989	
Satd. Flow (perm)	0	3021	0	0	2935	0	0	1720	0	0	1815	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32			2			24			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		961			671			704			490	
Travel Time (s)		21.8			15.3			16.0			11.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	174	32	89	327	4	34	255	52	10	322	40
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	236	0	0	420	0	0	341	0	0	372	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		10.9			10.9			18.1			18.1	
Actuated g/C Ratio		0.29			0.29			0.48			0.48	
v/c Ratio		0.27			0.50			0.41			0.43	
Control Delay		9.5			13.3			8.7			9.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.5			13.3			8.7			9.0	
LOS		A			B			A			A	
Approach Delay		9.5			13.3			8.7			9.0	
Approach LOS		A			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 38												

Lanes, Volumes, Timings

15: Fillmore Ave & Genesee St

02/09/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.50

Intersection Signal Delay: 10.3

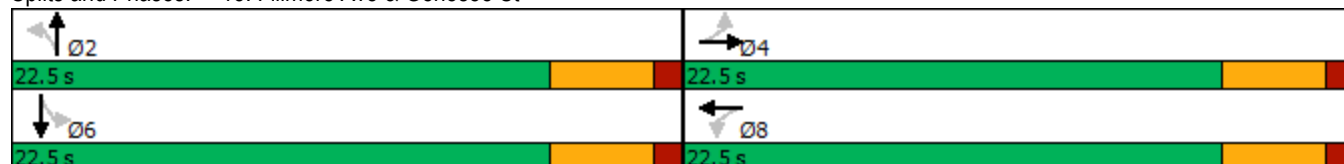
Intersection LOS: B

Intersection Capacity Utilization 58.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 15: Fillmore Ave & Genesee St



Lanes, Volumes, Timings
16: Fillmore Ave & Best St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	311	145	2	365	14	117	206	8	17	219	40
Future Volume (vph)	37	311	145	2	365	14	117	206	8	17	219	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.995			0.997				0.850
Flt Protected		0.996						0.983			0.996	
Satd. Flow (prot)	0	1781	0	0	1853	0	0	1826	0	0	1855	1583
Flt Permitted		0.955			0.998			0.799			0.966	
Satd. Flow (perm)	0	1708	0	0	1850	0	0	1484	0	0	1799	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		56			5			3				43
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1418			567			490				61
Travel Time (s)		32.2			12.9			11.1				1.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	40	338	158	2	397	15	127	224	9	18	238	43
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	536	0	0	414	0	0	360	0	0	256	43
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)		4.5			4.5			4.5			4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	C-Max
Act Effct Green (s)		16.3			16.3			19.7			19.7	19.7
Actuated g/C Ratio		0.36			0.36			0.44			0.44	0.44
v/c Ratio		0.82			0.62			0.55			0.33	0.06
Control Delay		23.9			15.7			14.2			2.8	0.2
Queue Delay		2.3			0.5			0.0			0.0	0.0
Total Delay		26.1			16.2			14.2			2.8	0.2
LOS		C			B			B			A	A
Approach Delay		26.1			16.2			14.2			2.4	
Approach LOS		C			B			B			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 45												

Lanes, Volumes, Timings

16: Fillmore Ave & Best St

02/09/2022

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 16.5

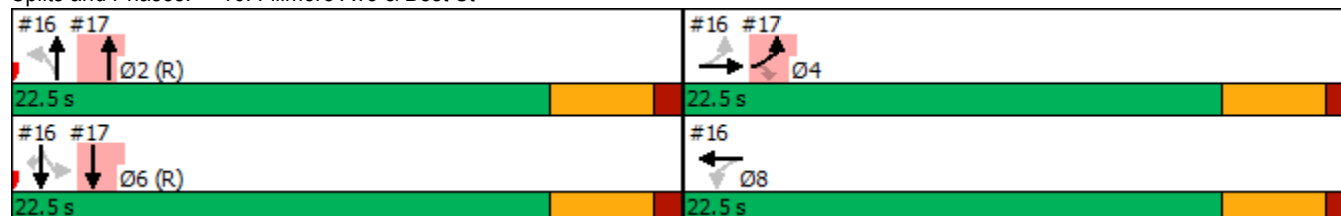
Intersection LOS: B

Intersection Capacity Utilization 92.7%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 16: Fillmore Ave & Best St



Lanes, Volumes, Timings
17: Fillmore Ave & East Park

02/09/2022

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	5	3	0	258	276	0	
Future Volume (vph)	5	3	0	258	276	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	0			100	
Storage Lanes	1	1	0			1	
Taper Length (ft)	25		25				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	
Frt		0.850					
Flt Protected	0.950						
Satd. Flow (prot)	1770	1583	0	1863	3539	0	
Flt Permitted	0.950						
Satd. Flow (perm)	1770	1583	0	1863	3539	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		3					
Link Speed (mph)	30			30	30		
Link Distance (ft)	468			61	755		
Travel Time (s)	10.6			1.4	17.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	5	3	0	280	300	0	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	5	3	0	280	300	0	
Turn Type	Prot	Perm		NA	NA		
Protected Phases	4			2	6		8
Permitted Phases		4					
Detector Phase	4	4		2	6		
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5
Total Split (s)	22.5	22.5		22.5	22.5		22.5
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		
Total Lost Time (s)	4.5	4.5		4.5	4.5		
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None		C-Max	C-Max		None
Act Effct Green (s)	16.3	16.3		19.7	19.7		
Actuated g/C Ratio	0.36	0.36		0.44	0.44		
v/c Ratio	0.01	0.01		0.34	0.19		
Control Delay	8.2	6.3		4.5	8.9		
Queue Delay	0.0	0.0		0.0	0.0		
Total Delay	8.2	6.3		4.5	8.9		
LOS	A	A		A	A		
Approach Delay	7.5			4.5	8.9		
Approach LOS	A			A	A		
Intersection Summary							

Lanes, Volumes, Timings

17: Fillmore Ave & East Park

02/09/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 6.8

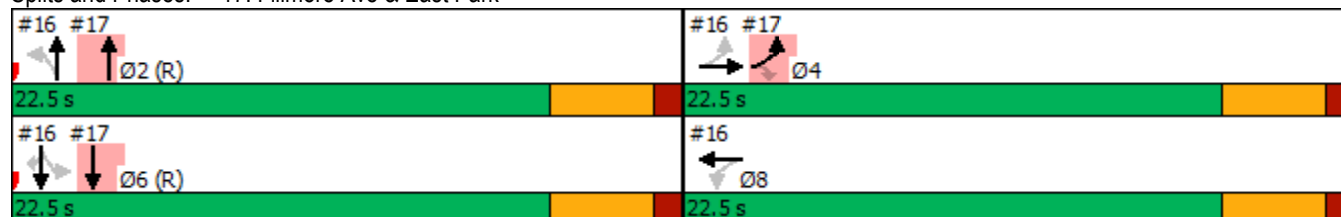
Intersection LOS: A

Intersection Capacity Utilization 25.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Fillmore Ave & East Park



Lanes, Volumes, Timings
18: Fillmore Ave & MLK Park

02/09/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	11	21	0	206	253	0
Future Volume (vph)	11	21	0	206	253	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr't	0.850					
Flt Protected	0.950					
Satd. Flow (prot)	1770	1583	0	1863	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1583	0	1863	1863	0
Right Turn on Red	Yes					
Satd. Flow (RTOR)	23					
Link Speed (mph)	30			30	30	
Link Distance (ft)	526			755	579	
Travel Time (s)	12.0			17.2	13.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	23	0	224	275	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	12	23	0	224	275	0
Turn Type	Prot	Perm		NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4				
Detector Phase	4	4		2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None		Max	Max	
Act Effect Green (s)	5.9	5.9		35.2	35.2	
Actuated g/C Ratio	0.15	0.15		0.92	0.92	
v/c Ratio	0.04	0.09		0.13	0.16	
Control Delay	14.5	8.5		1.6	1.6	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	14.5	8.5		1.6	1.6	
LOS	B	A		A	A	
Approach Delay	10.5			1.6	1.6	
Approach LOS	B			A	A	
Intersection Summary						
Area Type:	Other					
Cycle Length: 45						
Actuated Cycle Length: 38.2						

Lanes, Volumes, Timings

18: Fillmore Ave & MLK Park

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.16

Intersection Signal Delay: 2.2

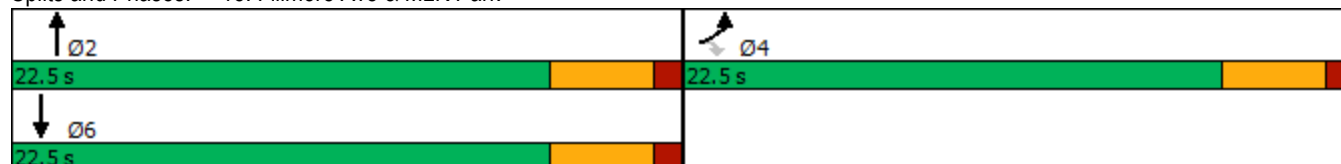
Intersection LOS: A

Intersection Capacity Utilization 25.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Fillmore Ave & MLK Park



Lanes, Volumes, Timings
19: Fillmore Ave & Northhampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	59	10	12	33	9	9	173	20	24	241	43
Future Volume (vph)	17	59	10	12	33	9	9	173	20	24	241	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.984			0.977			0.986			0.981	
Flt Protected		0.990			0.989			0.998			0.996	
Satd. Flow (prot)	0	1815	0	0	1800	0	0	1833	0	0	1820	0
Flt Permitted		0.917			0.897			0.985			0.973	
Satd. Flow (perm)	0	1681	0	0	1632	0	0	1809	0	0	1778	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			10			15			22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1089			291			579			735	
Travel Time (s)		24.8			6.6			13.2			16.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	64	11	13	36	10	10	188	22	26	262	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	93	0	0	59	0	0	220	0	0	335	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		7.2			7.1			26.6			26.6	
Actuated g/C Ratio		0.20			0.19			0.72			0.72	
v/c Ratio		0.28			0.18			0.17			0.26	
Control Delay		12.9			11.4			4.2			4.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.9			11.4			4.2			4.6	
LOS		B			B			A			A	
Approach Delay		12.9			11.4			4.2			4.6	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.9												

Lanes, Volumes, Timings

19: Fillmore Ave & Northhampton St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.28

Intersection Signal Delay: 6.1

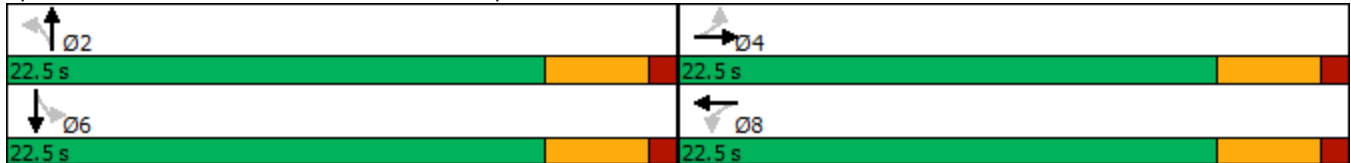
Intersection LOS: A

Intersection Capacity Utilization 37.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 19: Fillmore Ave & Northhampton St



Lanes, Volumes, Timings
21: Fillmore Ave & Riley St/Urban St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	0	2	2	0	10	2	200	3	22	312	0
Future Volume (vph)	5	0	2	2	0	10	2	200	3	22	312	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.961			0.886			0.998				
Flt Protected		0.966			0.992						0.997	
Satd. Flow (prot)	0	1729	0	0	1637	0	0	1859	0	0	1857	0
Flt Permitted								0.998			0.979	
Satd. Flow (perm)	0	1790	0	0	1650	0	0	1855	0	0	1824	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			36			2				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1082			639			735				422
Travel Time (s)		24.6			14.5			16.7				9.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	0	2	2	0	11	2	217	3	24	339	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	7	0	0	13	0	0	222	0	0	363	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		5.6			5.6			36.8			36.8	
Actuated g/C Ratio		0.14			0.14			0.94			0.94	
v/c Ratio		0.02			0.05			0.13			0.21	
Control Delay		0.5			3.6			1.2			1.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		0.5			3.6			1.2			1.4	
LOS		A			A			A			A	
Approach Delay		0.5			3.6			1.2			1.4	
Approach LOS		A			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 39.3												

Lanes, Volumes, Timings

21: Fillmore Ave & Riley St/Urban St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.21

Intersection Signal Delay: 1.4

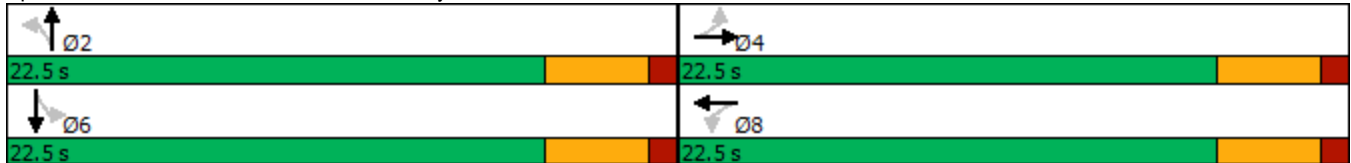
Intersection LOS: A

Intersection Capacity Utilization 42.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 21: Fillmore Ave & Riley St/Urban St



Lanes, Volumes, Timings
22: Fillmore Ave & French St

02/09/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	12	35	205	3	43	321
Future Volume (vph)	12	35	205	3	43	321
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.899		0.998			
Flt Protected	0.987					0.994
Satd. Flow (prot)	1653	0	1859	0	0	1852
Flt Permitted	0.987					0.952
Satd. Flow (perm)	1653	0	1859	0	0	1773
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	38		2			
Link Speed (mph)	30		30			30
Link Distance (ft)	600		422			182
Travel Time (s)	13.6		9.6			4.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	38	223	3	47	349
Shared Lane Traffic (%)						
Lane Group Flow (vph)	51	0	226	0	0	396
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%	50.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.2		34.6			34.6
Actuated g/C Ratio	0.15		0.85			0.85
v/c Ratio	0.18		0.14			0.26
Control Delay	9.9		2.5			2.9
Queue Delay	0.0		0.0			0.0
Total Delay	9.9		2.5			3.0
LOS	A		A			A
Approach Delay	9.9		2.5			3.0
Approach LOS	A		A			A

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.5

Lanes, Volumes, Timings

22: Fillmore Ave & French St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.26

Intersection Signal Delay: 3.3

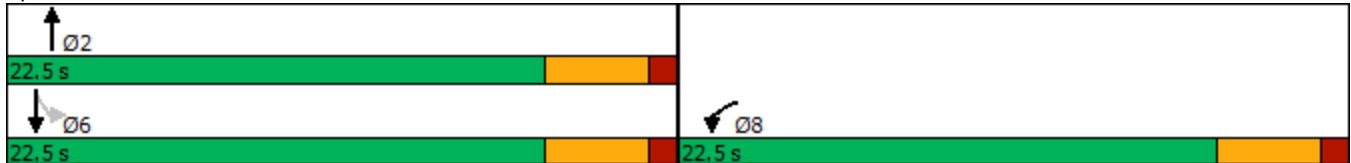
Intersection LOS: A

Intersection Capacity Utilization 45.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 22: Fillmore Ave & French St



Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	53	83	41	191	284	68
Future Volume (vph)	53	83	41	191	284	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.918				0.974	
Flt Protected	0.981			0.991		
Satd. Flow (prot)	1678	0	0	1846	1814	0
Flt Permitted	0.981			0.905		
Satd. Flow (perm)	1678	0	0	1686	1814	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	90				32	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1083			182	1350	
Travel Time (s)	24.6			4.1	30.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	58	90	45	208	309	74
Shared Lane Traffic (%)						
Lane Group Flow (vph)	148	0	0	253	383	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		22.5	22.5	22.5	
Total Split (%)	50.0%		50.0%	50.0%	50.0%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effect Green (s)	7.2			25.7	25.7	
Actuated g/C Ratio	0.18			0.66	0.66	
v/c Ratio	0.39			0.23	0.32	
Control Delay	9.0			5.1	5.2	
Queue Delay	0.0			0.4	0.0	
Total Delay	9.0			5.5	5.2	
LOS	A			A	A	
Approach Delay	9.0			5.5	5.2	
Approach LOS	A			A	A	
Intersection Summary						
Area Type:	Other					
Cycle Length: 45						
Actuated Cycle Length: 39						

Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 6.0

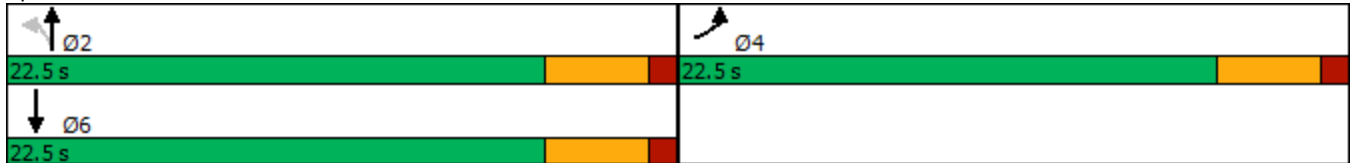
Intersection LOS: A

Intersection Capacity Utilization 50.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 23: Fillmore Ave & E Utica St



Lanes, Volumes, Timings
24: Fillmore Ave & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	213	59	31	206	50	23	190	40	34	284	64
Future Volume (vph)	51	213	59	31	206	50	23	190	40	34	284	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.973			0.974			0.977			0.975	
Flt Protected		0.992			0.995			0.995			0.996	
Satd. Flow (prot)	0	3416	0	0	3430	0	0	3441	0	0	3437	0
Flt Permitted		0.849			0.880			0.908			0.914	
Satd. Flow (perm)	0	2924	0	0	3034	0	0	3140	0	0	3154	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		64			54			43			63	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			797			1350			1620	
Travel Time (s)		24.6			18.1			30.7			36.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	55	232	64	34	224	54	25	207	43	37	309	70
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	351	0	0	312	0	0	275	0	0	416	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		8.9			8.9			18.1			18.1	
Actuated g/C Ratio		0.25			0.25			0.50			0.50	
v/c Ratio		0.46			0.40			0.17			0.26	
Control Delay		11.2			10.6			4.9			5.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.2			10.6			4.9			5.3	
LOS		B			B			A			A	
Approach Delay		11.2			10.6			4.9			5.3	
Approach LOS		B			B			A			A	
Intersection Summary												

Lanes, Volumes, Timings

24: Fillmore Ave & E Ferry St

02/09/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 8.0

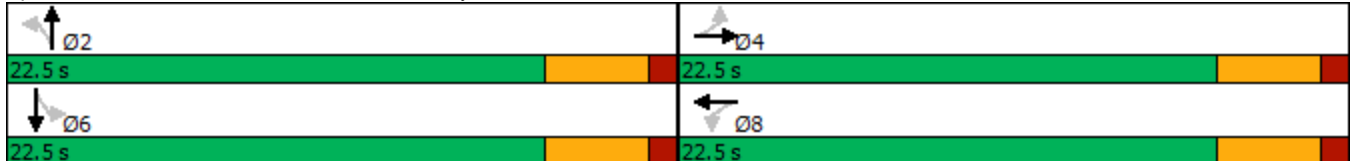
Intersection LOS: A

Intersection Capacity Utilization 50.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 24: Fillmore Ave & E Ferry St



Lanes, Volumes, Timings
25: Fillmore Ave & Northland Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	39	14	20	38	7	3	216	33	38	326	9
Future Volume (vph)	5	39	14	20	38	7	3	216	33	38	326	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.967			0.985			0.982			0.997	
Flt Protected		0.996			0.985			0.999			0.995	
Satd. Flow (prot)	0	1794	0	0	1807	0	0	1827	0	0	1848	0
Flt Permitted		0.962			0.873			0.997			0.955	
Satd. Flow (perm)	0	1733	0	0	1602	0	0	1824	0	0	1774	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			8			20			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1020			890			1620			1011	
Travel Time (s)		23.2			20.2			36.8			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	42	15	22	41	8	3	235	36	41	354	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	62	0	0	71	0	0	274	0	0	405	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		6.7			6.8			28.5			28.5	
Actuated g/C Ratio		0.19			0.19			0.81			0.81	
v/c Ratio		0.18			0.23			0.19			0.28	
Control Delay		10.4			12.1			3.4			4.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.4			12.1			3.4			4.0	
LOS		B			B			A			A	
Approach Delay		10.4			12.1			3.4			4.0	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.3												

Lanes, Volumes, Timings

25: Fillmore Ave & Northland Ave

02/09/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.28

Intersection Signal Delay: 5.0

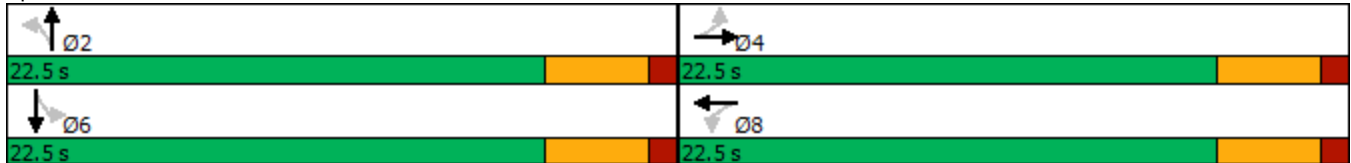
Intersection LOS: A

Intersection Capacity Utilization 53.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 25: Fillmore Ave & Northland Ave



Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	160	19	27	143	29	17	178	24	64	326	67
Future Volume (vph)	81	160	19	27	143	29	17	178	24	64	326	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.980			0.985			0.980	
Flt Protected		0.985			0.993			0.996			0.993	
Satd. Flow (prot)	0	1816	0	0	1813	0	0	1827	0	0	1813	0
Flt Permitted		0.849			0.940			0.957			0.928	
Satd. Flow (perm)	0	1566	0	0	1716	0	0	1756	0	0	1694	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			20			16			23	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		928			735			1011			742	
Travel Time (s)		21.1			16.7			23.0			16.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	88	174	21	29	155	32	18	193	26	70	354	73
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	283	0	0	216	0	0	237	0	0	497	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.6	22.6		22.6	22.6		27.4	27.4		27.4	27.4	
Total Split (%)	45.2%	45.2%		45.2%	45.2%		54.8%	54.8%		54.8%	54.8%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		12.7			12.7			23.5			23.5	
Actuated g/C Ratio		0.28			0.28			0.52			0.52	
v/c Ratio		0.63			0.43			0.26			0.56	
Control Delay		20.3			14.4			7.6			11.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		20.3			14.4			7.6			11.1	
LOS		C			B			A			B	
Approach Delay		20.3			14.4			7.6			11.1	
Approach LOS		C			B			A			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 45.2												

Lanes, Volumes, Timings

26: Fillmore Ave & E Delavan Ave

02/09/2022

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 13.1

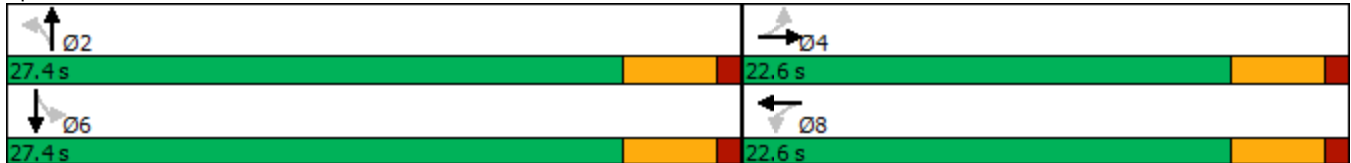
Intersection LOS: B

Intersection Capacity Utilization 74.2%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 26: Fillmore Ave & E Delavan Ave



Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑	↑			
Traffic Volume (vph)	277	163	0	0	209	17	48	159	76	0	0	0
Future Volume (vph)	277	163	0	0	209	17	48	159	76	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	0		150	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.989				0.850			
Flt Protected		0.969						0.989				
Satd. Flow (prot)	0	3429	0	0	3500	0	0	1842	1583	0	0	0
Flt Permitted		0.673						0.989				
Satd. Flow (perm)	0	2382	0	0	3500	0	0	1842	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					18				83			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		310			928			1019			213	
Travel Time (s)		7.0			21.1			23.2			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	301	177	0	0	227	18	52	173	83	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	478	0	0	245	0	0	225	83	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	50.0	50.0			50.0		20.0	20.0	20.0			
Total Split (%)	71.4%	71.4%			71.4%		28.6%	28.6%	28.6%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)		0.0			0.0			0.0	0.0			
Total Lost Time (s)		4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max			C-Max		None	None	None			
Act Effct Green (s)		48.0			48.0			13.0	13.0			
Actuated g/C Ratio		0.69			0.69			0.19	0.19			
v/c Ratio		0.29			0.10			0.66	0.23			
Control Delay		3.0			3.9			35.8	7.8			
Queue Delay		0.0			0.0			0.0	0.0			
Total Delay		3.0			3.9			35.8	7.8			
LOS		A			A			D	A			
Approach Delay		3.0			3.9			28.2				
Approach LOS		A			A			C				
Intersection Summary												

Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	20.0
Total Split (%)	29%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

27: Humboldt Parkway NB & E Delavan Ave

02/09/2022

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 10.7

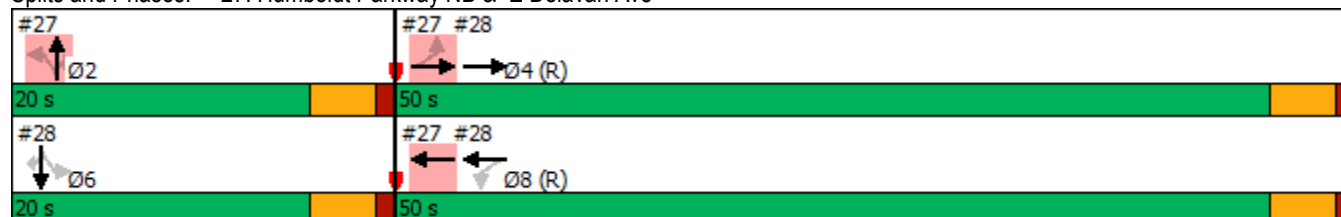
Intersection LOS: B

Intersection Capacity Utilization 43.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 27: Humboldt Parkway NB & E Delavan Ave



Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					 							
Traffic Volume (vph)	0	414	27	87	170	0	0	0	0	27	29	12
Future Volume (vph)	0	414	27	87	170	0	0	0	0	27	29	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992										0.850
Flt Protected					0.983						0.977	
Satd. Flow (prot)	0	1848	0	0	3479	0	0	0	0	0	1820	1583
Flt Permitted					0.734						0.977	
Satd. Flow (perm)	0	1848	0	0	2598	0	0	0	0	0	1820	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9										23
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2669			310			684			864	
Travel Time (s)		60.7			7.0			15.5			19.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	450	29	95	185	0	0	0	0	29	32	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	479	0	0	280	0	0	0	0	0	61	13
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		50.0		50.0	50.0					20.0	20.0	20.0
Total Split (%)		71.4%		71.4%	71.4%					28.6%	28.6%	28.6%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0						0.0	0.0
Total Lost Time (s)		4.5			4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max		C-Max	C-Max					None	None	None
Act Effct Green (s)		48.0			48.0						13.0	13.0
Actuated g/C Ratio		0.69			0.69						0.19	0.19
v/c Ratio		0.38			0.16						0.18	0.04
Control Delay		6.0			3.5						24.2	7.0
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		6.0			3.5						24.2	7.0
LOS		A			A						C	A
Approach Delay		6.0			3.5						21.2	
Approach LOS		A			A						C	
Intersection Summary												

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	20.0
Total Split (%)	29%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

28: Humboldt Parkway SB & E Delavan Ave

02/09/2022

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 6.5

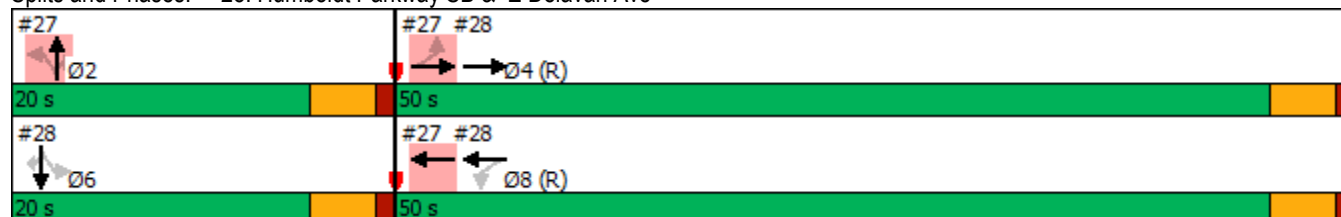
Intersection LOS: A

Intersection Capacity Utilization 46.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 28: Humboldt Parkway SB & E Delavan Ave



Lanes, Volumes, Timings
29: Jefferson Ave & E Delavan Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	335	29	27	142	15	28	92	51	5	73	81
Future Volume (vph)	37	335	29	27	142	15	28	92	51	5	73	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.989			0.960			0.931	
Flt Protected		0.995			0.993			0.992			0.999	
Satd. Flow (prot)	0	1835	0	0	1829	0	0	1774	0	0	1732	0
Flt Permitted		0.956			0.923			0.942			0.993	
Satd. Flow (perm)	0	1763	0	0	1700	0	0	1685	0	0	1722	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			12			55			88	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		592			2669			1017			352	
Travel Time (s)		13.5			60.7			23.1			8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	40	364	32	29	154	16	30	100	55	5	79	88
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	436	0	0	199	0	0	185	0	0	172	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		14.2			14.2			18.1			18.1	
Actuated g/C Ratio		0.34			0.34			0.44			0.44	
v/c Ratio		0.71			0.34			0.24			0.21	
Control Delay		18.6			10.8			7.2			5.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		18.6			10.8			7.2			5.6	
LOS		B			B			A			A	
Approach Delay		18.6			10.8			7.2			5.6	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 41.4												

Lanes, Volumes, Timings
29: Jefferson Ave & E Delavan Ave

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 12.7

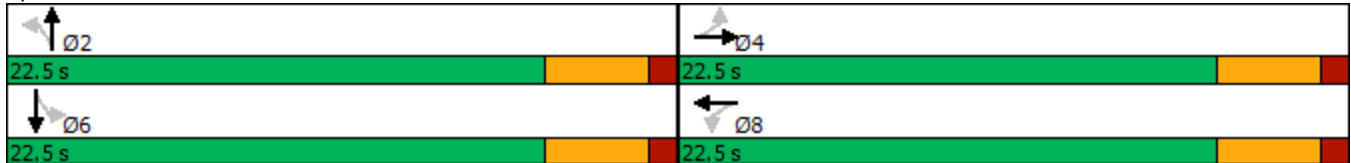
Intersection LOS: B

Intersection Capacity Utilization 54.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 29: Jefferson Ave & E Delavan Ave



Lanes, Volumes, Timings
30: Jefferson Ave & Northland Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	22	10	14	5	14	11	137	8	11	131	14
Future Volume (vph)	14	22	10	14	5	14	11	137	8	11	131	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970			0.942			0.993			0.988	
Flt Protected		0.985			0.979			0.996			0.996	
Satd. Flow (prot)	0	1780	0	0	1718	0	0	1842	0	0	1833	0
Flt Permitted								0.984			0.984	
Satd. Flow (perm)	0	1807	0	0	1755	0	0	1820	0	0	1811	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			15			7			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		806			2743			848			1017	
Travel Time (s)		18.3			62.3			19.3			23.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	24	11	15	5	15	12	149	9	12	142	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	50	0	0	35	0	0	170	0	0	169	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		6.4			6.3			32.1			32.1	
Actuated g/C Ratio		0.18			0.18			0.90			0.90	
v/c Ratio		0.15			0.11			0.10			0.10	
Control Delay		10.3			9.0			2.0			1.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.3			9.0			2.0			1.9	
LOS		B			A			A			A	
Approach Delay		10.3			9.0			2.0			1.9	
Approach LOS		B			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.5												

Lanes, Volumes, Timings

30: Jefferson Ave & Northland Ave

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.15

Intersection Signal Delay: 3.5

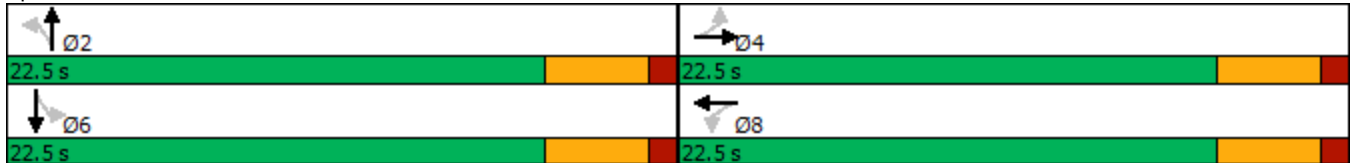
Intersection LOS: A

Intersection Capacity Utilization 22.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 30: Jefferson Ave & Northland Ave



Lanes, Volumes, Timings
31: Jefferson Ave & Brunswick Blvd

02/09/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	25	20	144	23	9	142
Future Volume (vph)	25	20	144	23	9	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.939		0.981			
Flt Protected	0.973					0.997
Satd. Flow (prot)	1702	0	1827	0	0	1857
Flt Permitted	0.973					0.987
Satd. Flow (perm)	1702	0	1827	0	0	1839
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	22		21			
Link Speed (mph)	30		30			30
Link Distance (ft)	2734		751			848
Travel Time (s)	62.1		17.1			19.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	27	22	157	25	10	154
Shared Lane Traffic (%)						
Lane Group Flow (vph)	49	0	182	0	0	164
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%	50.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.3		34.8			34.8
Actuated g/C Ratio	0.15		0.86			0.86
v/c Ratio	0.17		0.12			0.10
Control Delay	12.6		2.3			2.5
Queue Delay	0.0		0.0			0.0
Total Delay	12.6		2.3			2.5
LOS	B		A			A
Approach Delay	12.6		2.3			2.5
Approach LOS	B		A			A

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.7

Lanes, Volumes, Timings

31: Jefferson Ave & Brunswick Blvd

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.17

Intersection Signal Delay: 3.7

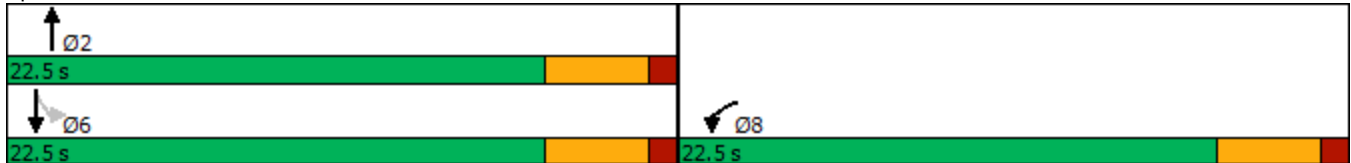
Intersection LOS: A

Intersection Capacity Utilization 26.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 31: Jefferson Ave & Brunswick Blvd



Lanes, Volumes, Timings
32: Jefferson Ave & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	205	44	46	449	39	36	108	23	19	123	22
Future Volume (vph)	27	205	44	46	449	39	36	108	23	19	123	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.978			0.990			0.981			0.982	
Flt Protected		0.995			0.996			0.989			0.994	
Satd. Flow (prot)	0	1813	0	0	1837	0	0	1807	0	0	1818	0
Flt Permitted		0.932			0.950			0.917			0.960	
Satd. Flow (perm)	0	1698	0	0	1752	0	0	1676	0	0	1756	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			10			16			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			194			1406			751	
Travel Time (s)		7.5			4.4			32.0			17.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	223	48	50	488	42	39	117	25	21	134	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	300	0	0	580	0	0	181	0	0	179	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	31.0	31.0		31.0	31.0		24.0	24.0		24.0	24.0	
Total Split (%)	56.4%	56.4%		56.4%	56.4%		43.6%	43.6%		43.6%	43.6%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		20.6			20.6			19.7			19.7	
Actuated g/C Ratio		0.42			0.42			0.40			0.40	
v/c Ratio		0.42			0.79			0.27			0.25	
Control Delay		10.8			20.7			12.1			11.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.8			20.7			12.1			11.9	
LOS		B			C			B			B	
Approach Delay		10.8			20.7			12.1			11.9	
Approach LOS		B			C			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 55												
Actuated Cycle Length: 49.4												

Lanes, Volumes, Timings

32: Jefferson Ave & E Ferry St

02/09/2022

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 15.8

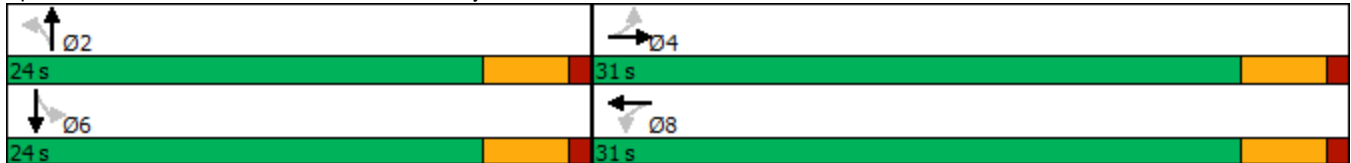
Intersection LOS: B

Intersection Capacity Utilization 59.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 32: Jefferson Ave & E Ferry St



Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	91	34	22	97	12	22	143	10	9	188	20
Future Volume (vph)	9	91	34	22	97	12	22	143	10	9	188	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.988			0.992			0.987	
Flt Protected		0.997			0.992			0.994			0.998	
Satd. Flow (prot)	0	1794	0	0	1826	0	0	1837	0	0	1835	0
Flt Permitted		0.967			0.930			0.955			0.989	
Satd. Flow (perm)	0	1740	0	0	1712	0	0	1765	0	0	1818	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		37			13			8			14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1023			1295			630			1406	
Travel Time (s)		23.3			29.4			14.3			32.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	99	37	24	105	13	24	155	11	10	204	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	146	0	0	142	0	0	190	0	0	236	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.0			8.0			21.8			21.8	
Actuated g/C Ratio		0.22			0.22			0.61			0.61	
v/c Ratio		0.35			0.37			0.18			0.21	
Control Delay		11.3			13.2			5.5			5.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.3			13.2			5.5			5.5	
LOS		B			B			A			A	
Approach Delay		11.3			13.2			5.5			5.5	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36												

Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.37

Intersection Signal Delay: 8.2

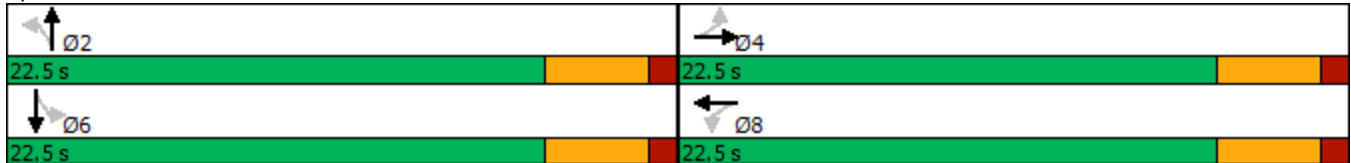
Intersection LOS: A

Intersection Capacity Utilization 37.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 33: Jefferson Ave & E Utica St



Lanes, Volumes, Timings
34: Jefferson Ave & Riley St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	24	14	8	15	5	9	168	7	1	203	9
Future Volume (vph)	8	24	14	8	15	5	9	168	7	1	203	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.959			0.977			0.995			0.994	
Flt Protected		0.991			0.985			0.998				
Satd. Flow (prot)	0	1770	0	0	1793	0	0	1850	0	0	1852	0
Flt Permitted								0.987			0.999	
Satd. Flow (perm)	0	1786	0	0	1820	0	0	1829	0	0	1850	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			5			6			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		870			1108			418			630	
Travel Time (s)		19.8			25.2			9.5			14.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	26	15	9	16	5	10	183	8	1	221	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	50	0	0	30	0	0	201	0	0	232	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		6.3			6.2			32.2			32.2	
Actuated g/C Ratio		0.18			0.17			0.90			0.90	
v/c Ratio		0.15			0.09			0.12			0.14	
Control Delay		9.8			10.6			2.0			2.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.8			10.6			2.0			2.0	
LOS		A			B			A			A	
Approach Delay		9.8			10.6			2.0			2.0	
Approach LOS		A			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.6												

Lanes, Volumes, Timings

34: Jefferson Ave & Riley St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.15

Intersection Signal Delay: 3.2

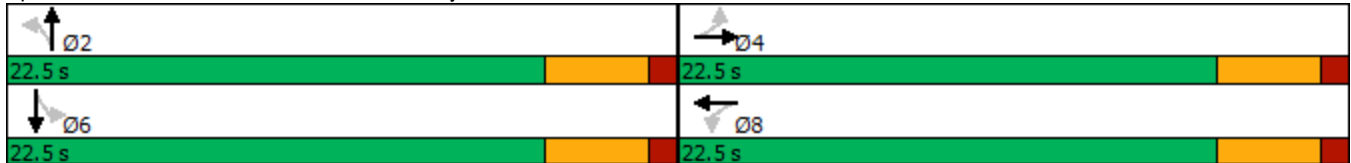
Intersection LOS: A

Intersection Capacity Utilization 27.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 34: Jefferson Ave & Riley St



Lanes, Volumes, Timings
35: Jefferson Ave & Northampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	37	7	13	59	10	14	169	4	7	202	12
Future Volume (vph)	7	37	7	13	59	10	14	169	4	7	202	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.981			0.983			0.997			0.993	
Flt Protected		0.993			0.992			0.996			0.998	
Satd. Flow (prot)	0	1815	0	0	1816	0	0	1850	0	0	1846	0
Flt Permitted		0.932			0.933			0.977			0.992	
Satd. Flow (perm)	0	1703	0	0	1708	0	0	1814	0	0	1835	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			11			3			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1340			1290			1156			278	
Travel Time (s)		30.5			29.3			26.3			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	40	8	14	64	11	15	184	4	8	220	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	56	0	0	89	0	0	203	0	0	241	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		7.0			7.1			26.3			26.3	
Actuated g/C Ratio		0.19			0.19			0.72			0.72	
v/c Ratio		0.17			0.26			0.16			0.18	
Control Delay		11.4			12.6			4.3			4.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.4			12.6			4.3			4.3	
LOS		B			B			A			A	
Approach Delay		11.4			12.6			4.3			4.3	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.6												

Lanes, Volumes, Timings

35: Jefferson Ave & Northhampton St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.26

Intersection Signal Delay: 6.2

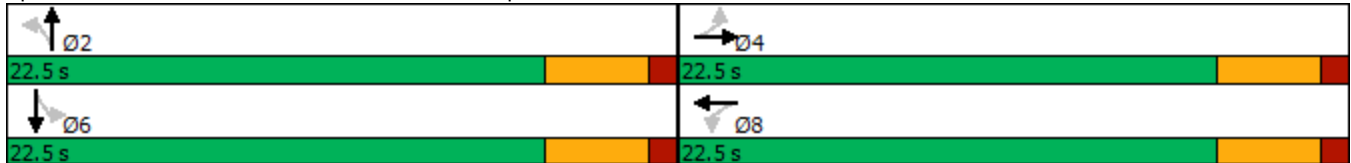
Intersection LOS: A

Intersection Capacity Utilization 29.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 35: Jefferson Ave & Northhampton St



Lanes, Volumes, Timings
36: Jefferson Ave & Best St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	359	40	45	399	56	21	153	46	43	180	24
Future Volume (vph)	21	359	40	45	399	56	21	153	46	43	180	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.986			0.983			0.969			0.986	
Flt Protected		0.997			0.996			0.995			0.991	
Satd. Flow (prot)	0	3479	0	0	3465	0	0	3412	0	0	3458	0
Flt Permitted		0.913			0.878			0.918			0.881	
Satd. Flow (perm)	0	3186	0	0	3055	0	0	3148	0	0	3074	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29			36			50			26	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		169			169			156			165	
Travel Time (s)		3.8			3.8			3.5			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	390	43	49	434	61	23	166	50	47	196	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	456	0	0	544	0	0	239	0	0	269	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		12.5			12.5			18.2			18.2	
Actuated g/C Ratio		0.31			0.31			0.46			0.46	
v/c Ratio		0.45			0.55			0.16			0.19	
Control Delay		11.3			12.5			6.2			7.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.3			12.5			6.2			7.1	
LOS		B			B			A			A	
Approach Delay		11.3			12.5			6.2			7.1	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 39.7												

Lanes, Volumes, Timings

36: Jefferson Ave & Best St

02/09/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 10.2

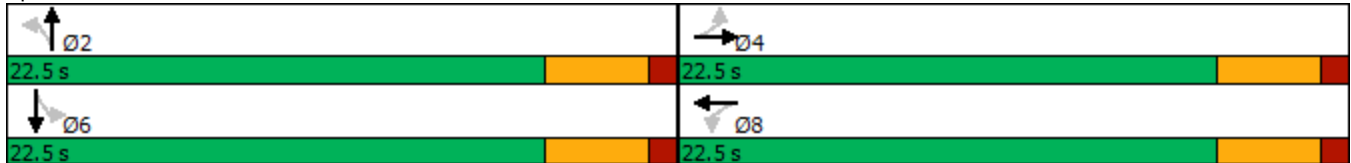
Intersection LOS: B

Intersection Capacity Utilization 54.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 36: Jefferson Ave & Best St



Lanes, Volumes, Timings
37: Jefferson Ave & E North St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	60	77	171	163	211	55
Future Volume (vph)	60	77	171	163	211	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.924				0.972	
Flt Protected	0.979			0.975		
Satd. Flow (prot)	1685	0	0	1816	1811	0
Flt Permitted	0.979			0.718		
Satd. Flow (perm)	1685	0	0	1337	1811	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	84				35	
Link Speed (mph)	30			30	30	
Link Distance (ft)	879			684	486	
Travel Time (s)	20.0			15.5	11.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	84	186	177	229	60
Shared Lane Traffic (%)						
Lane Group Flow (vph)	149	0	0	363	289	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		27.5	27.5	27.5	
Total Split (%)	45.0%		55.0%	55.0%	55.0%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effect Green (s)	7.5			30.6	30.6	
Actuated g/C Ratio	0.17			0.69	0.69	
v/c Ratio	0.42			0.39	0.23	
Control Delay	11.5			6.4	4.2	
Queue Delay	0.0			0.0	0.0	
Total Delay	11.5			6.4	4.2	
LOS	B			A	A	
Approach Delay	11.5			6.4	4.2	
Approach LOS	B			A	A	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 44.2

Lanes, Volumes, Timings

37: Jefferson Ave & E North St

02/09/2022

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 6.5

Intersection LOS: A

Intersection Capacity Utilization 51.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 37: Jefferson Ave & E North St



Lanes, Volumes, Timings
38: Jefferson Ave & High St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	35	83	20	72	34	163	294	31	9	252	15
Future Volume (vph)	3	35	83	20	72	34	163	294	31	9	252	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.907			0.964			0.991			0.993	
Flt Protected		0.999			0.992			0.984			0.998	
Satd. Flow (prot)	0	1688	0	0	1781	0	0	1816	0	0	1846	0
Flt Permitted		0.992			0.943			0.792			0.985	
Satd. Flow (perm)	0	1676	0	0	1693	0	0	1462	0	0	1822	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		90			32			9			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		840			1233			880			684	
Travel Time (s)		19.1			28.0			20.0			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	38	90	22	78	37	177	320	34	10	274	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	131	0	0	137	0	0	531	0	0	300	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.6	22.6		22.6	22.6		37.4	37.4		37.4	37.4	
Total Split (%)	37.7%	37.7%		37.7%	37.7%		62.3%	62.3%		62.3%	62.3%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.6			8.6			36.9			36.9	
Actuated g/C Ratio		0.17			0.17			0.72			0.72	
v/c Ratio		0.37			0.45			0.51			0.23	
Control Delay		11.1			19.5			7.2			4.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.1			19.5			7.2			4.4	
LOS		B			B			A			A	
Approach Delay		11.1			19.5			7.2			4.4	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 51.6												

Lanes, Volumes, Timings 38: Jefferson Ave & High St

02/09/2022

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 8.4

Intersection LOS: A

Intersection Capacity Utilization 65.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 38: Jefferson Ave & High St



Lanes, Volumes, Timings
39: Wohlers Ave & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	297	4	27	510	58	8	23	41	0	0	0
Future Volume (vph)	23	297	4	27	510	58	8	23	41	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.987			0.923				
Flt Protected		0.996			0.998			0.994				
Satd. Flow (prot)	0	1852	0	0	1835	0	0	1709	0	0	0	0
Flt Permitted		0.941			0.975			0.994				
Satd. Flow (perm)	0	1749	0	0	1793	0	0	1709	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			14			45				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		280			1179			1336			278	
Travel Time (s)		6.4			26.8			30.4			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	25	323	4	29	554	63	9	25	45	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	352	0	0	646	0	0	79	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4			8			2					
Detector Phase	4	4		8	8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5				
Total Split (s)	32.0	32.0		32.0	32.0		23.0	23.0				
Total Split (%)	58.2%	58.2%		58.2%	58.2%		41.8%	41.8%				
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max				
Act Effct Green (s)		21.9			21.9			18.8				
Actuated g/C Ratio		0.44			0.44			0.38				
v/c Ratio		0.46			0.81			0.12				
Control Delay		11.4			20.8			7.6				
Queue Delay		0.0			0.0			0.0				
Total Delay		11.4			20.8			7.6				
LOS		B			C			A				
Approach Delay		11.4			20.8			7.6				
Approach LOS		B			C			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 55												
Actuated Cycle Length: 49.8												

Lanes, Volumes, Timings

39: Wohlers Ave & E Ferry St

02/09/2022

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 16.8

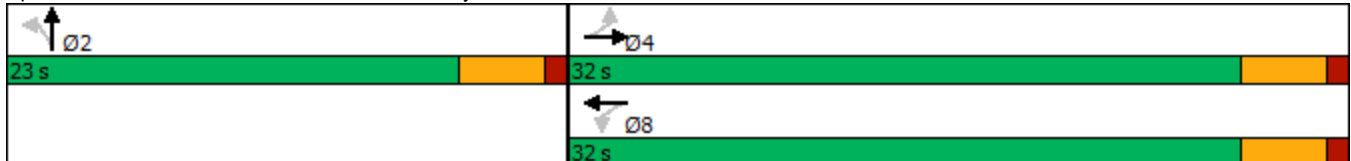
Intersection LOS: B

Intersection Capacity Utilization 49.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 39: Wohlers Ave & E Ferry St



Lanes, Volumes, Timings
40: Wohlers Ave & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	95	8	4	128	16	2	27	16	1	11	4
Future Volume (vph)	12	95	8	4	128	16	2	27	16	1	11	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.986			0.952			0.968	
Flt Protected		0.995			0.999			0.998			0.997	
Satd. Flow (prot)	0	1835	0	0	1835	0	0	1770	0	0	1798	0
Flt Permitted		0.953			0.990			0.995			0.993	
Satd. Flow (perm)	0	1757	0	0	1818	0	0	1764	0	0	1791	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			16			17			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		274			1173			1331			1336	
Travel Time (s)		6.2			26.7			30.3			30.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	103	9	4	139	17	2	29	17	1	12	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	125	0	0	160	0	0	48	0	0	17	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.1			8.1			21.9			21.9	
Actuated g/C Ratio		0.22			0.22			0.60			0.60	
v/c Ratio		0.31			0.38			0.04			0.02	
Control Delay		12.6			13.0			4.0			4.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.6			13.0			4.0			4.6	
LOS		B			B			A			A	
Approach Delay		12.6			13.0			4.0			4.6	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.2												

Lanes, Volumes, Timings

40: Wohlers Ave & E Utica St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 11.2

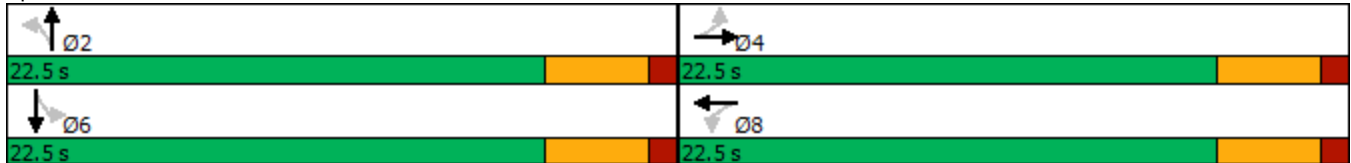
Intersection LOS: B

Intersection Capacity Utilization 23.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 40: Wohlers Ave & E Utica St



Lanes, Volumes, Timings
41: Humboldt Parkway SB & Woodlawn Ave

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	444	36
Future Volume (vph)	0	0	0	0	444	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.990	
Flt Protected						
Satd. Flow (prot)	0	0	0	0	1844	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	0	1844	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	780			561	319	
Travel Time (s)	17.7			12.8	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	483	39
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	522	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 33.6% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings
42: Humboldt Parkway SB & Glenwood Ave

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	29	0	0	449	0
Future Volume (vph)	0	29	0	0	449	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1863	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	750			456	561	
Travel Time (s)	17.0			10.4	12.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	32	0	0	488	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	32	0	0	488	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 33.6% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
42: Humboldt Parkway SB & Glenwood Ave

02/09/2022

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↖	
Traffic Vol, veh/h	0	29	0	0	449	0
Future Vol, veh/h	0	29	0	0	449	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	32	0	0	488	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	488	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	580	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	580	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	11.6		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	580	-				
HCM Lane V/C Ratio	0.054	-				
HCM Control Delay (s)	11.6	-				
HCM Lane LOS	B	-				
HCM 95th %tile Q(veh)	0.2	-				

Lanes, Volumes, Timings
43: Humboldt Parkway SB & Riley St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	14	0	0	120	24
Future Volume (vph)	0	14	0	0	120	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.977	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1820	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1820	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	873			418	636	
Travel Time (s)	19.8			9.5	14.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	15	0	0	130	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	15	0	0	156	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 17.8% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
43: Humboldt Parkway SB & Riley St

02/09/2022

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	14	0	0	120	24
Future Vol, veh/h	0	14	0	0	120	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	15	0	0	130	26
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	143	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	905	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	905	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	9		0			
HCM LOS	A					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	905	-	-			
HCM Lane V/C Ratio	0.017	-	-			
HCM Control Delay (s)	9	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
44: Humboldt Parkway SB & Kingsley St

02/09/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	13	0	0	125	10
Future Volume (vph)	0	13	0	0	125	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.990	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1844	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1844	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	736			293	418	
Travel Time (s)	16.7			6.7	9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	14	0	0	136	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	14	0	0	147	0
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	17.2%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
44: Humboldt Parkway SB & Kingsley St

02/09/2022

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	13	0	0	125	10
Future Vol, veh/h	0	13	0	0	125	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	14	0	0	136	11
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	142	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	906	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	906	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	9		0			
HCM LOS	A					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	906	-	-			
HCM Lane V/C Ratio	0.016	-	-			
HCM Control Delay (s)	9	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0	-	-			

Lanes, Volumes, Timings
45: W Parade Ave & Humboldt Parkway SB

02/09/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↘	
Traffic Volume (vph)	0	96	62	0	51	31
Future Volume (vph)	0	96	62	0	51	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.948	
Flt Protected					0.970	
Satd. Flow (prot)	0	1863	1863	0	1713	0
Flt Permitted					0.970	
Satd. Flow (perm)	0	1863	1863	0	1713	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		199	738		350	
Travel Time (s)		4.5	16.8		8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	104	67	0	55	34
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	104	67	0	89	0
Sign Control		Stop	Stop		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 16.4% ICU Level of Service A

Analysis Period (min) 15

HCM 6th AWSC
45: W Parade Ave & Humboldt Parkway SB

02/09/2022

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↘	↘
Traffic Vol, veh/h	0	96	62	0	51	31
Future Vol, veh/h	0	96	62	0	51	31
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	104	67	0	55	34
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	7.8	7.6	7.7
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	62%
Vol Thru, %	100%	100%	0%
Vol Right, %	0%	0%	38%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	96	62	82
LT Vol	0	0	51
Through Vol	96	62	0
RT Vol	0	0	31
Lane Flow Rate	104	67	89
Geometry Grp	1	1	1
Degree of Util (X)	0.12	0.078	0.102
Departure Headway (Hd)	4.142	4.17	4.126
Convergence, Y/N	Yes	Yes	Yes
Cap	858	850	856
Service Time	2.204	2.24	2.212
HCM Lane V/C Ratio	0.121	0.079	0.104
HCM Control Delay	7.8	7.6	7.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.4	0.3	0.3

Lanes, Volumes, Timings
46: Linden Park & Dodge St/W Parade Ave

02/09/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	95	1	5	87	1	1
Future Volume (vph)	95	1	5	87	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999				0.932	
Flt Protected				0.998	0.976	
Satd. Flow (prot)	1861	0	0	1859	1694	0
Flt Permitted				0.998	0.976	
Satd. Flow (perm)	1861	0	0	1859	1694	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	489			199	180	
Travel Time (s)	11.1			4.5	4.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	103	1	5	95	1	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	104	0	0	100	2	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	18.7%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
46: Linden Park & Dodge St/W Parade Ave

02/09/2022

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	95	1	5	87	1	1
Future Vol, veh/h	95	1	5	87	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	103	1	5	95	1	1
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	104	0	209	104
Stage 1	-	-	-	-	104	-
Stage 2	-	-	-	-	105	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1488	-	779	951
Stage 1	-	-	-	-	920	-
Stage 2	-	-	-	-	919	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1488	-	776	951
Mov Cap-2 Maneuver	-	-	-	-	776	-
Stage 1	-	-	-	-	920	-
Stage 2	-	-	-	-	915	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.4		9.2	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	855	-	-	1488	-	
HCM Lane V/C Ratio	0.003	-	-	0.004	-	
HCM Control Delay (s)	9.2	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Lanes, Volumes, Timings
47: Humboldt Parkway NB & Riley St

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	8	69	5	0	0
Future Volume (vph)	0	8	69	5	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.992			
Flt Protected						
Satd. Flow (prot)	0	1611	1848	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1848	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	1082		722			610
Travel Time (s)	24.6		16.4			13.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	9	75	5	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	9	80	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	13.9%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
47: Humboldt Parkway NB & Riley St

02/09/2022

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	8	69	5	0	0
Future Vol, veh/h	0	8	69	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	1082560512	
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	9	75	5	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	78	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	983	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	983	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	8.7		0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		- 983			
HCM Lane V/C Ratio	-		- 0.009			
HCM Control Delay (s)	-		- 8.7			
HCM Lane LOS	-		- A			
HCM 95th %tile Q(veh)	-		- 0			

Lanes, Volumes, Timings
48: Humboldt Parkway NB & Woepfel St

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	4	275	5	0	0
Future Volume (vph)	0	4	275	5	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.998			
Flt Protected						
Satd. Flow (prot)	0	1611	1859	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1859	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	744		294			729
Travel Time (s)	16.9		6.7			16.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	4	299	5	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	4	304	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	24.8%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
48: Humboldt Parkway NB & Woepfel St

02/09/2022

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	275	5	0	0
Future Vol, veh/h	0	4	275	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	1081237504	
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	299	5	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	302	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	738	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	738	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	9.9		0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		- 738			
HCM Lane V/C Ratio	-		- 0.006			
HCM Control Delay (s)	-		- 9.9			
HCM Lane LOS	-		- A			
HCM 95th %tile Q(veh)	-		- 0			

Lanes, Volumes, Timings
49: Humboldt Parkway NB & Woodlawn Ave

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	12	272	9	0	0
Future Volume (vph)	0	12	272	9	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.996			
Flt Protected						
Satd. Flow (prot)	0	1611	1855	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1855	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	729		729			312
Travel Time (s)	16.6		16.6			7.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	13	296	10	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	13	306	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	24.9%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
49: Humboldt Parkway NB & Woodlawn Ave

02/09/2022

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	12	272	9	0	0
Future Vol, veh/h	0	12	272	9	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	13	296	10	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	301	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	739	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	739	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	10		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		-		739	
HCM Lane V/C Ratio	-		-		0.018	
HCM Control Delay (s)	-		-		10	
HCM Lane LOS	-		-		B	
HCM 95th %tile Q(veh)	-		-		0.1	

Lanes, Volumes, Timings
50: Humboldt Parkway SB & Florida St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	23	0	0	156	8
Future Volume (vph)	0	23	0	0	156	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.993	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1850	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1850	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	935			344	684	
Travel Time (s)	21.3			7.8	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	25	0	0	170	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	25	0	0	179	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 18.7% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
50: Humboldt Parkway SB & Florida St

02/09/2022

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	23	0	0	156	8
Future Vol, veh/h	0	23	0	0	156	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	25	0	0	170	9
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	175	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	868	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	868	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	9.3		0			
HCM LOS	A					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	868	-	-			
HCM Lane V/C Ratio	0.029	-	-			
HCM Control Delay (s)	9.3	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
51: Humboldt Parkway SB & Northland Ave

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	25	0	0	156	20
Future Volume (vph)	0	25	0	0	156	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.985	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1835	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1835	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2743			805	344	
Travel Time (s)	62.3			18.3	7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	27	0	0	170	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	27	0	0	192	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 19.4% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
51: Humboldt Parkway SB & Northland Ave

02/09/2022

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	25	0	0	156	20
Future Vol, veh/h	0	25	0	0	156	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	27	0	0	170	22
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	181	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	862	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	862	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	9.3		0			
HCM LOS	A					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	862	-	-			
HCM Lane V/C Ratio	0.032	-	-			
HCM Control Delay (s)	9.3	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
52: Humboldt Parkway SB & Brunswick Blvd

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	61	0	0	185	11
Future Volume (vph)	0	61	0	0	185	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.992	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1848	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1848	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2734			252	805	
Travel Time (s)	62.1			5.7	18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	66	0	0	201	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	66	0	0	213	0
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 20.8% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	61	0	0	185	11
Future Vol, veh/h	0	61	0	0	185	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	66	0	0	201	12
Number of Lanes	0	1	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	1
HCM Control Delay	7.1	8.3
HCM LOS	A	A

Lane	EBLn1	SBLn1
Vol Left, %	0%	0%
Vol Thru, %	0%	94%
Vol Right, %	100%	6%
Sign Control	Stop	Stop
Traffic Vol by Lane	61	196
LT Vol	0	0
Through Vol	0	185
RT Vol	61	11
Lane Flow Rate	66	213
Geometry Grp	1	1
Degree of Util (X)	0.068	0.238
Departure Headway (Hd)	3.704	4.016
Convergence, Y/N	Yes	Yes
Cap	949	895
Service Time	1.799	2.034
HCM Lane V/C Ratio	0.07	0.238
HCM Control Delay	7.1	8.3
HCM Lane LOS	A	A
HCM 95th-tile Q	0.2	0.9

Lanes, Volumes, Timings
53: Humboldt Parkway SB & Goulding Ave

02/09/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Volume (vph)	0	45	0	0	929	0
Future Volume (vph)	0	45	0	0	929	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Fr _t	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	3539	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	3539	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1067			270	306	
Travel Time (s)	24.3			6.1	7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	49	0	0	1010	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	49	0	0	1010	0
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	30.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
53: Humboldt Parkway SB & Goulding Ave

02/09/2022

Intersection

Int Delay, s/veh 0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	45	0	0	929	0
Future Vol, veh/h	0	45	0	0	929	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	49	0	0	1010	0

Major/Minor	Minor2	Major2
Conflicting Flow All	- 505	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.94	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.32	- -
Pot Cap-1 Maneuver	0 512	- 0
Stage 1	0 -	- 0
Stage 2	0 -	- 0
Platoon blocked, %		-
Mov Cap-1 Maneuver	- 512	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	12.8	0
HCM LOS	B	

Minor Lane/Major Mvmt	EBLn1	SBT
Capacity (veh/h)	512	-
HCM Lane V/C Ratio	0.096	-
HCM Control Delay (s)	12.8	-
HCM Lane LOS	B	-
HCM 95th %tile Q(veh)	0.3	-

Lanes, Volumes, Timings
54: Humboldt Parkway NB & Sydney St

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	38	468	0	0	0
Future Volume (vph)	0	38	468	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	913		608			1024
Travel Time (s)	20.8		13.8			23.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	41	509	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	41	509	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	34.6%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
54: Humboldt Parkway NB & Sydney St

02/09/2022

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	38	468	0	0	0
Future Vol, veh/h	0	38	468	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	1082327040	
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	41	509	0	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	509	0	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	564	-	0		
Stage 1	0	-	-	0		
Stage 2	0	-	-	0		
Platoon blocked, %			-			
Mov Cap-1 Maneuver	-	564	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	11.9		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBTWBLn1					
Capacity (veh/h)	-		564			
HCM Lane V/C Ratio	-		0.073			
HCM Control Delay (s)	-		11.9			
HCM Lane LOS	-		B			
HCM 95th %tile Q(veh)	-		0.2			

Lanes, Volumes, Timings
55: Humboldt Parkway NB & Northland Ave

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	59	444	59	0	0
Future Volume (vph)	0	59	444	59	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865	0.865	0.984			
Flt Protected						
Satd. Flow (prot)	0	1611	1833	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1833	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	1020		1024			1019
Travel Time (s)	23.2		23.3			23.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	64	483	64	0	0
Shared Lane Traffic (%)		10%				
Lane Group Flow (vph)	6	58	547	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	37.3%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
55: Humboldt Parkway NB & Northland Ave

02/09/2022

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	59	444	59	0	0
Future Vol, veh/h	0	59	444	59	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	64	483	64	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	515	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	560	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	560	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	12.3		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		560			
HCM Lane V/C Ratio	-		0.115			
HCM Control Delay (s)	-		12.3			
HCM Lane LOS	-		B			
HCM 95th %tile Q(veh)	-		0.4			

Lanes, Volumes, Timings
56: Roehrer Ave & E Ferry St

02/09/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	309	9	15	504	2	20
Future Volume (vph)	309	9	15	504	2	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.876	
Flt Protected				0.999	0.996	
Satd. Flow (prot)	1855	0	0	1861	1625	0
Flt Permitted				0.999	0.996	
Satd. Flow (perm)	1855	0	0	1861	1625	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1109			280	1331	
Travel Time (s)	25.2			6.4	30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	336	10	16	548	2	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	346	0	0	564	24	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	48.6%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection

Int Delay, s/veh 0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	309	9	15	504	2	20
Future Vol, veh/h	309	9	15	504	2	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	336	10	16	548	2	22

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	346
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1213
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1213
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	11
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	623	-	-	1213	-
HCM Lane V/C Ratio	0.038	-	-	0.013	-
HCM Control Delay (s)	11	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Lanes, Volumes, Timings
57: Roehrer Ave & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	107	0	2	124	7	3	10	4	2	12	4
Future Volume (vph)	4	107	0	2	124	7	3	10	4	2	12	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.993			0.970			0.972	
Flt Protected		0.998			0.999			0.992			0.995	
Satd. Flow (prot)	0	1859	0	0	1848	0	0	1792	0	0	1802	0
Flt Permitted		0.998			0.999			0.992			0.995	
Satd. Flow (perm)	0	1859	0	0	1848	0	0	1792	0	0	1802	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1295			274			1342			1331	
Travel Time (s)		29.4			6.2			30.5			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	116	0	2	135	8	3	11	4	2	13	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	120	0	0	145	0	0	18	0	0	19	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 17.9%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	107	0	2	124	7	3	10	4	2	12	4
Future Vol, veh/h	4	107	0	2	124	7	3	10	4	2	12	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	116	0	2	135	8	3	11	4	2	13	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.8	7.9	7.5	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	4%	2%	11%
Vol Thru, %	59%	96%	93%	67%
Vol Right, %	24%	0%	5%	22%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	17	111	133	18
LT Vol	3	4	2	2
Through Vol	10	107	124	12
RT Vol	4	0	7	4
Lane Flow Rate	18	121	145	20
Geometry Grp	1	1	1	1
Degree of Util (X)	0.023	0.138	0.163	0.024
Departure Headway (Hd)	4.425	4.115	4.061	4.419
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	814	865	878	815
Service Time	2.426	2.172	2.115	2.42
HCM Lane V/C Ratio	0.022	0.14	0.165	0.025
HCM Control Delay	7.5	7.8	7.9	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.5	0.6	0.1

Lanes, Volumes, Timings
58: Wohlers Ave & Northampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	57	3	2	67	8	9	27	5	11	12	5
Future Volume (vph)	7	57	3	2	67	8	9	27	5	11	12	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.994			0.986			0.985			0.977	
Flt Protected		0.995			0.999			0.989			0.980	
Satd. Flow (prot)	0	1842	0	0	1835	0	0	1815	0	0	1784	0
Flt Permitted		0.995			0.999			0.989			0.980	
Satd. Flow (perm)	0	1842	0	0	1835	0	0	1815	0	0	1784	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		276			1045			1317			1331	
Travel Time (s)		6.3			23.8			29.9			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	62	3	2	73	9	10	29	5	12	13	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	73	0	0	84	0	0	44	0	0	30	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	16.6%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	57	3	2	67	8	9	27	5	11	12	5
Future Vol, veh/h	7	57	3	2	67	8	9	27	5	11	12	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	62	3	2	73	9	10	29	5	12	13	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.5	7.5	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	22%	10%	3%	39%
Vol Thru, %	66%	85%	87%	43%
Vol Right, %	12%	4%	10%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	41	67	77	28
LT Vol	9	7	2	11
Through Vol	27	57	67	12
RT Vol	5	3	8	5
Lane Flow Rate	45	73	84	30
Geometry Grp	1	1	1	1
Degree of Util (X)	0.052	0.083	0.094	0.036
Departure Headway (Hd)	4.198	4.122	4.063	4.21
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	842	862	875	839
Service Time	2.279	2.181	2.12	2.295
HCM Lane V/C Ratio	0.053	0.085	0.096	0.036
HCM Control Delay	7.5	7.6	7.5	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.3	0.3	0.1

Lanes, Volumes, Timings
59: Roehrer Ave & Northhampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	60	2	3	73	4	4	14	2	4	14	0
Future Volume (vph)	0	60	2	3	73	4	4	14	2	4	14	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.994			0.987				
Flt Protected					0.998			0.991			0.990	
Satd. Flow (prot)	0	1855	0	0	1848	0	0	1822	0	0	1844	0
Flt Permitted					0.998			0.991			0.990	
Satd. Flow (perm)	0	1855	0	0	1848	0	0	1822	0	0	1844	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1290			276			1313			1342	
Travel Time (s)		29.3			6.3			29.8			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	65	2	3	79	4	4	15	2	4	15	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	67	0	0	86	0	0	21	0	0	19	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 16.5%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

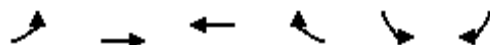
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	60	2	3	73	4	4	14	2	4	14	0
Future Vol, veh/h	0	60	2	3	73	4	4	14	2	4	14	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	65	2	3	79	4	4	15	2	4	15	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.4	7.5	7.4	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	0%	4%	22%
Vol Thru, %	70%	97%	91%	78%
Vol Right, %	10%	3%	5%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	62	80	18
LT Vol	4	0	3	4
Through Vol	14	60	73	14
RT Vol	2	2	4	0
Lane Flow Rate	22	67	87	20
Geometry Grp	1	1	1	1
Degree of Util (X)	0.025	0.076	0.097	0.023
Departure Headway (Hd)	4.195	4.05	4.033	4.261
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	844	881	886	831
Service Time	2.269	2.091	2.07	2.336
HCM Lane V/C Ratio	0.026	0.076	0.098	0.024
HCM Control Delay	7.4	7.4	7.5	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.3	0.1

Lanes, Volumes, Timings
60: Best St & Wohlers Ave

02/09/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	3	461	548	23	17	4
Future Volume (vph)	3	461	548	23	17	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995		0.975	
Flt Protected					0.961	
Satd. Flow (prot)	0	1863	1853	0	1745	0
Flt Permitted					0.961	
Satd. Flow (perm)	0	1863	1853	0	1745	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		280	473		1317	
Travel Time (s)		6.4	10.8		29.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	501	596	25	18	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	504	621	0	22	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

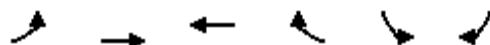
Intersection Capacity Utilization 40.2% ICU Level of Service A

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	461	548	23	17	4
Future Vol, veh/h	3	461	548	23	17	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	501	596	25	18	4
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	621	0	-	0	1116	609
Stage 1	-	-	-	-	609	-
Stage 2	-	-	-	-	507	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	960	-	-	-	230	495
Stage 1	-	-	-	-	543	-
Stage 2	-	-	-	-	605	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	960	-	-	-	229	495
Mov Cap-2 Maneuver	-	-	-	-	229	-
Stage 1	-	-	-	-	541	-
Stage 2	-	-	-	-	605	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		20.5		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	960	-	-	-	255	
HCM Lane V/C Ratio	0.003	-	-	-	0.09	
HCM Control Delay (s)	8.8	0	-	-	20.5	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.3	

Lanes, Volumes, Timings
61: Best St & Roehrer Ave

02/09/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	446	537	19	14	7
Future Volume (vph)	4	446	537	19	14	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995		0.953	
Flt Protected					0.968	
Satd. Flow (prot)	0	1863	1853	0	1718	0
Flt Permitted					0.968	
Satd. Flow (perm)	0	1863	1853	0	1718	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1123	280		1313	
Travel Time (s)		25.5	6.4		29.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	485	584	21	15	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	489	605	0	23	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 39.4% ICU Level of Service A

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	446	537	19	14	7
Future Vol, veh/h	4	446	537	19	14	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	485	584	21	15	8
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	605	0	-	0	1088	595
Stage 1	-	-	-	-	595	-
Stage 2	-	-	-	-	493	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	973	-	-	-	239	504
Stage 1	-	-	-	-	551	-
Stage 2	-	-	-	-	614	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	973	-	-	-	238	504
Mov Cap-2 Maneuver	-	-	-	-	238	-
Stage 1	-	-	-	-	548	-
Stage 2	-	-	-	-	614	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		18.5		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	973	-	-	-	289	
HCM Lane V/C Ratio	0.004	-	-	-	0.079	
HCM Control Delay (s)	8.7	0	-	-	18.5	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.3	

Lanes, Volumes, Timings
62: Jefferson Ave & Eaton St/Kingsley St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	8	3	3	13	1	4	180	1	5	215	4
Future Volume (vph)	2	8	3	3	13	1	4	180	1	5	215	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.971			0.992			0.999			0.998	
Flt Protected		0.993			0.992			0.999			0.999	
Satd. Flow (prot)	0	1796	0	0	1833	0	0	1859	0	0	1857	0
Flt Permitted								0.996			0.996	
Satd. Flow (perm)	0	1809	0	0	1848	0	0	1853	0	0	1852	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			1			1			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		911			1129			278			418	
Travel Time (s)		20.7			25.7			6.3			9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	9	3	3	14	1	4	196	1	5	234	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	0	0	18	0	0	201	0	0	243	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		5.9			6.0			35.0			35.0	
Actuated g/C Ratio		0.16			0.16			0.92			0.92	
v/c Ratio		0.05			0.06			0.12			0.14	
Control Delay		13.1			13.9			1.6			1.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.1			13.9			1.6			1.6	
LOS		B			B			A			A	
Approach Delay		13.1			13.9			1.6			1.6	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 38												

Lanes, Volumes, Timings
62: Jefferson Ave & Eaton St/Kingsley St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.14

Intersection Signal Delay: 2.4

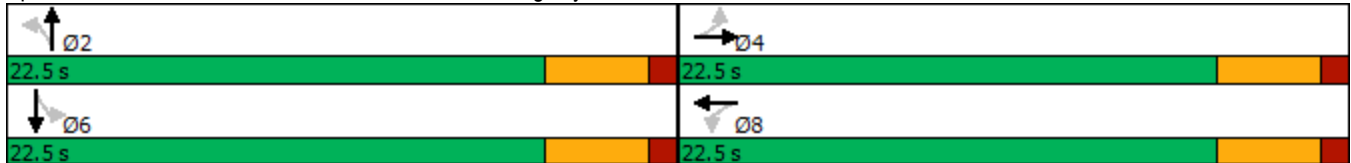
Intersection LOS: A

Intersection Capacity Utilization 25.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 62: Jefferson Ave & Eaton St/Kingsley St



Lanes, Volumes, Timings
118: Humboldt Parkway SB

02/09/2022

						
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	306			252	236	
Travel Time (s)	7.0			5.7	5.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	18.3%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	319	492	0	0	317	295	38	57	123	0	0	0
Future Volume (vph)	319	492	0	0	317	295	38	57	123	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.928			0.924				
Flt Protected		0.981						0.991				
Satd. Flow (prot)	0	3472	0	0	3284	0	0	1706	0	0	0	0
Flt Permitted		0.584						0.991				
Satd. Flow (perm)	0	2067	0	0	3284	0	0	1706	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					321			125				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		249			205			354			335	
Travel Time (s)		5.7			4.7			8.0			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	347	535	0	0	345	321	41	62	134	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	882	0	0	666	0	0	237	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (s)	33.0	33.0			33.0		32.0	32.0				
Total Split (%)	50.8%	50.8%			50.8%		49.2%	49.2%				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max			C-Max		None	None				
Act Effct Green (s)		28.5			28.5			27.5				
Actuated g/C Ratio		0.44			0.44			0.42				
v/c Ratio		1.26dl			0.41			0.30				
Control Delay		37.4			7.0			7.1				
Queue Delay		0.0			1.2			0.0				
Total Delay		37.4			8.2			7.1				
LOS		D			A			A				
Approach Delay		37.4			8.2			7.1				
Approach LOS		D			A			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 65												
Actuated Cycle Length: 65												

Lanes, Volumes, Timings
1: EB Off Ramp/EB On Ramp & Best St

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	32.0
Total Split (%)	49%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

02/09/2022

Offset: 14 (22%), Referenced to phase 4:EBTL and 8:WBT, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.07

Intersection Signal Delay: 22.5

Intersection LOS: C

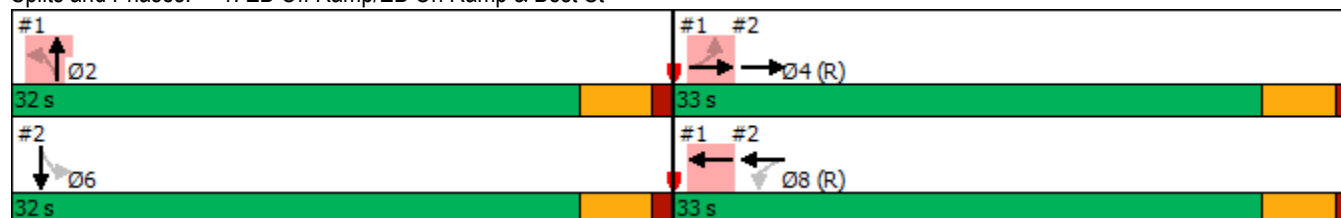
Intersection Capacity Utilization 65.0%

ICU Level of Service C

Analysis Period (min) 15

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 1: EB Off Ramp/EB On Ramp & Best St



Lanes, Volumes, Timings
2: WB On Ramp/WB Off Ramp & Best St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	476	42	111	246	0	0	0	0	339	0	434
Future Volume (vph)	0	476	42	111	246	0	0	0	0	339	0	434
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988									0.924	
Flt Protected					0.985						0.979	
Satd. Flow (prot)	0	3497	0	0	3486	0	0	0	0	0	1685	0
Flt Permitted					0.678						0.979	
Satd. Flow (perm)	0	3497	0	0	2400	0	0	0	0	0	1685	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18									123	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		473			249			324			375	
Travel Time (s)		10.8			5.7			7.4			8.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	517	46	121	267	0	0	0	0	368	0	472
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	563	0	0	388	0	0	0	0	0	840	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		33.0		33.0	33.0					32.0	32.0	
Total Split (%)		50.8%		50.8%	50.8%					49.2%	49.2%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0			0.0						0.0	
Total Lost Time (s)		4.5			4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max		C-Max	C-Max					None	None	
Act Effct Green (s)		28.5			28.5						27.5	
Actuated g/C Ratio		0.44			0.44						0.42	
v/c Ratio		0.36			0.37						1.07	
Control Delay		12.6			9.0						73.0	
Queue Delay		0.6			0.2						10.6	
Total Delay		13.2			9.2						83.7	
LOS		B			A						F	
Approach Delay		13.2			9.2						83.7	
Approach LOS		B			A						F	
Intersection Summary												

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	32.0
Total Split (%)	49%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

02/09/2022

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 14 (22%), Referenced to phase 4:EBTL and 8:WBT, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.07

Intersection Signal Delay: 45.4

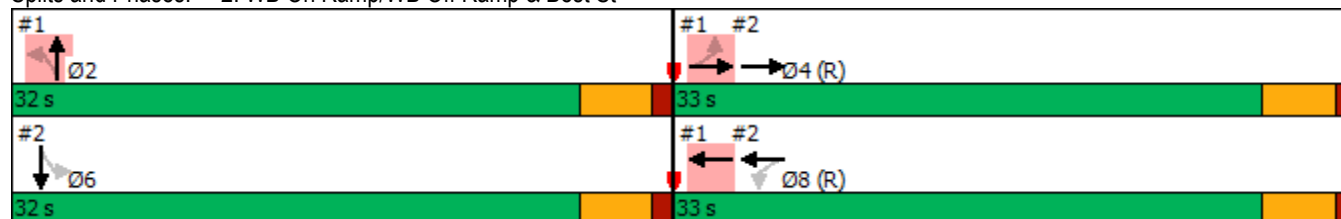
Intersection LOS: D

Intersection Capacity Utilization 81.2%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 2: WB On Ramp/WB Off Ramp & Best St



Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

02/09/2022

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	42	4	483	85	40	493	2	23	49	17	1	5
Future Volume (vph)	42	4	483	85	40	493	2	23	49	17	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't			0.979			0.994				0.989		
Flt Protected			0.996			0.996				0.967		
Satd. Flow (prot)	0	0	3451	0	0	1844	0	0	0	1781	0	0
Flt Permitted			0.886			0.924				0.770		
Satd. Flow (perm)	0	0	3070	0	0	1711	0	0	0	1419	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			47			6				5		
Link Speed (mph)			30			30				30		
Link Distance (ft)			205			1418				1329		
Travel Time (s)			4.7			32.2				30.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	4	525	92	43	536	2	25	53	18	1	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	667	0	0	606	0	0	0	77	0	0
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		
Protected Phases			4			8				2		
Permitted Phases	4	4			8				2			
Detector Phase	4	4	4		8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			5.0	5.0		
Minimum Split (s)	22.5	22.5	22.5		22.5	22.5			22.5	22.5		
Total Split (s)	32.0	32.0	32.0		32.0	32.0			23.0	23.0		
Total Split (%)	58.2%	58.2%	58.2%		58.2%	58.2%			41.8%	41.8%		
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5			3.5	3.5		
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0			1.0	1.0		
Lost Time Adjust (s)			0.0			0.0				0.0		
Total Lost Time (s)			4.5			4.5				4.5		
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None		None	None			C-Max	C-Max		
Act Effect Green (s)			23.9			23.9				22.1		
Actuated g/C Ratio			0.43			0.43				0.40		
v/c Ratio			0.49			0.81				0.13		
Control Delay			11.1			22.7				12.5		
Queue Delay			1.0			0.0				0.0		
Total Delay			12.1			22.7				12.5		
LOS			B			C				B		
Approach Delay			12.1			22.7				12.5		
Approach LOS			B			C				B		
Intersection Summary												
Area Type:	Other											
Cycle Length: 55												
Actuated Cycle Length: 55												

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

02/09/2022



Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	58	36	72
Future Volume (vph)	58	36	72
Ideal Flow (vphpl)	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00
Fr't		0.941	
Fl't Protected		0.983	
Satd. Flow (prot)	0	1723	0
Fl't Permitted		0.886	
Satd. Flow (perm)	0	1553	0
Right Turn on Red			Yes
Satd. Flow (RTOR)		75	
Link Speed (mph)		30	
Link Distance (ft)		738	
Travel Time (s)		16.8	
Peak Hour Factor	0.92	0.92	0.92
Adj. Flow (vph)	63	39	78
Shared Lane Traffic (%)			
Lane Group Flow (vph)	0	180	0
Turn Type	Perm	NA	
Protected Phases		6	
Permitted Phases	6		
Detector Phase	6	6	
Switch Phase			
Minimum Initial (s)	5.0	5.0	
Minimum Split (s)	22.5	22.5	
Total Split (s)	23.0	23.0	
Total Split (%)	41.8%	41.8%	
Yellow Time (s)	3.5	3.5	
All-Red Time (s)	1.0	1.0	
Lost Time Adjust (s)		0.0	
Total Lost Time (s)		4.5	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	
Act Effct Green (s)		22.1	
Actuated g/C Ratio		0.40	
v/c Ratio		0.27	
Control Delay		9.2	
Queue Delay		0.0	
Total Delay		9.2	
LOS		A	
Approach Delay		9.2	
Approach LOS		A	
Intersection Summary			

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

02/09/2022

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 16.0

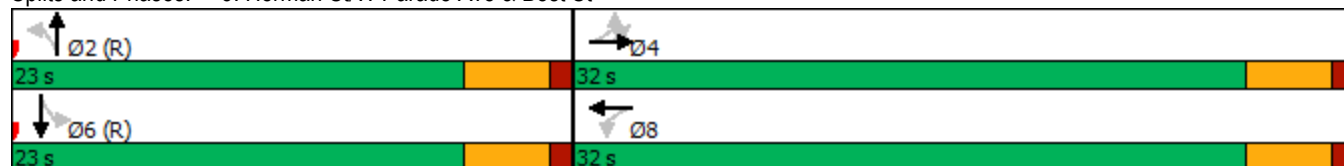
Intersection LOS: B

Intersection Capacity Utilization 67.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 3: Herman St/W Parade Ave & Best St



Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	59	1	5	56	0	0	0	0	66	58	22
Future Volume (vph)	0	59	1	5	56	0	0	0	0	66	58	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't		0.998									0.980	
Flt Protected					0.996						0.978	
Satd. Flow (prot)	0	1859	0	0	1855	0	0	0	0	0	1785	0
Flt Permitted					0.971						0.978	
Satd. Flow (perm)	0	1859	0	0	1809	0	0	0	0	0	1785	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1									24	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1045			283			370			293	
Travel Time (s)		23.8			6.4			8.4			6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	64	1	5	61	0	0	0	0	72	63	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	65	0	0	66	0	0	0	0	0	159	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0			0.0						0.0	
Total Lost Time (s)		4.5			4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					Max	Max	
Act Effct Green (s)		7.4			7.4						21.8	
Actuated g/C Ratio		0.21			0.21						0.61	
v/c Ratio		0.17			0.17						0.14	
Control Delay		11.8			10.6						4.5	
Queue Delay		0.0			0.0						0.0	
Total Delay		11.8			10.6						4.5	
LOS		B			B						A	
Approach Delay		11.8			10.6						4.5	
Approach LOS		B			B						A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.5												

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings 4: Humboldt Parkway SB & Northhampton St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.30

Intersection Signal Delay: 7.5

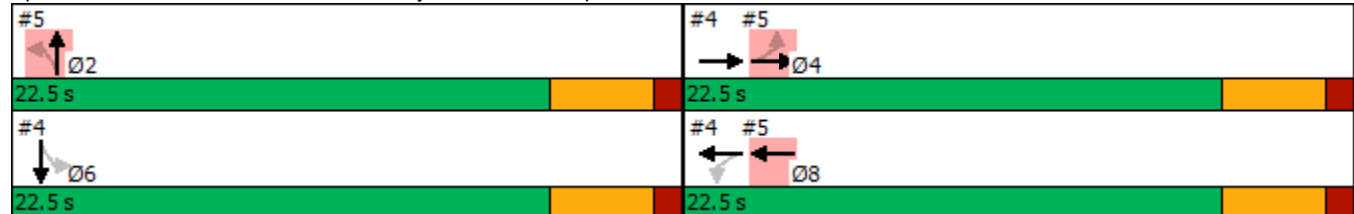
Intersection LOS: A

Intersection Capacity Utilization 22.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: Humboldt Parkway SB & Northhampton St



Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			↱			↰↱				
Traffic Volume (vph)	22	72	0	0	81	22	5	20	8	0	0	0
Future Volume (vph)	22	72	0	0	81	22	5	20	8	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.971			0.966				
Fl _t Protected		0.988						0.993				
Satd. Flow (prot)	0	1840	0	0	1809	0	0	1787	0	0	0	0
Fl _t Permitted		0.886						0.993				
Satd. Flow (perm)	0	1650	0	0	1809	0	0	1787	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					24			9				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		283			1089			152				722
Travel Time (s)		6.4			24.8			3.5				16.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	78	0	0	88	24	5	22	9	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	102	0	0	112	0	0	36	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max				
Act Effct Green (s)		7.4			7.4			21.8				
Actuated g/C Ratio		0.21			0.21			0.61				
v/c Ratio		0.30			0.28			0.03				
Control Delay		11.7			11.2			4.0				
Queue Delay		0.0			0.0			0.0				
Total Delay		11.7			11.2			4.0				
LOS		B			B			A				
Approach Delay		11.7			11.2			4.0				
Approach LOS		B			B			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.5												

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings 5: Humboldt Parkway NB & Northhampton St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.30

Intersection Signal Delay: 10.4

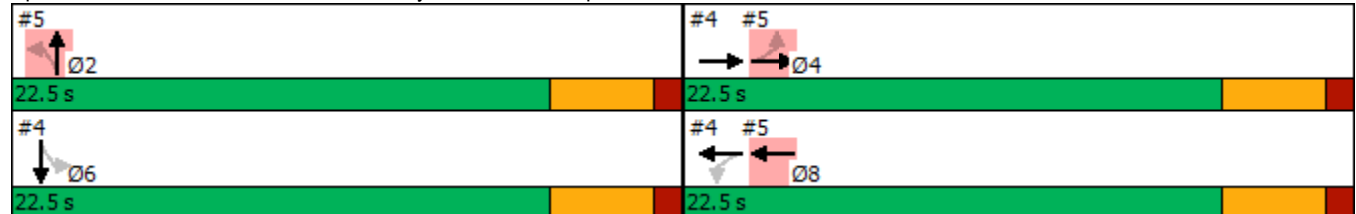
Intersection LOS: B

Intersection Capacity Utilization 23.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Humboldt Parkway NB & Northhampton St



Lanes, Volumes, Timings
6: Humboldt Parkway SB & E Utica St

02/09/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩		↩	↩						↩↩	
Traffic Volume (vph)	0	86	35	75	111	0	0	0	0	53	368	63
Future Volume (vph)	0	86	35	75	111	0	0	0	0	53	368	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.961									0.981	
Flt Protected				0.950							0.995	
Satd. Flow (prot)	0	1790	0	1770	1863	0	0	0	0	0	3455	0
Flt Permitted				0.673							0.995	
Satd. Flow (perm)	0	1790	0	1254	1863	0	0	0	0	0	3455	0
Right Turn on Red			Yes			Yes				Yes		Yes
Satd. Flow (RTOR)		38									43	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1173			153			636			456	
Travel Time (s)		26.7			3.5			14.5			10.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	93	38	82	121	0	0	0	0	58	400	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	131	0	82	121	0	0	0	0	0	526	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		4.5		4.5	4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					Max	Max	
Act Effct Green (s)		8.3		8.3	8.3						21.9	
Actuated g/C Ratio		0.23		0.23	0.23						0.60	
v/c Ratio		0.30		0.29	0.28						0.25	
Control Delay		10.1		10.2	9.4						5.2	
Queue Delay		0.0		0.1	0.1						0.0	
Total Delay		10.1		10.3	9.5						5.2	
LOS		B		B	A						A	
Approach Delay		10.1			9.8						5.2	
Approach LOS		B			A						A	
Intersection Summary												

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

02/09/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36.4

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.32

Intersection Signal Delay: 7.0

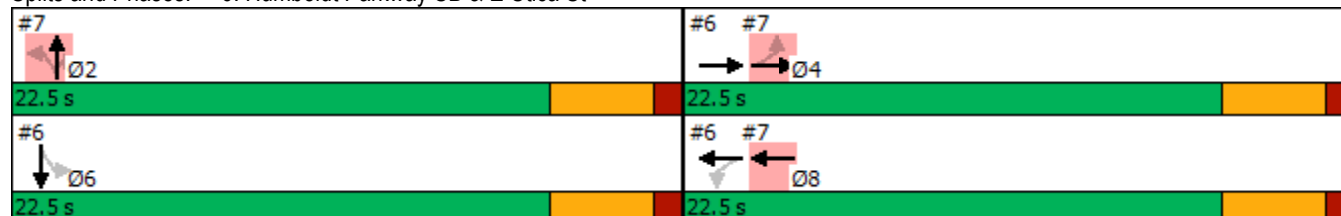
Intersection LOS: A

Intersection Capacity Utilization 52.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: Humboldt Parkway SB & E Utica St



Lanes, Volumes, Timings
7: Humboldt Parkway NB & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	89	0	0	109	17	76	220	53	0	0	0
Future Volume (vph)	52	89	0	0	109	17	76	220	53	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.982				0.850			
Fl _t Protected	0.950							0.987				
Satd. Flow (prot)	1770	1863	0	0	1829	0	0	1839	1583	0	0	0
Fl _t Permitted	0.670							0.987				
Satd. Flow (perm)	1248	1863	0	0	1829	0	0	1839	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					18				58			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		153			1083			610			294	
Travel Time (s)		3.5			24.6			13.9			6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	57	97	0	0	118	18	83	239	58	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	97	0	0	136	0	0	322	58	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max	Max			
Act Effct Green (s)	8.3	8.3			8.3			21.9	21.9			
Actuated g/C Ratio	0.23	0.23			0.23			0.60	0.60			
v/c Ratio	0.20	0.23			0.32			0.29	0.06			
Control Delay	9.6	9.3			11.7			6.6	2.5			
Queue Delay	0.0	0.0			0.0			0.0	0.0			
Total Delay	9.6	9.4			11.7			6.6	2.5			
LOS	A	A			B			A	A			
Approach Delay		9.5			11.7			5.9				
Approach LOS		A			B			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.4												

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.32

Intersection Signal Delay: 7.9

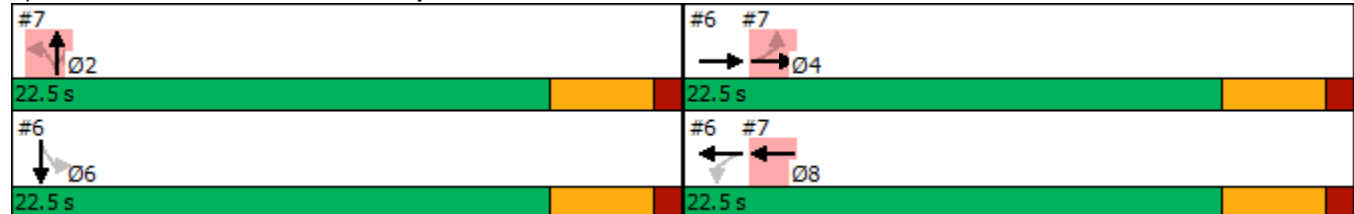
Intersection LOS: A

Intersection Capacity Utilization 52.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 7: Humboldt Parkway NB & E Utica St



Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

02/09/2022

														
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations														
Traffic Volume (vph)	0	272	51	96	176	0	0	0	0	231	342	414		
Future Volume (vph)	0	272	51	96	176	0	0	0	0	231	342	414		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Frt	0.979											0.850		
Flt Protected				0.950								0.980		
Satd. Flow (prot)	0	1824	0	1770	1863	0	0	0	0	0	1825	1583		
Flt Permitted				0.414								0.980		
Satd. Flow (perm)	0	1824	0	771	1863	0	0	0	0	0	1825	1583		
Right Turn on Red				Yes		Yes		Yes				Yes		
Satd. Flow (RTOR)	16												450	
Link Speed (mph)	30			30		30				30				
Link Distance (ft)	1179			147		319				270				
Travel Time (s)	26.8			3.3		7.3				6.1				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Adj. Flow (vph)	0	296	55	104	191	0	0	0	0	251	372	450		
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	351	0	104	191	0	0	0	0	0	623	450		
Turn Type	NA			Perm		NA				Perm				
Protected Phases	4			8		6						6		
Permitted Phases				8		6						6		
Detector Phase	4			8		8		6					6	6
Switch Phase														
Minimum Initial (s)	5.0			5.0		5.0		5.0					5.0	5.0
Minimum Split (s)	22.5			22.5		22.5		22.5					22.5	22.5
Total Split (s)	37.0			37.0		37.0		38.0					38.0	38.0
Total Split (%)	49.3%			49.3%		49.3%		50.7%					50.7%	50.7%
Yellow Time (s)	3.5			3.5		3.5		3.5					3.5	3.5
All-Red Time (s)	1.0			1.0		1.0		1.0					1.0	1.0
Lost Time Adjust (s)	0.0			0.0		0.0		0.0					0.0	0.0
Total Lost Time (s)	4.5			4.5		4.5		4.5					4.5	4.5
Lead/Lag														
Lead-Lag Optimize?														
Recall Mode	None			None		None		Max					Max	Max
Act Efect Green (s)	23.9			23.9		23.9		34.0					34.0	34.0
Actuated g/C Ratio	0.36			0.36		0.36		0.51					0.51	0.51
v/c Ratio	0.53			0.38		0.29		0.67					0.67	0.44
Control Delay	18.7			10.5		7.8		19.4					19.4	3.0
Queue Delay	0.1			0.5		0.4		5.2					5.2	0.0
Total Delay	18.8			11.0		8.1		24.6					24.6	3.0
LOS	B			B		A		C					C	A
Approach Delay	18.8					9.1		15.5					15.5	
Approach LOS	B					A		B					B	
Intersection Summary														
Area Type:	Other													
Cycle Length: 75														
Actuated Cycle Length: 67.1														

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	38.0
Total Split (%)	51%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 15.1

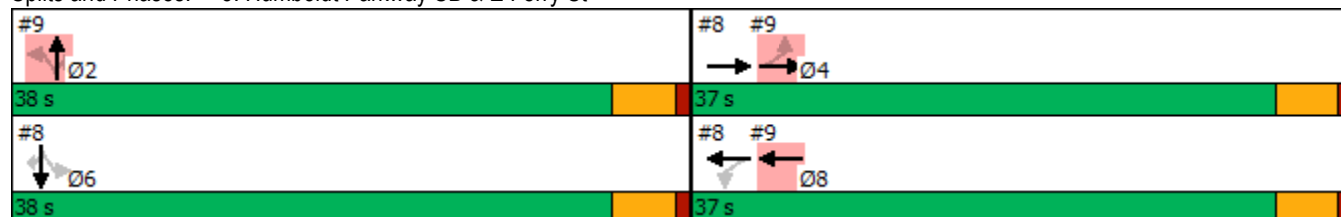
Intersection LOS: B

Intersection Capacity Utilization 87.1%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 8: Humboldt Parkway SB & E Ferry St



Lanes, Volumes, Timings
9: Humboldt Parkway NB & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	228	281	0	0	229	68	47	202	41	0	0	0
Future Volume (vph)	228	281	0	0	229	68	47	202	41	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	75		0	0		0
Storage Lanes	1		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.969				0.850			
Flt Protected	0.950							0.991				
Satd. Flow (prot)	1770	1863	0	0	1805	0	0	1846	1583	0	0	0
Flt Permitted	0.449							0.991				
Satd. Flow (perm)	836	1863	0	0	1805	0	0	1846	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					25				45			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		147			1082			312			608	
Travel Time (s)		3.3			24.6			7.1			13.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	248	305	0	0	249	74	51	220	45	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	248	305	0	0	323	0	0	271	45	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	37.0	37.0			37.0		38.0	38.0	38.0			
Total Split (%)	49.3%	49.3%			49.3%		50.7%	50.7%	50.7%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max	Max			
Act Effct Green (s)	23.9	23.9			23.9			34.0	34.0			
Actuated g/C Ratio	0.36	0.36			0.36			0.51	0.51			
v/c Ratio	0.84	0.46			0.49			0.29	0.05			
Control Delay	38.5	14.8			17.3			12.6	4.3			
Queue Delay	1.1	0.9			0.0			0.0	0.0			
Total Delay	39.6	15.7			17.3			12.6	4.3			
LOS	D	B			B			B	A			
Approach Delay		26.4			17.3			11.4				
Approach LOS		C			B			B				
Intersection Summary												

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	38.0
Total Split (%)	51%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

02/09/2022

Area Type: Other

Cycle Length: 75

Actuated Cycle Length: 67.1

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 20.0

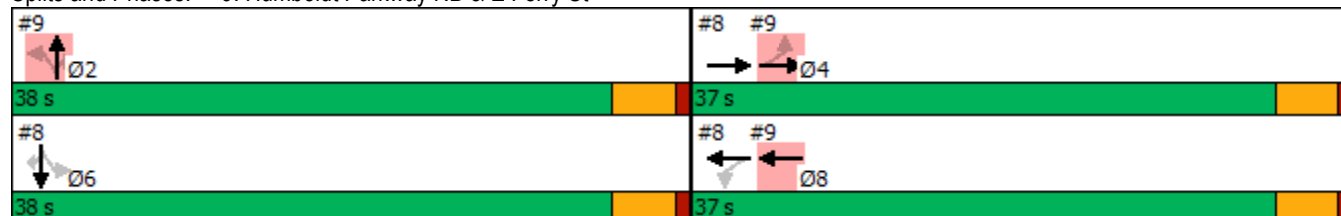
Intersection LOS: B

Intersection Capacity Utilization 87.1%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 9: Humboldt Parkway NB & E Ferry St



Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

02/09/2022

												
Lane Group	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	Ø8
Lane Configurations												
Traffic Volume (vph)	12	7	0	0	331	202	136	518	0	0	0	
Future Volume (vph)	12	7	0	0	331	202	136	518	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	
Fr't					0.943							
Flt Protected		0.950						0.990				
Satd. Flow (prot)	0	1770	0	0	3337	0	0	3504	0	0	0	
Flt Permitted		0.950						0.715				
Satd. Flow (perm)	0	1770	0	0	3337	0	0	2531	0	0	0	
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)					220							
Link Speed (mph)		30			30			30		30		
Link Distance (ft)		537			328			271		387		
Travel Time (s)		12.2			7.5			6.2		8.8		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	13	8	0	0	360	220	148	563	0	0	0	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	21	0	0	580	0	0	711	0	0	0	
Turn Type	Perm	Prot			NA		Perm	NA				
Protected Phases		4			2			6				8
Permitted Phases	4						6					
Detector Phase	4	4			2		6	6				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				5.0
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				22.5
Total Split (s)	22.5	22.5			22.5		22.5	22.5				22.5
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%				50%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				3.5
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				1.0
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			Max		Max	Max				None
Act Effct Green (s)		17.3			18.0			18.0				
Actuated g/C Ratio		0.39			0.41			0.41				
v/c Ratio		0.03			0.39			0.69				
Control Delay		8.4			6.6			10.7				
Queue Delay		0.0			0.0			0.0				
Total Delay		8.4			6.6			10.7				
LOS		A			A			B				
Approach Delay		8.4			6.6			10.7				
Approach LOS		A			A			B				
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 44.3												

Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.93

Intersection Signal Delay: 8.9

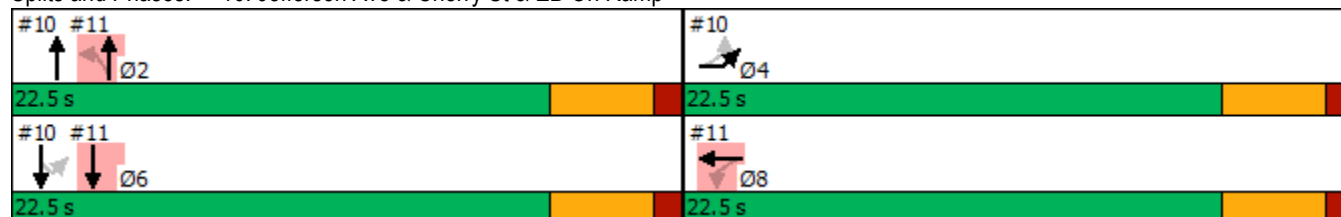
Intersection LOS: A

Intersection Capacity Utilization 49.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 10: Jefferson Ave & Cherry St & EB On Ramp



Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Traffic Volume (vph)	0	0	0	250	22	388	40	300	0	0	393	20
Future Volume (vph)	0	0	0	250	22	388	40	300	0	0	393	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt					0.921						0.993	
Flt Protected					0.981			0.994				
Satd. Flow (prot)	0	0	0	0	1683	0	0	3518	0	0	3514	0
Flt Permitted					0.981			0.874				
Satd. Flow (perm)	0	0	0	0	1683	0	0	3093	0	0	3514	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					190						14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			384			271			880	
Travel Time (s)		12.9			8.7			6.2			20.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	272	24	422	43	326	0	0	427	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	718	0	0	369	0	0	449	0
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8			2					
Detector Phase				8	8		2	2			6	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (%)				50.0%	50.0%		50.0%	50.0%			50.0%	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)					17.3			18.0			18.0	
Actuated g/C Ratio					0.39			0.41			0.41	
v/c Ratio					0.93			0.29			0.31	
Control Delay					32.3			6.1			9.6	
Queue Delay					0.0			0.0			0.0	
Total Delay					32.3			6.1			9.6	
LOS					C			A			A	
Approach Delay					32.3			6.1			9.6	
Approach LOS					C			A			A	
Intersection Summary												

Lanes, Volumes, Timings
11: Jefferson Ave & BFNC Dr/WB Off Ramp

02/09/2022

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

02/09/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 44.3

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.93

Intersection Signal Delay: 19.4

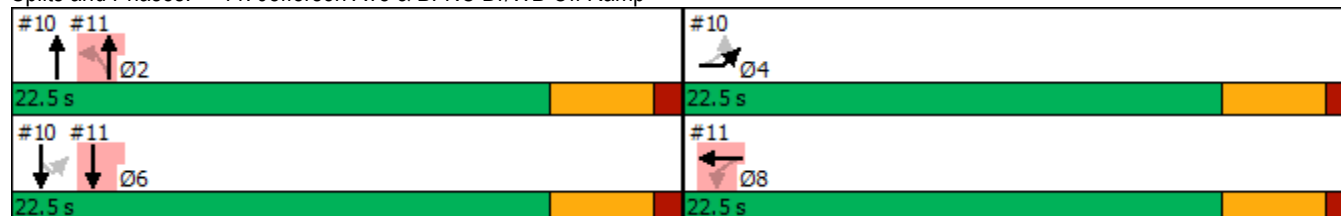
Intersection LOS: B

Intersection Capacity Utilization 71.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 11: Jefferson Ave & BFNC Dr/WB Off Ramp



Lanes, Volumes, Timings
12: Jefferson Ave & Genesee St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	81	10	73	166	37	8	418	24	27	416	66
Future Volume (vph)	35	81	10	73	166	37	8	418	24	27	416	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.988			0.980			0.992			0.980	
Flt Protected		0.986			0.987			0.999			0.997	
Satd. Flow (prot)	0	3448	0	0	3423	0	0	3507	0	0	3458	0
Flt Permitted		0.810			0.839			0.945			0.920	
Satd. Flow (perm)	0	2832	0	0	2910	0	0	3318	0	0	3191	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			40			15			44	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		737			2886			735			328	
Travel Time (s)		16.8			65.6			16.7			7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	38	88	11	79	180	40	9	454	26	29	452	72
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	137	0	0	299	0	0	489	0	0	553	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.7			8.7			19.8			19.8	
Actuated g/C Ratio		0.23			0.23			0.53			0.53	
v/c Ratio		0.21			0.42			0.28			0.32	
Control Delay		10.6			11.8			5.8			5.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.6			11.8			5.8			5.8	
LOS		B			B			A			A	
Approach Delay		10.6			11.8			5.8			5.8	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.6												

Lanes, Volumes, Timings

12: Jefferson Ave & Genesee St

02/09/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 7.4

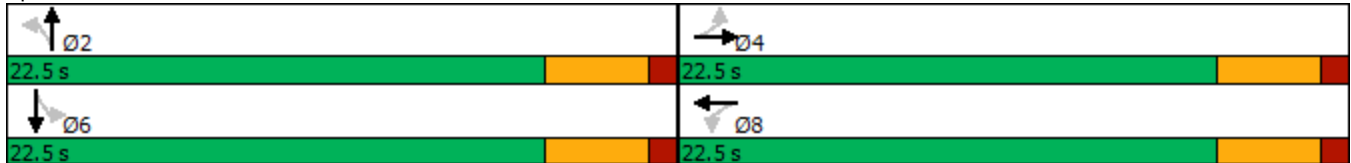
Intersection LOS: A

Intersection Capacity Utilization 54.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 12: Jefferson Ave & Genesee St



Lanes, Volumes, Timings
13: Herman St & Genesee St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	176	3	13	359	9	17	56	5	29	84	11
Future Volume (vph)	11	176	3	13	359	9	17	56	5	29	84	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.996			0.992			0.988	
Flt Protected		0.997			0.998			0.989			0.988	
Satd. Flow (prot)	0	3522	0	0	3518	0	0	1828	0	0	1818	0
Flt Permitted		0.933			0.946			0.929			0.893	
Satd. Flow (perm)	0	3295	0	0	3335	0	0	1717	0	0	1643	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			6			5			12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2886			671			575			1329	
Travel Time (s)		65.6			15.3			13.1			30.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	191	3	14	390	10	18	61	5	32	91	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	206	0	0	414	0	0	84	0	0	135	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effect Green (s)		25.1			25.1			7.8			7.9	
Actuated g/C Ratio		0.70			0.70			0.22			0.22	
v/c Ratio		0.09			0.18			0.22			0.36	
Control Delay		4.3			4.4			11.9			13.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		4.3			4.4			11.9			13.4	
LOS		A			A			B			B	
Approach Delay		4.3			4.4			11.9			13.4	
Approach LOS		A			A			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.9												

Lanes, Volumes, Timings

13: Herman St & Genesee St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.36

Intersection Signal Delay: 6.6

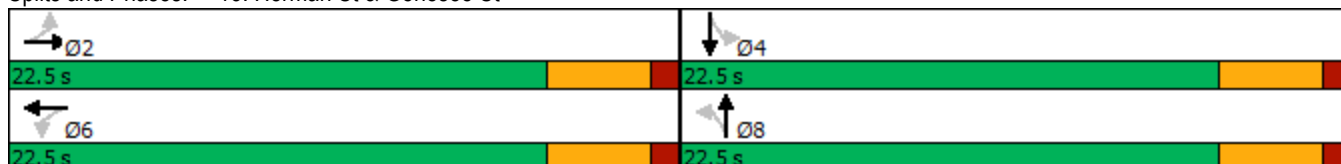
Intersection LOS: A

Intersection Capacity Utilization 36.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 13: Herman St & Genesee St



Lanes, Volumes, Timings
14: Reed St/Rich St & Genesee St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	206	0	0	380	10	10	3	9	4	0	4
Future Volume (vph)	2	206	0	0	380	10	10	3	9	4	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.996			0.944			0.932	
Flt Protected								0.978			0.976	
Satd. Flow (prot)	0	3539	0	0	3525	0	0	1720	0	0	1694	0
Flt Permitted		0.953										
Satd. Flow (perm)	0	3373	0	0	3525	0	0	1758	0	0	1736	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7			10			36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		671			961			780			839	
Travel Time (s)		15.3			21.8			17.7			19.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	224	0	0	413	11	11	3	10	4	0	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	226	0	0	424	0	0	24	0	0	8	0
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2						8			4		
Detector Phase	2	2			6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		None	None		None	None	
Act Effct Green (s)		35.2			35.2			6.0			5.8	
Actuated g/C Ratio		0.92			0.92			0.16			0.15	
v/c Ratio		0.07			0.13			0.08			0.03	
Control Delay		1.3			1.3			12.0			1.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		1.3			1.3			12.0			1.3	
LOS		A			A			B			A	
Approach Delay		1.3			1.3			12.0			1.3	
Approach LOS		A			A			B			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 38.2												

Lanes, Volumes, Timings

14: Reed St/Rich St & Genesee St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.13

Intersection Signal Delay: 1.7

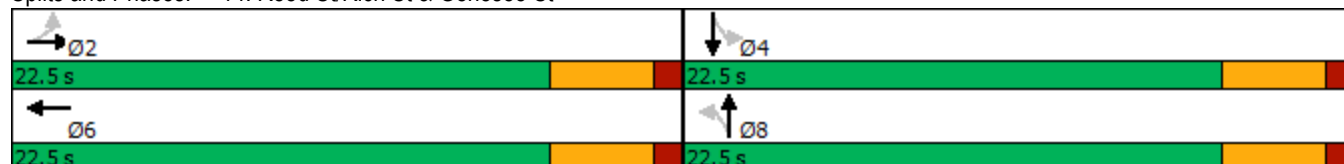
Intersection LOS: A

Intersection Capacity Utilization 22.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Reed St/Rich St & Genesee St



Lanes, Volumes, Timings
15: Fillmore Ave & Genesee St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	162	29	83	306	4	31	239	49	9	300	38
Future Volume (vph)	28	162	29	83	306	4	31	239	49	9	300	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.999			0.979			0.985	
Flt Protected		0.994			0.990			0.995			0.999	
Satd. Flow (prot)	0	3448	0	0	3500	0	0	1815	0	0	1833	0
Flt Permitted		0.870			0.830			0.944			0.989	
Satd. Flow (perm)	0	3018	0	0	2935	0	0	1722	0	0	1815	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32			2			24			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		961			671			704			490	
Travel Time (s)		21.8			15.3			16.0			11.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	176	32	90	333	4	34	260	53	10	326	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	238	0	0	427	0	0	347	0	0	377	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		10.9			10.9			18.1			18.1	
Actuated g/C Ratio		0.29			0.29			0.48			0.48	
v/c Ratio		0.27			0.51			0.42			0.43	
Control Delay		9.5			13.3			8.8			9.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.5			13.3			8.8			9.1	
LOS		A			B			A			A	
Approach Delay		9.5			13.3			8.8			9.1	
Approach LOS		A			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 38.1												

Lanes, Volumes, Timings

15: Fillmore Ave & Genesee St

02/09/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 10.4

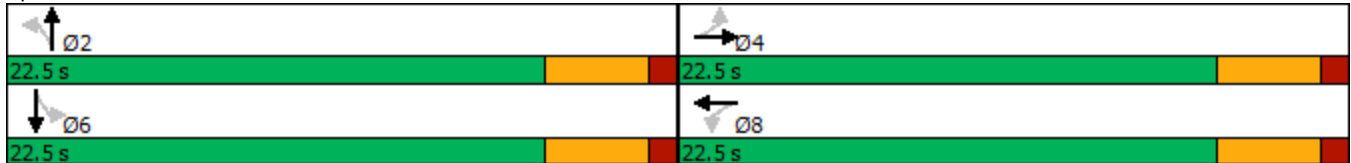
Intersection LOS: B

Intersection Capacity Utilization 59.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 15: Fillmore Ave & Genesee St



Lanes, Volumes, Timings
16: Fillmore Ave & Best St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	316	147	2	371	14	119	209	8	17	222	41
Future Volume (vph)	38	316	147	2	371	14	119	209	8	17	222	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.995			0.997				0.850
Flt Protected		0.996						0.983			0.997	
Satd. Flow (prot)	0	1781	0	0	1853	0	0	1826	0	0	1857	1583
Flt Permitted		0.954			0.998			0.797			0.966	
Satd. Flow (perm)	0	1706	0	0	1850	0	0	1480	0	0	1799	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		56			5			3				45
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1418			567			490				61
Travel Time (s)		32.2			12.9			11.1				1.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	41	343	160	2	403	15	129	227	9	18	241	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	544	0	0	420	0	0	365	0	0	259	45
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)		4.5			4.5			4.5			4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	C-Max
Act Effect Green (s)		16.4			16.4			19.6			19.6	19.6
Actuated g/C Ratio		0.36			0.36			0.44			0.44	0.44
v/c Ratio		0.83			0.62			0.57			0.33	0.06
Control Delay		24.4			15.7			14.5			2.8	0.2
Queue Delay		3.5			0.7			0.0			0.0	0.0
Total Delay		28.0			16.4			14.6			2.8	0.2
LOS		C			B			B			A	A
Approach Delay		28.0			16.4			14.6			2.4	
Approach LOS		C			B			B			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 45												

Lanes, Volumes, Timings

16: Fillmore Ave & Best St

02/09/2022

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 17.2

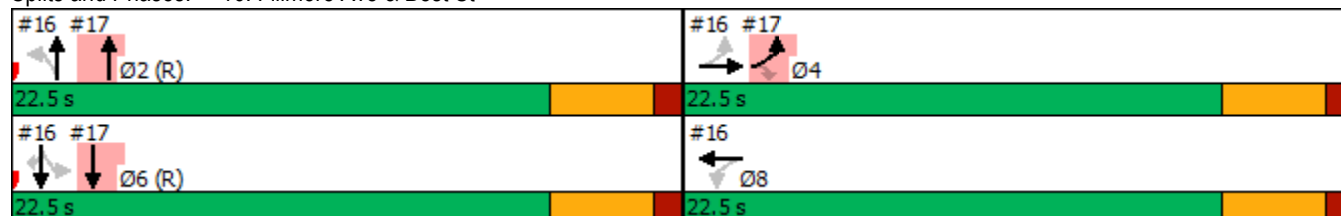
Intersection LOS: B

Intersection Capacity Utilization 93.9%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 16: Fillmore Ave & Best St



Lanes, Volumes, Timings
17: Fillmore Ave & East Park

02/09/2022

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	5	3	0	262	280	0	
Future Volume (vph)	5	3	0	262	280	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	0			100	
Storage Lanes	1	1	0			1	
Taper Length (ft)	25		25				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	
Frt		0.850					
Flt Protected	0.950						
Satd. Flow (prot)	1770	1583	0	1863	3539	0	
Flt Permitted	0.950						
Satd. Flow (perm)	1770	1583	0	1863	3539	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		3					
Link Speed (mph)	30			30	30		
Link Distance (ft)	468			61	755		
Travel Time (s)	10.6			1.4	17.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	5	3	0	285	304	0	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	5	3	0	285	304	0	
Turn Type	Prot	Perm		NA	NA		
Protected Phases	4			2	6		8
Permitted Phases		4					
Detector Phase	4	4		2	6		
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5
Total Split (s)	22.5	22.5		22.5	22.5		22.5
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		
Total Lost Time (s)	4.5	4.5		4.5	4.5		
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None		C-Max	C-Max		None
Act Effct Green (s)	16.4	16.4		19.6	19.6		
Actuated g/C Ratio	0.36	0.36		0.44	0.44		
v/c Ratio	0.01	0.01		0.35	0.20		
Control Delay	8.2	6.3		4.7	8.9		
Queue Delay	0.0	0.0		0.0	0.0		
Total Delay	8.2	6.3		4.7	8.9		
LOS	A	A		A	A		
Approach Delay	7.5			4.7	8.9		
Approach LOS	A			A	A		
Intersection Summary							

Lanes, Volumes, Timings

17: Fillmore Ave & East Park

02/09/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 6.9

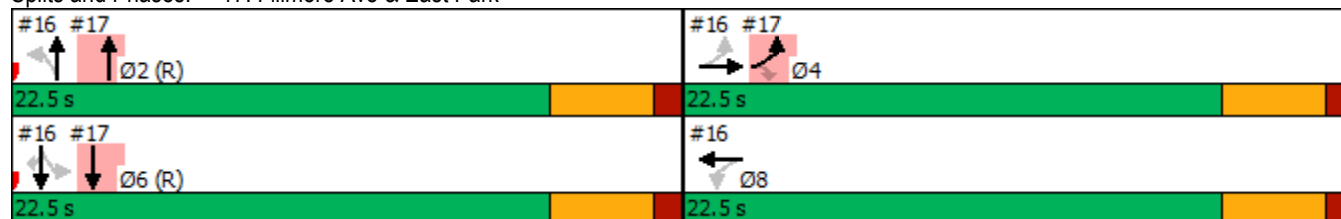
Intersection LOS: A

Intersection Capacity Utilization 25.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Fillmore Ave & East Park



Lanes, Volumes, Timings
18: Fillmore Ave & MLK Park

02/09/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	11	21	0	209	257	0
Future Volume (vph)	11	21	0	209	257	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr't	0.850					
Flt Protected	0.950					
Satd. Flow (prot)	1770	1583	0	1863	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1583	0	1863	1863	0
Right Turn on Red	Yes					
Satd. Flow (RTOR)	23					
Link Speed (mph)	30			30	30	
Link Distance (ft)	526			755	579	
Travel Time (s)	12.0			17.2	13.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	23	0	227	279	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	12	23	0	227	279	0
Turn Type	Prot	Perm		NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4				
Detector Phase	4	4		2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None		Max	Max	
Act Effct Green (s)	5.9	5.9		35.2	35.2	
Actuated g/C Ratio	0.15	0.15		0.92	0.92	
v/c Ratio	0.04	0.09		0.13	0.16	
Control Delay	14.5	8.5		1.6	1.6	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	14.5	8.5		1.6	1.6	
LOS	B	A		A	A	
Approach Delay	10.5			1.6	1.6	
Approach LOS	B			A	A	
Intersection Summary						
Area Type:	Other					
Cycle Length: 45						
Actuated Cycle Length: 38.2						

Lanes, Volumes, Timings

18: Fillmore Ave & MLK Park

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.16

Intersection Signal Delay: 2.2

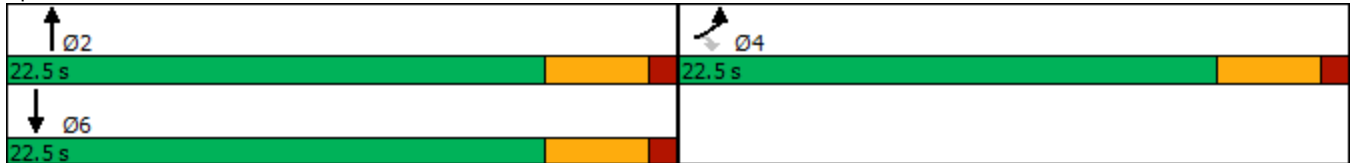
Intersection LOS: A

Intersection Capacity Utilization 25.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Fillmore Ave & MLK Park



Lanes, Volumes, Timings
19: Fillmore Ave & Northhampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	60	10	12	33	9	9	176	20	24	245	44
Future Volume (vph)	17	60	10	12	33	9	9	176	20	24	245	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.984			0.977			0.987			0.981	
Flt Protected		0.991			0.989			0.998			0.996	
Satd. Flow (prot)	0	1816	0	0	1800	0	0	1835	0	0	1820	0
Flt Permitted		0.918			0.897			0.985			0.973	
Satd. Flow (perm)	0	1683	0	0	1632	0	0	1811	0	0	1778	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			10			15			22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1089			291			579			735	
Travel Time (s)		24.8			6.6			13.2			16.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	65	11	13	36	10	10	191	22	26	266	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	94	0	0	59	0	0	223	0	0	340	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		7.2			7.1			26.6			26.6	
Actuated g/C Ratio		0.20			0.19			0.72			0.72	
v/c Ratio		0.28			0.18			0.17			0.26	
Control Delay		12.9			11.4			4.2			4.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.9			11.4			4.2			4.6	
LOS		B			B			A			A	
Approach Delay		12.9			11.4			4.2			4.6	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.9												

Lanes, Volumes, Timings

19: Fillmore Ave & Northhampton St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.28

Intersection Signal Delay: 6.2

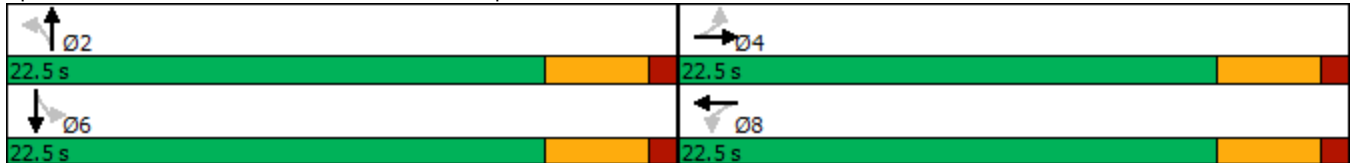
Intersection LOS: A

Intersection Capacity Utilization 38.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 19: Fillmore Ave & Northhampton St



Lanes, Volumes, Timings
21: Fillmore Ave & Riley St/Urban St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	0	2	2	0	10	2	208	3	22	320	0
Future Volume (vph)	5	0	2	2	0	10	2	208	3	22	320	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.961			0.886			0.998				
Flt Protected		0.966			0.992						0.997	
Satd. Flow (prot)	0	1729	0	0	1637	0	0	1859	0	0	1857	0
Flt Permitted								0.998			0.979	
Satd. Flow (perm)	0	1790	0	0	1650	0	0	1855	0	0	1824	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			36			2				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			639			735			422	
Travel Time (s)		24.6			14.5			16.7			9.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	0	2	2	0	11	2	226	3	24	348	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	7	0	0	13	0	0	231	0	0	372	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		5.6			5.6			36.8			36.8	
Actuated g/C Ratio		0.14			0.14			0.94			0.94	
v/c Ratio		0.02			0.05			0.13			0.22	
Control Delay		0.5			3.6			1.2			1.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		0.5			3.6			1.2			1.4	
LOS		A			A			A			A	
Approach Delay		0.5			3.6			1.2			1.4	
Approach LOS		A			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 39.3												

Lanes, Volumes, Timings

21: Fillmore Ave & Riley St/Urban St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.22

Intersection Signal Delay: 1.4

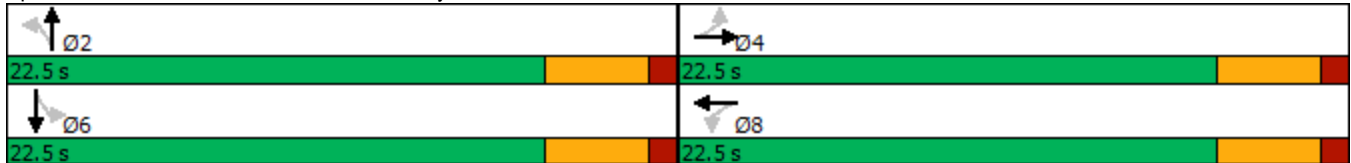
Intersection LOS: A

Intersection Capacity Utilization 42.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 21: Fillmore Ave & Riley St/Urban St



Lanes, Volumes, Timings
22: Fillmore Ave & French St

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	12	36	208	3	44	326
Future Volume (vph)	12	36	208	3	44	326
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.899		0.998			
Flt Protected	0.988					0.994
Satd. Flow (prot)	1655	0	1859	0	0	1852
Flt Permitted	0.988					0.951
Satd. Flow (perm)	1655	0	1859	0	0	1771
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	39		2			
Link Speed (mph)	30		30			30
Link Distance (ft)	600		422			182
Travel Time (s)	13.6		9.6			4.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	39	226	3	48	354
Shared Lane Traffic (%)						
Lane Group Flow (vph)	52	0	229	0	0	402
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%	50.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.2		34.5			34.5
Actuated g/C Ratio	0.15		0.85			0.85
v/c Ratio	0.18		0.14			0.27
Control Delay	9.9		2.5			3.0
Queue Delay	0.0		0.0			0.0
Total Delay	9.9		2.5			3.0
LOS	A		A			A
Approach Delay	9.9		2.5			3.0
Approach LOS	A		A			A
Intersection Summary						
Area Type:	Other					
Cycle Length: 45						
Actuated Cycle Length: 40.4						

Lanes, Volumes, Timings

22: Fillmore Ave & French St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.27

Intersection Signal Delay: 3.4

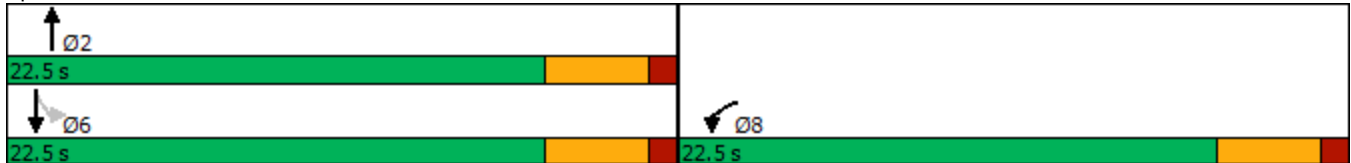
Intersection LOS: A

Intersection Capacity Utilization 46.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 22: Fillmore Ave & French St



Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	54	84	42	194	288	69
Future Volume (vph)	54	84	42	194	288	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.918				0.974	
Flt Protected	0.981			0.991		
Satd. Flow (prot)	1678	0	0	1846	1814	0
Flt Permitted	0.981			0.903		
Satd. Flow (perm)	1678	0	0	1682	1814	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	91				32	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1083			182	1350	
Travel Time (s)	24.6			4.1	30.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	91	46	211	313	75
Shared Lane Traffic (%)						
Lane Group Flow (vph)	150	0	0	257	388	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		22.5	22.5	22.5	
Total Split (%)	50.0%		50.0%	50.0%	50.0%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effect Green (s)	7.2			25.7	25.7	
Actuated g/C Ratio	0.18			0.66	0.66	
v/c Ratio	0.39			0.23	0.32	
Control Delay	9.0			5.2	5.3	
Queue Delay	0.0			0.4	0.0	
Total Delay	9.0			5.6	5.3	
LOS	A			A	A	
Approach Delay	9.0			5.6	5.3	
Approach LOS	A			A	A	
Intersection Summary						
Area Type:	Other					
Cycle Length: 45						
Actuated Cycle Length: 39						

Lanes, Volumes, Timings 23: Fillmore Ave & E Utica St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 6.1

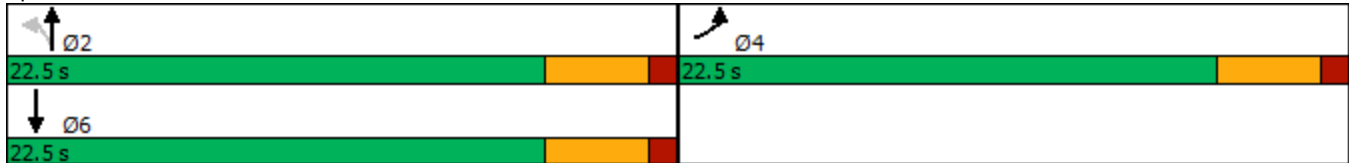
Intersection LOS: A

Intersection Capacity Utilization 51.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 23: Fillmore Ave & E Utica St



Lanes, Volumes, Timings
24: Fillmore Ave & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	216	60	31	209	51	23	193	41	35	288	65
Future Volume (vph)	52	216	60	31	209	51	23	193	41	35	288	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.973			0.974			0.976			0.975	
Flt Protected		0.992			0.995			0.996			0.996	
Satd. Flow (prot)	0	3416	0	0	3430	0	0	3440	0	0	3437	0
Flt Permitted		0.845			0.880			0.908			0.913	
Satd. Flow (perm)	0	2910	0	0	3034	0	0	3136	0	0	3151	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		65			55			45			63	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			797			1350			1620	
Travel Time (s)		24.6			18.1			30.7			36.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	57	235	65	34	227	55	25	210	45	38	313	71
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	357	0	0	316	0	0	280	0	0	422	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		8.9			8.9			18.0			18.0	
Actuated g/C Ratio		0.25			0.25			0.50			0.50	
v/c Ratio		0.46			0.40			0.18			0.26	
Control Delay		11.2			10.6			4.9			5.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.2			10.6			4.9			5.3	
LOS		B			B			A			A	
Approach Delay		11.2			10.6			4.9			5.3	
Approach LOS		B			B			A			A	
Intersection Summary												

Lanes, Volumes, Timings

24: Fillmore Ave & E Ferry St

02/09/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 8.0

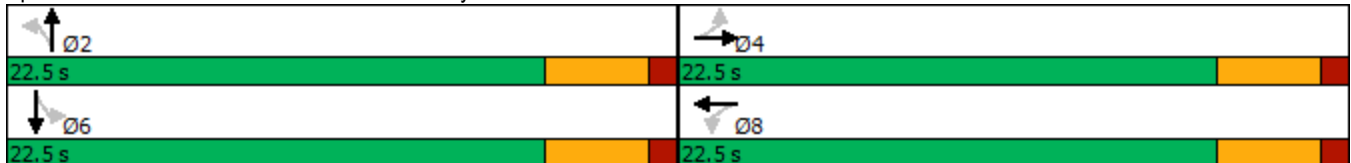
Intersection LOS: A

Intersection Capacity Utilization 51.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 24: Fillmore Ave & E Ferry St



Lanes, Volumes, Timings
25: Fillmore Ave & Northland Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	40	14	20	39	7	3	219	33	39	331	9
Future Volume (vph)	5	40	14	20	39	7	3	219	33	39	331	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.968			0.985			0.982			0.997	
Flt Protected		0.996			0.985			0.999			0.995	
Satd. Flow (prot)	0	1796	0	0	1807	0	0	1827	0	0	1848	0
Flt Permitted		0.963			0.874			0.997			0.955	
Satd. Flow (perm)	0	1736	0	0	1604	0	0	1824	0	0	1774	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			8			20			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1020			890			1620			1011	
Travel Time (s)		23.2			20.2			36.8			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	43	15	22	42	8	3	238	36	42	360	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	63	0	0	72	0	0	277	0	0	412	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		6.7			6.8			28.5			28.5	
Actuated g/C Ratio		0.19			0.19			0.81			0.81	
v/c Ratio		0.18			0.23			0.19			0.29	
Control Delay		10.4			12.1			3.4			4.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.4			12.1			3.4			4.0	
LOS		B			B			A			A	
Approach Delay		10.4			12.1			3.4			4.0	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.3												

Lanes, Volumes, Timings

25: Fillmore Ave & Northland Ave

02/09/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.29

Intersection Signal Delay: 5.0

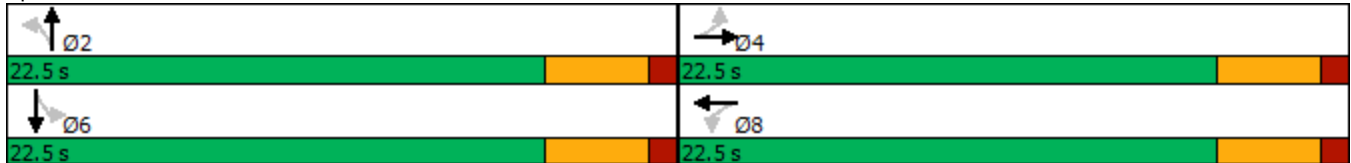
Intersection LOS: A

Intersection Capacity Utilization 53.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 25: Fillmore Ave & Northland Ave



Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	82	162	19	27	145	29	17	181	24	65	331	68
Future Volume (vph)	82	162	19	27	145	29	17	181	24	65	331	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.980			0.985			0.980	
Flt Protected		0.985			0.993			0.996			0.993	
Satd. Flow (prot)	0	1816	0	0	1813	0	0	1827	0	0	1813	0
Flt Permitted		0.847			0.941			0.957			0.927	
Satd. Flow (perm)	0	1562	0	0	1718	0	0	1756	0	0	1692	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			19			16			23	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		928			735			1011			742	
Travel Time (s)		21.1			16.7			23.0			16.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	89	176	21	29	158	32	18	197	26	71	360	74
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	286	0	0	219	0	0	241	0	0	505	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.6	22.6		22.6	22.6		27.4	27.4		27.4	27.4	
Total Split (%)	45.2%	45.2%		45.2%	45.2%		54.8%	54.8%		54.8%	54.8%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		12.8			12.8			23.4			23.4	
Actuated g/C Ratio		0.28			0.28			0.52			0.52	
v/c Ratio		0.64			0.44			0.26			0.57	
Control Delay		20.5			14.5			7.7			11.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		20.5			14.5			7.7			11.4	
LOS		C			B			A			B	
Approach Delay		20.5			14.5			7.7			11.4	
Approach LOS		C			B			A			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 45.2												

Lanes, Volumes, Timings

26: Fillmore Ave & E Delavan Ave

02/09/2022

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 13.3

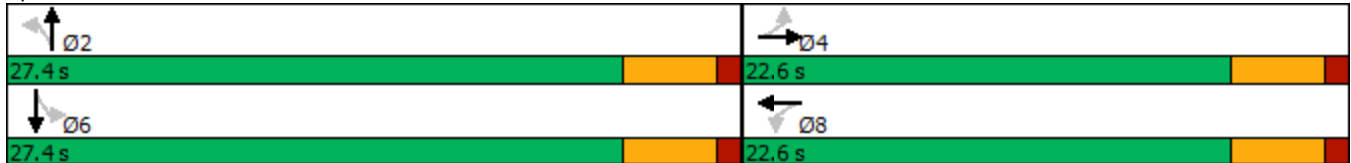
Intersection LOS: B

Intersection Capacity Utilization 75.5%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 26: Fillmore Ave & E Delavan Ave



Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	281	165	0	0	212	17	49	161	77	0	0	0
Future Volume (vph)	281	165	0	0	212	17	49	161	77	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	0		150	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.989				0.850			
Flt Protected		0.969						0.989				
Satd. Flow (prot)	0	3429	0	0	3500	0	0	1842	1583	0	0	0
Flt Permitted		0.680						0.989				
Satd. Flow (perm)	0	2407	0	0	3500	0	0	1842	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					18				84			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		310			928			1019			213	
Travel Time (s)		7.0			21.1			23.2			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	305	179	0	0	230	18	53	175	84	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	484	0	0	248	0	0	228	84	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	27.4	27.4			27.4		22.6	22.6	22.6			
Total Split (%)	54.8%	54.8%			54.8%		45.2%	45.2%	45.2%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)		0.0			0.0			0.0	0.0			
Total Lost Time (s)		4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		None	None	None			
Act Effct Green (s)		26.9			26.9			10.6	10.6			
Actuated g/C Ratio		0.62			0.62			0.24	0.24			
v/c Ratio		0.32			0.11			0.51	0.19			
Control Delay		3.6			5.2			17.8	4.8			
Queue Delay		0.0			0.0			0.0	0.0			
Total Delay		3.6			5.2			17.8	4.8			
LOS		A			A			B	A			
Approach Delay		3.6			5.3			14.3				
Approach LOS		A			A			B				
Intersection Summary												

Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.6
Total Split (%)	45%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

27: Humboldt Parkway NB & E Delavan Ave

02/09/2022

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 43.3

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 7.2

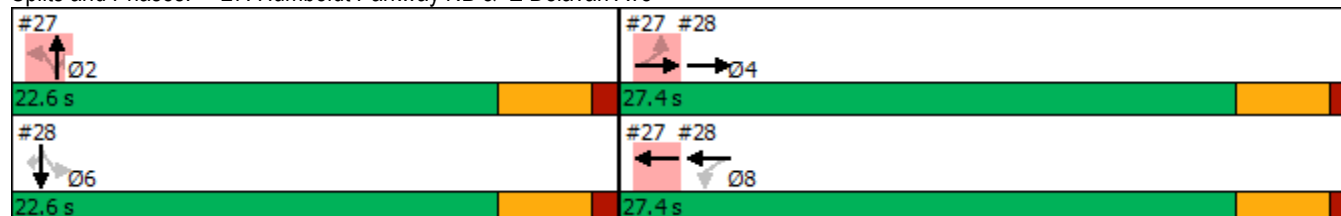
Intersection LOS: A

Intersection Capacity Utilization 44.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 27: Humboldt Parkway NB & E Delavan Ave



Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					 							
Traffic Volume (vph)	0	420	27	88	173	0	0	0	0	27	29	12
Future Volume (vph)	0	420	27	88	173	0	0	0	0	27	29	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992										0.850
Flt Protected					0.983						0.977	
Satd. Flow (prot)	0	1848	0	0	3479	0	0	0	0	0	1820	1583
Flt Permitted					0.752						0.977	
Satd. Flow (perm)	0	1848	0	0	2661	0	0	0	0	0	1820	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8										33
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2669			310			684			864	
Travel Time (s)		60.7			7.0			15.5			19.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	457	29	96	188	0	0	0	0	29	32	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	486	0	0	284	0	0	0	0	0	61	13
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		27.4		27.4	27.4					22.6	22.6	22.6
Total Split (%)		54.8%		54.8%	54.8%					45.2%	45.2%	45.2%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0						0.0	0.0
Total Lost Time (s)		4.5			4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					None	None	None
Act Effct Green (s)		26.9			26.9						10.3	10.3
Actuated g/C Ratio		0.62			0.62						0.24	0.24
v/c Ratio		0.42			0.17						0.14	0.03
Control Delay		8.0			4.0						12.7	2.4
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		8.0			4.0						12.7	2.4
LOS		A			A						B	A
Approach Delay		8.0			4.0						10.9	
Approach LOS		A			A						B	
Intersection Summary												

Lanes, Volumes, Timings

28: Humboldt Parkway SB & E Delavan Ave

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.6
Total Split (%)	45%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

28: Humboldt Parkway SB & E Delavan Ave

02/09/2022

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 43.3

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 6.9

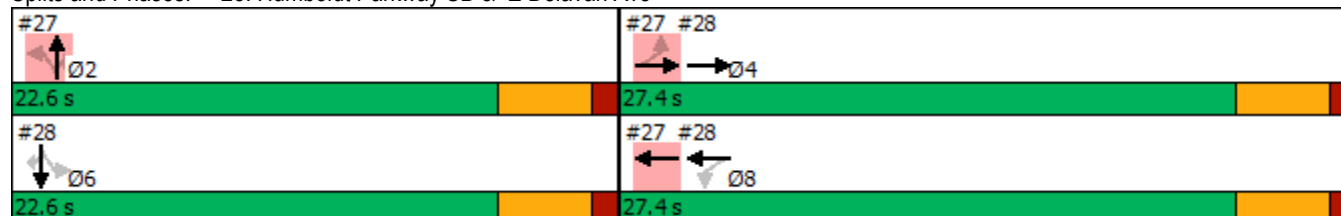
Intersection LOS: A

Intersection Capacity Utilization 46.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 28: Humboldt Parkway SB & E Delavan Ave



Lanes, Volumes, Timings
29: Jefferson Ave & E Delavan Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	340	29	27	144	15	28	93	52	5	74	82
Future Volume (vph)	38	340	29	27	144	15	28	93	52	5	74	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.989			0.959			0.931	
Flt Protected		0.995			0.993			0.992			0.999	
Satd. Flow (prot)	0	1835	0	0	1829	0	0	1772	0	0	1732	0
Flt Permitted		0.956			0.924			0.943			0.993	
Satd. Flow (perm)	0	1763	0	0	1702	0	0	1685	0	0	1722	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			11			57			89	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		592			2669			1017			352	
Travel Time (s)		13.5			60.7			23.1			8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	41	370	32	29	157	16	30	101	57	5	80	89
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	443	0	0	202	0	0	188	0	0	174	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		14.3			14.3			18.1			18.1	
Actuated g/C Ratio		0.34			0.34			0.44			0.44	
v/c Ratio		0.72			0.34			0.25			0.22	
Control Delay		18.9			10.9			7.2			5.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		18.9			10.9			7.2			5.6	
LOS		B			B			A			A	
Approach Delay		18.9			10.9			7.2			5.6	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 41.5												

Lanes, Volumes, Timings
29: Jefferson Ave & E Delavan Ave

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 12.8

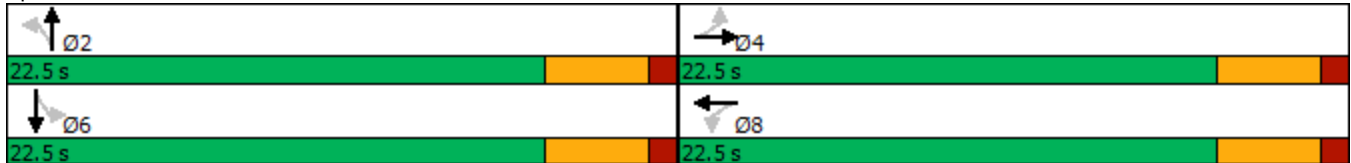
Intersection LOS: B

Intersection Capacity Utilization 55.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 29: Jefferson Ave & E Delavan Ave



Lanes, Volumes, Timings
30: Jefferson Ave & Northland Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	22	10	14	5	14	11	139	8	11	133	14
Future Volume (vph)	14	22	10	14	5	14	11	139	8	11	133	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970			0.942			0.993			0.988	
Flt Protected		0.985			0.979			0.997			0.997	
Satd. Flow (prot)	0	1780	0	0	1718	0	0	1844	0	0	1835	0
Flt Permitted								0.984			0.984	
Satd. Flow (perm)	0	1807	0	0	1755	0	0	1820	0	0	1811	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			15			7			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		806			2743			848			1017	
Travel Time (s)		18.3			62.3			19.3			23.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	24	11	15	5	15	12	151	9	12	145	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	50	0	0	35	0	0	172	0	0	172	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		6.4			6.3			32.1			32.1	
Actuated g/C Ratio		0.18			0.18			0.90			0.90	
v/c Ratio		0.15			0.11			0.10			0.11	
Control Delay		10.3			9.0			2.0			1.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.3			9.0			2.0			1.9	
LOS		B			A			A			A	
Approach Delay		10.3			9.0			2.0			1.9	
Approach LOS		B			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.5												

Lanes, Volumes, Timings

30: Jefferson Ave & Northland Ave

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.15

Intersection Signal Delay: 3.5

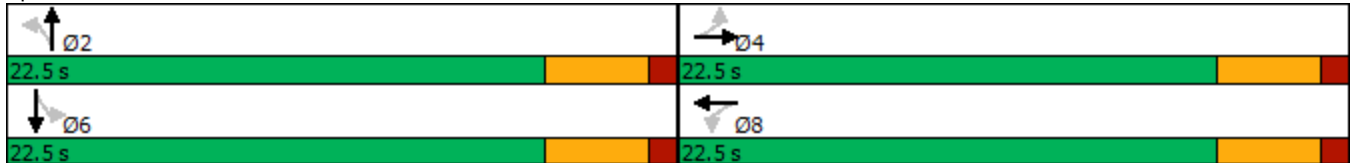
Intersection LOS: A

Intersection Capacity Utilization 22.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 30: Jefferson Ave & Northland Ave



Lanes, Volumes, Timings
31: Jefferson Ave & Brunswick Blvd

02/09/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	25	20	146	23	9	144
Future Volume (vph)	25	20	146	23	9	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.939		0.982			
Flt Protected	0.973					0.997
Satd. Flow (prot)	1702	0	1829	0	0	1857
Flt Permitted	0.973					0.987
Satd. Flow (perm)	1702	0	1829	0	0	1839
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	22		21			
Link Speed (mph)	30		30			30
Link Distance (ft)	2734		751			848
Travel Time (s)	62.1		17.1			19.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	27	22	159	25	10	157
Shared Lane Traffic (%)						
Lane Group Flow (vph)	49	0	184	0	0	167
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%	50.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.3		34.8			34.8
Actuated g/C Ratio	0.15		0.86			0.86
v/c Ratio	0.17		0.12			0.11
Control Delay	12.6		2.3			2.5
Queue Delay	0.0		0.0			0.0
Total Delay	12.6		2.3			2.5
LOS	B		A			A
Approach Delay	12.6		2.3			2.5
Approach LOS	B		A			A

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.7

Lanes, Volumes, Timings

31: Jefferson Ave & Brunswick Blvd

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.17

Intersection Signal Delay: 3.7

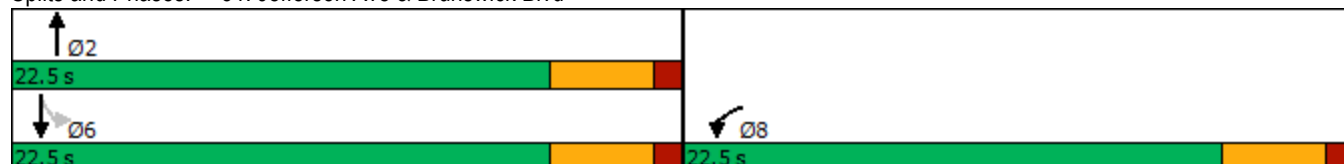
Intersection LOS: A

Intersection Capacity Utilization 26.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 31: Jefferson Ave & Brunswick Blvd



Lanes, Volumes, Timings
32: Jefferson Ave & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	208	45	47	456	40	37	110	23	19	125	22
Future Volume (vph)	27	208	45	47	456	40	37	110	23	19	125	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.978			0.990			0.982			0.982	
Flt Protected		0.995			0.996			0.989			0.994	
Satd. Flow (prot)	0	1813	0	0	1837	0	0	1809	0	0	1818	0
Flt Permitted		0.932			0.949			0.915			0.960	
Satd. Flow (perm)	0	1698	0	0	1750	0	0	1674	0	0	1756	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			10			16			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			194			1406			751	
Travel Time (s)		7.5			4.4			32.0			17.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	226	49	51	496	43	40	120	25	21	136	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	304	0	0	590	0	0	185	0	0	181	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	31.0	31.0		31.0	31.0		24.0	24.0		24.0	24.0	
Total Split (%)	56.4%	56.4%		56.4%	56.4%		43.6%	43.6%		43.6%	43.6%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		20.8			20.8			19.7			19.7	
Actuated g/C Ratio		0.42			0.42			0.40			0.40	
v/c Ratio		0.42			0.80			0.27			0.26	
Control Delay		10.8			21.3			12.2			12.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.8			21.3			12.2			12.0	
LOS		B			C			B			B	
Approach Delay		10.8			21.3			12.2			12.0	
Approach LOS		B			C			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 55												
Actuated Cycle Length: 49.6												

Lanes, Volumes, Timings

32: Jefferson Ave & E Ferry St

02/09/2022

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 16.1

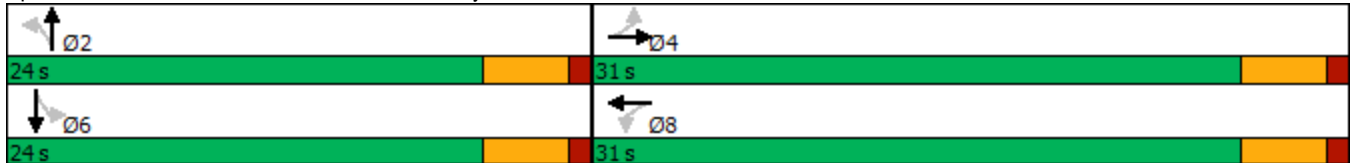
Intersection LOS: B

Intersection Capacity Utilization 60.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 32: Jefferson Ave & E Ferry St



Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	92	35	22	98	12	22	145	10	9	191	20
Future Volume (vph)	9	92	35	22	98	12	22	145	10	9	191	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.965			0.988			0.992			0.988	
Flt Protected		0.997			0.992			0.994			0.998	
Satd. Flow (prot)	0	1792	0	0	1826	0	0	1837	0	0	1837	0
Flt Permitted		0.968			0.931			0.955			0.989	
Satd. Flow (perm)	0	1740	0	0	1713	0	0	1765	0	0	1820	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38			13			8			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1023			1295			630			1406	
Travel Time (s)		23.3			29.4			14.3			32.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	100	38	24	107	13	24	158	11	10	208	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	148	0	0	144	0	0	193	0	0	240	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.0			8.0			21.8			21.8	
Actuated g/C Ratio		0.22			0.22			0.61			0.61	
v/c Ratio		0.36			0.37			0.18			0.22	
Control Delay		11.3			13.2			5.5			5.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.3			13.2			5.5			5.5	
LOS		B			B			A			A	
Approach Delay		11.3			13.2			5.5			5.5	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36												

Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.37

Intersection Signal Delay: 8.2

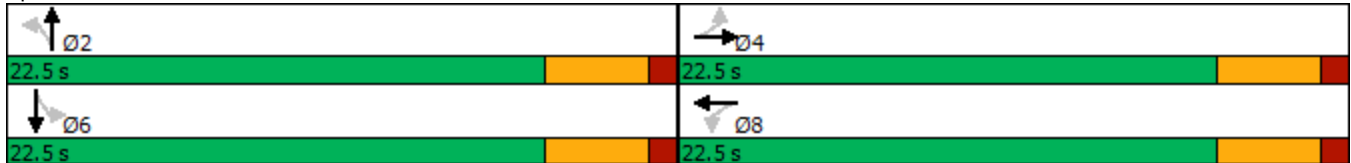
Intersection LOS: A

Intersection Capacity Utilization 37.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 33: Jefferson Ave & E Utica St



Lanes, Volumes, Timings
34: Jefferson Ave & Riley St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	24	14	8	15	5	9	171	7	1	206	9
Future Volume (vph)	8	24	14	8	15	5	9	171	7	1	206	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.959			0.977			0.995			0.994	
Flt Protected		0.991			0.985			0.998				
Satd. Flow (prot)	0	1770	0	0	1793	0	0	1850	0	0	1852	0
Flt Permitted								0.987			0.999	
Satd. Flow (perm)	0	1786	0	0	1820	0	0	1829	0	0	1850	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			5			5			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		870			1108			418			630	
Travel Time (s)		19.8			25.2			9.5			14.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	26	15	9	16	5	10	186	8	1	224	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	50	0	0	30	0	0	204	0	0	235	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		6.3			6.2			32.2			32.2	
Actuated g/C Ratio		0.18			0.17			0.90			0.90	
v/c Ratio		0.15			0.09			0.12			0.14	
Control Delay		9.8			10.6			2.0			2.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.8			10.6			2.0			2.0	
LOS		A			B			A			A	
Approach Delay		9.8			10.6			2.0			2.0	
Approach LOS		A			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.6												

Lanes, Volumes, Timings

34: Jefferson Ave & Riley St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.15

Intersection Signal Delay: 3.2

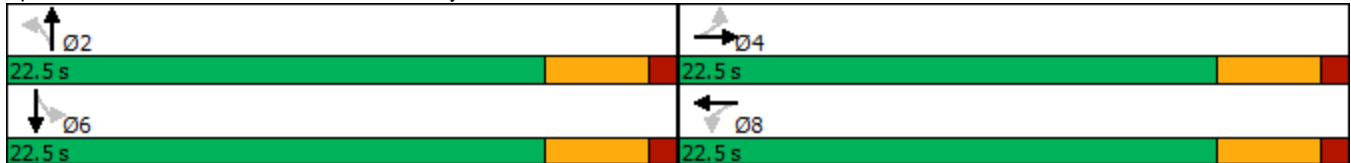
Intersection LOS: A

Intersection Capacity Utilization 27.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 34: Jefferson Ave & Riley St



Lanes, Volumes, Timings
35: Jefferson Ave & Northampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	38	7	13	60	10	14	172	4	7	205	12
Future Volume (vph)	7	38	7	13	60	10	14	172	4	7	205	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.981			0.983			0.997			0.993	
Flt Protected		0.993			0.992			0.996			0.998	
Satd. Flow (prot)	0	1815	0	0	1816	0	0	1850	0	0	1846	0
Flt Permitted		0.933			0.933			0.977			0.992	
Satd. Flow (perm)	0	1705	0	0	1708	0	0	1814	0	0	1835	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			11			3			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1340			1290			1156			278	
Travel Time (s)		30.5			29.3			26.3			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	41	8	14	65	11	15	187	4	8	223	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	57	0	0	90	0	0	206	0	0	244	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		7.0			7.1			26.2			26.2	
Actuated g/C Ratio		0.19			0.19			0.72			0.72	
v/c Ratio		0.17			0.26			0.16			0.19	
Control Delay		11.3			12.6			4.4			4.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.3			12.6			4.4			4.4	
LOS		B			B			A			A	
Approach Delay		11.3			12.6			4.4			4.4	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.5												

Lanes, Volumes, Timings

35: Jefferson Ave & Northhampton St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.26

Intersection Signal Delay: 6.3

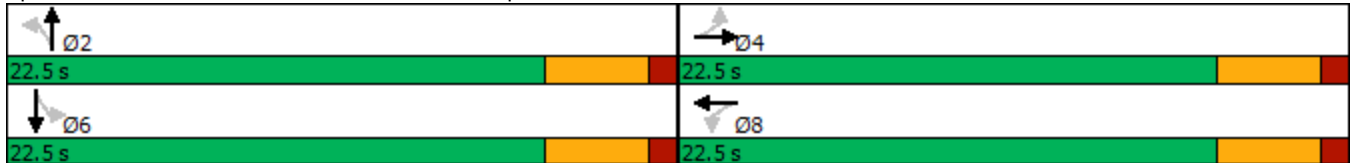
Intersection LOS: A

Intersection Capacity Utilization 29.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 35: Jefferson Ave & Northhampton St



Lanes, Volumes, Timings
36: Jefferson Ave & Best St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	364	41	46	405	57	21	155	47	44	183	24
Future Volume (vph)	21	364	41	46	405	57	21	155	47	44	183	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.985			0.983			0.968			0.986	
Flt Protected		0.998			0.995			0.995			0.991	
Satd. Flow (prot)	0	3479	0	0	3462	0	0	3409	0	0	3458	0
Flt Permitted		0.913			0.877			0.918			0.879	
Satd. Flow (perm)	0	3183	0	0	3051	0	0	3145	0	0	3067	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30			36			51			26	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		169			169			156			165	
Travel Time (s)		3.8			3.8			3.5			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	396	45	50	440	62	23	168	51	48	199	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	464	0	0	552	0	0	242	0	0	273	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		12.5			12.5			18.1			18.1	
Actuated g/C Ratio		0.31			0.31			0.46			0.46	
v/c Ratio		0.45			0.56			0.17			0.19	
Control Delay		11.3			12.6			6.2			7.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.3			12.6			6.2			7.2	
LOS		B			B			A			A	
Approach Delay		11.3			12.6			6.2			7.2	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 39.7												

Lanes, Volumes, Timings

36: Jefferson Ave & Best St

02/09/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.56

Intersection Signal Delay: 10.3

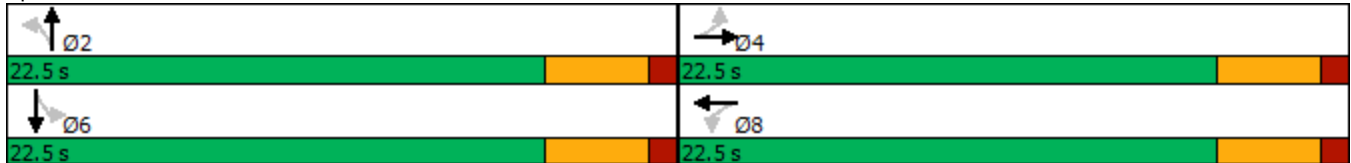
Intersection LOS: B

Intersection Capacity Utilization 54.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 36: Jefferson Ave & Best St



Lanes, Volumes, Timings
37: Jefferson Ave & E North St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	61	78	174	165	214	56
Future Volume (vph)	61	78	174	165	214	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.924				0.972	
Flt Protected	0.979			0.975		
Satd. Flow (prot)	1685	0	0	1816	1811	0
Flt Permitted	0.979			0.715		
Satd. Flow (perm)	1685	0	0	1332	1811	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	85				35	
Link Speed (mph)	30			30	30	
Link Distance (ft)	879			684	486	
Travel Time (s)	20.0			15.5	11.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	66	85	189	179	233	61
Shared Lane Traffic (%)						
Lane Group Flow (vph)	151	0	0	368	294	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		27.5	27.5	27.5	
Total Split (%)	45.0%		55.0%	55.0%	55.0%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effect Green (s)	7.6			30.5	30.5	
Actuated g/C Ratio	0.17			0.69	0.69	
v/c Ratio	0.42			0.40	0.23	
Control Delay	11.4			6.5	4.3	
Queue Delay	0.0			0.0	0.0	
Total Delay	11.4			6.5	4.3	
LOS	B			A	A	
Approach Delay	11.4			6.5	4.3	
Approach LOS	B			A	A	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 44.1

Lanes, Volumes, Timings 37: Jefferson Ave & E North St

02/09/2022

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 6.6

Intersection LOS: A

Intersection Capacity Utilization 52.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 37: Jefferson Ave & E North St



Lanes, Volumes, Timings
38: Jefferson Ave & High St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	36	84	20	73	35	165	298	31	9	256	15
Future Volume (vph)	3	36	84	20	73	35	165	298	31	9	256	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.908			0.963			0.991			0.993	
Flt Protected		0.999			0.992			0.984			0.998	
Satd. Flow (prot)	0	1690	0	0	1779	0	0	1816	0	0	1846	0
Flt Permitted		0.992			0.944			0.790			0.985	
Satd. Flow (perm)	0	1678	0	0	1693	0	0	1458	0	0	1822	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		91			32			9			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		840			1233			880			684	
Travel Time (s)		19.1			28.0			20.0			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	39	91	22	79	38	179	324	34	10	278	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	133	0	0	139	0	0	537	0	0	304	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.6	22.6		22.6	22.6		37.4	37.4		37.4	37.4	
Total Split (%)	37.7%	37.7%		37.7%	37.7%		62.3%	62.3%		62.3%	62.3%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.6			8.6			36.8			36.8	
Actuated g/C Ratio		0.17			0.17			0.71			0.71	
v/c Ratio		0.37			0.45			0.52			0.23	
Control Delay		11.0			19.5			7.4			4.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.0			19.5			7.4			4.4	
LOS		B			B			A			A	
Approach Delay		11.0			19.5			7.4			4.4	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 51.6												

Lanes, Volumes, Timings 38: Jefferson Ave & High St

02/09/2022

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 8.5

Intersection LOS: A

Intersection Capacity Utilization 66.6%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 38: Jefferson Ave & High St



Lanes, Volumes, Timings
39: Wohlers Ave & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	301	4	27	518	59	8	23	42	0	0	0
Future Volume (vph)	23	301	4	27	518	59	8	23	42	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.987			0.922				
Flt Protected		0.997			0.998			0.994				
Satd. Flow (prot)	0	1853	0	0	1835	0	0	1707	0	0	0	0
Flt Permitted		0.941			0.975			0.994				
Satd. Flow (perm)	0	1749	0	0	1793	0	0	1707	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			14			46				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		280			1179			1336			278	
Travel Time (s)		6.4			26.8			30.4			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	25	327	4	29	563	64	9	25	46	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	356	0	0	656	0	0	80	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4			8			2					
Detector Phase	4	4		8	8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5				
Total Split (s)	32.0	32.0		32.0	32.0		23.0	23.0				
Total Split (%)	58.2%	58.2%		58.2%	58.2%		41.8%	41.8%				
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max				
Act Effect Green (s)		22.2			22.2			18.7				
Actuated g/C Ratio		0.44			0.44			0.37				
v/c Ratio		0.46			0.82			0.12				
Control Delay		11.4			21.2			7.6				
Queue Delay		0.0			0.0			0.0				
Total Delay		11.4			21.2			7.6				
LOS		B			C			A				
Approach Delay		11.4			21.2			7.6				
Approach LOS		B			C			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 55												
Actuated Cycle Length: 50.1												

Lanes, Volumes, Timings

39: Wohlers Ave & E Ferry St

02/09/2022

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 17.0

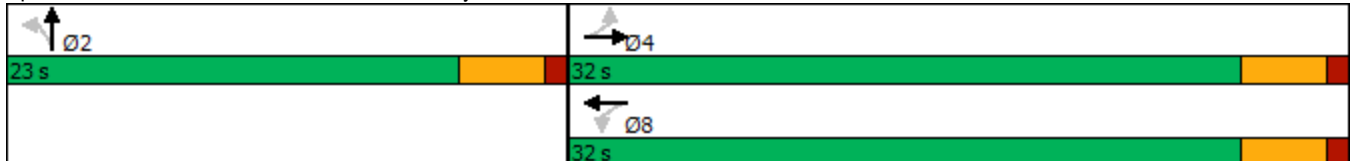
Intersection LOS: B

Intersection Capacity Utilization 50.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 39: Wohlers Ave & E Ferry St



Lanes, Volumes, Timings
40: Wohlers Ave & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	96	8	4	130	16	2	27	16	1	11	4
Future Volume (vph)	12	96	8	4	130	16	2	27	16	1	11	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.986			0.952			0.968	
Flt Protected		0.995			0.999			0.998			0.997	
Satd. Flow (prot)	0	1835	0	0	1835	0	0	1770	0	0	1798	0
Flt Permitted		0.954			0.990			0.995			0.993	
Satd. Flow (perm)	0	1759	0	0	1818	0	0	1764	0	0	1791	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			16			17			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		274			1173			1331			1336	
Travel Time (s)		6.2			26.7			30.3			30.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	104	9	4	141	17	2	29	17	1	12	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	126	0	0	162	0	0	48	0	0	17	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		8.1			8.1			21.9			21.9	
Actuated g/C Ratio		0.22			0.22			0.60			0.60	
v/c Ratio		0.31			0.39			0.04			0.02	
Control Delay		12.6			13.1			4.0			4.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.6			13.1			4.0			4.6	
LOS		B			B			A			A	
Approach Delay		12.6			13.1			4.0			4.6	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.2												

Lanes, Volumes, Timings
40: Wohlers Ave & E Utica St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 11.3

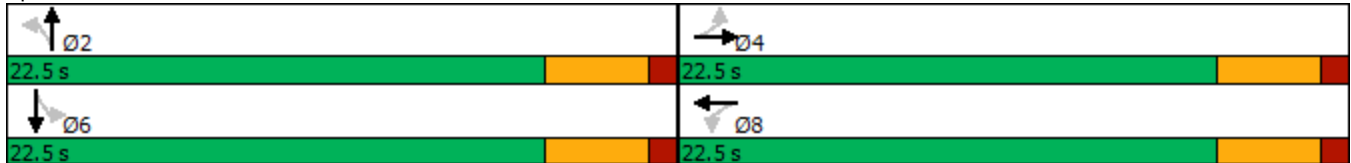
Intersection LOS: B

Intersection Capacity Utilization 23.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 40: Wohlers Ave & E Utica St



Lanes, Volumes, Timings
41: Humboldt Parkway SB & Woodlawn Ave

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	451	37
Future Volume (vph)	0	0	0	0	451	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.990	
Flt Protected						
Satd. Flow (prot)	0	0	0	0	1844	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	0	1844	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	780			561	319	
Travel Time (s)	17.7			12.8	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	490	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	530	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 34.0% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings
42: Humboldt Parkway SB & Glenwood Ave

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	29	0	0	456	0
Future Volume (vph)	0	29	0	0	456	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1863	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	750			456	561	
Travel Time (s)	17.0			10.4	12.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	32	0	0	496	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	32	0	0	496	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 34.0% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
42: Humboldt Parkway SB & Glenwood Ave

02/09/2022

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↖	
Traffic Vol, veh/h	0	29	0	0	456	0
Future Vol, veh/h	0	29	0	0	456	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	32	0	0	496	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	496	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	574	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	574	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	11.6		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	574	-				
HCM Lane V/C Ratio	0.055	-				
HCM Control Delay (s)	11.6	-				
HCM Lane LOS	B	-				
HCM 95th %tile Q(veh)	0.2	-				

Lanes, Volumes, Timings
43: Humboldt Parkway SB & Riley St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	14	0	0	122	24
Future Volume (vph)	0	14	0	0	122	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.978	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1822	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1822	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	873			418	636	
Travel Time (s)	19.8			9.5	14.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	15	0	0	133	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	15	0	0	159	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 17.9% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
43: Humboldt Parkway SB & Riley St

02/09/2022

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	14	0	0	122	24
Future Vol, veh/h	0	14	0	0	122	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	15	0	0	133	26
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	146	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	901	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	901	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	9.1		0			
HCM LOS	A					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	901	-	-			
HCM Lane V/C Ratio	0.017	-	-			
HCM Control Delay (s)	9.1	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
44: Humboldt Parkway SB & Kingsley St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	13	0	0	127	10
Future Volume (vph)	0	13	0	0	127	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.990	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1844	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1844	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	736			293	418	
Travel Time (s)	16.7			6.7	9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	14	0	0	138	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	14	0	0	149	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 17.3% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
44: Humboldt Parkway SB & Kingsley St

02/09/2022

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	13	0	0	127	10
Future Vol, veh/h	0	13	0	0	127	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	14	0	0	138	11
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	144	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	903	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	903	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	9.1		0			
HCM LOS	A					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	903	-	-			
HCM Lane V/C Ratio	0.016	-	-			
HCM Control Delay (s)	9.1	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0	-	-			

Lanes, Volumes, Timings

45: W Parade Ave & Humboldt Parkway SB

02/09/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↘	
Traffic Volume (vph)	0	97	63	0	52	31
Future Volume (vph)	0	97	63	0	52	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.950	
Flt Protected					0.970	
Satd. Flow (prot)	0	1863	1863	0	1717	0
Flt Permitted					0.970	
Satd. Flow (perm)	0	1863	1863	0	1717	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		199	738		350	
Travel Time (s)		4.5	16.8		8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	105	68	0	57	34
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	105	68	0	91	0
Sign Control		Stop	Stop		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 16.5% ICU Level of Service A

Analysis Period (min) 15

HCM 6th AWSC
45: W Parade Ave & Humboldt Parkway SB

02/09/2022

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↘↗	
Traffic Vol, veh/h	0	97	63	0	52	31
Future Vol, veh/h	0	97	63	0	52	31
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	105	68	0	57	34
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	7.8	7.6	7.7
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	63%
Vol Thru, %	100%	100%	0%
Vol Right, %	0%	0%	37%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	97	63	83
LT Vol	0	0	52
Through Vol	97	63	0
RT Vol	0	0	31
Lane Flow Rate	105	68	90
Geometry Grp	1	1	1
Degree of Util (X)	0.121	0.079	0.104
Departure Headway (Hd)	4.145	4.173	4.134
Convergence, Y/N	Yes	Yes	Yes
Cap	857	849	854
Service Time	2.208	2.245	2.219
HCM Lane V/C Ratio	0.123	0.08	0.105
HCM Control Delay	7.8	7.6	7.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.4	0.3	0.3

Lanes, Volumes, Timings
46: Linden Park & Dodge St/W Parade Ave

02/09/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	96	1	5	88	1	1
Future Volume (vph)	96	1	5	88	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999				0.932	
Flt Protected				0.998	0.976	
Satd. Flow (prot)	1861	0	0	1859	1694	0
Flt Permitted				0.998	0.976	
Satd. Flow (perm)	1861	0	0	1859	1694	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	489			199	180	
Travel Time (s)	11.1			4.5	4.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	104	1	5	96	1	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	105	0	0	101	2	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	18.7%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
46: Linden Park & Dodge St/W Parade Ave

02/09/2022

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	96	1	5	88	1	1
Future Vol, veh/h	96	1	5	88	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	104	1	5	96	1	1
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	105	0	211	105
Stage 1	-	-	-	-	105	-
Stage 2	-	-	-	-	106	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1486	-	777	949
Stage 1	-	-	-	-	919	-
Stage 2	-	-	-	-	918	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1486	-	774	949
Mov Cap-2 Maneuver	-	-	-	-	774	-
Stage 1	-	-	-	-	919	-
Stage 2	-	-	-	-	914	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0.4		9.2		
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	853	-	-	1486	-	
HCM Lane V/C Ratio	0.003	-	-	0.004	-	
HCM Control Delay (s)	9.2	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Lanes, Volumes, Timings
47: Humboldt Parkway NB & Riley St

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	8	70	5	0	0
Future Volume (vph)	0	8	70	5	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.992			
Flt Protected						
Satd. Flow (prot)	0	1611	1848	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1848	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	1082		722			610
Travel Time (s)	24.6		16.4			13.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	9	76	5	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	9	81	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	14.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
47: Humboldt Parkway NB & Riley St

02/09/2022

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	8	70	5	0	0
Future Vol, veh/h	0	8	70	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	9	76	5	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	79	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	981	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	981	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	8.7		0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		- 981			
HCM Lane V/C Ratio	-		- 0.009			
HCM Control Delay (s)	-		- 8.7			
HCM Lane LOS	-		- A			
HCM 95th %tile Q(veh)	-		- 0			

Lanes, Volumes, Timings
48: Humboldt Parkway NB & Woepfel St

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	4	279	5	0	0
Future Volume (vph)	0	4	279	5	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.998			
Flt Protected						
Satd. Flow (prot)	0	1611	1859	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1859	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	744		294			729
Travel Time (s)	16.9		6.7			16.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	4	303	5	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	4	308	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	25.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
48: Humboldt Parkway NB & Woepfel St

02/09/2022

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	279	5	0	0
Future Vol, veh/h	0	4	279	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	303	5	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	306	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	734	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	734	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	9.9		0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		- 734			
HCM Lane V/C Ratio	-		- 0.006			
HCM Control Delay (s)	-		- 9.9			
HCM Lane LOS	-		- A			
HCM 95th %tile Q(veh)	-		- 0			

Lanes, Volumes, Timings
49: Humboldt Parkway NB & Woodlawn Ave

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	12	276	9	0	0
Future Volume (vph)	0	12	276	9	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.996			
Flt Protected						
Satd. Flow (prot)	0	1611	1855	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1855	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	729		729			312
Travel Time (s)	16.6		16.6			7.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	13	300	10	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	13	310	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	25.1%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
49: Humboldt Parkway NB & Woodlawn Ave

02/09/2022

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	12	276	9	0	0
Future Vol, veh/h	0	12	276	9	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	13	300	10	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	305	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	735	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	735	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	10		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		-		735	
HCM Lane V/C Ratio	-		-		0.018	
HCM Control Delay (s)	-		-		10	
HCM Lane LOS	-		-		B	
HCM 95th %tile Q(veh)	-		-		0.1	

Lanes, Volumes, Timings
50: Humboldt Parkway SB & Florida St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	23	0	0	142	8
Future Volume (vph)	0	23	0	0	142	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.865			0.993	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1850	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1850	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	935			344	684	
Travel Time (s)	21.3			7.8	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	25	0	0	154	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	25	0	0	163	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 18.0% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
50: Humboldt Parkway SB & Florida St

02/09/2022

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	23	0	0	142	8
Future Vol, veh/h	0	23	0	0	142	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	25	0	0	154	9
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	159	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	886	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	886	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	9.2		0			
HCM LOS	A					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	886	-	-			
HCM Lane V/C Ratio	0.028	-	-			
HCM Control Delay (s)	9.2	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
51: Humboldt Parkway SB & Northland Ave

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	25	0	0	158	20
Future Volume (vph)	0	25	0	0	158	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.985	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1835	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1835	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2743			805	344	
Travel Time (s)	62.3			18.3	7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	27	0	0	172	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	27	0	0	194	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 19.5% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
51: Humboldt Parkway SB & Northland Ave

02/09/2022

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	25	0	0	158	20
Future Vol, veh/h	0	25	0	0	158	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	27	0	0	172	22
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	183	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	859	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	859	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	9.3		0			
HCM LOS	A					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	859	-	-			
HCM Lane V/C Ratio	0.032	-	-			
HCM Control Delay (s)	9.3	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
52: Humboldt Parkway SB & Brunswick Blvd

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	62	0	0	188	11
Future Volume (vph)	0	62	0	0	188	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.992	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1848	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1848	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2734			252	805	
Travel Time (s)	62.1			5.7	18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	67	0	0	204	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	67	0	0	216	0
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 21.1% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	62	0	0	188	11
Future Vol, veh/h	0	62	0	0	188	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	67	0	0	204	12
Number of Lanes	0	1	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	1
HCM Control Delay	7.1	8.3
HCM LOS	A	A

Lane	EBLn1	SBLn1
Vol Left, %	0%	0%
Vol Thru, %	0%	94%
Vol Right, %	100%	6%
Sign Control	Stop	Stop
Traffic Vol by Lane	62	199
LT Vol	0	0
Through Vol	0	188
RT Vol	62	11
Lane Flow Rate	67	216
Geometry Grp	1	1
Degree of Util (X)	0.069	0.241
Departure Headway (Hd)	3.709	4.019
Convergence, Y/N	Yes	Yes
Cap	947	896
Service Time	1.805	2.036
HCM Lane V/C Ratio	0.071	0.241
HCM Control Delay	7.1	8.3
HCM Lane LOS	A	A
HCM 95th-tile Q	0.2	0.9

Lanes, Volumes, Timings
53: Humboldt Parkway SB & Goulding Ave

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	46	0	0	943	0
Future Volume (vph)	0	46	0	0	943	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	3539	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	3539	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1067			270	306	
Travel Time (s)	24.3			6.1	7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	50	0	0	1025	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	50	0	0	1025	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 30.0% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
53: Humboldt Parkway SB & Goulding Ave

02/09/2022

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↗↗	
Traffic Vol, veh/h	0	46	0	0	943	0
Future Vol, veh/h	0	46	0	0	943	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	50	0	0	1025	0

Major/Minor	Minor2		Major2	
Conflicting Flow All	-	513	-	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	6.94	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	3.32	-	-
Pot Cap-1 Maneuver	0	506	-	0
Stage 1	0	-	-	0
Stage 2	0	-	-	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	-	506	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	12.9	0
HCM LOS	B	

Minor Lane/Major Mvmt	EBLn1	SBT
Capacity (veh/h)	506	-
HCM Lane V/C Ratio	0.099	-
HCM Control Delay (s)	12.9	-
HCM Lane LOS	B	-
HCM 95th %tile Q(veh)	0.3	-

Lanes, Volumes, Timings
54: Humboldt Parkway NB & Sydney St

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	39	475	0	0	0
Future Volume (vph)	0	39	475	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	913		608			1024
Travel Time (s)	20.8		13.8			23.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	42	516	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	42	516	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	35.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
54: Humboldt Parkway NB & Sydney St

02/09/2022

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	39	475	0	0	0
Future Vol, veh/h	0	39	475	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	42	516	0	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	516	0	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	559	-	0		
Stage 1	0	-	-	0		
Stage 2	0	-	-	0		
Platoon blocked, %			-			
Mov Cap-1 Maneuver	-	559	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	12		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBTWBLn1					
Capacity (veh/h)	-		559			
HCM Lane V/C Ratio	-		0.076			
HCM Control Delay (s)	-		12			
HCM Lane LOS	-		B			
HCM 95th %tile Q(veh)	-		0.2			

Lanes, Volumes, Timings
55: Humboldt Parkway NB & Northland Ave

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	60	451	60	0	0
Future Volume (vph)	0	60	451	60	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865	0.865	0.984			
Flt Protected						
Satd. Flow (prot)	0	1611	1833	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1833	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	1020		1024			1019
Travel Time (s)	23.2		23.3			23.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	65	490	65	0	0
Shared Lane Traffic (%)		10%				
Lane Group Flow (vph)	7	58	555	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	37.8%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
55: Humboldt Parkway NB & Northland Ave

02/09/2022

Intersection

Int Delay, s/veh 1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	60	451	60	0	0
Future Vol, veh/h	0	60	451	60	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	65	490	65	0	0

Major/Minor	Minor1	Major1
Conflicting Flow All	- 523	0 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 554	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 554	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	WB	NB
HCM Control Delay, s	12.4	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBT	NBRWBLn1
Capacity (veh/h)	- -	554
HCM Lane V/C Ratio	- -	0.118
HCM Control Delay (s)	- -	12.4
HCM Lane LOS	- -	B
HCM 95th %tile Q(veh)	- -	0.4

Lanes, Volumes, Timings
56: Roehrer Ave & E Ferry St

02/09/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	314	9	15	512	2	20
Future Volume (vph)	314	9	15	512	2	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.876	
Flt Protected				0.999	0.996	
Satd. Flow (prot)	1855	0	0	1861	1625	0
Flt Permitted				0.999	0.996	
Satd. Flow (perm)	1855	0	0	1861	1625	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1109			280	1331	
Travel Time (s)	25.2			6.4	30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	341	10	16	557	2	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	351	0	0	573	24	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	49.0%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	314	9	15	512	2	20
Future Vol, veh/h	314	9	15	512	2	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	341	10	16	557	2	22
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	351	0	935	346
Stage 1	-	-	-	-	346	-
Stage 2	-	-	-	-	589	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1208	-	295	697
Stage 1	-	-	-	-	716	-
Stage 2	-	-	-	-	554	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1208	-	289	697
Mov Cap-2 Maneuver	-	-	-	-	289	-
Stage 1	-	-	-	-	716	-
Stage 2	-	-	-	-	543	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		11.1	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	618	-	-	1208	-	
HCM Lane V/C Ratio	0.039	-	-	0.013	-	
HCM Control Delay (s)	11.1	-	-	8	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Lanes, Volumes, Timings
57: Roehrer Ave & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	109	0	2	126	7	3	10	4	2	12	4
Future Volume (vph)	4	109	0	2	126	7	3	10	4	2	12	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.993			0.970			0.972	
Flt Protected		0.998			0.999			0.992			0.995	
Satd. Flow (prot)	0	1859	0	0	1848	0	0	1792	0	0	1802	0
Flt Permitted		0.998			0.999			0.992			0.995	
Satd. Flow (perm)	0	1859	0	0	1848	0	0	1792	0	0	1802	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1295			274			1342			1331	
Travel Time (s)		29.4			6.2			30.5			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	118	0	2	137	8	3	11	4	2	13	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	122	0	0	147	0	0	18	0	0	19	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	18.0%						ICU Level of Service A					
Analysis Period (min)	15											

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	109	0	2	126	7	3	10	4	2	12	4
Future Vol, veh/h	4	109	0	2	126	7	3	10	4	2	12	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	118	0	2	137	8	3	11	4	2	13	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	7.9	7.5	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	4%	1%	11%
Vol Thru, %	59%	96%	93%	67%
Vol Right, %	24%	0%	5%	22%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	17	113	135	18
LT Vol	3	4	2	2
Through Vol	10	109	126	12
RT Vol	4	0	7	4
Lane Flow Rate	18	123	147	20
Geometry Grp	1	1	1	1
Degree of Util (X)	0.023	0.14	0.166	0.024
Departure Headway (Hd)	4.434	4.116	4.063	4.428
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	812	865	876	813
Service Time	2.435	2.175	2.117	2.429
HCM Lane V/C Ratio	0.022	0.142	0.168	0.025
HCM Control Delay	7.5	7.9	7.9	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.5	0.6	0.1

Lanes, Volumes, Timings
58: Wohlers Ave & Northampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	58	3	2	68	8	9	27	5	11	12	5
Future Volume (vph)	7	58	3	2	68	8	9	27	5	11	12	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.986			0.985			0.977	
Flt Protected		0.995			0.999			0.989			0.980	
Satd. Flow (prot)	0	1844	0	0	1835	0	0	1815	0	0	1784	0
Flt Permitted		0.995			0.999			0.989			0.980	
Satd. Flow (perm)	0	1844	0	0	1835	0	0	1815	0	0	1784	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		276			1045			1317			1331	
Travel Time (s)		6.3			23.8			29.9			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	63	3	2	74	9	10	29	5	12	13	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	74	0	0	85	0	0	44	0	0	30	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 16.7%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	7	58	3	2	68	8	9	27	5	11	12	5
Future Vol, veh/h	7	58	3	2	68	8	9	27	5	11	12	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	63	3	2	74	9	10	29	5	12	13	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.6	7.5	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	22%	10%	3%	39%
Vol Thru, %	66%	85%	87%	43%
Vol Right, %	12%	4%	10%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	41	68	78	28
LT Vol	9	7	2	11
Through Vol	27	58	68	12
RT Vol	5	3	8	5
Lane Flow Rate	45	74	85	30
Geometry Grp	1	1	1	1
Degree of Util (X)	0.052	0.085	0.096	0.036
Departure Headway (Hd)	4.202	4.123	4.065	4.214
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	840	862	874	837
Service Time	2.287	2.183	2.123	2.302
HCM Lane V/C Ratio	0.054	0.086	0.097	0.036
HCM Control Delay	7.5	7.6	7.6	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.3	0.3	0.1

Lanes, Volumes, Timings
59: Roehrer Ave & Northhampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	61	2	3	74	4	4	14	2	4	14	0
Future Volume (vph)	0	61	2	3	74	4	4	14	2	4	14	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.994			0.987				
Flt Protected					0.998			0.991			0.990	
Satd. Flow (prot)	0	1855	0	0	1848	0	0	1822	0	0	1844	0
Flt Permitted					0.998			0.991			0.990	
Satd. Flow (perm)	0	1855	0	0	1848	0	0	1822	0	0	1844	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1290			276			1313			1342	
Travel Time (s)		29.3			6.3			29.8			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	66	2	3	80	4	4	15	2	4	15	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	68	0	0	87	0	0	21	0	0	19	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	16.6%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

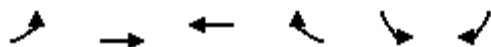
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	61	2	3	74	4	4	14	2	4	14	0
Future Vol, veh/h	0	61	2	3	74	4	4	14	2	4	14	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	66	2	3	80	4	4	15	2	4	15	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.4	7.5	7.4	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	0%	4%	22%
Vol Thru, %	70%	97%	91%	78%
Vol Right, %	10%	3%	5%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	63	81	18
LT Vol	4	0	3	4
Through Vol	14	61	74	14
RT Vol	2	2	4	0
Lane Flow Rate	22	68	88	20
Geometry Grp	1	1	1	1
Degree of Util (X)	0.025	0.077	0.099	0.023
Departure Headway (Hd)	4.198	4.051	4.034	4.265
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	842	881	886	830
Service Time	2.275	2.093	2.071	2.341
HCM Lane V/C Ratio	0.026	0.077	0.099	0.024
HCM Control Delay	7.4	7.4	7.5	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.3	0.1

Lanes, Volumes, Timings
60: Best St & Wohlers Ave

02/09/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	3	468	556	23	17	4
Future Volume (vph)	3	468	556	23	17	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995		0.975	
Flt Protected					0.961	
Satd. Flow (prot)	0	1863	1853	0	1745	0
Flt Permitted					0.961	
Satd. Flow (perm)	0	1863	1853	0	1745	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		280	473		1317	
Travel Time (s)		6.4	10.8		29.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	509	604	25	18	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	512	629	0	22	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

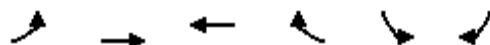
Intersection Capacity Utilization 40.7% ICU Level of Service A

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	468	556	23	17	4
Future Vol, veh/h	3	468	556	23	17	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	509	604	25	18	4
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	629	0	-	0	1132	617
Stage 1	-	-	-	-	617	-
Stage 2	-	-	-	-	515	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	953	-	-	-	225	490
Stage 1	-	-	-	-	538	-
Stage 2	-	-	-	-	600	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	953	-	-	-	224	490
Mov Cap-2 Maneuver	-	-	-	-	224	-
Stage 1	-	-	-	-	536	-
Stage 2	-	-	-	-	600	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		20.8		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	953	-	-	-	250	
HCM Lane V/C Ratio	0.003	-	-	-	0.091	
HCM Control Delay (s)	8.8	0	-	-	20.8	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.3	

Lanes, Volumes, Timings
61: Best St & Roehrer Ave

02/09/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	453	545	19	14	7
Future Volume (vph)	4	453	545	19	14	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995		0.953	
Flt Protected					0.968	
Satd. Flow (prot)	0	1863	1853	0	1718	0
Flt Permitted					0.968	
Satd. Flow (perm)	0	1863	1853	0	1718	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1123	280		1313	
Travel Time (s)		25.5	6.4		29.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	492	592	21	15	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	496	613	0	23	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 39.8% ICU Level of Service A

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	453	545	19	14	7
Future Vol, veh/h	4	453	545	19	14	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	492	592	21	15	8
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	613	0	-	0	1103	603
Stage 1	-	-	-	-	603	-
Stage 2	-	-	-	-	500	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	966	-	-	-	234	499
Stage 1	-	-	-	-	546	-
Stage 2	-	-	-	-	609	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	966	-	-	-	233	499
Mov Cap-2 Maneuver	-	-	-	-	233	-
Stage 1	-	-	-	-	543	-
Stage 2	-	-	-	-	609	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		18.8		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	966	-	-	-	283	
HCM Lane V/C Ratio	0.005	-	-	-	0.081	
HCM Control Delay (s)	8.7	0	-	-	18.8	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.3	

Lanes, Volumes, Timings
62: Jefferson Ave & Eaton St/Kingsley St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	8	3	3	13	1	4	183	1	5	218	4
Future Volume (vph)	2	8	3	3	13	1	4	183	1	5	218	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt		0.971			0.992			0.999			0.998	
Flt Protected		0.993			0.992			0.999			0.999	
Satd. Flow (prot)	0	1796	0	0	1833	0	0	1859	0	0	1857	0
Flt Permitted								0.996			0.996	
Satd. Flow (perm)	0	1809	0	0	1848	0	0	1853	0	0	1852	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			1			1			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		911			1129			278			418	
Travel Time (s)		20.7			25.7			6.3			9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	9	3	3	14	1	4	199	1	5	237	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	0	0	18	0	0	204	0	0	246	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		5.9			6.0			35.0			35.0	
Actuated g/C Ratio		0.16			0.16			0.92			0.92	
v/c Ratio		0.05			0.06			0.12			0.14	
Control Delay		13.1			13.9			1.6			1.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.1			13.9			1.6			1.6	
LOS		B			B			A			A	
Approach Delay		13.1			13.9			1.6			1.6	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 38												

Lanes, Volumes, Timings
62: Jefferson Ave & Eaton St/Kingsley St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.14

Intersection Signal Delay: 2.4

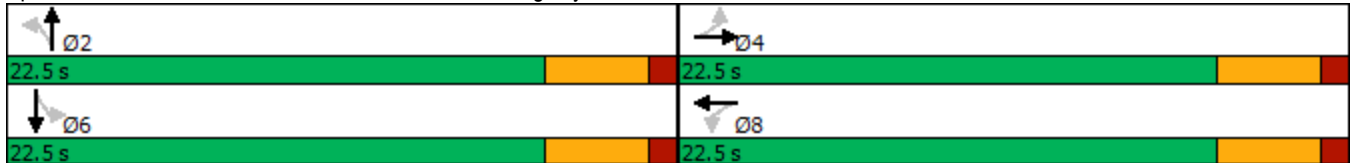
Intersection LOS: A

Intersection Capacity Utilization 25.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 62: Jefferson Ave & Eaton St/Kingsley St



Lanes, Volumes, Timings
118: Humboldt Parkway SB

02/09/2022

						
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	306			252	236	
Travel Time (s)	7.0			5.7	5.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 18.3%				ICU Level of Service A		
Analysis Period (min) 15						

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	335	518	0	0	333	311	39	60	129	0	0	0
Future Volume (vph)	335	518	0	0	333	311	39	60	129	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.928			0.923				
Flt Protected		0.981						0.992				
Satd. Flow (prot)	0	3472	0	0	3284	0	0	1706	0	0	0	0
Flt Permitted		0.571						0.992				
Satd. Flow (perm)	0	2021	0	0	3284	0	0	1706	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					338			119				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		249			205			354			335	
Travel Time (s)		5.7			4.7			8.0			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	364	563	0	0	362	338	42	65	140	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	927	0	0	700	0	0	247	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (s)	35.0	35.0			35.0		35.0	35.0				
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max			C-Max		None	None				
Act Effct Green (s)		30.5			30.5			30.5				
Actuated g/C Ratio		0.44			0.44			0.44				
v/c Ratio		1.43dl			0.43			0.30				
Control Delay		60.1			7.6			7.7				
Queue Delay		0.0			1.5			0.0				
Total Delay		60.1			9.2			7.7				
LOS		E			A			A				
Approach Delay		60.1			9.2			7.7				
Approach LOS		E			A			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 70												
Actuated Cycle Length: 70												

Lanes, Volumes, Timings
1: EB Off Ramp/EB On Ramp & Best St

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	35.0
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

02/09/2022

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.10

Intersection Signal Delay: 34.2

Intersection LOS: C

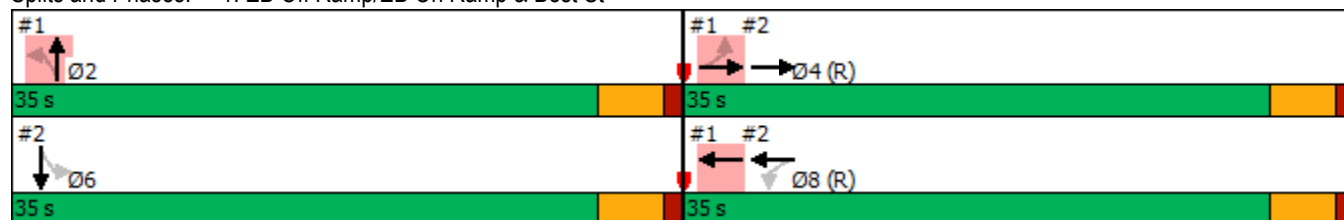
Intersection Capacity Utilization 67.7%

ICU Level of Service C

Analysis Period (min) 15

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 1: EB Off Ramp/EB On Ramp & Best St



Lanes, Volumes, Timings
2: WB On Ramp/WB Off Ramp & Best St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	500	44	116	258	0	0	0	0	356	0	457
Future Volume (vph)	0	500	44	116	258	0	0	0	0	356	0	457
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988									0.924	
Flt Protected					0.985						0.979	
Satd. Flow (prot)	0	3497	0	0	3486	0	0	0	0	0	1685	0
Flt Permitted					0.654						0.979	
Satd. Flow (perm)	0	3497	0	0	2315	0	0	0	0	0	1685	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17									117	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		473			249			324			375	
Travel Time (s)		10.8			5.7			7.4			8.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	543	48	126	280	0	0	0	0	387	0	497
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	591	0	0	406	0	0	0	0	0	884	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		35.0		35.0	35.0					35.0	35.0	
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0			0.0						0.0	
Total Lost Time (s)		4.5			4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max		C-Max	C-Max					None	None	
Act Effct Green (s)		30.5			30.5						30.5	
Actuated g/C Ratio		0.44			0.44						0.44	
v/c Ratio		0.39			0.40						1.10	
Control Delay		13.9			9.9						84.9	
Queue Delay		0.8			0.2						0.1	
Total Delay		14.7			10.1						85.0	
LOS		B			B						F	
Approach Delay		14.7			10.1						85.0	
Approach LOS		B			B						F	
Intersection Summary												

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	35.0
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

02/09/2022

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.10

Intersection Signal Delay: 46.8

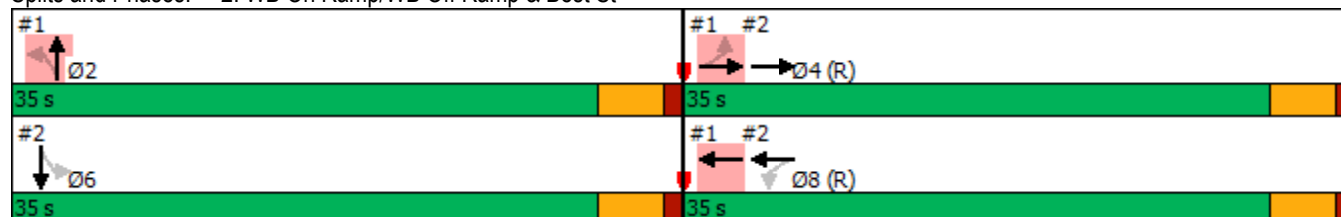
Intersection LOS: D

Intersection Capacity Utilization 84.7%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 2: WB On Ramp/WB Off Ramp & Best St



Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

02/09/2022

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	44	4	508	90	42	519	2	25	51	18	1	5
Future Volume (vph)	44	4	508	90	42	519	2	25	51	18	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't			0.979			0.994				0.990		
Flt Protected			0.996			0.996				0.967		
Satd. Flow (prot)	0	0	3451	0	0	1844	0	0	0	1783	0	0
Flt Permitted			0.881			0.918				0.763		
Satd. Flow (perm)	0	0	3053	0	0	1700	0	0	0	1407	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			47			6				5		
Link Speed (mph)			30			30				30		
Link Distance (ft)			205			1418				1329		
Travel Time (s)			4.7			32.2				30.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	48	4	552	98	46	564	2	27	55	20	1	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	702	0	0	639	0	0	0	81	0	0
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		
Protected Phases			4			8				2		
Permitted Phases	4	4			8				2			
Detector Phase	4	4	4		8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			5.0	5.0		
Minimum Split (s)	22.5	22.5	22.5		22.5	22.5			22.5	22.5		
Total Split (s)	37.0	37.0	37.0		37.0	37.0			23.0	23.0		
Total Split (%)	61.7%	61.7%	61.7%		61.7%	61.7%			38.3%	38.3%		
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5			3.5	3.5		
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0			1.0	1.0		
Lost Time Adjust (s)			0.0			0.0				0.0		
Total Lost Time (s)			4.5			4.5				4.5		
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None		None	None			C-Max	C-Max		
Act Effect Green (s)			27.8			27.8				23.2		
Actuated g/C Ratio			0.46			0.46				0.39		
v/c Ratio			0.49			0.81				0.15		
Control Delay			10.9			21.9				14.6		
Queue Delay			1.2			0.0				0.0		
Total Delay			12.1			21.9				14.6		
LOS			B			C				B		
Approach Delay			12.1			21.9				14.6		
Approach LOS			B			C				B		
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 60												

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

02/09/2022



Lane Group	SBL	SBT	SBR
Lane Configurations		↕	
Traffic Volume (vph)	61	37	76
Future Volume (vph)	61	37	76
Ideal Flow (vphpl)	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00
Fr't		0.941	
Flt Protected		0.983	
Satd. Flow (prot)	0	1723	0
Flt Permitted		0.882	
Satd. Flow (perm)	0	1546	0
Right Turn on Red			Yes
Satd. Flow (RTOR)		68	
Link Speed (mph)		30	
Link Distance (ft)		738	
Travel Time (s)		16.8	
Peak Hour Factor	0.92	0.92	0.92
Adj. Flow (vph)	66	40	83
Shared Lane Traffic (%)			
Lane Group Flow (vph)	0	189	0
Turn Type	Perm	NA	
Protected Phases		6	
Permitted Phases	6		
Detector Phase	6	6	
Switch Phase			
Minimum Initial (s)	5.0	5.0	
Minimum Split (s)	22.5	22.5	
Total Split (s)	23.0	23.0	
Total Split (%)	38.3%	38.3%	
Yellow Time (s)	3.5	3.5	
All-Red Time (s)	1.0	1.0	
Lost Time Adjust (s)		0.0	
Total Lost Time (s)		4.5	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	
Act Effct Green (s)		23.2	
Actuated g/C Ratio		0.39	
v/c Ratio		0.30	
Control Delay		11.3	
Queue Delay		0.0	
Total Delay		11.3	
LOS		B	
Approach Delay		11.3	
Approach LOS		B	
Intersection Summary			

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

02/09/2022

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 16.0

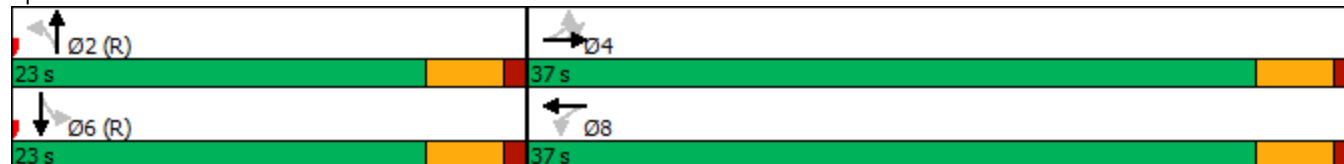
Intersection LOS: B

Intersection Capacity Utilization 70.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 3: Herman St/W Parade Ave & Best St



Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

02/09/2022

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	62	1	5	59	0	0	0	0	69	61	23	
Future Volume (vph)	0	62	1	5	59	0	0	0	0	69	61	23	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.998										0.980		
Flt Protected	0.996										0.978		
Satd. Flow (prot)	0	1859	0	0	1855	0	0	0	0	0	1785	0	
Flt Permitted	0.973										0.978		
Satd. Flow (perm)	0	1859	0	0	1812	0	0	0	0	0	1785	0	
Right Turn on Red	Yes					Yes				Yes			Yes
Satd. Flow (RTOR)	1										24		
Link Speed (mph)	30				30				30				
Link Distance (ft)	1045				283				370				
Travel Time (s)	23.8				6.4				8.4				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	67	1	5	64	0	0	0	0	75	66	25	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	68	0	0	69	0	0	0	0	0	166	0	
Turn Type	NA			Perm		NA		Perm			NA		
Protected Phases	4				8				6				
Permitted Phases					8				6				
Detector Phase	4			8		8		6			6		
Switch Phase													
Minimum Initial (s)	5.0			5.0		5.0		5.0			5.0		
Minimum Split (s)	22.5			22.5		22.5		22.5			22.5		
Total Split (s)	22.5			22.5		22.5		22.5			22.5		
Total Split (%)	50.0%			50.0%		50.0%		50.0%			50.0%		
Yellow Time (s)	3.5			3.5		3.5		3.5			3.5		
All-Red Time (s)	1.0			1.0		1.0		1.0			1.0		
Lost Time Adjust (s)	0.0				0.0				0.0				
Total Lost Time (s)	4.5				4.5				4.5				
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode	None			None		None		Max			Max		
Act Effct Green (s)	7.5				7.5				21.7				
Actuated g/C Ratio	0.21				0.21				0.61				
v/c Ratio	0.17				0.18				0.15				
Control Delay	11.7				9.7				4.7				
Queue Delay	0.0				0.0				0.0				
Total Delay	11.7				9.7				4.7				
LOS	B				A				A				
Approach Delay	11.7				9.7				4.7				
Approach LOS	B				A				A				
Intersection Summary													
Area Type:	Other												
Cycle Length: 45													
Actuated Cycle Length: 35.5													

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.31

Intersection Signal Delay: 7.4

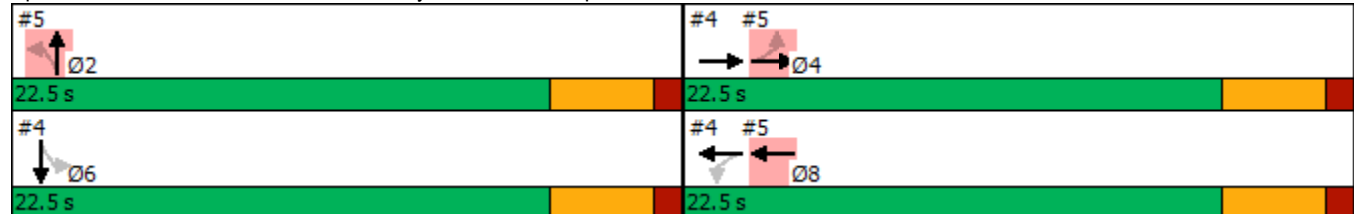
Intersection LOS: A

Intersection Capacity Utilization 23.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: Humboldt Parkway SB & Northhampton St



Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	76	0	0	85	23	5	21	9	0	0	0
Future Volume (vph)	23	76	0	0	85	23	5	21	9	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.971			0.964				
Fl _t Protected		0.989						0.993				
Satd. Flow (prot)	0	1842	0	0	1809	0	0	1783	0	0	0	0
Fl _t Permitted		0.886						0.993				
Satd. Flow (perm)	0	1650	0	0	1809	0	0	1783	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					25			10				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		283			1089			152				722
Travel Time (s)		6.4			24.8			3.5				16.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	25	83	0	0	92	25	5	23	10	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	108	0	0	117	0	0	38	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max				
Act Effct Green (s)		7.5			7.5			21.7				
Actuated g/C Ratio		0.21			0.21			0.61				
v/c Ratio		0.31			0.29			0.03				
Control Delay		11.6			11.2			4.0				
Queue Delay		0.0			0.0			0.0				
Total Delay		11.6			11.2			4.0				
LOS		B			B			A				
Approach Delay		11.6			11.2			4.0				
Approach LOS		B			B			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.5												

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings 5: Humboldt Parkway NB & Northhampton St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.31

Intersection Signal Delay: 10.3

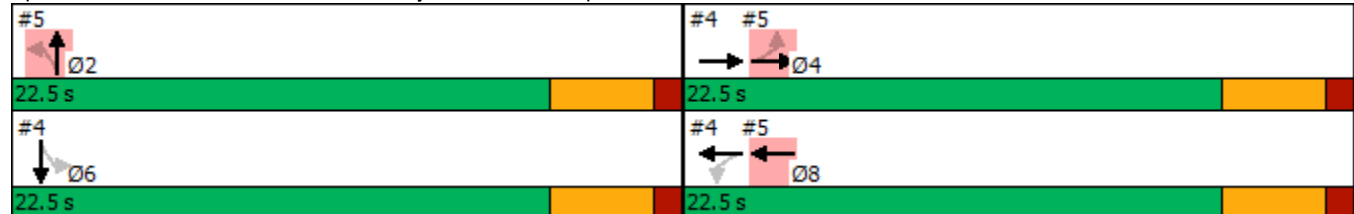
Intersection LOS: B

Intersection Capacity Utilization 23.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Humboldt Parkway NB & Northhampton St



Lanes, Volumes, Timings
6: Humboldt Parkway SB & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩		↩	↩						↩↪	
Traffic Volume (vph)	0	91	36	79	116	0	0	0	0	55	387	66
Future Volume (vph)	0	91	36	79	116	0	0	0	0	55	387	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.962									0.980	
Flt Protected				0.950							0.995	
Satd. Flow (prot)	0	1792	0	1770	1863	0	0	0	0	0	3451	0
Flt Permitted				0.669							0.995	
Satd. Flow (perm)	0	1792	0	1246	1863	0	0	0	0	0	3451	0
Right Turn on Red			Yes			Yes				Yes		Yes
Satd. Flow (RTOR)		39									44	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1173			153			636			456	
Travel Time (s)		26.7			3.5			14.5			10.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	99	39	86	126	0	0	0	0	60	421	72
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	138	0	86	126	0	0	0	0	0	553	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		4.5		4.5	4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					Max	Max	
Act Effct Green (s)		8.4		8.4	8.4						21.9	
Actuated g/C Ratio		0.23		0.23	0.23						0.60	
v/c Ratio		0.31		0.30	0.29						0.27	
Control Delay		10.2		10.4	9.5						5.3	
Queue Delay		0.0		0.1	0.1						0.0	
Total Delay		10.2		10.5	9.5						5.3	
LOS		B		B	A						A	
Approach Delay		10.2			9.9						5.3	
Approach LOS		B			A						A	
Intersection Summary												

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

02/09/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36.5

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.33

Intersection Signal Delay: 7.2

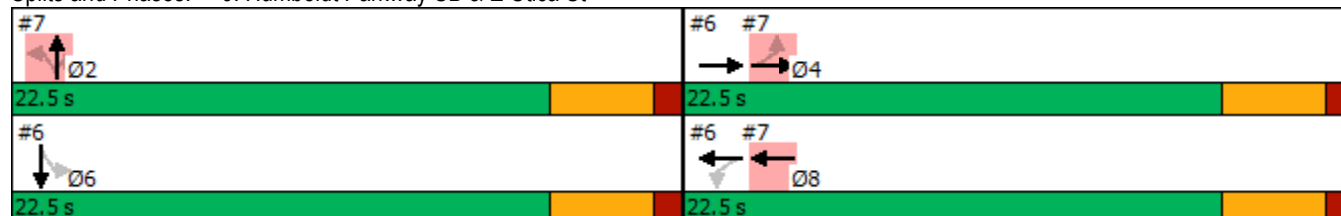
Intersection LOS: A

Intersection Capacity Utilization 54.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: Humboldt Parkway SB & E Utica St



Lanes, Volumes, Timings
7: Humboldt Parkway NB & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	94	0	0	114	18	80	232	55	0	0	0
Future Volume (vph)	54	94	0	0	114	18	80	232	55	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.981				0.850			
Fl _t Protected	0.950							0.987				
Satd. Flow (prot)	1770	1863	0	0	1827	0	0	1839	1583	0	0	0
Fl _t Permitted	0.665							0.987				
Satd. Flow (perm)	1239	1863	0	0	1827	0	0	1839	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					20				60			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		153			1083			610			294	
Travel Time (s)		3.5			24.6			13.9			6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	102	0	0	124	20	87	252	60	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	59	102	0	0	144	0	0	339	60	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max	Max			
Act Effct Green (s)	8.4	8.4			8.4			21.9	21.9			
Actuated g/C Ratio	0.23	0.23			0.23			0.60	0.60			
v/c Ratio	0.21	0.24			0.33			0.31	0.06			
Control Delay	9.5	9.3			11.8			6.8	2.5			
Queue Delay	0.0	0.1			0.0			0.0	0.0			
Total Delay	9.5	9.3			11.8			6.8	2.5			
LOS	A	A			B			A	A			
Approach Delay		9.4			11.8			6.1				
Approach LOS		A			B			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.5												

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.33

Intersection Signal Delay: 8.0

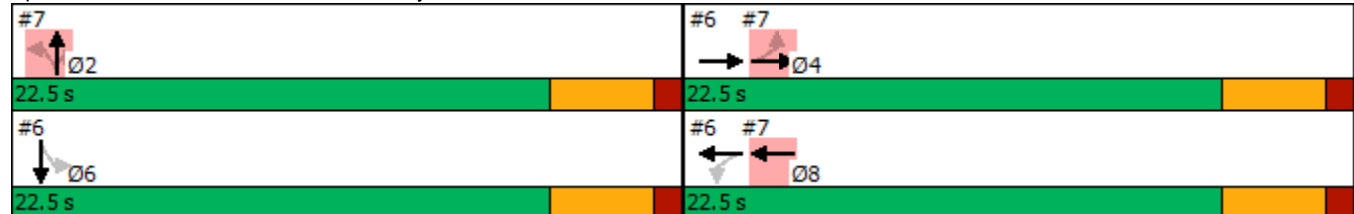
Intersection LOS: A

Intersection Capacity Utilization 54.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 7: Humboldt Parkway NB & E Utica St



Lanes, Volumes, Timings
8: Humboldt Parkway SB & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	286	53	101	185	0	0	0	0	243	360	435
Future Volume (vph)	0	286	53	101	185	0	0	0	0	243	360	435
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't	0.979											0.850
Flt Protected				0.950							0.980	
Satd. Flow (prot)	0	1824	0	1770	1863	0	0	0	0	0	1825	1583
Flt Permitted				0.443							0.980	
Satd. Flow (perm)	0	1824	0	825	1863	0	0	0	0	0	1825	1583
Right Turn on Red			Yes			Yes				Yes		Yes
Satd. Flow (RTOR)		23										473
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1179			147			319			270	
Travel Time (s)		26.8			3.3			7.3			6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	311	58	110	201	0	0	0	0	264	391	473
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	369	0	110	201	0	0	0	0	0	655	473
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		25.0		25.0	25.0					25.0	25.0	25.0
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	50.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					Max	Max	Max
Act Effct Green (s)		17.3		17.3	17.3						20.7	20.7
Actuated g/C Ratio		0.37		0.37	0.37						0.44	0.44
v/c Ratio		0.54		0.36	0.29						0.82	0.49
Control Delay		13.9		8.1	6.0						24.7	3.3
Queue Delay		0.2		0.6	0.6						8.9	0.0
Total Delay		14.1		8.7	6.6						33.6	3.3
LOS		B		A	A						C	A
Approach Delay		14.1			7.3						20.9	
Approach LOS		B			A						C	
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 47.1												

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	25.0
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

02/09/2022

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 17.2

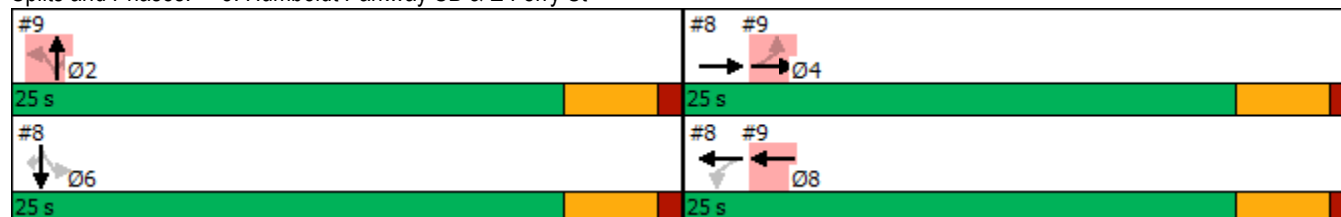
Intersection LOS: B

Intersection Capacity Utilization 91.0%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 8: Humboldt Parkway SB & E Ferry St



Lanes, Volumes, Timings
9: Humboldt Parkway NB & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	240	296	0	0	241	71	49	212	43	0	0	0
Future Volume (vph)	240	296	0	0	241	71	49	212	43	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	75		0	0		0
Storage Lanes	1		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.969				0.850			
Flt Protected	0.950							0.991				
Satd. Flow (prot)	1770	1863	0	0	1805	0	0	1846	1583	0	0	0
Flt Permitted	0.480							0.991				
Satd. Flow (perm)	894	1863	0	0	1805	0	0	1846	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					36				47			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		147			1082			312			608	
Travel Time (s)		3.3			24.6			7.1			13.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	261	322	0	0	262	77	53	230	47	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	261	322	0	0	339	0	0	283	47	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	25.0	25.0			25.0		25.0	25.0	25.0			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max	Max			
Act Effct Green (s)	17.3	17.3			17.3			20.7	20.7			
Actuated g/C Ratio	0.37	0.37			0.37			0.44	0.44			
v/c Ratio	0.80	0.47			0.49			0.35	0.07			
Control Delay	28.0	10.4			12.6			11.4	3.8			
Queue Delay	2.2	1.9			0.0			0.0	0.0			
Total Delay	30.2	12.2			12.6			11.4	3.8			
LOS	C	B			B			B	A			
Approach Delay		20.3			12.6			10.3				
Approach LOS		C			B			B				
Intersection Summary												

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	25.0
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

02/09/2022

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 47.1

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 15.6

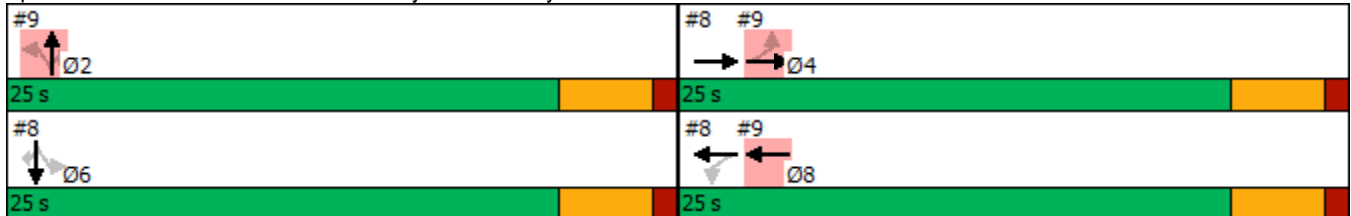
Intersection LOS: B

Intersection Capacity Utilization 91.0%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 9: Humboldt Parkway NB & E Ferry St



Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

02/09/2022

												
Lane Group	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	Ø8
Lane Configurations												
Traffic Volume (vph)	13	7	0	0	348	212	143	544	0	0	0	
Future Volume (vph)	13	7	0	0	348	212	143	544	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	
Fr t					0.943							
Flt Protected		0.950						0.990				
Satd. Flow (prot)	0	1770	0	0	3337	0	0	3504	0	0	0	
Flt Permitted		0.950						0.680				
Satd. Flow (perm)	0	1770	0	0	3337	0	0	2407	0	0	0	
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)					230							
Link Speed (mph)		30			30			30		30		
Link Distance (ft)		537			328			271		387		
Travel Time (s)		12.2			7.5			6.2		8.8		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	14	8	0	0	378	230	155	591	0	0	0	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	22	0	0	608	0	0	746	0	0	0	
Turn Type	Perm	Prot			NA		Perm	NA				
Protected Phases		4			2			6				8
Permitted Phases	4						6					
Detector Phase	4	4			2		6	6				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				5.0
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				22.5
Total Split (s)	29.0	29.0			26.0		26.0	26.0				29.0
Total Split (%)	52.7%	52.7%			47.3%		47.3%	47.3%				53%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				3.5
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				1.0
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			Max		Max	Max				None
Act Effct Green (s)		22.9			21.6			21.6				
Actuated g/C Ratio		0.43			0.40			0.40				
v/c Ratio		0.03			0.41			0.77				
Control Delay		8.8			8.2			15.8				
Queue Delay		0.0			0.0			0.0				
Total Delay		8.8			8.2			15.8				
LOS		A			A			B				
Approach Delay		8.8			8.2			15.8				
Approach LOS		A			A			B				
Intersection Summary												
Area Type:	Other											
Cycle Length: 55												
Actuated Cycle Length: 53.5												

Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

02/09/2022

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 12.3

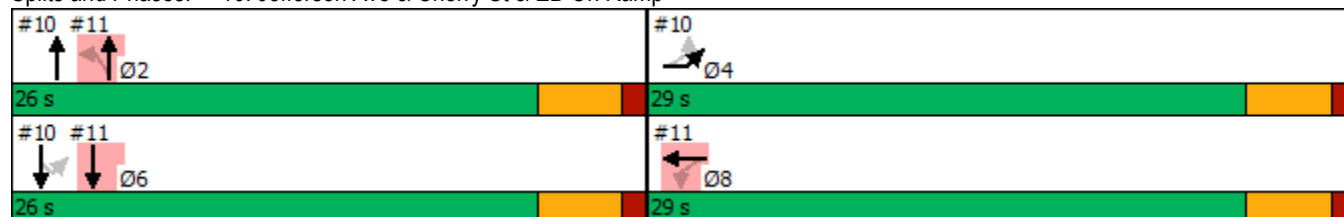
Intersection LOS: B

Intersection Capacity Utilization 51.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 10: Jefferson Ave & Cherry St & EB On Ramp



Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Volume (vph)	0	0	0	262	23	408	42	316	0	0	413	21
Future Volume (vph)	0	0	0	262	23	408	42	316	0	0	413	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt					0.921						0.993	
Flt Protected					0.981			0.994				
Satd. Flow (prot)	0	0	0	0	1683	0	0	3518	0	0	3514	0
Flt Permitted					0.981			0.866				
Satd. Flow (perm)	0	0	0	0	1683	0	0	3065	0	0	3514	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					169						11	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			384			271			880	
Travel Time (s)		12.9			8.7			6.2			20.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	285	25	443	46	343	0	0	449	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	753	0	0	389	0	0	472	0
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8			2					
Detector Phase				8	8		2	2			6	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				29.0	29.0		26.0	26.0			26.0	
Total Split (%)				52.7%	52.7%		47.3%	47.3%			47.3%	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)					22.9			21.6			21.6	
Actuated g/C Ratio					0.43			0.40			0.40	
v/c Ratio					0.92			0.31			0.33	
Control Delay					31.1			7.1			12.0	
Queue Delay					0.3			0.0			0.1	
Total Delay					31.4			7.1			12.1	
LOS					C			A			B	
Approach Delay					31.4			7.1			12.1	
Approach LOS					C			A			B	
Intersection Summary												

Lanes, Volumes, Timings
11: Jefferson Ave & BFNC Dr/WB Off Ramp

02/09/2022

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	29.0
Total Split (%)	53%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

02/09/2022

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 53.5

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 19.9

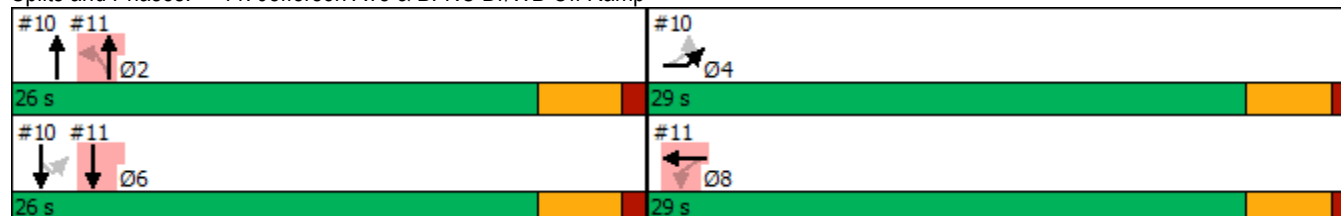
Intersection LOS: B

Intersection Capacity Utilization 74.1%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 11: Jefferson Ave & BFNC Dr/WB Off Ramp



Lanes, Volumes, Timings
12: Jefferson Ave & Genesee St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	85	11	77	175	38	9	440	26	29	437	69
Future Volume (vph)	36	85	11	77	175	38	9	440	26	29	437	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.987			0.980			0.992			0.981	
Flt Protected		0.987			0.987			0.999			0.997	
Satd. Flow (prot)	0	3448	0	0	3423	0	0	3507	0	0	3462	0
Flt Permitted		0.809			0.836			0.944			0.916	
Satd. Flow (perm)	0	2826	0	0	2900	0	0	3314	0	0	3180	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			41			15			43	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		737			2886			735			328	
Travel Time (s)		16.8			65.6			16.7			7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	39	92	12	84	190	41	10	478	28	32	475	75
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	143	0	0	315	0	0	516	0	0	582	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.9			8.9			19.4			19.4	
Actuated g/C Ratio		0.24			0.24			0.52			0.52	
v/c Ratio		0.21			0.44			0.30			0.35	
Control Delay		10.5			11.9			6.0			6.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.5			11.9			6.0			6.0	
LOS		B			B			A			A	
Approach Delay		10.5			11.9			6.0			6.0	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.3												

Lanes, Volumes, Timings

12: Jefferson Ave & Genesee St

02/09/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.44

Intersection Signal Delay: 7.6

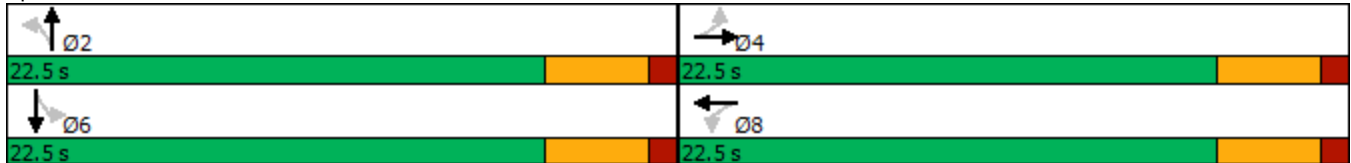
Intersection LOS: A

Intersection Capacity Utilization 55.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 12: Jefferson Ave & Genesee St



Lanes, Volumes, Timings
13: Herman St & Genesee St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	185	3	14	378	10	18	59	5	31	89	12
Future Volume (vph)	12	185	3	14	378	10	18	59	5	31	89	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.996			0.992			0.988	
Flt Protected		0.997			0.998			0.989			0.988	
Satd. Flow (prot)	0	3522	0	0	3518	0	0	1828	0	0	1818	0
Flt Permitted		0.930			0.945			0.909			0.892	
Satd. Flow (perm)	0	3285	0	0	3331	0	0	1680	0	0	1642	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			7			5			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2886			671			575			1329	
Travel Time (s)		65.6			15.3			13.1			30.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	201	3	15	411	11	20	64	5	34	97	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	217	0	0	437	0	0	89	0	0	144	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effect Green (s)		22.8			22.8			8.1			8.1	
Actuated g/C Ratio		0.61			0.61			0.22			0.22	
v/c Ratio		0.11			0.21			0.24			0.39	
Control Delay		4.9			5.1			12.2			13.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		4.9			5.1			12.2			13.9	
LOS		A			A			B			B	
Approach Delay		4.9			5.1			12.2			13.9	
Approach LOS		A			A			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.1												

Lanes, Volumes, Timings

13: Herman St & Genesee St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 7.2

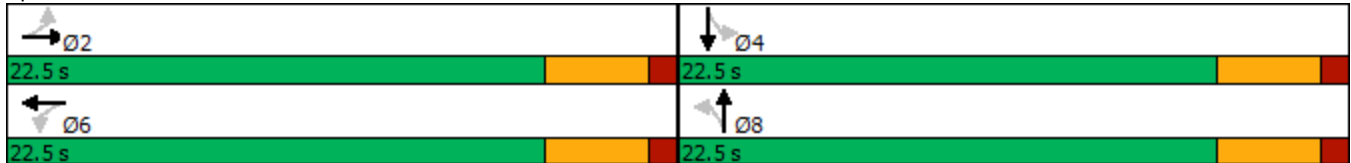
Intersection LOS: A

Intersection Capacity Utilization 37.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 13: Herman St & Genesee St



Lanes, Volumes, Timings

14: Reed St/Rich St & Genesee St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.14

Intersection Signal Delay: 1.7

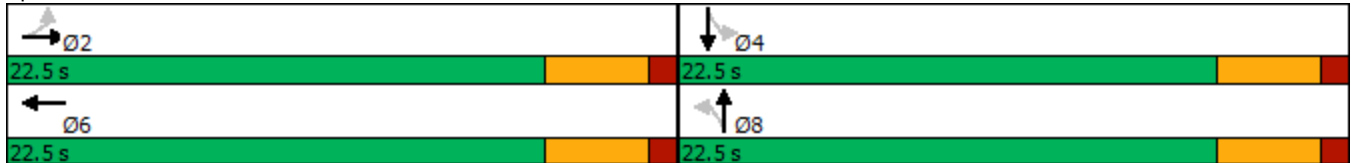
Intersection LOS: A

Intersection Capacity Utilization 23.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Reed St/Rich St & Genesee St



Lanes, Volumes, Timings

15: Fillmore Ave & Genesee St

02/09/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 10.7

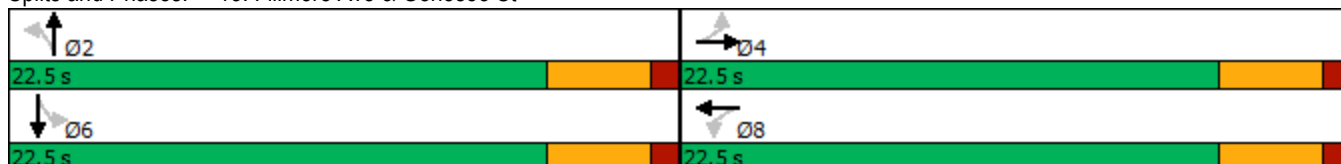
Intersection LOS: B

Intersection Capacity Utilization 61.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 15: Fillmore Ave & Genesee St



Lanes, Volumes, Timings
16: Fillmore Ave & Best St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	332	155	2	389	15	125	220	9	18	234	43
Future Volume (vph)	39	332	155	2	389	15	125	220	9	18	234	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.995			0.996				0.850
Flt Protected		0.996						0.983			0.996	
Satd. Flow (prot)	0	1781	0	0	1853	0	0	1824	0	0	1855	1583
Flt Permitted		0.953			0.998			0.788			0.962	
Satd. Flow (perm)	0	1704	0	0	1850	0	0	1462	0	0	1792	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		56			5			4				47
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1418			567			490				61
Travel Time (s)		32.2			12.9			11.1				1.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	361	168	2	423	16	136	239	10	20	254	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	571	0	0	441	0	0	385	0	0	274	47
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)		4.5			4.5			4.5			4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	C-Max
Act Effct Green (s)		16.7			16.7			19.3			19.3	19.3
Actuated g/C Ratio		0.37			0.37			0.43			0.43	0.43
v/c Ratio		0.85			0.64			0.61			0.36	0.07
Control Delay		26.8			16.1			16.2			3.1	0.2
Queue Delay		8.7			1.1			0.0			0.0	0.0
Total Delay		35.5			17.1			16.2			3.1	0.2
LOS		D			B			B			A	A
Approach Delay		35.5			17.1			16.2			2.6	
Approach LOS		D			B			B			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												

Lanes, Volumes, Timings

16: Fillmore Ave & Best St

02/09/2022

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 20.3

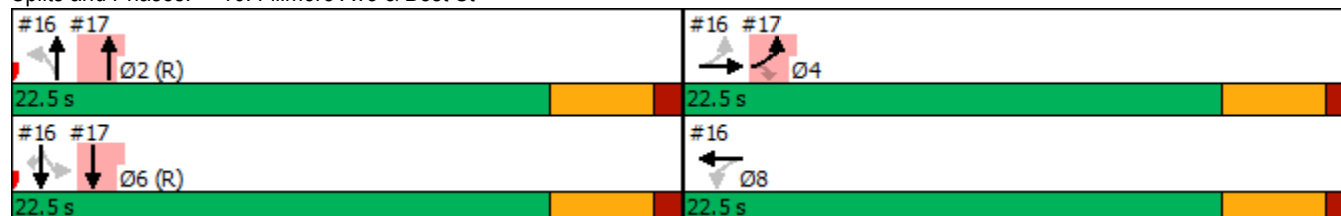
Intersection LOS: C

Intersection Capacity Utilization 97.9%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 16: Fillmore Ave & Best St



Lanes, Volumes, Timings
17: Fillmore Ave & East Park

02/09/2022

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	5	3	0	275	295	0	
Future Volume (vph)	5	3	0	275	295	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	0			100	
Storage Lanes	1	1	0			1	
Taper Length (ft)	25		25				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	
Frt		0.850					
Flt Protected	0.950						
Satd. Flow (prot)	1770	1583	0	1863	3539	0	
Flt Permitted	0.950						
Satd. Flow (perm)	1770	1583	0	1863	3539	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		3					
Link Speed (mph)	30			30	30		
Link Distance (ft)	468			61	755		
Travel Time (s)	10.6			1.4	17.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	5	3	0	299	321	0	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	5	3	0	299	321	0	
Turn Type	Prot	Perm		NA	NA		
Protected Phases	4			2	6		8
Permitted Phases		4					
Detector Phase	4	4		2	6		
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5
Total Split (s)	22.5	22.5		22.5	22.5		22.5
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		
Total Lost Time (s)	4.5	4.5		4.5	4.5		
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None		C-Max	C-Max		None
Act Effct Green (s)	16.7	16.7		19.3	19.3		
Actuated g/C Ratio	0.37	0.37		0.43	0.43		
v/c Ratio	0.01	0.01		0.37	0.21		
Control Delay	8.2	6.3		4.9	9.1		
Queue Delay	0.0	0.0		0.0	0.0		
Total Delay	8.2	6.3		4.9	9.1		
LOS	A	A		A	A		
Approach Delay	7.5			4.9	9.1		
Approach LOS	A			A	A		
Intersection Summary							

Lanes, Volumes, Timings

17: Fillmore Ave & East Park

02/09/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 7.1

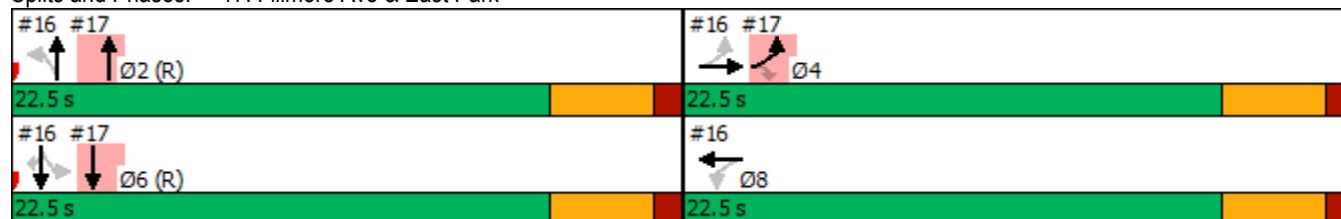
Intersection LOS: A

Intersection Capacity Utilization 26.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Fillmore Ave & East Park



Lanes, Volumes, Timings
18: Fillmore Ave & MLK Park

02/09/2022

			
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Lanes, Volumes, Timings

18: Fillmore Ave & MLK Park

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.17

Intersection Signal Delay: 2.2

Intersection LOS: A

Intersection Capacity Utilization 25.9%

ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings
19: Fillmore Ave & Northhampton St

02/09/2022

		
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Lanes, Volumes, Timings

19: Fillmore Ave & Northhampton St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.29

Intersection Signal Delay: 6.3

Intersection LOS: A

Intersection Capacity Utilization 39.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 19: Fillmore Ave & Northhampton St

Lanes, Volumes, Timings
21: Fillmore Ave & Riley St/Urban St

02/09/2022

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Lanes, Volumes, Timings

21: Fillmore Ave & Riley St/Urban St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.23

Intersection Signal Delay: 1.4

Intersection LOS: A

Intersection Capacity Utilization 43.8%

ICU Level of Service A

Lanes, Volumes, Timings
22: Fillmore Ave & French St

02/09/2022



Lanes, Volumes, Timings 22: Fillmore Ave & French St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	57	89	44	204	303	73
Future Volume (vph)	57	89	44	204	303	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.918				0.974	
Flt Protected	0.981			0.991		
Satd. Flow (prot)	1678	0	0	1846	1814	0
Flt Permitted	0.981			0.898		
Satd. Flow (perm)	1678	0	0	1673	1814	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	97				32	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1083			182	1350	
Travel Time (s)	24.6			4.1	30.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	62	97	48	222	329	79
Shared Lane Traffic (%)						
Lane Group Flow (vph)	159	0	0	270	408	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		22.5	22.5	22.5	
Total Split (%)	50.0%		50.0%	50.0%	50.0%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effect Green (s)	7.3			25.0	25.0	
Actuated g/C Ratio	0.19			0.65	0.65	
v/c Ratio	0.40			0.25	0.34	
Control Delay	9.0			5.4	5.5	
Queue Delay	0.0			0.4	0.0	
Total Delay	9.0			5.8	5.5	
LOS	A			A	A	
Approach Delay	9.0			5.8	5.5	
Approach LOS	A			A	A	
Intersection Summary						
Area Type:	Other					
Cycle Length: 45						
Actuated Cycle Length: 38.4						

Lanes, Volumes, Timings

23: Fillmore Ave & E Utica St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.40

Intersection Signal Delay: 6.2

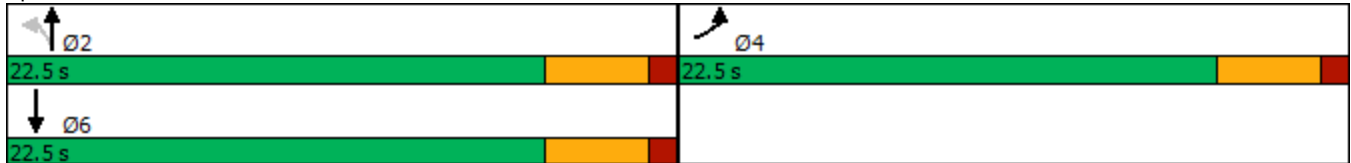
Intersection LOS: A

Intersection Capacity Utilization 53.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 23: Fillmore Ave & E Utica St



Lanes, Volumes, Timings
24: Fillmore Ave & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	227	63	33	220	53	25	203	43	36	303	68
Future Volume (vph)	54	227	63	33	220	53	25	203	43	36	303	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.973			0.974			0.976			0.975	
Flt Protected		0.992			0.995			0.995			0.996	
Satd. Flow (prot)	0	3416	0	0	3430	0	0	3437	0	0	3437	0
Flt Permitted		0.843			0.877			0.904			0.912	
Satd. Flow (perm)	0	2903	0	0	3023	0	0	3123	0	0	3147	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		68			58			47			62	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			797			1350			1620	
Travel Time (s)		24.6			18.1			30.7			36.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	247	68	36	239	58	27	221	47	39	329	74
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	374	0	0	333	0	0	295	0	0	442	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		9.1			9.1			18.1			18.1	
Actuated g/C Ratio		0.25			0.25			0.50			0.50	
v/c Ratio		0.48			0.41			0.19			0.28	
Control Delay		11.4			10.7			5.1			5.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.4			10.7			5.1			5.5	
LOS		B			B			A			A	
Approach Delay		11.4			10.7			5.1			5.5	
Approach LOS		B			B			A			A	
Intersection Summary												

Lanes, Volumes, Timings

24: Fillmore Ave & E Ferry St

02/09/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36.2

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 8.1

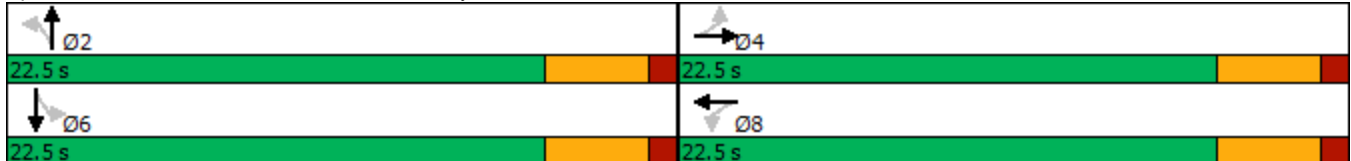
Intersection LOS: A

Intersection Capacity Utilization 52.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 24: Fillmore Ave & E Ferry St



Lanes, Volumes, Timings
25: Fillmore Ave & Northland Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	42	15	21	41	7	3	230	35	41	348	10
Future Volume (vph)	5	42	15	21	41	7	3	230	35	41	348	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.968			0.986			0.982			0.997	
Flt Protected		0.996			0.985			0.999			0.995	
Satd. Flow (prot)	0	1796	0	0	1809	0	0	1827	0	0	1848	0
Flt Permitted		0.965			0.874			0.997			0.951	
Satd. Flow (perm)	0	1740	0	0	1605	0	0	1824	0	0	1766	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			8			20			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1020			890			1620			1011	
Travel Time (s)		23.2			20.2			36.8			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	46	16	23	45	8	3	250	38	45	378	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	67	0	0	76	0	0	291	0	0	434	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		6.8			6.9			28.3			28.3	
Actuated g/C Ratio		0.19			0.20			0.81			0.81	
v/c Ratio		0.19			0.24			0.20			0.31	
Control Delay		10.3			12.1			3.5			4.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.3			12.1			3.5			4.2	
LOS		B			B			A			A	
Approach Delay		10.3			12.1			3.5			4.2	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.1												

Lanes, Volumes, Timings

25: Fillmore Ave & Northland Ave

02/09/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.31

Intersection Signal Delay: 5.1

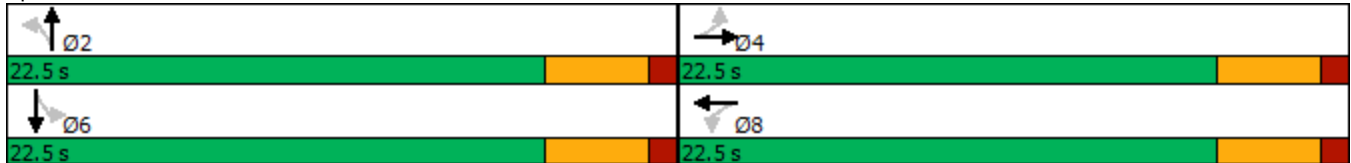
Intersection LOS: A

Intersection Capacity Utilization 56.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 25: Fillmore Ave & Northland Ave



Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	86	171	20	29	153	31	18	190	26	68	348	71
Future Volume (vph)	86	171	20	29	153	31	18	190	26	68	348	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.990			0.980			0.985			0.980	
Fl _t Protected		0.985			0.993			0.996			0.993	
Satd. Flow (prot)	0	1816	0	0	1813	0	0	1827	0	0	1813	0
Fl _t Permitted		0.840			0.937			0.952			0.924	
Satd. Flow (perm)	0	1549	0	0	1710	0	0	1747	0	0	1687	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			19			16			23	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		928			735			1011			742	
Travel Time (s)		21.1			16.7			23.0			16.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	93	186	22	32	166	34	20	207	28	74	378	77
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	301	0	0	232	0	0	255	0	0	529	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.6	22.6		22.6	22.6		27.4	27.4		27.4	27.4	
Total Split (%)	45.2%	45.2%		45.2%	45.2%		54.8%	54.8%		54.8%	54.8%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		13.1			13.1			23.1			23.1	
Actuated g/C Ratio		0.29			0.29			0.51			0.51	
v/c Ratio		0.66			0.46			0.28			0.61	
Control Delay		21.2			14.8			8.0			12.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		21.2			14.8			8.0			12.3	
LOS		C			B			A			B	
Approach Delay		21.2			14.8			8.0			12.3	
Approach LOS		C			B			A			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 45.2												

Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

02/09/2022

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 13.9

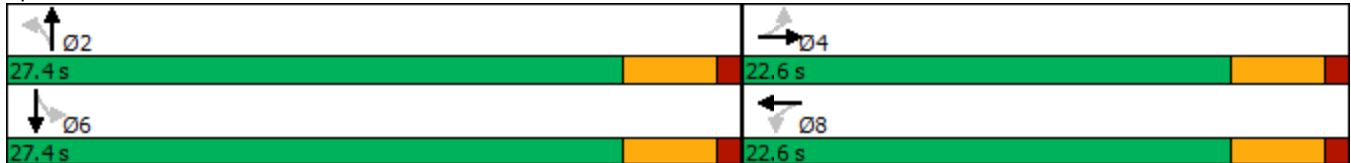
Intersection LOS: B

Intersection Capacity Utilization 78.5%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 26: Fillmore Ave & E Delavan Ave



Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	296	174	0	0	223	18	51	170	81	0	0	0
Future Volume (vph)	296	174	0	0	223	18	51	170	81	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	0		150	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.989				0.850			
Flt Protected		0.969						0.989				
Satd. Flow (prot)	0	3429	0	0	3500	0	0	1842	1583	0	0	0
Flt Permitted		0.679						0.989				
Satd. Flow (perm)	0	2403	0	0	3500	0	0	1842	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					20				88			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		310			928			1019			213	
Travel Time (s)		7.0			21.1			23.2			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	322	189	0	0	242	20	55	185	88	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	511	0	0	262	0	0	240	88	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)		0.0			0.0			0.0	0.0			
Total Lost Time (s)		4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		None	None	None			
Act Effct Green (s)		22.0			22.0			10.2	10.2			
Actuated g/C Ratio		0.58			0.58			0.27	0.27			
v/c Ratio		0.37			0.13			0.49	0.18			
Control Delay		5.5			5.7			14.8	4.0			
Queue Delay		0.0			0.0			0.0	0.0			
Total Delay		5.5			5.7			14.8	4.0			
LOS		A			A			B	A			
Approach Delay		5.5			5.7			11.9				
Approach LOS		A			A			B				
Intersection Summary												

Lanes, Volumes, Timings

27: Humboldt Parkway NB & E Delavan Ave

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

27: Humboldt Parkway NB & E Delavan Ave

02/09/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 38.1

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 7.5

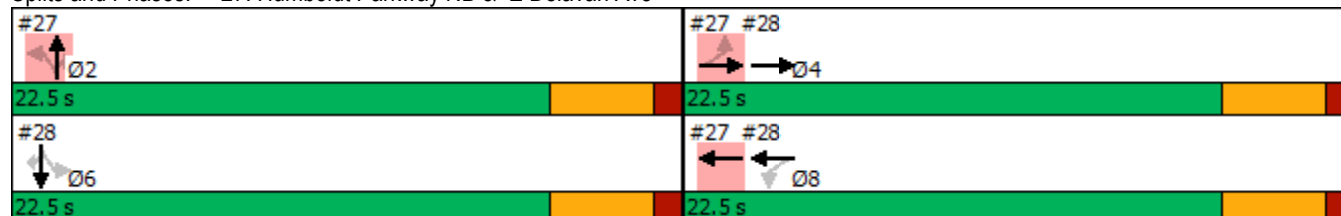
Intersection LOS: A

Intersection Capacity Utilization 46.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 27: Humboldt Parkway NB & E Delavan Ave



Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					 							
Traffic Volume (vph)	0	442	29	93	181	0	0	0	0	29	31	13
Future Volume (vph)	0	442	29	93	181	0	0	0	0	29	31	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992										0.850
Flt Protected					0.983						0.976	
Satd. Flow (prot)	0	1848	0	0	3479	0	0	0	0	0	1818	1583
Flt Permitted					0.743						0.976	
Satd. Flow (perm)	0	1848	0	0	2630	0	0	0	0	0	1818	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9										36
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2669			310			684			864	
Travel Time (s)		60.7			7.0			15.5			19.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	480	32	101	197	0	0	0	0	32	34	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	512	0	0	298	0	0	0	0	0	66	14
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	50.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0						0.0	0.0
Total Lost Time (s)		4.5			4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					None	None	None
Act Effct Green (s)		22.0			22.0						10.0	10.0
Actuated g/C Ratio		0.58			0.58						0.26	0.26
v/c Ratio		0.48			0.20						0.14	0.03
Control Delay		9.2			4.3						10.5	2.0
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		9.2			4.3						10.5	2.0
LOS		A			A						B	A
Approach Delay		9.2			4.3						9.0	
Approach LOS		A			A						A	
Intersection Summary												

Lanes, Volumes, Timings

28: Humboldt Parkway SB & E Delavan Ave

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

28: Humboldt Parkway SB & E Delavan Ave

02/09/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 38.1

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 7.5

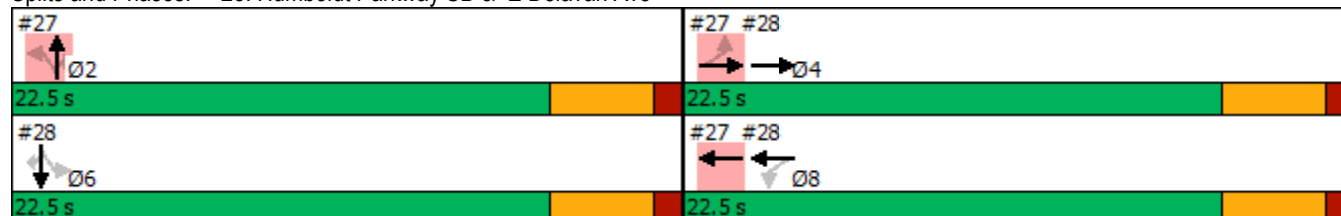
Intersection LOS: A

Intersection Capacity Utilization 48.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 28: Humboldt Parkway SB & E Delavan Ave



Lanes, Volumes, Timings
29: Jefferson Ave & E Delavan Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	357	31	29	152	16	30	98	54	5	78	86
Future Volume (vph)	39	357	31	29	152	16	30	98	54	5	78	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.989			0.960			0.931	
Flt Protected		0.995			0.993			0.992			0.999	
Satd. Flow (prot)	0	1835	0	0	1829	0	0	1774	0	0	1732	0
Flt Permitted		0.955			0.917			0.938			0.993	
Satd. Flow (perm)	0	1761	0	0	1689	0	0	1677	0	0	1722	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			12			56			93	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		592			2669			1017			352	
Travel Time (s)		13.5			60.7			23.1			8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	388	34	32	165	17	33	107	59	5	85	93
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	464	0	0	214	0	0	199	0	0	183	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		14.6			14.6			18.1			18.1	
Actuated g/C Ratio		0.35			0.35			0.43			0.43	
v/c Ratio		0.75			0.36			0.26			0.23	
Control Delay		19.8			11.1			7.5			5.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		19.8			11.1			7.5			5.7	
LOS		B			B			A			A	
Approach Delay		19.8			11.1			7.5			5.7	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 41.8												

Lanes, Volumes, Timings

29: Jefferson Ave & E Delavan Ave

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 13.3

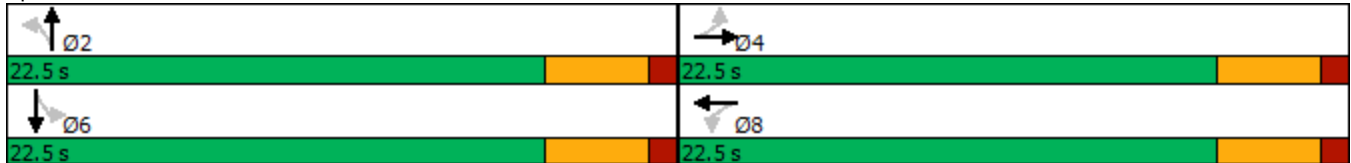
Intersection LOS: B

Intersection Capacity Utilization 58.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 29: Jefferson Ave & E Delavan Ave



Lanes, Volumes, Timings
30: Jefferson Ave & Northland Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	23	11	15	5	15	12	146	9	12	140	15
Future Volume (vph)	15	23	11	15	5	15	12	146	9	12	140	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.969			0.942			0.993			0.988	
Flt Protected		0.985			0.979			0.996			0.996	
Satd. Flow (prot)	0	1778	0	0	1718	0	0	1842	0	0	1833	0
Flt Permitted		0.885			0.955			0.982			0.982	
Satd. Flow (perm)	0	1597	0	0	1676	0	0	1816	0	0	1807	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			16			8			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		806			2743			848			1017	
Travel Time (s)		18.3			62.3			19.3			23.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	25	12	16	5	16	13	159	10	13	152	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	53	0	0	37	0	0	182	0	0	181	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		6.4			6.3			29.9			29.9	
Actuated g/C Ratio		0.17			0.17			0.81			0.81	
v/c Ratio		0.18			0.12			0.12			0.12	
Control Delay		11.6			9.7			3.1			3.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.6			9.7			3.1			3.0	
LOS		B			A			A			A	
Approach Delay		11.6			9.7			3.1			3.0	
Approach LOS		B			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.7												

Lanes, Volumes, Timings

30: Jefferson Ave & Northland Ave

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.18

Intersection Signal Delay: 4.6

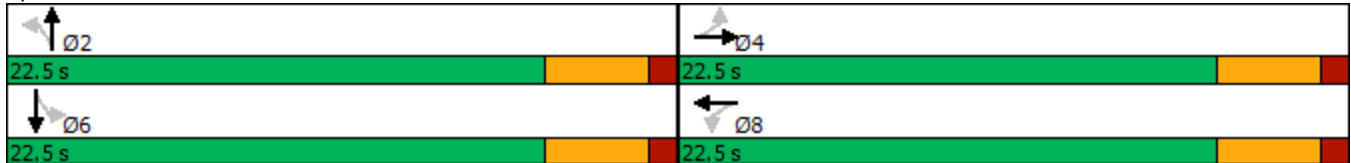
Intersection LOS: A

Intersection Capacity Utilization 23.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 30: Jefferson Ave & Northland Ave



Lanes, Volumes, Timings
31: Jefferson Ave & Brunswick Blvd

02/09/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	27	21	154	25	10	152
Future Volume (vph)	27	21	154	25	10	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.940		0.981			
Flt Protected	0.973					0.997
Satd. Flow (prot)	1704	0	1827	0	0	1857
Flt Permitted	0.973					0.985
Satd. Flow (perm)	1704	0	1827	0	0	1835
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	23		22			
Link Speed (mph)	30		30			30
Link Distance (ft)	2734		751			848
Travel Time (s)	62.1		17.1			19.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	23	167	27	11	165
Shared Lane Traffic (%)						
Lane Group Flow (vph)	52	0	194	0	0	176
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%	50.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.4		34.6			34.6
Actuated g/C Ratio	0.16		0.85			0.85
v/c Ratio	0.18		0.12			0.11
Control Delay	12.4		2.4			2.6
Queue Delay	0.0		0.0			0.0
Total Delay	12.4		2.4			2.6
LOS	B		A			A
Approach Delay	12.4		2.4			2.6
Approach LOS	B		A			A

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.5

Lanes, Volumes, Timings

31: Jefferson Ave & Brunswick Blvd

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.18

Intersection Signal Delay: 3.7

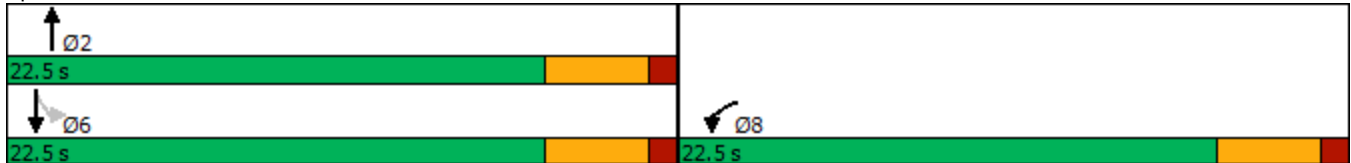
Intersection LOS: A

Intersection Capacity Utilization 27.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 31: Jefferson Ave & Brunswick Blvd



Lanes, Volumes, Timings
32: Jefferson Ave & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	219	47	49	479	42	38	115	25	20	131	23
Future Volume (vph)	29	219	47	49	479	42	38	115	25	20	131	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.990			0.981			0.982	
Flt Protected		0.995			0.996			0.989			0.994	
Satd. Flow (prot)	0	1815	0	0	1837	0	0	1807	0	0	1818	0
Flt Permitted		0.926			0.948			0.914			0.958	
Satd. Flow (perm)	0	1689	0	0	1748	0	0	1670	0	0	1752	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			10			16			15	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			194			1406			751	
Travel Time (s)		7.5			4.4			32.0			17.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	32	238	51	53	521	46	41	125	27	22	142	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	321	0	0	620	0	0	193	0	0	189	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	31.0	31.0		31.0	31.0		24.0	24.0		24.0	24.0	
Total Split (%)	56.4%	56.4%		56.4%	56.4%		43.6%	43.6%		43.6%	43.6%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		21.6			21.6			19.7			19.7	
Actuated g/C Ratio		0.43			0.43			0.39			0.39	
v/c Ratio		0.44			0.82			0.29			0.27	
Control Delay		11.0			22.8			12.6			12.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.0			22.8			12.6			12.4	
LOS		B			C			B			B	
Approach Delay		11.0			22.8			12.6			12.4	
Approach LOS		B			C			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 55												
Actuated Cycle Length: 50.4												

Lanes, Volumes, Timings

32: Jefferson Ave & E Ferry St

02/09/2022

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 17.0

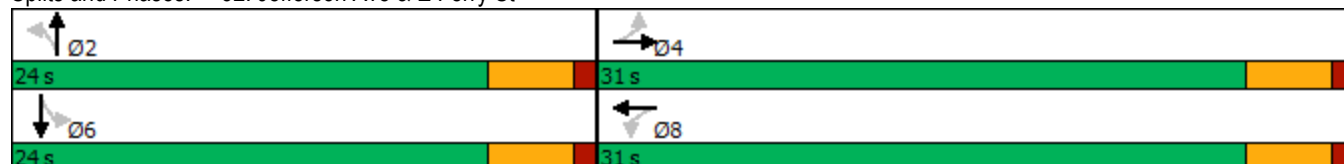
Intersection LOS: B

Intersection Capacity Utilization 62.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 32: Jefferson Ave & E Ferry St



Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	97	36	23	104	13	23	153	11	10	201	21
Future Volume (vph)	10	97	36	23	104	13	23	153	11	10	201	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.988			0.992			0.988	
Flt Protected		0.996			0.992			0.994			0.998	
Satd. Flow (prot)	0	1792	0	0	1826	0	0	1837	0	0	1837	0
Flt Permitted		0.965			0.934			0.954			0.988	
Satd. Flow (perm)	0	1736	0	0	1719	0	0	1763	0	0	1818	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39			14			8			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1023			1295			630			1406	
Travel Time (s)		23.3			29.4			14.3			32.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	105	39	25	113	14	25	166	12	11	218	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	155	0	0	152	0	0	203	0	0	252	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.1			8.1			21.8			21.8	
Actuated g/C Ratio		0.22			0.22			0.60			0.60	
v/c Ratio		0.37			0.38			0.19			0.23	
Control Delay		11.4			13.3			5.6			5.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.4			13.3			5.6			5.7	
LOS		B			B			A			A	
Approach Delay		11.4			13.3			5.6			5.7	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.1												

Lanes, Volumes, Timings 33: Jefferson Ave & E Utica St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 8.3

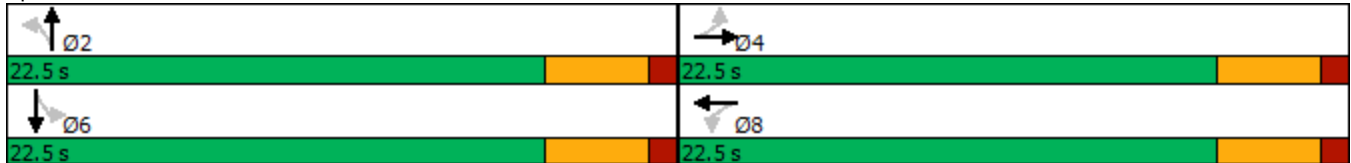
Intersection LOS: A

Intersection Capacity Utilization 38.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 33: Jefferson Ave & E Utica St



Lanes, Volumes, Timings
34: Jefferson Ave & Riley St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	26	15	9	16	5	10	179	7	1	217	10
Future Volume (vph)	9	26	15	9	16	5	10	179	7	1	217	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.979			0.995			0.994	
Flt Protected		0.991			0.985			0.997				
Satd. Flow (prot)	0	1772	0	0	1796	0	0	1848	0	0	1852	0
Flt Permitted		0.927			0.875			0.986			0.999	
Satd. Flow (perm)	0	1658	0	0	1596	0	0	1827	0	0	1850	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			5			5			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		870			1108			418			630	
Travel Time (s)		19.8			25.2			9.5			14.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	28	16	10	17	5	11	195	8	1	236	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	54	0	0	32	0	0	214	0	0	248	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		6.4			6.3			30.1			30.1	
Actuated g/C Ratio		0.17			0.17			0.82			0.82	
v/c Ratio		0.18			0.11			0.14			0.16	
Control Delay		10.9			11.6			3.1			3.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.9			11.6			3.1			3.1	
LOS		B			B			A			A	
Approach Delay		10.9			11.6			3.1			3.1	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.8												

Lanes, Volumes, Timings

34: Jefferson Ave & Riley St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.18

Intersection Signal Delay: 4.4

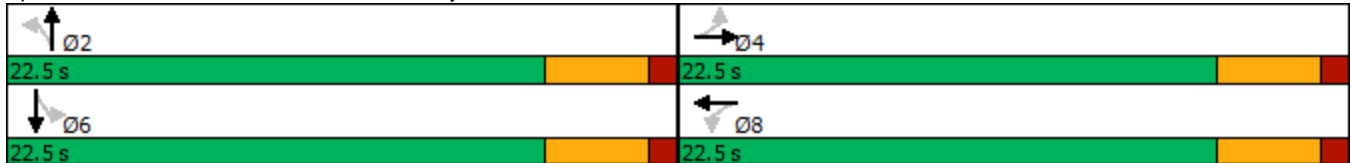
Intersection LOS: A

Intersection Capacity Utilization 28.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 34: Jefferson Ave & Riley St



Lanes, Volumes, Timings
35: Jefferson Ave & Northampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	39	7	14	63	11	15	180	4	7	216	13
Future Volume (vph)	7	39	7	14	63	11	15	180	4	7	216	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.981			0.983			0.997			0.993	
Flt Protected		0.993			0.992			0.996			0.998	
Satd. Flow (prot)	0	1815	0	0	1816	0	0	1850	0	0	1846	0
Flt Permitted		0.933			0.932			0.976			0.992	
Satd. Flow (perm)	0	1705	0	0	1707	0	0	1813	0	0	1835	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			12			3			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1340			1290			1156			278	
Travel Time (s)		30.5			29.3			26.3			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	42	8	15	68	12	16	196	4	8	235	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	58	0	0	95	0	0	216	0	0	257	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		7.1			7.2			26.1			26.1	
Actuated g/C Ratio		0.19			0.20			0.72			0.72	
v/c Ratio		0.17			0.28			0.17			0.20	
Control Delay		11.3			12.6			4.4			4.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.3			12.6			4.4			4.4	
LOS		B			B			A			A	
Approach Delay		11.3			12.6			4.4			4.4	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.5												

Lanes, Volumes, Timings

35: Jefferson Ave & Northhampton St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.28

Intersection Signal Delay: 6.3

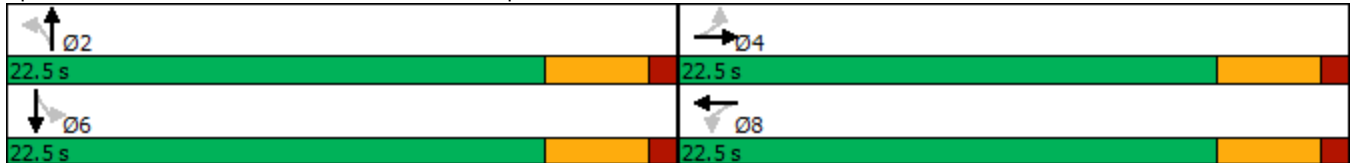
Intersection LOS: A

Intersection Capacity Utilization 30.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 35: Jefferson Ave & Northhampton St



Lanes, Volumes, Timings
36: Jefferson Ave & Best St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	383	43	48	426	60	22	163	49	46	192	26
Future Volume (vph)	22	383	43	48	426	60	22	163	49	46	192	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.986			0.983			0.969			0.985	
Flt Protected		0.998			0.996			0.995			0.991	
Satd. Flow (prot)	0	3483	0	0	3465	0	0	3412	0	0	3455	0
Flt Permitted		0.911			0.874			0.916			0.876	
Satd. Flow (perm)	0	3179	0	0	3041	0	0	3141	0	0	3054	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30			36			53			28	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		169			169			156			165	
Travel Time (s)		3.8			3.8			3.5			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	416	47	52	463	65	24	177	53	50	209	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	487	0	0	580	0	0	254	0	0	287	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		12.8			12.8			18.1			18.1	
Actuated g/C Ratio		0.32			0.32			0.45			0.45	
v/c Ratio		0.47			0.58			0.18			0.21	
Control Delay		11.5			12.9			6.4			7.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.5			12.9			6.4			7.3	
LOS		B			B			A			A	
Approach Delay		11.5			12.9			6.4			7.3	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 40												

Lanes, Volumes, Timings

36: Jefferson Ave & Best St

02/09/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 10.4

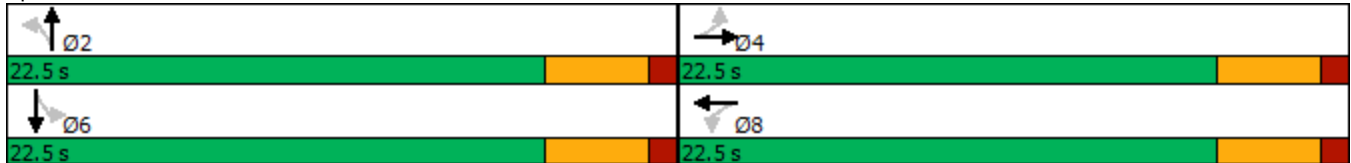
Intersection LOS: B

Intersection Capacity Utilization 56.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 36: Jefferson Ave & Best St



Lanes, Volumes, Timings
37: Jefferson Ave & E North St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	64	82	182	174	225	59
Future Volume (vph)	64	82	182	174	225	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.924				0.972	
Flt Protected	0.978			0.975		
Satd. Flow (prot)	1683	0	0	1816	1811	0
Flt Permitted	0.978			0.706		
Satd. Flow (perm)	1683	0	0	1315	1811	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	89				35	
Link Speed (mph)	30			30	30	
Link Distance (ft)	879			684	486	
Travel Time (s)	20.0			15.5	11.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	70	89	198	189	245	64
Shared Lane Traffic (%)						
Lane Group Flow (vph)	159	0	0	387	309	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		32.5	32.5	32.5	
Total Split (%)	40.9%		59.1%	59.1%	59.1%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effect Green (s)	7.8			34.9	34.9	
Actuated g/C Ratio	0.16			0.72	0.72	
v/c Ratio	0.46			0.41	0.24	
Control Delay	13.3			6.3	4.0	
Queue Delay	0.0			0.0	0.0	
Total Delay	13.3			6.3	4.0	
LOS	B			A	A	
Approach Delay	13.3			6.3	4.0	
Approach LOS	B			A	A	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 48.8

Lanes, Volumes, Timings 37: Jefferson Ave & E North St

02/09/2022

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 6.8

Intersection LOS: A

Intersection Capacity Utilization 54.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 37: Jefferson Ave & E North St



Lanes, Volumes, Timings
38: Jefferson Ave & High St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	37	89	21	77	36	174	314	33	10	269	16
Future Volume (vph)	3	37	89	21	77	36	174	314	33	10	269	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.906			0.964			0.991			0.993	
Flt Protected		0.999			0.992			0.984			0.998	
Satd. Flow (prot)	0	1686	0	0	1781	0	0	1816	0	0	1846	0
Flt Permitted		0.993			0.941			0.781			0.983	
Satd. Flow (perm)	0	1676	0	0	1690	0	0	1442	0	0	1818	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		97			31			9			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		840			1233			880			684	
Travel Time (s)		19.1			28.0			20.0			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	40	97	23	84	39	189	341	36	11	292	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	140	0	0	146	0	0	566	0	0	320	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.6	22.6		22.6	22.6		37.4	37.4		37.4	37.4	
Total Split (%)	37.7%	37.7%		37.7%	37.7%		62.3%	62.3%		62.3%	62.3%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.9			8.9			36.8			36.8	
Actuated g/C Ratio		0.17			0.17			0.71			0.71	
v/c Ratio		0.38			0.46			0.55			0.25	
Control Delay		10.8			19.9			8.1			4.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.8			19.9			8.1			4.6	
LOS		B			B			A			A	
Approach Delay		10.8			19.9			8.1			4.6	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 51.8												

Lanes, Volumes, Timings

38: Jefferson Ave & High St

02/09/2022

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 9.0

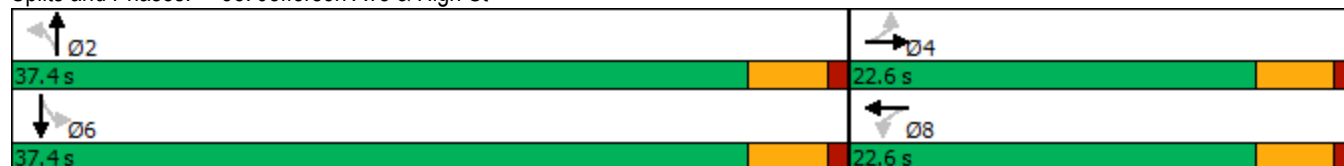
Intersection LOS: A

Intersection Capacity Utilization 72.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 38: Jefferson Ave & High St



Lanes, Volumes, Timings
39: Wohlers Ave & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	317	4	29	544	62	9	25	44	0	0	0
Future Volume (vph)	25	317	4	29	544	62	9	25	44	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.987			0.924				
Flt Protected		0.996			0.998			0.994				
Satd. Flow (prot)	0	1853	0	0	1835	0	0	1711	0	0	0	0
Flt Permitted		0.937			0.973			0.994				
Satd. Flow (perm)	0	1744	0	0	1789	0	0	1711	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			14			48				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		280			1179			1336				278
Travel Time (s)		6.4			26.8			30.4				6.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	27	345	4	32	591	67	10	27	48	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	376	0	0	690	0	0	85	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4			8			2					
Detector Phase	4	4		8	8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5				
Total Split (s)	37.0	37.0		37.0	37.0		23.0	23.0				
Total Split (%)	61.7%	61.7%		61.7%	61.7%		38.3%	38.3%				
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max				
Act Effect Green (s)		24.6			24.6			18.8				
Actuated g/C Ratio		0.47			0.47			0.36				
v/c Ratio		0.46			0.82			0.13				
Control Delay		11.0			20.3			8.7				
Queue Delay		0.0			0.0			0.0				
Total Delay		11.0			20.3			8.7				
LOS		B			C			A				
Approach Delay		11.0			20.3			8.7				
Approach LOS		B			C			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 52.6												

Lanes, Volumes, Timings 39: Wohlers Ave & E Ferry St

02/09/2022

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 16.4

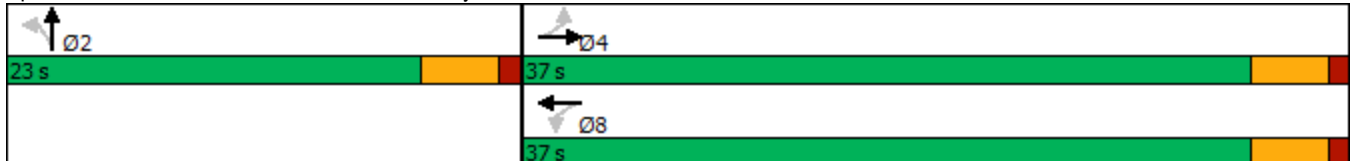
Intersection LOS: B

Intersection Capacity Utilization 52.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 39: Wohlers Ave & E Ferry St



Lanes, Volumes, Timings
40: Wohlers Ave & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	101	9	4	137	17	2	29	17	1	12	4
Future Volume (vph)	13	101	9	4	137	17	2	29	17	1	12	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.986			0.953			0.970	
Flt Protected		0.995			0.999			0.998			0.997	
Satd. Flow (prot)	0	1835	0	0	1835	0	0	1772	0	0	1801	0
Flt Permitted		0.956			0.990			0.996			0.994	
Satd. Flow (perm)	0	1763	0	0	1818	0	0	1768	0	0	1796	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			16			18			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		274			1173			1331			1336	
Travel Time (s)		6.2			26.7			30.3			30.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	110	10	4	149	18	2	32	18	1	13	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	134	0	0	171	0	0	52	0	0	18	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		8.3			8.3			21.8			21.8	
Actuated g/C Ratio		0.23			0.23			0.60			0.60	
v/c Ratio		0.33			0.40			0.05			0.02	
Control Delay		12.6			13.2			4.1			4.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.6			13.2			4.1			4.7	
LOS		B			B			A			A	
Approach Delay		12.6			13.2			4.1			4.7	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.3												

Lanes, Volumes, Timings

40: Wohlers Ave & E Utica St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.40

Intersection Signal Delay: 11.3

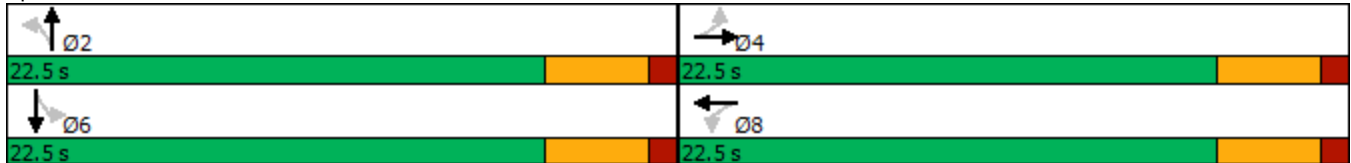
Intersection LOS: B

Intersection Capacity Utilization 24.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 40: Wohlers Ave & E Utica St



Lanes, Volumes, Timings
41: Humboldt Parkway SB & Woodlawn Ave

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	474	38
Future Volume (vph)	0	0	0	0	474	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.990	
Flt Protected						
Satd. Flow (prot)	0	0	0	0	1844	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	0	1844	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	780			561	319	
Travel Time (s)	17.7			12.8	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	515	41
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	556	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 35.2% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings
42: Humboldt Parkway SB & Glenwood Ave

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	31	0	0	479	0
Future Volume (vph)	0	31	0	0	479	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1863	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	750			456	561	
Travel Time (s)	17.0			10.4	12.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	34	0	0	521	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	34	0	0	521	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 35.2% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
42: Humboldt Parkway SB & Glenwood Ave

02/09/2022

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↖	
Traffic Vol, veh/h	0	31	0	0	479	0
Future Vol, veh/h	0	31	0	0	479	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	34	0	0	521	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	521	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	555	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	555	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	11.9		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	555	-				
HCM Lane V/C Ratio	0.061	-				
HCM Control Delay (s)	11.9	-				
HCM Lane LOS	B	-				
HCM 95th %tile Q(veh)	0.2	-				

Lanes, Volumes, Timings
43: Humboldt Parkway SB & Riley St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	15	0	0	128	26
Future Volume (vph)	0	15	0	0	128	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.977	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1820	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1820	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	873			418	636	
Travel Time (s)	19.8			9.5	14.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	16	0	0	139	28
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	16	0	0	167	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 18.3% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
43: Humboldt Parkway SB & Riley St

02/09/2022

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	15	0	0	128	26
Future Vol, veh/h	0	15	0	0	128	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	16	0	0	139	28
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	153	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	893	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	893	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	9.1		0			
HCM LOS	A					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	893	-	-			
HCM Lane V/C Ratio	0.018	-	-			
HCM Control Delay (s)	9.1	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
44: Humboldt Parkway SB & Kingsley St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	14	0	0	133	11
Future Volume (vph)	0	14	0	0	133	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.990	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1844	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1844	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	736			293	418	
Travel Time (s)	16.7			6.7	9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	15	0	0	145	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	15	0	0	157	0
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	17.7%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
44: Humboldt Parkway SB & Kingsley St

02/09/2022

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	14	0	0	133	11
Future Vol, veh/h	0	14	0	0	133	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	15	0	0	145	12
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	151	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	895	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	9.1		0			
HCM LOS	A					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	895	-	-			
HCM Lane V/C Ratio	0.017	-	-			
HCM Control Delay (s)	9.1	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
45: W Parade Ave & Humboldt Parkway SB

02/09/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↘	
Traffic Volume (vph)	0	102	66	0	54	33
Future Volume (vph)	0	102	66	0	54	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.949	
Flt Protected					0.970	
Satd. Flow (prot)	0	1863	1863	0	1715	0
Flt Permitted					0.970	
Satd. Flow (perm)	0	1863	1863	0	1715	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		199	738		350	
Travel Time (s)		4.5	16.8		8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	111	72	0	59	36
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	111	72	0	95	0
Sign Control		Stop	Stop		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 17.0% ICU Level of Service A

Analysis Period (min) 15

HCM 6th AWSC
45: W Parade Ave & Humboldt Parkway SB

02/09/2022

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↘↗	
Traffic Vol, veh/h	0	102	66	0	54	33
Future Vol, veh/h	0	102	66	0	54	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	111	72	0	59	36
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	7.8	7.6	7.8
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	62%
Vol Thru, %	100%	100%	0%
Vol Right, %	0%	0%	38%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	102	66	87
LT Vol	0	0	54
Through Vol	102	66	0
RT Vol	0	0	33
Lane Flow Rate	111	72	95
Geometry Grp	1	1	1
Degree of Util (X)	0.128	0.083	0.109
Departure Headway (Hd)	4.155	4.186	4.144
Convergence, Y/N	Yes	Yes	Yes
Cap	855	846	851
Service Time	2.222	2.262	2.235
HCM Lane V/C Ratio	0.13	0.085	0.112
HCM Control Delay	7.8	7.6	7.8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.4	0.3	0.4

Lanes, Volumes, Timings
46: Linden Park & Dodge St/W Parade Ave

02/09/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations					 	
Traffic Volume (vph)	101	1	5	93	1	1
Future Volume (vph)	101	1	5	93	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999				0.932	
Flt Protected				0.998	0.976	
Satd. Flow (prot)	1861	0	0	1859	1694	0
Flt Permitted				0.998	0.976	
Satd. Flow (perm)	1861	0	0	1859	1694	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	489			199	180	
Travel Time (s)	11.1			4.5	4.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	110	1	5	101	1	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	111	0	0	106	2	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	19.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
46: Linden Park & Dodge St/W Parade Ave

02/09/2022

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	101	1	5	93	1	1
Future Vol, veh/h	101	1	5	93	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	110	1	5	101	1	1
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	111	0	222	111
Stage 1	-	-	-	-	111	-
Stage 2	-	-	-	-	111	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1479	-	766	942
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	914	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1479	-	763	942
Mov Cap-2 Maneuver	-	-	-	-	763	-
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	910	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0.4		9.3		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	843	-	-	1479	-	
HCM Lane V/C Ratio	0.003	-	-	0.004	-	
HCM Control Delay (s)	9.3	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Lanes, Volumes, Timings
47: Humboldt Parkway NB & Riley St

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	9	74	5	0	0
Future Volume (vph)	0	9	74	5	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.992			
Flt Protected						
Satd. Flow (prot)	0	1611	1848	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1848	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	1082		722			610
Travel Time (s)	24.6		16.4			13.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	10	80	5	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	10	85	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	14.2%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
47: Humboldt Parkway NB & Riley St

02/09/2022

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	9	74	5	0	0
Future Vol, veh/h	0	9	74	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	10	80	5	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	83	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	976	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	976	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	8.7		0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		976			
HCM Lane V/C Ratio	-		0.01			
HCM Control Delay (s)	-		8.7			
HCM Lane LOS	-		A			
HCM 95th %tile Q(veh)	-		0			

Lanes, Volumes, Timings
48: Humboldt Parkway NB & Woepfel St

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	4	293	5	0	0
Future Volume (vph)	0	4	293	5	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.998			
Flt Protected						
Satd. Flow (prot)	0	1611	1859	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1859	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	744		294			729
Travel Time (s)	16.9		6.7			16.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	4	318	5	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	4	323	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	25.7%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
48: Humboldt Parkway NB & Woepfel St

02/09/2022

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	293	5	0	0
Future Vol, veh/h	0	4	293	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	318	5	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	321	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	720	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	720	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	10		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		- 720			
HCM Lane V/C Ratio	-		- 0.006			
HCM Control Delay (s)	-		- 10			
HCM Lane LOS	-		- B			
HCM 95th %tile Q(veh)	-		- 0			

Lanes, Volumes, Timings
49: Humboldt Parkway NB & Woodlawn Ave

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	13	290	10	0	0
Future Volume (vph)	0	13	290	10	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.995			
Flt Protected						
Satd. Flow (prot)	0	1611	1853	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1853	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	729		729			312
Travel Time (s)	16.6		16.6			7.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	14	315	11	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	14	326	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	25.9%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
49: Humboldt Parkway NB & Woodlawn Ave

02/09/2022

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	13	290	10	0	0
Future Vol, veh/h	0	13	290	10	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	14	315	11	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	321	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	720	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	720	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	10.1		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		-		720	
HCM Lane V/C Ratio	-		-		0.02	
HCM Control Delay (s)	-		-		10.1	
HCM Lane LOS	-		-		B	
HCM 95th %tile Q(veh)	-		-		0.1	

Lanes, Volumes, Timings
50: Humboldt Parkway SB & Florida St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	25	0	0	149	9
Future Volume (vph)	0	25	0	0	149	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.992	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1848	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1848	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	935			344	684	
Travel Time (s)	21.3			7.8	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	27	0	0	162	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	27	0	0	172	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 18.4% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
50: Humboldt Parkway SB & Florida St

02/09/2022

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	25	0	0	149	9
Future Vol, veh/h	0	25	0	0	149	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	27	0	0	162	10
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	167	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	877	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	877	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	9.2		0			
HCM LOS	A					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	877	-	-			
HCM Lane V/C Ratio	0.031	-	-			
HCM Control Delay (s)	9.2	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
51: Humboldt Parkway SB & Northland Ave

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	27	0	0	166	21
Future Volume (vph)	0	27	0	0	166	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.985	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1835	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1835	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2743			805	344	
Travel Time (s)	62.3			18.3	7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	29	0	0	180	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	29	0	0	203	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 20.0% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
51: Humboldt Parkway SB & Northland Ave

02/09/2022

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	27	0	0	166	21
Future Vol, veh/h	0	27	0	0	166	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	29	0	0	180	23

Major/Minor	Minor2	Major2
Conflicting Flow All	- 192	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 850	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 850	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	9.4	0
HCM LOS	A	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	850	-	-
HCM Lane V/C Ratio	0.035	-	-
HCM Control Delay (s)	9.4	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Lanes, Volumes, Timings
52: Humboldt Parkway SB & Brunswick Blvd

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	65	0	0	197	12
Future Volume (vph)	0	65	0	0	197	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.992	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1848	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1848	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2734			252	805	
Travel Time (s)	62.1			5.7	18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	71	0	0	214	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	71	0	0	227	0
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 21.8% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	65	0	0	197	12
Future Vol, veh/h	0	65	0	0	197	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	71	0	0	214	13
Number of Lanes	0	1	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	1
HCM Control Delay	7.1	8.4
HCM LOS	A	A

Lane	EBLn1	SBLn1
Vol Left, %	0%	0%
Vol Thru, %	0%	94%
Vol Right, %	100%	6%
Sign Control	Stop	Stop
Traffic Vol by Lane	65	209
LT Vol	0	0
Through Vol	0	197
RT Vol	65	12
Lane Flow Rate	71	227
Geometry Grp	1	1
Degree of Util (X)	0.075	0.254
Departure Headway (Hd)	3.831	4.023
Convergence, Y/N	Yes	Yes
Cap	941	893
Service Time	1.831	2.047
HCM Lane V/C Ratio	0.075	0.254
HCM Control Delay	7.1	8.4
HCM Lane LOS	A	A
HCM 95th-tile Q	0.2	1

Lanes, Volumes, Timings
53: Humboldt Parkway SB & Goulding Ave

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	48	0	0	991	0
Future Volume (vph)	0	48	0	0	991	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	3539	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	3539	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1067			270	306	
Travel Time (s)	24.3			6.1	7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	52	0	0	1077	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	52	0	0	1077	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 30.0% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
53: Humboldt Parkway SB & Goulding Ave

02/09/2022

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↗↗	
Traffic Vol, veh/h	0	48	0	0	991	0
Future Vol, veh/h	0	48	0	0	991	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	52	0	0	1077	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	539	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	487	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	487	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	13.3		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	487	-				
HCM Lane V/C Ratio	0.107	-				
HCM Control Delay (s)	13.3	-				
HCM Lane LOS	B	-				
HCM 95th %tile Q(veh)	0.4	-				

Lanes, Volumes, Timings
54: Humboldt Parkway NB & Sydney St

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	41	499	0	0	0
Future Volume (vph)	0	41	499	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	0
Link Speed (mph)	30	30		30		
Link Distance (ft)	913	608		1024		
Travel Time (s)	20.8	13.8		23.3		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	45	542	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	45	542	0	0	0
Sign Control	Stop	Free		Stop		
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	36.3%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
54: Humboldt Parkway NB & Sydney St

02/09/2022

Intersection

Int Delay, s/veh 0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	41	499	0	0	0
Future Vol, veh/h	0	41	499	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	45	542	0	0	0

Major/Minor	Minor1	Major1
Conflicting Flow All	- 542	0 -
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 540	- 0
Stage 1	0 -	- 0
Stage 2	0 -	- 0
Platoon blocked, %		-
Mov Cap-1 Maneuver	- 540	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	WB	NB
HCM Control Delay, s	12.3	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBTWBLn1
Capacity (veh/h)	- 540
HCM Lane V/C Ratio	- 0.083
HCM Control Delay (s)	- 12.3
HCM Lane LOS	- B
HCM 95th %tile Q(veh)	- 0.3

Lanes, Volumes, Timings
55: Humboldt Parkway NB & Northland Ave

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	63	474	63	0	0
Future Volume (vph)	0	63	474	63	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865	0.865	0.984			
Flt Protected						
Satd. Flow (prot)	0	1611	1833	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1833	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	1020		1024			1019
Travel Time (s)	23.2		23.3			23.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	68	515	68	0	0
Shared Lane Traffic (%)		10%				
Lane Group Flow (vph)	7	61	583	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	39.3%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
55: Humboldt Parkway NB & Northland Ave

02/09/2022

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	63	474	63	0	0
Future Vol, veh/h	0	63	474	63	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	68	515	68	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	549	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	535	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	535	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	12.7		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		-		535	
HCM Lane V/C Ratio	-		-		0.128	
HCM Control Delay (s)	-		-		12.7	
HCM Lane LOS	-		-		B	
HCM 95th %tile Q(veh)	-		-		0.4	

Lanes, Volumes, Timings
56: Roehrer Ave & E Ferry St

02/09/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	330	10	16	538	2	21
Future Volume (vph)	330	10	16	538	2	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.876	
Flt Protected				0.999	0.996	
Satd. Flow (prot)	1855	0	0	1861	1625	0
Flt Permitted				0.999	0.996	
Satd. Flow (perm)	1855	0	0	1861	1625	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1109			280	1331	
Travel Time (s)	25.2			6.4	30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	359	11	17	585	2	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	370	0	0	602	25	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	51.2%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	330	10	16	538	2	21
Future Vol, veh/h	330	10	16	538	2	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	359	11	17	585	2	23
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	370	0	984	365
Stage 1	-	-	-	-	365	-
Stage 2	-	-	-	-	619	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1189	-	275	680
Stage 1	-	-	-	-	702	-
Stage 2	-	-	-	-	537	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1189	-	269	680
Mov Cap-2 Maneuver	-	-	-	-	269	-
Stage 1	-	-	-	-	702	-
Stage 2	-	-	-	-	526	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		11.3	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1		EBT	EBR	WBL	WBT
Capacity (veh/h)	600		-	-	1189	-
HCM Lane V/C Ratio	0.042		-	-	0.015	-
HCM Control Delay (s)	11.3		-	-	8.1	0
HCM Lane LOS	B		-	-	A	A
HCM 95th %tile Q(veh)	0.1		-	-	0	-

Lanes, Volumes, Timings
57: Roehrer Ave & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	114	0	2	132	7	3	11	4	2	13	4
Future Volume (vph)	4	114	0	2	132	7	3	11	4	2	13	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.993			0.972			0.973	
Flt Protected		0.998			0.999			0.992			0.995	
Satd. Flow (prot)	0	1859	0	0	1848	0	0	1796	0	0	1803	0
Flt Permitted		0.998			0.999			0.992			0.995	
Satd. Flow (perm)	0	1859	0	0	1848	0	0	1796	0	0	1803	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1295			274			1342			1331	
Travel Time (s)		29.4			6.2			30.5			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	124	0	2	143	8	3	12	4	2	14	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	128	0	0	153	0	0	19	0	0	20	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	18.3%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	114	0	2	132	7	3	11	4	2	13	4
Future Vol, veh/h	4	114	0	2	132	7	3	11	4	2	13	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	124	0	2	143	8	3	12	4	2	14	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	8	7.6	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	3%	1%	11%
Vol Thru, %	61%	97%	94%	68%
Vol Right, %	22%	0%	5%	21%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	18	118	141	19
LT Vol	3	4	2	2
Through Vol	11	114	132	13
RT Vol	4	0	7	4
Lane Flow Rate	20	128	153	21
Geometry Grp	1	1	1	1
Degree of Util (X)	0.024	0.147	0.173	0.026
Departure Headway (Hd)	4.468	4.125	4.072	4.462
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	806	862	874	807
Service Time	2.469	2.186	2.13	2.462
HCM Lane V/C Ratio	0.025	0.148	0.175	0.026
HCM Control Delay	7.6	7.9	8	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.5	0.6	0.1

Lanes, Volumes, Timings
58: Wohlers Ave & Northampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	61	3	2	71	9	10	29	5	12	13	5
Future Volume (vph)	7	61	3	2	71	9	10	29	5	12	13	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.985			0.986			0.979	
Flt Protected		0.995			0.999			0.989			0.980	
Satd. Flow (prot)	0	1844	0	0	1833	0	0	1816	0	0	1787	0
Flt Permitted		0.995			0.999			0.989			0.980	
Satd. Flow (perm)	0	1844	0	0	1833	0	0	1816	0	0	1787	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		276			1045			1317			1331	
Travel Time (s)		6.3			23.8			29.9			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	66	3	2	77	10	11	32	5	13	14	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	77	0	0	89	0	0	48	0	0	32	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 16.9%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	7	61	3	2	71	9	10	29	5	12	13	5
Future Vol, veh/h	7	61	3	2	71	9	10	29	5	12	13	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	66	3	2	77	10	11	32	5	13	14	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.6	7.6	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	10%	2%	40%
Vol Thru, %	66%	86%	87%	43%
Vol Right, %	11%	4%	11%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	44	71	82	30
LT Vol	10	7	2	12
Through Vol	29	61	71	13
RT Vol	5	3	9	5
Lane Flow Rate	48	77	89	33
Geometry Grp	1	1	1	1
Degree of Util (X)	0.056	0.089	0.101	0.038
Departure Headway (Hd)	4.224	4.137	4.073	4.239
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	836	858	873	832
Service Time	2.313	2.2	2.134	2.332
HCM Lane V/C Ratio	0.057	0.09	0.102	0.04
HCM Control Delay	7.6	7.6	7.6	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.3	0.3	0.1

Lanes, Volumes, Timings

59: Roehrer Ave & Northhampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	64	2	3	78	4	4	15	2	4	15	0
Future Volume (vph)	0	64	2	3	78	4	4	15	2	4	15	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.994			0.988				
Flt Protected					0.998			0.991			0.990	
Satd. Flow (prot)	0	1855	0	0	1848	0	0	1824	0	0	1844	0
Flt Permitted					0.998			0.991			0.990	
Satd. Flow (perm)	0	1855	0	0	1848	0	0	1824	0	0	1844	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1290			276			1313			1342	
Travel Time (s)		29.3			6.3			29.8			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	70	2	3	85	4	4	16	2	4	16	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	72	0	0	92	0	0	22	0	0	20	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 16.8%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

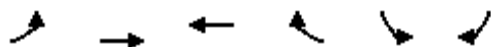
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	64	2	3	78	4	4	15	2	4	15	0
Future Vol, veh/h	0	64	2	3	78	4	4	15	2	4	15	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	70	2	3	85	4	4	16	2	4	16	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.6	7.4	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	0%	4%	21%
Vol Thru, %	71%	97%	92%	79%
Vol Right, %	10%	3%	5%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	66	85	19
LT Vol	4	0	3	4
Through Vol	15	64	78	15
RT Vol	2	2	4	0
Lane Flow Rate	23	72	92	21
Geometry Grp	1	1	1	1
Degree of Util (X)	0.027	0.081	0.104	0.025
Departure Headway (Hd)	4.214	4.06	4.041	4.277
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	839	878	883	826
Service Time	2.295	2.106	2.084	2.358
HCM Lane V/C Ratio	0.027	0.082	0.104	0.025
HCM Control Delay	7.4	7.5	7.6	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.3	0.3	0.1

Lanes, Volumes, Timings
60: Best St & Wohlers Ave

02/09/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	3	492	585	25	18	4
Future Volume (vph)	3	492	585	25	18	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995		0.977	
Flt Protected					0.960	
Satd. Flow (prot)	0	1863	1853	0	1747	0
Flt Permitted					0.960	
Satd. Flow (perm)	0	1863	1853	0	1747	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		280	473		1317	
Travel Time (s)		6.4	10.8		29.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	535	636	27	20	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	538	663	0	24	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 42.3% ICU Level of Service A

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	492	585	25	18	4
Future Vol, veh/h	3	492	585	25	18	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	535	636	27	20	4
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	663	0	-	0	1191	650
Stage 1	-	-	-	-	650	-
Stage 2	-	-	-	-	541	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	926	-	-	-	207	469
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	583	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	926	-	-	-	206	469
Mov Cap-2 Maneuver	-	-	-	-	206	-
Stage 1	-	-	-	-	517	-
Stage 2	-	-	-	-	583	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		22.5		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	926	-	-	-	-	229
HCM Lane V/C Ratio	0.004	-	-	-	-	0.104
HCM Control Delay (s)	8.9	0	-	-	-	22.5
HCM Lane LOS	A	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	-	0.3

Lanes, Volumes, Timings
61: Best St & Roehrer Ave

02/09/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	476	573	20	15	7
Future Volume (vph)	4	476	573	20	15	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995		0.955	
Flt Protected					0.968	
Satd. Flow (prot)	0	1863	1853	0	1722	0
Flt Permitted					0.968	
Satd. Flow (perm)	0	1863	1853	0	1722	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1123	280		1313	
Travel Time (s)		25.5	6.4		29.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	517	623	22	16	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	521	645	0	24	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 41.4% ICU Level of Service A

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	476	573	20	15	7
Future Vol, veh/h	4	476	573	20	15	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	517	623	22	16	8
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	645	0	-	0	1159	634
Stage 1	-	-	-	-	634	-
Stage 2	-	-	-	-	525	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	940	-	-	-	216	479
Stage 1	-	-	-	-	529	-
Stage 2	-	-	-	-	593	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	940	-	-	-	215	479
Mov Cap-2 Maneuver	-	-	-	-	215	-
Stage 1	-	-	-	-	526	-
Stage 2	-	-	-	-	593	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		20.2		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	940	-	-	-	261	
HCM Lane V/C Ratio	0.005	-	-	-	0.092	
HCM Control Delay (s)	8.8	0	-	-	20.2	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.3	

Lanes, Volumes, Timings
62: Jefferson Ave & Eaton St/Kingsley St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	9	3	3	14	1	4	192	1	5	229	4
Future Volume (vph)	2	9	3	3	14	1	4	192	1	5	229	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.993			0.999			0.998	
Flt Protected		0.993			0.992			0.999			0.999	
Satd. Flow (prot)	0	1800	0	0	1835	0	0	1859	0	0	1857	0
Flt Permitted								0.996			0.996	
Satd. Flow (perm)	0	1812	0	0	1850	0	0	1853	0	0	1852	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			1			1			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		911			1129			278			418	
Travel Time (s)		20.7			25.7			6.3			9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	10	3	3	15	1	4	209	1	5	249	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	0	19	0	0	214	0	0	258	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		5.9			6.0			34.9			34.9	
Actuated g/C Ratio		0.16			0.16			0.92			0.92	
v/c Ratio		0.05			0.07			0.13			0.15	
Control Delay		13.0			13.9			1.6			1.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.0			13.9			1.6			1.6	
LOS		B			B			A			A	
Approach Delay		13.0			13.9			1.6			1.6	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.9												

Lanes, Volumes, Timings
62: Jefferson Ave & Eaton St/Kingsley St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.15

Intersection Signal Delay: 2.4

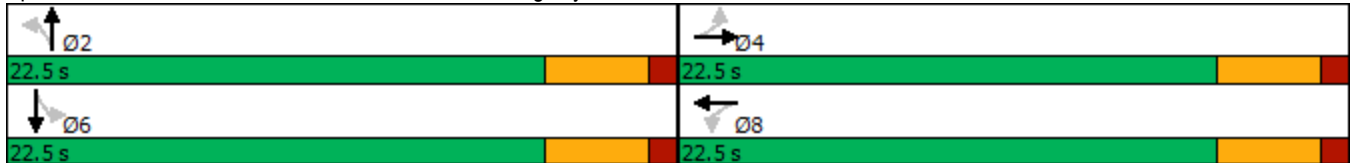
Intersection LOS: A

Intersection Capacity Utilization 26.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 62: Jefferson Ave & Eaton St/Kingsley St



Lanes, Volumes, Timings
118: Humboldt Parkway SB

02/09/2022

						
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	306			252	236	
Travel Time (s)	7.0			5.7	5.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	18.3%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	389	624	0	0	310	442	37	113	129	0	0	0
Future Volume (vph)	389	624	0	0	310	442	37	113	129	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.912			0.938				
Flt Protected		0.981						0.993				
Satd. Flow (prot)	0	3472	0	0	3228	0	0	1735	0	0	0	0
Flt Permitted		0.552						0.993				
Satd. Flow (perm)	0	1954	0	0	3228	0	0	1735	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					480			59				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		249			205			354			335	
Travel Time (s)		5.7			4.7			8.0			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	423	678	0	0	337	480	40	123	140	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1101	0	0	817	0	0	303	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (s)	47.6	47.6			47.6		32.4	32.4				
Total Split (%)	59.5%	59.5%			59.5%		40.5%	40.5%				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max			C-Max		None	None				
Act Effct Green (s)		43.1			43.1			27.9				
Actuated g/C Ratio		0.54			0.54			0.35				
v/c Ratio		1.47dl			0.42			0.47				
Control Delay		57.5			4.8			19.0				
Queue Delay		0.0			1.8			0.0				
Total Delay		57.5			6.6			19.0				
LOS		E			A			B				
Approach Delay		57.5			6.6			19.0				
Approach LOS		E			A			B				
Intersection Summary												
Area Type:	Other											
Cycle Length: 80												
Actuated Cycle Length: 80												

Lanes, Volumes, Timings
1: EB Off Ramp/EB On Ramp & Best St

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	32.4
Total Split (%)	41%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

02/09/2022

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.09

Intersection Signal Delay: 33.5

Intersection LOS: C

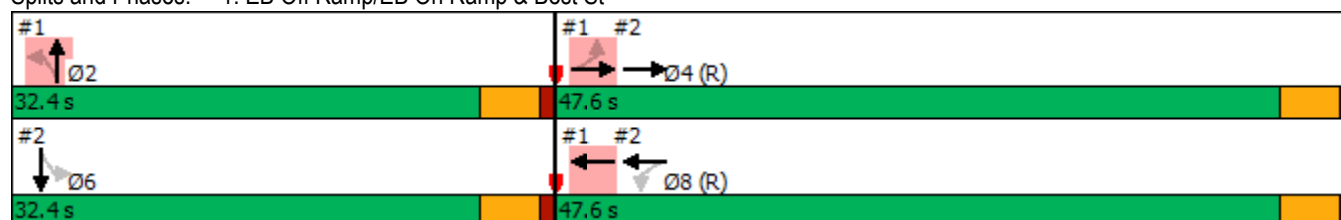
Intersection Capacity Utilization 78.5%

ICU Level of Service D

Analysis Period (min) 15

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 1: EB Off Ramp/EB On Ramp & Best St



Lanes, Volumes, Timings
2: WB On Ramp/WB Off Ramp & Best St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	620	42	96	255	0	0	0	0	383	1	245
Future Volume (vph)	0	620	42	96	255	0	0	0	0	383	1	245
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990									0.947	
Flt Protected					0.987						0.970	
Satd. Flow (prot)	0	3504	0	0	3493	0	0	0	0	0	1711	0
Flt Permitted					0.670						0.970	
Satd. Flow (perm)	0	3504	0	0	2371	0	0	0	0	0	1711	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13									44	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		473			249			324			375	
Travel Time (s)		10.8			5.7			7.4			8.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	674	46	104	277	0	0	0	0	416	1	266
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	720	0	0	381	0	0	0	0	0	683	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		47.6		47.6	47.6					32.4	32.4	
Total Split (%)		59.5%		59.5%	59.5%					40.5%	40.5%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0			0.0						0.0	
Total Lost Time (s)		4.5			4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max		C-Max	C-Max					None	None	
Act Effct Green (s)		43.1			43.1						27.9	
Actuated g/C Ratio		0.54			0.54						0.35	
v/c Ratio		0.38			0.30						1.09	
Control Delay		11.2			8.6						90.2	
Queue Delay		0.4			0.3						3.1	
Total Delay		11.7			8.8						93.3	
LOS		B			A						F	
Approach Delay		11.7			8.8						93.3	
Approach LOS		B			A						F	
Intersection Summary												

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	32.4
Total Split (%)	41%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

02/09/2022

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.09

Intersection Signal Delay: 42.3

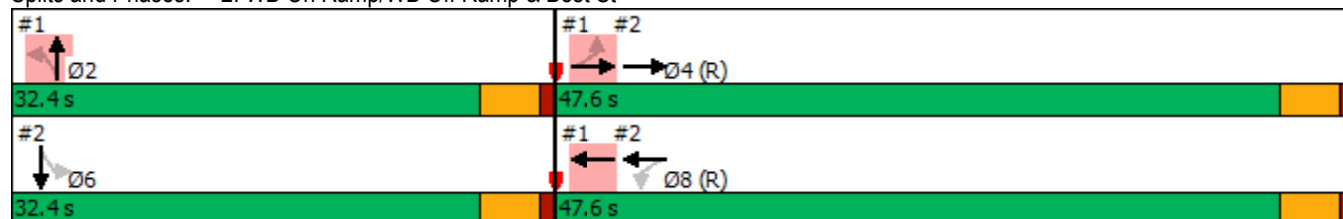
Intersection LOS: D

Intersection Capacity Utilization 75.8%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 2: WB On Ramp/WB Off Ramp & Best St



Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

02/09/2022

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	18	15	577	146	2	582	63	13	88	35	1	9
Future Volume (vph)	18	15	577	146	2	582	63	13	88	35	1	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't			0.971			0.985				0.990		
Flt Protected			0.998							0.968		
Satd. Flow (prot)	0	0	3430	0	0	1835	0	0	0	1785	0	0
Flt Permitted			0.910			0.998				0.733		
Satd. Flow (perm)	0	0	3127	0	0	1831	0	0	0	1352	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			76			3				6		
Link Speed (mph)			30			30				30		
Link Distance (ft)			205			1418				1329		
Travel Time (s)			4.7			32.2				30.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	16	627	159	2	633	68	14	96	38	1	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	822	0	0	717	0	0	0	145	0	0
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		
Protected Phases			4			8				2		
Permitted Phases	4	4			8				2			
Detector Phase	4	4	4		8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			5.0	5.0		
Minimum Split (s)	22.5	22.5	22.5		22.5	22.5			22.5	22.5		
Total Split (s)	37.0	37.0	37.0		37.0	37.0			23.0	23.0		
Total Split (%)	61.7%	61.7%	61.7%		61.7%	61.7%			38.3%	38.3%		
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5			3.5	3.5		
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0			1.0	1.0		
Lost Time Adjust (s)			0.0			0.0				0.0		
Total Lost Time (s)			4.5			4.5				4.5		
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None		None	None			Max	Max		
Act Effect Green (s)			25.1			25.1				18.8		
Actuated g/C Ratio			0.47			0.47				0.35		
v/c Ratio			0.54			0.83				0.30		
Control Delay			9.9			20.8				16.5		
Queue Delay			0.5			0.0				0.0		
Total Delay			10.4			20.8				16.5		
LOS			B			C				B		
Approach Delay			10.4			20.8				16.5		
Approach LOS			B			C				B		
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 53.1												

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

02/09/2022



Lane Group	SBL	SBT	SBR
Lane Configurations		↕	
Traffic Volume (vph)	100	45	80
Future Volume (vph)	100	45	80
Ideal Flow (vphpl)	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00
Fr _t		0.952	
Fl _t Protected		0.978	
Satd. Flow (prot)	0	1734	0
Fl _t Permitted		0.804	
Satd. Flow (perm)	0	1426	0
Right Turn on Red			Yes
Satd. Flow (RTOR)		48	
Link Speed (mph)		30	
Link Distance (ft)		738	
Travel Time (s)		16.8	
Peak Hour Factor	0.92	0.92	0.92
Adj. Flow (vph)	109	49	87
Shared Lane Traffic (%)			
Lane Group Flow (vph)	0	245	0
Turn Type	Perm	NA	
Protected Phases		6	
Permitted Phases	6		
Detector Phase	6	6	
Switch Phase			
Minimum Initial (s)	5.0	5.0	
Minimum Split (s)	22.5	22.5	
Total Split (s)	23.0	23.0	
Total Split (%)	38.3%	38.3%	
Yellow Time (s)	3.5	3.5	
All-Red Time (s)	1.0	1.0	
Lost Time Adjust (s)		0.0	
Total Lost Time (s)		4.5	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	Max	Max	
Act Effct Green (s)		18.8	
Actuated g/C Ratio		0.35	
v/c Ratio		0.46	
Control Delay		15.8	
Queue Delay		0.0	
Total Delay		15.8	
LOS		B	
Approach Delay		15.8	
Approach LOS		B	
Intersection Summary			

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

02/09/2022

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 15.4

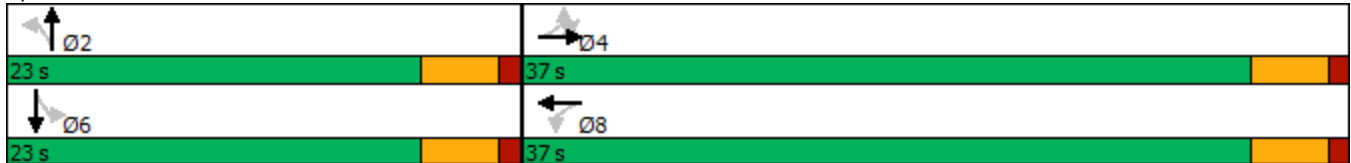
Intersection LOS: B

Intersection Capacity Utilization 64.3%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 3: Herman St/W Parade Ave & Best St



Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

02/09/2022

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	115	4	16	92	0	0	0	0	86	96	23	
Future Volume (vph)	0	115	4	16	92	0	0	0	0	86	96	23	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.996										0.985		
Flt Protected	0.993										0.979		
Satd. Flow (prot)	0	1855	0	0	1850	0	0	0	0	0	1796	0	
Flt Permitted	0.965										0.979		
Satd. Flow (perm)	0	1855	0	0	1798	0	0	0	0	0	1796	0	
Right Turn on Red	Yes					Yes				Yes			Yes
Satd. Flow (RTOR)	4										8		
Link Speed (mph)	30				30				30				
Link Distance (ft)	1045				283				370				
Travel Time (s)	23.8				6.4				8.4				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	125	4	17	100	0	0	0	0	93	104	25	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	129	0	0	117	0	0	0	0	0	222	0	
Turn Type	NA			Perm		NA		Perm			NA		
Protected Phases	4				8				6				
Permitted Phases					8				6				
Detector Phase	4			8		8		6			6		
Switch Phase													
Minimum Initial (s)	5.0			5.0		5.0		5.0			5.0		
Minimum Split (s)	22.5			22.5		22.5		22.5			22.5		
Total Split (s)	50.0			50.0		50.0		20.0			20.0		
Total Split (%)	71.4%			71.4%		71.4%		28.6%			28.6%		
Yellow Time (s)	3.5			3.5		3.5		3.5			3.5		
All-Red Time (s)	1.0			1.0		1.0		1.0			1.0		
Lost Time Adjust (s)	0.0				0.0				0.0				
Total Lost Time (s)	4.5				4.5				4.5				
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode	C-Max			C-Max		C-Max		Max			Max		
Act Effct Green (s)	45.5				45.5				15.5				
Actuated g/C Ratio	0.65				0.65				0.22				
v/c Ratio	0.11				0.10				0.55				
Control Delay	4.7				2.9				16.9				
Queue Delay	0.0				0.0				0.0				
Total Delay	4.7				2.9				16.9				
LOS	A				A				B				
Approach Delay	4.7				2.9				16.9				
Approach LOS	A				A				B				
Intersection Summary													
Area Type:	Other												
Cycle Length: 70													
Actuated Cycle Length: 70													

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	20.0
Total Split (%)	29%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

02/09/2022

Offset: 33.6 (48%), Referenced to phase 4:EBT and 8:WBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 10.1

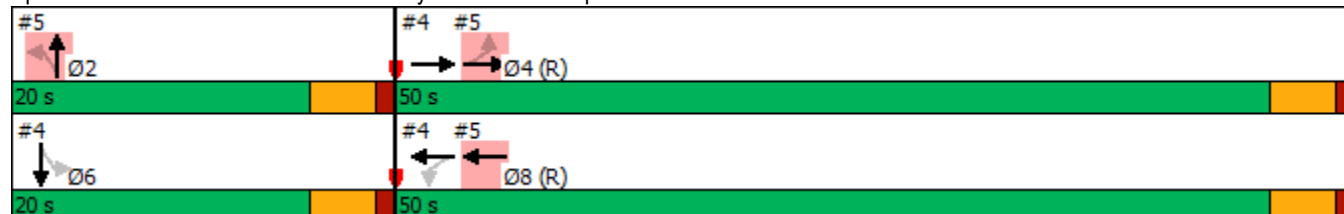
Intersection LOS: B

Intersection Capacity Utilization 31.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: Humboldt Parkway SB & Northhampton St



Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	48	140	0	0	108	37	2	12	6	0	0	0
Future Volume (vph)	48	140	0	0	108	37	2	12	6	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.966			0.957				
Flt Protected		0.987						0.995				
Satd. Flow (prot)	0	1839	0	0	1799	0	0	1774	0	0	0	0
Flt Permitted		0.907						0.995				
Satd. Flow (perm)	0	1690	0	0	1799	0	0	1774	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					40			7				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		283			1089			152				722
Travel Time (s)		6.4			24.8			3.5				16.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	52	152	0	0	117	40	2	13	7	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	204	0	0	157	0	0	22	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (s)	50.0	50.0			50.0		20.0	20.0				
Total Split (%)	71.4%	71.4%			71.4%		28.6%	28.6%				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max			C-Max		Max	Max				
Act Effct Green (s)		45.5			45.5			15.5				
Actuated g/C Ratio		0.65			0.65			0.22				
v/c Ratio		0.19			0.13			0.06				
Control Delay		6.2			3.8			17.9				
Queue Delay		0.0			0.0			0.0				
Total Delay		6.2			3.8			17.9				
LOS		A			A			B				
Approach Delay		6.2			3.8			17.9				
Approach LOS		A			A			B				
Intersection Summary												
Area Type:	Other											
Cycle Length: 70												
Actuated Cycle Length: 70												

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	20.0
Total Split (%)	29%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

02/09/2022

Offset: 33.6 (48%), Referenced to phase 4:EBT and 8:WBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 5.9

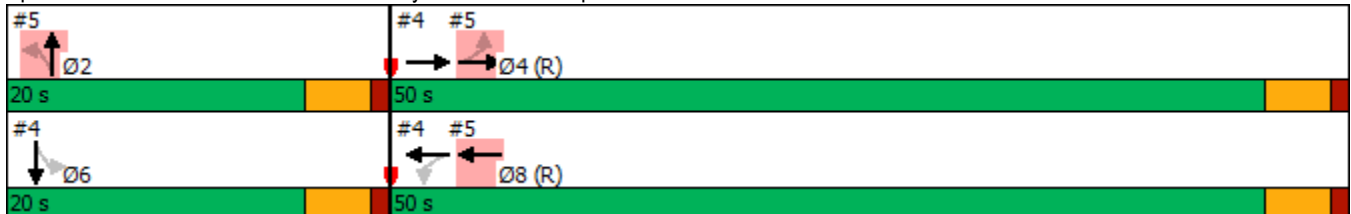
Intersection LOS: A

Intersection Capacity Utilization 33.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Humboldt Parkway NB & Northhampton St



Lanes, Volumes, Timings
6: Humboldt Parkway SB & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩		↩	↩						↩↪	
Traffic Volume (vph)	0	196	34	60	124	0	0	0	0	96	396	72
Future Volume (vph)	0	196	34	60	124	0	0	0	0	96	396	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.980									0.981	
Flt Protected				0.950							0.992	
Satd. Flow (prot)	0	1825	0	1770	1863	0	0	0	0	0	3444	0
Flt Permitted				0.604							0.992	
Satd. Flow (perm)	0	1825	0	1125	1863	0	0	0	0	0	3444	0
Right Turn on Red			Yes			Yes				Yes		Yes
Satd. Flow (RTOR)		26									21	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1173			153			636			456	
Travel Time (s)		26.7			3.5			14.5			10.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	213	37	65	135	0	0	0	0	104	430	78
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	250	0	65	135	0	0	0	0	0	612	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		50.0		50.0	50.0					20.0	20.0	
Total Split (%)		71.4%		71.4%	71.4%					28.6%	28.6%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		4.5		4.5	4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max		C-Max	C-Max					Max	Max	
Act Effct Green (s)		45.5		45.5	45.5						15.5	
Actuated g/C Ratio		0.65		0.65	0.65						0.22	
v/c Ratio		0.21		0.09	0.11						0.79	
Control Delay		4.9		6.2	6.4						17.7	
Queue Delay		0.0		1.9	2.9						0.3	
Total Delay		4.9		8.1	9.3						18.0	
LOS		A		A	A						B	
Approach Delay		4.9			8.9						18.0	
Approach LOS		A			A						B	
Intersection Summary												

Lanes, Volumes, Timings
6: Humboldt Parkway SB & E Utica St

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	20.0
Total Split (%)	29%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

02/09/2022

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 13.2

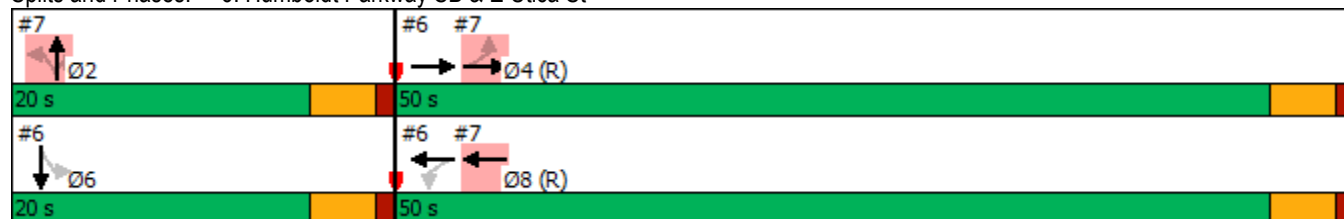
Intersection LOS: B

Intersection Capacity Utilization 61.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 6: Humboldt Parkway SB & E Utica St



Lanes, Volumes, Timings
7: Humboldt Parkway NB & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	172	0	0	102	31	85	230	72	0	0	0
Future Volume (vph)	123	172	0	0	102	31	85	230	72	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.968				0.850			
Flt Protected	0.950							0.987				
Satd. Flow (prot)	1770	1863	0	0	1803	0	0	1839	1583	0	0	0
Flt Permitted	0.665							0.987				
Satd. Flow (perm)	1239	1863	0	0	1803	0	0	1839	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					34				78			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		153			1083			610			294	
Travel Time (s)		3.5			24.6			13.9			6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	134	187	0	0	111	34	92	250	78	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	134	187	0	0	145	0	0	342	78	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	50.0	50.0			50.0		20.0	20.0	20.0			
Total Split (%)	71.4%	71.4%			71.4%		28.6%	28.6%	28.6%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max			C-Max		Max	Max	Max			
Act Effct Green (s)	45.5	45.5			45.5			15.5	15.5			
Actuated g/C Ratio	0.65	0.65			0.65			0.22	0.22			
v/c Ratio	0.17	0.15			0.12			0.84	0.19			
Control Delay	5.3	5.0			3.8			48.1	9.2			
Queue Delay	1.9	1.9			0.0			1.3	0.0			
Total Delay	7.2	6.9			3.8			49.4	9.2			
LOS	A	A			A			D	A			
Approach Delay		7.0			3.8			41.9				
Approach LOS		A			A			D				
Intersection Summary												
Area Type:	Other											
Cycle Length: 70												
Actuated Cycle Length: 70												

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	20.0
Total Split (%)	29%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

02/09/2022

Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 23.0

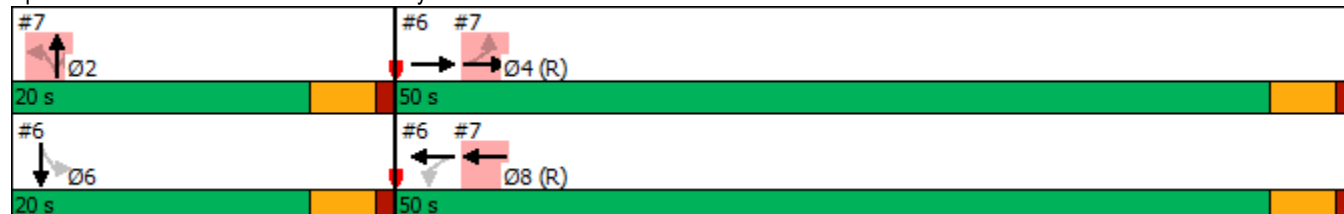
Intersection LOS: C

Intersection Capacity Utilization 61.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 7: Humboldt Parkway NB & E Utica St



Lanes, Volumes, Timings
8: Humboldt Parkway SB & E Ferry St

02/09/2022

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	411	72	127	280	0	0	0	0	283	392	367	
Future Volume (vph)	0	411	72	127	280	0	0	0	0	283	392	367	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.980											0.850	
Flt Protected				0.950								0.979	
Satd. Flow (prot)	0	1825	0	1770	1863	0	0	0	0	0	1824	1583	
Flt Permitted				0.412								0.979	
Satd. Flow (perm)	0	1825	0	767	1863	0	0	0	0	0	1824	1583	
Right Turn on Red	Yes			Yes			Yes			Yes			
Satd. Flow (RTOR)	26											395	
Link Speed (mph)	30			30			30			30			
Link Distance (ft)	1179			147			319			270			
Travel Time (s)	26.8			3.3			7.3			6.1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	447	78	138	304	0	0	0	0	308	426	399	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	525	0	138	304	0	0	0	0	0	734	399	
Turn Type	NA		Perm		NA				Perm		NA	Perm	
Protected Phases	4			8			6						
Permitted Phases				8			6						
Detector Phase	4			8			6						
Switch Phase													
Minimum Initial (s)	5.0			5.0			5.0						
Minimum Split (s)	22.5			22.5			22.5						
Total Split (s)	50.0			50.0			20.0						
Total Split (%)	71.4%			71.4%			28.6%						
Yellow Time (s)	3.5			3.5			3.5						
All-Red Time (s)	1.0			1.0			1.0						
Lost Time Adjust (s)	0.0			0.0			0.0						
Total Lost Time (s)	4.5			4.5			4.5						
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode	C-Max			C-Max		C-Max		Max					
Act Effct Green (s)	45.5			45.5			15.5						
Actuated g/C Ratio	0.65			0.65			0.22						
v/c Ratio	0.44			0.28			1.82						
Control Delay	7.1			4.6			402.3						
Queue Delay	0.1			1.2			3.5						
Total Delay	7.1			5.8			405.9						
LOS	A			A			F						
Approach Delay	7.1			5.1			265.6						
Approach LOS	A			A			F						
Intersection Summary													
Area Type:	Other												
Cycle Length: 70													
Actuated Cycle Length: 70													

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	20.0
Total Split (%)	29%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

02/09/2022

Offset: 33.6 (48%), Referenced to phase 4:EBT and 8:WBTL, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.82

Intersection Signal Delay: 146.1

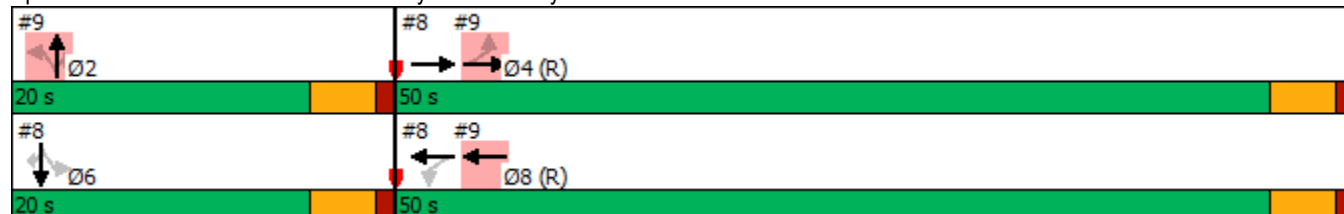
Intersection LOS: F

Intersection Capacity Utilization 112.5%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 8: Humboldt Parkway SB & E Ferry St



Lanes, Volumes, Timings
9: Humboldt Parkway NB & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	301	399	0	0	333	85	75	264	63	0	0	0
Future Volume (vph)	301	399	0	0	333	85	75	264	63	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	75		0	0		0
Storage Lanes	1		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.973				0.850			
Flt Protected	0.950							0.989				
Satd. Flow (prot)	1770	1863	0	0	1812	0	0	1842	1583	0	0	0
Flt Permitted	0.460							0.989				
Satd. Flow (perm)	857	1863	0	0	1812	0	0	1842	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					37				68			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		147			1082			312			608	
Travel Time (s)		3.3			24.6			7.1			13.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	327	434	0	0	362	92	82	287	68	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	327	434	0	0	454	0	0	369	68	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	50.0	50.0			50.0		20.0	20.0	20.0			
Total Split (%)	71.4%	71.4%			71.4%		28.6%	28.6%	28.6%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max			C-Max		Max	Max	Max			
Act Effct Green (s)	45.5	45.5			45.5			15.5	15.5			
Actuated g/C Ratio	0.65	0.65			0.65			0.22	0.22			
v/c Ratio	0.59	0.36			0.38			0.91	0.17			
Control Delay	11.6	6.9			6.3			48.9	5.0			
Queue Delay	2.8	2.6			0.0			1.1	0.0			
Total Delay	14.5	9.6			6.3			50.0	5.0			
LOS	B	A			A			D	A			
Approach Delay		11.7			6.3			43.0				
Approach LOS		B			A			D				
Intersection Summary												

Lanes, Volumes, Timings
9: Humboldt Parkway NB & E Ferry St

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	20.0
Total Split (%)	29%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

02/09/2022

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 33.6 (48%), Referenced to phase 4:EBT and 8:WBTL, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.82

Intersection Signal Delay: 18.5

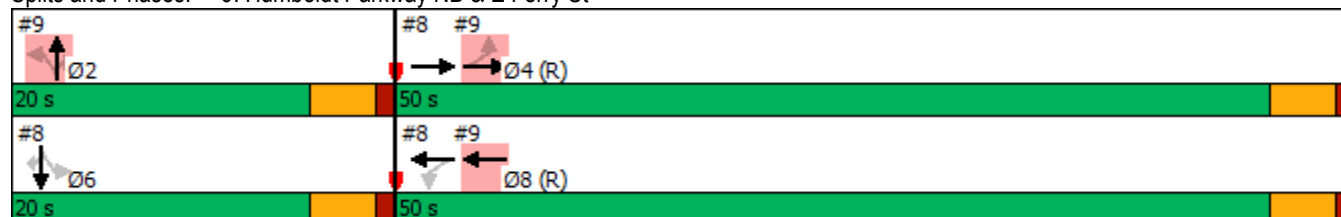
Intersection LOS: B

Intersection Capacity Utilization 112.5%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 9: Humboldt Parkway NB & E Ferry St



Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

02/09/2022

												
Lane Group	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	Ø8
Lane Configurations												
Traffic Volume (vph)	12	9	1	0	348	309	316	678	0	0	0	
Future Volume (vph)	12	9	1	0	348	309	316	678	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	
Frt		0.994			0.929							
Flt Protected		0.954						0.984				
Satd. Flow (prot)	0	1766	0	0	3288	0	0	3483	0	0	0	
Flt Permitted		0.954						0.610				
Satd. Flow (perm)	0	1766	0	0	3288	0	0	2159	0	0	0	
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		25			336							
Link Speed (mph)		30			30			30		30		
Link Distance (ft)		537			328			271		387		
Travel Time (s)		12.2			7.5			6.2		8.8		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	13	10	1	0	378	336	343	737	0	0	0	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	24	0	0	714	0	0	1080	0	0	0	
Turn Type	Perm	Prot			NA		Perm	NA				
Protected Phases		4			2			6				8
Permitted Phases	4						6					
Detector Phase	4	4			2		6	6				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				5.0
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				22.5
Total Split (s)	22.5	22.5			42.5		42.5	42.5				22.5
Total Split (%)	34.6%	34.6%			65.4%		65.4%	65.4%				35%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				3.5
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				1.0
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			C-Max		C-Max	C-Max				None
Act Effct Green (s)		16.3			39.7			39.7				
Actuated g/C Ratio		0.25			0.61			0.61				
v/c Ratio		0.05			0.33			0.82				
Control Delay		8.0			3.8			14.8				
Queue Delay		0.0			0.2			0.0				
Total Delay		8.0			4.0			14.8				
LOS		A			A			B				
Approach Delay		8.0			4.0			14.8				
Approach LOS		A			A			B				
Intersection Summary												
Area Type:	Other											
Cycle Length: 65												
Actuated Cycle Length: 65												

Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

02/09/2022

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 10.5

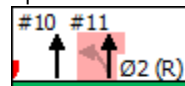
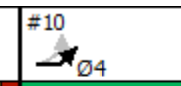
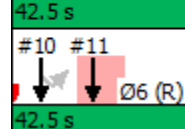
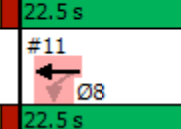
Intersection LOS: B

Intersection Capacity Utilization 62.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 10: Jefferson Ave & Cherry St & EB On Ramp

 #10 #11 42.5 s	 #10 22.5 s
 #10 #11 42.5 s	 #11 22.5 s

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	234	12	98	44	321	0	0	767	19
Future Volume (vph)	0	0	0	234	12	98	44	321	0	0	767	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt					0.961						0.996	
Flt Protected					0.967			0.994				
Satd. Flow (prot)	0	0	0	0	1731	0	0	3518	0	0	3525	0
Flt Permitted					0.967			0.814				
Satd. Flow (perm)	0	0	0	0	1731	0	0	2881	0	0	3525	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					31						7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			384			271			880	
Travel Time (s)		12.9			8.7			6.2			20.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	254	13	107	48	349	0	0	834	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	374	0	0	397	0	0	855	0
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8			2					
Detector Phase				8	8		2	2			6	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				22.5	22.5		42.5	42.5			42.5	
Total Split (%)				34.6%	34.6%		65.4%	65.4%			65.4%	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				None	None		C-Max	C-Max			C-Max	
Act Effct Green (s)					16.3			39.7			39.7	
Actuated g/C Ratio					0.25			0.61			0.61	
v/c Ratio					0.82			0.23			0.40	
Control Delay					36.8			4.3			7.5	
Queue Delay					0.1			0.0			0.2	
Total Delay					37.0			4.3			7.7	
LOS					D			A			A	
Approach Delay					37.0			4.3			7.7	
Approach LOS					D			A			A	
Intersection Summary												

Lanes, Volumes, Timings
11: Jefferson Ave & BFNC Dr/WB Off Ramp

02/09/2022

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	35%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

02/09/2022

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 13.6

Intersection LOS: B

Intersection Capacity Utilization 62.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 11: Jefferson Ave & BFNC Dr/WB Off Ramp

#10 #11  42.5 s	#10  22.5 s
#10 #11  42.5 s	#11  22.5 s

Lanes, Volumes, Timings
12: Jefferson Ave & Genesee St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	123	31	51	132	76	11	542	47	49	517	115
Future Volume (vph)	40	123	31	51	132	76	11	542	47	49	517	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.976			0.956			0.988			0.975	
Flt Protected		0.990			0.990			0.999			0.996	
Satd. Flow (prot)	0	3420	0	0	3350	0	0	3493	0	0	3437	0
Flt Permitted		0.834			0.847			0.940			0.882	
Satd. Flow (perm)	0	2881	0	0	2866	0	0	3287	0	0	3044	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		34			83			23			63	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		737			2886			735			328	
Travel Time (s)		16.8			65.6			16.7			7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	134	34	55	143	83	12	589	51	53	562	125
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	211	0	0	281	0	0	652	0	0	740	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		7.9			7.9			19.0			19.0	
Actuated g/C Ratio		0.22			0.22			0.53			0.53	
v/c Ratio		0.32			0.40			0.37			0.45	
Control Delay		10.6			9.7			6.0			6.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.6			9.7			6.0			6.3	
LOS		B			A			A			A	
Approach Delay		10.6			9.7			6.0			6.3	
Approach LOS		B			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.9												

Lanes, Volumes, Timings

12: Jefferson Ave & Genesee St

02/09/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 7.2

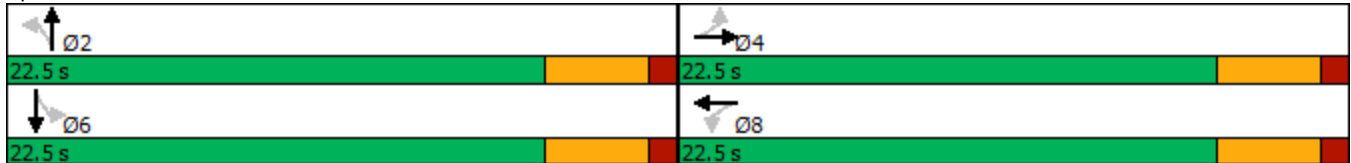
Intersection LOS: A

Intersection Capacity Utilization 64.3%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 12: Jefferson Ave & Genesee St



Lanes, Volumes, Timings
13: Herman St & Genesee St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	321	26	22	333	25	21	102	22	34	134	19
Future Volume (vph)	11	321	26	22	333	25	21	102	22	34	134	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989			0.990			0.979			0.986	
Flt Protected		0.998			0.997			0.993			0.991	
Satd. Flow (prot)	0	3493	0	0	3493	0	0	1811	0	0	1820	0
Flt Permitted		0.942			0.926			0.943			0.924	
Satd. Flow (perm)	0	3297	0	0	3245	0	0	1720	0	0	1697	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			19			24			15	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2886			671			575			1329	
Travel Time (s)		65.6			15.3			13.1			30.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	349	28	24	362	27	23	111	24	37	146	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	389	0	0	413	0	0	158	0	0	204	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effect Green (s)		21.9			21.9			9.2			9.3	
Actuated g/C Ratio		0.59			0.59			0.25			0.25	
v/c Ratio		0.20			0.22			0.36			0.47	
Control Delay		5.6			5.7			11.8			14.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		5.6			5.7			11.8			14.3	
LOS		A			A			B			B	
Approach Delay		5.6			5.7			11.8			14.3	
Approach LOS		A			A			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.2												

Lanes, Volumes, Timings

13: Herman St & Genesee St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 8.0

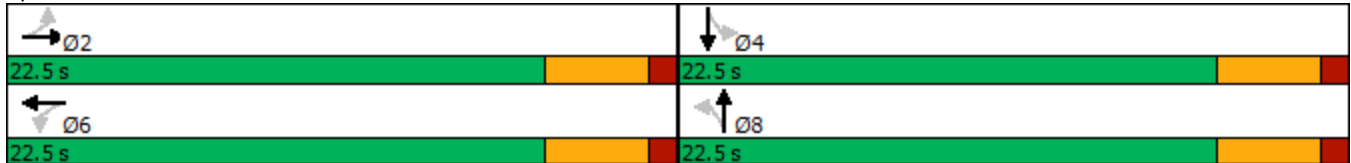
Intersection LOS: A

Intersection Capacity Utilization 46.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 13: Herman St & Genesee St



Lanes, Volumes, Timings
14: Reed St/Rich St & Genesee St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	
Traffic Volume (vph)	3	354	0	0	371	15	17	13	25	11	0	13
Future Volume (vph)	3	354	0	0	371	15	17	13	25	11	0	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.994			0.938			0.927	
Flt Protected								0.985			0.977	
Satd. Flow (prot)	0	3539	0	0	3518	0	0	1721	0	0	1687	0
Flt Permitted		0.953						0.888			0.974	
Satd. Flow (perm)	0	3373	0	0	3518	0	0	1552	0	0	1682	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10			27			36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		671			961			780			839	
Travel Time (s)		15.3			21.8			17.7			19.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	385	0	0	403	16	18	14	27	12	0	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	388	0	0	419	0	0	59	0	0	26	0
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2						8			4		
Detector Phase	2	2			6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		None	None		None	None	
Act Effct Green (s)		30.2			30.2			6.4			6.3	
Actuated g/C Ratio		0.82			0.82			0.17			0.17	
v/c Ratio		0.14			0.15			0.20			0.08	
Control Delay		2.7			2.6			10.0			5.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		2.7			2.6			10.0			5.0	
LOS		A			A			A			A	
Approach Delay		2.7			2.6			10.0			5.0	
Approach LOS		A			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.9												

Lanes, Volumes, Timings

14: Reed St/Rich St & Genesee St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.20

Intersection Signal Delay: 3.2

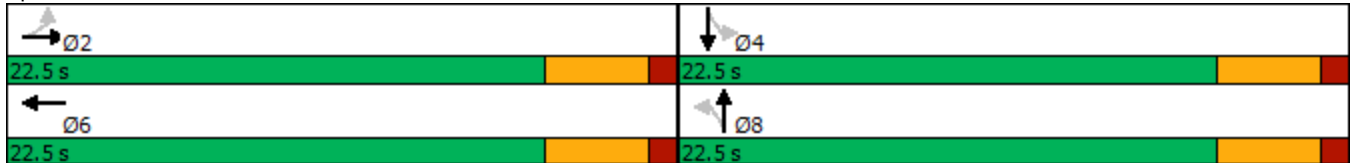
Intersection LOS: A

Intersection Capacity Utilization 23.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Reed St/Rich St & Genesee St



Lanes, Volumes, Timings
15: Fillmore Ave & Genesee St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	325	57	73	312	28	40	364	77	51	333	17
Future Volume (vph)	31	325	57	73	312	28	40	364	77	51	333	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.990			0.978			0.994	
Flt Protected		0.996			0.991			0.996			0.994	
Satd. Flow (prot)	0	3451	0	0	3472	0	0	1814	0	0	1840	0
Flt Permitted		0.895			0.801			0.945			0.900	
Satd. Flow (perm)	0	3101	0	0	2807	0	0	1722	0	0	1666	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40			16			26			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		961			671			704			490	
Travel Time (s)		21.8			15.3			16.0			11.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	353	62	79	339	30	43	396	84	55	362	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	449	0	0	448	0	0	523	0	0	435	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		27.5	27.5		27.5	27.5	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		55.0%	55.0%		55.0%	55.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		12.2			12.2			23.1			23.1	
Actuated g/C Ratio		0.27			0.27			0.52			0.52	
v/c Ratio		0.51			0.57			0.58			0.50	
Control Delay		14.1			16.1			11.1			10.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.1			16.1			11.1			10.3	
LOS		B			B			B			B	
Approach Delay		14.1			16.1			11.1			10.3	
Approach LOS		B			B			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 44.4												

Lanes, Volumes, Timings

15: Fillmore Ave & Genesee St

02/09/2022

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 12.9

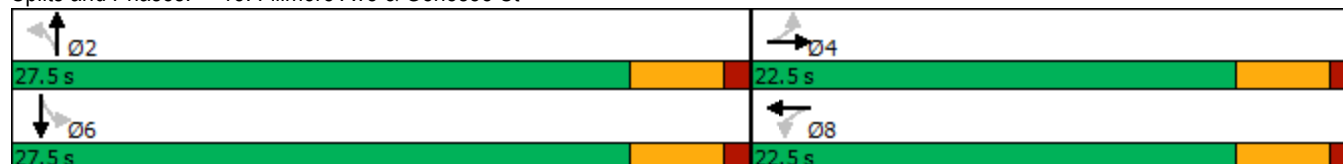
Intersection LOS: B

Intersection Capacity Utilization 66.7%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 15: Fillmore Ave & Genesee St



Lanes, Volumes, Timings
16: Fillmore Ave & Best St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	467	143	1	416	31	164	256	6	49	257	50
Future Volume (vph)	38	467	143	1	416	31	164	256	6	49	257	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970			0.991			0.998				0.850
Flt Protected		0.997						0.981			0.992	
Satd. Flow (prot)	0	1801	0	0	1846	0	0	1824	0	0	1848	1583
Flt Permitted		0.958			0.999			0.651			0.893	
Satd. Flow (perm)	0	1731	0	0	1844	0	0	1210	0	0	1663	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29			8			2				54
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1418			567			490				61
Travel Time (s)		32.2			12.9			11.1				1.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	41	508	155	1	452	34	178	278	7	53	279	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	704	0	0	487	0	0	463	0	0	332	54
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	30.0
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)		4.5			4.5			4.5			4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	C-Max
Act Effct Green (s)		25.1			25.1			25.9			25.9	25.9
Actuated g/C Ratio		0.42			0.42			0.43			0.43	0.43
v/c Ratio		0.95			0.63			0.89			0.46	0.08
Control Delay		41.9			17.8			38.9			4.8	0.2
Queue Delay		49.1			55.8			1.2			0.0	0.0
Total Delay		91.0			73.6			40.1			4.8	0.2
LOS		F			E			D			A	A
Approach Delay		91.0			73.6			40.1			4.2	
Approach LOS		F			E			D			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 60												

Lanes, Volumes, Timings 16: Fillmore Ave & Best St

02/09/2022

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 58.8

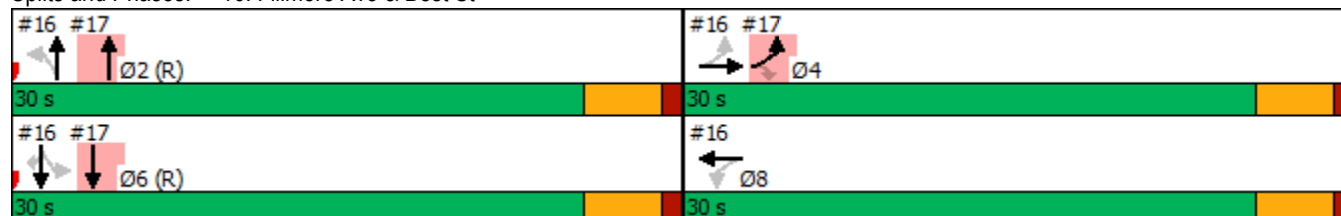
Intersection LOS: E

Intersection Capacity Utilization 113.4%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 16: Fillmore Ave & Best St



Lanes, Volumes, Timings
17: Fillmore Ave & East Park

02/09/2022

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	10	9	0	325	345	0	
Future Volume (vph)	10	9	0	325	345	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	0			100	
Storage Lanes	1	1	0			1	
Taper Length (ft)	25		25				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	
Frt		0.850					
Flt Protected	0.950						
Satd. Flow (prot)	1770	1583	0	1863	3539	0	
Flt Permitted	0.950						
Satd. Flow (perm)	1770	1583	0	1863	3539	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		10					
Link Speed (mph)	30			30	30		
Link Distance (ft)	468			61	755		
Travel Time (s)	10.6			1.4	17.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	11	10	0	353	375	0	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	11	10	0	353	375	0	
Turn Type	Prot	Perm		NA	NA		
Protected Phases	4			2	6		8
Permitted Phases		4					
Detector Phase	4	4		2	6		
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5
Total Split (s)	30.0	30.0		30.0	30.0		30.0
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		
Total Lost Time (s)	4.5	4.5		4.5	4.5		
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None		C-Max	C-Max		None
Act Effct Green (s)	25.1	25.1		25.9	25.9		
Actuated g/C Ratio	0.42	0.42		0.43	0.43		
v/c Ratio	0.01	0.01		0.44	0.25		
Control Delay	10.1	6.0		6.1	11.5		
Queue Delay	0.0	0.0		0.0	0.0		
Total Delay	10.1	6.0		6.1	11.5		
LOS	B	A		A	B		
Approach Delay	8.1			6.1	11.5		
Approach LOS	A			A	B		
Intersection Summary							

Lanes, Volumes, Timings

17: Fillmore Ave & East Park

02/09/2022

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 8.9

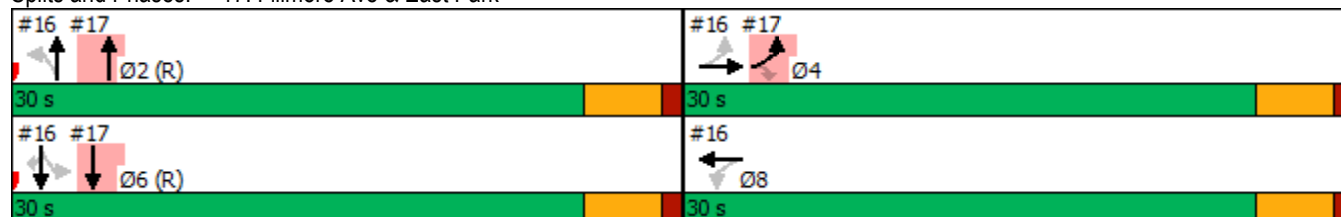
Intersection LOS: A

Intersection Capacity Utilization 28.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Fillmore Ave & East Park



Lanes, Volumes, Timings
18: Fillmore Ave & MLK Park

02/09/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	4	13	0	342	325	0
Future Volume (vph)	4	13	0	342	325	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.850					
Flt Protected	0.950					
Satd. Flow (prot)	1770	1583	0	1863	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1583	0	1863	1863	0
Right Turn on Red	Yes					
Satd. Flow (RTOR)	14					
Link Speed (mph)	30			30	30	
Link Distance (ft)	526			755	579	
Travel Time (s)	12.0			17.2	13.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	14	0	372	353	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	14	0	372	353	0
Turn Type	Prot	Perm		NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4				
Detector Phase	4	4		2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None		Max	Max	
Act Effect Green (s)	5.8	5.8		37.1	37.1	
Actuated g/C Ratio	0.15	0.15		0.93	0.93	
v/c Ratio	0.02	0.06		0.21	0.20	
Control Delay	16.5	10.5		1.5	1.4	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	16.5	10.5		1.5	1.4	
LOS	B	B		A	A	
Approach Delay	11.8			1.5	1.4	
Approach LOS	B			A	A	
Intersection Summary						
Area Type:	Other					
Cycle Length: 45						
Actuated Cycle Length: 39.7						

Lanes, Volumes, Timings

18: Fillmore Ave & MLK Park

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.21

Intersection Signal Delay: 1.7

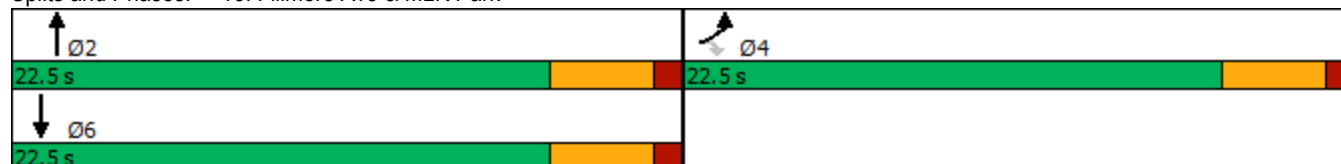
Intersection LOS: A

Intersection Capacity Utilization 29.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Fillmore Ave & MLK Park



Lanes, Volumes, Timings
19: Fillmore Ave & Northhampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	89	22	15	36	16	20	333	9	7	309	47
Future Volume (vph)	20	89	22	15	36	16	20	333	9	7	309	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.977			0.968			0.997			0.983	
Flt Protected		0.992			0.989			0.997			0.999	
Satd. Flow (prot)	0	1805	0	0	1783	0	0	1852	0	0	1829	0
Flt Permitted		0.934			0.914			0.972			0.992	
Satd. Flow (perm)	0	1700	0	0	1648	0	0	1805	0	0	1816	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			17			3			20	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1089			291			579			735	
Travel Time (s)		24.8			6.6			13.2			16.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	97	24	16	39	17	22	362	10	8	336	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	143	0	0	72	0	0	394	0	0	395	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		7.9			7.9			23.6			23.6	
Actuated g/C Ratio		0.21			0.21			0.63			0.63	
v/c Ratio		0.38			0.20			0.35			0.34	
Control Delay		13.2			10.3			6.4			6.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.2			10.3			6.4			6.1	
LOS		B			B			A			A	
Approach Delay		13.2			10.3			6.4			6.1	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.7												

Lanes, Volumes, Timings

19: Fillmore Ave & Northhampton St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 7.5

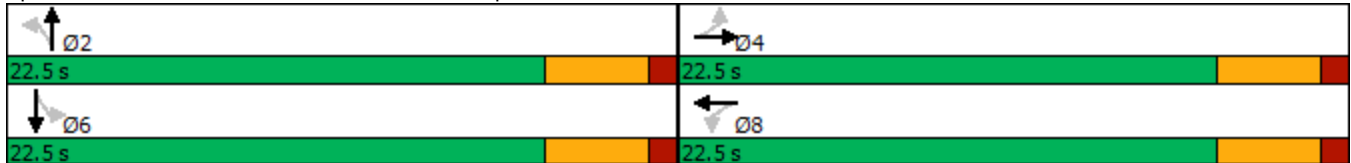
Intersection LOS: A

Intersection Capacity Utilization 44.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 19: Fillmore Ave & Northhampton St



Lanes, Volumes, Timings
21: Fillmore Ave & Riley St/Urban St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	0	7	9	0	27	3	369	4	18	351	10
Future Volume (vph)	4	0	7	9	0	27	3	369	4	18	351	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.910			0.900			0.999			0.996	
Flt Protected		0.984			0.987						0.998	
Satd. Flow (prot)	0	1668	0	0	1655	0	0	1861	0	0	1852	0
Flt Permitted								0.998			0.978	
Satd. Flow (perm)	0	1695	0	0	1676	0	0	1857	0	0	1814	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			36			1			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			639			735			422	
Travel Time (s)		24.6			14.5			16.7			9.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	0	8	10	0	29	3	401	4	20	382	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	39	0	0	408	0	0	413	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		5.8			6.0			33.7			33.7	
Actuated g/C Ratio		0.16			0.16			0.91			0.91	
v/c Ratio		0.04			0.13			0.24			0.25	
Control Delay		2.5			7.1			2.1			2.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		2.5			7.1			2.1			2.2	
LOS		A			A			A			A	
Approach Delay		2.5			7.1			2.1			2.2	
Approach LOS		A			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.1												

Lanes, Volumes, Timings

21: Fillmore Ave & Riley St/Urban St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.25

Intersection Signal Delay: 2.4

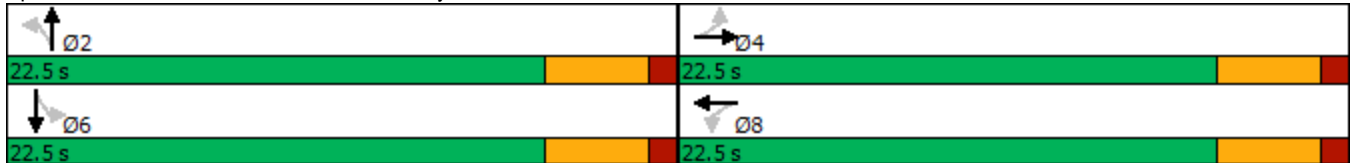
Intersection LOS: A

Intersection Capacity Utilization 42.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 21: Fillmore Ave & Riley St/Urban St



Lanes, Volumes, Timings
22: Fillmore Ave & French St

02/09/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	12	60	360	12	79	363
Future Volume (vph)	12	60	360	12	79	363
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.887		0.996			
Flt Protected	0.992					0.991
Satd. Flow (prot)	1639	0	1855	0	0	1846
Flt Permitted	0.992					0.880
Satd. Flow (perm)	1639	0	1855	0	0	1639
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	65		4			
Link Speed (mph)	30		30			30
Link Distance (ft)	600		422			182
Travel Time (s)	13.6		9.6			4.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	65	391	13	86	395
Shared Lane Traffic (%)						
Lane Group Flow (vph)	78	0	404	0	0	481
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		27.5		27.5	27.5
Total Split (%)	45.0%		55.0%		55.0%	55.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.5		36.4			36.4
Actuated g/C Ratio	0.14		0.80			0.80
v/c Ratio	0.27		0.27			0.37
Control Delay	9.5		3.5			4.3
Queue Delay	0.0		0.0			1.0
Total Delay	9.5		3.5			5.3
LOS	A		A			A
Approach Delay	9.5		3.5			5.3
Approach LOS	A		A			A

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 45.7

Lanes, Volumes, Timings

22: Fillmore Ave & French St

02/09/2022

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.37

Intersection Signal Delay: 4.9

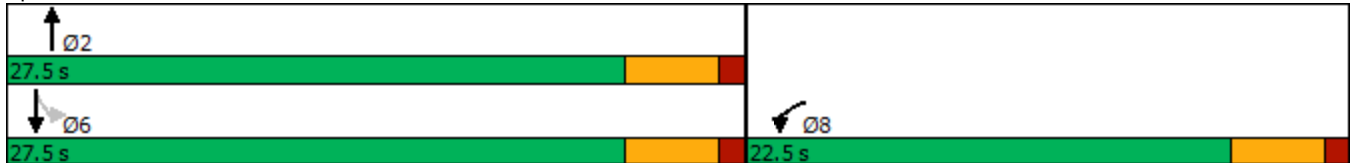
Intersection LOS: A

Intersection Capacity Utilization 58.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 22: Fillmore Ave & French St



Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	98	125	73	367	312	65
Future Volume (vph)	98	125	73	367	312	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.924				0.977	
Flt Protected	0.978			0.992		
Satd. Flow (prot)	1683	0	0	1848	1820	0
Flt Permitted	0.978			0.886		
Satd. Flow (perm)	1683	0	0	1650	1820	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	136				28	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1083			182	1350	
Travel Time (s)	24.6			4.1	30.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	107	136	79	399	339	71
Shared Lane Traffic (%)						
Lane Group Flow (vph)	243	0	0	478	410	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		27.5	27.5	27.5	
Total Split (%)	45.0%		55.0%	55.0%	55.0%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effect Green (s)	8.7			26.2	26.2	
Actuated g/C Ratio	0.20			0.60	0.60	
v/c Ratio	0.55			0.49	0.37	
Control Delay	11.8			8.1	6.3	
Queue Delay	0.0			2.7	0.0	
Total Delay	11.8			10.8	6.3	
LOS	B			B	A	
Approach Delay	11.8			10.8	6.3	
Approach LOS	B			B	A	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 44

Lanes, Volumes, Timings

23: Fillmore Ave & E Utica St

02/09/2022

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 9.3

Intersection LOS: A

Intersection Capacity Utilization 68.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 23: Fillmore Ave & E Utica St



Lanes, Volumes, Timings
24: Fillmore Ave & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	285	88	56	265	51	41	290	61	42	295	76
Future Volume (vph)	39	285	88	56	265	51	41	290	61	42	295	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.968			0.980			0.977			0.972	
Flt Protected		0.995			0.993			0.995			0.995	
Satd. Flow (prot)	0	3409	0	0	3444	0	0	3441	0	0	3423	0
Flt Permitted		0.882			0.827			0.884			0.888	
Satd. Flow (perm)	0	3022	0	0	2868	0	0	3057	0	0	3055	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		91			46			56			72	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			797			1350			1620	
Travel Time (s)		24.6			18.1			30.7			36.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	310	96	61	288	55	45	315	66	46	321	83
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	448	0	0	404	0	0	426	0	0	450	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		10.2			10.2			18.1			18.1	
Actuated g/C Ratio		0.27			0.27			0.48			0.48	
v/c Ratio		0.50			0.50			0.28			0.30	
Control Delay		10.9			12.0			6.2			6.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.9			12.0			6.2			6.1	
LOS		B			B			A			A	
Approach Delay		10.9			12.0			6.2			6.1	
Approach LOS		B			B			A			A	
Intersection Summary												

Lanes, Volumes, Timings

24: Fillmore Ave & E Ferry St

02/09/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 37.4

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.50

Intersection Signal Delay: 8.7

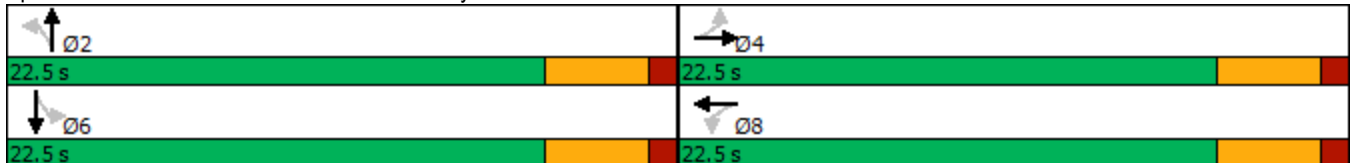
Intersection LOS: A

Intersection Capacity Utilization 60.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 24: Fillmore Ave & E Ferry St



Lanes, Volumes, Timings
25: Fillmore Ave & Northland Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	28	21	47	56	19	12	330	32	28	362	21
Future Volume (vph)	4	28	21	47	56	19	12	330	32	28	362	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.946			0.979			0.988			0.993	
Flt Protected		0.997			0.981			0.998			0.997	
Satd. Flow (prot)	0	1757	0	0	1789	0	0	1837	0	0	1844	0
Flt Permitted		0.970			0.850			0.985			0.963	
Satd. Flow (perm)	0	1709	0	0	1550	0	0	1813	0	0	1781	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			21			13			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1020			890			1620			1011	
Travel Time (s)		23.2			20.2			36.8			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	30	23	51	61	21	13	359	35	30	393	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	57	0	0	133	0	0	407	0	0	446	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.0			8.0			23.9			23.9	
Actuated g/C Ratio		0.21			0.21			0.63			0.63	
v/c Ratio		0.15			0.39			0.36			0.40	
Control Delay		8.4			13.8			6.3			6.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.4			13.8			6.3			6.8	
LOS		A			B			A			A	
Approach Delay		8.4			13.8			6.3			6.8	
Approach LOS		A			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 38												

Lanes, Volumes, Timings

25: Fillmore Ave & Northland Ave

02/09/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.40

Intersection Signal Delay: 7.6

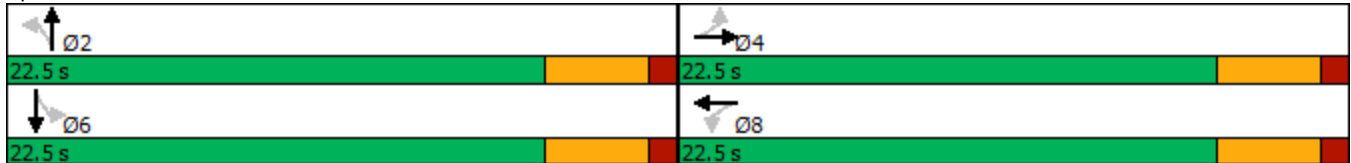
Intersection LOS: A

Intersection Capacity Utilization 53.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 25: Fillmore Ave & Northland Ave



Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	94	207	47	32	168	41	36	304	31	58	313	70
Future Volume (vph)	94	207	47	32	168	41	36	304	31	58	313	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.982			0.977			0.989			0.979	
Flt Protected		0.987			0.993			0.995			0.993	
Satd. Flow (prot)	0	1805	0	0	1807	0	0	1833	0	0	1811	0
Flt Permitted		0.844			0.930			0.932			0.909	
Satd. Flow (perm)	0	1544	0	0	1693	0	0	1717	0	0	1658	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			24			12			25	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		928			735			1011			742	
Travel Time (s)		21.1			16.7			23.0			16.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	102	225	51	35	183	45	39	330	34	63	340	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	378	0	0	263	0	0	403	0	0	479	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	23.0	23.0		23.0	23.0		27.0	27.0		27.0	27.0	
Total Split (%)	46.0%	46.0%		46.0%	46.0%		54.0%	54.0%		54.0%	54.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		14.7			14.7			22.6			22.6	
Actuated g/C Ratio		0.32			0.32			0.49			0.49	
v/c Ratio		0.75			0.48			0.48			0.58	
Control Delay		24.0			14.4			11.0			12.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		24.0			14.4			11.0			12.6	
LOS		C			B			B			B	
Approach Delay		24.0			14.4			11.0			12.6	
Approach LOS		C			B			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 46.4												

Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

02/09/2022

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 15.3

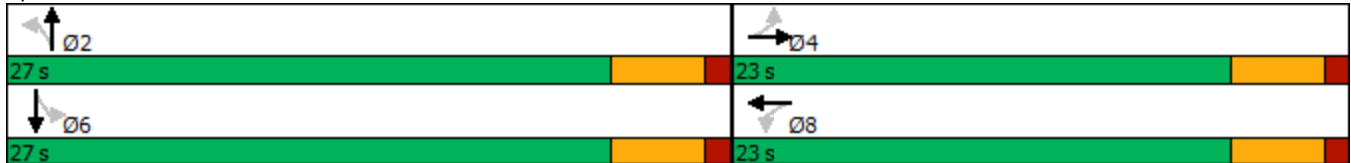
Intersection LOS: B

Intersection Capacity Utilization 76.4%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 26: Fillmore Ave & E Delavan Ave



Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑	↑			
Traffic Volume (vph)	236	267	0	0	278	31	72	224	141	0	0	0
Future Volume (vph)	236	267	0	0	278	31	72	224	141	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	0		150	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.985				0.850			
Flt Protected		0.977						0.988				
Satd. Flow (prot)	0	3458	0	0	3486	0	0	1840	1583	0	0	0
Flt Permitted		0.678						0.988				
Satd. Flow (perm)	0	2400	0	0	3486	0	0	1840	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					34				153			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		310			928			1019			213	
Travel Time (s)		7.0			21.1			23.2			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	257	290	0	0	302	34	78	243	153	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	547	0	0	336	0	0	321	153	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	50.0	50.0			50.0		20.0	20.0	20.0			
Total Split (%)	71.4%	71.4%			71.4%		28.6%	28.6%	28.6%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)		0.0			0.0			0.0	0.0			
Total Lost Time (s)		4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max			C-Max		None	None	None			
Act Effct Green (s)		46.2			46.2			14.8	14.8			
Actuated g/C Ratio		0.66			0.66			0.21	0.21			
v/c Ratio		0.35			0.15			0.83	0.34			
Control Delay		3.5			4.3			46.1	10.3			
Queue Delay		0.0			0.0			0.0	0.0			
Total Delay		3.5			4.3			46.1	10.3			
LOS		A			A			D	B			
Approach Delay		3.5			4.3			34.6				
Approach LOS		A			A			C				
Intersection Summary												

Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	20.0
Total Split (%)	29%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

27: Humboldt Parkway NB & E Delavan Ave

02/09/2022

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 14.6

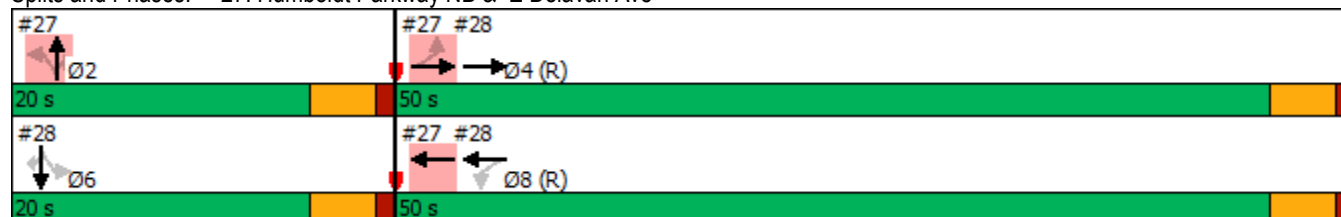
Intersection LOS: B

Intersection Capacity Utilization 49.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 27: Humboldt Parkway NB & E Delavan Ave



Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					 							
Traffic Volume (vph)	0	463	49	103	245	0	0	0	0	40	60	25
Future Volume (vph)	0	463	49	103	245	0	0	0	0	40	60	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987										0.850
Flt Protected					0.985						0.980	
Satd. Flow (prot)	0	1839	0	0	3486	0	0	0	0	0	1825	1583
Flt Permitted					0.713						0.980	
Satd. Flow (perm)	0	1839	0	0	2523	0	0	0	0	0	1825	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15										27
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2669			310			684			864	
Travel Time (s)		60.7			7.0			15.5			19.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	503	53	112	266	0	0	0	0	43	65	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	556	0	0	378	0	0	0	0	0	108	27
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		50.0		50.0	50.0					20.0	20.0	20.0
Total Split (%)		71.4%		71.4%	71.4%					28.6%	28.6%	28.6%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0						0.0	0.0
Total Lost Time (s)		4.5			4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max		C-Max	C-Max					None	None	None
Act Effct Green (s)		46.2			46.2						14.8	14.8
Actuated g/C Ratio		0.66			0.66						0.21	0.21
v/c Ratio		0.46			0.23						0.28	0.08
Control Delay		7.3			4.0						25.0	9.9
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		7.3			4.0						25.0	9.9
LOS		A			A						C	A
Approach Delay		7.3			4.0						22.0	
Approach LOS		A			A						C	
Intersection Summary												

Lanes, Volumes, Timings

28: Humboldt Parkway SB & E Delavan Ave

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	20.0
Total Split (%)	29%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

28: Humboldt Parkway SB & E Delavan Ave

02/09/2022

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 8.0

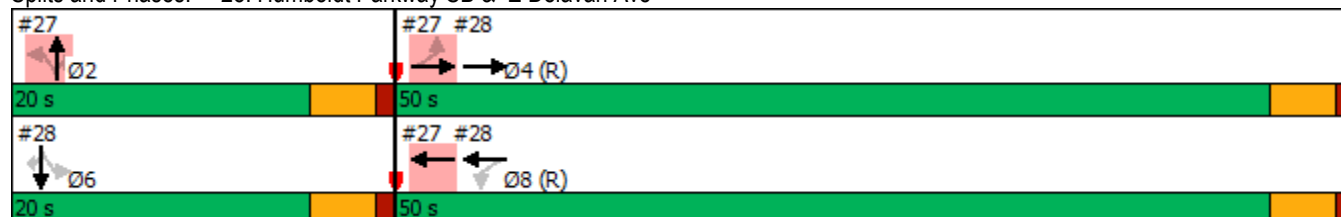
Intersection LOS: A

Intersection Capacity Utilization 53.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 28: Humboldt Parkway SB & E Delavan Ave



Lanes, Volumes, Timings

29: Jefferson Ave & E Delavan Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	87	328	53	55	143	23	47	145	70	12	106	42
Future Volume (vph)	87	328	53	55	143	23	47	145	70	12	106	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.985			0.986			0.964			0.964	
Flt Protected		0.991			0.988			0.991			0.996	
Satd. Flow (prot)	0	1818	0	0	1815	0	0	1780	0	0	1789	0
Flt Permitted		0.895			0.828			0.925			0.972	
Satd. Flow (perm)	0	1642	0	0	1521	0	0	1661	0	0	1745	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			15			43			42	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		592			2669			1017			352	
Travel Time (s)		13.5			60.7			23.1			8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	95	357	58	60	155	25	51	158	76	13	115	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	510	0	0	240	0	0	285	0	0	174	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	26.0	26.0		26.0	26.0		24.0	24.0		24.0	24.0	
Total Split (%)	52.0%	52.0%		52.0%	52.0%		48.0%	48.0%		48.0%	48.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		17.9			17.9			19.6			19.6	
Actuated g/C Ratio		0.38			0.38			0.42			0.42	
v/c Ratio		0.80			0.40			0.39			0.23	
Control Delay		23.1			11.7			10.9			8.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		23.1			11.7			10.9			8.7	
LOS		C			B			B			A	
Approach Delay		23.1			11.7			10.9			8.7	
Approach LOS		C			B			B			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 46.6												

Lanes, Volumes, Timings

29: Jefferson Ave & E Delavan Ave

02/09/2022

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 15.9

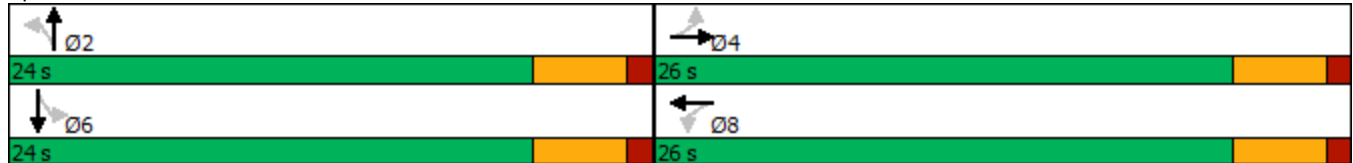
Intersection LOS: B

Intersection Capacity Utilization 64.8%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 29: Jefferson Ave & E Delavan Ave



Lanes, Volumes, Timings
30: Jefferson Ave & Northland Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	28	18	12	17	19	24	210	30	20	181	13
Future Volume (vph)	28	28	18	12	17	19	24	210	30	20	181	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.945			0.984			0.992	
Flt Protected		0.982			0.988			0.995			0.995	
Satd. Flow (prot)	0	1767	0	0	1739	0	0	1824	0	0	1839	0
Flt Permitted		0.855			0.889			0.968			0.965	
Satd. Flow (perm)	0	1538	0	0	1565	0	0	1774	0	0	1783	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			21			17			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		806			2743			848			1017	
Travel Time (s)		18.3			62.3			19.3			23.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	30	20	13	18	21	26	228	33	22	197	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	80	0	0	52	0	0	287	0	0	233	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		6.8			6.7			28.5			28.5	
Actuated g/C Ratio		0.19			0.19			0.81			0.81	
v/c Ratio		0.26			0.17			0.20			0.16	
Control Delay		11.2			9.2			3.5			3.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.2			9.2			3.5			3.5	
LOS		B			A			A			A	
Approach Delay		11.2			9.2			3.5			3.5	
Approach LOS		B			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.4												

Lanes, Volumes, Timings

30: Jefferson Ave & Northland Ave

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.26

Intersection Signal Delay: 4.9

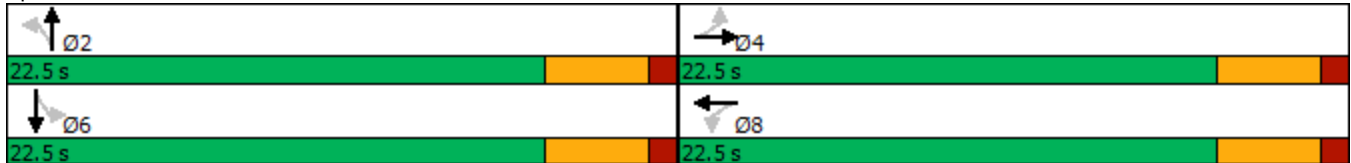
Intersection LOS: A

Intersection Capacity Utilization 32.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 30: Jefferson Ave & Northland Ave



Lanes, Volumes, Timings
31: Jefferson Ave & Brunswick Blvd

02/09/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	26	26	255	44	9	189
Future Volume (vph)	26	26	255	44	9	189
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932		0.980			
Flt Protected	0.976					0.998
Satd. Flow (prot)	1694	0	1825	0	0	1859
Flt Permitted	0.976					0.986
Satd. Flow (perm)	1694	0	1825	0	0	1837
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	28		23			
Link Speed (mph)	30		30			30
Link Distance (ft)	2734		751			848
Travel Time (s)	62.1		17.1			19.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	28	28	277	48	10	205
Shared Lane Traffic (%)						
Lane Group Flow (vph)	56	0	325	0	0	215
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%	50.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.4		34.3			34.3
Actuated g/C Ratio	0.16		0.85			0.85
v/c Ratio	0.19		0.21			0.14
Control Delay	11.7		2.7			2.7
Queue Delay	0.0		0.0			0.0
Total Delay	11.7		2.7			2.7
LOS	B		A			A
Approach Delay	11.7		2.7			2.7
Approach LOS	B		A			A

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.4

Lanes, Volumes, Timings

31: Jefferson Ave & Brunswick Blvd

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.21

Intersection Signal Delay: 3.5

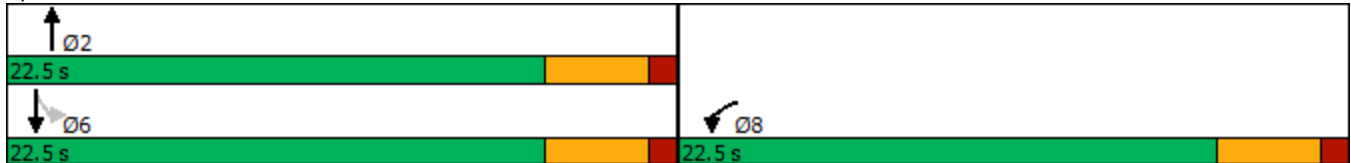
Intersection LOS: A

Intersection Capacity Utilization 28.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 31: Jefferson Ave & Brunswick Blvd



Lanes, Volumes, Timings
32: Jefferson Ave & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	241	55	58	385	63	66	209	73	47	189	26
Future Volume (vph)	25	241	55	58	385	63	66	209	73	47	189	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.977			0.983			0.972			0.987	
Flt Protected		0.996			0.994			0.991			0.991	
Satd. Flow (prot)	0	1813	0	0	1820	0	0	1794	0	0	1822	0
Flt Permitted		0.947			0.927			0.889			0.888	
Satd. Flow (perm)	0	1723	0	0	1697	0	0	1610	0	0	1633	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			17			28			11	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			194			1406			751	
Travel Time (s)		7.5			4.4			32.0			17.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	27	262	60	63	418	68	72	227	79	51	205	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	349	0	0	549	0	0	378	0	0	284	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	30.0	30.0		30.0	30.0		25.0	25.0		25.0	25.0	
Total Split (%)	54.5%	54.5%		54.5%	54.5%		45.5%	45.5%		45.5%	45.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		19.9			19.9			20.7			20.7	
Actuated g/C Ratio		0.40			0.40			0.42			0.42	
v/c Ratio		0.50			0.80			0.55			0.41	
Control Delay		12.6			22.2			15.3			13.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.6			22.2			15.3			13.6	
LOS		B			C			B			B	
Approach Delay		12.6			22.2			15.3			13.6	
Approach LOS		B			C			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 55												
Actuated Cycle Length: 49.7												

Lanes, Volumes, Timings

32: Jefferson Ave & E Ferry St

02/09/2022

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 16.8

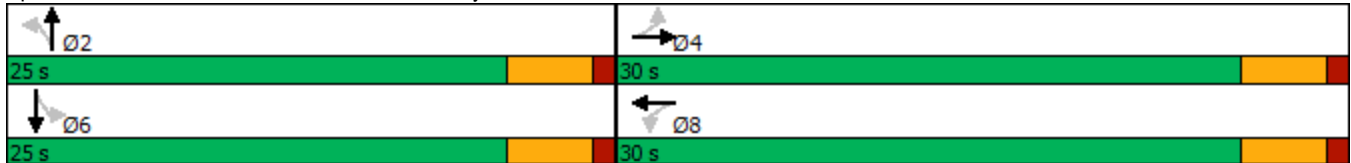
Intersection LOS: B

Intersection Capacity Utilization 73.7%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 32: Jefferson Ave & E Ferry St



Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	96	38	49	100	34	39	299	38	17	287	21
Future Volume (vph)	12	96	38	49	100	34	39	299	38	17	287	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.965			0.975			0.986			0.991	
Flt Protected		0.996			0.987			0.995			0.997	
Satd. Flow (prot)	0	1790	0	0	1793	0	0	1827	0	0	1840	0
Flt Permitted		0.965			0.896			0.943			0.975	
Satd. Flow (perm)	0	1735	0	0	1627	0	0	1732	0	0	1800	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		41			30			15			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1023			1295			630			1406	
Travel Time (s)		23.3			29.4			14.3			32.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	104	41	53	109	37	42	325	41	18	312	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	158	0	0	199	0	0	408	0	0	353	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		9.1			9.1			21.9			21.9	
Actuated g/C Ratio		0.25			0.25			0.59			0.59	
v/c Ratio		0.35			0.47			0.40			0.33	
Control Delay		10.6			13.5			7.7			7.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.6			13.5			7.7			7.1	
LOS		B			B			A			A	
Approach Delay		10.6			13.5			7.7			7.1	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.1												

Lanes, Volumes, Timings

33: Jefferson Ave & E Utica St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 9.0

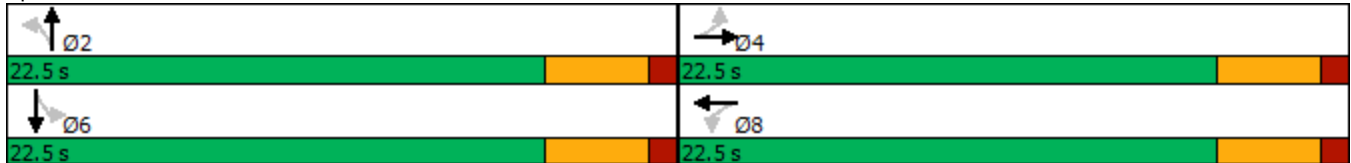
Intersection LOS: A

Intersection Capacity Utilization 61.1%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 33: Jefferson Ave & E Utica St



Lanes, Volumes, Timings
34: Jefferson Ave & Riley St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	29	11	17	21	18	7	325	41	11	315	19
Future Volume (vph)	12	29	11	17	21	18	7	325	41	11	315	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.972			0.956			0.985			0.992	
Flt Protected		0.989			0.985			0.999			0.998	
Satd. Flow (prot)	0	1791	0	0	1754	0	0	1833	0	0	1844	0
Flt Permitted		0.904			0.880			0.993			0.987	
Satd. Flow (perm)	0	1637	0	0	1567	0	0	1822	0	0	1824	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			20			17			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		870			1108			418			630	
Travel Time (s)		19.8			25.2			9.5			14.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	32	12	18	23	20	8	353	45	12	342	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	57	0	0	61	0	0	406	0	0	375	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		6.5			6.5			28.8			28.8	
Actuated g/C Ratio		0.18			0.18			0.81			0.81	
v/c Ratio		0.18			0.20			0.27			0.25	
Control Delay		11.0			10.3			3.7			3.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.0			10.3			3.7			3.6	
LOS		B			B			A			A	
Approach Delay		11.0			10.3			3.7			3.6	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.6												

Lanes, Volumes, Timings

34: Jefferson Ave & Riley St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.27

Intersection Signal Delay: 4.6

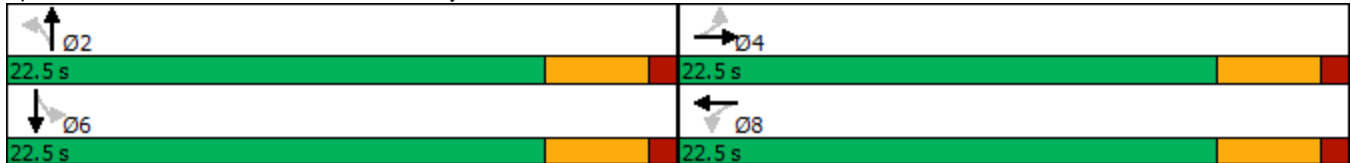
Intersection LOS: A

Intersection Capacity Utilization 35.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 34: Jefferson Ave & Riley St



Lanes, Volumes, Timings
35: Jefferson Ave & Northampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	46	25	12	44	20	21	312	13	28	290	31
Future Volume (vph)	20	46	25	12	44	20	21	312	13	28	290	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.963			0.964			0.995			0.988	
Flt Protected		0.989			0.992			0.997			0.996	
Satd. Flow (prot)	0	1774	0	0	1781	0	0	1848	0	0	1833	0
Flt Permitted		0.900			0.924			0.971			0.960	
Satd. Flow (perm)	0	1614	0	0	1659	0	0	1800	0	0	1767	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			22			5			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1340			1290			1156			278	
Travel Time (s)		30.5			29.3			26.3			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	50	27	13	48	22	23	339	14	30	315	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	99	0	0	83	0	0	376	0	0	379	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		7.1			7.0			25.5			25.5	
Actuated g/C Ratio		0.20			0.19			0.71			0.71	
v/c Ratio		0.29			0.24			0.29			0.30	
Control Delay		11.3			10.8			5.1			5.1	
Queue Delay		0.0			0.0			0.0			0.1	
Total Delay		11.3			10.8			5.1			5.1	
LOS		B			B			A			A	
Approach Delay		11.3			10.8			5.1			5.1	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.9												

Lanes, Volumes, Timings

35: Jefferson Ave & Northhampton St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.30

Intersection Signal Delay: 6.3

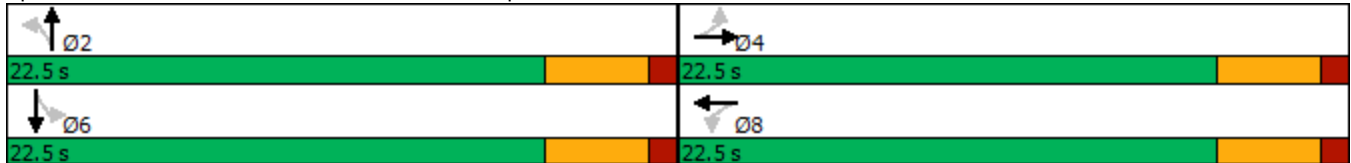
Intersection LOS: A

Intersection Capacity Utilization 41.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 35: Jefferson Ave & Northhampton St



Lanes, Volumes, Timings
36: Jefferson Ave & Best St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	447	15	39	320	65	27	269	83	74	248	25
Future Volume (vph)	44	447	15	39	320	65	27	269	83	74	248	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.996			0.977			0.967			0.989	
Flt Protected		0.996			0.995			0.996			0.990	
Satd. Flow (prot)	0	3511	0	0	3441	0	0	3409	0	0	3465	0
Flt Permitted		0.881			0.871			0.916			0.813	
Satd. Flow (perm)	0	3106	0	0	3012	0	0	3135	0	0	2846	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			55			90			21	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		169			169			156			165	
Travel Time (s)		3.8			3.8			3.5			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	48	486	16	42	348	71	29	292	90	80	270	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	550	0	0	461	0	0	411	0	0	377	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		12.7			12.7			18.1			18.1	
Actuated g/C Ratio		0.32			0.32			0.45			0.45	
v/c Ratio		0.55			0.46			0.28			0.29	
Control Delay		13.1			10.8			6.6			8.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.1			10.8			6.6			8.0	
LOS		B			B			A			A	
Approach Delay		13.1			10.8			6.6			8.0	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 39.9												

Lanes, Volumes, Timings

36: Jefferson Ave & Best St

02/09/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 10.0

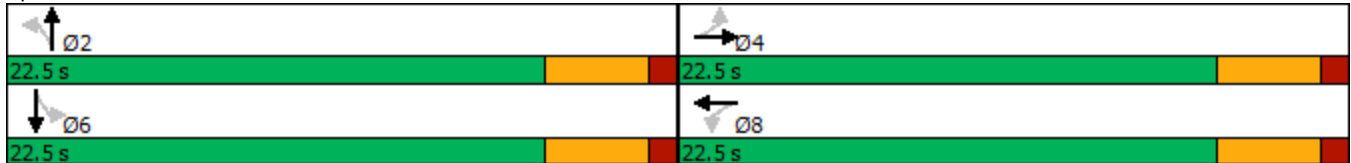
Intersection LOS: A

Intersection Capacity Utilization 61.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 36: Jefferson Ave & Best St



Lanes, Volumes, Timings
37: Jefferson Ave & E North St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	83	145	46	299	307	22
Future Volume (vph)	83	145	46	299	307	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.914				0.991	
Flt Protected	0.982			0.993		
Satd. Flow (prot)	1672	0	0	1850	1846	0
Flt Permitted	0.982			0.925		
Satd. Flow (perm)	1672	0	0	1723	1846	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	158				10	
Link Speed (mph)	30			30	30	
Link Distance (ft)	879			684	486	
Travel Time (s)	20.0			15.5	11.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	90	158	50	325	334	24
Shared Lane Traffic (%)						
Lane Group Flow (vph)	248	0	0	375	358	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		22.5	22.5	22.5	
Total Split (%)	50.0%		50.0%	50.0%	50.0%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effct Green (s)	7.8			22.2	22.2	
Actuated g/C Ratio	0.21			0.61	0.61	
v/c Ratio	0.51			0.36	0.32	
Control Delay	8.9			6.9	6.3	
Queue Delay	0.0			0.0	0.0	
Total Delay	8.9			6.9	6.3	
LOS	A			A	A	
Approach Delay	8.9			6.9	6.3	
Approach LOS	A			A	A	
Intersection Summary						
Area Type:	Other					
Cycle Length: 45						
Actuated Cycle Length: 36.3						

Lanes, Volumes, Timings 37: Jefferson Ave & E North St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 7.2

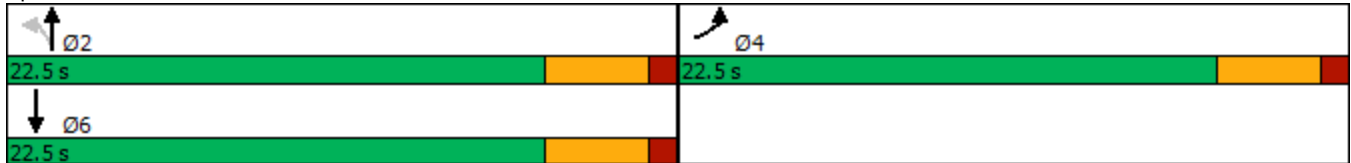
Intersection LOS: A

Intersection Capacity Utilization 60.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 37: Jefferson Ave & E North St



Lanes, Volumes, Timings
38: Jefferson Ave & High St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	59	116	32	57	32	49	294	21	23	419	9
Future Volume (vph)	13	59	116	32	57	32	49	294	21	23	419	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.917			0.964			0.992			0.997	
Flt Protected		0.997			0.987			0.993			0.997	
Satd. Flow (prot)	0	1703	0	0	1772	0	0	1835	0	0	1852	0
Flt Permitted		0.966			0.880			0.904			0.973	
Satd. Flow (perm)	0	1650	0	0	1580	0	0	1670	0	0	1807	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		126			35			8			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		840			1233			880			684	
Travel Time (s)		19.1			28.0			20.0			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	64	126	35	62	35	53	320	23	25	455	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	204	0	0	132	0	0	396	0	0	490	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		7.7			7.7			21.7			21.7	
Actuated g/C Ratio		0.22			0.22			0.61			0.61	
v/c Ratio		0.45			0.36			0.39			0.45	
Control Delay		8.6			11.7			6.9			7.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.6			11.7			6.9			7.4	
LOS		A			B			A			A	
Approach Delay		8.6			11.7			6.9			7.4	
Approach LOS		A			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.7												

Lanes, Volumes, Timings

38: Jefferson Ave & High St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 7.9

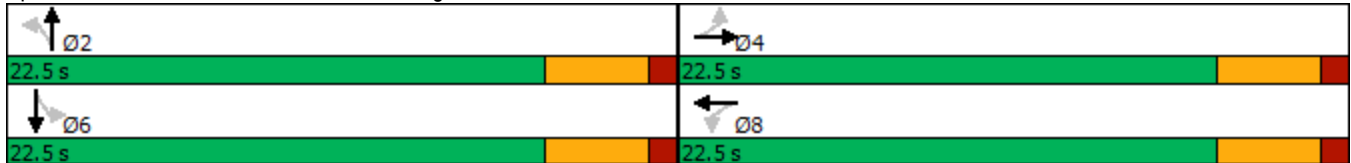
Intersection LOS: A

Intersection Capacity Utilization 58.1%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 38: Jefferson Ave & High St



Lanes, Volumes, Timings
39: Wohlers Ave & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	390	18	16	505	96	10	60	59	0	0	0
Future Volume (vph)	59	390	18	16	505	96	10	60	59	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.979			0.938				
Flt Protected		0.994			0.999			0.996				
Satd. Flow (prot)	0	1842	0	0	1822	0	0	1740	0	0	0	0
Flt Permitted		0.879			0.984			0.996				
Satd. Flow (perm)	0	1629	0	0	1794	0	0	1740	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			24			64				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		280			1179			1336			278	
Travel Time (s)		6.4			26.8			30.4			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	64	424	20	17	549	104	11	65	64	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	508	0	0	670	0	0	140	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4			8			2					
Detector Phase	4	4		8	8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5				
Total Split (s)	37.0	37.0		37.0	37.0		23.0	23.0				
Total Split (%)	61.7%	61.7%		61.7%	61.7%		38.3%	38.3%				
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max				
Act Effct Green (s)		23.7			23.7			18.8				
Actuated g/C Ratio		0.46			0.46			0.36				
v/c Ratio		0.68			0.80			0.21				
Control Delay		15.5			19.4			9.6				
Queue Delay		0.0			0.0			0.0				
Total Delay		15.5			19.4			9.6				
LOS		B			B			A				
Approach Delay		15.5			19.4			9.6				
Approach LOS		B			B			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 51.7												

Lanes, Volumes, Timings
39: Wohlers Ave & E Ferry St

02/09/2022

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 16.9

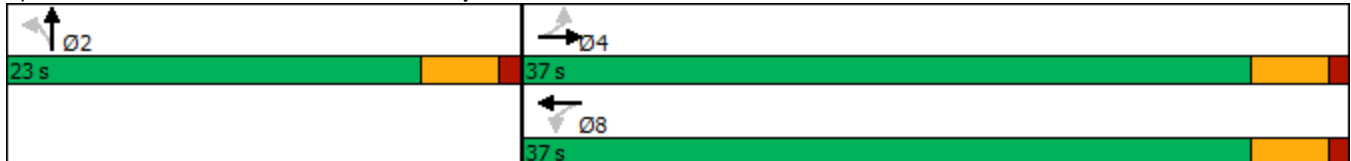
Intersection LOS: B

Intersection Capacity Utilization 66.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 39: Wohlers Ave & E Ferry St



Lanes, Volumes, Timings
40: Wohlers Ave & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	165	7	13	146	31	18	44	23	8	23	10
Future Volume (vph)	13	165	7	13	146	31	18	44	23	8	23	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.978			0.964			0.967	
Flt Protected		0.997			0.997			0.989			0.990	
Satd. Flow (prot)	0	1848	0	0	1816	0	0	1776	0	0	1783	0
Flt Permitted		0.972			0.972			0.957			0.963	
Satd. Flow (perm)	0	1802	0	0	1771	0	0	1718	0	0	1735	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			26			25			11	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		274			1173			1331			1336	
Travel Time (s)		6.2			26.7			30.3			30.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	179	8	14	159	34	20	48	25	9	25	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	201	0	0	207	0	0	93	0	0	45	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		9.2			9.1			21.9			21.9	
Actuated g/C Ratio		0.25			0.25			0.59			0.59	
v/c Ratio		0.45			0.46			0.09			0.04	
Control Delay		14.3			13.2			4.8			4.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.3			13.2			4.8			4.9	
LOS		B			B			A			A	
Approach Delay		14.3			13.2			4.8			4.9	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.1												

Lanes, Volumes, Timings

40: Wohlers Ave & E Utica St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 11.5

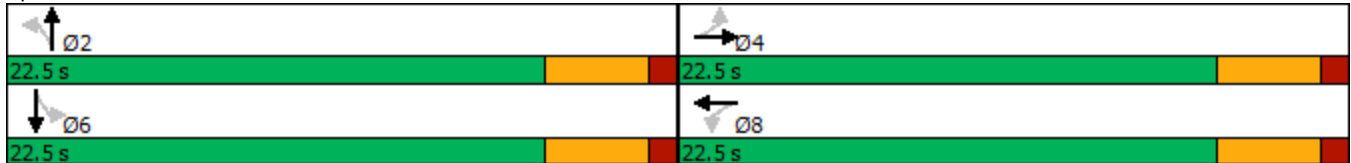
Intersection LOS: B

Intersection Capacity Utilization 27.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 40: Wohlers Ave & E Utica St



Lanes, Volumes, Timings
41: Humboldt Parkway SB & Woodlawn Ave

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	534	51
Future Volume (vph)	0	0	0	0	534	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.988	
Flt Protected						
Satd. Flow (prot)	0	0	0	0	1840	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	0	1840	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	780			561	319	
Travel Time (s)	17.7			12.8	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	580	55
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	635	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 37.9% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings
42: Humboldt Parkway SB & Glenwood Ave

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↗	
Traffic Volume (vph)	0	39	0	0	531	0
Future Volume (vph)	0	39	0	0	531	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1863	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	750			456	561	
Travel Time (s)	17.0			10.4	12.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	42	0	0	577	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	42	0	0	577	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 37.9% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
42: Humboldt Parkway SB & Glenwood Ave

02/09/2022

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↖	
Traffic Vol, veh/h	0	39	0	0	531	0
Future Vol, veh/h	0	39	0	0	531	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	42	0	0	577	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	577	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	516	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	516	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	12.6		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	516	-				
HCM Lane V/C Ratio	0.082	-				
HCM Control Delay (s)	12.6	-				
HCM Lane LOS	B	-				
HCM 95th %tile Q(veh)	0.3	-				

Lanes, Volumes, Timings
43: Humboldt Parkway SB & Riley St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	32	0	0	180	31
Future Volume (vph)	0	32	0	0	180	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.980	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1825	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1825	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	873			418	636	
Travel Time (s)	19.8			9.5	14.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	35	0	0	196	34
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	35	0	0	230	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 21.4% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
43: Humboldt Parkway SB & Riley St

02/09/2022

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	32	0	0	180	31
Future Vol, veh/h	0	32	0	0	180	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	35	0	0	196	34
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	213	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	827	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	827	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	9.5		0			
HCM LOS	A					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	827	-	-			
HCM Lane V/C Ratio	0.042	-	-			
HCM Control Delay (s)	9.5	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
44: Humboldt Parkway SB & Kingsley St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	13	0	0	207	4
Future Volume (vph)	0	13	0	0	207	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.998	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1859	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1859	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	736			293	418	
Travel Time (s)	16.7			6.7	9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	14	0	0	225	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	14	0	0	229	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 21.1% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
44: Humboldt Parkway SB & Kingsley St

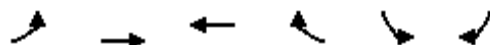
02/09/2022

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	13	0	0	207	4
Future Vol, veh/h	0	13	0	0	207	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	14	0	0	225	4
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	227	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	812	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	812	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	9.5		0			
HCM LOS	A					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	812	-	-			
HCM Lane V/C Ratio	0.017	-	-			
HCM Control Delay (s)	9.5	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings

45: W Parade Ave & Humboldt Parkway SB

02/09/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↘	
Traffic Volume (vph)	0	160	89	0	96	45
Future Volume (vph)	0	160	89	0	96	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.957	
Flt Protected					0.967	
Satd. Flow (prot)	0	1863	1863	0	1724	0
Flt Permitted					0.967	
Satd. Flow (perm)	0	1863	1863	0	1724	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		199	738		350	
Travel Time (s)		4.5	16.8		8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	174	97	0	104	49
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	174	97	0	153	0
Sign Control		Stop	Stop		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 23.2% ICU Level of Service A

Analysis Period (min) 15

HCM 6th AWSC
45: W Parade Ave & Humboldt Parkway SB

02/09/2022

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	↑
Traffic Vol, veh/h	0	160	89	0	96	45
Future Vol, veh/h	0	160	89	0	96	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	174	97	0	104	49
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	8.6	8.1	8.6
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	68%
Vol Thru, %	100%	100%	0%
Vol Right, %	0%	0%	32%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	160	89	141
LT Vol	0	0	96
Through Vol	160	89	0
RT Vol	0	0	45
Lane Flow Rate	174	97	153
Geometry Grp	1	1	1
Degree of Util (X)	0.213	0.121	0.191
Departure Headway (Hd)	4.406	4.488	4.495
Convergence, Y/N	Yes	Yes	Yes
Cap	817	800	800
Service Time	2.421	2.506	2.513
HCM Lane V/C Ratio	0.213	0.121	0.191
HCM Control Delay	8.6	8.1	8.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.8	0.4	0.7

Lanes, Volumes, Timings
46: Linden Park & Dodge St/W Parade Ave

02/09/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	158	7	6	129	0	2
Future Volume (vph)	158	7	6	129	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.994				0.865	
Flt Protected				0.998		
Satd. Flow (prot)	1852	0	0	1859	1611	0
Flt Permitted				0.998		
Satd. Flow (perm)	1852	0	0	1859	1611	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	489			199	180	
Travel Time (s)	11.1			4.5	4.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	172	8	7	140	0	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	180	0	0	147	2	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	21.7%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
46: Linden Park & Dodge St/W Parade Ave

02/09/2022

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	158	7	6	129	0	2
Future Vol, veh/h	158	7	6	129	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	172	8	7	140	0	2
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	180	0	330	176
Stage 1	-	-	-	-	176	-
Stage 2	-	-	-	-	154	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1396	-	665	867
Stage 1	-	-	-	-	855	-
Stage 2	-	-	-	-	874	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1396	-	662	867
Mov Cap-2 Maneuver	-	-	-	-	662	-
Stage 1	-	-	-	-	855	-
Stage 2	-	-	-	-	870	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		9.2	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	867	-	-	1396	-	
HCM Lane V/C Ratio	0.003	-	-	0.005	-	
HCM Control Delay (s)	9.2	-	-	7.6	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Lanes, Volumes, Timings
47: Humboldt Parkway NB & Riley St

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	10	93	9	0	0
Future Volume (vph)	0	10	93	9	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.988			
Flt Protected						
Satd. Flow (prot)	0	1611	1840	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1840	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	1082		722			610
Travel Time (s)	24.6		16.4			13.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	11	101	10	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	11	111	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	15.4%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
47: Humboldt Parkway NB & Riley St

02/09/2022

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	10	93	9	0	0
Future Vol, veh/h	0	10	93	9	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	1082560512	
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	101	10	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	106	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	948	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	948	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	8.8		0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		- 948			
HCM Lane V/C Ratio	-		- 0.011			
HCM Control Delay (s)	-		- 8.8			
HCM Lane LOS	-		- A			
HCM 95th %tile Q(veh)	-		- 0			

Lanes, Volumes, Timings

48: Humboldt Parkway NB & Woepfel St

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	7	360	13	0	0
Future Volume (vph)	0	7	360	13	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.995			
Flt Protected						
Satd. Flow (prot)	0	1611	1853	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1853	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	744		294			729
Travel Time (s)	16.9		6.7			16.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	8	391	14	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	8	405	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	29.7%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
48: Humboldt Parkway NB & Woepfel St

02/09/2022

Intersection

Int Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	7	360	13	0	0
Future Vol, veh/h	0	7	360	13	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	1081237504	
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	391	14	0	0

Major/Minor	Minor1	Major1
Conflicting Flow All	- 398	0 0
Stage 1	-	-
Stage 2	-	-
Critical Hdwy	- 6.22	-
Critical Hdwy Stg 1	-	-
Critical Hdwy Stg 2	-	-
Follow-up Hdwy	- 3.318	-
Pot Cap-1 Maneuver	0 652	-
Stage 1	0	-
Stage 2	0	-
Platoon blocked, %		-
Mov Cap-1 Maneuver	- 652	-
Mov Cap-2 Maneuver	-	-
Stage 1	-	-
Stage 2	-	-

Approach	WB	NB
HCM Control Delay, s	10.6	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBT	NBRWBLn1
Capacity (veh/h)	-	- 652
HCM Lane V/C Ratio	-	- 0.012
HCM Control Delay (s)	-	- 10.6
HCM Lane LOS	-	- B
HCM 95th %tile Q(veh)	-	- 0

Lanes, Volumes, Timings
49: Humboldt Parkway NB & Woodlawn Ave

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	21	366	3	0	0
Future Volume (vph)	0	21	366	3	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.999			
Flt Protected						
Satd. Flow (prot)	0	1611	1861	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1861	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	729		729			312
Travel Time (s)	16.6		16.6			7.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	23	398	3	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	23	401	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	29.4%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
49: Humboldt Parkway NB & Woodlawn Ave

02/09/2022

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	21	366	3	0	0
Future Vol, veh/h	0	21	366	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	23	398	3	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	400	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	650	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	650	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	10.7		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		650			
HCM Lane V/C Ratio	-		0.035			
HCM Control Delay (s)	-		10.7			
HCM Lane LOS	-		B			
HCM 95th %tile Q(veh)	-		0.1			

Lanes, Volumes, Timings
50: Humboldt Parkway SB & Florida St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	39	0	0	211	17
Future Volume (vph)	0	39	0	0	211	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.990	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1844	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1844	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	935			344	684	
Travel Time (s)	21.3			7.8	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	42	0	0	229	18
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	42	0	0	247	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 22.1% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
50: Humboldt Parkway SB & Florida St

02/09/2022

Intersection

Int Delay, s/veh 1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	39	0	0	211	17
Future Vol, veh/h	0	39	0	0	211	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	42	0	0	229	18

Major/Minor	Minor2	Major2
Conflicting Flow All	- 238	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 801	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 801	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	9.7	0
HCM LOS	A	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	801	-	-
HCM Lane V/C Ratio	0.053	-	-
HCM Control Delay (s)	9.7	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-

Lanes, Volumes, Timings
51: Humboldt Parkway SB & Northland Ave

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	55	0	0	228	32
Future Volume (vph)	0	55	0	0	228	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.983	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1831	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1831	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2743			805	344	
Travel Time (s)	62.3			18.3	7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	60	0	0	248	35
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	60	0	0	283	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 24.0% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
51: Humboldt Parkway SB & Northland Ave

02/09/2022

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	55	0	0	228	32
Future Vol, veh/h	0	55	0	0	228	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	60	0	0	248	35
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	266	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	773	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	773	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	10		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	773	-	-			
HCM Lane V/C Ratio	0.077	-	-			
HCM Control Delay (s)	10	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q(veh)	0.3	-	-			

Lanes, Volumes, Timings
52: Humboldt Parkway SB & Brunswick Blvd

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	70	0	0	266	27
Future Volume (vph)	0	70	0	0	266	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.988	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1840	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1840	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2734			252	805	
Travel Time (s)	62.1			5.7	18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	76	0	0	289	29
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	76	0	0	318	0
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 26.6% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	70	0	0	266	27
Future Vol, veh/h	0	70	0	0	266	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	76	0	0	289	29
Number of Lanes	0	1	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	1
HCM Control Delay	7.4	9.3
HCM LOS	A	A

Lane	EBLn1	SBLn1
Vol Left, %	0%	0%
Vol Thru, %	0%	91%
Vol Right, %	100%	9%
Sign Control	Stop	Stop
Traffic Vol by Lane	70	293
LT Vol	0	0
Through Vol	0	266
RT Vol	70	27
Lane Flow Rate	76	318
Geometry Grp	1	1
Degree of Util (X)	0.085	0.355
Departure Headway (Hd)	4.028	4.012
Convergence, Y/N	Yes	Yes
Cap	895	895
Service Time	2.028	2.046
HCM Lane V/C Ratio	0.085	0.355
HCM Control Delay	7.4	9.3
HCM Lane LOS	A	A
HCM 95th-tile Q	0.3	1.6

Lanes, Volumes, Timings
53: Humboldt Parkway SB & Goulding Ave

02/09/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	65	0	0	930	0
Future Volume (vph)	0	65	0	0	930	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Fr _t	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	3539	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	3539	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1067			270	306	
Travel Time (s)	24.3			6.1	7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	71	0	0	1011	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	71	0	0	1011	0
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	30.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
53: Humboldt Parkway SB & Goulding Ave

02/09/2022

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↗↗	
Traffic Vol, veh/h	0	65	0	0	930	0
Future Vol, veh/h	0	65	0	0	930	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	71	0	0	1011	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	506	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	512	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	512	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	13.2		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	512	-				
HCM Lane V/C Ratio	0.138	-				
HCM Control Delay (s)	13.2	-				
HCM Lane LOS	B	-				
HCM 95th %tile Q(veh)	0.5	-				

Lanes, Volumes, Timings
54: Humboldt Parkway NB & Sydney St

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	47	578	0	0	0
Future Volume (vph)	0	47	578	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	913		608			1024
Travel Time (s)	20.8		13.8			23.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	51	628	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	51	628	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	40.4%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
54: Humboldt Parkway NB & Sydney St

02/09/2022

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	47	578	0	0	0
Future Vol, veh/h	0	47	578	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	1082327040	
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	51	628	0	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	628	0	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	483	-	0		
Stage 1	0	-	-	0		
Stage 2	0	-	-	0		
Platoon blocked, %			-			
Mov Cap-1 Maneuver	-	483	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	13.3		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBTWBLn1					
Capacity (veh/h)	-		483			
HCM Lane V/C Ratio	-		0.106			
HCM Control Delay (s)	-		13.3			
HCM Lane LOS	-		B			
HCM 95th %tile Q(veh)	-		0.4			

Lanes, Volumes, Timings
55: Humboldt Parkway NB & Northland Ave

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	63	558	67	0	0
Future Volume (vph)	0	63	558	67	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865	0.865	0.986			
Flt Protected						
Satd. Flow (prot)	0	1611	1837	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1837	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	1020		1024			1019
Travel Time (s)	23.2		23.3			23.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	68	607	73	0	0
Shared Lane Traffic (%)		10%				
Lane Group Flow (vph)	7	61	680	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	44.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
55: Humboldt Parkway NB & Northland Ave

02/09/2022

Intersection

Int Delay, s/veh 1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	63	558	67	0	0
Future Vol, veh/h	0	63	558	67	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	68	607	73	0	0

Major/Minor	Minor1	Major1
Conflicting Flow All	- 644	0 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 473	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 473	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	WB	NB
HCM Control Delay, s	13.9	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBT	NBRWBLn1
Capacity (veh/h)	- -	473
HCM Lane V/C Ratio	- -	0.145
HCM Control Delay (s)	- -	13.9
HCM Lane LOS	- -	B
HCM 95th %tile Q(veh)	- -	0.5

Lanes, Volumes, Timings
56: Roehrer Ave & E Ferry St

02/09/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	426	15	28	484	17	41
Future Volume (vph)	426	15	28	484	17	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995				0.904	
Flt Protected				0.997	0.986	
Satd. Flow (prot)	1853	0	0	1857	1660	0
Flt Permitted				0.997	0.986	
Satd. Flow (perm)	1853	0	0	1857	1660	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1109			280	1331	
Travel Time (s)	25.2			6.4	30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	463	16	30	526	18	45
Shared Lane Traffic (%)						
Lane Group Flow (vph)	479	0	0	556	63	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	58.5%			ICU Level of Service B		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	426	15	28	484	17	41
Future Vol, veh/h	426	15	28	484	17	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	463	16	30	526	18	45
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	479	0	1057	471
Stage 1	-	-	-	-	471	-
Stage 2	-	-	-	-	586	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1083	-	249	593
Stage 1	-	-	-	-	628	-
Stage 2	-	-	-	-	556	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1083	-	239	593
Mov Cap-2 Maneuver	-	-	-	-	239	-
Stage 1	-	-	-	-	628	-
Stage 2	-	-	-	-	534	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.5		15.3	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	413	-	-	1083	-	
HCM Lane V/C Ratio	0.153	-	-	0.028	-	
HCM Control Delay (s)	15.3	-	-	8.4	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-	

Lanes, Volumes, Timings
57: Roehrer Ave & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	159	9	7	153	16	16	26	17	10	29	8
Future Volume (vph)	11	159	9	7	153	16	16	26	17	10	29	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.993			0.988			0.961			0.977	
Flt Protected		0.997			0.998			0.987			0.990	
Satd. Flow (prot)	0	1844	0	0	1837	0	0	1767	0	0	1802	0
Flt Permitted		0.997			0.998			0.987			0.990	
Satd. Flow (perm)	0	1844	0	0	1837	0	0	1767	0	0	1802	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1295			274			1342			1331	
Travel Time (s)		29.4			6.2			30.5			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	173	10	8	166	17	17	28	18	11	32	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	195	0	0	191	0	0	63	0	0	52	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 24.7%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	11	159	9	7	153	16	16	26	17	10	29	8
Future Vol, veh/h	11	159	9	7	153	16	16	26	17	10	29	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	173	10	8	166	17	17	28	18	11	32	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.8	8.7	8.2	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	6%	4%	21%
Vol Thru, %	44%	89%	87%	62%
Vol Right, %	29%	5%	9%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	59	179	176	47
LT Vol	16	11	7	10
Through Vol	26	159	153	29
RT Vol	17	9	16	8
Lane Flow Rate	64	195	191	51
Geometry Grp	1	1	1	1
Degree of Util (X)	0.084	0.238	0.232	0.068
Departure Headway (Hd)	4.741	4.399	4.375	4.817
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	755	817	821	743
Service Time	2.772	2.42	2.397	2.849
HCM Lane V/C Ratio	0.085	0.239	0.233	0.069
HCM Control Delay	8.2	8.8	8.7	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.9	0.9	0.2

Lanes, Volumes, Timings
58: Wohlers Ave & Northampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	93	9	6	84	16	12	78	12	17	31	8
Future Volume (vph)	7	93	9	6	84	16	12	78	12	17	31	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989			0.980			0.984			0.980	
Flt Protected		0.997			0.997			0.994			0.985	
Satd. Flow (prot)	0	1837	0	0	1820	0	0	1822	0	0	1798	0
Flt Permitted		0.997			0.997			0.994			0.985	
Satd. Flow (perm)	0	1837	0	0	1820	0	0	1822	0	0	1798	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		276			1045			1317			1331	
Travel Time (s)		6.3			23.8			29.9			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	101	10	7	91	17	13	85	13	18	34	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	119	0	0	115	0	0	111	0	0	61	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	20.6%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	7	93	9	6	84	16	12	78	12	17	31	8
Future Vol, veh/h	7	93	9	6	84	16	12	78	12	17	31	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	101	10	7	91	17	13	85	13	18	34	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.2	8.1	8.2	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	6%	6%	30%
Vol Thru, %	76%	85%	79%	55%
Vol Right, %	12%	8%	15%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	102	109	106	56
LT Vol	12	7	6	17
Through Vol	78	93	84	31
RT Vol	12	9	16	8
Lane Flow Rate	111	118	115	61
Geometry Grp	1	1	1	1
Degree of Util (X)	0.138	0.146	0.14	0.077
Departure Headway (Hd)	4.488	4.425	4.387	4.569
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	800	813	819	785
Service Time	2.509	2.442	2.405	2.59
HCM Lane V/C Ratio	0.139	0.145	0.14	0.078
HCM Control Delay	8.2	8.2	8.1	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.5	0.5	0.2

Lanes, Volumes, Timings

59: Roehrer Ave & Northhampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	91	6	6	84	13	6	25	1	9	37	2
Future Volume (vph)	6	91	6	6	84	13	6	25	1	9	37	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.983			0.996			0.995	
Flt Protected		0.997			0.997			0.990			0.990	
Satd. Flow (prot)	0	1842	0	0	1826	0	0	1837	0	0	1835	0
Flt Permitted		0.997			0.997			0.990			0.990	
Satd. Flow (perm)	0	1842	0	0	1826	0	0	1837	0	0	1835	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1290			276			1313			1342	
Travel Time (s)		29.3			6.3			29.8			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	99	7	7	91	14	7	27	1	10	40	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	113	0	0	112	0	0	35	0	0	52	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	17.2%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

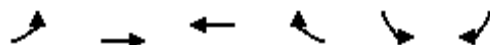
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	6	91	6	6	84	13	6	25	1	9	37	2
Future Vol, veh/h	6	91	6	6	84	13	6	25	1	9	37	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	99	7	7	91	14	7	27	1	10	40	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	7.8	7.7	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	6%	6%	19%
Vol Thru, %	78%	88%	82%	77%
Vol Right, %	3%	6%	13%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	32	103	103	48
LT Vol	6	6	6	9
Through Vol	25	91	84	37
RT Vol	1	6	13	2
Lane Flow Rate	35	112	112	52
Geometry Grp	1	1	1	1
Degree of Util (X)	0.044	0.129	0.128	0.065
Departure Headway (Hd)	4.506	4.147	4.107	4.479
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	799	852	860	804
Service Time	2.508	2.235	2.195	2.481
HCM Lane V/C Ratio	0.044	0.131	0.13	0.065
HCM Control Delay	7.7	7.9	7.8	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.4	0.4	0.2

Lanes, Volumes, Timings
60: Best St & Wohlers Ave

02/09/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	15	629	440	36	18	11
Future Volume (vph)	15	629	440	36	18	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.990		0.949	
Flt Protected		0.999			0.970	
Satd. Flow (prot)	0	1861	1844	0	1715	0
Flt Permitted		0.999			0.970	
Satd. Flow (perm)	0	1861	1844	0	1715	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		280	473		1317	
Travel Time (s)		6.4	10.8		29.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	684	478	39	20	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	700	517	0	32	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 55.2% ICU Level of Service B

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	629	440	36	18	11
Future Vol, veh/h	15	629	440	36	18	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	684	478	39	20	12
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	517	0	-	0	1214	498
Stage 1	-	-	-	-	498	-
Stage 2	-	-	-	-	716	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1049	-	-	-	201	572
Stage 1	-	-	-	-	611	-
Stage 2	-	-	-	-	484	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1049	-	-	-	196	572
Mov Cap-2 Maneuver	-	-	-	-	196	-
Stage 1	-	-	-	-	596	-
Stage 2	-	-	-	-	484	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		20.7		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1049	-	-	-	261	
HCM Lane V/C Ratio	0.016	-	-	-	0.121	
HCM Control Delay (s)	8.5	0	-	-	20.7	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.4	

Lanes, Volumes, Timings
61: Best St & Roehrer Ave

02/09/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	12	633	442	15	23	13
Future Volume (vph)	12	633	442	15	23	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.996		0.952	
Flt Protected		0.999			0.969	
Satd. Flow (prot)	0	1861	1855	0	1718	0
Flt Permitted		0.999			0.969	
Satd. Flow (perm)	0	1861	1855	0	1718	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1123	280		1313	
Travel Time (s)		25.5	6.4		29.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	688	480	16	25	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	701	496	0	39	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 52.9% ICU Level of Service A

Analysis Period (min) 15

Intersection

Int Delay, s/veh 0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	633	442	15	23	13
Future Vol, veh/h	12	633	442	15	23	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	688	480	16	25	14

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	496	0	0 1202 488
Stage 1	-	-	- 488 -
Stage 2	-	-	- 714 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1068	-	- 204 580
Stage 1	-	-	- 617 -
Stage 2	-	-	- 485 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1068	-	- 200 580
Mov Cap-2 Maneuver	-	-	- 200 -
Stage 1	-	-	- 605 -
Stage 2	-	-	- 485 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	21.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1068	-	-	-	262
HCM Lane V/C Ratio	0.012	-	-	-	0.149
HCM Control Delay (s)	8.4	0	-	-	21.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.5

Lanes, Volumes, Timings
62: Jefferson Ave & Eaton St/Kingsley St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	12	18	8	11	13	6	343	2	10	322	9
Future Volume (vph)	16	12	18	8	11	13	6	343	2	10	322	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.946			0.946			0.999			0.996	
Flt Protected		0.983			0.987			0.999			0.999	
Satd. Flow (prot)	0	1732	0	0	1739	0	0	1859	0	0	1853	0
Flt Permitted								0.994			0.989	
Satd. Flow (perm)	0	1762	0	0	1762	0	0	1850	0	0	1835	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			14			1			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		911			1129			278			418	
Travel Time (s)		20.7			25.7			6.3			9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	13	20	9	12	14	7	373	2	11	350	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	50	0	0	35	0	0	382	0	0	371	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		6.3			6.2			32.1			32.1	
Actuated g/C Ratio		0.18			0.17			0.90			0.90	
v/c Ratio		0.15			0.11			0.23			0.22	
Control Delay		9.1			9.2			2.3			2.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.1			9.2			2.3			2.2	
LOS		A			A			A			A	
Approach Delay		9.1			9.2			2.3			2.2	
Approach LOS		A			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.5												

Lanes, Volumes, Timings
62: Jefferson Ave & Eaton St/Kingsley St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.23

Intersection Signal Delay: 2.9

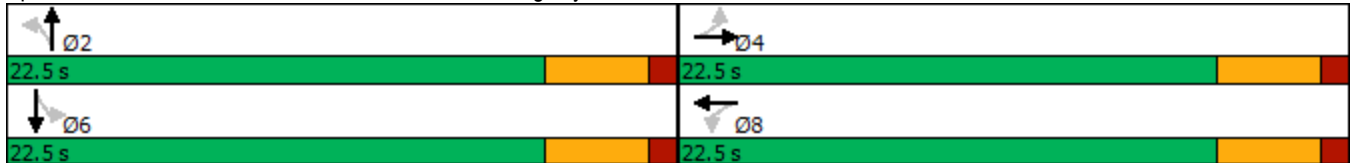
Intersection LOS: A

Intersection Capacity Utilization 34.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 62: Jefferson Ave & Eaton St/Kingsley St



Lanes, Volumes, Timings
118: Humboldt Parkway SB

02/09/2022

						
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	306			252	236	
Travel Time (s)	7.0			5.7	5.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	18.3%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	395	633	0	0	315	449	38	115	131	0	0	0
Future Volume (vph)	395	633	0	0	315	449	38	115	131	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.912			0.938				
Flt Protected		0.981						0.993				
Satd. Flow (prot)	0	3472	0	0	3228	0	0	1735	0	0	0	0
Flt Permitted		0.555						0.993				
Satd. Flow (perm)	0	1964	0	0	3228	0	0	1735	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					488			71				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		249			205			354			335	
Travel Time (s)		5.7			4.7			8.0			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	429	688	0	0	342	488	41	125	142	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1117	0	0	830	0	0	308	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (s)	39.0	39.0			39.0		26.0	26.0				
Total Split (%)	60.0%	60.0%			60.0%		40.0%	40.0%				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max			C-Max		None	None				
Act Effct Green (s)		34.5			34.5			21.5				
Actuated g/C Ratio		0.53			0.53			0.33				
v/c Ratio		1.52dl			0.43			0.50				
Control Delay		63.2			4.2			16.5				
Queue Delay		0.0			1.2			0.0				
Total Delay		63.2			5.4			16.5				
LOS		E			A			B				
Approach Delay		63.2			5.4			16.5				
Approach LOS		E			A			B				
Intersection Summary												
Area Type:	Other											
Cycle Length: 65												
Actuated Cycle Length: 65												

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	26.0
Total Split (%)	40%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

02/09/2022

Offset: 14 (22%), Referenced to phase 4:EBTL and 8:WBT, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.16

Intersection Signal Delay: 35.6

Intersection LOS: D

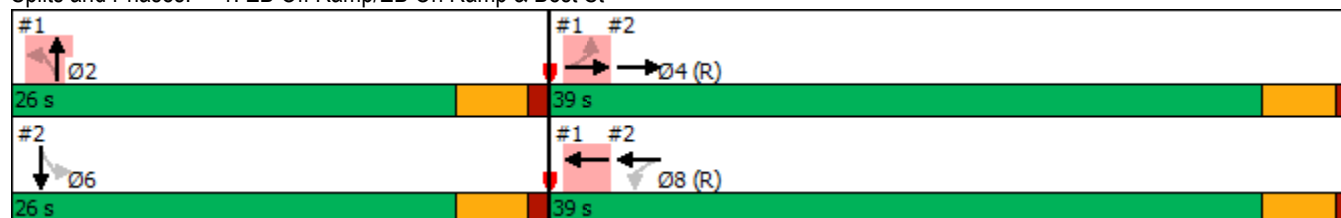
Intersection Capacity Utilization 79.6%

ICU Level of Service D

Analysis Period (min) 15

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 1: EB Off Ramp/EB On Ramp & Best St



Lanes, Volumes, Timings
2: WB On Ramp/WB Off Ramp & Best St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	629	43	97	259	0	0	0	0	389	1	249
Future Volume (vph)	0	629	43	97	259	0	0	0	0	389	1	249
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990									0.947	
Flt Protected					0.987						0.970	
Satd. Flow (prot)	0	3504	0	0	3493	0	0	0	0	0	1711	0
Flt Permitted					0.687						0.970	
Satd. Flow (perm)	0	3504	0	0	2431	0	0	0	0	0	1711	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16									53	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		473			249			324			375	
Travel Time (s)		10.8			5.7			7.4			8.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	684	47	105	282	0	0	0	0	423	1	271
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	731	0	0	387	0	0	0	0	0	695	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		39.0		39.0	39.0					26.0	26.0	
Total Split (%)		60.0%		60.0%	60.0%					40.0%	40.0%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0			0.0						0.0	
Total Lost Time (s)		4.5			4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max		C-Max	C-Max					None	None	
Act Effct Green (s)		34.5			34.5						21.5	
Actuated g/C Ratio		0.53			0.53						0.33	
v/c Ratio		0.39			0.30						1.16	
Control Delay		9.6			7.3						111.2	
Queue Delay		0.7			0.2						0.1	
Total Delay		10.2			7.5						111.3	
LOS		B			A						F	
Approach Delay		10.2			7.5						111.3	
Approach LOS		B			A						F	
Intersection Summary												

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	26.0
Total Split (%)	40%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

02/09/2022

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 14 (22%), Referenced to phase 4:EBTL and 8:WBT, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.16

Intersection Signal Delay: 48.4

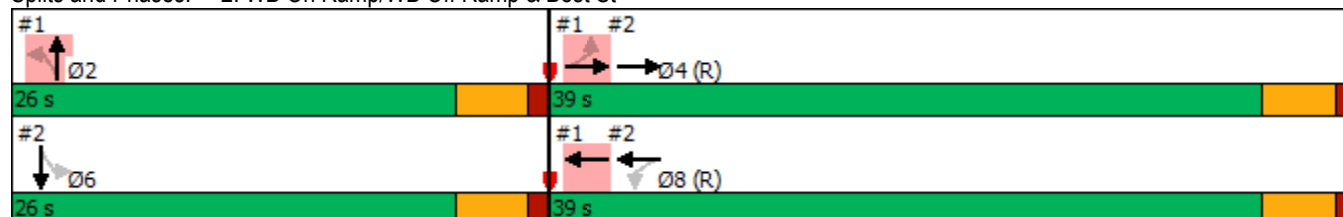
Intersection LOS: D

Intersection Capacity Utilization 76.8%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 2: WB On Ramp/WB Off Ramp & Best St



Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

02/09/2022

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	18	15	586	148	2	591	64	13	89	36	1	9
Future Volume (vph)	18	15	586	148	2	591	64	13	89	36	1	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr t			0.971			0.984				0.990		
Fl t Protected			0.998							0.968		
Satd. Flow (prot)	0	0	3430	0	0	1833	0	0	0	1785	0	0
Fl t Permitted			0.912			0.998				0.733		
Satd. Flow (perm)	0	0	3134	0	0	1829	0	0	0	1352	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			76			3				7		
Link Speed (mph)			30			30				30		
Link Distance (ft)			205			1418				1329		
Travel Time (s)			4.7			32.2				30.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	16	637	161	2	642	70	14	97	39	1	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	834	0	0	728	0	0	0	147	0	0
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		
Protected Phases			4			8				2		
Permitted Phases	4	4			8				2			
Detector Phase	4	4	4		8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			5.0	5.0		
Minimum Split (s)	22.5	22.5	22.5		22.5	22.5			22.5	22.5		
Total Split (s)	32.0	32.0	32.0		32.0	32.0			23.0	23.0		
Total Split (%)	58.2%	58.2%	58.2%		58.2%	58.2%			41.8%	41.8%		
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5			3.5	3.5		
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0			1.0	1.0		
Lost Time Adjust (s)			0.0			0.0				0.0		
Total Lost Time (s)			4.5			4.5				4.5		
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None		None	None			C-Max	C-Max		
Act Effct Green (s)			25.4			25.4				20.6		
Actuated g/C Ratio			0.46			0.46				0.37		
v/c Ratio			0.56			0.86				0.29		
Control Delay			10.9			25.1				14.6		
Queue Delay			3.0			0.0				0.0		
Total Delay			13.9			25.1				14.6		
LOS			B			C				B		
Approach Delay			13.9			25.1				14.6		
Approach LOS			B			C				B		
Intersection Summary												
Area Type:	Other											
Cycle Length: 55												
Actuated Cycle Length: 55												

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

02/09/2022



Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	102	46	81
Future Volume (vph)	102	46	81
Ideal Flow (vphpl)	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00
Fr't		0.952	
Flt Protected		0.978	
Satd. Flow (prot)	0	1734	0
Flt Permitted		0.805	
Satd. Flow (perm)	0	1428	0
Right Turn on Red			Yes
Satd. Flow (RTOR)		54	
Link Speed (mph)		30	
Link Distance (ft)		738	
Travel Time (s)		16.8	
Peak Hour Factor	0.92	0.92	0.92
Adj. Flow (vph)	111	50	88
Shared Lane Traffic (%)			
Lane Group Flow (vph)	0	249	0
Turn Type	Perm	NA	
Protected Phases		6	
Permitted Phases	6		
Detector Phase	6	6	
Switch Phase			
Minimum Initial (s)	5.0	5.0	
Minimum Split (s)	22.5	22.5	
Total Split (s)	23.0	23.0	
Total Split (%)	41.8%	41.8%	
Yellow Time (s)	3.5	3.5	
All-Red Time (s)	1.0	1.0	
Lost Time Adjust (s)		0.0	
Total Lost Time (s)		4.5	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	
Act Effct Green (s)		20.6	
Actuated g/C Ratio		0.37	
v/c Ratio		0.44	
Control Delay		13.9	
Queue Delay		0.0	
Total Delay		13.9	
LOS		B	
Approach Delay		13.9	
Approach LOS		B	
Intersection Summary			

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

02/09/2022

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 18.1

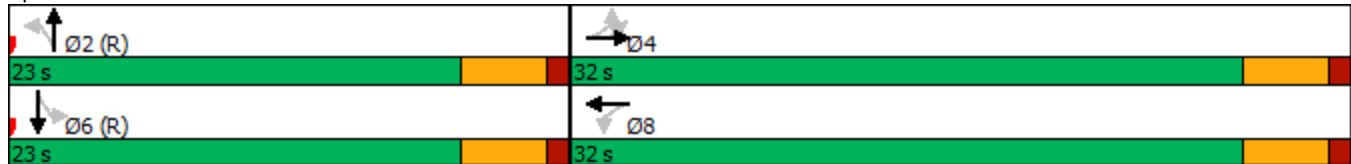
Intersection LOS: B

Intersection Capacity Utilization 64.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 3: Herman St/W Parade Ave & Best St



Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	117	4	16	93	0	0	0	0	87	97	23
Future Volume (vph)	0	117	4	16	93	0	0	0	0	87	97	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't		0.996									0.985	
Flt Protected					0.993						0.979	
Satd. Flow (prot)	0	1855	0	0	1850	0	0	0	0	0	1796	0
Flt Permitted					0.941						0.979	
Satd. Flow (perm)	0	1855	0	0	1753	0	0	0	0	0	1796	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4									17	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1045			283			370			293	
Travel Time (s)		23.8			6.4			8.4			6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	127	4	17	101	0	0	0	0	95	105	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	131	0	0	118	0	0	0	0	0	225	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0			0.0						0.0	
Total Lost Time (s)		4.5			4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					Max	Max	
Act Effect Green (s)		10.1			9.9						22.1	
Actuated g/C Ratio		0.27			0.26						0.58	
v/c Ratio		0.26			0.26						0.22	
Control Delay		11.4			6.7						6.8	
Queue Delay		0.0			0.0						0.0	
Total Delay		11.4			6.7						6.8	
LOS		B			A						A	
Approach Delay		11.4			6.7						6.8	
Approach LOS		B			A						A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 38.1												

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 8.0

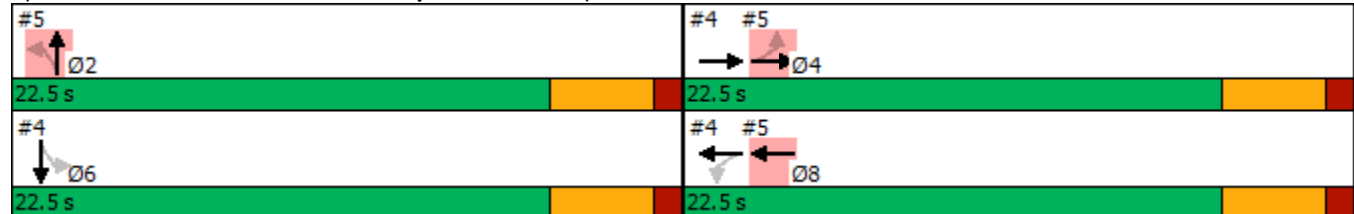
Intersection LOS: A

Intersection Capacity Utilization 34.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: Humboldt Parkway SB & Northhampton St



Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	142	0	0	110	38	2	12	6	0	0	0
Future Volume (vph)	49	142	0	0	110	38	2	12	6	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.966			0.957				
Flt Protected		0.987						0.995				
Satd. Flow (prot)	0	1839	0	0	1799	0	0	1774	0	0	0	0
Flt Permitted		0.866						0.995				
Satd. Flow (perm)	0	1613	0	0	1799	0	0	1774	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					41			7				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		283			1089			152				722
Travel Time (s)		6.4			24.8			3.5				16.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	53	154	0	0	120	41	2	13	7	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	207	0	0	161	0	0	22	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max				
Act Effct Green (s)		10.1			9.9			22.1				
Actuated g/C Ratio		0.27			0.26			0.58				
v/c Ratio		0.48			0.32			0.02				
Control Delay		11.9			9.9			5.7				
Queue Delay		0.0			0.0			0.0				
Total Delay		11.9			9.9			5.7				
LOS		B			A			A				
Approach Delay		11.9			9.9			5.7				
Approach LOS		B			A			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 38.1												

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings 5: Humboldt Parkway NB & Northhampton St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 10.7

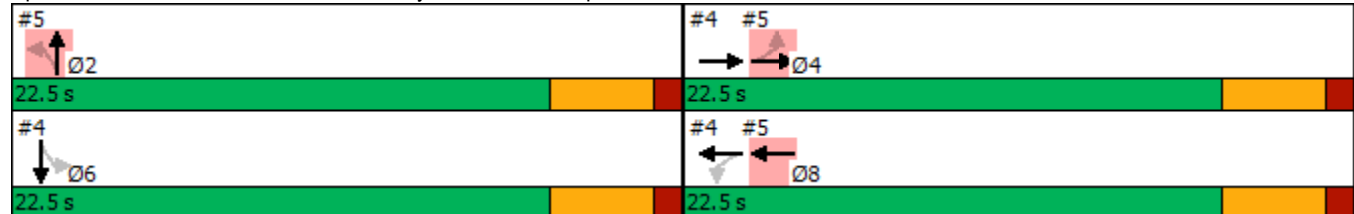
Intersection LOS: B

Intersection Capacity Utilization 33.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Humboldt Parkway NB & Northhampton St



Lanes, Volumes, Timings
6: Humboldt Parkway SB & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	199	35	61	126	0	0	0	0	97	402	73
Future Volume (vph)	0	199	35	61	126	0	0	0	0	97	402	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.980									0.981	
Flt Protected				0.950							0.992	
Satd. Flow (prot)	0	1825	0	1770	1863	0	0	0	0	0	3444	0
Flt Permitted				0.591							0.992	
Satd. Flow (perm)	0	1825	0	1101	1863	0	0	0	0	0	3444	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23									42	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1173			153			636			456	
Travel Time (s)		26.7			3.5			14.5			10.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	216	38	66	137	0	0	0	0	105	437	79
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	254	0	66	137	0	0	0	0	0	621	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		4.5		4.5	4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					Max	Max	
Act Effct Green (s)		11.4		11.4	11.4						19.6	
Actuated g/C Ratio		0.28		0.28	0.28						0.49	
v/c Ratio		0.47		0.21	0.26						0.36	
Control Delay		12.9		9.7	9.5						7.7	
Queue Delay		0.0		0.2	0.2						0.0	
Total Delay		12.9		9.9	9.8						7.7	
LOS		B		A	A						A	
Approach Delay		12.9			9.8						7.7	
Approach LOS		B			A						A	
Intersection Summary												

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

02/09/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.1

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 9.3

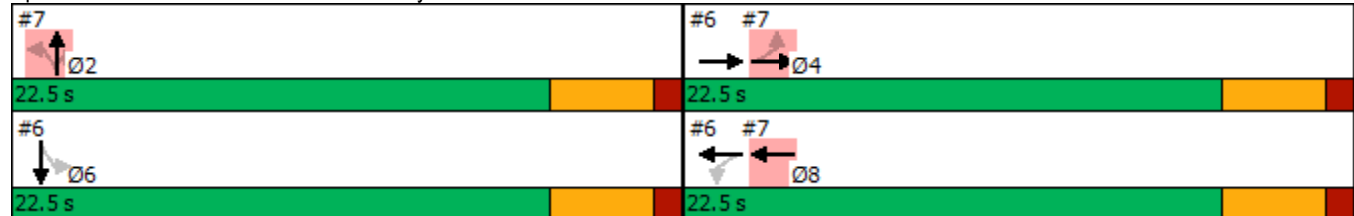
Intersection LOS: A

Intersection Capacity Utilization 62.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 6: Humboldt Parkway SB & E Utica St



Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	175	0	0	104	31	86	233	73	0	0	0
Future Volume (vph)	125	175	0	0	104	31	86	233	73	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.969				0.850			
Fl _t Protected	0.950							0.987				
Satd. Flow (prot)	1770	1863	0	0	1805	0	0	1839	1583	0	0	0
Fl _t Permitted	0.663							0.987				
Satd. Flow (perm)	1235	1863	0	0	1805	0	0	1839	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					34				79			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		153			1083			610			294	
Travel Time (s)		3.5			24.6			13.9			6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	136	190	0	0	113	34	93	253	79	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	190	0	0	147	0	0	346	79	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max	Max			
Act Effct Green (s)	11.4	11.4			11.4			19.6	19.6			
Actuated g/C Ratio	0.28	0.28			0.28			0.49	0.49			
v/c Ratio	0.39	0.36			0.27			0.39	0.10			
Control Delay	9.7	8.5			9.2			9.5	3.1			
Queue Delay	0.2	0.2			0.0			0.0	0.0			
Total Delay	10.0	8.8			9.2			9.5	3.1			
LOS	A	A			A			A	A			
Approach Delay		9.3			9.2			8.3				
Approach LOS		A			A			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 40.1												

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 8.8

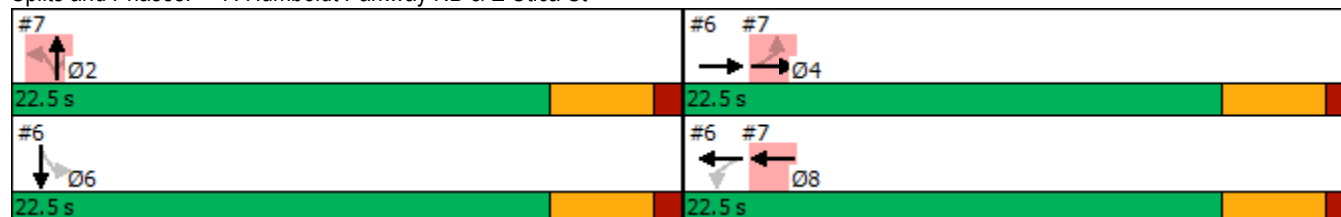
Intersection LOS: A

Intersection Capacity Utilization 62.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 7: Humboldt Parkway NB & E Utica St



Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰		↰	↰						↰	↰
Traffic Volume (vph)	0	417	73	129	284	0	0	0	0	287	398	373
Future Volume (vph)	0	417	73	129	284	0	0	0	0	287	398	373
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't		0.980										0.850
Flt Protected				0.950							0.979	
Satd. Flow (prot)	0	1825	0	1770	1863	0	0	0	0	0	1824	1583
Flt Permitted				0.311							0.979	
Satd. Flow (perm)	0	1825	0	579	1863	0	0	0	0	0	1824	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16										405
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1179			147			319			270	
Travel Time (s)		26.8			3.3			7.3			6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	453	79	140	309	0	0	0	0	312	433	405
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	532	0	140	309	0	0	0	0	0	745	405
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		40.3		40.3	40.3					34.7	34.7	34.7
Total Split (%)		53.7%		53.7%	53.7%					46.3%	46.3%	46.3%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					Max	Max	Max
Act Effect Green (s)		35.8		35.8	35.8						30.2	30.2
Actuated g/C Ratio		0.48		0.48	0.48						0.40	0.40
v/c Ratio		0.61		0.51	0.35						1.01	0.46
Control Delay		17.6		13.0	7.0						62.0	3.6
Queue Delay		0.4		0.8	1.1						32.5	0.0
Total Delay		18.0		13.8	8.1						94.4	3.6
LOS		B		B	A						F	A
Approach Delay		18.0			9.9						62.5	
Approach LOS		B			A						E	
Intersection Summary												
Area Type:	Other											
Cycle Length: 75												
Actuated Cycle Length: 75												

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	34.7
Total Split (%)	46%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

02/09/2022

Natural Cycle: 75

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 1.01

Intersection Signal Delay: 40.3

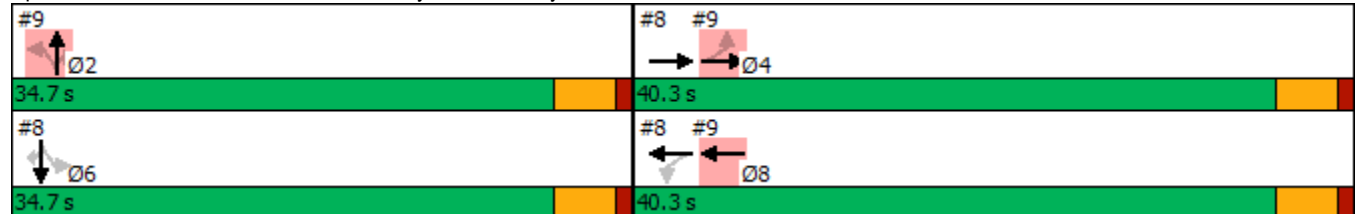
Intersection LOS: D

Intersection Capacity Utilization 114.0%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 8: Humboldt Parkway SB & E Ferry St



Lanes, Volumes, Timings
9: Humboldt Parkway NB & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	306	405	0	0	338	86	76	268	64	0	0	0
Future Volume (vph)	306	405	0	0	338	86	76	268	64	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	75		0	0		0
Storage Lanes	1		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.973				0.850			
Flt Protected	0.950							0.989				
Satd. Flow (prot)	1770	1863	0	0	1812	0	0	1842	1583	0	0	0
Flt Permitted	0.374							0.989				
Satd. Flow (perm)	697	1863	0	0	1812	0	0	1842	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					23				70			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		147			1082			312			608	
Travel Time (s)		3.3			24.6			7.1			13.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	333	440	0	0	367	93	83	291	70	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	333	440	0	0	460	0	0	374	70	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	40.3	40.3			40.3		34.7	34.7	34.7			
Total Split (%)	53.7%	53.7%			53.7%		46.3%	46.3%	46.3%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max	Max			
Act Effct Green (s)	35.8	35.8			35.8			30.2	30.2			
Actuated g/C Ratio	0.48	0.48			0.48			0.40	0.40			
v/c Ratio	1.00	0.49			0.53			0.50	0.10			
Control Delay	61.6	11.9			15.6			19.8	4.4			
Queue Delay	4.2	9.4			0.0			0.1	0.0			
Total Delay	65.8	21.3			15.6			19.9	4.4			
LOS	E	C			B			B	A			
Approach Delay		40.5			15.6			17.5				
Approach LOS		D			B			B				
Intersection Summary												

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	34.7
Total Split (%)	46%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

02/09/2022

Area Type: Other

Cycle Length: 75

Actuated Cycle Length: 75

Natural Cycle: 75

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 1.01

Intersection Signal Delay: 27.6

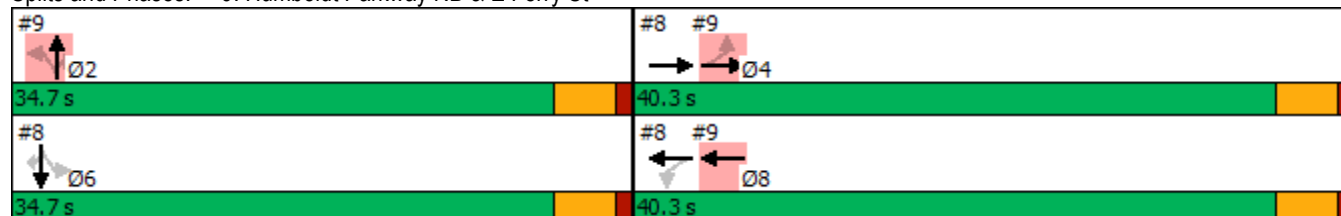
Intersection LOS: C

Intersection Capacity Utilization 114.0%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 9: Humboldt Parkway NB & E Ferry St



Lanes, Volumes, Timings
10: Jefferson Ave & Cherry St & EB On Ramp

02/09/2022

												
Lane Group	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	Ø8
Lane Configurations												
Traffic Volume (vph)	12	9	1	0	353	314	321	688	0	0	0	
Future Volume (vph)	12	9	1	0	353	314	321	688	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	
Frt		0.994			0.929							
Flt Protected		0.954						0.984				
Satd. Flow (prot)	0	1766	0	0	3288	0	0	3483	0	0	0	
Flt Permitted		0.954						0.607				
Satd. Flow (perm)	0	1766	0	0	3288	0	0	2148	0	0	0	
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		25			341							
Link Speed (mph)		30			30			30		30		
Link Distance (ft)		537			328			271		387		
Travel Time (s)		12.2			7.5			6.2		8.8		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	13	10	1	0	384	341	349	748	0	0	0	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	24	0	0	725	0	0	1097	0	0	0	
Turn Type	Perm	Prot			NA		Perm	NA				
Protected Phases		4			2			6				8
Permitted Phases	4						6					
Detector Phase	4	4			2		6	6				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				5.0
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				22.5
Total Split (s)	22.5	22.5			42.5		42.5	42.5				22.5
Total Split (%)	34.6%	34.6%			65.4%		65.4%	65.4%				35%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				3.5
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				1.0
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			Max		Max	Max				None
Act Effct Green (s)		16.1			38.1			38.1				
Actuated g/C Ratio		0.25			0.60			0.60				
v/c Ratio		0.05			0.34			0.88dl				
Control Delay		8.0			3.8			16.3				
Queue Delay		0.0			0.3			0.0				
Total Delay		8.0			4.1			16.3				
LOS		A			A			B				
Approach Delay		8.0			4.1			16.3				
Approach LOS		A			A			B				
Intersection Summary												
Area Type:	Other											
Cycle Length: 65												
Actuated Cycle Length: 63.2												

Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

02/09/2022

Natural Cycle: 65

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 11.4

Intersection LOS: B

Intersection Capacity Utilization 63.6%

ICU Level of Service B

Analysis Period (min) 15

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 10: Jefferson Ave & Cherry St & EB On Ramp

#10 #11  Ø2	#10  Ø4
42.5 s	22.5 s
#10 #11  Ø6	#11  Ø8
42.5 s	22.5 s

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↕			↕	
Traffic Volume (vph)	0	0	0	238	12	99	45	326	0	0	779	19
Future Volume (vph)	0	0	0	238	12	99	45	326	0	0	779	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt					0.962						0.996	
Flt Protected					0.967			0.994				
Satd. Flow (prot)	0	0	0	0	1733	0	0	3518	0	0	3525	0
Flt Permitted					0.967			0.811				
Satd. Flow (perm)	0	0	0	0	1733	0	0	2870	0	0	3525	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					30						6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			384			271			880	
Travel Time (s)		12.9			8.7			6.2			20.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	259	13	108	49	354	0	0	847	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	380	0	0	403	0	0	868	0
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8			2					
Detector Phase				8	8		2	2			6	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				22.5	22.5		42.5	42.5			42.5	
Total Split (%)				34.6%	34.6%		65.4%	65.4%			65.4%	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)					16.1			38.1			38.1	
Actuated g/C Ratio					0.25			0.60			0.60	
v/c Ratio					0.82			0.23			0.41	
Control Delay					36.5			4.4			7.6	
Queue Delay					0.1			0.0			0.2	
Total Delay					36.6			4.4			7.8	
LOS					D			A			A	
Approach Delay					36.6			4.4			7.8	
Approach LOS					D			A			A	
Intersection Summary												

Lanes, Volumes, Timings
11: Jefferson Ave & BFNC Dr/WB Off Ramp

02/09/2022

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	35%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

02/09/2022

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 63.2

Natural Cycle: 65

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 13.6

Intersection LOS: B

Intersection Capacity Utilization 63.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 11: Jefferson Ave & BFNC Dr/WB Off Ramp



Lanes, Volumes, Timings
12: Jefferson Ave & Genesee St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	125	31	52	134	77	11	550	48	50	525	117
Future Volume (vph)	41	125	31	52	134	77	11	550	48	50	525	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.976			0.956			0.988			0.975	
Flt Protected		0.990			0.990			0.999			0.996	
Satd. Flow (prot)	0	3420	0	0	3350	0	0	3493	0	0	3437	0
Flt Permitted		0.830			0.845			0.940			0.880	
Satd. Flow (perm)	0	2867	0	0	2859	0	0	3287	0	0	3037	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		34			84			23			63	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		737			2886			735			328	
Travel Time (s)		16.8			65.6			16.7			7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	136	34	57	146	84	12	598	52	54	571	127
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	215	0	0	287	0	0	662	0	0	752	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.0			8.0			18.8			18.8	
Actuated g/C Ratio		0.22			0.22			0.53			0.53	
v/c Ratio		0.32			0.41			0.38			0.46	
Control Delay		10.6			9.8			6.1			6.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.6			9.8			6.1			6.4	
LOS		B			A			A			A	
Approach Delay		10.6			9.8			6.1			6.4	
Approach LOS		B			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.8												

Lanes, Volumes, Timings

12: Jefferson Ave & Genesee St

02/09/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 7.3

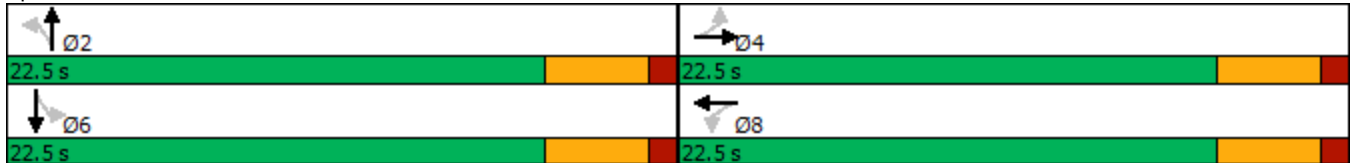
Intersection LOS: A

Intersection Capacity Utilization 65.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 12: Jefferson Ave & Genesee St



Lanes, Volumes, Timings
13: Herman St & Genesee St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	326	26	22	338	25	21	104	22	35	136	19
Future Volume (vph)	11	326	26	22	338	25	21	104	22	35	136	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989			0.990			0.980			0.986	
Flt Protected		0.998			0.997			0.993			0.991	
Satd. Flow (prot)	0	3493	0	0	3493	0	0	1813	0	0	1820	0
Flt Permitted		0.942			0.926			0.944			0.923	
Satd. Flow (perm)	0	3297	0	0	3245	0	0	1723	0	0	1695	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			19			24			15	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2886			671			575			1329	
Travel Time (s)		65.6			15.3			13.1			30.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	354	28	24	367	27	23	113	24	38	148	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	394	0	0	418	0	0	160	0	0	207	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effect Green (s)		21.9			21.9			9.3			9.4	
Actuated g/C Ratio		0.59			0.59			0.25			0.25	
v/c Ratio		0.20			0.22			0.36			0.47	
Control Delay		5.6			5.7			11.8			14.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		5.6			5.7			11.8			14.3	
LOS		A			A			B			B	
Approach Delay		5.6			5.7			11.8			14.3	
Approach LOS		A			A			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.3												

Lanes, Volumes, Timings

13: Herman St & Genesee St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 8.0

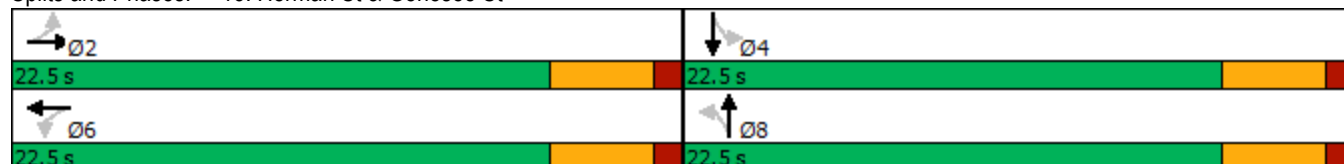
Intersection LOS: A

Intersection Capacity Utilization 47.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 13: Herman St & Genesee St



Lanes, Volumes, Timings
14: Reed St/Rich St & Genesee St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	359	0	0	377	15	17	13	25	11	0	13
Future Volume (vph)	3	359	0	0	377	15	17	13	25	11	0	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.994			0.938			0.927	
Fl _t Protected								0.985			0.977	
Satd. Flow (prot)	0	3539	0	0	3518	0	0	1721	0	0	1687	0
Fl _t Permitted		0.953						0.888			0.974	
Satd. Flow (perm)	0	3373	0	0	3518	0	0	1552	0	0	1682	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10			27			36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		671			961			780			839	
Travel Time (s)		15.3			21.8			17.7			19.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	390	0	0	410	16	18	14	27	12	0	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	393	0	0	426	0	0	59	0	0	26	0
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2						8			4		
Detector Phase	2	2			6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		None	None		None	None	
Act Effct Green (s)		30.2			30.2			6.4			6.3	
Actuated g/C Ratio		0.82			0.82			0.17			0.17	
v/c Ratio		0.14			0.15			0.20			0.08	
Control Delay		2.7			2.6			10.0			5.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		2.7			2.6			10.0			5.0	
LOS		A			A			A			A	
Approach Delay		2.7			2.6			10.0			5.0	
Approach LOS		A			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.9												

Lanes, Volumes, Timings

14: Reed St/Rich St & Genesee St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.20

Intersection Signal Delay: 3.2

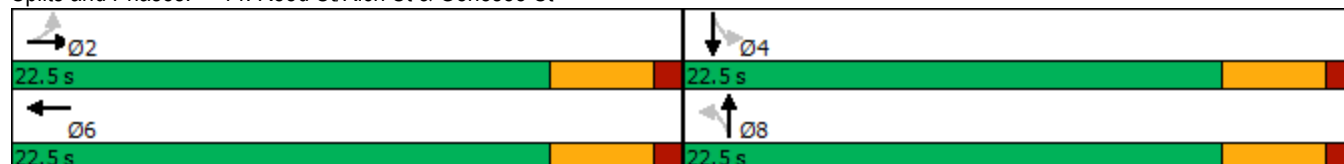
Intersection LOS: A

Intersection Capacity Utilization 23.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Reed St/Rich St & Genesee St



Lanes, Volumes, Timings
15: Fillmore Ave & Genesee St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	330	58	74	317	28	41	369	78	52	338	17
Future Volume (vph)	31	330	58	74	317	28	41	369	78	52	338	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.990			0.978			0.995	
Flt Protected		0.996			0.991			0.996			0.994	
Satd. Flow (prot)	0	3451	0	0	3472	0	0	1814	0	0	1842	0
Flt Permitted		0.896			0.802			0.940			0.892	
Satd. Flow (perm)	0	3105	0	0	2810	0	0	1712	0	0	1653	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		47			19			25			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		961			671			704			490	
Travel Time (s)		21.8			15.3			16.0			11.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	359	63	80	345	30	45	401	85	57	367	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	456	0	0	455	0	0	531	0	0	442	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		11.4			11.4			18.1			18.1	
Actuated g/C Ratio		0.30			0.30			0.47			0.47	
v/c Ratio		0.48			0.54			0.65			0.57	
Control Delay		11.5			13.2			14.2			11.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.5			13.2			14.2			11.9	
LOS		B			B			B			B	
Approach Delay		11.5			13.2			14.2			11.9	
Approach LOS		B			B			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 38.6												

Lanes, Volumes, Timings

15: Fillmore Ave & Genesee St

02/09/2022

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 12.8

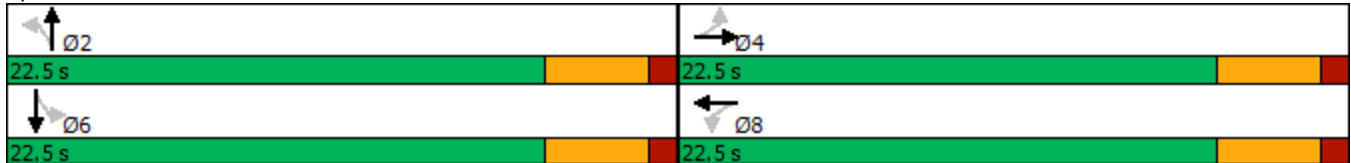
Intersection LOS: B

Intersection Capacity Utilization 67.5%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 15: Fillmore Ave & Genesee St



Lanes, Volumes, Timings
16: Fillmore Ave & Best St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	474	145	1	422	31	166	260	6	50	261	51
Future Volume (vph)	39	474	145	1	422	31	166	260	6	50	261	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970			0.991			0.998				0.850
Flt Protected		0.997						0.981			0.992	
Satd. Flow (prot)	0	1801	0	0	1846	0	0	1824	0	0	1848	1583
Flt Permitted		0.959			0.999			0.661			0.896	
Satd. Flow (perm)	0	1733	0	0	1844	0	0	1229	0	0	1669	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38			10			2				55
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1418			567			490				61
Travel Time (s)		32.2			12.9			11.1				1.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	515	158	1	459	34	180	283	7	54	284	55
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	715	0	0	494	0	0	470	0	0	338	55
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)		4.5			4.5			4.5			4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	C-Max
Act Effect Green (s)		18.0			18.0			18.0			18.0	18.0
Actuated g/C Ratio		0.40			0.40			0.40			0.40	0.40
v/c Ratio		1.00			0.66			0.96			0.51	0.08
Control Delay		51.1			16.2			49.6			5.2	0.3
Queue Delay		36.2			6.1			4.6			0.0	0.0
Total Delay		87.3			22.4			54.2			5.2	0.3
LOS		F			C			D			A	A
Approach Delay		87.3			22.4			54.2			4.5	
Approach LOS		F			C			D			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 45												

Lanes, Volumes, Timings

16: Fillmore Ave & Best St

02/09/2022

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.00

Intersection Signal Delay: 48.6

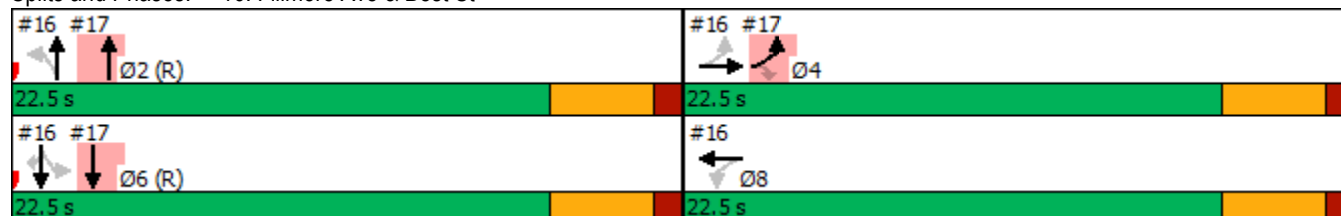
Intersection LOS: D

Intersection Capacity Utilization 114.8%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 16: Fillmore Ave & Best St



Lanes, Volumes, Timings
17: Fillmore Ave & East Park

02/09/2022

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	10	9	0	330	350	0	
Future Volume (vph)	10	9	0	330	350	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	0			100	
Storage Lanes	1	1	0			1	
Taper Length (ft)	25		25				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	
Frt		0.850					
Flt Protected	0.950						
Satd. Flow (prot)	1770	1583	0	1863	3539	0	
Flt Permitted	0.950						
Satd. Flow (perm)	1770	1583	0	1863	3539	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		10					
Link Speed (mph)	30			30	30		
Link Distance (ft)	468			61	755		
Travel Time (s)	10.6			1.4	17.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	11	10	0	359	380	0	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	11	10	0	359	380	0	
Turn Type	Prot	Perm		NA	NA		
Protected Phases	4			2	6		8
Permitted Phases		4					
Detector Phase	4	4		2	6		
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5
Total Split (s)	22.5	22.5		22.5	22.5		22.5
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		
Total Lost Time (s)	4.5	4.5		4.5	4.5		
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None		C-Max	C-Max		None
Act Effct Green (s)	18.0	18.0		18.0	18.0		
Actuated g/C Ratio	0.40	0.40		0.40	0.40		
v/c Ratio	0.02	0.02		0.48	0.27		
Control Delay	8.3	5.2		5.2	9.7		
Queue Delay	0.0	0.0		0.0	0.0		
Total Delay	8.3	5.2		5.2	9.8		
LOS	A	A		A	A		
Approach Delay	6.8			5.2	9.8		
Approach LOS	A			A	A		
Intersection Summary							

Lanes, Volumes, Timings

17: Fillmore Ave & East Park

02/09/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.00

Intersection Signal Delay: 7.5

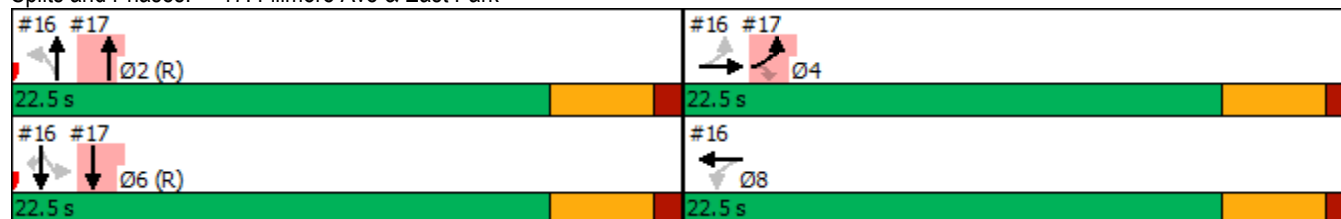
Intersection LOS: A

Intersection Capacity Utilization 29.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Fillmore Ave & East Park



Lanes, Volumes, Timings
18: Fillmore Ave & MLK Park

02/09/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	4	13	0	347	330	0
Future Volume (vph)	4	13	0	347	330	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.850					
Flt Protected	0.950					
Satd. Flow (prot)	1770	1583	0	1863	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1583	0	1863	1863	0
Right Turn on Red	Yes					
Satd. Flow (RTOR)	14					
Link Speed (mph)	30			30	30	
Link Distance (ft)	526			755	579	
Travel Time (s)	12.0			17.2	13.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	14	0	377	359	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	14	0	377	359	0
Turn Type	Prot	Perm		NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4				
Detector Phase	4	4		2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None		Max	Max	
Act Effect Green (s)	5.8	5.8		37.1	37.1	
Actuated g/C Ratio	0.15	0.15		0.93	0.93	
v/c Ratio	0.02	0.06		0.22	0.21	
Control Delay	16.5	10.5		1.5	1.4	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	16.5	10.5		1.5	1.4	
LOS	B	B		A	A	
Approach Delay	11.8			1.5	1.4	
Approach LOS	B			A	A	
Intersection Summary						
Area Type:	Other					
Cycle Length: 45						
Actuated Cycle Length: 39.7						

Lanes, Volumes, Timings

18: Fillmore Ave & MLK Park

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.22

Intersection Signal Delay: 1.7

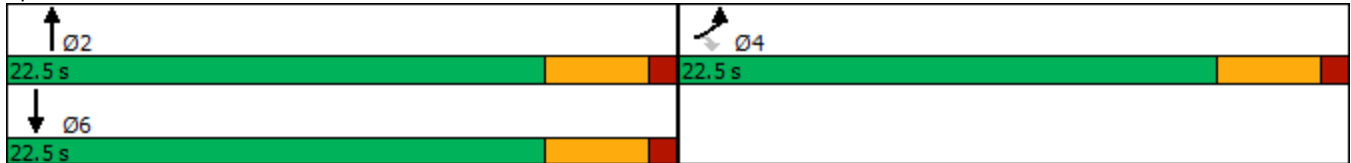
Intersection LOS: A

Intersection Capacity Utilization 29.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Fillmore Ave & MLK Park



Lanes, Volumes, Timings
19: Fillmore Ave & Northhampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	90	22	15	37	16	20	338	9	7	314	48
Future Volume (vph)	20	90	22	15	37	16	20	338	9	7	314	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.977			0.969			0.997			0.982	
Flt Protected		0.992			0.989			0.997			0.999	
Satd. Flow (prot)	0	1805	0	0	1785	0	0	1852	0	0	1827	0
Flt Permitted		0.934			0.916			0.972			0.992	
Satd. Flow (perm)	0	1700	0	0	1653	0	0	1805	0	0	1815	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			17			3			20	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1089			291			579			735	
Travel Time (s)		24.8			6.6			13.2			16.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	98	24	16	40	17	22	367	10	8	341	52
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	144	0	0	73	0	0	399	0	0	401	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		7.9			7.9			23.5			23.5	
Actuated g/C Ratio		0.21			0.21			0.62			0.62	
v/c Ratio		0.38			0.20			0.35			0.35	
Control Delay		13.2			10.4			6.4			6.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.2			10.4			6.4			6.2	
LOS		B			B			A			A	
Approach Delay		13.2			10.4			6.4			6.2	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.6												

Lanes, Volumes, Timings

19: Fillmore Ave & Northhampton St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 7.6

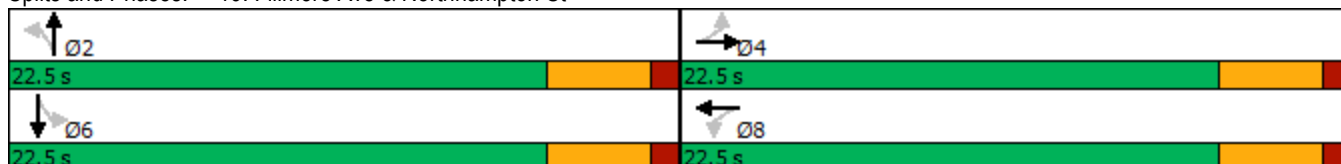
Intersection LOS: A

Intersection Capacity Utilization 45.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 19: Fillmore Ave & Northhampton St



Lanes, Volumes, Timings
21: Fillmore Ave & Riley St/Urban St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	0	7	9	0	27	3	375	4	18	355	10
Future Volume (vph)	4	0	7	9	0	27	3	375	4	18	355	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.910			0.900			0.999			0.996	
Flt Protected		0.984			0.987						0.998	
Satd. Flow (prot)	0	1668	0	0	1655	0	0	1861	0	0	1852	0
Flt Permitted								0.998			0.978	
Satd. Flow (perm)	0	1695	0	0	1676	0	0	1857	0	0	1814	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			36			1			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			639			735			422	
Travel Time (s)		24.6			14.5			16.7			9.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	0	8	10	0	29	3	408	4	20	386	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	39	0	0	415	0	0	417	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		5.8			6.0			33.7			33.7	
Actuated g/C Ratio		0.16			0.16			0.91			0.91	
v/c Ratio		0.04			0.13			0.25			0.25	
Control Delay		2.5			7.1			2.1			2.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		2.5			7.1			2.1			2.2	
LOS		A			A			A			A	
Approach Delay		2.5			7.1			2.1			2.2	
Approach LOS		A			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.1												

Lanes, Volumes, Timings

21: Fillmore Ave & Riley St/Urban St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.25

Intersection Signal Delay: 2.4

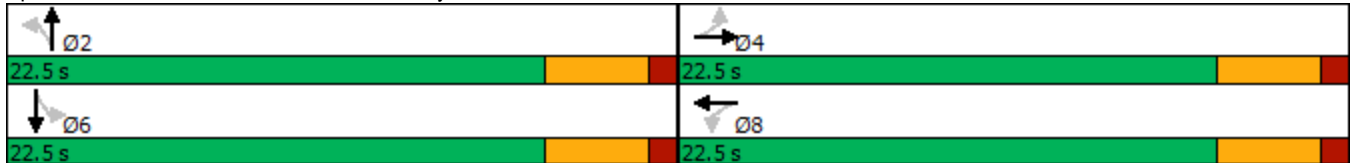
Intersection LOS: A

Intersection Capacity Utilization 43.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 21: Fillmore Ave & Riley St/Urban St



Lanes, Volumes, Timings
22: Fillmore Ave & French St

02/09/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	12	61	365	12	80	358
Future Volume (vph)	12	61	365	12	80	358
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.887		0.996			
Flt Protected	0.992					0.991
Satd. Flow (prot)	1639	0	1855	0	0	1846
Flt Permitted	0.992					0.877
Satd. Flow (perm)	1639	0	1855	0	0	1634
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	66		4			
Link Speed (mph)	30		30			30
Link Distance (ft)	600		422			182
Travel Time (s)	13.6		9.6			4.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	66	397	13	87	389
Shared Lane Traffic (%)						
Lane Group Flow (vph)	79	0	410	0	0	476
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%	50.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.4		31.1			31.1
Actuated g/C Ratio	0.16		0.77			0.77
v/c Ratio	0.25		0.29			0.38
Control Delay	8.0		4.0			4.8
Queue Delay	0.0		0.0			0.8
Total Delay	8.0		4.0			5.7
LOS	A		A			A
Approach Delay	8.0		4.0			5.7
Approach LOS	A		A			A

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.3

Lanes, Volumes, Timings

22: Fillmore Ave & French St

02/09/2022

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 5.1

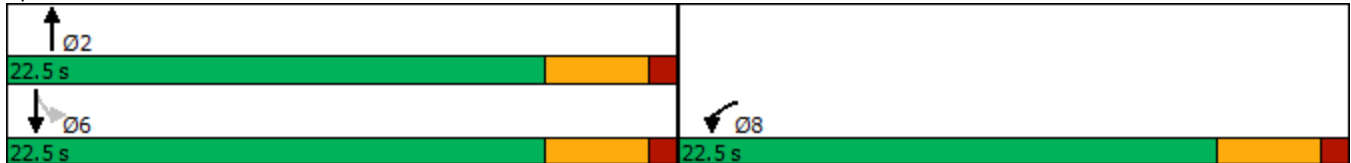
Intersection LOS: A

Intersection Capacity Utilization 58.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 22: Fillmore Ave & French St



Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	99	127	74	373	317	66
Future Volume (vph)	99	127	74	373	317	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.924				0.977	
Flt Protected	0.979			0.992		
Satd. Flow (prot)	1685	0	0	1848	1820	0
Flt Permitted	0.979			0.884		
Satd. Flow (perm)	1685	0	0	1647	1820	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	138				28	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1083			182	1350	
Travel Time (s)	24.6			4.1	30.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	108	138	80	405	345	72
Shared Lane Traffic (%)						
Lane Group Flow (vph)	246	0	0	485	417	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		22.5	22.5	22.5	
Total Split (%)	50.0%		50.0%	50.0%	50.0%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effect Green (s)	8.2			22.4	22.4	
Actuated g/C Ratio	0.22			0.61	0.61	
v/c Ratio	0.51			0.48	0.37	
Control Delay	9.6			8.5	6.7	
Queue Delay	0.0			1.0	0.0	
Total Delay	9.6			9.5	6.7	
LOS	A			A	A	
Approach Delay	9.6			9.5	6.7	
Approach LOS	A			A	A	
Intersection Summary						
Area Type:	Other					
Cycle Length: 45						
Actuated Cycle Length: 36.7						

Lanes, Volumes, Timings

23: Fillmore Ave & E Utica St

02/09/2022

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 8.5

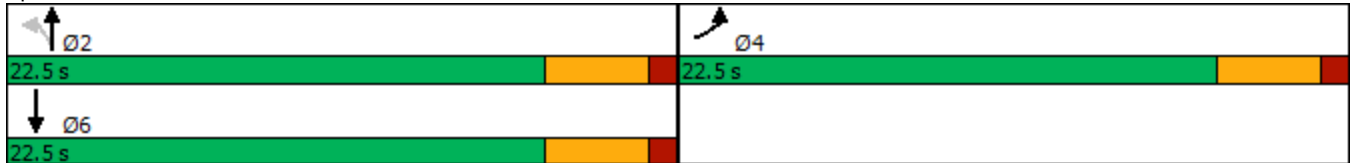
Intersection LOS: A

Intersection Capacity Utilization 68.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 23: Fillmore Ave & E Utica St



Lanes, Volumes, Timings
24: Fillmore Ave & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	289	89	57	269	52	42	294	62	43	299	77
Future Volume (vph)	40	289	89	57	269	52	42	294	62	43	299	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.968			0.979			0.977			0.972	
Flt Protected		0.995			0.993			0.995			0.995	
Satd. Flow (prot)	0	3409	0	0	3441	0	0	3441	0	0	3423	0
Flt Permitted		0.880			0.826			0.882			0.886	
Satd. Flow (perm)	0	3015	0	0	2862	0	0	3050	0	0	3048	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		91			48			55			72	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			797			1350			1620	
Travel Time (s)		24.6			18.1			30.7			36.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	314	97	62	292	57	46	320	67	47	325	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	454	0	0	411	0	0	433	0	0	456	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		10.3			10.3			18.1			18.1	
Actuated g/C Ratio		0.27			0.27			0.48			0.48	
v/c Ratio		0.51			0.50			0.29			0.30	
Control Delay		10.9			12.0			6.3			6.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.9			12.0			6.3			6.2	
LOS		B			B			A			A	
Approach Delay		10.9			12.0			6.3			6.2	
Approach LOS		B			B			A			A	
Intersection Summary												

Lanes, Volumes, Timings

24: Fillmore Ave & E Ferry St

02/09/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 37.5

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 8.8

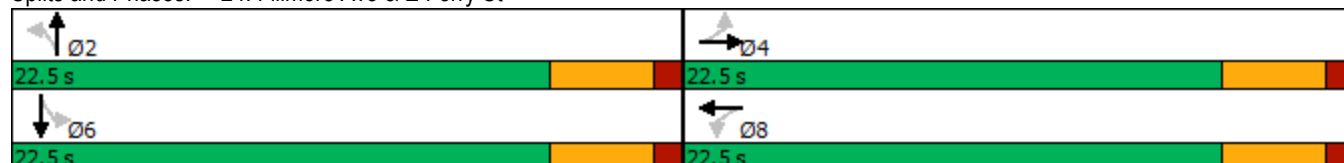
Intersection LOS: A

Intersection Capacity Utilization 61.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 24: Fillmore Ave & E Ferry St



Lanes, Volumes, Timings
25: Fillmore Ave & Northland Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	28	21	48	57	19	12	335	32	28	357	21
Future Volume (vph)	4	28	21	48	57	19	12	335	32	28	357	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.946			0.979			0.989			0.993	
Flt Protected		0.997			0.981			0.998			0.997	
Satd. Flow (prot)	0	1757	0	0	1789	0	0	1839	0	0	1844	0
Flt Permitted		0.970			0.849			0.985			0.962	
Satd. Flow (perm)	0	1709	0	0	1548	0	0	1815	0	0	1779	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			21			12			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1020			890			1620			1011	
Travel Time (s)		23.2			20.2			36.8			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	30	23	52	62	21	13	364	35	30	388	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	57	0	0	135	0	0	412	0	0	441	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.0			8.0			23.9			23.9	
Actuated g/C Ratio		0.21			0.21			0.63			0.63	
v/c Ratio		0.15			0.39			0.36			0.39	
Control Delay		8.4			13.9			6.4			6.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.4			13.9			6.4			6.8	
LOS		A			B			A			A	
Approach Delay		8.4			13.9			6.4			6.8	
Approach LOS		A			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 38												

Lanes, Volumes, Timings

25: Fillmore Ave & Northland Ave

02/09/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 7.6

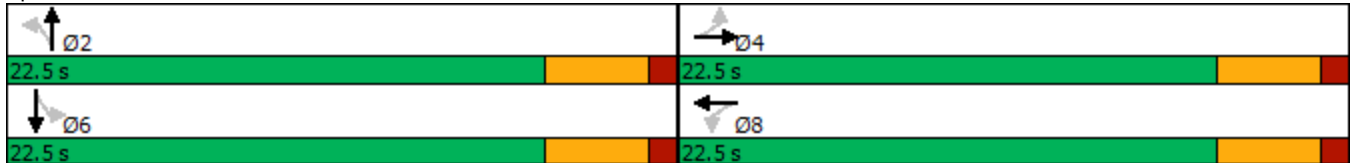
Intersection LOS: A

Intersection Capacity Utilization 53.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 25: Fillmore Ave & Northland Ave



Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	210	48	32	171	42	37	309	31	59	318	71
Future Volume (vph)	95	210	48	32	171	42	37	309	31	59	318	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.982			0.977			0.989			0.979	
Flt Protected		0.987			0.993			0.995			0.993	
Satd. Flow (prot)	0	1805	0	0	1807	0	0	1833	0	0	1811	0
Flt Permitted		0.842			0.931			0.930			0.907	
Satd. Flow (perm)	0	1540	0	0	1694	0	0	1713	0	0	1654	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			24			12			25	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		928			735			1011			742	
Travel Time (s)		21.1			16.7			23.0			16.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	103	228	52	35	186	46	40	336	34	64	346	77
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	383	0	0	267	0	0	410	0	0	487	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	23.0	23.0		23.0	23.0		27.0	27.0		27.0	27.0	
Total Split (%)	46.0%	46.0%		46.0%	46.0%		54.0%	54.0%		54.0%	54.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		14.8			14.8			22.6			22.6	
Actuated g/C Ratio		0.32			0.32			0.49			0.49	
v/c Ratio		0.76			0.48			0.49			0.60	
Control Delay		24.5			14.4			11.2			12.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		24.5			14.4			11.2			12.9	
LOS		C			B			B			B	
Approach Delay		24.5			14.4			11.2			12.9	
Approach LOS		C			B			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 46.5												

Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

02/09/2022

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 15.6

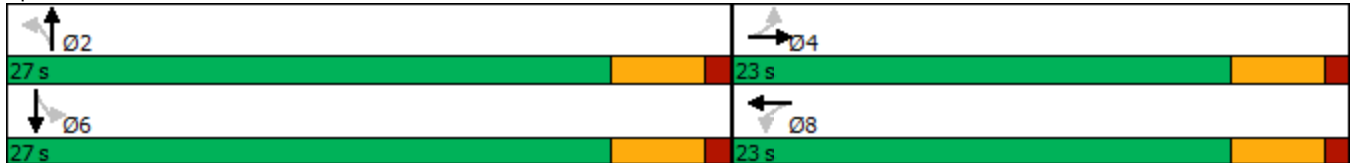
Intersection LOS: B

Intersection Capacity Utilization 77.6%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 26: Fillmore Ave & E Delavan Ave



Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	240	271	0	0	282	31	73	227	143	0	0	0
Future Volume (vph)	240	271	0	0	282	31	73	227	143	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	0		150	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.985				0.850			
Flt Protected		0.977						0.988				
Satd. Flow (prot)	0	3458	0	0	3486	0	0	1840	1583	0	0	0
Flt Permitted		0.687						0.988				
Satd. Flow (perm)	0	2431	0	0	3486	0	0	1840	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					31				155			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		310			928			1019			213	
Travel Time (s)		7.0			21.1			23.2			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	261	295	0	0	307	34	79	247	155	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	556	0	0	341	0	0	326	155	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	27.5	27.5			27.5		22.5	22.5	22.5			
Total Split (%)	55.0%	55.0%			55.0%		45.0%	45.0%	45.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)		0.0			0.0			0.0	0.0			
Total Lost Time (s)		4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		None	None	None			
Act Effct Green (s)		23.7			23.7			13.3	13.3			
Actuated g/C Ratio		0.52			0.52			0.29	0.29			
v/c Ratio		0.44			0.19			0.61	0.27			
Control Delay		5.8			6.5			19.2	4.0			
Queue Delay		0.0			0.0			0.0	0.0			
Total Delay		5.8			6.5			19.2	4.0			
LOS		A			A			B	A			
Approach Delay		5.8			6.5			14.3				
Approach LOS		A			A			B				
Intersection Summary												

Lanes, Volumes, Timings

27: Humboldt Parkway NB & E Delavan Ave

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	45%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

27: Humboldt Parkway NB & E Delavan Ave

02/09/2022

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 46

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 9.0

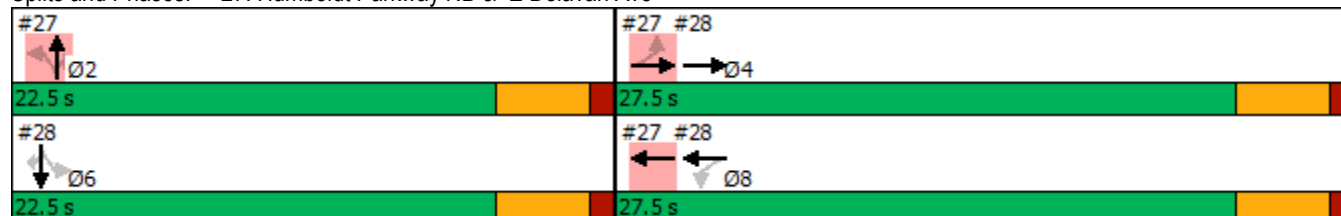
Intersection LOS: A

Intersection Capacity Utilization 50.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 27: Humboldt Parkway NB & E Delavan Ave



Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					 							
Traffic Volume (vph)	0	470	50	105	249	0	0	0	0	41	61	25
Future Volume (vph)	0	470	50	105	249	0	0	0	0	41	61	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987										0.850
Flt Protected					0.985						0.980	
Satd. Flow (prot)	0	1839	0	0	3486	0	0	0	0	0	1825	1583
Flt Permitted					0.696						0.980	
Satd. Flow (perm)	0	1839	0	0	2463	0	0	0	0	0	1825	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14										33
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2669			310			684			864	
Travel Time (s)		60.7			7.0			15.5			19.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	511	54	114	271	0	0	0	0	45	66	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	565	0	0	385	0	0	0	0	0	111	27
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		27.5		27.5	27.5					22.5	22.5	22.5
Total Split (%)		55.0%		55.0%	55.0%					45.0%	45.0%	45.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0						0.0	0.0
Total Lost Time (s)		4.5			4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					None	None	None
Act Effct Green (s)		23.7			23.7						13.3	13.3
Actuated g/C Ratio		0.52			0.52						0.29	0.29
v/c Ratio		0.59			0.30						0.21	0.06
Control Delay		11.9			5.4						12.7	4.7
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		11.9			5.4						12.7	4.7
LOS		B			A						B	A
Approach Delay		11.9			5.4						11.1	
Approach LOS		B			A						B	
Intersection Summary												

Lanes, Volumes, Timings

28: Humboldt Parkway SB & E Delavan Ave

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	45%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

28: Humboldt Parkway SB & E Delavan Ave

02/09/2022

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 46

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 9.5

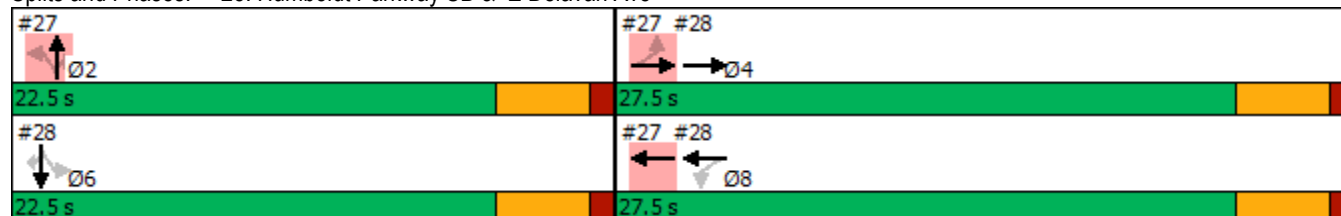
Intersection LOS: A

Intersection Capacity Utilization 54.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 28: Humboldt Parkway SB & E Delavan Ave



Lanes, Volumes, Timings
29: Jefferson Ave & E Delavan Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	88	333	54	56	145	23	48	147	71	12	108	43
Future Volume (vph)	88	333	54	56	145	23	48	147	71	12	108	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.985			0.986			0.964			0.964	
Flt Protected		0.991			0.988			0.991			0.996	
Satd. Flow (prot)	0	1818	0	0	1815	0	0	1780	0	0	1789	0
Flt Permitted		0.897			0.822			0.924			0.971	
Satd. Flow (perm)	0	1646	0	0	1510	0	0	1659	0	0	1744	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			15			48			47	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		592			2669			1017			352	
Travel Time (s)		13.5			60.7			23.1			8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	96	362	59	61	158	25	52	160	77	13	117	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	517	0	0	244	0	0	289	0	0	177	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		16.2			16.2			18.1			18.1	
Actuated g/C Ratio		0.37			0.37			0.42			0.42	
v/c Ratio		0.83			0.43			0.40			0.23	
Control Delay		25.8			11.9			9.9			7.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		25.8			11.9			9.9			7.8	
LOS		C			B			A			A	
Approach Delay		25.8			11.9			9.9			7.8	
Approach LOS		C			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 43.3												

Lanes, Volumes, Timings
29: Jefferson Ave & E Delavan Ave

02/09/2022

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 16.7

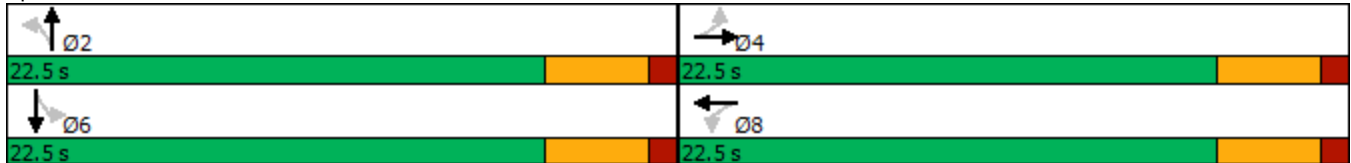
Intersection LOS: B

Intersection Capacity Utilization 65.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 29: Jefferson Ave & E Delavan Ave



Lanes, Volumes, Timings
30: Jefferson Ave & Northland Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	28	18	12	17	19	25	213	30	20	184	13
Future Volume (vph)	28	28	18	12	17	19	25	213	30	20	184	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.945			0.985			0.992	
Flt Protected		0.982			0.988			0.995			0.995	
Satd. Flow (prot)	0	1767	0	0	1739	0	0	1826	0	0	1839	0
Flt Permitted		0.855			0.889			0.967			0.965	
Satd. Flow (perm)	0	1538	0	0	1565	0	0	1774	0	0	1783	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			21			17			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		806			2743			848			1017	
Travel Time (s)		18.3			62.3			19.3			23.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	30	20	13	18	21	27	232	33	22	200	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	80	0	0	52	0	0	292	0	0	236	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		6.8			6.7			28.5			28.5	
Actuated g/C Ratio		0.19			0.19			0.81			0.81	
v/c Ratio		0.26			0.17			0.20			0.16	
Control Delay		11.2			9.2			3.5			3.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.2			9.2			3.5			3.5	
LOS		B			A			A			A	
Approach Delay		11.2			9.2			3.5			3.5	
Approach LOS		B			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.4												

Lanes, Volumes, Timings

30: Jefferson Ave & Northland Ave

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.26

Intersection Signal Delay: 4.9

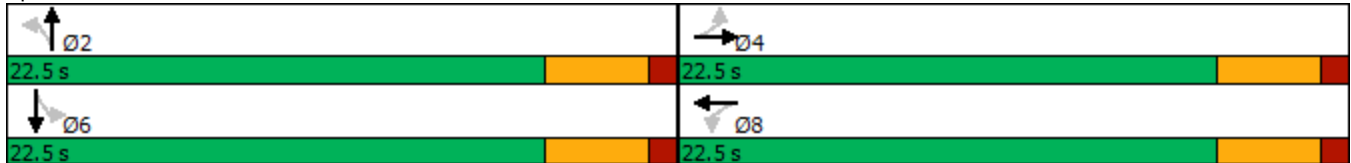
Intersection LOS: A

Intersection Capacity Utilization 33.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 30: Jefferson Ave & Northland Ave



Lanes, Volumes, Timings
31: Jefferson Ave & Brunswick Blvd

02/09/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	26	26	259	45	9	192
Future Volume (vph)	26	26	259	45	9	192
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932		0.980			
Flt Protected	0.976					0.998
Satd. Flow (prot)	1694	0	1825	0	0	1859
Flt Permitted	0.976					0.986
Satd. Flow (perm)	1694	0	1825	0	0	1837
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	28		23			
Link Speed (mph)	30		30			30
Link Distance (ft)	2734		751			848
Travel Time (s)	62.1		17.1			19.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	28	28	282	49	10	209
Shared Lane Traffic (%)						
Lane Group Flow (vph)	56	0	331	0	0	219
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%	50.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.4		34.3			34.3
Actuated g/C Ratio	0.16		0.85			0.85
v/c Ratio	0.19		0.21			0.14
Control Delay	11.7		2.7			2.7
Queue Delay	0.0		0.0			0.0
Total Delay	11.7		2.7			2.7
LOS	B		A			A
Approach Delay	11.7		2.7			2.7
Approach LOS	B		A			A

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.4

Lanes, Volumes, Timings

31: Jefferson Ave & Brunswick Blvd

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.21

Intersection Signal Delay: 3.5

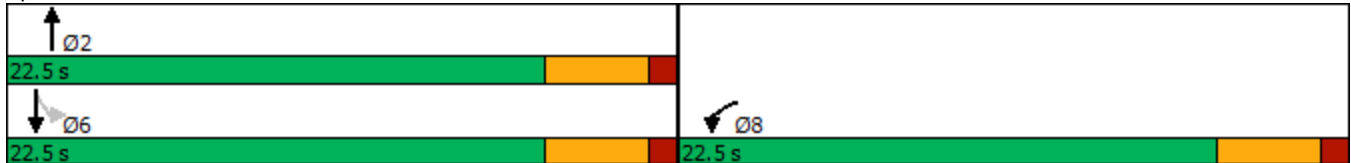
Intersection LOS: A

Intersection Capacity Utilization 29.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 31: Jefferson Ave & Brunswick Blvd



Lanes, Volumes, Timings
32: Jefferson Ave & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	245	56	59	391	64	67	212	74	48	192	26
Future Volume (vph)	25	245	56	59	391	64	67	212	74	48	192	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.977			0.983			0.972			0.987	
Flt Protected		0.996			0.994			0.991			0.991	
Satd. Flow (prot)	0	1813	0	0	1820	0	0	1794	0	0	1822	0
Flt Permitted		0.947			0.926			0.888			0.886	
Satd. Flow (perm)	0	1723	0	0	1696	0	0	1608	0	0	1629	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			17			28			11	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			194			1406			751	
Travel Time (s)		7.5			4.4			32.0			17.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	27	266	61	64	425	70	73	230	80	52	209	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	354	0	0	559	0	0	383	0	0	289	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	30.0	30.0		30.0	30.0		25.0	25.0		25.0	25.0	
Total Split (%)	54.5%	54.5%		54.5%	54.5%		45.5%	45.5%		45.5%	45.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		20.2			20.2			20.7			20.7	
Actuated g/C Ratio		0.40			0.40			0.41			0.41	
v/c Ratio		0.50			0.81			0.56			0.42	
Control Delay		12.6			22.7			15.6			13.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.6			22.7			15.6			13.9	
LOS		B			C			B			B	
Approach Delay		12.6			22.7			15.6			13.9	
Approach LOS		B			C			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 55												
Actuated Cycle Length: 50												

Lanes, Volumes, Timings
32: Jefferson Ave & E Ferry St

02/09/2022

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 17.1

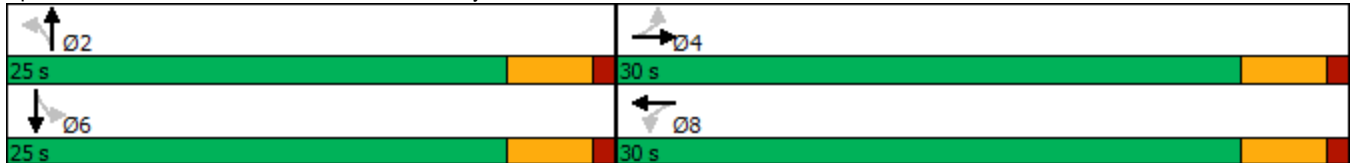
Intersection LOS: B

Intersection Capacity Utilization 74.9%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 32: Jefferson Ave & E Ferry St



Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	97	39	50	102	35	40	304	39	17	291	21
Future Volume (vph)	12	97	39	50	102	35	40	304	39	17	291	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.965			0.975			0.986			0.991	
Flt Protected		0.996			0.987			0.995			0.997	
Satd. Flow (prot)	0	1790	0	0	1793	0	0	1827	0	0	1840	0
Flt Permitted		0.966			0.896			0.942			0.975	
Satd. Flow (perm)	0	1736	0	0	1627	0	0	1730	0	0	1800	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		42			31			15			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1023			1295			630			1406	
Travel Time (s)		23.3			29.4			14.3			32.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	105	42	54	111	38	43	330	42	18	316	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	160	0	0	203	0	0	415	0	0	357	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		9.1			9.2			21.9			21.9	
Actuated g/C Ratio		0.24			0.25			0.59			0.59	
v/c Ratio		0.35			0.48			0.40			0.34	
Control Delay		10.6			13.5			7.8			7.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.6			13.5			7.8			7.2	
LOS		B			B			A			A	
Approach Delay		10.6			13.5			7.8			7.2	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.2												

Lanes, Volumes, Timings

33: Jefferson Ave & E Utica St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 9.0

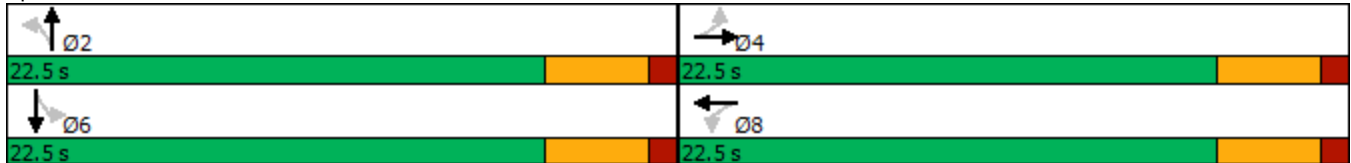
Intersection LOS: A

Intersection Capacity Utilization 62.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 33: Jefferson Ave & E Utica St



Lanes, Volumes, Timings
34: Jefferson Ave & Riley St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	29	11	17	21	18	7	330	42	11	320	19
Future Volume (vph)	12	29	11	17	21	18	7	330	42	11	320	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.972			0.956			0.985			0.993	
Flt Protected		0.989			0.985			0.999			0.998	
Satd. Flow (prot)	0	1791	0	0	1754	0	0	1833	0	0	1846	0
Flt Permitted		0.904			0.880			0.993			0.987	
Satd. Flow (perm)	0	1637	0	0	1567	0	0	1822	0	0	1826	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			20			17			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		870			1108			418			630	
Travel Time (s)		19.8			25.2			9.5			14.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	32	12	18	23	20	8	359	46	12	348	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	57	0	0	61	0	0	413	0	0	381	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		6.5			6.5			28.8			28.8	
Actuated g/C Ratio		0.18			0.18			0.81			0.81	
v/c Ratio		0.18			0.20			0.28			0.26	
Control Delay		11.0			10.3			3.7			3.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.0			10.3			3.7			3.6	
LOS		B			B			A			A	
Approach Delay		11.0			10.3			3.7			3.6	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.6												

Lanes, Volumes, Timings

34: Jefferson Ave & Riley St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.28

Intersection Signal Delay: 4.6

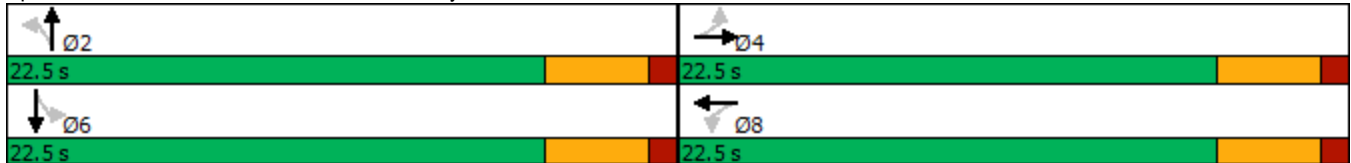
Intersection LOS: A

Intersection Capacity Utilization 36.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 34: Jefferson Ave & Riley St



Lanes, Volumes, Timings
35: Jefferson Ave & Northampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	47	25	12	45	20	21	317	13	28	294	31
Future Volume (vph)	20	47	25	12	45	20	21	317	13	28	294	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.964			0.965			0.995			0.988	
Flt Protected		0.989			0.992			0.997			0.996	
Satd. Flow (prot)	0	1776	0	0	1783	0	0	1848	0	0	1833	0
Flt Permitted		0.900			0.924			0.971			0.960	
Satd. Flow (perm)	0	1616	0	0	1661	0	0	1800	0	0	1767	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			22			5			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1340			1290			1156			278	
Travel Time (s)		30.5			29.3			26.3			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	51	27	13	49	22	23	345	14	30	320	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	100	0	0	84	0	0	382	0	0	384	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		7.1			7.0			25.5			25.5	
Actuated g/C Ratio		0.20			0.19			0.71			0.71	
v/c Ratio		0.29			0.25			0.30			0.31	
Control Delay		11.3			10.8			5.1			5.1	
Queue Delay		0.0			0.0			0.0			0.1	
Total Delay		11.3			10.8			5.1			5.1	
LOS		B			B			A			A	
Approach Delay		11.3			10.8			5.1			5.1	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.9												

Lanes, Volumes, Timings

35: Jefferson Ave & Northhampton St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.31

Intersection Signal Delay: 6.3

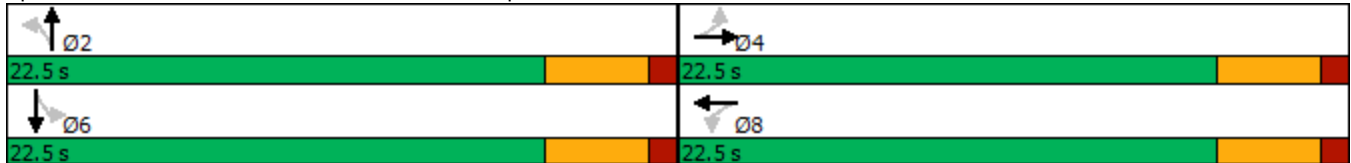
Intersection LOS: A

Intersection Capacity Utilization 41.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 35: Jefferson Ave & Northhampton St



Lanes, Volumes, Timings
36: Jefferson Ave & Best St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	454	15	40	325	66	27	273	84	75	252	25
Future Volume (vph)	45	454	15	40	325	66	27	273	84	75	252	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.996			0.977			0.967			0.989	
Flt Protected		0.996			0.995			0.997			0.989	
Satd. Flow (prot)	0	3511	0	0	3441	0	0	3412	0	0	3462	0
Flt Permitted		0.879			0.869			0.916			0.809	
Satd. Flow (perm)	0	3099	0	0	3005	0	0	3135	0	0	2832	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			55			91			21	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		169			169			156			165	
Travel Time (s)		3.8			3.8			3.5			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	49	493	16	43	353	72	29	297	91	82	274	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	558	0	0	468	0	0	417	0	0	383	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		12.8			12.8			18.1			18.1	
Actuated g/C Ratio		0.32			0.32			0.45			0.45	
v/c Ratio		0.56			0.47			0.28			0.30	
Control Delay		13.2			10.9			6.6			8.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.2			10.9			6.6			8.1	
LOS		B			B			A			A	
Approach Delay		13.2			10.9			6.6			8.1	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 40												

Lanes, Volumes, Timings

36: Jefferson Ave & Best St

02/09/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.56

Intersection Signal Delay: 10.0

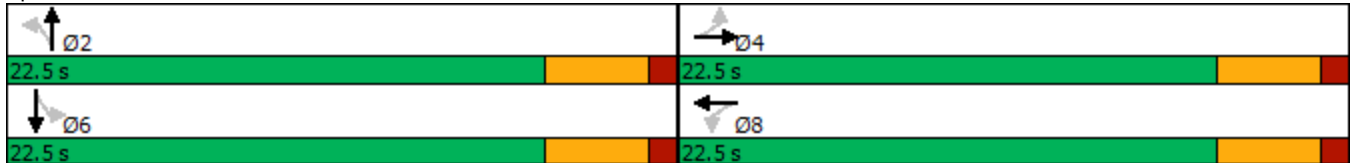
Intersection LOS: B

Intersection Capacity Utilization 62.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 36: Jefferson Ave & Best St



Lanes, Volumes, Timings
37: Jefferson Ave & E North St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	84	147	47	304	312	22
Future Volume (vph)	84	147	47	304	312	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.914				0.991	
Flt Protected	0.982			0.993		
Satd. Flow (prot)	1672	0	0	1850	1846	0
Flt Permitted	0.982			0.924		
Satd. Flow (perm)	1672	0	0	1721	1846	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	160				9	
Link Speed (mph)	30			30	30	
Link Distance (ft)	879			684	486	
Travel Time (s)	20.0			15.5	11.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	91	160	51	330	339	24
Shared Lane Traffic (%)						
Lane Group Flow (vph)	251	0	0	381	363	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	23.0		27.0	27.0	27.0	
Total Split (%)	46.0%		54.0%	54.0%	54.0%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effect Green (s)	8.3			25.6	25.6	
Actuated g/C Ratio	0.19			0.59	0.59	
v/c Ratio	0.56			0.37	0.33	
Control Delay	10.7			6.6	6.0	
Queue Delay	0.0			0.0	0.0	
Total Delay	10.7			6.6	6.0	
LOS	B			A	A	
Approach Delay	10.7			6.6	6.0	
Approach LOS	B			A	A	
Intersection Summary						
Area Type:	Other					
Cycle Length: 50						
Actuated Cycle Length: 43.1						

Lanes, Volumes, Timings 37: Jefferson Ave & E North St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.56

Intersection Signal Delay: 7.5

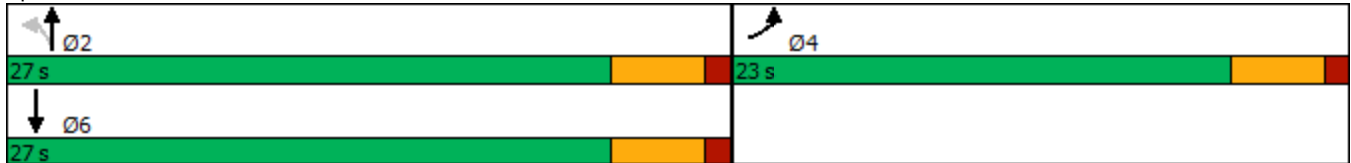
Intersection LOS: A

Intersection Capacity Utilization 61.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 37: Jefferson Ave & E North St



Lanes, Volumes, Timings
38: Jefferson Ave & High St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	60	118	32	58	32	50	298	21	23	425	9
Future Volume (vph)	13	60	118	32	58	32	50	298	21	23	425	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.917			0.964			0.992			0.997	
Flt Protected		0.997			0.987			0.993			0.997	
Satd. Flow (prot)	0	1703	0	0	1772	0	0	1835	0	0	1852	0
Flt Permitted		0.973			0.820			0.903			0.974	
Satd. Flow (perm)	0	1662	0	0	1472	0	0	1669	0	0	1809	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		128			32			8			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		840			1233			880			684	
Travel Time (s)		19.1			28.0			20.0			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	65	128	35	63	35	54	324	23	25	462	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	207	0	0	133	0	0	401	0	0	497	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	24.0	24.0		24.0	24.0		36.0	36.0		36.0	36.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%		60.0%	60.0%		60.0%	60.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.8			8.8			34.3			34.3	
Actuated g/C Ratio		0.17			0.17			0.66			0.66	
v/c Ratio		0.53			0.48			0.36			0.42	
Control Delay		13.2			20.2			5.7			6.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.2			20.2			5.7			6.1	
LOS		B			C			A			A	
Approach Delay		13.2			20.2			5.7			6.1	
Approach LOS		B			C			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 52.2												

Lanes, Volumes, Timings

38: Jefferson Ave & High St

02/09/2022

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.53

Intersection Signal Delay: 8.7

Intersection LOS: A

Intersection Capacity Utilization 58.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 38: Jefferson Ave & High St



Lanes, Volumes, Timings
39: Wohlers Ave & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	396	18	16	513	97	10	61	60	0	0	0
Future Volume (vph)	60	396	18	16	513	97	10	61	60	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.979			0.938				
Flt Protected		0.994			0.999			0.996				
Satd. Flow (prot)	0	1842	0	0	1822	0	0	1740	0	0	0	0
Flt Permitted		0.874			0.984			0.996				
Satd. Flow (perm)	0	1620	0	0	1794	0	0	1740	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			24			65				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		280			1179			1336			278	
Travel Time (s)		6.4			26.8			30.4			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	430	20	17	558	105	11	66	65	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	515	0	0	680	0	0	142	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4			8			2					
Detector Phase	4	4		8	8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5				
Total Split (s)	32.0	32.0		32.0	32.0		23.0	23.0				
Total Split (%)	58.2%	58.2%		58.2%	58.2%		41.8%	41.8%				
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max				
Act Effect Green (s)		22.7			22.7			18.7				
Actuated g/C Ratio		0.45			0.45			0.37				
v/c Ratio		0.71			0.83			0.21				
Control Delay		16.9			21.9			8.7				
Queue Delay		0.0			0.0			0.0				
Total Delay		16.9			21.9			8.7				
LOS		B			C			A				
Approach Delay		16.9			21.9			8.7				
Approach LOS		B			C			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 55												
Actuated Cycle Length: 50.5												

Lanes, Volumes, Timings
39: Wohlers Ave & E Ferry St

02/09/2022

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 18.6

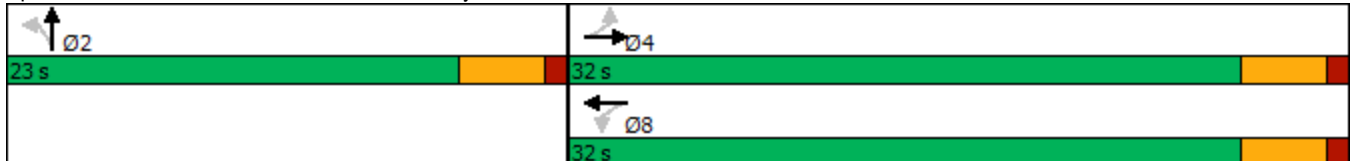
Intersection LOS: B

Intersection Capacity Utilization 67.2%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 39: Wohlers Ave & E Ferry St



Lanes, Volumes, Timings
40: Wohlers Ave & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	167	7	13	148	31	18	45	23	8	23	10
Future Volume (vph)	13	167	7	13	148	31	18	45	23	8	23	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.978			0.964			0.967	
Flt Protected		0.997			0.997			0.989			0.990	
Satd. Flow (prot)	0	1848	0	0	1816	0	0	1776	0	0	1783	0
Flt Permitted		0.972			0.972			0.958			0.963	
Satd. Flow (perm)	0	1802	0	0	1771	0	0	1720	0	0	1735	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			26			25			11	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		274			1173			1331			1336	
Travel Time (s)		6.2			26.7			30.3			30.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	182	8	14	161	34	20	49	25	9	25	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	204	0	0	209	0	0	94	0	0	45	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		9.2			9.2			21.9			21.9	
Actuated g/C Ratio		0.25			0.25			0.59			0.59	
v/c Ratio		0.45			0.46			0.09			0.04	
Control Delay		14.4			13.3			4.8			4.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.4			13.3			4.8			4.9	
LOS		B			B			A			A	
Approach Delay		14.4			13.3			4.8			4.9	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.2												

Lanes, Volumes, Timings

40: Wohlers Ave & E Utica St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 11.6

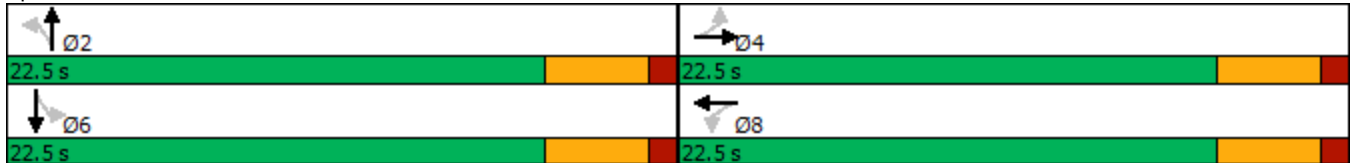
Intersection LOS: B

Intersection Capacity Utilization 27.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 40: Wohlers Ave & E Utica St



Lanes, Volumes, Timings
41: Humboldt Parkway SB & Woodlawn Ave

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	542	52
Future Volume (vph)	0	0	0	0	542	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.988	
Flt Protected						
Satd. Flow (prot)	0	0	0	0	1840	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	0	1840	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	780			561	319	
Travel Time (s)	17.7			12.8	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	589	57
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	646	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 38.4% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings
42: Humboldt Parkway SB & Glenwood Ave

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↗	
Traffic Volume (vph)	0	40	0	0	539	0
Future Volume (vph)	0	40	0	0	539	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1863	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	750			456	561	
Travel Time (s)	17.0			10.4	12.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	43	0	0	586	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	43	0	0	586	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 38.4% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
42: Humboldt Parkway SB & Glenwood Ave

02/09/2022

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↖	
Traffic Vol, veh/h	0	40	0	0	539	0
Future Vol, veh/h	0	40	0	0	539	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	43	0	0	586	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	586	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	510	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	510	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	12.7		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	510	-				
HCM Lane V/C Ratio	0.085	-				
HCM Control Delay (s)	12.7	-				
HCM Lane LOS	B	-				
HCM 95th %tile Q(veh)	0.3	-				

Lanes, Volumes, Timings
43: Humboldt Parkway SB & Riley St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	32	0	0	183	31
Future Volume (vph)	0	32	0	0	183	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.980	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1825	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1825	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	873			418	636	
Travel Time (s)	19.8			9.5	14.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	35	0	0	199	34
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	35	0	0	233	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 21.5% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
43: Humboldt Parkway SB & Riley St

02/09/2022

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	32	0	0	183	31
Future Vol, veh/h	0	32	0	0	183	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	35	0	0	199	34
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	216	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	824	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	824	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	9.6		0			
HCM LOS	A					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	824	-	-			
HCM Lane V/C Ratio	0.042	-	-			
HCM Control Delay (s)	9.6	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
44: Humboldt Parkway SB & Kingsley St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		🔴↶			🔴↷	
Traffic Volume (vph)	0	13	0	0	210	4
Future Volume (vph)	0	13	0	0	210	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.998	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1859	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1859	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	736			293	418	
Travel Time (s)	16.7			6.7	9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	14	0	0	228	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	14	0	0	232	0
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	21.3%			ICU Level of Service A		
Analysis Period (min)	15					

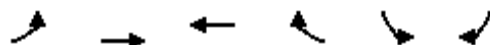
HCM 6th TWSC
44: Humboldt Parkway SB & Kingsley St

02/09/2022

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	13	0	0	210	4
Future Vol, veh/h	0	13	0	0	210	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	14	0	0	228	4
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	230	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	809	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	809	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	9.5		0			
HCM LOS	A					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	809	-	-			
HCM Lane V/C Ratio	0.017	-	-			
HCM Control Delay (s)	9.5	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
45: W Parade Ave & Humboldt Parkway SB

02/09/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↘	
Traffic Volume (vph)	0	162	90	0	97	46
Future Volume (vph)	0	162	90	0	97	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.956	
Flt Protected					0.967	
Satd. Flow (prot)	0	1863	1863	0	1722	0
Flt Permitted					0.967	
Satd. Flow (perm)	0	1863	1863	0	1722	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		199	738		350	
Travel Time (s)		4.5	16.8		8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	176	98	0	105	50
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	176	98	0	155	0
Sign Control		Stop	Stop		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 23.4% ICU Level of Service A

Analysis Period (min) 15

HCM 6th AWSC
45: W Parade Ave & Humboldt Parkway SB

02/09/2022

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑↑	
Traffic Vol, veh/h	0	162	90	0	97	46
Future Vol, veh/h	0	162	90	0	97	46
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	176	98	0	105	50
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	8.6	8.1	8.6
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	68%
Vol Thru, %	100%	100%	0%
Vol Right, %	0%	0%	32%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	162	90	143
LT Vol	0	0	97
Through Vol	162	90	0
RT Vol	0	0	46
Lane Flow Rate	176	98	155
Geometry Grp	1	1	1
Degree of Util (X)	0.216	0.122	0.194
Departure Headway (Hd)	4.413	4.497	4.5
Convergence, Y/N	Yes	Yes	Yes
Cap	815	799	799
Service Time	2.428	2.514	2.519
HCM Lane V/C Ratio	0.216	0.123	0.194
HCM Control Delay	8.6	8.1	8.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.8	0.4	0.7

Lanes, Volumes, Timings
46: Linden Park & Dodge St/W Parade Ave

02/09/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	160	7	6	131	0	2
Future Volume (vph)	160	7	6	131	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.994				0.865	
Flt Protected				0.998		
Satd. Flow (prot)	1852	0	0	1859	1611	0
Flt Permitted				0.998		
Satd. Flow (perm)	1852	0	0	1859	1611	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	489			199	180	
Travel Time (s)	11.1			4.5	4.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	8	7	142	0	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	182	0	0	149	2	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	21.8%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
46: Linden Park & Dodge St/W Parade Ave

02/09/2022

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	160	7	6	131	0	2
Future Vol, veh/h	160	7	6	131	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	174	8	7	142	0	2
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	182	0	334	178
Stage 1	-	-	-	-	178	-
Stage 2	-	-	-	-	156	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1393	-	661	865
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	872	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1393	-	658	865
Mov Cap-2 Maneuver	-	-	-	-	658	-
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	868	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0.3		9.2		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	865	-	-	1393	-	
HCM Lane V/C Ratio	0.003	-	-	0.005	-	
HCM Control Delay (s)	9.2	-	-	7.6	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Lanes, Volumes, Timings
47: Humboldt Parkway NB & Riley St

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	10	94	9	0	0
Future Volume (vph)	0	10	94	9	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.988			
Flt Protected						
Satd. Flow (prot)	0	1611	1840	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1840	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	1082		722			610
Travel Time (s)	24.6		16.4			13.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	11	102	10	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	11	112	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	15.5%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
47: Humboldt Parkway NB & Riley St

02/09/2022

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	10	94	9	0	0
Future Vol, veh/h	0	10	94	9	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	102	10	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	107	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	947	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	947	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	8.8		0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		-		947	
HCM Lane V/C Ratio	-		-		0.011	
HCM Control Delay (s)	-		-		8.8	
HCM Lane LOS	-		-		A	
HCM 95th %tile Q(veh)	-		-		0	

Lanes, Volumes, Timings
48: Humboldt Parkway NB & Woepfel St

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	7	365	13	0	0
Future Volume (vph)	0	7	365	13	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.995			
Flt Protected						
Satd. Flow (prot)	0	1611	1853	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1853	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	744		294			729
Travel Time (s)	16.9		6.7			16.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	8	397	14	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	8	411	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	30.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
48: Humboldt Parkway NB & Woepfel St

02/09/2022

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	7	365	13	0	0
Future Vol, veh/h	0	7	365	13	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	397	14	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	404	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	647	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	647	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	10.6		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		647			
HCM Lane V/C Ratio	-		0.012			
HCM Control Delay (s)	-		10.6			
HCM Lane LOS	-		B			
HCM 95th %tile Q(veh)	-		0			

Lanes, Volumes, Timings
49: Humboldt Parkway NB & Woodlawn Ave

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	21	361	3	0	0
Future Volume (vph)	0	21	361	3	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.999			
Flt Protected						
Satd. Flow (prot)	0	1611	1861	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1861	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	729		729			312
Travel Time (s)	16.6		16.6			7.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	23	392	3	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	23	395	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	29.2%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
49: Humboldt Parkway NB & Woodlawn Ave

02/09/2022

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	21	361	3	0	0
Future Vol, veh/h	0	21	361	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	23	392	3	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	394	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	655	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	655	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	10.7		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		-		655	
HCM Lane V/C Ratio	-		-		0.035	
HCM Control Delay (s)	-		-		10.7	
HCM Lane LOS	-		-		B	
HCM 95th %tile Q(veh)	-		-		0.1	

Lanes, Volumes, Timings
50: Humboldt Parkway SB & Florida St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	40	0	0	214	17
Future Volume (vph)	0	40	0	0	214	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.990	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1844	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1844	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	935			344	684	
Travel Time (s)	21.3			7.8	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	43	0	0	233	18
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	43	0	0	251	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 22.3% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
50: Humboldt Parkway SB & Florida St

02/09/2022

Intersection

Int Delay, s/veh 1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	40	0	0	214	17
Future Vol, veh/h	0	40	0	0	214	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	43	0	0	233	18

Major/Minor	Minor2	Major2
Conflicting Flow All	- 242	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 797	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 797	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	9.8	0
HCM LOS	A	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	797	-	-
HCM Lane V/C Ratio	0.055	-	-
HCM Control Delay (s)	9.8	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-

Lanes, Volumes, Timings
51: Humboldt Parkway SB & Northland Ave

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	56	0	0	231	32
Future Volume (vph)	0	56	0	0	231	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.983	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1831	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1831	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2743			805	344	
Travel Time (s)	62.3			18.3	7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	61	0	0	251	35
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	61	0	0	286	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 24.2% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
51: Humboldt Parkway SB & Northland Ave

02/09/2022

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	56	0	0	231	32
Future Vol, veh/h	0	56	0	0	231	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	61	0	0	251	35
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	269	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	770	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	770	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	10.1		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	770	-	-			
HCM Lane V/C Ratio	0.079	-	-			
HCM Control Delay (s)	10.1	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q(veh)	0.3	-	-			

Lanes, Volumes, Timings
52: Humboldt Parkway SB & Brunswick Blvd

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	71	0	0	270	27
Future Volume (vph)	0	71	0	0	270	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.988	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1840	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1840	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2734			252	805	
Travel Time (s)	62.1			5.7	18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	77	0	0	293	29
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	77	0	0	322	0
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 26.9% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	71	0	0	270	27
Future Vol, veh/h	0	71	0	0	270	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	77	0	0	293	29
Number of Lanes	0	1	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	1
HCM Control Delay	7.4	9.3
HCM LOS	A	A

Lane	EBLn1	SBLn1
Vol Left, %	0%	0%
Vol Thru, %	0%	91%
Vol Right, %	100%	9%
Sign Control	Stop	Stop
Traffic Vol by Lane	71	297
LT Vol	0	0
Through Vol	0	270
RT Vol	71	27
Lane Flow Rate	77	323
Geometry Grp	1	1
Degree of Util (X)	0.087	0.36
Departure Headway (Hd)	4.038	4.015
Convergence, Y/N	Yes	Yes
Cap	893	894
Service Time	2.038	2.05
HCM Lane V/C Ratio	0.086	0.361
HCM Control Delay	7.4	9.3
HCM Lane LOS	A	A
HCM 95th-tile Q	0.3	1.6

Lanes, Volumes, Timings
53: Humboldt Parkway SB & Goulding Ave

02/09/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Volume (vph)	0	66	0	0	944	0
Future Volume (vph)	0	66	0	0	944	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	3539	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	3539	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1067			270	306	
Travel Time (s)	24.3			6.1	7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	72	0	0	1026	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	72	0	0	1026	0
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	30.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
53: Humboldt Parkway SB & Goulding Ave

02/09/2022

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↗↗	
Traffic Vol, veh/h	0	66	0	0	944	0
Future Vol, veh/h	0	66	0	0	944	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	72	0	0	1026	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	513	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	506	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	506	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	13.3		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	506	-				
HCM Lane V/C Ratio	0.142	-				
HCM Control Delay (s)	13.3	-				
HCM Lane LOS	B	-				
HCM 95th %tile Q(veh)	0.5	-				

Lanes, Volumes, Timings
54: Humboldt Parkway NB & Sydney St

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	48	587	0	0	0
Future Volume (vph)	0	48	587	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	913		608			1024
Travel Time (s)	20.8		13.8			23.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	52	638	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	52	638	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	40.9%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
54: Humboldt Parkway NB & Sydney St

02/09/2022

Intersection

Int Delay, s/veh 1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	48	587	0	0	0
Future Vol, veh/h	0	48	587	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	52	638	0	0	0

Major/Minor	Minor1	Major1
Conflicting Flow All	- 638	0 -
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 477	- 0
Stage 1	0 -	- 0
Stage 2	0 -	- 0
Platoon blocked, %		-
Mov Cap-1 Maneuver	- 477	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	WB	NB
HCM Control Delay, s	13.5	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBTWBLn1
Capacity (veh/h)	- 477
HCM Lane V/C Ratio	- 0.109
HCM Control Delay (s)	- 13.5
HCM Lane LOS	- B
HCM 95th %tile Q(veh)	- 0.4

Lanes, Volumes, Timings
55: Humboldt Parkway NB & Northland Ave

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	64	566	68	0	0
Future Volume (vph)	0	64	566	68	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865	0.865	0.986			
Flt Protected						
Satd. Flow (prot)	0	1611	1837	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1837	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	1020		1024			1019
Travel Time (s)	23.2		23.3			23.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	70	615	74	0	0
Shared Lane Traffic (%)		10%				
Lane Group Flow (vph)	7	63	689	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	44.5%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
55: Humboldt Parkway NB & Northland Ave

02/09/2022

Intersection

Int Delay, s/veh 1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	64	566	68	0	0
Future Vol, veh/h	0	64	566	68	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	70	615	74	0	0

Major/Minor	Minor1	Major1
Conflicting Flow All	- 652	0 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 468	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 468	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	WB	NB
HCM Control Delay, s	14	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBT	NBRWBLn1
Capacity (veh/h)	- -	468
HCM Lane V/C Ratio	- -	0.149
HCM Control Delay (s)	- -	14
HCM Lane LOS	- -	B
HCM 95th %tile Q(veh)	- -	0.5

Lanes, Volumes, Timings
56: Roehrer Ave & E Ferry St

02/09/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	432	15	28	491	17	42
Future Volume (vph)	432	15	28	491	17	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.903	
Flt Protected				0.997	0.986	
Satd. Flow (prot)	1855	0	0	1857	1659	0
Flt Permitted				0.997	0.986	
Satd. Flow (perm)	1855	0	0	1857	1659	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1109			280	1331	
Travel Time (s)	25.2			6.4	30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	470	16	30	534	18	46
Shared Lane Traffic (%)						
Lane Group Flow (vph)	486	0	0	564	64	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	58.9%			ICU Level of Service B		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	432	15	28	491	17	42
Future Vol, veh/h	432	15	28	491	17	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	470	16	30	534	18	46
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	486	0	1072	478
Stage 1	-	-	-	-	478	-
Stage 2	-	-	-	-	594	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1077	-	244	587
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	552	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1077	-	234	587
Mov Cap-2 Maneuver	-	-	-	-	234	-
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	530	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.5		15.4	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	409	-	-	1077	-	
HCM Lane V/C Ratio	0.157	-	-	0.028	-	
HCM Control Delay (s)	15.4	-	-	8.4	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-	

Lanes, Volumes, Timings
57: Roehrer Ave & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	161	9	7	155	16	16	26	17	10	29	8
Future Volume (vph)	11	161	9	7	155	16	16	26	17	10	29	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.993			0.988			0.961			0.977	
Flt Protected		0.997			0.998			0.987			0.990	
Satd. Flow (prot)	0	1844	0	0	1837	0	0	1767	0	0	1802	0
Flt Permitted		0.997			0.998			0.987			0.990	
Satd. Flow (perm)	0	1844	0	0	1837	0	0	1767	0	0	1802	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1295			274			1342			1331	
Travel Time (s)		29.4			6.2			30.5			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	175	10	8	168	17	17	28	18	11	32	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	197	0	0	193	0	0	63	0	0	52	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 24.8%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	161	9	7	155	16	16	26	17	10	29	8
Future Vol, veh/h	11	161	9	7	155	16	16	26	17	10	29	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	175	10	8	168	17	17	28	18	11	32	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.8	8.8	8.2	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	6%	4%	21%
Vol Thru, %	44%	89%	87%	62%
Vol Right, %	29%	5%	9%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	59	181	178	47
LT Vol	16	11	7	10
Through Vol	26	161	155	29
RT Vol	17	9	16	8
Lane Flow Rate	64	197	193	51
Geometry Grp	1	1	1	1
Degree of Util (X)	0.085	0.241	0.235	0.069
Departure Headway (Hd)	4.752	4.404	4.38	4.829
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	754	816	820	741
Service Time	2.784	2.427	2.404	2.861
HCM Lane V/C Ratio	0.085	0.241	0.235	0.069
HCM Control Delay	8.2	8.8	8.8	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.9	0.9	0.2

Lanes, Volumes, Timings
58: Wohlers Ave & Northampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	94	9	6	85	16	12	79	12	17	31	8
Future Volume (vph)	7	94	9	6	85	16	12	79	12	17	31	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989			0.980			0.984			0.980	
Flt Protected		0.997			0.997			0.994			0.985	
Satd. Flow (prot)	0	1837	0	0	1820	0	0	1822	0	0	1798	0
Flt Permitted		0.997			0.997			0.994			0.985	
Satd. Flow (perm)	0	1837	0	0	1820	0	0	1822	0	0	1798	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		276			1045			1317			1331	
Travel Time (s)		6.3			23.8			29.9			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	102	10	7	92	17	13	86	13	18	34	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	120	0	0	116	0	0	112	0	0	61	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 20.7%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection

Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	7	94	9	6	85	16	12	79	12	17	31	8
Future Vol, veh/h	7	94	9	6	85	16	12	79	12	17	31	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	102	10	7	92	17	13	86	13	18	34	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.2	8.1	8.2	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	6%	6%	30%
Vol Thru, %	77%	85%	79%	55%
Vol Right, %	12%	8%	15%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	103	110	107	56
LT Vol	12	7	6	17
Through Vol	79	94	85	31
RT Vol	12	9	16	8
Lane Flow Rate	112	120	116	61
Geometry Grp	1	1	1	1
Degree of Util (X)	0.14	0.147	0.142	0.077
Departure Headway (Hd)	4.493	4.428	4.391	4.574
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	799	811	818	784
Service Time	2.515	2.449	2.411	2.598
HCM Lane V/C Ratio	0.14	0.148	0.142	0.078
HCM Control Delay	8.2	8.2	8.1	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.5	0.5	0.2

Lanes, Volumes, Timings
59: Roehrer Ave & Northhampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	92	6	6	85	13	6	25	1	9	38	2
Future Volume (vph)	6	92	6	6	85	13	6	25	1	9	38	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.983			0.996			0.995	
Flt Protected		0.997			0.997			0.990			0.991	
Satd. Flow (prot)	0	1842	0	0	1826	0	0	1837	0	0	1837	0
Flt Permitted		0.997			0.997			0.990			0.991	
Satd. Flow (perm)	0	1842	0	0	1826	0	0	1837	0	0	1837	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1290			276			1313			1342	
Travel Time (s)		29.3			6.3			29.8			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	100	7	7	92	14	7	27	1	10	41	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	114	0	0	113	0	0	35	0	0	53	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	17.3%						ICU Level of Service A					
Analysis Period (min)	15											

Intersection

Intersection Delay, s/veh	7.8
Intersection LOS	A

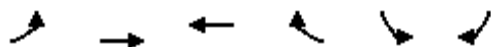
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	92	6	6	85	13	6	25	1	9	38	2
Future Vol, veh/h	6	92	6	6	85	13	6	25	1	9	38	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	100	7	7	92	14	7	27	1	10	41	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	7.8	7.7	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	6%	6%	18%
Vol Thru, %	78%	88%	82%	78%
Vol Right, %	3%	6%	12%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	32	104	104	49
LT Vol	6	6	6	9
Through Vol	25	92	85	38
RT Vol	1	6	13	2
Lane Flow Rate	35	113	113	53
Geometry Grp	1	1	1	1
Degree of Util (X)	0.044	0.13	0.129	0.066
Departure Headway (Hd)	4.512	4.15	4.109	4.483
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	798	851	859	804
Service Time	2.513	2.238	2.199	2.485
HCM Lane V/C Ratio	0.044	0.133	0.132	0.066
HCM Control Delay	7.7	7.9	7.8	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.4	0.4	0.2

Lanes, Volumes, Timings
60: Best St & Wohlers Ave

02/09/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	15	638	447	37	18	11
Future Volume (vph)	15	638	447	37	18	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.990		0.949	
Flt Protected		0.999			0.970	
Satd. Flow (prot)	0	1861	1844	0	1715	0
Flt Permitted		0.999			0.970	
Satd. Flow (perm)	0	1861	1844	0	1715	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		280	473		1317	
Travel Time (s)		6.4	10.8		29.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	693	486	40	20	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	709	526	0	32	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

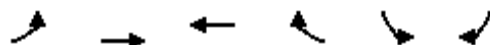
Intersection Capacity Utilization 55.6% ICU Level of Service B

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	638	447	37	18	11
Future Vol, veh/h	15	638	447	37	18	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	693	486	40	20	12
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	526	0	-	0	1231	506
Stage 1	-	-	-	-	506	-
Stage 2	-	-	-	-	725	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1041	-	-	-	196	566
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	479	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1041	-	-	-	191	566
Mov Cap-2 Maneuver	-	-	-	-	191	-
Stage 1	-	-	-	-	591	-
Stage 2	-	-	-	-	479	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		21.1		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1041	-	-	-	255	
HCM Lane V/C Ratio	0.016	-	-	-	0.124	
HCM Control Delay (s)	8.5	0	-	-	21.1	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.4	

Lanes, Volumes, Timings
61: Best St & Roehrer Ave

02/09/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	12	643	449	15	23	13
Future Volume (vph)	12	643	449	15	23	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.996		0.952	
Flt Protected		0.999			0.969	
Satd. Flow (prot)	0	1861	1855	0	1718	0
Flt Permitted		0.999			0.969	
Satd. Flow (perm)	0	1861	1855	0	1718	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1123	280		1313	
Travel Time (s)		25.5	6.4		29.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	699	488	16	25	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	712	504	0	39	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 53.5% ICU Level of Service A

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	643	449	15	23	13
Future Vol, veh/h	12	643	449	15	23	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	699	488	16	25	14
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	504	0	-	0	1221	496
Stage 1	-	-	-	-	496	-
Stage 2	-	-	-	-	725	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1061	-	-	-	199	574
Stage 1	-	-	-	-	612	-
Stage 2	-	-	-	-	479	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1061	-	-	-	195	574
Mov Cap-2 Maneuver	-	-	-	-	195	-
Stage 1	-	-	-	-	600	-
Stage 2	-	-	-	-	479	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		21.6		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1061	-	-	-	256	
HCM Lane V/C Ratio	0.012	-	-	-	0.153	
HCM Control Delay (s)	8.4	0	-	-	21.6	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.5	

Lanes, Volumes, Timings
62: Jefferson Ave & Eaton St/Kingsley St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	12	18	8	11	13	6	348	2	10	327	9
Future Volume (vph)	16	12	18	8	11	13	6	348	2	10	327	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.946			0.946			0.999			0.996	
Flt Protected		0.983			0.987			0.999			0.999	
Satd. Flow (prot)	0	1732	0	0	1739	0	0	1859	0	0	1853	0
Flt Permitted								0.994			0.989	
Satd. Flow (perm)	0	1762	0	0	1762	0	0	1850	0	0	1835	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			14			1			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		911			1129			278			418	
Travel Time (s)		20.7			25.7			6.3			9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	13	20	9	12	14	7	378	2	11	355	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	50	0	0	35	0	0	387	0	0	376	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		6.3			6.2			32.1			32.1	
Actuated g/C Ratio		0.18			0.17			0.90			0.90	
v/c Ratio		0.15			0.11			0.23			0.23	
Control Delay		9.1			9.2			2.3			2.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.1			9.2			2.3			2.2	
LOS		A			A			A			A	
Approach Delay		9.1			9.2			2.3			2.2	
Approach LOS		A			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.5												

Lanes, Volumes, Timings
62: Jefferson Ave & Eaton St/Kingsley St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.23

Intersection Signal Delay: 2.9

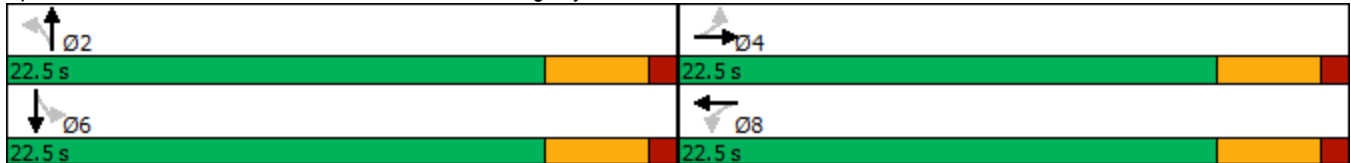
Intersection LOS: A

Intersection Capacity Utilization 34.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 62: Jefferson Ave & Eaton St/Kingsley St



Lanes, Volumes, Timings
118: Humboldt Parkway SB

02/09/2022

						
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	306			252	236	
Travel Time (s)	7.0			5.7	5.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	18.3%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	415	666	0	0	331	472	39	121	138	0	0	0
Future Volume (vph)	415	666	0	0	331	472	39	121	138	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.912			0.937				
Flt Protected		0.981						0.994				
Satd. Flow (prot)	0	3472	0	0	3228	0	0	1735	0	0	0	0
Flt Permitted		0.536						0.994				
Satd. Flow (perm)	0	1897	0	0	3228	0	0	1735	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					513			48				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		249			205			354			335	
Travel Time (s)		5.7			4.7			8.0			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	451	724	0	0	360	513	42	132	150	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1175	0	0	873	0	0	324	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (s)	60.0	60.0			60.0		40.0	40.0				
Total Split (%)	60.0%	60.0%			60.0%		40.0%	40.0%				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max			C-Max		None	None				
Act Effct Green (s)		55.5			55.5			35.5				
Actuated g/C Ratio		0.56			0.56			0.36				
v/c Ratio		1.67dl			0.43			0.50				
Control Delay		86.6			5.5			24.5				
Queue Delay		0.0			3.0			0.0				
Total Delay		86.6			8.6			24.5				
LOS		F			A			C				
Approach Delay		86.6			8.6			24.5				
Approach LOS		F			A			C				
Intersection Summary												
Area Type:	Other											
Cycle Length: 100												
Actuated Cycle Length: 100												

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	40.0
Total Split (%)	40%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

02/09/2022

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.16

Intersection Signal Delay: 49.4

Intersection LOS: D

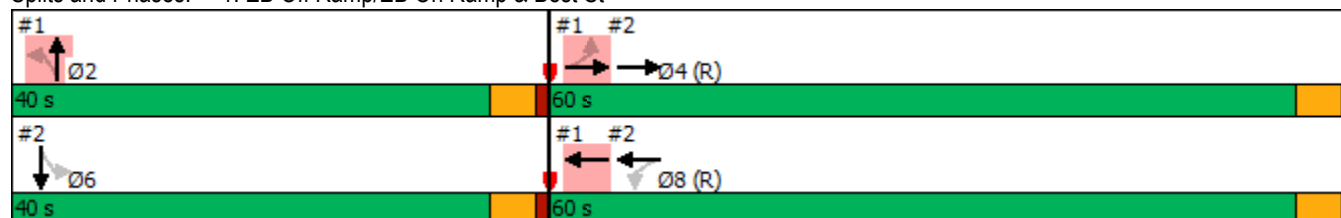
Intersection Capacity Utilization 83.0%

ICU Level of Service E

Analysis Period (min) 15

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 1: EB Off Ramp/EB On Ramp & Best St



Lanes, Volumes, Timings
2: WB On Ramp/WB Off Ramp & Best St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	662	45	102	272	0	0	0	0	409	1	261
Future Volume (vph)	0	662	45	102	272	0	0	0	0	409	1	261
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990									0.947	
Flt Protected					0.987						0.970	
Satd. Flow (prot)	0	3504	0	0	3493	0	0	0	0	0	1711	0
Flt Permitted					0.626						0.970	
Satd. Flow (perm)	0	3504	0	0	2216	0	0	0	0	0	1711	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11									36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		473			249			324			375	
Travel Time (s)		10.8			5.7			7.4			8.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	720	49	111	296	0	0	0	0	445	1	284
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	769	0	0	407	0	0	0	0	0	730	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		60.0		60.0	60.0					40.0	40.0	
Total Split (%)		60.0%		60.0%	60.0%					40.0%	40.0%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0			0.0						0.0	
Total Lost Time (s)		4.5			4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max		C-Max	C-Max					None	None	
Act Effct Green (s)		55.5			55.5						35.5	
Actuated g/C Ratio		0.56			0.56						0.36	
v/c Ratio		0.39			0.33						1.16	
Control Delay		13.2			10.4						118.4	
Queue Delay		0.3			0.3						1.5	
Total Delay		13.6			10.7						119.9	
LOS		B			B						F	
Approach Delay		13.6			10.7						119.9	
Approach LOS		B			B						F	
Intersection Summary												

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	40.0
Total Split (%)	40%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

02/09/2022

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.16

Intersection Signal Delay: 53.7

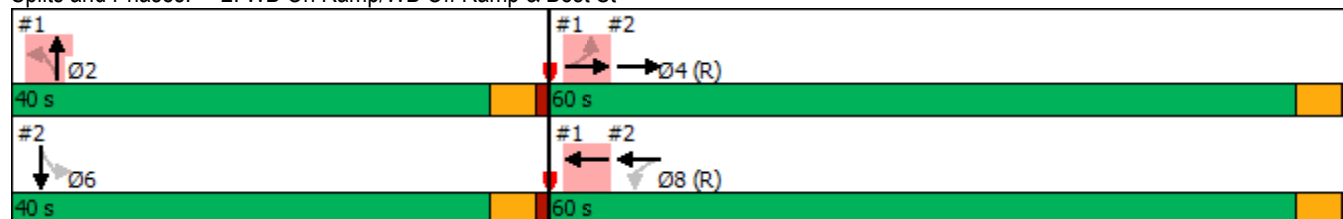
Intersection LOS: D

Intersection Capacity Utilization 80.1%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 2: WB On Ramp/WB Off Ramp & Best St



Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

02/09/2022

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	19	16	616	156	2	621	67	14	94	37	1	9
Future Volume (vph)	19	16	616	156	2	621	67	14	94	37	1	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't			0.971			0.984				0.990		
Flt Protected			0.998							0.968		
Satd. Flow (prot)	0	0	3430	0	0	1833	0	0	0	1785	0	0
Flt Permitted			0.905			0.998				0.705		
Satd. Flow (perm)	0	0	3110	0	0	1829	0	0	0	1300	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			76			3				6		
Link Speed (mph)			30			30				30		
Link Distance (ft)			205			1418				1329		
Travel Time (s)			4.7			32.2				30.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	21	17	670	170	2	675	73	15	102	40	1	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	878	0	0	765	0	0	0	153	0	0
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		
Protected Phases			4			8				2		
Permitted Phases	4	4			8				2			
Detector Phase	4	4	4		8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			5.0	5.0		
Minimum Split (s)	22.5	22.5	22.5		22.5	22.5			22.5	22.5		
Total Split (s)	37.0	37.0	37.0		37.0	37.0			23.0	23.0		
Total Split (%)	61.7%	61.7%	61.7%		61.7%	61.7%			38.3%	38.3%		
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5			3.5	3.5		
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0			1.0	1.0		
Lost Time Adjust (s)			0.0			0.0				0.0		
Total Lost Time (s)			4.5			4.5				4.5		
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None		None	None			C-Max	C-Max		
Act Effect Green (s)			29.8			29.8				21.2		
Actuated g/C Ratio			0.50			0.50				0.35		
v/c Ratio			0.56			0.84				0.33		
Control Delay			10.6			22.7				17.6		
Queue Delay			3.4			0.0				0.0		
Total Delay			14.0			22.7				17.6		
LOS			B			C				B		
Approach Delay			14.0			22.7				17.6		
Approach LOS			B			C				B		
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 60												

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

02/09/2022



Lane Group	SBL	SBT	SBR
Lane Configurations		↕	
Traffic Volume (vph)	107	48	85
Future Volume (vph)	107	48	85
Ideal Flow (vphpl)	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00
Frt		0.952	
Flt Protected		0.978	
Satd. Flow (prot)	0	1734	0
Flt Permitted		0.813	
Satd. Flow (perm)	0	1442	0
Right Turn on Red			Yes
Satd. Flow (RTOR)		48	
Link Speed (mph)		30	
Link Distance (ft)		738	
Travel Time (s)		16.8	
Peak Hour Factor	0.92	0.92	0.92
Adj. Flow (vph)	116	52	92
Shared Lane Traffic (%)			
Lane Group Flow (vph)	0	260	0
Turn Type	Perm	NA	
Protected Phases		6	
Permitted Phases	6		
Detector Phase	6	6	
Switch Phase			
Minimum Initial (s)	5.0	5.0	
Minimum Split (s)	22.5	22.5	
Total Split (s)	23.0	23.0	
Total Split (%)	38.3%	38.3%	
Yellow Time (s)	3.5	3.5	
All-Red Time (s)	1.0	1.0	
Lost Time Adjust (s)		0.0	
Total Lost Time (s)		4.5	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	
Act Effct Green (s)		21.2	
Actuated g/C Ratio		0.35	
v/c Ratio		0.48	
Control Delay		17.0	
Queue Delay		0.0	
Total Delay		17.0	
LOS		B	
Approach Delay		17.0	
Approach LOS		B	
Intersection Summary			

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

02/09/2022

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 17.9

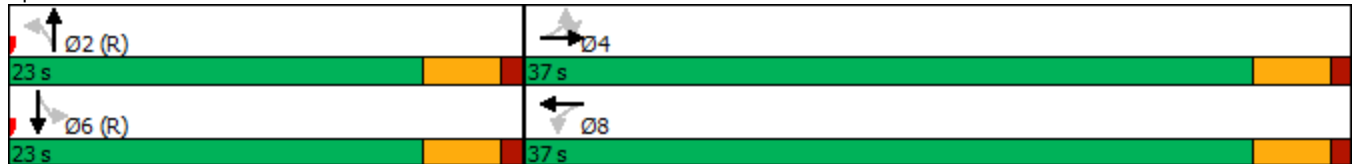
Intersection LOS: B

Intersection Capacity Utilization 68.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 3: Herman St/W Parade Ave & Best St



Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

02/09/2022

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	123	4	17	98	0	0	0	0	92	102	25	
Future Volume (vph)	0	123	4	17	98	0	0	0	0	92	102	25	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Fr't	0.996										0.985		
Flt Protected	0.993										0.979		
Satd. Flow (prot)	0	1855	0	0	1850	0	0	0	0	0	1796	0	
Flt Permitted	0.941										0.979		
Satd. Flow (perm)	0	1855	0	0	1753	0	0	0	0	0	1796	0	
Right Turn on Red	Yes					Yes				Yes			Yes
Satd. Flow (RTOR)	4										17		
Link Speed (mph)	30				30				30				30
Link Distance (ft)	1045				283				370				293
Travel Time (s)	23.8				6.4				8.4				6.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	134	4	18	107	0	0	0	0	100	111	27	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	138	0	0	125	0	0	0	0	0	238	0	
Turn Type	NA		Perm		NA				Perm		NA		
Protected Phases	4			8			6						
Permitted Phases				8			6						
Detector Phase	4			8		8	6						6
Switch Phase													
Minimum Initial (s)	5.0			5.0		5.0	5.0						5.0
Minimum Split (s)	22.5			22.5		22.5	22.5						22.5
Total Split (s)	22.5			22.5		22.5	22.5						22.5
Total Split (%)	50.0%			50.0%		50.0%	50.0%						50.0%
Yellow Time (s)	3.5			3.5		3.5	3.5						3.5
All-Red Time (s)	1.0			1.0		1.0	1.0						1.0
Lost Time Adjust (s)	0.0				0.0				0.0				
Total Lost Time (s)	4.5				4.5				4.5				
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode	None			None		None	Max						Max
Act Effct Green (s)	10.5				10.4				22.1				
Actuated g/C Ratio	0.27				0.27				0.57				
v/c Ratio	0.27				0.27				0.23				
Control Delay	11.3				6.6				7.1				
Queue Delay	0.0				0.0				0.0				
Total Delay	11.3				6.6				7.1				
LOS	B				A				A				
Approach Delay	11.3				6.6				7.1				
Approach LOS	B				A				A				
Intersection Summary													
Area Type:	Other												
Cycle Length: 45													
Actuated Cycle Length: 38.5													

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 8.1

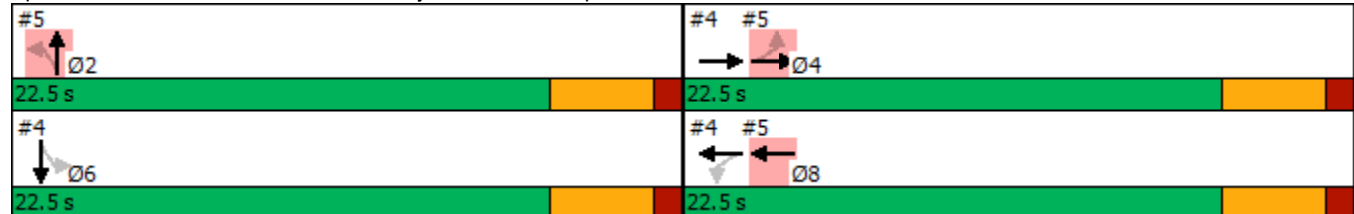
Intersection LOS: A

Intersection Capacity Utilization 36.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: Humboldt Parkway SB & Northhampton St



Lanes, Volumes, Timings
5: Humboldt Parkway NB & Northhampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	149	0	0	115	39	2	13	6	0	0	0
Future Volume (vph)	51	149	0	0	115	39	2	13	6	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.966			0.959				
Flt Protected		0.987						0.996				
Satd. Flow (prot)	0	1839	0	0	1799	0	0	1779	0	0	0	0
Flt Permitted		0.867						0.996				
Satd. Flow (perm)	0	1615	0	0	1799	0	0	1779	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					42			7				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		283			1089			152				722
Travel Time (s)		6.4			24.8			3.5				16.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	55	162	0	0	125	42	2	14	7	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	217	0	0	167	0	0	23	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max				
Act Effct Green (s)		10.5			10.4			22.1				
Actuated g/C Ratio		0.27			0.27			0.57				
v/c Ratio		0.49			0.32			0.02				
Control Delay		11.9			9.7			5.9				
Queue Delay		0.0			0.0			0.0				
Total Delay		11.9			9.7			5.9				
LOS		B			A			A				
Approach Delay		11.9			9.7			5.9				
Approach LOS		B			A			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 38.5												

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 10.6

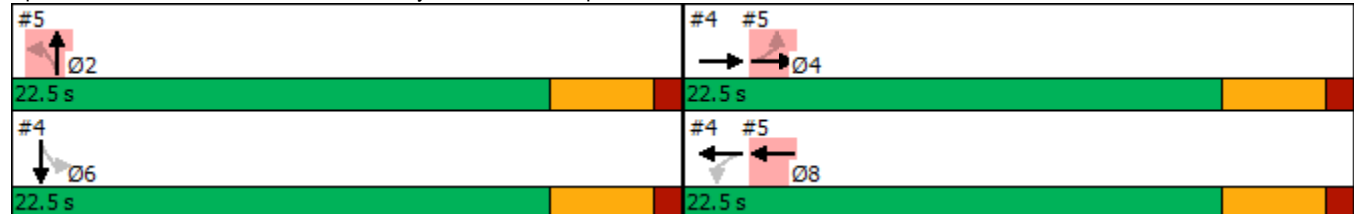
Intersection LOS: B

Intersection Capacity Utilization 34.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Humboldt Parkway NB & Northhampton St



Lanes, Volumes, Timings
6: Humboldt Parkway SB & E Utica St

02/09/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩		↩	↩						↩↪	
Traffic Volume (vph)	0	209	36	64	132	0	0	0	0	102	423	77
Future Volume (vph)	0	209	36	64	132	0	0	0	0	102	423	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.980									0.981	
Flt Protected				0.950							0.992	
Satd. Flow (prot)	0	1825	0	1770	1863	0	0	0	0	0	3444	0
Flt Permitted				0.577							0.992	
Satd. Flow (perm)	0	1825	0	1075	1863	0	0	0	0	0	3444	0
Right Turn on Red			Yes			Yes				Yes		Yes
Satd. Flow (RTOR)		23									43	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1173			153			636			456	
Travel Time (s)		26.7			3.5			14.5			10.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	227	39	70	143	0	0	0	0	111	460	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	266	0	70	143	0	0	0	0	0	655	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		4.5		4.5	4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					Max	Max	
Act Effct Green (s)		11.5		11.5	11.5						19.0	
Actuated g/C Ratio		0.29		0.29	0.29						0.48	
v/c Ratio		0.49		0.22	0.26						0.39	
Control Delay		13.0		9.9	9.5						8.0	
Queue Delay		0.0		0.2	0.2						0.0	
Total Delay		13.0		10.1	9.8						8.0	
LOS		B		B	A						A	
Approach Delay		13.0			9.9						8.0	
Approach LOS		B			A						A	
Intersection Summary												

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

02/09/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 39.5

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 9.5

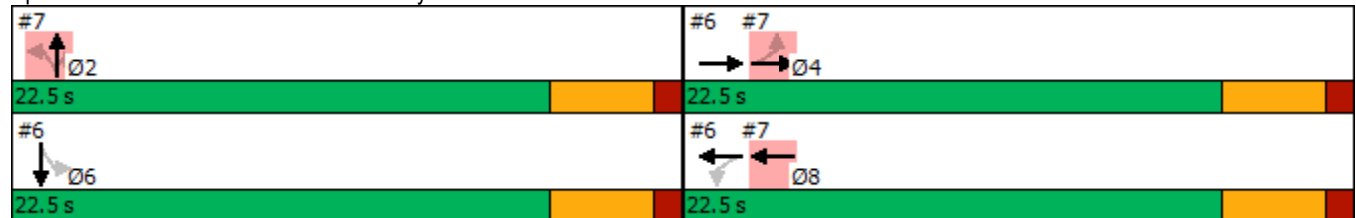
Intersection LOS: A

Intersection Capacity Utilization 65.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 6: Humboldt Parkway SB & E Utica St



Lanes, Volumes, Timings
7: Humboldt Parkway NB & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	131	184	0	0	109	33	91	245	77	0	0	0
Future Volume (vph)	131	184	0	0	109	33	91	245	77	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.968				0.850			
Flt Protected	0.950							0.987				
Satd. Flow (prot)	1770	1863	0	0	1803	0	0	1839	1583	0	0	0
Flt Permitted	0.659							0.987				
Satd. Flow (perm)	1228	1863	0	0	1803	0	0	1839	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					36				84			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		153			1083			610			294	
Travel Time (s)		3.5			24.6			13.9			6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	142	200	0	0	118	36	99	266	84	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	142	200	0	0	154	0	0	365	84	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max	Max			
Act Effct Green (s)	11.5	11.5			11.5			19.0	19.0			
Actuated g/C Ratio	0.29	0.29			0.29			0.48	0.48			
v/c Ratio	0.40	0.37			0.28			0.41	0.10			
Control Delay	9.8	8.5			9.2			9.9	3.1			
Queue Delay	0.2	0.2			0.0			0.0	0.0			
Total Delay	10.0	8.7			9.2			9.9	3.1			
LOS	B	A			A			A	A			
Approach Delay		9.3			9.2			8.6				
Approach LOS		A			A			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 39.5												

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings 7: Humboldt Parkway NB & E Utica St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 8.9

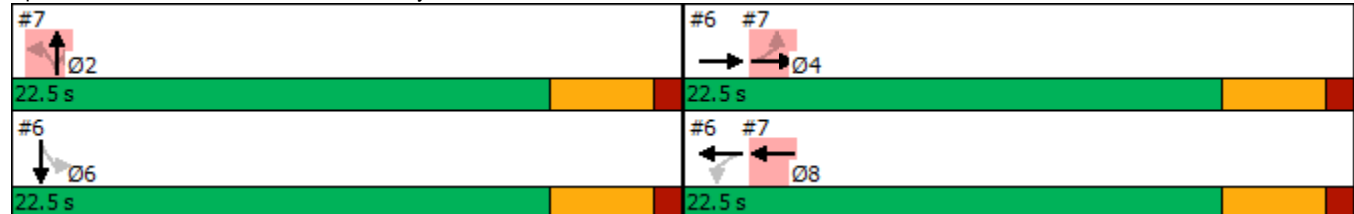
Intersection LOS: A

Intersection Capacity Utilization 65.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 7: Humboldt Parkway NB & E Utica St



Lanes, Volumes, Timings
8: Humboldt Parkway SB & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	439	77	136	299	0	0	0	0	302	418	392
Future Volume (vph)	0	439	77	136	299	0	0	0	0	302	418	392
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.980											0.850
Flt Protected				0.950						0.979		
Satd. Flow (prot)	0	1825	0	1770	1863	0	0	0	0	0	1824	1583
Flt Permitted				0.292						0.979		
Satd. Flow (perm)	0	1825	0	544	1863	0	0	0	0	0	1824	1583
Right Turn on Red	Yes						Yes			Yes		
Satd. Flow (RTOR)	16									426		
Link Speed (mph)	30			30			30			30		
Link Distance (ft)	1179			147			319			270		
Travel Time (s)	26.8			3.3			7.3			6.1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	477	84	148	325	0	0	0	0	328	454	426
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	561	0	148	325	0	0	0	0	0	782	426
Turn Type	NA		Perm		NA				Perm		NA	Perm
Protected Phases	4				8						6	
Permitted Phases			8								6	
Detector Phase	4		8		8						6	
Switch Phase												
Minimum Initial (s)	5.0		5.0		5.0				5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5				22.5		22.5	22.5
Total Split (s)	43.7		43.7		43.7				36.3		36.3	36.3
Total Split (%)	54.6%		54.6%		54.6%				45.4%		45.4%	45.4%
Yellow Time (s)	3.5		3.5		3.5				3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0				1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0						0.0	0.0
Total Lost Time (s)	4.5		4.5		4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None		None		None				Max		Max	Max
Act Effct Green (s)	39.2		39.2		39.2						31.8	31.8
Actuated g/C Ratio	0.49		0.49		0.49						0.40	0.40
v/c Ratio	0.62		0.56		0.36						1.08	0.48
Control Delay	18.3		15.2		7.1						82.7	3.8
Queue Delay	0.5		0.7		1.2						11.2	0.0
Total Delay	18.7		15.9		8.3						93.9	3.8
LOS	B		B		A						F	A
Approach Delay	18.7				10.7						62.2	
Approach LOS	B				B						E	
Intersection Summary												
Area Type:	Other											
Cycle Length: 80												
Actuated Cycle Length: 80												

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	36.3
Total Split (%)	45%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

02/09/2022

Natural Cycle: 80

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 1.08

Intersection Signal Delay: 40.4

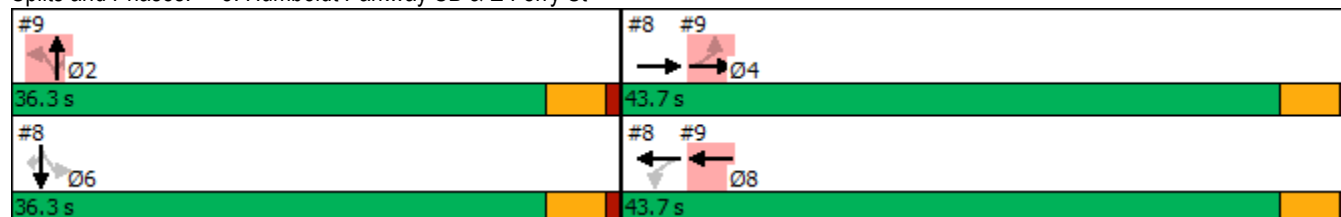
Intersection LOS: D

Intersection Capacity Utilization 119.5%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 8: Humboldt Parkway SB & E Ferry St



Lanes, Volumes, Timings
9: Humboldt Parkway NB & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	321	426	0	0	355	91	80	282	67	0	0	0
Future Volume (vph)	321	426	0	0	355	91	80	282	67	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	75		0	0		0
Storage Lanes	1		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.972				0.850			
Flt Protected	0.950							0.989				
Satd. Flow (prot)	1770	1863	0	0	1811	0	0	1842	1583	0	0	0
Flt Permitted	0.356							0.989				
Satd. Flow (perm)	663	1863	0	0	1811	0	0	1842	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					23				73			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		147			1082			312			608	
Travel Time (s)		3.3			24.6			7.1			13.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	349	463	0	0	386	99	87	307	73	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	349	463	0	0	485	0	0	394	73	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	43.7	43.7			43.7		36.3	36.3	36.3			
Total Split (%)	54.6%	54.6%			54.6%		45.4%	45.4%	45.4%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max	Max			
Act Effct Green (s)	39.2	39.2			39.2			31.8	31.8			
Actuated g/C Ratio	0.49	0.49			0.49			0.40	0.40			
v/c Ratio	1.08	0.51			0.54			0.54	0.11			
Control Delay	83.1	12.4			16.2			21.9	4.6			
Queue Delay	0.0	13.0			0.1			0.2	0.0			
Total Delay	83.1	25.4			16.2			22.1	4.6			
LOS	F	C			B			C	A			
Approach Delay		50.2			16.2			19.3				
Approach LOS		D			B			B				
Intersection Summary												

Lanes, Volumes, Timings
9: Humboldt Parkway NB & E Ferry St

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	36.3
Total Split (%)	45%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

02/09/2022

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Natural Cycle: 80

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 1.08

Intersection Signal Delay: 32.7

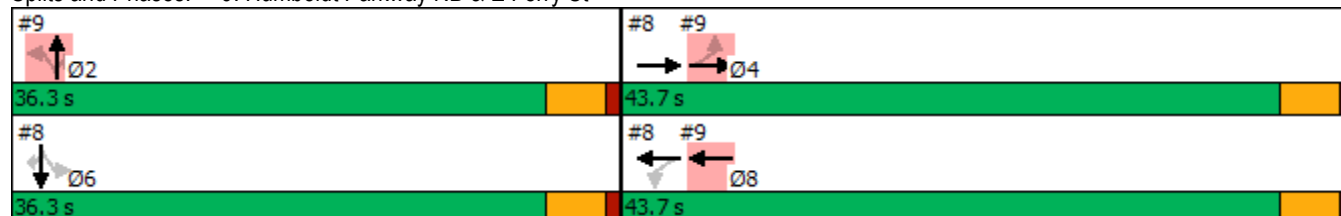
Intersection LOS: C

Intersection Capacity Utilization 119.5%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 9: Humboldt Parkway NB & E Ferry St



Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

02/09/2022

												
Lane Group	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	Ø8
Lane Configurations												
Traffic Volume (vph)	12	13	1	0	371	330	337	723	0	0	0	
Future Volume (vph)	12	13	1	0	371	330	337	723	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	
Frt		0.995			0.929							
Flt Protected		0.954						0.984				
Satd. Flow (prot)	0	1768	0	0	3288	0	0	3483	0	0	0	
Flt Permitted		0.954						0.594				
Satd. Flow (perm)	0	1768	0	0	3288	0	0	2102	0	0	0	
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		22			359							
Link Speed (mph)		30			30			30		30		
Link Distance (ft)		537			328			271		387		
Travel Time (s)		12.2			7.5			6.2		8.8		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	13	14	1	0	403	359	366	786	0	0	0	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	28	0	0	762	0	0	1152	0	0	0	
Turn Type	Perm	Prot			NA		Perm	NA				
Protected Phases		4			2			6				8
Permitted Phases	4						6					
Detector Phase	4	4			2		6	6				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				5.0
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				22.5
Total Split (s)	23.0	23.0			52.0		52.0	52.0				23.0
Total Split (%)	30.7%	30.7%			69.3%		69.3%	69.3%				31%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				3.5
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				1.0
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			Max		Max	Max				None
Act Effct Green (s)		18.0			47.5			47.5				
Actuated g/C Ratio		0.24			0.64			0.64				
v/c Ratio		0.06			0.34			0.91dl				
Control Delay		11.8			3.6			17.4				
Queue Delay		0.0			0.4			0.0				
Total Delay		11.8			4.0			17.4				
LOS		B			A			B				
Approach Delay		11.8			4.0			17.4				
Approach LOS		B			A			B				
Intersection Summary												
Area Type:	Other											
Cycle Length: 75												
Actuated Cycle Length: 74.5												

Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

02/09/2022

Natural Cycle: 75

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 12.1

Intersection LOS: B

Intersection Capacity Utilization 66.0%

ICU Level of Service C

Analysis Period (min) 15

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 10: Jefferson Ave & Cherry St & EB On Ramp



Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Traffic Volume (vph)	0	0	0	250	13	105	47	343	0	0	818	20
Future Volume (vph)	0	0	0	250	13	105	47	343	0	0	818	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt					0.962						0.996	
Flt Protected					0.967			0.994				
Satd. Flow (prot)	0	0	0	0	1733	0	0	3518	0	0	3525	0
Flt Permitted					0.967			0.796				
Satd. Flow (perm)	0	0	0	0	1733	0	0	2817	0	0	3525	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					25						6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			384			271			880	
Travel Time (s)		12.9			8.7			6.2			20.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	272	14	114	51	373	0	0	889	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	400	0	0	424	0	0	911	0
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8			2					
Detector Phase				8	8		2	2			6	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				23.0	23.0		52.0	52.0			52.0	
Total Split (%)				30.7%	30.7%		69.3%	69.3%			69.3%	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)					18.0			47.5			47.5	
Actuated g/C Ratio					0.24			0.64			0.64	
v/c Ratio					0.92			0.24			0.40	
Control Delay					54.5			4.2			7.3	
Queue Delay					0.5			0.2			0.2	
Total Delay					55.0			4.3			7.5	
LOS					D			A			A	
Approach Delay					55.0			4.3			7.5	
Approach LOS					D			A			A	
Intersection Summary												

Lanes, Volumes, Timings
11: Jefferson Ave & BFNC Dr/WB Off Ramp

02/09/2022

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	23.0
Total Split (%)	31%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

02/09/2022

Area Type: Other

Cycle Length: 75

Actuated Cycle Length: 74.5

Natural Cycle: 75

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 17.6

Intersection LOS: B

Intersection Capacity Utilization 66.3%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 11: Jefferson Ave & BFNC Dr/WB Off Ramp



Lanes, Volumes, Timings
12: Jefferson Ave & Genesee St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	131	33	54	141	81	12	578	50	52	552	123
Future Volume (vph)	43	131	33	54	141	81	12	578	50	52	552	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.976			0.956			0.988			0.975	
Flt Protected		0.990			0.990			0.999			0.996	
Satd. Flow (prot)	0	3420	0	0	3350	0	0	3493	0	0	3437	0
Flt Permitted		0.826			0.843			0.938			0.874	
Satd. Flow (perm)	0	2853	0	0	2852	0	0	3280	0	0	3016	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			88			23			63	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		737			2886			735			328	
Travel Time (s)		16.8			65.6			16.7			7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	47	142	36	59	153	88	13	628	54	57	600	134
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	225	0	0	300	0	0	695	0	0	791	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		8.1			8.1			18.5			18.5	
Actuated g/C Ratio		0.23			0.23			0.52			0.52	
v/c Ratio		0.33			0.42			0.41			0.50	
Control Delay		10.6			9.8			6.3			6.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.6			9.8			6.3			6.8	
LOS		B			A			A			A	
Approach Delay		10.6			9.8			6.3			6.8	
Approach LOS		B			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.6												

Lanes, Volumes, Timings

12: Jefferson Ave & Genesee St

02/09/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.50

Intersection Signal Delay: 7.5

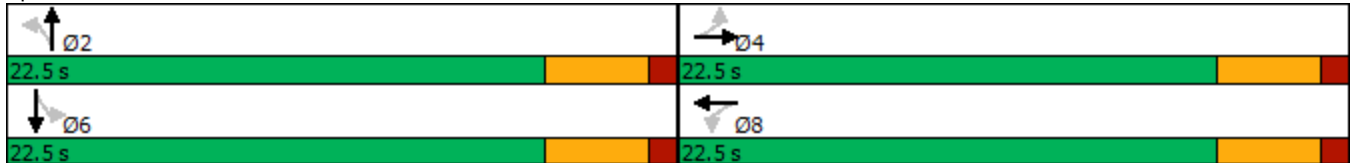
Intersection LOS: A

Intersection Capacity Utilization 67.6%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 12: Jefferson Ave & Genesee St



Lanes, Volumes, Timings
13: Herman St & Genesee St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	343	28	23	355	27	22	109	23	36	143	20
Future Volume (vph)	12	343	28	23	355	27	22	109	23	36	143	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989			0.990			0.980			0.986	
Flt Protected		0.998			0.997			0.993			0.991	
Satd. Flow (prot)	0	3493	0	0	3493	0	0	1813	0	0	1820	0
Flt Permitted		0.940			0.925			0.943			0.925	
Satd. Flow (perm)	0	3290	0	0	3241	0	0	1721	0	0	1699	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			19			23			15	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2886			671			575			1329	
Travel Time (s)		65.6			15.3			13.1			30.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	373	30	25	386	29	24	118	25	39	155	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	416	0	0	440	0	0	167	0	0	216	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effect Green (s)		21.9			21.9			9.4			9.6	
Actuated g/C Ratio		0.58			0.58			0.25			0.26	
v/c Ratio		0.22			0.23			0.37			0.49	
Control Delay		5.8			5.9			11.9			14.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		5.8			5.9			11.9			14.5	
LOS		A			A			B			B	
Approach Delay		5.8			5.9			11.9			14.5	
Approach LOS		A			A			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.5												

Lanes, Volumes, Timings

13: Herman St & Genesee St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 8.2

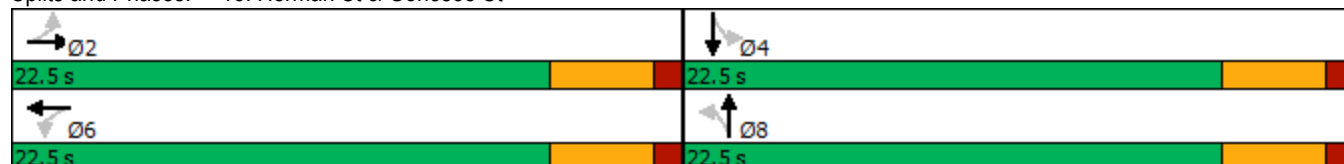
Intersection LOS: A

Intersection Capacity Utilization 48.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 13: Herman St & Genesee St



Lanes, Volumes, Timings
14: Reed St/Rich St & Genesee St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	378	0	0	396	16	18	14	27	12	0	14
Future Volume (vph)	3	378	0	0	396	16	18	14	27	12	0	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.994			0.939			0.928	
Fl _t Protected								0.985			0.977	
Satd. Flow (prot)	0	3539	0	0	3518	0	0	1723	0	0	1689	0
Fl _t Permitted		0.953						0.885			0.945	
Satd. Flow (perm)	0	3373	0	0	3518	0	0	1548	0	0	1634	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10			29			36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		671			961			780			839	
Travel Time (s)		15.3			21.8			17.7			19.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	411	0	0	430	17	20	15	29	13	0	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	414	0	0	447	0	0	64	0	0	28	0
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2						8			4		
Detector Phase	2	2			6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		None	None		None	None	
Act Effct Green (s)		29.9			29.9			6.5			6.3	
Actuated g/C Ratio		0.81			0.81			0.18			0.17	
v/c Ratio		0.15			0.16			0.22			0.09	
Control Delay		2.8			2.7			9.9			5.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		2.8			2.7			9.9			5.2	
LOS		A			A			A			A	
Approach Delay		2.8			2.7			9.9			5.2	
Approach LOS		A			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.7												

Lanes, Volumes, Timings

14: Reed St/Rich St & Genesee St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.22

Intersection Signal Delay: 3.3

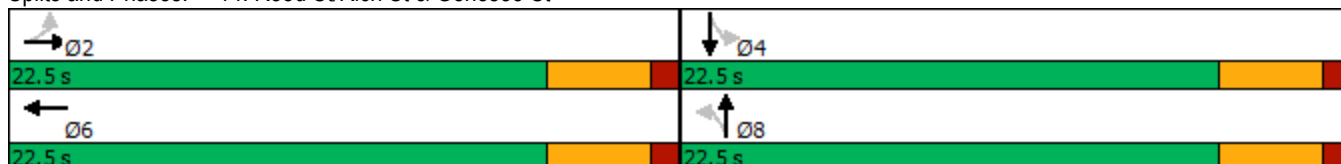
Intersection LOS: A

Intersection Capacity Utilization 24.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Reed St/Rich St & Genesee St



Lanes, Volumes, Timings
15: Fillmore Ave & Genesee St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	347	61	78	333	30	43	388	82	54	355	18
Future Volume (vph)	33	347	61	78	333	30	43	388	82	54	355	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.990			0.978			0.994	
Flt Protected		0.996			0.991			0.996			0.994	
Satd. Flow (prot)	0	3451	0	0	3472	0	0	1814	0	0	1840	0
Flt Permitted		0.891			0.789			0.939			0.892	
Satd. Flow (perm)	0	3087	0	0	2765	0	0	1711	0	0	1652	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40			17			25			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		961			671			704			490	
Travel Time (s)		21.8			15.3			16.0			11.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	36	377	66	85	362	33	47	422	89	59	386	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	479	0	0	480	0	0	558	0	0	465	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		27.5	27.5		27.5	27.5	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		55.0%	55.0%		55.0%	55.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		12.9			12.9			23.1			23.1	
Actuated g/C Ratio		0.29			0.29			0.51			0.51	
v/c Ratio		0.52			0.60			0.63			0.55	
Control Delay		14.3			16.4			12.6			11.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.3			16.4			12.6			11.4	
LOS		B			B			B			B	
Approach Delay		14.3			16.4			12.6			11.4	
Approach LOS		B			B			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 45.1												

Lanes, Volumes, Timings

15: Fillmore Ave & Genesee St

02/09/2022

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 13.7

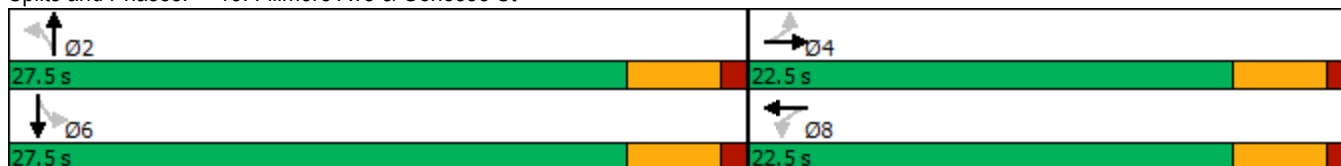
Intersection LOS: B

Intersection Capacity Utilization 70.2%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 15: Fillmore Ave & Genesee St



Lanes, Volumes, Timings
16: Fillmore Ave & Best St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	498	153	1	444	33	175	273	6	52	274	53
Future Volume (vph)	41	498	153	1	444	33	175	273	6	52	274	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970			0.991			0.998				0.850
Flt Protected		0.997						0.981			0.992	
Satd. Flow (prot)	0	1801	0	0	1846	0	0	1824	0	0	1848	1583
Flt Permitted		0.954			0.999			0.611			0.886	
Satd. Flow (perm)	0	1724	0	0	1844	0	0	1136	0	0	1650	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			7			1				58
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1418			567			490				61
Travel Time (s)		32.2			12.9			11.1				1.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	541	166	1	483	36	190	297	7	57	298	58
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	752	0	0	520	0	0	494	0	0	355	58
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (s)	32.0	32.0		32.0	32.0		33.0	33.0		33.0	33.0	33.0
Total Split (%)	49.2%	49.2%		49.2%	49.2%		50.8%	50.8%		50.8%	50.8%	50.8%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)		4.5			4.5			4.5			4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	C-Max
Act Effect Green (s)		27.5			27.5			28.5			28.5	28.5
Actuated g/C Ratio		0.42			0.42			0.44			0.44	0.44
v/c Ratio		1.01			0.66			0.99			0.49	0.08
Control Delay		57.1			19.9			60.6			5.3	0.2
Queue Delay		39.4			58.4			4.6			0.0	0.0
Total Delay		96.4			78.2			65.1			5.3	0.2
LOS		F			E			E			A	A
Approach Delay		96.4			78.2			65.1			4.5	
Approach LOS		F			E			E			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 65												
Actuated Cycle Length: 65												

Lanes, Volumes, Timings

16: Fillmore Ave & Best St

02/09/2022

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.01

Intersection Signal Delay: 67.6

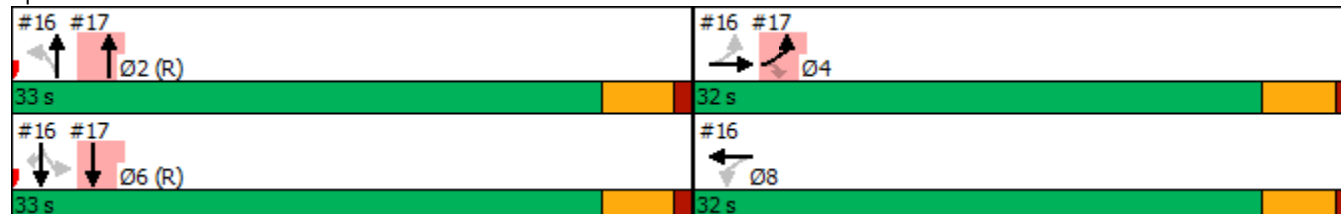
Intersection LOS: E

Intersection Capacity Utilization 119.9%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 16: Fillmore Ave & Best St



Lanes, Volumes, Timings
17: Fillmore Ave & East Park

02/09/2022

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	11	10	0	347	368	0	
Future Volume (vph)	11	10	0	347	368	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	0			100	
Storage Lanes	1	1	0			1	
Taper Length (ft)	25		25				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	
Frt		0.850					
Flt Protected	0.950						
Satd. Flow (prot)	1770	1583	0	1863	3539	0	
Flt Permitted	0.950						
Satd. Flow (perm)	1770	1583	0	1863	3539	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		11					
Link Speed (mph)	30			30	30		
Link Distance (ft)	468			61	755		
Travel Time (s)	10.6			1.4	17.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	12	11	0	377	400	0	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	12	11	0	377	400	0	
Turn Type	Prot	Perm		NA	NA		
Protected Phases	4			2	6		8
Permitted Phases		4					
Detector Phase	4	4		2	6		
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5
Total Split (s)	32.0	32.0		33.0	33.0		32.0
Total Split (%)	49.2%	49.2%		50.8%	50.8%		49%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		
Total Lost Time (s)	4.5	4.5		4.5	4.5		
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None		C-Max	C-Max		None
Act Effct Green (s)	27.5	27.5		28.5	28.5		
Actuated g/C Ratio	0.42	0.42		0.44	0.44		
v/c Ratio	0.02	0.02		0.46	0.26		
Control Delay	11.0	6.4		6.3	12.1		
Queue Delay	0.0	0.0		0.0	0.0		
Total Delay	11.0	6.4		6.3	12.1		
LOS	B	A		A	B		
Approach Delay	8.8			6.3	12.1		
Approach LOS	A			A	B		
Intersection Summary							

Lanes, Volumes, Timings

17: Fillmore Ave & East Park

02/09/2022

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.01

Intersection Signal Delay: 9.3

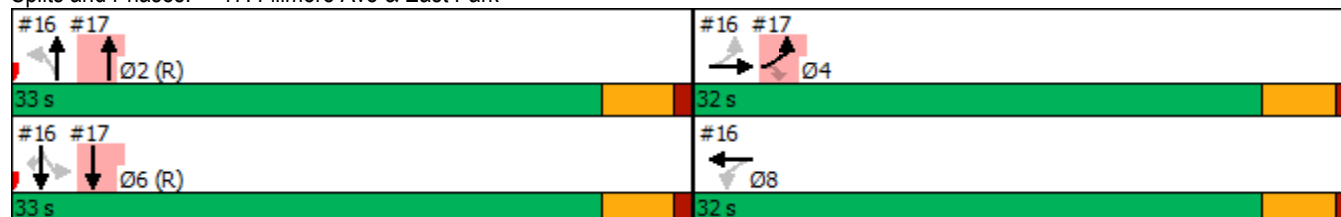
Intersection LOS: A

Intersection Capacity Utilization 29.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Fillmore Ave & East Park



Lanes, Volumes, Timings
18: Fillmore Ave & MLK Park

02/09/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	4	14	0	365	347	0
Future Volume (vph)	4	14	0	365	347	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.850					
Flt Protected	0.950					
Satd. Flow (prot)	1770	1583	0	1863	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1583	0	1863	1863	0
Right Turn on Red	Yes					
Satd. Flow (RTOR)	15					
Link Speed (mph)	30			30	30	
Link Distance (ft)	526			755	579	
Travel Time (s)	12.0			17.2	13.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	15	0	397	377	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	15	0	397	377	0
Turn Type	Prot	Perm		NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4				
Detector Phase	4	4		2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None		Max	Max	
Act Effect Green (s)	5.8	5.8		37.1	37.1	
Actuated g/C Ratio	0.15	0.15		0.93	0.93	
v/c Ratio	0.02	0.06		0.23	0.22	
Control Delay	16.5	10.4		1.5	1.5	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	16.5	10.4		1.5	1.5	
LOS	B	B		A	A	
Approach Delay	11.7			1.5	1.5	
Approach LOS	B			A	A	
Intersection Summary						
Area Type:	Other					
Cycle Length: 45						
Actuated Cycle Length: 39.7						

Lanes, Volumes, Timings

18: Fillmore Ave & MLK Park

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.23

Intersection Signal Delay: 1.7

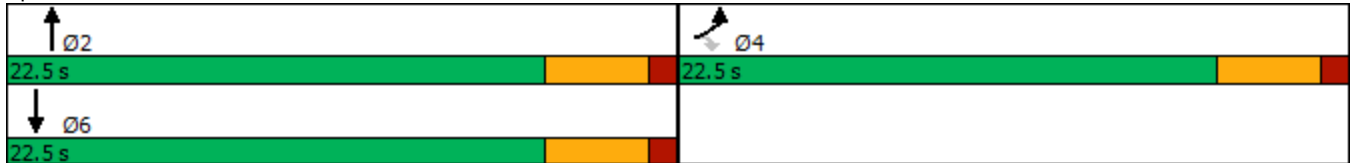
Intersection LOS: A

Intersection Capacity Utilization 30.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Fillmore Ave & MLK Park



Lanes, Volumes, Timings
19: Fillmore Ave & Northhampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	95	23	16	38	17	21	355	10	7	330	50
Future Volume (vph)	21	95	23	16	38	17	21	355	10	7	330	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.978			0.968			0.996			0.983	
Flt Protected		0.992			0.989			0.997			0.999	
Satd. Flow (prot)	0	1807	0	0	1783	0	0	1850	0	0	1829	0
Flt Permitted		0.934			0.916			0.971			0.992	
Satd. Flow (perm)	0	1702	0	0	1652	0	0	1801	0	0	1816	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			18			4			20	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1089			291			579			735	
Travel Time (s)		24.8			6.6			13.2			16.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	103	25	17	41	18	23	386	11	8	359	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	151	0	0	76	0	0	420	0	0	421	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.1			8.1			23.4			23.4	
Actuated g/C Ratio		0.22			0.22			0.62			0.62	
v/c Ratio		0.39			0.21			0.37			0.37	
Control Delay		13.2			10.2			6.7			6.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.2			10.2			6.7			6.5	
LOS		B			B			A			A	
Approach Delay		13.2			10.2			6.7			6.5	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.6												

Lanes, Volumes, Timings

19: Fillmore Ave & Northhampton St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 7.8

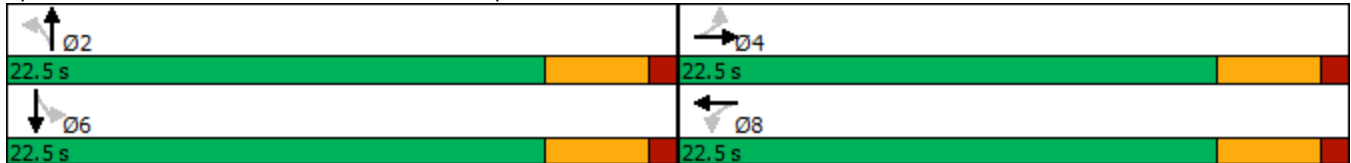
Intersection LOS: A

Intersection Capacity Utilization 47.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 19: Fillmore Ave & Northhampton St



Lanes, Volumes, Timings
21: Fillmore Ave & Riley St/Urban St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	0	7	10	0	29	3	394	4	19	373	11
Future Volume (vph)	4	0	7	10	0	29	3	394	4	19	373	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.910			0.900			0.999			0.996	
Flt Protected		0.984			0.987						0.998	
Satd. Flow (prot)	0	1668	0	0	1655	0	0	1861	0	0	1852	0
Flt Permitted		0.988			0.930			0.998			0.976	
Satd. Flow (perm)	0	1675	0	0	1559	0	0	1857	0	0	1811	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			36			1			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			639			735			422	
Travel Time (s)		24.6			14.5			16.7			9.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	0	8	11	0	32	3	428	4	21	405	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	43	0	0	435	0	0	438	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		6.0			6.0			32.0			32.0	
Actuated g/C Ratio		0.16			0.16			0.84			0.84	
v/c Ratio		0.04			0.16			0.28			0.29	
Control Delay		2.4			8.2			3.2			3.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		2.4			8.2			3.2			3.3	
LOS		A			A			A			A	
Approach Delay		2.4			8.2			3.2			3.3	
Approach LOS		A			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 38.2												

Lanes, Volumes, Timings

21: Fillmore Ave & Riley St/Urban St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.29

Intersection Signal Delay: 3.5

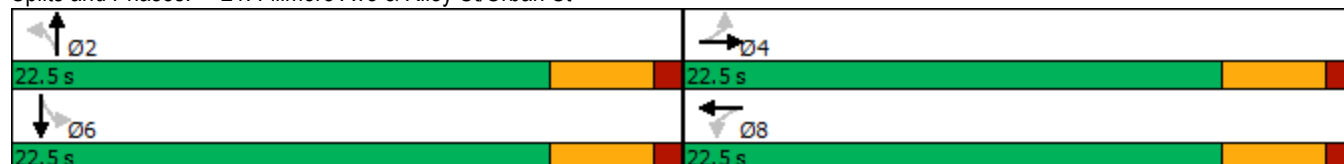
Intersection LOS: A

Intersection Capacity Utilization 44.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 21: Fillmore Ave & Riley St/Urban St



Lanes, Volumes, Timings
22: Fillmore Ave & French St

02/09/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	13	64	384	13	84	377
Future Volume (vph)	13	64	384	13	84	377
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.887		0.996			
Flt Protected	0.992					0.991
Satd. Flow (prot)	1639	0	1855	0	0	1846
Flt Permitted	0.992					0.870
Satd. Flow (perm)	1639	0	1855	0	0	1621
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	70		4			
Link Speed (mph)	30		30			30
Link Distance (ft)	600		422			182
Travel Time (s)	13.6		9.6			4.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	70	417	14	91	410
Shared Lane Traffic (%)						
Lane Group Flow (vph)	84	0	431	0	0	501
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		32.5		32.5	32.5
Total Split (%)	40.9%		59.1%		59.1%	59.1%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.6		41.0			41.0
Actuated g/C Ratio	0.13		0.81			0.81
v/c Ratio	0.31		0.29			0.38
Control Delay	10.8		3.3			4.1
Queue Delay	0.0		0.0			1.2
Total Delay	10.8		3.3			5.3
LOS	B		A			A
Approach Delay	10.8		3.3			5.3
Approach LOS	B		A			A

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 50.5

Lanes, Volumes, Timings

22: Fillmore Ave & French St

02/09/2022

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 4.9

Intersection LOS: A

Intersection Capacity Utilization 61.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 22: Fillmore Ave & French St



Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	105	133	78	392	333	69
Future Volume (vph)	105	133	78	392	333	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.924				0.977	
Flt Protected	0.978			0.992		
Satd. Flow (prot)	1683	0	0	1848	1820	0
Flt Permitted	0.978			0.877		
Satd. Flow (perm)	1683	0	0	1634	1820	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	124				28	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1083			182	1350	
Travel Time (s)	24.6			4.1	30.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	114	145	85	426	362	75
Shared Lane Traffic (%)						
Lane Group Flow (vph)	259	0	0	511	437	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		32.5	32.5	32.5	
Total Split (%)	40.9%		59.1%	59.1%	59.1%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effect Green (s)	9.8			31.1	31.1	
Actuated g/C Ratio	0.20			0.62	0.62	
v/c Ratio	0.60			0.50	0.38	
Control Delay	15.1			8.3	6.3	
Queue Delay	0.0			4.5	0.0	
Total Delay	15.1			12.8	6.3	
LOS	B			B	A	
Approach Delay	15.1			12.8	6.3	
Approach LOS	B			B	A	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 49.9

Lanes, Volumes, Timings

23: Fillmore Ave & E Utica St

02/09/2022

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 10.9

Intersection LOS: B

Intersection Capacity Utilization 71.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 23: Fillmore Ave & E Utica St



Lanes, Volumes, Timings
24: Fillmore Ave & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	304	94	60	283	54	44	309	65	45	315	81
Future Volume (vph)	42	304	94	60	283	54	44	309	65	45	315	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.968			0.980			0.977			0.972	
Flt Protected		0.995			0.993			0.995			0.995	
Satd. Flow (prot)	0	3409	0	0	3444	0	0	3441	0	0	3423	0
Flt Permitted		0.876			0.821			0.878			0.882	
Satd. Flow (perm)	0	3001	0	0	2848	0	0	3036	0	0	3034	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		91			47			56			72	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			797			1350			1620	
Travel Time (s)		24.6			18.1			30.7			36.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	330	102	65	308	59	48	336	71	49	342	88
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	478	0	0	432	0	0	455	0	0	479	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		10.8			10.8			18.1			18.1	
Actuated g/C Ratio		0.28			0.28			0.48			0.48	
v/c Ratio		0.52			0.51			0.31			0.32	
Control Delay		11.0			12.1			6.7			6.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.0			12.1			6.7			6.5	
LOS		B			B			A			A	
Approach Delay		11.0			12.1			6.7			6.5	
Approach LOS		B			B			A			A	
Intersection Summary												

Lanes, Volumes, Timings

24: Fillmore Ave & E Ferry St

02/09/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 38

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 9.0

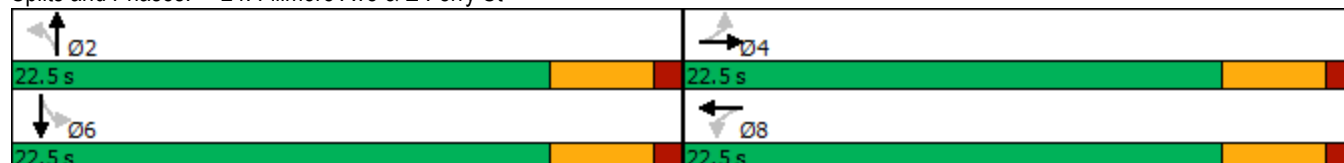
Intersection LOS: A

Intersection Capacity Utilization 63.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 24: Fillmore Ave & E Ferry St



Lanes, Volumes, Timings
25: Fillmore Ave & Northland Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	30	22	50	60	20	13	352	34	30	376	22
Future Volume (vph)	4	30	22	50	60	20	13	352	34	30	376	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.947			0.979			0.988			0.993	
Flt Protected		0.997			0.981			0.998			0.996	
Satd. Flow (prot)	0	1759	0	0	1789	0	0	1837	0	0	1842	0
Flt Permitted		0.972			0.848			0.984			0.958	
Satd. Flow (perm)	0	1715	0	0	1546	0	0	1811	0	0	1772	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			22			12			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1020			890			1620			1011	
Travel Time (s)		23.2			20.2			36.8			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	33	24	54	65	22	14	383	37	33	409	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	0	0	141	0	0	434	0	0	466	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.2			8.2			23.6			23.6	
Actuated g/C Ratio		0.22			0.22			0.62			0.62	
v/c Ratio		0.16			0.40			0.38			0.42	
Control Delay		8.4			13.8			6.7			7.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.4			13.8			6.7			7.2	
LOS		A			B			A			A	
Approach Delay		8.4			13.8			6.7			7.2	
Approach LOS		A			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.9												

Lanes, Volumes, Timings

25: Fillmore Ave & Northland Ave

02/09/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 7.9

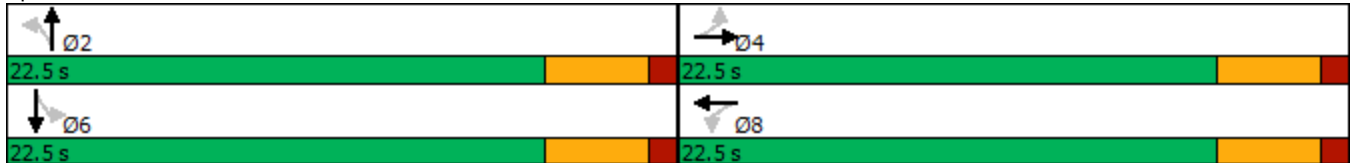
Intersection LOS: A

Intersection Capacity Utilization 55.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 25: Fillmore Ave & Northland Ave



Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	221	50	34	179	44	38	324	33	62	334	75
Future Volume (vph)	100	221	50	34	179	44	38	324	33	62	334	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.982			0.977			0.989			0.978	
Flt Protected		0.987			0.993			0.995			0.993	
Satd. Flow (prot)	0	1805	0	0	1807	0	0	1833	0	0	1809	0
Flt Permitted		0.833			0.927			0.928			0.903	
Satd. Flow (perm)	0	1524	0	0	1687	0	0	1710	0	0	1645	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			24			12			25	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		928			735			1011			742	
Travel Time (s)		21.1			16.7			23.0			16.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	240	54	37	195	48	41	352	36	67	363	82
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	403	0	0	280	0	0	429	0	0	512	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	23.0	23.0		23.0	23.0		27.0	27.0		27.0	27.0	
Total Split (%)	46.0%	46.0%		46.0%	46.0%		54.0%	54.0%		54.0%	54.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		15.5			15.5			22.6			22.6	
Actuated g/C Ratio		0.33			0.33			0.48			0.48	
v/c Ratio		0.79			0.49			0.52			0.64	
Control Delay		26.4			14.6			11.9			14.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		26.4			14.6			11.9			14.2	
LOS		C			B			B			B	
Approach Delay		26.4			14.6			11.9			14.2	
Approach LOS		C			B			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 47.2												

Lanes, Volumes, Timings

26: Fillmore Ave & E Delavan Ave

02/09/2022

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 16.7

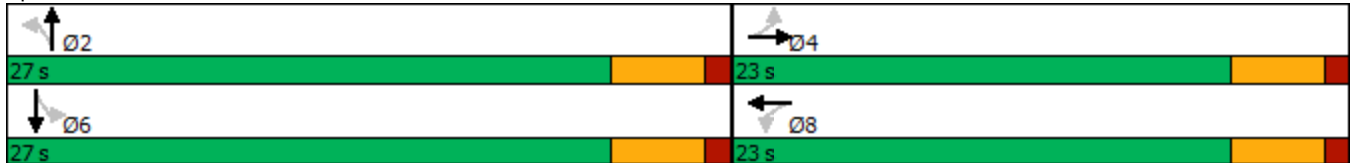
Intersection LOS: B

Intersection Capacity Utilization 81.2%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 26: Fillmore Ave & E Delavan Ave



Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	252	285	0	0	297	33	77	239	150	0	0	0
Future Volume (vph)	252	285	0	0	297	33	77	239	150	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	0		150	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.985				0.850			
Flt Protected		0.977						0.988				
Satd. Flow (prot)	0	3458	0	0	3486	0	0	1840	1583	0	0	0
Flt Permitted		0.681						0.988				
Satd. Flow (perm)	0	2410	0	0	3486	0	0	1840	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					31				163			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		310			928			1019			213	
Travel Time (s)		7.0			21.1			23.2			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	274	310	0	0	323	36	84	260	163	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	584	0	0	359	0	0	344	163	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	27.5	27.5			27.5		22.5	22.5	22.5			
Total Split (%)	55.0%	55.0%			55.0%		45.0%	45.0%	45.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)		0.0			0.0			0.0	0.0			
Total Lost Time (s)		4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		None	None	None			
Act Effct Green (s)		23.4			23.4			13.8	13.8			
Actuated g/C Ratio		0.51			0.51			0.30	0.30			
v/c Ratio		0.48			0.20			0.63	0.28			
Control Delay		6.3			6.9			19.2	3.9			
Queue Delay		0.0			0.0			0.0	0.0			
Total Delay		6.3			6.9			19.2	3.9			
LOS		A			A			B	A			
Approach Delay		6.3			6.9			14.3				
Approach LOS		A			A			B				
Intersection Summary												

Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

02/09/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	45%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

27: Humboldt Parkway NB & E Delavan Ave

02/09/2022

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 46.3

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 9.2

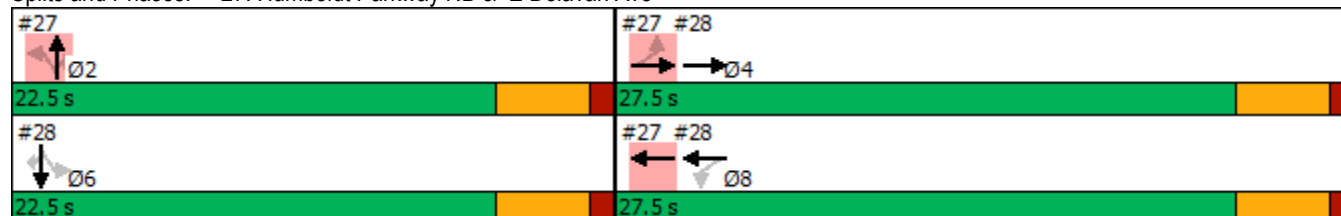
Intersection LOS: A

Intersection Capacity Utilization 52.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 27: Humboldt Parkway NB & E Delavan Ave



Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					 							
Traffic Volume (vph)	0	494	52	110	261	0	0	0	0	43	64	27
Future Volume (vph)	0	494	52	110	261	0	0	0	0	43	64	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987										0.850
Flt Protected					0.985						0.980	
Satd. Flow (prot)	0	1839	0	0	3486	0	0	0	0	0	1825	1583
Flt Permitted					0.668						0.980	
Satd. Flow (perm)	0	1839	0	0	2364	0	0	0	0	0	1825	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14										33
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2669			310			684			864	
Travel Time (s)		60.7			7.0			15.5			19.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	537	57	120	284	0	0	0	0	47	70	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	594	0	0	404	0	0	0	0	0	117	29
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		27.5		27.5	27.5					22.5	22.5	22.5
Total Split (%)		55.0%		55.0%	55.0%					45.0%	45.0%	45.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0						0.0	0.0
Total Lost Time (s)		4.5			4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					None	None	None
Act Effct Green (s)		23.4			23.4						13.8	13.8
Actuated g/C Ratio		0.51			0.51						0.30	0.30
v/c Ratio		0.63			0.34						0.22	0.06
Control Delay		13.1			5.7						12.6	4.8
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		13.1			5.7						12.6	4.8
LOS		B			A						B	A
Approach Delay		13.1			5.7						11.0	
Approach LOS		B			A						B	
Intersection Summary												

Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

02/09/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	45%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

28: Humboldt Parkway SB & E Delavan Ave

02/09/2022

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 46.3

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 10.2

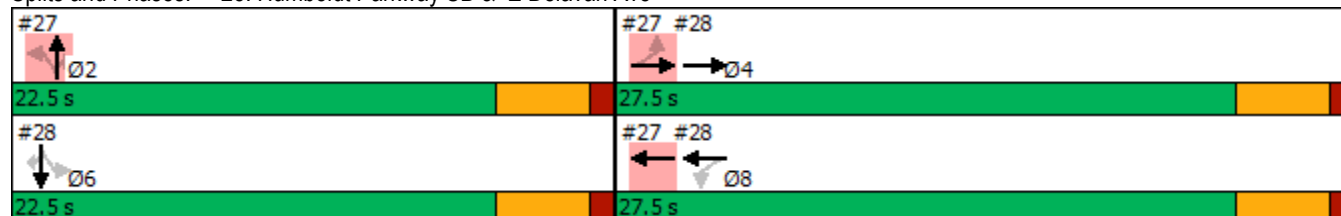
Intersection LOS: B

Intersection Capacity Utilization 56.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 28: Humboldt Parkway SB & E Delavan Ave



Lanes, Volumes, Timings
29: Jefferson Ave & E Delavan Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	350	57	59	153	25	50	155	75	13	113	45
Future Volume (vph)	93	350	57	59	153	25	50	155	75	13	113	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.985			0.986			0.964			0.964	
Flt Protected		0.991			0.988			0.991			0.996	
Satd. Flow (prot)	0	1818	0	0	1815	0	0	1780	0	0	1789	0
Flt Permitted		0.891			0.821			0.921			0.969	
Satd. Flow (perm)	0	1635	0	0	1508	0	0	1654	0	0	1740	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			15			37			36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		592			2669			1017			352	
Travel Time (s)		13.5			60.7			23.1			8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	380	62	64	166	27	54	168	82	14	123	49
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	543	0	0	257	0	0	304	0	0	186	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	31.0	31.0		31.0	31.0		24.0	24.0		24.0	24.0	
Total Split (%)	56.4%	56.4%		56.4%	56.4%		43.6%	43.6%		43.6%	43.6%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		20.2			20.2			19.8			19.8	
Actuated g/C Ratio		0.41			0.41			0.40			0.40	
v/c Ratio		0.80			0.41			0.44			0.26	
Control Delay		21.6			11.2			13.4			10.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		21.6			11.2			13.4			10.8	
LOS		C			B			B			B	
Approach Delay		21.6			11.2			13.4			10.8	
Approach LOS		C			B			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 55												
Actuated Cycle Length: 49.1												

Lanes, Volumes, Timings

29: Jefferson Ave & E Delavan Ave

02/09/2022

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 16.0

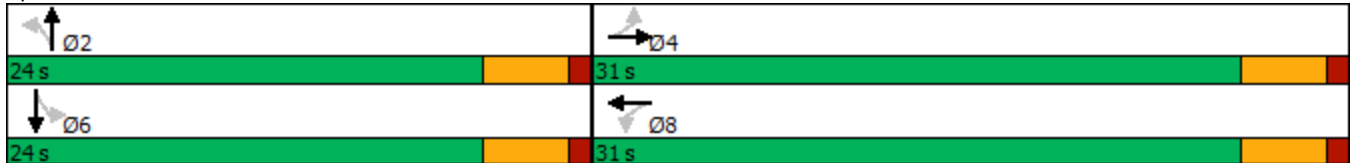
Intersection LOS: B

Intersection Capacity Utilization 68.5%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 29: Jefferson Ave & E Delavan Ave



Lanes, Volumes, Timings
30: Jefferson Ave & Northland Ave

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	30	19	13	18	20	27	224	32	21	193	14
Future Volume (vph)	30	30	19	13	18	20	27	224	32	21	193	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.967			0.947			0.985			0.992	
Flt Protected		0.981			0.988			0.995			0.995	
Satd. Flow (prot)	0	1767	0	0	1743	0	0	1826	0	0	1839	0
Flt Permitted		0.851			0.887			0.964			0.963	
Satd. Flow (perm)	0	1533	0	0	1565	0	0	1769	0	0	1779	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			22			17			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		806			2743			848			1017	
Travel Time (s)		18.3			62.3			19.3			23.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	33	21	14	20	22	29	243	35	23	210	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	87	0	0	56	0	0	307	0	0	248	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		7.0			6.9			26.3			26.3	
Actuated g/C Ratio		0.19			0.19			0.72			0.72	
v/c Ratio		0.28			0.18			0.24			0.19	
Control Delay		11.9			9.5			4.5			4.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.9			9.5			4.5			4.4	
LOS		B			A			A			A	
Approach Delay		11.9			9.5			4.5			4.4	
Approach LOS		B			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.6												

Lanes, Volumes, Timings

30: Jefferson Ave & Northland Ave

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.28

Intersection Signal Delay: 5.8

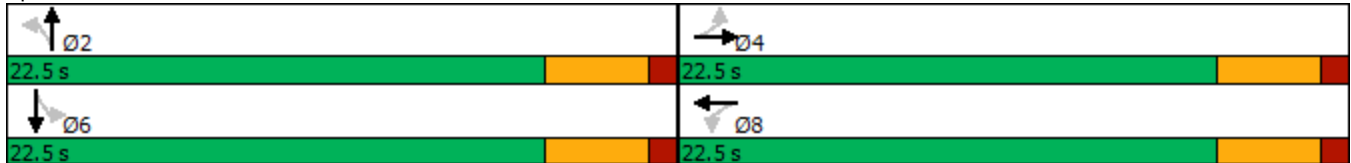
Intersection LOS: A

Intersection Capacity Utilization 34.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 30: Jefferson Ave & Northland Ave



Lanes, Volumes, Timings
31: Jefferson Ave & Brunswick Blvd

02/09/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	28	28	272	47	10	202
Future Volume (vph)	28	28	272	47	10	202
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932		0.980			
Flt Protected	0.976					0.998
Satd. Flow (prot)	1694	0	1825	0	0	1859
Flt Permitted	0.976					0.984
Satd. Flow (perm)	1694	0	1825	0	0	1833
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	30		23			
Link Speed (mph)	30		30			30
Link Distance (ft)	2734		751			848
Travel Time (s)	62.1		17.1			19.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	30	296	51	11	220
Shared Lane Traffic (%)						
Lane Group Flow (vph)	60	0	347	0	0	231
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%	50.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.5		33.9			33.9
Actuated g/C Ratio	0.16		0.85			0.85
v/c Ratio	0.20		0.22			0.15
Control Delay	11.4		2.9			2.8
Queue Delay	0.0		0.0			0.0
Total Delay	11.4		2.9			2.8
LOS	B		A			A
Approach Delay	11.4		2.9			2.8
Approach LOS	B		A			A

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40

Lanes, Volumes, Timings

31: Jefferson Ave & Brunswick Blvd

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.22

Intersection Signal Delay: 3.6

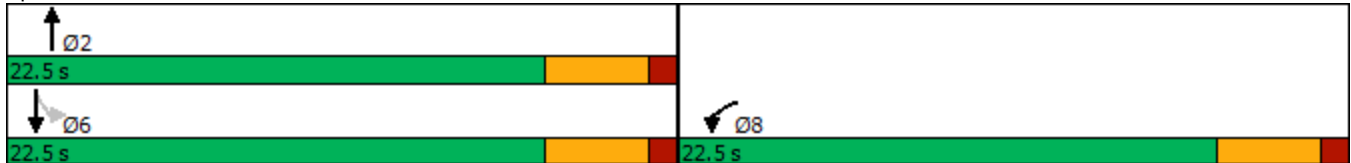
Intersection LOS: A

Intersection Capacity Utilization 30.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 31: Jefferson Ave & Brunswick Blvd



Lanes, Volumes, Timings
32: Jefferson Ave & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	257	59	62	411	67	70	223	78	50	202	28
Future Volume (vph)	27	257	59	62	411	67	70	223	78	50	202	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.977			0.983			0.972			0.987	
Flt Protected		0.996			0.994			0.991			0.991	
Satd. Flow (prot)	0	1813	0	0	1820	0	0	1794	0	0	1822	0
Flt Permitted		0.944			0.924			0.890			0.894	
Satd. Flow (perm)	0	1718	0	0	1692	0	0	1611	0	0	1644	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			19			31			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			194			1406			751	
Travel Time (s)		7.5			4.4			32.0			17.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	279	64	67	447	73	76	242	85	54	220	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	372	0	0	587	0	0	403	0	0	304	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	27.0	27.0		27.0	27.0		23.0	23.0		23.0	23.0	
Total Split (%)	54.0%	54.0%		54.0%	54.0%		46.0%	46.0%		46.0%	46.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		19.6			19.6			18.6			18.6	
Actuated g/C Ratio		0.41			0.41			0.39			0.39	
v/c Ratio		0.51			0.82			0.62			0.46	
Control Delay		12.1			23.6			16.7			14.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.1			23.6			16.7			14.1	
LOS		B			C			B			B	
Approach Delay		12.1			23.6			16.7			14.1	
Approach LOS		B			C			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 47.3												

Lanes, Volumes, Timings

32: Jefferson Ave & E Ferry St

02/09/2022

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 17.6

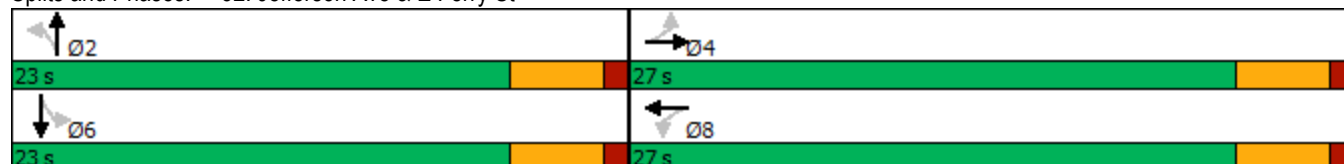
Intersection LOS: B

Intersection Capacity Utilization 78.0%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 32: Jefferson Ave & E Ferry St



Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	102	41	52	107	36	42	319	41	18	306	22
Future Volume (vph)	13	102	41	52	107	36	42	319	41	18	306	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.964			0.975			0.986			0.991	
Flt Protected		0.996			0.987			0.995			0.997	
Satd. Flow (prot)	0	1789	0	0	1793	0	0	1827	0	0	1840	0
Flt Permitted		0.966			0.891			0.938			0.971	
Satd. Flow (perm)	0	1735	0	0	1618	0	0	1723	0	0	1792	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		45			30			15			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1023			1295			630			1406	
Travel Time (s)		23.3			29.4			14.3			32.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	111	45	57	116	39	46	347	45	20	333	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	170	0	0	212	0	0	438	0	0	377	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		9.4			9.5			22.0			22.0	
Actuated g/C Ratio		0.25			0.25			0.59			0.59	
v/c Ratio		0.36			0.49			0.43			0.36	
Control Delay		10.5			13.8			8.3			7.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.5			13.8			8.3			7.6	
LOS		B			B			A			A	
Approach Delay		10.5			13.8			8.3			7.6	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.5												

Lanes, Volumes, Timings

33: Jefferson Ave & E Utica St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 9.4

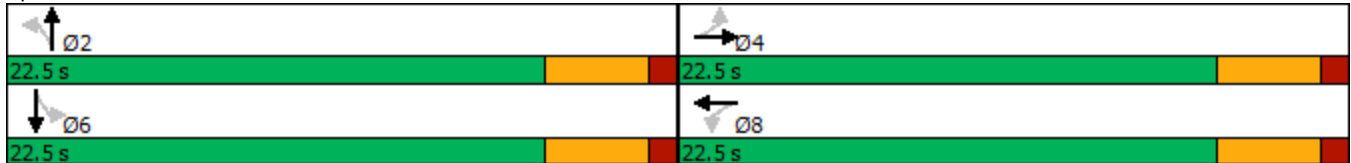
Intersection LOS: A

Intersection Capacity Utilization 64.6%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 33: Jefferson Ave & E Utica St



Lanes, Volumes, Timings
34: Jefferson Ave & Riley St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	31	12	18	22	19	7	347	44	12	336	20
Future Volume (vph)	13	31	12	18	22	19	7	347	44	12	336	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.971			0.956			0.985			0.993	
Flt Protected		0.989			0.985			0.999			0.998	
Satd. Flow (prot)	0	1789	0	0	1754	0	0	1833	0	0	1846	0
Flt Permitted		0.902			0.874			0.993			0.986	
Satd. Flow (perm)	0	1631	0	0	1556	0	0	1822	0	0	1824	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			21			17			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		870			1108			418			630	
Travel Time (s)		19.8			25.2			9.5			14.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	34	13	20	24	21	8	377	48	13	365	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	0	0	65	0	0	433	0	0	400	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		6.6			6.5			28.6			28.6	
Actuated g/C Ratio		0.19			0.18			0.81			0.81	
v/c Ratio		0.20			0.21			0.29			0.27	
Control Delay		11.0			10.3			3.8			3.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.0			10.3			3.8			3.7	
LOS		B			B			A			A	
Approach Delay		11.0			10.3			3.8			3.7	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.4												

Lanes, Volumes, Timings

34: Jefferson Ave & Riley St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.29

Intersection Signal Delay: 4.7

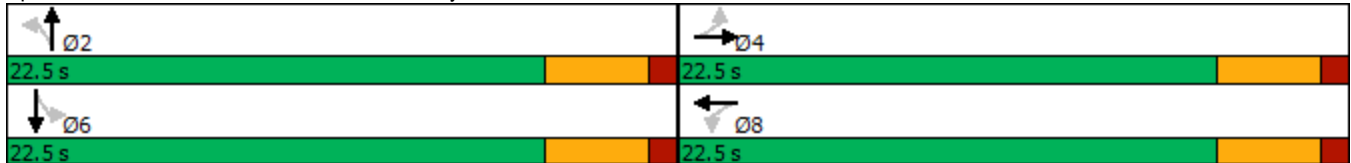
Intersection LOS: A

Intersection Capacity Utilization 37.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 34: Jefferson Ave & Riley St



Lanes, Volumes, Timings
35: Jefferson Ave & Northampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	49	27	13	47	21	22	333	14	30	309	33
Future Volume (vph)	21	49	27	13	47	21	22	333	14	30	309	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.963			0.965			0.995			0.988	
Flt Protected		0.989			0.992			0.997			0.996	
Satd. Flow (prot)	0	1774	0	0	1783	0	0	1848	0	0	1833	0
Flt Permitted		0.899			0.926			0.970			0.956	
Satd. Flow (perm)	0	1613	0	0	1665	0	0	1798	0	0	1759	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29			23			5			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1340			1290			1156			278	
Travel Time (s)		30.5			29.3			26.3			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	53	29	14	51	23	24	362	15	33	336	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	105	0	0	88	0	0	401	0	0	405	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		7.1			7.1			25.5			25.5	
Actuated g/C Ratio		0.20			0.20			0.71			0.71	
v/c Ratio		0.31			0.25			0.31			0.32	
Control Delay		11.4			10.9			5.3			5.3	
Queue Delay		0.0			0.0			0.0			0.1	
Total Delay		11.4			10.9			5.3			5.3	
LOS		B			B			A			A	
Approach Delay		11.4			10.9			5.3			5.3	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36												

Lanes, Volumes, Timings

35: Jefferson Ave & Northhampton St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.32

Intersection Signal Delay: 6.4

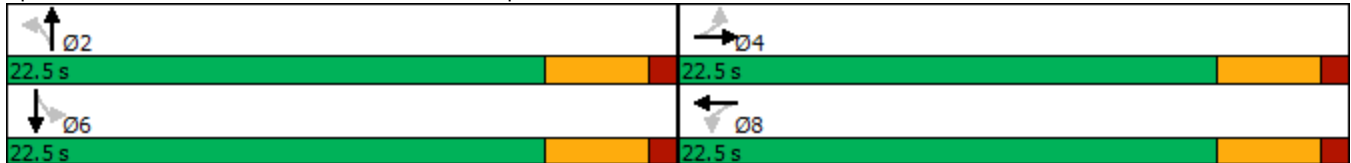
Intersection LOS: A

Intersection Capacity Utilization 43.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 35: Jefferson Ave & Northhampton St



Lanes, Volumes, Timings
36: Jefferson Ave & Best St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	477	47	42	341	69	29	287	89	79	265	27
Future Volume (vph)	16	477	47	42	341	69	29	287	89	79	265	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.987			0.977			0.967			0.989	
Flt Protected		0.999			0.995			0.996			0.989	
Satd. Flow (prot)	0	3490	0	0	3441	0	0	3409	0	0	3462	0
Flt Permitted		0.934			0.862			0.912			0.802	
Satd. Flow (perm)	0	3263	0	0	2981	0	0	3121	0	0	2807	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26			54			96			21	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		169			169			156			165	
Travel Time (s)		3.8			3.8			3.5			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	518	51	46	371	75	32	312	97	86	288	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	586	0	0	492	0	0	441	0	0	403	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		12.9			12.9			18.1			18.1	
Actuated g/C Ratio		0.32			0.32			0.45			0.45	
v/c Ratio		0.55			0.49			0.30			0.31	
Control Delay		12.6			11.3			6.7			8.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.6			11.3			6.7			8.3	
LOS		B			B			A			A	
Approach Delay		12.6			11.3			6.7			8.3	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 40.1												

Lanes, Volumes, Timings 36: Jefferson Ave & Best St

02/09/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 10.0

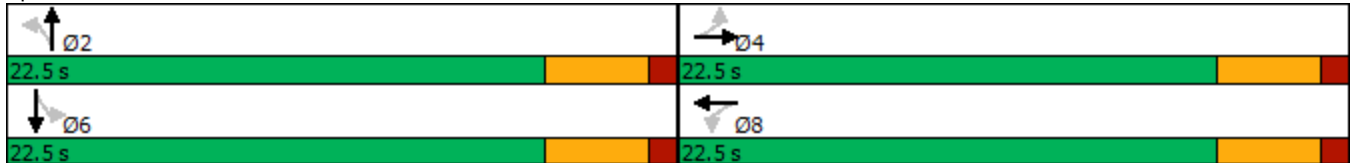
Intersection LOS: A

Intersection Capacity Utilization 65.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 36: Jefferson Ave & Best St



Lanes, Volumes, Timings
37: Jefferson Ave & E North St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	89	155	49	319	328	23
Future Volume (vph)	89	155	49	319	328	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.914				0.991	
Flt Protected	0.982			0.993		
Satd. Flow (prot)	1672	0	0	1850	1846	0
Flt Permitted	0.982			0.919		
Satd. Flow (perm)	1672	0	0	1712	1846	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	168				9	
Link Speed (mph)	30			30	30	
Link Distance (ft)	879			684	486	
Travel Time (s)	20.0			15.5	11.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	97	168	53	347	357	25
Shared Lane Traffic (%)						
Lane Group Flow (vph)	265	0	0	400	382	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		22.5	22.5	22.5	
Total Split (%)	50.0%		50.0%	50.0%	50.0%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effect Green (s)	8.2			20.9	20.9	
Actuated g/C Ratio	0.21			0.55	0.55	
v/c Ratio	0.54			0.43	0.38	
Control Delay	9.2			7.8	7.0	
Queue Delay	0.0			0.0	0.0	
Total Delay	9.2			7.8	7.0	
LOS	A			A	A	
Approach Delay	9.2			7.8	7.0	
Approach LOS	A			A	A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 38.3

Lanes, Volumes, Timings 37: Jefferson Ave & E North St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 7.9

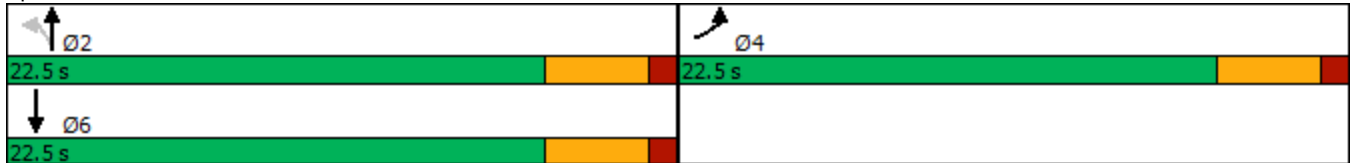
Intersection LOS: A

Intersection Capacity Utilization 63.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 37: Jefferson Ave & E North St



Lanes, Volumes, Timings
38: Jefferson Ave & High St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	63	124	34	61	34	52	314	22	25	447	10
Future Volume (vph)	14	63	124	34	61	34	52	314	22	25	447	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.916			0.964			0.992			0.997	
Flt Protected		0.997			0.987			0.993			0.997	
Satd. Flow (prot)	0	1701	0	0	1772	0	0	1835	0	0	1852	0
Flt Permitted		0.972			0.828			0.898			0.972	
Satd. Flow (perm)	0	1658	0	0	1487	0	0	1659	0	0	1805	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		135			37			8			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		840			1233			880			684	
Travel Time (s)		19.1			28.0			20.0			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	68	135	37	66	37	57	341	24	27	486	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	218	0	0	140	0	0	422	0	0	524	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		27.5	27.5		27.5	27.5	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		55.0%	55.0%		55.0%	55.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.2			8.2			26.9			26.9	
Actuated g/C Ratio		0.20			0.20			0.65			0.65	
v/c Ratio		0.50			0.43			0.39			0.45	
Control Delay		10.4			15.0			6.6			7.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.4			15.0			6.6			7.0	
LOS		B			B			A			A	
Approach Delay		10.4			15.0			6.6			7.0	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 41.3												

Lanes, Volumes, Timings

38: Jefferson Ave & High St

02/09/2022

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.50

Intersection Signal Delay: 8.3

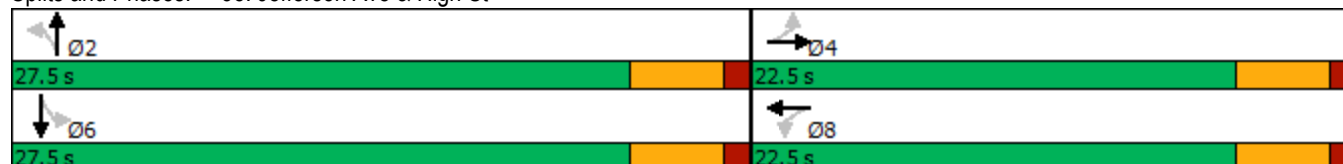
Intersection LOS: A

Intersection Capacity Utilization 61.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 38: Jefferson Ave & High St



Lanes, Volumes, Timings
39: Wohlers Ave & E Ferry St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	416	19	17	539	102	11	64	63	0	0	0
Future Volume (vph)	63	416	19	17	539	102	11	64	63	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.979			0.939				
Flt Protected		0.994			0.999			0.996				
Satd. Flow (prot)	0	1842	0	0	1822	0	0	1742	0	0	0	0
Flt Permitted		0.869			0.983			0.996				
Satd. Flow (perm)	0	1611	0	0	1793	0	0	1742	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			24			68				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		280			1179			1336			278	
Travel Time (s)		6.4			26.8			30.4			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	68	452	21	18	586	111	12	70	68	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	541	0	0	715	0	0	150	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4			8			2					
Detector Phase	4	4		8	8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5				
Total Split (s)	37.0	37.0		37.0	37.0		23.0	23.0				
Total Split (%)	61.7%	61.7%		61.7%	61.7%		38.3%	38.3%				
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max				
Act Effect Green (s)		25.0			25.0			18.8				
Actuated g/C Ratio		0.47			0.47			0.35				
v/c Ratio		0.71			0.83			0.23				
Control Delay		16.4			20.9			10.0				
Queue Delay		0.0			0.0			0.0				
Total Delay		16.4			20.9			10.0				
LOS		B			C			B				
Approach Delay		16.4			20.9			10.0				
Approach LOS		B			C			B				
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 53												

Lanes, Volumes, Timings

39: Wohlers Ave & E Ferry St

02/09/2022

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 18.0

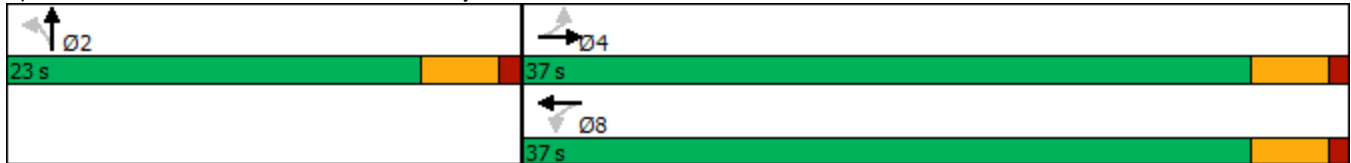
Intersection LOS: B

Intersection Capacity Utilization 70.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 39: Wohlers Ave & E Ferry St



Lanes, Volumes, Timings
40: Wohlers Ave & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	176	7	14	156	33	19	47	25	9	25	11
Future Volume (vph)	14	176	7	14	156	33	19	47	25	9	25	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.978			0.963			0.967	
Flt Protected		0.997			0.997			0.990			0.990	
Satd. Flow (prot)	0	1848	0	0	1816	0	0	1776	0	0	1783	0
Flt Permitted		0.972			0.972			0.957			0.961	
Satd. Flow (perm)	0	1802	0	0	1771	0	0	1717	0	0	1731	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			26			27			12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		274			1173			1331			1336	
Travel Time (s)		6.2			26.7			30.3			30.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	191	8	15	170	36	21	51	27	10	27	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	214	0	0	221	0	0	99	0	0	49	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		9.5			9.4			21.9			21.9	
Actuated g/C Ratio		0.25			0.25			0.59			0.59	
v/c Ratio		0.47			0.48			0.10			0.05	
Control Delay		14.6			13.6			4.9			5.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.6			13.6			4.9			5.0	
LOS		B			B			A			A	
Approach Delay		14.6			13.6			4.9			5.0	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.4												

Lanes, Volumes, Timings

40: Wohlers Ave & E Utica St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 11.8

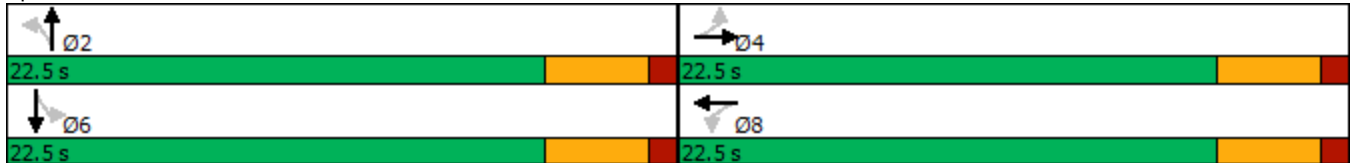
Intersection LOS: B

Intersection Capacity Utilization 28.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 40: Wohlers Ave & E Utica St



Lanes, Volumes, Timings
41: Humboldt Parkway SB & Woodlawn Ave

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	570	54
Future Volume (vph)	0	0	0	0	570	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.988	
Flt Protected						
Satd. Flow (prot)	0	0	0	0	1840	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	0	1840	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	780			561	319	
Travel Time (s)	17.7			12.8	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	620	59
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	679	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 39.8% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings
42: Humboldt Parkway SB & Glenwood Ave

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↗	
Traffic Volume (vph)	0	42	0	0	567	0
Future Volume (vph)	0	42	0	0	567	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1863	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	750			456	561	
Travel Time (s)	17.0			10.4	12.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	46	0	0	616	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	46	0	0	616	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 39.8% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
42: Humboldt Parkway SB & Glenwood Ave

02/09/2022

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↖	
Traffic Vol, veh/h	0	42	0	0	567	0
Future Vol, veh/h	0	42	0	0	567	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	46	0	0	616	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	616	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	491	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	491	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	13.1		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	491	-				
HCM Lane V/C Ratio	0.093	-				
HCM Control Delay (s)	13.1	-				
HCM Lane LOS	B	-				
HCM 95th %tile Q(veh)	0.3	-				

Lanes, Volumes, Timings
43: Humboldt Parkway SB & Riley St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	34	0	0	192	33
Future Volume (vph)	0	34	0	0	192	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.980	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1825	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1825	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	873			418	636	
Travel Time (s)	19.8			9.5	14.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	37	0	0	209	36
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	37	0	0	245	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 22.1% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
43: Humboldt Parkway SB & Riley St

02/09/2022

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	34	0	0	192	33
Future Vol, veh/h	0	34	0	0	192	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	37	0	0	209	36
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	227	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	812	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	812	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	9.6		0			
HCM LOS	A					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	812	-	-			
HCM Lane V/C Ratio	0.046	-	-			
HCM Control Delay (s)	9.6	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
44: Humboldt Parkway SB & Kingsley St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	14	0	0	221	4
Future Volume (vph)	0	14	0	0	221	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.998	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1859	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1859	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	736			293	418	
Travel Time (s)	16.7			6.7	9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	15	0	0	240	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	15	0	0	244	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 21.9% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
44: Humboldt Parkway SB & Kingsley St

02/09/2022

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	14	0	0	221	4
Future Vol, veh/h	0	14	0	0	221	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	15	0	0	240	4
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	242	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	797	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	797	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	9.6		0			
HCM LOS	A					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	797	-	-			
HCM Lane V/C Ratio	0.019	-	-			
HCM Control Delay (s)	9.6	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings

45: W Parade Ave & Humboldt Parkway SB

02/09/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↘	
Traffic Volume (vph)	0	171	95	0	102	48
Future Volume (vph)	0	171	95	0	102	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.957	
Flt Protected					0.967	
Satd. Flow (prot)	0	1863	1863	0	1724	0
Flt Permitted					0.967	
Satd. Flow (perm)	0	1863	1863	0	1724	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		199	738		350	
Travel Time (s)		4.5	16.8		8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	186	103	0	111	52
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	186	103	0	163	0
Sign Control		Stop	Stop		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 24.3% ICU Level of Service A

Analysis Period (min) 15

HCM 6th AWSC
45: W Parade Ave & Humboldt Parkway SB

02/09/2022

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	0	171	95	0	102	48
Future Vol, veh/h	0	171	95	0	102	48
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	186	103	0	111	52
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	8.8	8.2	8.7
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	68%
Vol Thru, %	100%	100%	0%
Vol Right, %	0%	0%	32%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	171	95	150
LT Vol	0	0	102
Through Vol	171	95	0
RT Vol	0	0	48
Lane Flow Rate	186	103	163
Geometry Grp	1	1	1
Degree of Util (X)	0.229	0.13	0.205
Departure Headway (Hd)	4.439	4.528	4.537
Convergence, Y/N	Yes	Yes	Yes
Cap	810	793	792
Service Time	2.458	2.549	2.559
HCM Lane V/C Ratio	0.23	0.13	0.206
HCM Control Delay	8.8	8.2	8.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.9	0.4	0.8

Lanes, Volumes, Timings
46: Linden Park & Dodge St/W Parade Ave

02/09/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	169	7	6	138	0	2
Future Volume (vph)	169	7	6	138	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.994				0.865	
Flt Protected				0.998		
Satd. Flow (prot)	1852	0	0	1859	1611	0
Flt Permitted				0.998		
Satd. Flow (perm)	1852	0	0	1859	1611	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	489			199	180	
Travel Time (s)	11.1			4.5	4.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	184	8	7	150	0	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	192	0	0	157	2	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	22.1%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
46: Linden Park & Dodge St/W Parade Ave

02/09/2022

Intersection

Int Delay, s/veh 0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	169	7	6	138	0	2
Future Vol, veh/h	169	7	6	138	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	184	8	7	150	0	2

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	192
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1381
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1381
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	854	-	-	1381	-
HCM Lane V/C Ratio	0.003	-	-	0.005	-
HCM Control Delay (s)	9.2	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Lanes, Volumes, Timings
47: Humboldt Parkway NB & Riley St

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	11	99	10	0	0
Future Volume (vph)	0	11	99	10	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.988			
Flt Protected						
Satd. Flow (prot)	0	1611	1840	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1840	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	1082		722			610
Travel Time (s)	24.6		16.4			13.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	12	108	11	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	12	119	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	15.8%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
47: Humboldt Parkway NB & Riley St

02/09/2022

Intersection

Int Delay, s/veh 0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	11	99	10	0	0
Future Vol, veh/h	0	11	99	10	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	12	108	11	0	0

Major/Minor	Minor1	Major1
Conflicting Flow All	- 114	0 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 939	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 939	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	WB	NB
HCM Control Delay, s	8.9	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	NBRWBLn1
Capacity (veh/h)	- -	939
HCM Lane V/C Ratio	- -	0.013
HCM Control Delay (s)	- -	8.9
HCM Lane LOS	- -	A
HCM 95th %tile Q(veh)	- -	0

Lanes, Volumes, Timings
48: Humboldt Parkway NB & Woepfel St

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	7	384	14	0	0
Future Volume (vph)	0	7	384	14	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.995			
Flt Protected						
Satd. Flow (prot)	0	1611	1853	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1853	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	744		294			729
Travel Time (s)	16.9		6.7			16.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	8	417	15	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	8	432	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	31.1%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
48: Humboldt Parkway NB & Woepfel St

02/09/2022

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	7	384	14	0	0
Future Vol, veh/h	0	7	384	14	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	417	15	0	0
Major/Minor	Minor1	Major1				
Conflicting Flow All	-	425	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	629	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	629	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB	NB				
HCM Control Delay, s	10.8	0				
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1				
Capacity (veh/h)	-	-	629			
HCM Lane V/C Ratio	-	-	0.012			
HCM Control Delay (s)	-	-	10.8			
HCM Lane LOS	-	-	B			
HCM 95th %tile Q(veh)	-	-	0			

Lanes, Volumes, Timings
49: Humboldt Parkway NB & Woodlawn Ave

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	22	380	3	0	0
Future Volume (vph)	0	22	380	3	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.999			
Flt Protected						
Satd. Flow (prot)	0	1611	1861	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1861	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	729		729			312
Travel Time (s)	16.6		16.6			7.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	24	413	3	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	24	416	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	30.2%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
49: Humboldt Parkway NB & Woodlawn Ave

02/09/2022

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	22	380	3	0	0
Future Vol, veh/h	0	22	380	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	24	413	3	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	415	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	637	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	637	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	10.9		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		637			
HCM Lane V/C Ratio	-		0.038			
HCM Control Delay (s)	-		10.9			
HCM Lane LOS	-		B			
HCM 95th %tile Q(veh)	-		0.1			

Lanes, Volumes, Timings
50: Humboldt Parkway SB & Florida St

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	42	0	0	225	18
Future Volume (vph)	0	42	0	0	225	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.990	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1844	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1844	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	935			344	684	
Travel Time (s)	21.3			7.8	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	46	0	0	245	20
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	46	0	0	265	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 22.9% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
50: Humboldt Parkway SB & Florida St

02/09/2022

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	42	0	0	225	18
Future Vol, veh/h	0	42	0	0	225	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	46	0	0	245	20
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	255	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	784	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	784	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	9.9		0			
HCM LOS	A					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	784	-	-			
HCM Lane V/C Ratio	0.058	-	-			
HCM Control Delay (s)	9.9	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0.2	-	-			

Lanes, Volumes, Timings
51: Humboldt Parkway SB & Northland Ave

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	59	0	0	243	34
Future Volume (vph)	0	59	0	0	243	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.983	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1831	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1831	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2743			805	344	
Travel Time (s)	62.3			18.3	7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	64	0	0	264	37
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	64	0	0	301	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 25.2% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
51: Humboldt Parkway SB & Northland Ave

02/09/2022

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	59	0	0	243	34
Future Vol, veh/h	0	59	0	0	243	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	64	0	0	264	37
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	283	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	756	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	756	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	10.2		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	756	-	-			
HCM Lane V/C Ratio	0.085	-	-			
HCM Control Delay (s)	10.2	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q(veh)	0.3	-	-			

Lanes, Volumes, Timings
52: Humboldt Parkway SB & Brunswick Blvd

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	75	0	0	284	29
Future Volume (vph)	0	75	0	0	284	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.987	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1839	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1839	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2734			252	805	
Travel Time (s)	62.1			5.7	18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	82	0	0	309	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	82	0	0	341	0
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 28.0% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	75	0	0	284	29
Future Vol, veh/h	0	75	0	0	284	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	82	0	0	309	32
Number of Lanes	0	1	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	1
HCM Control Delay	7.5	9.5
HCM LOS	A	A

Lane	EBLn1	SBLn1
Vol Left, %	0%	0%
Vol Thru, %	0%	91%
Vol Right, %	100%	9%
Sign Control	Stop	Stop
Traffic Vol by Lane	75	313
LT Vol	0	0
Through Vol	0	284
RT Vol	75	29
Lane Flow Rate	82	340
Geometry Grp	1	1
Degree of Util (X)	0.092	0.38
Departure Headway (Hd)	4.077	4.02
Convergence, Y/N	Yes	Yes
Cap	885	891
Service Time	2.077	2.059
HCM Lane V/C Ratio	0.093	0.382
HCM Control Delay	7.5	9.5
HCM Lane LOS	A	A
HCM 95th-tile Q	0.3	1.8

Lanes, Volumes, Timings
53: Humboldt Parkway SB & Goulding Ave

02/09/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	69	0	0	992	0
Future Volume (vph)	0	69	0	0	992	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Fr _t		0.865				
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	3539	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	3539	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1067			270	306	
Travel Time (s)	24.3			6.1	7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	75	0	0	1078	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	75	0	0	1078	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 30.0% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
53: Humboldt Parkway SB & Goulding Ave

02/09/2022

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↗↗	
Traffic Vol, veh/h	0	69	0	0	992	0
Future Vol, veh/h	0	69	0	0	992	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	75	0	0	1078	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	539	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	487	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	487	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	13.7	-	-	-	0	-
HCM LOS	B	-	-	-	-	-
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	487	-				
HCM Lane V/C Ratio	0.154	-				
HCM Control Delay (s)	13.7	-				
HCM Lane LOS	B	-				
HCM 95th %tile Q(veh)	0.5	-				

Lanes, Volumes, Timings
54: Humboldt Parkway NB & Sydney St

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	50	617	0	0	0
Future Volume (vph)	0	50	617	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	913		608			1024
Travel Time (s)	20.8		13.8			23.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	54	671	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	54	671	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	42.5%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
54: Humboldt Parkway NB & Sydney St

02/09/2022

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	50	617	0	0	0
Future Vol, veh/h	0	50	617	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	54	671	0	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	671	0	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	456	-	0		
Stage 1	0	-	-	0		
Stage 2	0	-	-	0		
Platoon blocked, %			-			
Mov Cap-1 Maneuver	-	456	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	14		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBTWBLn1					
Capacity (veh/h)	-		456			
HCM Lane V/C Ratio	-		0.119			
HCM Control Delay (s)	-		14			
HCM Lane LOS	-		B			
HCM 95th %tile Q(veh)	-		0.4			

Lanes, Volumes, Timings
55: Humboldt Parkway NB & Northland Ave

02/09/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	67	595	71	0	0
Future Volume (vph)	0	67	595	71	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865	0.865	0.986			
Flt Protected						
Satd. Flow (prot)	0	1611	1837	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1837	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	1020		1024			1019
Travel Time (s)	23.2		23.3			23.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	73	647	77	0	0
Shared Lane Traffic (%)		10%				
Lane Group Flow (vph)	7	66	724	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	46.4%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
55: Humboldt Parkway NB & Northland Ave

02/09/2022

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	67	595	71	0	0
Future Vol, veh/h	0	67	595	71	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	73	647	77	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	686	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	447	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	447	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	14.6		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		-		447	
HCM Lane V/C Ratio	-		-		0.163	
HCM Control Delay (s)	-		-		14.6	
HCM Lane LOS	-		-		B	
HCM 95th %tile Q(veh)	-		-		0.6	

Lanes, Volumes, Timings
56: Roehrer Ave & E Ferry St

02/09/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	455	16	30	516	18	44
Future Volume (vph)	455	16	30	516	18	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.905	
Flt Protected				0.997	0.986	
Satd. Flow (prot)	1855	0	0	1857	1662	0
Flt Permitted				0.997	0.986	
Satd. Flow (perm)	1855	0	0	1857	1662	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1109			280	1331	
Travel Time (s)	25.2			6.4	30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	495	17	33	561	20	48
Shared Lane Traffic (%)						
Lane Group Flow (vph)	512	0	0	594	68	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	62.1%			ICU Level of Service B		
Analysis Period (min)	15					

Intersection

Int Delay, s/veh 1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	455	16	30	516	18	44
Future Vol, veh/h	455	16	30	516	18	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	495	17	33	561	20	48

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	512
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1053
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1053
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	16.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	385	-	-	1053	-
HCM Lane V/C Ratio	0.175	-	-	0.031	-
HCM Control Delay (s)	16.3	-	-	8.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-

Lanes, Volumes, Timings
57: Roehrer Ave & E Utica St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	170	10	7	163	17	17	28	18	11	31	9
Future Volume (vph)	12	170	10	7	163	17	17	28	18	11	31	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.993			0.988			0.960			0.976	
Flt Protected		0.997			0.998			0.987			0.989	
Satd. Flow (prot)	0	1844	0	0	1837	0	0	1765	0	0	1798	0
Flt Permitted		0.997			0.998			0.987			0.989	
Satd. Flow (perm)	0	1844	0	0	1837	0	0	1765	0	0	1798	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1295			274			1342			1331	
Travel Time (s)		29.4			6.2			30.5			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	185	11	8	177	18	18	30	20	12	34	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	209	0	0	203	0	0	68	0	0	56	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 26.2%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	12	170	10	7	163	17	17	28	18	11	31	9
Future Vol, veh/h	12	170	10	7	163	17	17	28	18	11	31	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	185	11	8	177	18	18	30	20	12	34	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9	8.9	8.3	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	6%	4%	22%
Vol Thru, %	44%	89%	87%	61%
Vol Right, %	29%	5%	9%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	63	192	187	51
LT Vol	17	12	7	11
Through Vol	28	170	163	31
RT Vol	18	10	17	9
Lane Flow Rate	68	209	203	55
Geometry Grp	1	1	1	1
Degree of Util (X)	0.092	0.257	0.249	0.075
Departure Headway (Hd)	4.813	4.439	4.418	4.886
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	744	810	813	732
Service Time	2.847	2.465	2.444	2.921
HCM Lane V/C Ratio	0.091	0.258	0.25	0.075
HCM Control Delay	8.3	9	8.9	8.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	1	1	0.2

Lanes, Volumes, Timings
58: Wohlers Ave & Northampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	99	10	6	90	17	13	83	13	18	33	9
Future Volume (vph)	7	99	10	6	90	17	13	83	13	18	33	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988			0.980			0.984			0.980	
Flt Protected		0.997			0.997			0.994			0.985	
Satd. Flow (prot)	0	1835	0	0	1820	0	0	1822	0	0	1798	0
Flt Permitted		0.997			0.997			0.994			0.985	
Satd. Flow (perm)	0	1835	0	0	1820	0	0	1822	0	0	1798	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		276			1045			1317			1331	
Travel Time (s)		6.3			23.8			29.9			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	108	11	7	98	18	14	90	14	20	36	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	127	0	0	123	0	0	118	0	0	66	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 21.4%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection												
Intersection Delay, s/veh	8.3											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	99	10	6	90	17	13	83	13	18	33	9
Future Vol, veh/h	7	99	10	6	90	17	13	83	13	18	33	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	108	11	7	98	18	14	90	14	20	36	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.3	8.2	8.4	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	6%	5%	30%
Vol Thru, %	76%	85%	80%	55%
Vol Right, %	12%	9%	15%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	109	116	113	60
LT Vol	13	7	6	18
Through Vol	83	99	90	33
RT Vol	13	10	17	9
Lane Flow Rate	118	126	123	65
Geometry Grp	1	1	1	1
Degree of Util (X)	0.149	0.156	0.151	0.084
Departure Headway (Hd)	4.532	4.463	4.427	4.613
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	793	804	811	777
Service Time	2.555	2.485	2.45	2.637
HCM Lane V/C Ratio	0.149	0.157	0.152	0.084
HCM Control Delay	8.4	8.3	8.2	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.6	0.5	0.3

Lanes, Volumes, Timings
59: Roehrer Ave & Northhampton St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	97	6	6	90	14	6	27	1	10	39	2
Future Volume (vph)	6	97	6	6	90	14	6	27	1	10	39	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.983			0.996			0.995	
Flt Protected		0.997			0.997			0.991			0.990	
Satd. Flow (prot)	0	1842	0	0	1826	0	0	1839	0	0	1835	0
Flt Permitted		0.997			0.997			0.991			0.990	
Satd. Flow (perm)	0	1842	0	0	1826	0	0	1839	0	0	1835	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1290			276			1313			1342	
Travel Time (s)		29.3			6.3			29.8			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	105	7	7	98	15	7	29	1	11	42	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	119	0	0	120	0	0	37	0	0	55	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	18.0%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

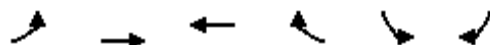
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	6	97	6	6	90	14	6	27	1	10	39	2
Future Vol, veh/h	6	97	6	6	90	14	6	27	1	10	39	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	105	7	7	98	15	7	29	1	11	42	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	7.9	7.8	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	6%	5%	20%
Vol Thru, %	79%	89%	82%	76%
Vol Right, %	3%	6%	13%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	109	110	51
LT Vol	6	6	6	10
Through Vol	27	97	90	39
RT Vol	1	6	14	2
Lane Flow Rate	37	118	120	55
Geometry Grp	1	1	1	1
Degree of Util (X)	0.047	0.137	0.137	0.07
Departure Headway (Hd)	4.542	4.164	4.119	4.518
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	793	847	855	797
Service Time	2.544	2.261	2.217	2.52
HCM Lane V/C Ratio	0.047	0.139	0.14	0.069
HCM Control Delay	7.8	7.9	7.9	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.5	0.5	0.2

Lanes, Volumes, Timings
60: Best St & Wohlers Ave

02/09/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	16	671	470	38	19	12
Future Volume (vph)	16	671	470	38	19	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.990		0.948	
Flt Protected		0.999			0.970	
Satd. Flow (prot)	0	1861	1844	0	1713	0
Flt Permitted		0.999			0.970	
Satd. Flow (perm)	0	1861	1844	0	1713	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		280	473		1317	
Travel Time (s)		6.4	10.8		29.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	729	511	41	21	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	746	552	0	34	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

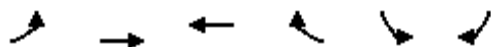
Intersection Capacity Utilization 58.2% ICU Level of Service B

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	671	470	38	19	12
Future Vol, veh/h	16	671	470	38	19	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	729	511	41	21	13
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	552	0	-	0	1295	532
Stage 1	-	-	-	-	532	-
Stage 2	-	-	-	-	763	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1018	-	-	-	179	547
Stage 1	-	-	-	-	589	-
Stage 2	-	-	-	-	460	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1018	-	-	-	174	547
Mov Cap-2 Maneuver	-	-	-	-	174	-
Stage 1	-	-	-	-	573	-
Stage 2	-	-	-	-	460	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		22.8		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1018	-	-	-	236	
HCM Lane V/C Ratio	0.017	-	-	-	0.143	
HCM Control Delay (s)	8.6	0	-	-	22.8	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5	

Lanes, Volumes, Timings
61: Best St & Roehrer Ave

02/09/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	13	675	472	16	25	14
Future Volume (vph)	13	675	472	16	25	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.996		0.952	
Flt Protected		0.999			0.969	
Satd. Flow (prot)	0	1861	1855	0	1718	0
Flt Permitted		0.999			0.969	
Satd. Flow (perm)	0	1861	1855	0	1718	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1123	280		1313	
Travel Time (s)		25.5	6.4		29.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	734	513	17	27	15
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	748	530	0	42	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 55.9% ICU Level of Service B

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	675	472	16	25	14
Future Vol, veh/h	13	675	472	16	25	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	734	513	17	27	15
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	530	0	-	0	1284	522
Stage 1	-	-	-	-	522	-
Stage 2	-	-	-	-	762	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1037	-	-	-	182	555
Stage 1	-	-	-	-	595	-
Stage 2	-	-	-	-	461	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1037	-	-	-	178	555
Mov Cap-2 Maneuver	-	-	-	-	178	-
Stage 1	-	-	-	-	581	-
Stage 2	-	-	-	-	461	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		23.7		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1037	-	-	-	235	
HCM Lane V/C Ratio	0.014	-	-	-	0.18	
HCM Control Delay (s)	8.5	0	-	-	23.7	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.6	

Lanes, Volumes, Timings
62: Jefferson Ave & Eaton St/Kingsley St

02/09/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	13	19	9	12	14	6	366	2	11	344	10
Future Volume (vph)	17	13	19	9	12	14	6	366	2	11	344	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.947			0.947			0.999			0.996	
Flt Protected		0.983			0.987			0.999			0.998	
Satd. Flow (prot)	0	1734	0	0	1741	0	0	1859	0	0	1852	0
Flt Permitted		0.893			0.893			0.994			0.988	
Satd. Flow (perm)	0	1575	0	0	1575	0	0	1850	0	0	1833	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			15			1			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		911			1129			278			418	
Travel Time (s)		20.7			25.7			6.3			9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	14	21	10	13	15	7	398	2	12	374	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	53	0	0	38	0	0	407	0	0	397	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		6.4			6.3			30.0			30.0	
Actuated g/C Ratio		0.17			0.17			0.82			0.82	
v/c Ratio		0.18			0.13			0.27			0.27	
Control Delay		10.2			10.1			3.6			3.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.2			10.1			3.6			3.6	
LOS		B			B			A			A	
Approach Delay		10.2			10.1			3.6			3.6	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.7												

Lanes, Volumes, Timings
62: Jefferson Ave & Eaton St/Kingsley St

02/09/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.27

Intersection Signal Delay: 4.3

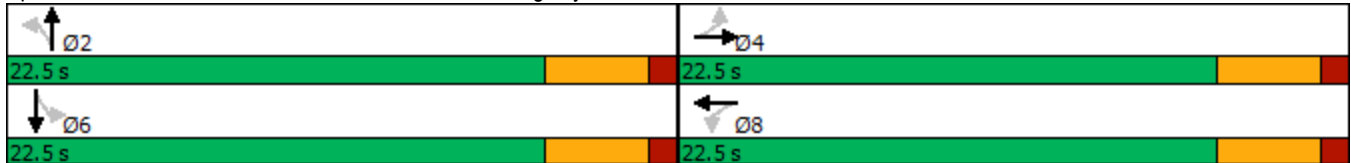
Intersection LOS: A

Intersection Capacity Utilization 36.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 62: Jefferson Ave & Eaton St/Kingsley St



Lanes, Volumes, Timings
118: Humboldt Parkway SB

02/09/2022

						
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	306			252	236	
Travel Time (s)	7.0			5.7	5.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 18.3%				ICU Level of Service A		
Analysis Period (min) 15						

Appendix C3

Synchro Outputs for Concepts 5 & 6

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	319	492	0	0	311	289	66	100	217	0	0	0
Future Volume (vph)	319	492	0	0	311	289	66	100	217	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		0	0		250	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.928				0.850			
Flt Protected	0.950	0.995						0.980				
Satd. Flow (prot)	1610	3373	0	0	3284	0	0	1825	1583	0	0	0
Flt Permitted	0.950	0.995						0.980				
Satd. Flow (perm)	1610	3373	0	0	3284	0	0	1825	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					234				236			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		249			205			354			335	
Travel Time (s)		5.7			4.7			8.0			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	347	535	0	0	338	314	72	109	236	0	0	0
Shared Lane Traffic (%)	18%											
Lane Group Flow (vph)	285	597	0	0	652	0	0	181	236	0	0	0
Turn Type	custom	NA			NA		Perm	NA	Perm			
Protected Phases	6	6			3			4				
Permitted Phases	6						4		4			
Detector Phase	6	6			3		4	4	4			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	9.5	9.5			22.5		22.5	22.5	22.5			
Total Split (s)	45.0	45.0			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			25.0%		25.0%	25.0%	25.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag					Lead		Lag	Lag	Lag			
Lead-Lag Optimize?					Yes		Yes	Yes	Yes			
Recall Mode	None	None			Max		C-Max	C-Max	C-Max			
Act Effct Green (s)	40.5	40.5			18.0			18.0	18.0			
Actuated g/C Ratio	0.45	0.45			0.20			0.20	0.20			
v/c Ratio	0.39	0.39			0.77			0.50	0.47			
Control Delay	5.6	5.0			28.7			37.4	7.7			
Queue Delay	1.8	1.0			20.0			0.0	0.0			
Total Delay	7.4	6.0			48.7			37.4	7.7			
LOS	A	A			D			D	A			
Approach Delay		6.4			48.7			20.6				
Approach LOS		A			D			C				
Queue Length 50th (ft)	24	24			119			92	0			
Queue Length 95th (ft)	m27	m28			184			157	60			

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

03/21/2022

Lane Group	Ø1	Ø2	Ø8
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	1	2	8
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	22.5	22.5	45.0
Total Split (%)	25%	25%	50%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	Max	None	C-Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		169			125			274			255	
Turn Bay Length (ft)	75								250			
Base Capacity (vph)	724	1517			844			365	505			
Starvation Cap Reductn	287	625			199			0	0			
Spillback Cap Reductn	0	0			0			0	0			
Storage Cap Reductn	0	0			0			0	0			
Reduced v/c Ratio	0.65	0.67			1.01			0.50	0.47			

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 23.6

Intersection LOS: C

Intersection Capacity Utilization 77.7%

ICU Level of Service D

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: EB Off Ramp/EB On Ramp & Best St

#2  22.5 s	#2  22.5 s	#1  22.5 s	#1  22.5 s
#1  45 s	#2  45 s		

Lane Group	Ø1	Ø2	Ø8
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			
Intersection Summary			

Lanes, Volumes, Timings
2: WB On Ramp/WB Off Ramp & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	515	45	111	246	0	0	0	0	319	0	408
Future Volume (vph)	0	515	45	111	246	0	0	0	0	319	0	408
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	75		0	0		0	0		75
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988										0.850
Flt Protected				0.950							0.950	
Satd. Flow (prot)	0	3497	0	1770	3539	0	0	0	0	0	1770	1583
Flt Permitted				0.950							0.950	
Satd. Flow (perm)	0	3497	0	1770	3539	0	0	0	0	0	1770	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9										255
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		473			249			324			375	
Travel Time (s)		10.8			5.7			7.4			8.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	560	49	121	267	0	0	0	0	347	0	443
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	609	0	121	267	0	0	0	0	0	347	443
Turn Type		NA		custom	NA					Perm	NA	Perm
Protected Phases		1		8	8						2	
Permitted Phases				8						2		2
Detector Phase		1		8	8					2	2	2
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		22.5		45.0	45.0					22.5	22.5	22.5
Total Split (%)		25.0%		50.0%	50.0%					25.0%	25.0%	25.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5						4.5	4.5
Lead/Lag		Lead								Lag	Lag	Lag
Lead-Lag Optimize?		Yes								Yes	Yes	Yes
Recall Mode		Max		C-Max	C-Max					None	None	None
Act Effct Green (s)		18.0		40.5	40.5						18.0	18.0
Actuated g/C Ratio		0.20		0.45	0.45						0.20	0.20
v/c Ratio		0.86		0.15	0.17						0.98	0.85
Control Delay		48.3		4.9	4.9						81.1	31.8
Queue Delay		0.0		0.7	0.0						0.0	0.0
Total Delay		48.3		5.6	4.9						81.1	31.8
LOS		D		A	A						F	C
Approach Delay		48.3			5.1						53.5	
Approach LOS		D			A						D	
Queue Length 50th (ft)		174		12	13						198	105
Queue Length 95th (ft)		#266		m14	m16						#371	#276

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

03/21/2022

Lane Group	Ø3	Ø4	Ø6
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	3	4	6
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5
Total Split (s)	22.5	22.5	45.0
Total Split (%)	25%	25%	50%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	Max	C-Max	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		393			169			244			295	
Turn Bay Length (ft)				75								75
Base Capacity (vph)		706		796	1592						354	520
Starvation Cap Reductn		0		448	0						0	0
Spillback Cap Reductn		0		0	0						0	0
Storage Cap Reductn		0		0	0						0	0
Reduced v/c Ratio		0.86		0.35	0.17						0.98	0.85

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 41.2

Intersection LOS: D

Intersection Capacity Utilization 77.7%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: WB On Ramp/WB Off Ramp & Best St

#2  Ø1 22.5 s	#2  Ø2 22.5 s	#1  Ø3 22.5 s	#1  Ø4 (R) 22.5 s
#1  Ø6 45 s	#2  Ø8 (R) 45 s		

Lane Group	Ø3	Ø4	Ø6
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			
Intersection Summary			

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/21/2022

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	48	5	551	97	40	498	2	23	57	20	6	1
Future Volume (vph)	48	5	551	97	40	498	2	23	57	20	6	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		75		0	0		0		0		0	
Storage Lanes		1		1	0		0		0		0	
Taper Length (ft)		25			25				25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.994				0.988		
Flt Protected		0.950				0.996				0.967		
Satd. Flow (prot)	0	1770	1863	1583	0	1844	0	0	0	1780	0	0
Flt Permitted		0.257				0.932				0.791		
Satd. Flow (perm)	0	479	1863	1583	0	1726	0	0	0	1456	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)				105		4				1		
Link Speed (mph)			30			30				30		
Link Distance (ft)			205			1418				1329		
Travel Time (s)			4.7			32.2				30.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	52	5	599	105	43	541	2	25	62	22	7	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	57	599	105	0	611	0	0	0	92	0	0
Turn Type	pm+pt	pm+pt	NA	Perm	Perm	NA			Perm	NA		
Protected Phases	7	7	4			8				2		
Permitted Phases	4	4		4	8				2			
Detector Phase	7	7	4	4	8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0			5.0	5.0		
Minimum Split (s)	9.5	9.5	22.5	22.5	22.5	22.5			22.5	22.5		
Total Split (s)	9.5	9.5	37.5	37.5	28.0	28.0			22.5	22.5		
Total Split (%)	15.8%	15.8%	62.5%	62.5%	46.7%	46.7%			37.5%	37.5%		
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5			3.5	3.5		
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0		
Lost Time Adjust (s)		0.0	0.0	0.0		0.0				0.0		
Total Lost Time (s)		4.5	4.5	4.5		4.5				4.5		
Lead/Lag	Lead	Lead			Lag	Lag						
Lead-Lag Optimize?	Yes	Yes			Yes	Yes						
Recall Mode	None	None	None	None	None	None			C-Max	C-Max		
Act Effct Green (s)		28.9	28.9	28.9		23.2				22.1		
Actuated g/C Ratio		0.48	0.48	0.48		0.39				0.37		
v/c Ratio		0.17	0.67	0.13		0.91				0.17		
Control Delay		7.8	15.4	2.1		39.2				16.2		
Queue Delay		0.0	38.1	0.0		0.0				0.0		
Total Delay		7.8	53.5	2.1		39.2				16.2		
LOS		A	D	A		D				B		
Approach Delay			42.9			39.2				16.2		
Approach LOS			D			D				B		
Queue Length 50th (ft)		9	129	0		199				24		
Queue Length 95th (ft)		22	214	17		#388				55		

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/21/2022



Lane Group	SBL	SBT	SBR
Lane Configurations		↰	↱
Traffic Volume (vph)	53	32	66
Future Volume (vph)	53	32	66
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	0		100
Storage Lanes	0		1
Taper Length (ft)	25		
Lane Util. Factor	1.00	1.00	1.00
Frt			0.850
Flt Protected		0.970	
Satd. Flow (prot)	0	1807	1583
Flt Permitted		0.807	
Satd. Flow (perm)	0	1503	1583
Right Turn on Red			Yes
Satd. Flow (RTOR)			109
Link Speed (mph)		30	
Link Distance (ft)		738	
Travel Time (s)		16.8	
Peak Hour Factor	0.92	0.92	0.92
Adj. Flow (vph)	58	35	72
Shared Lane Traffic (%)			
Lane Group Flow (vph)	0	93	72
Turn Type	Perm	NA	Perm
Protected Phases		6	
Permitted Phases	6		6
Detector Phase	6	6	6
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5
Total Split (%)	37.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0
Total Lost Time (s)		4.5	4.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	C-Max
Act Effct Green (s)		22.1	22.1
Actuated g/C Ratio		0.37	0.37
v/c Ratio		0.17	0.11
Control Delay		16.2	2.3
Queue Delay		0.0	0.0
Total Delay		16.2	2.3
LOS		B	A
Approach Delay		10.1	
Approach LOS		B	
Queue Length 50th (ft)		25	0
Queue Length 95th (ft)		56	14

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/21/2022

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Internal Link Dist (ft)			125			1338				1249		
Turn Bay Length (ft)		75										
Base Capacity (vph)		338	1024	917		687				537		
Starvation Cap Reductn		0	459	0		0				0		
Spillback Cap Reductn		0	0	0		0				0		
Storage Cap Reductn		0	0	0		0				0		
Reduced v/c Ratio		0.17	1.06	0.11		0.89				0.17		

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 36.7

Intersection LOS: D

Intersection Capacity Utilization 79.7%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Herman St/W Parade Ave & Best St

 Ø2 (R)	 Ø4
22.5 s	37.5 s
 Ø6 (R)	 Ø7
22.5 s	9.5 s
	 Ø8
	28 s

Lanes, Volumes, Timings
3: Herman St/W Parade Ave & Best St

03/21/2022



Lane Group	SBL	SBT	SBR
Internal Link Dist (ft)		658	
Turn Bay Length (ft)			100
Base Capacity (vph)		554	653
Starvation Cap Reductn		0	0
Spillback Cap Reductn		0	0
Storage Cap Reductn		0	0
Reduced v/c Ratio		0.17	0.11
Intersection Summary			

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	68	1	4	45	0	0	0	0	186	163	63
Future Volume (vph)	0	68	1	4	45	0	0	0	0	186	163	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't	0.998										0.979	
Flt Protected	0.996										0.978	
Satd. Flow (prot)	0	1859	0	0	1855	0	0	0	0	0	1784	0
Flt Permitted	0.971										0.978	
Satd. Flow (perm)	0	1859	0	0	1809	0	0	0	0	0	1784	0
Right Turn on Red	Yes										Yes	
Satd. Flow (RTOR)	1										24	
Link Speed (mph)	30										30	
Link Distance (ft)	1045										293	
Travel Time (s)	23.8										6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	74	1	4	49	0	0	0	0	202	177	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	75	0	0	53	0	0	0	0	0	447	0
Turn Type	NA										Perm	
Protected Phases	4										6	
Permitted Phases	8										6	
Detector Phase	4										6	
Switch Phase												
Minimum Initial (s)	5.0										5.0	
Minimum Split (s)	22.5										22.5	
Total Split (s)	22.5										22.5	
Total Split (%)	50.0%										50.0%	
Yellow Time (s)	3.5										3.5	
All-Red Time (s)	1.0										1.0	
Lost Time Adjust (s)	0.0										0.0	
Total Lost Time (s)	4.5										4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None										Max	
Act Effct Green (s)	7.4										21.9	
Actuated g/C Ratio	0.21										0.62	
v/c Ratio	0.19										0.40	
Control Delay	12.0										6.4	
Queue Delay	0.0										0.0	
Total Delay	12.0										6.4	
LOS	B										A	
Approach Delay	12.0										6.4	
Approach LOS	B										A	
Queue Length 50th (ft)	11										40	
Queue Length 95th (ft)	31										97	
Internal Link Dist (ft)	965										213	
Turn Bay Length (ft)												
Base Capacity (vph)	941										1107	

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/21/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0						0	
Spillback Cap Reductn		0			0						0	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.08			0.06						0.40	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 35.6

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.40

Intersection Signal Delay: 7.5

Intersection LOS: A

Intersection Capacity Utilization 35.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: Humboldt Parkway SB & Northhampton St

 #5 22.5 s	 #4 22.5 s
 #4 22.5 s	 #5 22.5 s

Lane Group	Ø2
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
5: Humboldt Parkway NB & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	72	0	0	79	21	5	20	8	0	0	0
Future Volume (vph)	22	72	0	0	79	21	5	20	8	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.972			0.966				
Fl _t Protected		0.988						0.993				
Satd. Flow (prot)	0	1840	0	0	1811	0	0	1787	0	0	0	0
Fl _t Permitted		0.886						0.993				
Satd. Flow (perm)	0	1650	0	0	1811	0	0	1787	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					23			9				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		283			1089			152				722
Travel Time (s)		6.4			24.8			3.5				16.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	78	0	0	86	23	5	22	9	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	102	0	0	109	0	0	36	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max				
Act Effct Green (s)		7.4			7.4			21.9				
Actuated g/C Ratio		0.21			0.21			0.62				
v/c Ratio		0.30			0.28			0.03				
Control Delay		12.1			11.1			4.0				
Queue Delay		0.0			0.0			0.0				
Total Delay		12.1			11.1			4.0				
LOS		B			B			A				
Approach Delay		12.1			11.1			4.0				
Approach LOS		B			B			A				
Queue Length 50th (ft)		17			13			2				
Queue Length 95th (ft)		41			37			10				
Internal Link Dist (ft)		203			1009			72			642	
Turn Bay Length (ft)												
Base Capacity (vph)		835			928			1103				

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

03/21/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.12			0.12			0.03				

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 35.6

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.40

Intersection Signal Delay: 10.5

Intersection LOS: B

Intersection Capacity Utilization 23.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Humboldt Parkway NB & Northhampton St

#5  Ø2	#4 #5  Ø4
22.5 s	22.5 s
#4  Ø6	#4 #5  Ø8
22.5 s	22.5 s

Lane Group	Ø6
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
6: Humboldt Parkway SB & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	83	33	54	78	0	0	0	0	48	332	57
Future Volume (vph)	0	83	33	54	78	0	0	0	0	48	332	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.961									0.980	
Flt Protected				0.950							0.995	
Satd. Flow (prot)	0	1790	0	1770	1863	0	0	0	0	0	3451	0
Flt Permitted				0.676							0.995	
Satd. Flow (perm)	0	1790	0	1259	1863	0	0	0	0	0	3451	0
Right Turn on Red			Yes			Yes				Yes		Yes
Satd. Flow (RTOR)		36									44	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1173			153			636			456	
Travel Time (s)		26.7			3.5			14.5			10.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	90	36	59	85	0	0	0	0	52	361	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	126	0	59	85	0	0	0	0	0	475	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		4.5		4.5	4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					Max	Max	
Act Effct Green (s)		7.7		7.7	7.7						21.7	
Actuated g/C Ratio		0.22		0.22	0.22						0.61	
v/c Ratio		0.30		0.22	0.21						0.22	
Control Delay		10.5		9.0	8.4						4.7	
Queue Delay		0.0		0.0	0.0						0.0	
Total Delay		10.5		9.1	8.4						4.7	
LOS		B		A	A						A	
Approach Delay		10.5			8.7						4.7	
Approach LOS		B			A						A	
Queue Length 50th (ft)		14		6	9						18	
Queue Length 95th (ft)		39		18	22						44	

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

03/21/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1093			73			556			376	
Turn Bay Length (ft)												
Base Capacity (vph)		921		635	940						2118	
Starvation Cap Reductn		0		74	183						0	
Spillback Cap Reductn		0		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		0.14		0.11	0.11						0.22	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 35.7

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.32

Intersection Signal Delay: 6.4

Intersection LOS: A

Intersection Capacity Utilization 46.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: Humboldt Parkway SB & E Utica St

#7  Ø2	#6 #7  Ø4
22.5 s	22.5 s
#6  Ø6	#6 #7  Ø8
22.5 s	22.5 s

Lane Group	Ø2
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	92	0	0	104	16	58	167	41	0	0	0
Future Volume (vph)	54	92	0	0	104	16	58	167	41	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.982				0.850			
Fl _t Protected	0.950							0.987				
Satd. Flow (prot)	1770	1863	0	0	1829	0	0	1839	1583	0	0	0
Fl _t Permitted	0.674							0.987				
Satd. Flow (perm)	1255	1863	0	0	1829	0	0	1839	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					17				45			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		153			1083			610			294	
Travel Time (s)		3.5			24.6			13.9			6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	100	0	0	113	17	63	182	45	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	59	100	0	0	130	0	0	245	45	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max	Max			
Act Effct Green (s)	7.7	7.7			7.7			21.7	21.7			
Actuated g/C Ratio	0.22	0.22			0.22			0.61	0.61			
v/c Ratio	0.22	0.25			0.32			0.22	0.05			
Control Delay	10.0	9.7			12.1			5.7	2.4			
Queue Delay	0.0	0.0			0.0			0.0	0.0			
Total Delay	10.0	9.8			12.1			5.7	2.4			
LOS	B	A			B			A	A			
Approach Delay		9.9			12.1			5.2				
Approach LOS		A			B			A				
Queue Length 50th (ft)	7	12			18			21	0			
Queue Length 95th (ft)	19	28			44			56	9			
Internal Link Dist (ft)		73			1003			530			214	
Turn Bay Length (ft)												
Base Capacity (vph)	633	940			931			1120	981			

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

03/21/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	77	181			0			0	0			
Spillback Cap Reductn	0	0			0			0	0			
Storage Cap Reductn	0	0			0			0	0			
Reduced v/c Ratio	0.11	0.13			0.14			0.22	0.05			

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 35.7

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.32

Intersection Signal Delay: 8.0

Intersection LOS: A

Intersection Capacity Utilization 46.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 7: Humboldt Parkway NB & E Utica St

#7  Ø2	#6 #7  Ø4
22.5 s	22.5 s
#6  Ø6	#6 #7  Ø8
22.5 s	22.5 s

Lane Group	Ø6
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰		↰	↰						↰	↰
Traffic Volume (vph)	0	272	51	82	149	0	0	0	0	229	339	410
Future Volume (vph)	0	272	51	82	149	0	0	0	0	229	339	410
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.979											0.850
Fl _t Protected												0.980
Satd. Flow (prot)	0	1824	0	1770	1863	0	0	0	0	0	1825	1583
Fl _t Permitted												0.980
Satd. Flow (perm)	0	1824	0	838	1863	0	0	0	0	0	1825	1583
Right Turn on Red												Yes
Satd. Flow (RTOR)												446
Link Speed (mph)												30
Link Distance (ft)												270
Travel Time (s)												6.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	296	55	89	162	0	0	0	0	249	368	446
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	351	0	89	162	0	0	0	0	0	617	446
Turn Type												Perm
Protected Phases												6
Permitted Phases												6
Detector Phase												6
Switch Phase												
Minimum Initial (s)												5.0
Minimum Split (s)												22.5
Total Split (s)												26.0
Total Split (%)												52.0%
Yellow Time (s)												3.5
All-Red Time (s)												1.0
Lost Time Adjust (s)												0.0
Total Lost Time (s)												4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode												Max
Act Effct Green (s)												21.7
Actuated g/C Ratio												0.46
v/c Ratio												0.73
Control Delay												18.9
Queue Delay												1.7
Total Delay												20.6
LOS												C
Approach Delay												13.2
Approach LOS												B
Queue Length 50th (ft)												146
Queue Length 95th (ft)												#304
Internal Link Dist (ft)												190
Turn Bay Length (ft)												
Base Capacity (vph)												843

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/21/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	26.0
Total Split (%)	52%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0		94	363						0	0
Spillback Cap Reductn		59		0	0						101	0
Storage Cap Reductn		0		0	0						0	0
Reduced v/c Ratio		0.49		0.35	0.39						0.83	0.46

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 46.9

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 12.7

Intersection LOS: B

Intersection Capacity Utilization 84.7%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 8: Humboldt Parkway SB & E Ferry St

#9  Ø2	#8 #9  Ø4
26 s	24 s
#8  Ø6	#8 #9  Ø8
26 s	24 s

Lane Group	Ø2
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
9: Humboldt Parkway NB & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	226	278	0	0	211	63	44	188	38	0	0	0
Future Volume (vph)	226	278	0	0	211	63	44	188	38	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	75		0	0		0
Storage Lanes	1		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.969				0.850			
Flt Protected	0.950							0.991				
Satd. Flow (prot)	1770	1863	0	0	1805	0	0	1846	1583	0	0	0
Flt Permitted	0.522							0.991				
Satd. Flow (perm)	972	1863	0	0	1805	0	0	1846	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					35				41			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		147			1082			312			608	
Travel Time (s)		3.3			24.6			7.1			13.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	246	302	0	0	229	68	48	204	41	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	246	302	0	0	297	0	0	252	41	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	24.0	24.0			24.0		26.0	26.0	26.0			
Total Split (%)	48.0%	48.0%			48.0%		52.0%	52.0%	52.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max	Max			
Act Effct Green (s)	16.1	16.1			16.1			21.7	21.7			
Actuated g/C Ratio	0.34	0.34			0.34			0.46	0.46			
v/c Ratio	0.74	0.47			0.46			0.30	0.05			
Control Delay	23.5	10.9			12.7			10.2	3.7			
Queue Delay	2.1	1.8			0.0			0.0	0.0			
Total Delay	25.6	12.7			12.7			10.2	3.7			
LOS	C	B			B			B	A			
Approach Delay		18.5			12.7			9.3				
Approach LOS		B			B			A				
Queue Length 50th (ft)	44	53			52			46	0			
Queue Length 95th (ft)	m#76	m80			102			87	12			

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

03/21/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	26.0
Total Split (%)	52%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		67			1002			232			528	
Turn Bay Length (ft)												
Base Capacity (vph)	407	781			777			853	754			
Starvation Cap Reductn	69	321			0			0	0			
Spillback Cap Reductn	0	0			0			0	0			
Storage Cap Reductn	0	0			0			0	0			
Reduced v/c Ratio	0.73	0.66			0.38			0.30	0.05			

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 46.9

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 14.6

Intersection LOS: B

Intersection Capacity Utilization 84.7%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Humboldt Parkway NB & E Ferry St

#9  Ø2	#8 #9  Ø4
26 s	24 s
#8  Ø6	#8 #9  Ø8
26 s	24 s

Lane Group	Ø6
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

03/21/2022

											
Lane Group	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	Ø8
Lane Configurations											
Traffic Volume (vph)	12	0	0	338	206	136	518	0	0	0	
Future Volume (vph)	12	0	0	338	206	136	518	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	
Fr t				0.943							
Flt Protected	0.950						0.990				
Satd. Flow (prot)	1770	0	0	3337	0	0	3504	0	0	0	
Flt Permitted	0.950						0.713				
Satd. Flow (perm)	1770	0	0	3337	0	0	2523	0	0	0	
Right Turn on Red		Yes			Yes			Yes			
Satd. Flow (RTOR)				224							
Link Speed (mph)	30			30			30		30		
Link Distance (ft)	537			328			271		387		
Travel Time (s)	12.2			7.5			6.2		8.8		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	13	0	0	367	224	148	563	0	0	0	
Shared Lane Traffic (%)											
Lane Group Flow (vph)	13	0	0	591	0	0	711	0	0	0	
Turn Type	Prot			NA		Perm	NA				
Protected Phases	4			2			6				8
Permitted Phases						6					
Detector Phase	4			2		6	6				
Switch Phase											
Minimum Initial (s)	5.0			5.0		5.0	5.0				5.0
Minimum Split (s)	22.5			22.5		22.5	22.5				22.5
Total Split (s)	22.5			22.5		22.5	22.5				22.5
Total Split (%)	50.0%			50.0%		50.0%	50.0%				50%
Yellow Time (s)	3.5			3.5		3.5	3.5				3.5
All-Red Time (s)	1.0			1.0		1.0	1.0				1.0
Lost Time Adjust (s)	0.0			0.0			0.0				
Total Lost Time (s)	4.5			4.5			4.5				
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None			Max		Max	Max				None
Act Effct Green (s)	16.9			18.0			18.0				
Actuated g/C Ratio	0.38			0.41			0.41				
v/c Ratio	0.02			0.39			0.69				
Control Delay	8.3			6.6			10.7				
Queue Delay	0.0			0.0			0.0				
Total Delay	8.3			6.6			10.7				
LOS	A			A			B				
Approach Delay	8.3			6.6			10.7				
Approach LOS	A			A			B				
Queue Length 50th (ft)	2			31			49				
Queue Length 95th (ft)	9			60			m67				
Internal Link Dist (ft)	457			248			191		307		
Turn Bay Length (ft)											
Base Capacity (vph)	726			1500			1034				

Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	Ø8
Starvation Cap Reductn	0			0			0				
Spillback Cap Reductn	0			0			0				
Storage Cap Reductn	0			0			0				
Reduced v/c Ratio	0.02			0.39			0.69				

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 44

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 8.9

Intersection LOS: A

Intersection Capacity Utilization 49.6%

ICU Level of Service A

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 10: Jefferson Ave & Cherry St & EB On Ramp

#10 #11 ↑ ↑ Ø2 22.5 s	#10 ↖ Ø4 22.5 s
#10 #11 ↓ ↓ Ø6 22.5 s	#11 ← Ø8 22.5 s

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↕			↕	
Traffic Volume (vph)	0	0	0	243	21	377	40	300	0	0	393	20
Future Volume (vph)	0	0	0	243	21	377	40	300	0	0	393	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt					0.921						0.993	
Flt Protected					0.981			0.994				
Satd. Flow (prot)	0	0	0	0	1683	0	0	3518	0	0	3514	0
Flt Permitted					0.981			0.875				
Satd. Flow (perm)	0	0	0	0	1683	0	0	3097	0	0	3514	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					190						14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			384			271			880	
Travel Time (s)		12.9			8.7			6.2			20.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	264	23	410	43	326	0	0	427	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	697	0	0	369	0	0	449	0
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8			2					
Detector Phase				8	8		2	2			6	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (%)				50.0%	50.0%		50.0%	50.0%			50.0%	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)					16.9			18.0			18.0	
Actuated g/C Ratio					0.38			0.41			0.41	
v/c Ratio					0.91			0.29			0.31	
Control Delay					29.5			5.8			9.5	
Queue Delay					0.0			0.0			0.0	
Total Delay					29.5			5.8			9.5	
LOS					C			A			A	
Approach Delay					29.5			5.8			9.5	
Approach LOS					C			A			A	
Queue Length 50th (ft)					113			16			38	
Queue Length 95th (ft)					#302			22			63	

Lanes, Volumes, Timings
11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/21/2022

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		487			304			191			800	
Turn Bay Length (ft)												
Base Capacity (vph)					802			1269			1449	
Starvation Cap Reductn					0			0			0	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.87			0.29			0.31	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 44

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 17.8

Intersection LOS: B

Intersection Capacity Utilization 69.9%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 11: Jefferson Ave & BFNC Dr/WB Off Ramp

#10 #11   Ø2	#10  Ø4
22.5 s	22.5 s
#10 #11   Ø6	#11  Ø8
22.5 s	22.5 s

Lane Group	Ø4
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
12: Jefferson Ave & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	99	12	81	185	41	8	434	25	27	416	66
Future Volume (vph)	42	99	12	81	185	41	8	434	25	27	416	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.988			0.980			0.992			0.980	
Flt Protected		0.986			0.987			0.999			0.997	
Satd. Flow (prot)	0	3448	0	0	3423	0	0	3507	0	0	3458	0
Flt Permitted		0.798			0.830			0.945			0.919	
Satd. Flow (perm)	0	2790	0	0	2879	0	0	3318	0	0	3187	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			45			15			44	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		737			2886			735			328	
Travel Time (s)		16.8			65.6			16.7			7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	108	13	88	201	45	9	472	27	29	452	72
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	167	0	0	334	0	0	508	0	0	553	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		9.0			9.0			18.7			18.7	
Actuated g/C Ratio		0.24			0.24			0.51			0.51	
v/c Ratio		0.24			0.45			0.30			0.34	
Control Delay		10.6			11.8			6.2			6.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.6			11.8			6.2			6.1	
LOS		B			B			A			A	
Approach Delay		10.6			11.8			6.2			6.1	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		12			24			25			26	
Queue Length 95th (ft)		27			47			56			60	
Internal Link Dist (ft)		657			2806			655			248	
Turn Bay Length (ft)												
Base Capacity (vph)		1374			1433			1696			1644	

Lanes, Volumes, Timings

12: Jefferson Ave & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.12			0.23			0.30			0.34	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36.8

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 7.8

Intersection LOS: A

Intersection Capacity Utilization 55.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 12: Jefferson Ave & Genesee St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
13: Herman St & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	192	3	14	395	10	18	58	5	42	118	15
Future Volume (vph)	12	192	3	14	395	10	18	58	5	42	118	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.996			0.992			0.989	
Flt Protected		0.997			0.998			0.989			0.988	
Satd. Flow (prot)	0	3522	0	0	3518	0	0	1828	0	0	1820	0
Flt Permitted		0.929			0.945			0.916			0.891	
Satd. Flow (perm)	0	3281	0	0	3331	0	0	1693	0	0	1641	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			6			5			12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2886			671			575			1329	
Travel Time (s)		65.6			15.3			13.1			30.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	209	3	15	429	11	20	63	5	46	128	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	225	0	0	455	0	0	88	0	0	190	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effct Green (s)		22.1			22.1			9.0			9.1	
Actuated g/C Ratio		0.59			0.59			0.24			0.24	
v/c Ratio		0.12			0.23			0.21			0.46	
Control Delay		5.5			5.8			11.2			14.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		5.5			5.8			11.2			14.6	
LOS		A			A			B			B	
Approach Delay		5.5			5.8			11.2			14.6	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)		10			22			13			29	
Queue Length 95th (ft)		27			51			34			66	
Internal Link Dist (ft)		2806			591			495			1249	
Turn Bay Length (ft)												
Base Capacity (vph)		1947			1978			823			801	

Lanes, Volumes, Timings

13: Herman St & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.12			0.23			0.11			0.24	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 37.2

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 8.0

Intersection LOS: A

Intersection Capacity Utilization 41.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 13: Herman St & Genesee St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
14: Reed St/Rich St & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	234	0	0	421	11	10	3	9	4	0	4
Future Volume (vph)	2	234	0	0	421	11	10	3	9	4	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.996			0.944			0.932	
Fl _t Protected								0.978			0.976	
Satd. Flow (prot)	0	3539	0	0	3525	0	0	1720	0	0	1694	0
Fl _t Permitted		0.953										
Satd. Flow (perm)	0	3373	0	0	3525	0	0	1758	0	0	1736	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7			10			36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		671			961			780			839	
Travel Time (s)		15.3			21.8			17.7			19.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	254	0	0	458	12	11	3	10	4	0	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	256	0	0	470	0	0	24	0	0	8	0
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2						8			4		
Detector Phase	2	2			6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		None	None		None	None	
Act Effct Green (s)		35.2			35.2			6.0			5.8	
Actuated g/C Ratio		0.92			0.92			0.16			0.15	
v/c Ratio		0.08			0.14			0.08			0.03	
Control Delay		1.3			1.3			12.0			1.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		1.3			1.3			12.0			1.3	
LOS		A			A			B			A	
Approach Delay		1.3			1.3			12.0			1.3	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)		0			0			3			0	
Queue Length 95th (ft)		19			33			16			2	
Internal Link Dist (ft)		591			881			700			759	
Turn Bay Length (ft)												
Base Capacity (vph)		3108			3249			835			838	

Lanes, Volumes, Timings 14: Reed St/Rich St & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.08			0.14			0.03			0.01	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 38.2

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.14

Intersection Signal Delay: 1.7

Intersection LOS: A

Intersection Capacity Utilization 23.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Reed St/Rich St & Genesee St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
15: Fillmore Ave & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕			↕	
Traffic Volume (vph)	32	185	33	85	312	4	31	241	49	10	319	40
Future Volume (vph)	32	185	33	85	312	4	31	241	49	10	319	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.999			0.979			0.986	
Flt Protected		0.994			0.990			0.995			0.999	
Satd. Flow (prot)	0	3448	0	0	3500	0	0	1815	0	0	1835	0
Flt Permitted		0.864			0.820			0.941			0.988	
Satd. Flow (perm)	0	2997	0	0	2899	0	0	1716	0	0	1815	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			2			24			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		961			671			704			490	
Travel Time (s)		21.8			15.3			16.0			11.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	35	201	36	92	339	4	34	262	53	11	347	43
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	272	0	0	435	0	0	349	0	0	401	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		11.1			11.1			18.1			18.1	
Actuated g/C Ratio		0.29			0.29			0.47			0.47	
v/c Ratio		0.30			0.52			0.42			0.46	
Control Delay		9.7			13.4			9.0			9.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.7			13.4			9.0			9.6	
LOS		A			B			A			A	
Approach Delay		9.7			13.4			9.0			9.6	
Approach LOS		A			B			A			A	
Queue Length 50th (ft)		19			38			38			46	
Queue Length 95th (ft)		38			66			107			125	
Internal Link Dist (ft)		881			591			624			410	
Turn Bay Length (ft)												
Base Capacity (vph)		1436			1371			824			866	

Lanes, Volumes, Timings
15: Fillmore Ave & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.19			0.32			0.42			0.46	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 38.3

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 10.6

Intersection LOS: B

Intersection Capacity Utilization 60.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 15: Fillmore Ave & Genesee St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
16: Fillmore Ave & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	328	153	2	371	14	120	211	8	17	224	41
Future Volume (vph)	39	328	153	2	371	14	120	211	8	17	224	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.995			0.997				0.850
Flt Protected		0.996						0.983			0.997	
Satd. Flow (prot)	0	1781	0	0	1853	0	0	1826	0	0	1857	1583
Flt Permitted		0.954			0.998			0.795			0.966	
Satd. Flow (perm)	0	1706	0	0	1850	0	0	1476	0	0	1799	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		55			5			3				45
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1418			567			490				61
Travel Time (s)		32.2			12.9			11.1				1.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	357	166	2	403	15	130	229	9	18	243	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	565	0	0	420	0	0	368	0	0	261	45
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)		4.5			4.5			4.5			4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	C-Max
Act Effct Green (s)		16.7			16.7			19.3			19.3	19.3
Actuated g/C Ratio		0.37			0.37			0.43			0.43	0.43
v/c Ratio		0.85			0.61			0.58			0.34	0.06
Control Delay		26.3			15.4			14.9			2.9	0.2
Queue Delay		5.9			0.7			0.0			0.0	0.0
Total Delay		32.2			16.1			14.9			2.9	0.2
LOS		C			B			B			A	A
Approach Delay		32.2			16.1			14.9			2.5	
Approach LOS		C			B			B			A	
Queue Length 50th (ft)		108			78			71			3	0
Queue Length 95th (ft)		#259			145			141			5	1
Internal Link Dist (ft)		1338			487			410			1	
Turn Bay Length (ft)												
Base Capacity (vph)		715			743			636			773	706

Lanes, Volumes, Timings

16: Fillmore Ave & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	0
Spillback Cap Reductn		104			111			5			0	0
Storage Cap Reductn		0			0			0			0	0
Reduced v/c Ratio		0.92			0.66			0.58			0.34	0.06

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 18.8

Intersection LOS: B

Intersection Capacity Utilization 95.2%

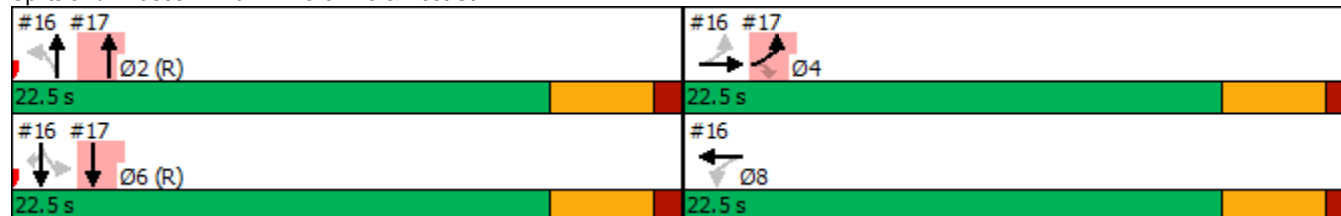
ICU Level of Service F

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: Fillmore Ave & Best St



Lanes, Volumes, Timings
17: Fillmore Ave & East Park

03/21/2022

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	5	3	0	262	283	0	
Future Volume (vph)	5	3	0	262	283	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	0			100	
Storage Lanes	1	1	0			1	
Taper Length (ft)	25		25				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	
Frt		0.850					
Flt Protected	0.950						
Satd. Flow (prot)	1770	1583	0	1863	3539	0	
Flt Permitted	0.950						
Satd. Flow (perm)	1770	1583	0	1863	3539	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		3					
Link Speed (mph)	30			30	30		
Link Distance (ft)	468			61	755		
Travel Time (s)	10.6			1.4	17.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	5	3	0	285	308	0	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	5	3	0	285	308	0	
Turn Type	Prot	Perm		NA	NA		
Protected Phases	4			2	6		8
Permitted Phases		4					
Detector Phase	4	4		2	6		
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5
Total Split (s)	22.5	22.5		22.5	22.5		22.5
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		
Total Lost Time (s)	4.5	4.5		4.5	4.5		
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None		C-Max	C-Max		None
Act Effct Green (s)	16.7	16.7		19.3	19.3		
Actuated g/C Ratio	0.37	0.37		0.43	0.43		
v/c Ratio	0.01	0.01		0.36	0.20		
Control Delay	8.2	6.3		4.8	9.0		
Queue Delay	0.0	0.0		0.0	0.0		
Total Delay	8.2	6.3		4.8	9.0		
LOS	A	A		A	A		
Approach Delay	7.5			4.8	9.0		
Approach LOS	A			A	A		
Queue Length 50th (ft)	1	0		19	25		
Queue Length 95th (ft)	5	3		m36	45		

Lanes, Volumes, Timings

17: Fillmore Ave & East Park

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Internal Link Dist (ft)	388			1	675		
Turn Bay Length (ft)							
Base Capacity (vph)	708	635		800	1520		
Starvation Cap Reductn	0	0		0	0		
Spillback Cap Reductn	0	0		0	37		
Storage Cap Reductn	0	0		0	0		
Reduced v/c Ratio	0.01	0.00		0.36	0.21		

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 7.0

Intersection LOS: A

Intersection Capacity Utilization 25.5%

ICU Level of Service A

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 17: Fillmore Ave & East Park

22.5 s	22.5 s
22.5 s	22.5 s

Lanes, Volumes, Timings
18: Fillmore Ave & MLK Park

03/21/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	11	21	0	209	260	0
Future Volume (vph)	11	21	0	209	260	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr't	0.850					
Flt Protected	0.950					
Satd. Flow (prot)	1770	1583	0	1863	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1583	0	1863	1863	0
Right Turn on Red	Yes					
Satd. Flow (RTOR)	23					
Link Speed (mph)	30			30	30	
Link Distance (ft)	526			755	579	
Travel Time (s)	12.0			17.2	13.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	23	0	227	283	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	12	23	0	227	283	0
Turn Type	Prot	Perm		NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4				
Detector Phase	4	4		2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None		Max	Max	
Act Effct Green (s)	5.9	5.9		35.2	35.2	
Actuated g/C Ratio	0.15	0.15		0.92	0.92	
v/c Ratio	0.04	0.09		0.13	0.16	
Control Delay	14.5	8.5		1.6	1.6	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	14.5	8.5		1.6	1.6	
LOS	B	A		A	A	
Approach Delay	10.5			1.6	1.6	
Approach LOS	B			A	A	
Queue Length 50th (ft)	2	0		0	0	
Queue Length 95th (ft)	12	13		36	45	
Internal Link Dist (ft)	446			675	499	
Turn Bay Length (ft)						
Base Capacity (vph)	835	759		1719	1719	

Lanes, Volumes, Timings

18: Fillmore Ave & MLK Park

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Starvation Cap Reductn	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	
Storage Cap Reductn	0	0		0	0	
Reduced v/c Ratio	0.01	0.03		0.13	0.16	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 38.2

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.16

Intersection Signal Delay: 2.2

Intersection LOS: A

Intersection Capacity Utilization 25.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Fillmore Ave & MLK Park

 Ø2 22.5 s	 Ø4 22.5 s
 Ø6 22.5 s	

Lanes, Volumes, Timings
19: Fillmore Ave & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	54	9	12	33	9	9	176	20	25	259	47
Future Volume (vph)	15	54	9	12	33	9	9	176	20	25	259	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.984			0.977			0.987			0.981	
Flt Protected		0.991			0.989			0.998			0.996	
Satd. Flow (prot)	0	1816	0	0	1800	0	0	1835	0	0	1820	0
Flt Permitted		0.920			0.900			0.984			0.974	
Satd. Flow (perm)	0	1686	0	0	1638	0	0	1809	0	0	1780	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			10			15			22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1089			291			579			735	
Travel Time (s)		24.8			6.6			13.2			16.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	59	10	13	36	10	10	191	22	27	282	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	85	0	0	59	0	0	223	0	0	360	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		7.0			6.8			28.6			28.6	
Actuated g/C Ratio		0.20			0.19			0.80			0.80	
v/c Ratio		0.25			0.18			0.15			0.25	
Control Delay		12.2			11.1			3.4			3.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.2			11.1			3.4			3.8	
LOS		B			B			A			A	
Approach Delay		12.2			11.1			3.4			3.8	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		11			7			0			0	
Queue Length 95th (ft)		32			24			42			69	
Internal Link Dist (ft)		1009			211			499			655	
Turn Bay Length (ft)												
Base Capacity (vph)		859			834			1458			1436	

Lanes, Volumes, Timings

19: Fillmore Ave & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.10			0.07			0.15			0.25	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 35.6

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.25

Intersection Signal Delay: 5.2

Intersection LOS: A

Intersection Capacity Utilization 38.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 19: Fillmore Ave & Northhampton St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
21: Fillmore Ave & Riley St/Urban St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	0	2	2	0	10	2	214	3	22	329	0
Future Volume (vph)	5	0	2	2	0	10	2	214	3	22	329	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.961			0.886			0.998				
Flt Protected		0.966			0.992						0.997	
Satd. Flow (prot)	0	1729	0	0	1637	0	0	1859	0	0	1857	0
Flt Permitted								0.998			0.979	
Satd. Flow (perm)	0	1790	0	0	1650	0	0	1855	0	0	1824	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			36			2				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			639			735			422	
Travel Time (s)		24.6			14.5			16.7			9.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	0	2	2	0	11	2	233	3	24	358	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	7	0	0	13	0	0	238	0	0	382	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		5.6			5.6			36.8			36.8	
Actuated g/C Ratio		0.14			0.14			0.94			0.94	
v/c Ratio		0.02			0.05			0.14			0.22	
Control Delay		0.5			3.6			1.2			1.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		0.5			3.6			1.2			1.4	
LOS		A			A			A			A	
Approach Delay		0.5			3.6			1.2			1.4	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)		0			0			0			0	
Queue Length 95th (ft)		1			6			33			55	
Internal Link Dist (ft)		1002			559			655			342	
Turn Bay Length (ft)												
Base Capacity (vph)		845			781			1736			1707	

Lanes, Volumes, Timings

21: Fillmore Ave & Riley St/Urban St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.01			0.02			0.14			0.22	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 39.3

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.22

Intersection Signal Delay: 1.4

Intersection LOS: A

Intersection Capacity Utilization 43.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 21: Fillmore Ave & Riley St/Urban St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
22: Fillmore Ave & French St

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	13	38	214	3	42	313
Future Volume (vph)	13	38	214	3	42	313
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.899		0.998			
Flt Protected	0.987					0.994
Satd. Flow (prot)	1653	0	1859	0	0	1852
Flt Permitted	0.987					0.951
Satd. Flow (perm)	1653	0	1859	0	0	1771
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	41		2			
Link Speed (mph)	30		30			30
Link Distance (ft)	600		422			182
Travel Time (s)	13.6		9.6			4.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	41	233	3	46	340
Shared Lane Traffic (%)						
Lane Group Flow (vph)	55	0	236	0	0	386
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%	50.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.2		34.4			34.4
Actuated g/C Ratio	0.15		0.85			0.85
v/c Ratio	0.19		0.15			0.26
Control Delay	9.8		2.6			3.0
Queue Delay	0.0		0.0			0.0
Total Delay	9.8		2.6			3.0
LOS	A		A			A
Approach Delay	9.8		2.6			3.0
Approach LOS	A		A			A
Queue Length 50th (ft)	3		0			0
Queue Length 95th (ft)	22		41			72
Internal Link Dist (ft)	520		342			102
Turn Bay Length (ft)						
Base Capacity (vph)	768		1586			1511

Lanes, Volumes, Timings
22: Fillmore Ave & French St

03/21/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Starvation Cap Reductn	0		0			147
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.07		0.15			0.28

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.3

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.26

Intersection Signal Delay: 3.4

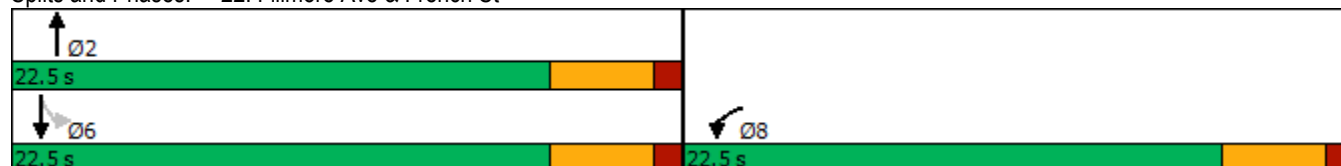
Intersection LOS: A

Intersection Capacity Utilization 45.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 22: Fillmore Ave & French St



Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	48	74	42	194	288	69
Future Volume (vph)	48	74	42	194	288	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.918				0.974	
Flt Protected	0.981			0.991		
Satd. Flow (prot)	1678	0	0	1846	1814	0
Flt Permitted	0.981			0.903		
Satd. Flow (perm)	1678	0	0	1682	1814	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	80				32	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1083			182	1350	
Travel Time (s)	24.6			4.1	30.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	52	80	46	211	313	75
Shared Lane Traffic (%)						
Lane Group Flow (vph)	132	0	0	257	388	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		22.5	22.5	22.5	
Total Split (%)	50.0%		50.0%	50.0%	50.0%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effect Green (s)	7.1			26.4	26.4	
Actuated g/C Ratio	0.18			0.67	0.67	
v/c Ratio	0.36			0.23	0.32	
Control Delay	9.1			5.0	5.0	
Queue Delay	0.0			0.4	0.0	
Total Delay	9.1			5.4	5.0	
LOS	A			A	A	
Approach Delay	9.1			5.4	5.0	
Approach LOS	A			A	A	
Queue Length 50th (ft)	10			20	30	
Queue Length 95th (ft)	33			54	76	
Internal Link Dist (ft)	1003			102	1270	
Turn Bay Length (ft)						
Base Capacity (vph)	815			1123	1222	

Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Starvation Cap Reductn	0			486	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.16			0.40	0.32	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 39.5

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.36

Intersection Signal Delay: 5.8

Intersection LOS: A

Intersection Capacity Utilization 50.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 23: Fillmore Ave & E Utica St

 22.5 s	 22.5 s
 22.5 s	

Lanes, Volumes, Timings
24: Fillmore Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	205	57	30	201	49	23	195	41	31	265	60
Future Volume (vph)	49	205	57	30	201	49	23	195	41	31	265	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.972			0.974			0.976			0.975	
Flt Protected		0.992			0.995			0.996			0.996	
Satd. Flow (prot)	0	3413	0	0	3430	0	0	3440	0	0	3437	0
Flt Permitted		0.851			0.882			0.911			0.916	
Satd. Flow (perm)	0	2928	0	0	3040	0	0	3147	0	0	3161	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		62			53			45			62	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			797			1350			1620	
Travel Time (s)		24.6			18.1			30.7			36.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	53	223	62	33	218	53	25	212	45	34	288	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	338	0	0	304	0	0	282	0	0	387	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		8.7			8.7			18.1			18.1	
Actuated g/C Ratio		0.24			0.24			0.51			0.51	
v/c Ratio		0.45			0.39			0.18			0.24	
Control Delay		11.1			10.6			4.8			5.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.1			10.6			4.8			5.1	
LOS		B			B			A			A	
Approach Delay		11.1			10.6			4.8			5.1	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		23			21			10			15	
Queue Length 95th (ft)		46			42			28			38	

Lanes, Volumes, Timings

24: Fillmore Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1002			717			1270			1540	
Turn Bay Length (ft)												
Base Capacity (vph)		1507			1560			1609			1625	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.22			0.19			0.18			0.24	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 35.8

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 7.9

Intersection LOS: A

Intersection Capacity Utilization 49.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 24: Fillmore Ave & E Ferry St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
25: Fillmore Ave & Northland Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	40	14	20	39	7	3	219	33	39	331	9
Future Volume (vph)	5	40	14	20	39	7	3	219	33	39	331	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.968			0.985			0.982			0.997	
Flt Protected		0.996			0.985			0.999			0.995	
Satd. Flow (prot)	0	1796	0	0	1807	0	0	1827	0	0	1848	0
Flt Permitted		0.963			0.874			0.997			0.955	
Satd. Flow (perm)	0	1736	0	0	1604	0	0	1824	0	0	1774	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			8			20			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1020			890			1620			1011	
Travel Time (s)		23.2			20.2			36.8			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	43	15	22	42	8	3	238	36	42	360	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	63	0	0	72	0	0	277	0	0	412	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		6.7			6.8			28.5			28.5	
Actuated g/C Ratio		0.19			0.19			0.81			0.81	
v/c Ratio		0.18			0.23			0.19			0.29	
Control Delay		10.4			12.1			3.4			4.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.4			12.1			3.4			4.0	
LOS		B			B			A			A	
Approach Delay		10.4			12.1			3.4			4.0	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		7			9			0			0	
Queue Length 95th (ft)		24			29			50			83	
Internal Link Dist (ft)		940			810			1540			931	
Turn Bay Length (ft)												
Base Capacity (vph)		896			825			1474			1430	

Lanes, Volumes, Timings

25: Fillmore Ave & Northland Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.07			0.09			0.19			0.29	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 35.3

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.29

Intersection Signal Delay: 5.0

Intersection LOS: A

Intersection Capacity Utilization 53.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 25: Fillmore Ave & Northland Ave

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	149	17	26	142	28	17	177	24	65	331	68
Future Volume (vph)	76	149	17	26	142	28	17	177	24	65	331	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991			0.981			0.985			0.980	
Flt Protected		0.984			0.993			0.996			0.993	
Satd. Flow (prot)	0	1816	0	0	1815	0	0	1827	0	0	1813	0
Flt Permitted		0.851			0.941			0.957			0.928	
Satd. Flow (perm)	0	1571	0	0	1720	0	0	1756	0	0	1694	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			19			16			23	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		928			735			1011			742	
Travel Time (s)		21.1			16.7			23.0			16.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	83	162	18	28	154	30	18	192	26	71	360	74
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	263	0	0	212	0	0	236	0	0	505	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.6	22.6		22.6	22.6		27.4	27.4		27.4	27.4	
Total Split (%)	45.2%	45.2%		45.2%	45.2%		54.8%	54.8%		54.8%	54.8%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		12.4			12.4			23.8			23.8	
Actuated g/C Ratio		0.27			0.27			0.53			0.53	
v/c Ratio		0.60			0.44			0.25			0.56	
Control Delay		19.6			14.6			7.4			11.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		19.6			14.6			7.4			11.0	
LOS		B			B			A			B	
Approach Delay		19.6			14.6			7.4			11.0	
Approach LOS		B			B			A			B	
Queue Length 50th (ft)		55			39			27			72	
Queue Length 95th (ft)		107			81			73			184	
Internal Link Dist (ft)		848			655			931			662	
Turn Bay Length (ft)												
Base Capacity (vph)		636			702			931			902	

Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.41			0.30			0.25			0.56	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 45.2

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 12.8

Intersection LOS: B

Intersection Capacity Utilization 73.3%

ICU Level of Service D

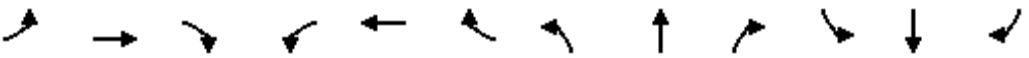
Analysis Period (min) 15

Splits and Phases: 26: Fillmore Ave & E Delavan Ave

 Ø2	 Ø4
27.4 s	22.6 s
 Ø6	 Ø8
27.4 s	22.6 s

Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑	↑			
Traffic Volume (vph)	281	165	0	0	206	16	47	155	74	0	0	0
Future Volume (vph)	281	165	0	0	206	16	47	155	74	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	0		150	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.989				0.850			
Flt Protected		0.969						0.988				
Satd. Flow (prot)	0	3429	0	0	3500	0	0	1840	1583	0	0	0
Flt Permitted		0.686						0.988				
Satd. Flow (perm)	0	2428	0	0	3500	0	0	1840	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					17				80			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		310			928			1019			213	
Travel Time (s)		7.0			21.1			23.2			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	305	179	0	0	224	17	51	168	80	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	484	0	0	241	0	0	219	80	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)		0.0			0.0			0.0	0.0			
Total Lost Time (s)		4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		None	None	None			
Act Effct Green (s)		22.0			22.0			9.8	9.8			
Actuated g/C Ratio		0.58			0.58			0.26	0.26			
v/c Ratio		0.34			0.12			0.46	0.17			
Control Delay		5.0			5.6			14.6	4.2			
Queue Delay		0.0			0.0			0.0	0.0			
Total Delay		5.0			5.6			14.6	4.2			
LOS		A			A			B	A			
Approach Delay		5.0			5.6			11.8				
Approach LOS		A			A			B				
Queue Length 50th (ft)		15			11			36	0			
Queue Length 95th (ft)		41			30			75	18			

Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

03/21/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lanes, Volumes, Timings

27: Humboldt Parkway NB & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		230			848			939			133	
Turn Bay Length (ft)									150			
Base Capacity (vph)		1416			2049			882	800			
Starvation Cap Reductn		0			0			0	0			
Spillback Cap Reductn		0			0			0	0			
Storage Cap Reductn		0			0			0	0			
Reduced v/c Ratio		0.34			0.12			0.25	0.10			

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 37.7

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 7.1

Intersection LOS: A

Intersection Capacity Utilization 43.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 27: Humboldt Parkway NB & E Delavan Ave

#27  Ø2	#27 #28  Ø4
22.5 s	22.5 s
#28  Ø6	#27 #28  Ø8
22.5 s	22.5 s

Lane Group	Ø6
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			↱↱						↱	↱
Traffic Volume (vph)	0	416	27	91	178	0	0	0	0	27	29	12
Future Volume (vph)	0	416	27	91	178	0	0	0	0	27	29	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992										0.850
Flt Protected					0.983						0.977	
Satd. Flow (prot)	0	1848	0	0	3479	0	0	0	0	0	1820	1583
Flt Permitted					0.752						0.977	
Satd. Flow (perm)	0	1848	0	0	2661	0	0	0	0	0	1820	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9										36
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2669			310			684			864	
Travel Time (s)		60.7			7.0			15.5			19.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	452	29	99	193	0	0	0	0	29	32	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	481	0	0	292	0	0	0	0	0	61	13
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	50.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0						0.0	0.0
Total Lost Time (s)		4.5			4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					None	None	None
Act Effct Green (s)		22.0			22.0						9.6	9.6
Actuated g/C Ratio		0.58			0.58						0.25	0.25
v/c Ratio		0.44			0.19						0.13	0.03
Control Delay		8.5			4.2						10.5	1.9
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		8.5			4.2						10.5	1.9
LOS		A			A						B	A
Approach Delay		8.5			4.2						9.0	
Approach LOS		A			A						A	
Queue Length 50th (ft)		55			10						9	0
Queue Length 95th (ft)		145			24						26	4

Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

03/21/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lanes, Volumes, Timings

28: Humboldt Parkway SB & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		2589			230			604			784	
Turn Bay Length (ft)												100
Base Capacity (vph)		1082			1552						872	777
Starvation Cap Reductn		0			0						0	0
Spillback Cap Reductn		0			0						0	0
Storage Cap Reductn		0			0						0	0
Reduced v/c Ratio		0.44			0.19						0.07	0.02

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 37.7

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 7.1

Intersection LOS: A

Intersection Capacity Utilization 46.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 28: Humboldt Parkway SB & E Delavan Ave

#27 	#27 #28 
22.5 s	22.5 s
#28 	#27 #28 
22.5 s	22.5 s

Lane Group	Ø2
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
29: Jefferson Ave & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	340	29	26	140	15	28	93	52	5	74	82
Future Volume (vph)	38	340	29	26	140	15	28	93	52	5	74	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.989			0.959			0.931	
Flt Protected		0.995			0.993			0.992			0.999	
Satd. Flow (prot)	0	1835	0	0	1829	0	0	1772	0	0	1732	0
Flt Permitted		0.956			0.924			0.943			0.993	
Satd. Flow (perm)	0	1763	0	0	1702	0	0	1685	0	0	1722	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			12			57			89	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		592			2669			1017			352	
Travel Time (s)		13.5			60.7			23.1			8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	41	370	32	28	152	16	30	101	57	5	80	89
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	443	0	0	196	0	0	188	0	0	174	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		14.3			14.3			18.1			18.1	
Actuated g/C Ratio		0.34			0.34			0.44			0.44	
v/c Ratio		0.72			0.33			0.25			0.22	
Control Delay		18.9			10.7			7.2			5.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		18.9			10.7			7.2			5.6	
LOS		B			B			A			A	
Approach Delay		18.9			10.7			7.2			5.6	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		84			30			18			11	
Queue Length 95th (ft)		158			64			52			41	
Internal Link Dist (ft)		512			2589			937			272	
Turn Bay Length (ft)												
Base Capacity (vph)		775			750			767			802	

Lanes, Volumes, Timings

29: Jefferson Ave & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.57			0.26			0.25			0.22	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 41.5

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 12.8

Intersection LOS: B

Intersection Capacity Utilization 55.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 29: Jefferson Ave & E Delavan Ave

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
30: Jefferson Ave & Northland Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	22	10	15	5	15	11	138	8	11	132	14
Future Volume (vph)	14	22	10	15	5	15	11	138	8	11	132	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970			0.942			0.993			0.988	
Flt Protected		0.985			0.979			0.997			0.996	
Satd. Flow (prot)	0	1780	0	0	1718	0	0	1844	0	0	1833	0
Flt Permitted								0.984			0.984	
Satd. Flow (perm)	0	1807	0	0	1755	0	0	1820	0	0	1811	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			16			7			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		806			2743			848			1017	
Travel Time (s)		18.3			62.3			19.3			23.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	24	11	16	5	16	12	150	9	12	143	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	50	0	0	37	0	0	171	0	0	170	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		6.4			6.3			32.0			32.0	
Actuated g/C Ratio		0.18			0.18			0.90			0.90	
v/c Ratio		0.15			0.11			0.10			0.10	
Control Delay		10.3			8.9			2.0			1.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.3			8.9			2.0			1.9	
LOS		B			A			A			A	
Approach Delay		10.3			8.9			2.0			1.9	
Approach LOS		B			A			A			A	
Queue Length 50th (ft)		7			4			0			0	
Queue Length 95th (ft)		21			16			30			29	
Internal Link Dist (ft)		726			2663			768			937	
Turn Bay Length (ft)												
Base Capacity (vph)		931			907			1645			1638	

Lanes, Volumes, Timings

30: Jefferson Ave & Northland Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.05			0.04			0.10			0.10	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 35.4

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.15

Intersection Signal Delay: 3.5

Intersection LOS: A

Intersection Capacity Utilization 22.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 30: Jefferson Ave & Northland Ave

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
31: Jefferson Ave & Brunswick Blvd

03/21/2022

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	25	20	146	23	9	148
Future Volume (vph)	25	20	146	23	9	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.939		0.982			
Flt Protected	0.973					0.997
Satd. Flow (prot)	1702	0	1829	0	0	1857
Flt Permitted	0.973					0.987
Satd. Flow (perm)	1702	0	1829	0	0	1839
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	22		21			
Link Speed (mph)	30		30			30
Link Distance (ft)	2734		751			848
Travel Time (s)	62.1		17.1			19.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	27	22	159	25	10	161
Shared Lane Traffic (%)						
Lane Group Flow (vph)	49	0	184	0	0	171
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%	50.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.3		34.8			34.8
Actuated g/C Ratio	0.15		0.86			0.86
v/c Ratio	0.17		0.12			0.11
Control Delay	12.6		2.3			2.5
Queue Delay	0.0		0.0			0.0
Total Delay	12.6		2.3			2.5
LOS	B		A			A
Approach Delay	12.6		2.3			2.5
Approach LOS	B		A			A
Queue Length 50th (ft)	5		0			0
Queue Length 95th (ft)	25		31			31
Internal Link Dist (ft)	2654		671			768
Turn Bay Length (ft)						
Base Capacity (vph)	773		1567			1573

Lanes, Volumes, Timings

31: Jefferson Ave & Brunswick Blvd

03/21/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.06		0.12			0.11

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.7

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.17

Intersection Signal Delay: 3.6

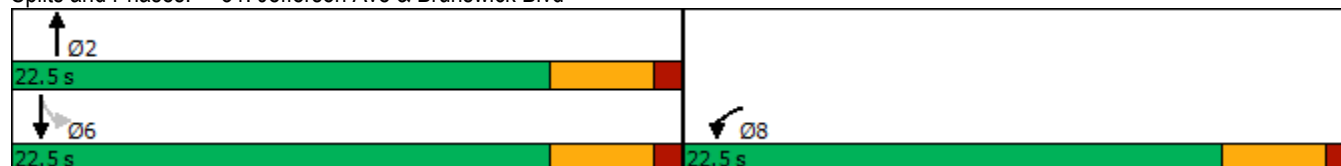
Intersection LOS: A

Intersection Capacity Utilization 26.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 31: Jefferson Ave & Brunswick Blvd



Lanes, Volumes, Timings
32: Jefferson Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	206	45	47	452	40	37	110	23	20	129	23
Future Volume (vph)	27	206	45	47	452	40	37	110	23	20	129	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.978			0.990			0.982			0.982	
Flt Protected		0.995			0.996			0.989			0.994	
Satd. Flow (prot)	0	1813	0	0	1837	0	0	1809	0	0	1818	0
Flt Permitted		0.932			0.949			0.914			0.959	
Satd. Flow (perm)	0	1698	0	0	1750	0	0	1672	0	0	1754	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			10			16			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			194			1406			751	
Travel Time (s)		7.5			4.4			32.0			17.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	224	49	51	491	43	40	120	25	22	140	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	302	0	0	585	0	0	185	0	0	187	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	31.0	31.0		31.0	31.0		24.0	24.0		24.0	24.0	
Total Split (%)	56.4%	56.4%		56.4%	56.4%		43.6%	43.6%		43.6%	43.6%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		20.7			20.7			19.7			19.7	
Actuated g/C Ratio		0.42			0.42			0.40			0.40	
v/c Ratio		0.42			0.79			0.27			0.26	
Control Delay		10.8			21.0			12.2			12.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.8			21.0			12.2			12.0	
LOS		B			C			B			B	
Approach Delay		10.8			21.0			12.2			12.0	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)		52			134			32			33	
Queue Length 95th (ft)		98			235			79			79	
Internal Link Dist (ft)		252			114			1326			671	
Turn Bay Length (ft)												
Base Capacity (vph)		930			952			676			708	

Lanes, Volumes, Timings
32: Jefferson Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.32			0.61			0.27			0.26	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 49.5

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 15.9

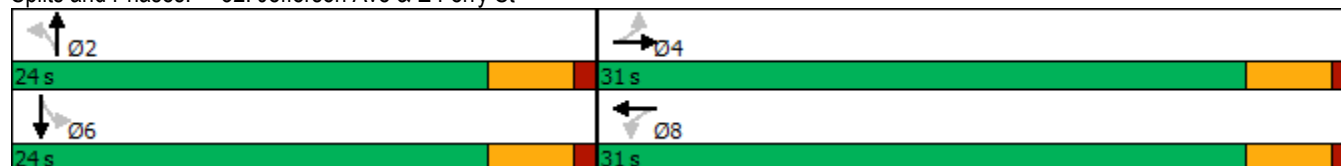
Intersection LOS: B

Intersection Capacity Utilization 60.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 32: Jefferson Ave & E Ferry St



Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	95	36	23	102	12	24	156	11	9	195	20
Future Volume (vph)	9	95	36	23	102	12	24	156	11	9	195	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.965			0.988			0.992			0.988	
Flt Protected		0.997			0.992			0.994			0.998	
Satd. Flow (prot)	0	1792	0	0	1826	0	0	1837	0	0	1837	0
Flt Permitted		0.968			0.931			0.953			0.989	
Satd. Flow (perm)	0	1740	0	0	1713	0	0	1761	0	0	1820	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39			13			8			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1023			1295			630			1406	
Travel Time (s)		23.3			29.4			14.3			32.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	103	39	25	111	13	26	170	12	10	212	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	152	0	0	149	0	0	208	0	0	244	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		8.1			8.1			21.8			21.8	
Actuated g/C Ratio		0.22			0.22			0.60			0.60	
v/c Ratio		0.36			0.38			0.20			0.22	
Control Delay		11.3			13.3			5.6			5.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.3			13.3			5.6			5.6	
LOS		B			B			A			A	
Approach Delay		11.3			13.3			5.6			5.6	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		18			22			17			20	
Queue Length 95th (ft)		47			51			48			55	
Internal Link Dist (ft)		943			1215			550			1326	
Turn Bay Length (ft)												
Base Capacity (vph)		887			861			1065			1102	

Lanes, Volumes, Timings

33: Jefferson Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.17			0.17			0.20			0.22	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36.1

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 8.3

Intersection LOS: A

Intersection Capacity Utilization 39.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 33: Jefferson Ave & E Utica St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
34: Jefferson Ave & Riley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	24	14	8	15	5	10	184	8	1	210	9
Future Volume (vph)	8	24	14	8	15	5	10	184	8	1	210	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.959			0.977			0.994			0.994	
Flt Protected		0.991			0.985			0.998				
Satd. Flow (prot)	0	1770	0	0	1793	0	0	1848	0	0	1852	0
Flt Permitted								0.987			0.999	
Satd. Flow (perm)	0	1786	0	0	1820	0	0	1827	0	0	1850	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			5			6			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		870			1108			418			630	
Travel Time (s)		19.8			25.2			9.5			14.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	26	15	9	16	5	11	200	9	1	228	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	50	0	0	30	0	0	220	0	0	239	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		6.3			6.2			32.2			32.2	
Actuated g/C Ratio		0.18			0.17			0.90			0.90	
v/c Ratio		0.15			0.09			0.13			0.14	
Control Delay		9.8			10.6			2.0			2.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.8			10.6			2.0			2.0	
LOS		A			B			A			A	
Approach Delay		9.8			10.6			2.0			2.0	
Approach LOS		A			B			A			A	
Queue Length 50th (ft)		6			5			0			0	
Queue Length 95th (ft)		20			15			38			41	
Internal Link Dist (ft)		790			1028			338			550	
Turn Bay Length (ft)												
Base Capacity (vph)		915			927			1652			1673	

Lanes, Volumes, Timings

34: Jefferson Ave & Riley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.05			0.03			0.13			0.14	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 35.6

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.15

Intersection Signal Delay: 3.2

Intersection LOS: A

Intersection Capacity Utilization 29.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 34: Jefferson Ave & Riley St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
35: Jefferson Ave & Northampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	35	6	14	64	11	14	170	4	7	199	12
Future Volume (vph)	6	35	6	14	64	11	14	170	4	7	199	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.982			0.983			0.997			0.993	
Flt Protected		0.993			0.992			0.996			0.998	
Satd. Flow (prot)	0	1816	0	0	1816	0	0	1850	0	0	1846	0
Flt Permitted		0.934			0.934			0.978			0.992	
Satd. Flow (perm)	0	1708	0	0	1710	0	0	1816	0	0	1835	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			12			3			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1340			1290			1156			278	
Travel Time (s)		30.5			29.3			26.3			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	38	7	15	70	12	15	185	4	8	216	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	52	0	0	97	0	0	204	0	0	237	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		7.1			7.2			26.2			26.2	
Actuated g/C Ratio		0.19			0.20			0.72			0.72	
v/c Ratio		0.15			0.28			0.16			0.18	
Control Delay		11.2			12.7			4.4			4.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.2			12.7			4.4			4.4	
LOS		B			B			A			A	
Approach Delay		11.2			12.7			4.4			4.4	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		8			15			16			18	
Queue Length 95th (ft)		23			36			41			46	
Internal Link Dist (ft)		1260			1210			1076			198	
Turn Bay Length (ft)												
Base Capacity (vph)		844			848			1300			1315	

Lanes, Volumes, Timings

35: Jefferson Ave & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.06			0.11			0.16			0.18	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36.6

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.28

Intersection Signal Delay: 6.4

Intersection LOS: A

Intersection Capacity Utilization 29.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 35: Jefferson Ave & Northhampton St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
36: Jefferson Ave & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	383	43	46	405	57	22	164	3	43	178	23
Future Volume (vph)	22	383	43	46	405	57	22	164	3	43	178	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.986			0.983			0.998			0.986	
Flt Protected		0.998			0.995			0.994			0.991	
Satd. Flow (prot)	0	3483	0	0	3462	0	0	3511	0	0	3458	0
Flt Permitted		0.913			0.874			0.911			0.885	
Satd. Flow (perm)	0	3186	0	0	3041	0	0	3218	0	0	3088	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30			36			3			25	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		169			169			156			165	
Travel Time (s)		3.8			3.8			3.5			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	416	47	50	440	62	24	178	3	47	193	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	487	0	0	552	0	0	205	0	0	265	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		12.5			12.5			18.1			18.1	
Actuated g/C Ratio		0.31			0.31			0.46			0.46	
v/c Ratio		0.48			0.56			0.14			0.19	
Control Delay		11.6			12.7			7.5			7.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.6			12.7			7.5			7.1	
LOS		B			B			A			A	
Approach Delay		11.6			12.7			7.5			7.1	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		41			47			12			14	
Queue Length 95th (ft)		68			80			32			38	
Internal Link Dist (ft)		89			89			76			85	
Turn Bay Length (ft)												
Base Capacity (vph)		1470			1407			1470			1423	

Lanes, Volumes, Timings
36: Jefferson Ave & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.33			0.39			0.14			0.19	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 39.7

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.56

Intersection Signal Delay: 10.6

Intersection LOS: B

Intersection Capacity Utilization 54.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 36: Jefferson Ave & Best St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
37: Jefferson Ave & E North St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	61	78	172	163	225	59
Future Volume (vph)	61	78	172	163	225	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.924				0.972	
Flt Protected	0.979			0.975		
Satd. Flow (prot)	1685	0	0	1816	1811	0
Flt Permitted	0.979			0.709		
Satd. Flow (perm)	1685	0	0	1321	1811	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	85				35	
Link Speed (mph)	30			30	30	
Link Distance (ft)	879			684	486	
Travel Time (s)	20.0			15.5	11.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	66	85	187	177	245	64
Shared Lane Traffic (%)						
Lane Group Flow (vph)	151	0	0	364	309	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		27.5	27.5	27.5	
Total Split (%)	45.0%		55.0%	55.0%	55.0%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effct Green (s)	7.6			30.5	30.5	
Actuated g/C Ratio	0.17			0.69	0.69	
v/c Ratio	0.42			0.40	0.24	
Control Delay	11.4			6.5	4.3	
Queue Delay	0.0			0.0	0.0	
Total Delay	11.4			6.5	4.3	
LOS	B			A	A	
Approach Delay	11.4			6.5	4.3	
Approach LOS	B			A	A	
Queue Length 50th (ft)	15			35	23	
Queue Length 95th (ft)	45			99	62	
Internal Link Dist (ft)	799			604	406	
Turn Bay Length (ft)						
Base Capacity (vph)	743			913	1262	

Lanes, Volumes, Timings

37: Jefferson Ave & E North St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.20			0.40	0.24	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 44.1

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 6.6

Intersection LOS: A

Intersection Capacity Utilization 52.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 37: Jefferson Ave & E North St

 Ø2	 Ø4
27.5 s	22.5 s
 Ø6	
27.5 s	

Lanes, Volumes, Timings
38: Jefferson Ave & High St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	36	85	20	74	36	167	301	31	9	253	15
Future Volume (vph)	3	36	85	20	74	36	167	301	31	9	253	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.907			0.963			0.992			0.993	
Flt Protected		0.999			0.992			0.984			0.998	
Satd. Flow (prot)	0	1688	0	0	1779	0	0	1818	0	0	1846	0
Flt Permitted		0.993			0.944			0.790			0.984	
Satd. Flow (perm)	0	1678	0	0	1693	0	0	1460	0	0	1820	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		92			33			9			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		840			1233			880			684	
Travel Time (s)		19.1			28.0			20.0			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	39	92	22	80	39	182	327	34	10	275	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	134	0	0	141	0	0	543	0	0	301	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.6	22.6		22.6	22.6		37.4	37.4		37.4	37.4	
Total Split (%)	37.7%	37.7%		37.7%	37.7%		62.3%	62.3%		62.3%	62.3%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		8.7			8.7			36.8			36.8	
Actuated g/C Ratio		0.17			0.17			0.71			0.71	
v/c Ratio		0.37			0.45			0.52			0.23	
Control Delay		11.0			19.5			7.5			4.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.0			19.5			7.5			4.4	
LOS		B			B			A			A	
Approach Delay		11.0			19.5			7.5			4.4	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		11			29			67			28	
Queue Length 95th (ft)		47			69			172			68	
Internal Link Dist (ft)		760			1153			800			604	
Turn Bay Length (ft)												
Base Capacity (vph)		648			616			1043			1299	

Lanes, Volumes, Timings

38: Jefferson Ave & High St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.21			0.23			0.52			0.23	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 51.6

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 8.6

Intersection LOS: A

Intersection Capacity Utilization 69.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 38: Jefferson Ave & High St

 Ø2	 Ø4
37.4 s	22.6 s
 Ø6	 Ø8
37.4 s	22.6 s

Lanes, Volumes, Timings
39: Wohlers Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	317	4	27	518	59	8	24	44	0	0	0
Future Volume (vph)	24	317	4	27	518	59	8	24	44	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.987			0.922				
Flt Protected		0.997			0.998			0.995				
Satd. Flow (prot)	0	1855	0	0	1835	0	0	1709	0	0	0	0
Flt Permitted		0.941			0.975			0.995				
Satd. Flow (perm)	0	1751	0	0	1793	0	0	1709	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			14			48				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		280			1179			1336			278	
Travel Time (s)		6.4			26.8			30.4			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	345	4	29	563	64	9	26	48	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	375	0	0	656	0	0	83	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4			8			2					
Detector Phase	4	4		8	8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5				
Total Split (s)	37.0	37.0		37.0	37.0		23.0	23.0				
Total Split (%)	61.7%	61.7%		61.7%	61.7%		38.3%	38.3%				
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max				
Act Effct Green (s)		23.3			23.3			18.8				
Actuated g/C Ratio		0.45			0.45			0.37				
v/c Ratio		0.47			0.80			0.13				
Control Delay		11.3			19.5			8.3				
Queue Delay		0.0			0.0			0.0				
Total Delay		11.3			19.5			8.3				
LOS		B			B			A				
Approach Delay		11.3			19.5			8.3				
Approach LOS		B			B			A				
Queue Length 50th (ft)		71			151			7				
Queue Length 95th (ft)		123			256			35				
Internal Link Dist (ft)		200			1099			1256			198	
Turn Bay Length (ft)												
Base Capacity (vph)		1128			1160			657				

Lanes, Volumes, Timings
39: Wohlers Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.33			0.57			0.13				

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 51.3

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 15.9

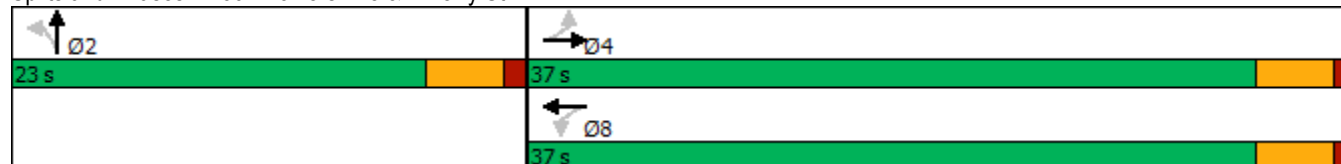
Intersection LOS: B

Intersection Capacity Utilization 50.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 39: Wohlers Ave & E Ferry St



Lanes, Volumes, Timings
40: Wohlers Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	100	8	4	122	15	3	38	22	1	13	5
Future Volume (vph)	12	100	8	4	122	15	3	38	22	1	13	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991			0.986			0.952			0.966	
Flt Protected		0.995			0.999			0.998			0.998	
Satd. Flow (prot)	0	1837	0	0	1835	0	0	1770	0	0	1796	0
Flt Permitted		0.954			0.989			0.995			0.994	
Satd. Flow (perm)	0	1761	0	0	1816	0	0	1764	0	0	1789	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			16			24			5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		274			1173			1331			1336	
Travel Time (s)		6.2			26.7			30.3			30.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	109	9	4	133	16	3	41	24	1	14	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	131	0	0	153	0	0	68	0	0	20	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		8.0			8.0			21.9			21.9	
Actuated g/C Ratio		0.22			0.22			0.61			0.61	
v/c Ratio		0.33			0.37			0.06			0.02	
Control Delay		12.9			12.9			3.9			4.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.9			12.9			3.9			4.4	
LOS		B			B			A			A	
Approach Delay		12.9			12.9			3.9			4.4	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		19			22			3			1	
Queue Length 95th (ft)		47			51			16			8	
Internal Link Dist (ft)		194			1093			1251			1256	
Turn Bay Length (ft)												
Base Capacity (vph)		883			914			1079			1087	

Lanes, Volumes, Timings

40: Wohlers Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.15			0.17			0.06			0.02	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36.1

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.37

Intersection Signal Delay: 10.8

Intersection LOS: B

Intersection Capacity Utilization 23.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 40: Wohlers Ave & E Utica St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
41: Humboldt Parkway SB & Woodlawn Ave

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	406	32
Future Volume (vph)	0	0	0	0	406	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.990	
Flt Protected						
Satd. Flow (prot)	0	0	0	0	1844	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	0	1844	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	780			265	319	
Travel Time (s)	17.7			6.0	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	441	35
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	476	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 26.6% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings
42: Humboldt Parkway SB & Glenwood Ave

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	29	0	0	410	0
Future Volume (vph)	0	29	0	0	410	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1863	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	750			456	296	
Travel Time (s)	17.0			10.4	6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	32	0	0	446	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	32	0	0	446	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 31.6% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
42: Humboldt Parkway SB & Glenwood Ave

03/21/2022

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	29	0	0	410	0
Future Vol, veh/h	0	29	0	0	410	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	32	0	0	446	0

Major/Minor	Minor2	Major2
Conflicting Flow All	- 446	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 612	- 0
Stage 1	0 -	- 0
Stage 2	0 -	- 0
Platoon blocked, %		-
Mov Cap-1 Maneuver	- 612	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	11.2	0
HCM LOS	B	

Minor Lane/Major Mvmt	EBLn1	SBT
Capacity (veh/h)	612	-
HCM Lane V/C Ratio	0.052	-
HCM Control Delay (s)	11.2	-
HCM Lane LOS	B	-
HCM 95th %tile Q(veh)	0.2	-

Lanes, Volumes, Timings

43: Humboldt Parkway SB & Riley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	13	25	25	13	0	0	0	0	25	368	25
Future Volume (vph)	0	13	25	25	13	0	0	0	0	25	368	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.911										0.992	
Flt Protected	0.968										0.997	
Satd. Flow (prot)	0	1697	0	0	1803	0	0	0	0	0	1842	0
Flt Permitted	0.968										0.997	
Satd. Flow (perm)	0	1697	0	0	1803	0	0	0	0	0	1842	0
Link Speed (mph)	30				30				30			
Link Distance (ft)	873				152				418			
Travel Time (s)	19.8				3.5				9.5			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	14	27	27	14	0	0	0	0	27	400	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	41	0	0	41	0	0	0	0	0	454	0
Sign Control	Stop				Stop				Stop			
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 37.7%	ICU Level of Service A											
Analysis Period (min) 15												

HCM 6th TWSC
43: Humboldt Parkway SB & Riley St

03/21/2022

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	13	25	25	13	0	0	0	0	25	368	25
Future Vol, veh/h	0	13	25	25	13	0	0	0	0	25	368	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	27	27	14	0	0	0	0	27	400	27
Major/Minor	Minor2		Minor1				Major2					
Conflicting Flow All	-	468	414	488	481	-				0	0	0
Stage 1	-	468	-	0	0	-				-	-	-
Stage 2	-	0	-	488	481	-				-	-	-
Critical Hdwy	-	6.52	6.22	7.12	6.52	-				4.12	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-				-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-				-	-	-
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-				2.218	-	-
Pot Cap-1 Maneuver	0	493	638	490	485	0				-	-	-
Stage 1	0	561	-	-	-	0				-	-	-
Stage 2	0	-	-	561	554	0				-	-	-
Platoon blocked, %											-	-
Mov Cap-1 Maneuver	-	493	638	459	485	-				-	-	-
Mov Cap-2 Maneuver	-	493	-	459	485	-				-	-	-
Stage 1	-	561	-	-	-	-				-	-	-
Stage 2	-	-	-	524	554	-				-	-	-
Approach	EB		WB				SB					
HCM Control Delay, s	11.7		13.4									
HCM LOS	B		B									
Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR							
Capacity (veh/h)	580 468		-	-	-							
HCM Lane V/C Ratio	0.071 0.088		-	-	-							
HCM Control Delay (s)	11.7 13.4		-	-	-							
HCM Lane LOS	B B		-	-	-							
HCM 95th %tile Q(veh)	0.2 0.3		-	-	-							

Lanes, Volumes, Timings
44: Humboldt Parkway SB & Kingsley St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	13	0	0	399	10
Future Volume (vph)	0	13	0	0	399	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.997	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1857	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1857	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	736			293	418	
Travel Time (s)	16.7			6.7	9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	14	0	0	434	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	14	0	0	445	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 31.6% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
44: Humboldt Parkway SB & Kingsley St

03/21/2022

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	13	0	0	399	10
Future Vol, veh/h	0	13	0	0	399	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	14	0	0	434	11
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	440	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	617	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	617	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	11		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	617	-	-			
HCM Lane V/C Ratio	0.023	-	-			
HCM Control Delay (s)	11	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
45: W Parade Ave & Humboldt Parkway SB

03/21/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↘	
Traffic Volume (vph)	0	97	63	0	48	29
Future Volume (vph)	0	97	63	0	48	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.949	
Flt Protected					0.970	
Satd. Flow (prot)	0	1863	1863	0	1715	0
Flt Permitted					0.970	
Satd. Flow (perm)	0	1863	1863	0	1715	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		199	738		350	
Travel Time (s)		4.5	16.8		8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	105	68	0	52	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	105	68	0	84	0
Sign Control		Stop	Stop		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 16.2% ICU Level of Service A

Analysis Period (min) 15

Intersection

Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	0	97	63	0	48	29
Future Vol, veh/h	0	97	63	0	48	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	105	68	0	52	32
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	7.8	7.6	7.7
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	62%
Vol Thru, %	100%	100%	0%
Vol Right, %	0%	0%	38%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	97	63	77
LT Vol	0	0	48
Through Vol	97	63	0
RT Vol	0	0	29
Lane Flow Rate	105	68	84
Geometry Grp	1	1	1
Degree of Util (X)	0.121	0.079	0.096
Departure Headway (Hd)	4.133	4.161	4.131
Convergence, Y/N	Yes	Yes	Yes
Cap	860	853	855
Service Time	2.192	2.229	2.217
HCM Lane V/C Ratio	0.122	0.08	0.098
HCM Control Delay	7.8	7.6	7.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.4	0.3	0.3

Lanes, Volumes, Timings
46: Linden Park & Dodge St/W Parade Ave

03/21/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	96	1	5	88	1	1
Future Volume (vph)	96	1	5	88	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999				0.932	
Flt Protected				0.998	0.976	
Satd. Flow (prot)	1861	0	0	1859	1694	0
Flt Permitted				0.998	0.976	
Satd. Flow (perm)	1861	0	0	1859	1694	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	489			199	180	
Travel Time (s)	11.1			4.5	4.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	104	1	5	96	1	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	105	0	0	101	2	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	18.7%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
46: Linden Park & Dodge St/W Parade Ave

03/21/2022

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	96	1	5	88	1	1
Future Vol, veh/h	96	1	5	88	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	104	1	5	96	1	1
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	105	0	211	105
Stage 1	-	-	-	-	105	-
Stage 2	-	-	-	-	106	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1486	-	777	949
Stage 1	-	-	-	-	919	-
Stage 2	-	-	-	-	918	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1486	-	774	949
Mov Cap-2 Maneuver	-	-	-	-	774	-
Stage 1	-	-	-	-	919	-
Stage 2	-	-	-	-	914	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0.4		9.2		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	853	-	-	1486	-	
HCM Lane V/C Ratio	0.003	-	-	0.004	-	
HCM Control Delay (s)	9.2	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Lanes, Volumes, Timings
47: Humboldt Parkway NB & Riley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	25	0	0	25	13	13	211	13	0	0	0
Future Volume (vph)	13	25	0	0	25	13	13	211	13	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.954			0.993				
Flt Protected		0.983						0.997				
Satd. Flow (prot)	0	1831	0	0	1777	0	0	1844	0	0	0	0
Flt Permitted		0.983						0.997				
Satd. Flow (perm)	0	1831	0	0	1777	0	0	1844	0	0	0	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		152			1082			722			610	
Travel Time (s)		3.5			24.6			16.4			13.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	27	0	0	27	14	14	229	14	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	41	0	0	41	0	0	257	0	0	0	0
Sign Control		Stop			Stop			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	28.0%											
Analysis Period (min)	15											
ICU Level of Service A												

HCM 6th TWSC
47: Humboldt Parkway NB & Riley St

03/21/2022

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	25	0	0	25	13	13	211	13	0	0	0
Future Vol, veh/h	13	25	0	0	25	13	13	211	13	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	27	0	0	27	14	14	229	14	0	0	0
Major/Minor	Minor2		Minor1		Major1							
Conflicting Flow All	285	271	-	-	264	236	0	0	0			
Stage 1	0	0	-	-	264	-	-	-	-			
Stage 2	285	271	-	-	0	-	-	-	-			
Critical Hdwy	7.12	6.52	-	-	6.52	6.22	4.12	-	-			
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-			
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-			
Follow-up Hdwy	3.518	4.018	-	-	4.018	3.318	2.218	-	-			
Pot Cap-1 Maneuver	667	636	0	0	641	803	-	-	-			
Stage 1	-	-	0	0	690	-	-	-	-			
Stage 2	722	685	0	0	-	-	-	-	-			
Platoon blocked, %								-	-			
Mov Cap-1 Maneuver	634	636	-	-	641	803	-	-	-			
Mov Cap-2 Maneuver	634	636	-	-	641	-	-	-	-			
Stage 1	-	-	-	-	690	-	-	-	-			
Stage 2	681	685	-	-	-	-	-	-	-			
Approach	EB		WB		NB							
HCM Control Delay, s	11.1		10.6									
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL		NBT		NBR		EBLn1WBLn1					
Capacity (veh/h)	-		-		-		635 689					
HCM Lane V/C Ratio	-		-		-		0.065 0.06					
HCM Control Delay (s)	-		-		-		11.1 10.6					
HCM Lane LOS	-		-		-		B B					
HCM 95th %tile Q(veh)	-		-		-		0.2 0.2					

Lanes, Volumes, Timings
48: Humboldt Parkway NB & Woepfel St

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	4	260	5	0	0
Future Volume (vph)	0	4	260	5	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.998			
Flt Protected						
Satd. Flow (prot)	0	1611	1859	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1859	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	744		294			461
Travel Time (s)	16.9		6.7			10.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	4	283	5	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	4	288	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	24.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
48: Humboldt Parkway NB & Woepfel St

03/21/2022

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	260	5	0	0
Future Vol, veh/h	0	4	260	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	283	5	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	286	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	753	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	753	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	9.8		0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		- 753			
HCM Lane V/C Ratio	-		- 0.006			
HCM Control Delay (s)	-		- 9.8			
HCM Lane LOS	-		- A			
HCM 95th %tile Q(veh)	-		- 0			

Lanes, Volumes, Timings
49: Humboldt Parkway NB & Woodlawn Ave

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	12	257	8	0	0
Future Volume (vph)	0	12	257	8	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.996			
Flt Protected						
Satd. Flow (prot)	0	1611	1855	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1855	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	729		268			312
Travel Time (s)	16.6		6.1			7.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	13	279	9	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	13	288	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	24.0%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection

Int Delay, s/veh 0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	12	257	8	0	0
Future Vol, veh/h	0	12	257	8	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	13	279	9	0	0

Major/Minor	Minor1	Major1
Conflicting Flow All	- 284	0 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 755	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 755	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	WB	NB
HCM Control Delay, s	9.9	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	NBRWBLn1
Capacity (veh/h)	- -	755
HCM Lane V/C Ratio	- -	0.017
HCM Control Delay (s)	- -	9.9
HCM Lane LOS	- -	A
HCM 95th %tile Q(veh)	- -	0.1

Lanes, Volumes, Timings
50: Humboldt Parkway SB & Florida St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	23	0	0	141	8
Future Volume (vph)	0	23	0	0	141	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.992	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1848	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1848	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	935			344	684	
Travel Time (s)	21.3			7.8	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	25	0	0	153	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	25	0	0	162	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 17.9% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
50: Humboldt Parkway SB & Florida St

03/21/2022

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	23	0	0	141	8
Future Vol, veh/h	0	23	0	0	141	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	25	0	0	153	9
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	158	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	887	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	887	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	9.2		0			
HCM LOS	A					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	887	-	-			
HCM Lane V/C Ratio	0.028	-	-			
HCM Control Delay (s)	9.2	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
51: Humboldt Parkway SB & Northland Ave

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	25	0	0	160	20
Future Volume (vph)	0	25	0	0	160	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.985	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1835	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1835	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2743			805	344	
Travel Time (s)	62.3			18.3	7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	27	0	0	174	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	27	0	0	196	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 19.6% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
51: Humboldt Parkway SB & Northland Ave

03/21/2022

Intersection

Int Delay, s/veh 1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	25	0	0	160	20
Future Vol, veh/h	0	25	0	0	160	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	27	0	0	174	22

Major/Minor	Minor2	Major2
Conflicting Flow All	- 185	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 857	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 857	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	9.3	0
HCM LOS	A	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	857	-	-
HCM Lane V/C Ratio	0.032	-	-
HCM Control Delay (s)	9.3	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Lanes, Volumes, Timings
52: Humboldt Parkway SB & Brunswick Blvd

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	62	0	0	159	9
Future Volume (vph)	0	62	0	0	159	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.993	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1850	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1850	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2734			252	805	
Travel Time (s)	62.1			5.7	18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	67	0	0	173	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	67	0	0	183	0
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 19.4% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	62	0	0	159	9
Future Vol, veh/h	0	62	0	0	159	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	67	0	0	173	10
Number of Lanes	0	1	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	1
HCM Control Delay	7	8.1
HCM LOS	A	A

Lane	EBLn1	SBLn1
Vol Left, %	0%	0%
Vol Thru, %	0%	95%
Vol Right, %	100%	5%
Sign Control	Stop	Stop
Traffic Vol by Lane	62	168
LT Vol	0	0
Through Vol	0	159
RT Vol	62	9
Lane Flow Rate	67	183
Geometry Grp	1	1
Degree of Util (X)	0.068	0.204
Departure Headway (Hd)	3.651	4.02
Convergence, Y/N	Yes	Yes
Cap	966	895
Service Time	1.733	2.036
HCM Lane V/C Ratio	0.069	0.204
HCM Control Delay	7	8.1
HCM Lane LOS	A	A
HCM 95th-tile Q	0.2	0.8

Lanes, Volumes, Timings
53: Humboldt Parkway SB & Goulding Ave

03/21/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	46	0	0	934	0
Future Volume (vph)	0	46	0	0	934	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Fr _t	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	3539	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	3539	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1067			270	306	
Travel Time (s)	24.3			6.1	7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	50	0	0	1015	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	50	0	0	1015	0
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	30.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
53: Humboldt Parkway SB & Goulding Ave

03/21/2022

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↗↗	
Traffic Vol, veh/h	0	46	0	0	934	0
Future Vol, veh/h	0	46	0	0	934	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	50	0	0	1015	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	508	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	510	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	510	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	12.8		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	510	-				
HCM Lane V/C Ratio	0.098	-				
HCM Control Delay (s)	12.8	-				
HCM Lane LOS	B	-				
HCM 95th %tile Q(veh)	0.3	-				

Lanes, Volumes, Timings
54: Humboldt Parkway NB & Sydney St

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	39	475	0	0	0
Future Volume (vph)	0	39	475	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	913		608			1024
Travel Time (s)	20.8		13.8			23.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	42	516	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	42	516	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	35.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
54: Humboldt Parkway NB & Sydney St

03/21/2022

Intersection

Int Delay, s/veh 0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	39	475	0	0	0
Future Vol, veh/h	0	39	475	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	42	516	0	0	0

Major/Minor	Minor1	Major1
Conflicting Flow All	- 516	0 -
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 559	- 0
Stage 1	0 -	- 0
Stage 2	0 -	- 0
Platoon blocked, %		-
Mov Cap-1 Maneuver	- 559	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	WB	NB
HCM Control Delay, s	12	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBTWBLn1
Capacity (veh/h)	- 559
HCM Lane V/C Ratio	- 0.076
HCM Control Delay (s)	- 12
HCM Lane LOS	- B
HCM 95th %tile Q(veh)	- 0.2

Lanes, Volumes, Timings
55: Humboldt Parkway NB & Northland Ave

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	60	451	60	0	0
Future Volume (vph)	0	60	451	60	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865	0.865	0.984			
Flt Protected						
Satd. Flow (prot)	0	1611	1833	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1833	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	1020		1024			1019
Travel Time (s)	23.2		23.3			23.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	65	490	65	0	0
Shared Lane Traffic (%)		10%				
Lane Group Flow (vph)	7	58	555	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	37.8%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
55: Humboldt Parkway NB & Northland Ave

03/21/2022

Intersection

Int Delay, s/veh 1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	60	451	60	0	0
Future Vol, veh/h	0	60	451	60	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	65	490	65	0	0

Major/Minor	Minor1	Major1
Conflicting Flow All	- 523	0 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 554	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 554	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	WB	NB
HCM Control Delay, s	12.4	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBT	NBRWBLn1
Capacity (veh/h)	- -	554
HCM Lane V/C Ratio	- -	0.118
HCM Control Delay (s)	- -	12.4
HCM Lane LOS	- -	B
HCM 95th %tile Q(veh)	- -	0.4

Lanes, Volumes, Timings
56: Roehrer Ave & E Ferry St

03/21/2022

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰			↱	↘↙	
Traffic Volume (vph)	329	9	15	517	2	20
Future Volume (vph)	329	9	15	517	2	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.876	
Flt Protected				0.999	0.996	
Satd. Flow (prot)	1855	0	0	1861	1625	0
Flt Permitted				0.999	0.996	
Satd. Flow (perm)	1855	0	0	1861	1625	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1109			280	1331	
Travel Time (s)	25.2			6.4	30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	358	10	16	562	2	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	368	0	0	578	24	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	49.3%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	329	9	15	517	2	20
Future Vol, veh/h	329	9	15	517	2	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	358	10	16	562	2	22
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	368	0	957	363
Stage 1	-	-	-	-	363	-
Stage 2	-	-	-	-	594	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1191	-	286	682
Stage 1	-	-	-	-	704	-
Stage 2	-	-	-	-	552	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1191	-	280	682
Mov Cap-2 Maneuver	-	-	-	-	280	-
Stage 1	-	-	-	-	704	-
Stage 2	-	-	-	-	541	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		11.2	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	603	-	-	1191	-	
HCM Lane V/C Ratio	0.04	-	-	0.014	-	
HCM Control Delay (s)	11.2	-	-	8.1	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Lanes, Volumes, Timings
57: Roehrer Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	113	0	2	130	7	3	10	4	2	12	4
Future Volume (vph)	4	113	0	2	130	7	3	10	4	2	12	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.993			0.970			0.972	
Flt Protected		0.998			0.999			0.992			0.995	
Satd. Flow (prot)	0	1859	0	0	1848	0	0	1792	0	0	1802	0
Flt Permitted		0.998			0.999			0.992			0.995	
Satd. Flow (perm)	0	1859	0	0	1848	0	0	1792	0	0	1802	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1295			274			1342			1331	
Travel Time (s)		29.4			6.2			30.5			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	123	0	2	141	8	3	11	4	2	13	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	127	0	0	151	0	0	18	0	0	19	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	18.2%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	113	0	2	130	7	3	10	4	2	12	4
Future Vol, veh/h	4	113	0	2	130	7	3	10	4	2	12	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	123	0	2	141	8	3	11	4	2	13	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	8	7.6	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	3%	1%	11%
Vol Thru, %	59%	97%	94%	67%
Vol Right, %	24%	0%	5%	22%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	17	117	139	18
LT Vol	3	4	2	2
Through Vol	10	113	130	12
RT Vol	4	0	7	4
Lane Flow Rate	18	127	151	20
Geometry Grp	1	1	1	1
Degree of Util (X)	0.023	0.146	0.171	0.024
Departure Headway (Hd)	4.455	4.119	4.067	4.448
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	808	864	875	809
Service Time	2.456	2.179	2.123	2.449
HCM Lane V/C Ratio	0.022	0.147	0.173	0.025
HCM Control Delay	7.6	7.9	8	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.5	0.6	0.1

Lanes, Volumes, Timings
58: Wohlers Ave & Northampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	65	3	2	79	9	11	33	6	15	17	7
Future Volume (vph)	8	65	3	2	79	9	11	33	6	15	17	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.986			0.983			0.974	
Flt Protected		0.995			0.999			0.989			0.981	
Satd. Flow (prot)	0	1844	0	0	1835	0	0	1811	0	0	1780	0
Flt Permitted		0.995			0.999			0.989			0.981	
Satd. Flow (perm)	0	1844	0	0	1835	0	0	1811	0	0	1780	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		276			1045			1317			1331	
Travel Time (s)		6.3			23.8			29.9			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	71	3	2	86	10	12	36	7	16	18	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	83	0	0	98	0	0	55	0	0	42	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	18.2%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	8	65	3	2	79	9	11	33	6	15	17	7
Future Vol, veh/h	8	65	3	2	79	9	11	33	6	15	17	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	71	3	2	86	10	12	36	7	16	18	8
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.7	7.7	7.7	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	22%	11%	2%	38%
Vol Thru, %	66%	86%	88%	44%
Vol Right, %	12%	4%	10%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	50	76	90	39
LT Vol	11	8	2	15
Through Vol	33	65	79	17
RT Vol	6	3	9	7
Lane Flow Rate	54	83	98	42
Geometry Grp	1	1	1	1
Degree of Util (X)	0.066	0.096	0.112	0.051
Departure Headway (Hd)	4.353	4.175	4.109	4.363
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	828	847	861	825
Service Time	2.354	2.258	2.19	2.365
HCM Lane V/C Ratio	0.065	0.098	0.114	0.051
HCM Control Delay	7.7	7.7	7.7	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.3	0.4	0.2

Lanes, Volumes, Timings
59: Roehrer Ave & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	68	2	3	79	4	4	14	2	4	14	0
Future Volume (vph)	0	68	2	3	79	4	4	14	2	4	14	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.994			0.987				
Flt Protected					0.998			0.991			0.990	
Satd. Flow (prot)	0	1855	0	0	1848	0	0	1822	0	0	1844	0
Flt Permitted					0.998			0.991			0.990	
Satd. Flow (perm)	0	1855	0	0	1848	0	0	1822	0	0	1844	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1290			276			1313			1342	
Travel Time (s)		29.3			6.3			29.8			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	74	2	3	86	4	4	15	2	4	15	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	76	0	0	93	0	0	21	0	0	19	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 16.8%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	68	2	3	79	4	4	14	2	4	14	0
Future Vol, veh/h	0	68	2	3	79	4	4	14	2	4	14	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	74	2	3	86	4	4	15	2	4	15	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.6	7.4	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	0%	3%	22%
Vol Thru, %	70%	97%	92%	78%
Vol Right, %	10%	3%	5%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	70	86	18
LT Vol	4	0	3	4
Through Vol	14	68	79	14
RT Vol	2	2	4	0
Lane Flow Rate	22	76	93	20
Geometry Grp	1	1	1	1
Degree of Util (X)	0.025	0.086	0.105	0.023
Departure Headway (Hd)	4.221	4.058	4.041	4.288
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	837	880	883	824
Service Time	2.303	2.1	2.08	2.37
HCM Lane V/C Ratio	0.026	0.086	0.105	0.024
HCM Control Delay	7.4	7.5	7.6	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.3	0.4	0.1

Lanes, Volumes, Timings
60: Best St & Wohlers Ave

03/21/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	3	430	561	23	18	4
Future Volume (vph)	3	430	561	23	18	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995		0.977	
Flt Protected					0.960	
Satd. Flow (prot)	0	1863	1853	0	1747	0
Flt Permitted					0.960	
Satd. Flow (perm)	0	1863	1853	0	1747	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		280	473		1317	
Travel Time (s)		6.4	10.8		29.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	467	610	25	20	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	470	635	0	24	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

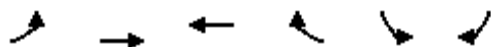
Intersection Capacity Utilization 40.9% ICU Level of Service A

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	430	561	23	18	4
Future Vol, veh/h	3	430	561	23	18	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	467	610	25	20	4
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	635	0	-	0	1096	623
Stage 1	-	-	-	-	623	-
Stage 2	-	-	-	-	473	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	948	-	-	-	236	486
Stage 1	-	-	-	-	535	-
Stage 2	-	-	-	-	627	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	948	-	-	-	235	486
Mov Cap-2 Maneuver	-	-	-	-	235	-
Stage 1	-	-	-	-	533	-
Stage 2	-	-	-	-	627	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		20.3		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	948	-	-	-	259	
HCM Lane V/C Ratio	0.003	-	-	-	0.092	
HCM Control Delay (s)	8.8	0	-	-	20.3	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.3	

Lanes, Volumes, Timings
61: Best St & Roehrer Ave

03/21/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	457	507	18	14	7
Future Volume (vph)	4	457	507	18	14	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995		0.953	
Flt Protected					0.968	
Satd. Flow (prot)	0	1863	1853	0	1718	0
Flt Permitted					0.968	
Satd. Flow (perm)	0	1863	1853	0	1718	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1123	280		1313	
Travel Time (s)		25.5	6.4		29.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	497	551	20	15	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	501	571	0	23	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 37.8% ICU Level of Service A

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	457	507	18	14	7
Future Vol, veh/h	4	457	507	18	14	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	497	551	20	15	8
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	571	0	-	0	1066	561
Stage 1	-	-	-	-	561	-
Stage 2	-	-	-	-	505	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1002	-	-	-	246	527
Stage 1	-	-	-	-	571	-
Stage 2	-	-	-	-	606	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1002	-	-	-	245	527
Mov Cap-2 Maneuver	-	-	-	-	245	-
Stage 1	-	-	-	-	568	-
Stage 2	-	-	-	-	606	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		18.1		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1002	-	-	-	298	
HCM Lane V/C Ratio	0.004	-	-	-	0.077	
HCM Control Delay (s)	8.6	0	-	-	18.1	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Lanes, Volumes, Timings
62: Jefferson Ave & Eaton St/Kingsley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	8	3	3	13	1	4	183	1	5	212	4
Future Volume (vph)	2	8	3	3	13	1	4	183	1	5	212	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.971			0.992			0.999			0.998	
Flt Protected		0.993			0.992			0.999			0.999	
Satd. Flow (prot)	0	1796	0	0	1833	0	0	1859	0	0	1857	0
Flt Permitted								0.996			0.996	
Satd. Flow (perm)	0	1809	0	0	1848	0	0	1853	0	0	1852	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			1			1			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		911			1129			278			418	
Travel Time (s)		20.7			25.7			6.3			9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	9	3	3	14	1	4	199	1	5	230	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	0	0	18	0	0	204	0	0	239	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		5.9			6.0			35.0			35.0	
Actuated g/C Ratio		0.16			0.16			0.92			0.92	
v/c Ratio		0.05			0.06			0.12			0.14	
Control Delay		13.1			13.9			1.6			1.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.1			13.9			1.6			1.6	
LOS		B			B			A			A	
Approach Delay		13.1			13.9			1.6			1.6	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		2			3			0			0	
Queue Length 95th (ft)		12			15			33			38	
Internal Link Dist (ft)		831			1049			198			338	
Turn Bay Length (ft)												
Base Capacity (vph)		858			876			1707			1706	

Lanes, Volumes, Timings

62: Jefferson Ave & Eaton St/Kingsley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.02			0.02			0.12			0.14	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 38

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.14

Intersection Signal Delay: 2.4

Intersection LOS: A

Intersection Capacity Utilization 25.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 62: Jefferson Ave & Eaton St/Kingsley St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
63: Humboldt Parkway SB & Winslow Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	15	20	20	15	0	0	0	0	20	365	20
Future Volume (vph)	0	15	20	20	15	0	0	0	0	20	365	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.922										0.993	
Flt Protected					0.972						0.998	
Satd. Flow (prot)	0	1717	0	0	1811	0	0	0	0	0	1846	0
Flt Permitted					0.972						0.998	
Satd. Flow (perm)	0	1717	0	0	1811	0	0	0	0	0	1846	0
Link Speed (mph)	30				30				30			
Link Distance (ft)	287				154				296			
Travel Time (s)	6.5				3.5				6.7			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	16	22	22	16	0	0	0	0	22	397	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	38	0	0	38	0	0	0	0	0	441	0
Sign Control	Stop				Stop				Stop			
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	36.8%				ICU Level of Service A							
Analysis Period (min)	15											

HCM 6th TWSC
63: Humboldt Parkway SB & Winslow Ave

03/21/2022

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	15	20	20	15	0	0	0	0	20	365	20
Future Vol, veh/h	0	15	20	20	15	0	0	0	0	20	365	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	16	22	22	16	0	0	0	0	22	397	22
Major/Minor	Minor2		Minor1				Major2					
Conflicting Flow All	-	452	408	471	463	-	0			0	0	
Stage 1	-	452	-	0	0	-	-			-	-	
Stage 2	-	0	-	471	463	-	-			-	-	
Critical Hdwy	-	6.52	6.22	7.12	6.52	-	4.12			-	-	
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-			-	-	
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-	-			-	-	
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-	2.218			-	-	
Pot Cap-1 Maneuver	0	503	643	503	496	0	-			-	-	
Stage 1	0	570	-	-	-	0	-			-	-	
Stage 2	0	-	-	573	564	0	-			-	-	
Platoon blocked, %										-	-	
Mov Cap-1 Maneuver	-	503	643	474	496	-	-			-	-	
Mov Cap-2 Maneuver	-	503	-	474	496	-	-			-	-	
Stage 1	-	570	-	-	-	-	-			-	-	
Stage 2	-	-	-	538	564	-	-			-	-	
Approach	EB		WB				SB					
HCM Control Delay, s	11.7		13.1									
HCM LOS	B		B									
Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR							
Capacity (veh/h)	574 483		-	-	-							
HCM Lane V/C Ratio	0.066 0.079		-	-	-							
HCM Control Delay (s)	11.7 13.1		-	-	-							
HCM Lane LOS	B B		-	-	-							
HCM 95th %tile Q(veh)	0.2 0.3		-	-	-							

Lanes, Volumes, Timings
64: Humboldt Parkway NB & Winslow Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	20	0	0	20	15	15	233	15	0	0	0
Future Volume (vph)	15	20	0	0	20	15	15	233	15	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.943			0.992				
Flt Protected		0.979						0.997				
Satd. Flow (prot)	0	1824	0	0	1757	0	0	1842	0	0	0	0
Flt Permitted		0.979						0.997				
Satd. Flow (perm)	0	1824	0	0	1757	0	0	1842	0	0	0	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		154			330			461			268	
Travel Time (s)		3.5			7.5			10.5			6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	22	0	0	22	16	16	253	16	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	38	0	0	38	0	0	285	0	0	0	0
Sign Control		Stop			Stop			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	29.2%											
Analysis Period (min)	15											
ICU Level of Service A												

HCM 6th TWSC
64: Humboldt Parkway NB & Winslow Ave

03/21/2022

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	20	0	0	20	15	15	233	15	0	0	0
Future Vol, veh/h	15	20	0	0	20	15	15	233	15	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	22	0	0	22	16	16	253	16	0	0	0
Major/Minor	Minor2		Minor1		Major1							
Conflicting Flow All	312	301	-	-	293	261	0	0	0			
Stage 1	0	0	-	-	293	-	-	-	-			
Stage 2	312	301	-	-	0	-	-	-	-			
Critical Hdwy	7.12	6.52	-	-	6.52	6.22	4.12	-	-			
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-			
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-			
Follow-up Hdwy	3.518	4.018	-	-	4.018	3.318	2.218	-	-			
Pot Cap-1 Maneuver	641	612	0	0	618	778	-	-	-			
Stage 1	-	-	0	0	670	-	-	-	-			
Stage 2	699	665	0	0	-	-	-	-	-			
Platoon blocked, %								-	-			
Mov Cap-1 Maneuver	611	612	-	-	618	778	-	-	-			
Mov Cap-2 Maneuver	611	612	-	-	618	-	-	-	-			
Stage 1	-	-	-	-	670	-	-	-	-			
Stage 2	662	665	-	-	-	-	-	-	-			
Approach	EB		WB		NB							
HCM Control Delay, s	11.3		10.6									
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL		NBT		NBR		EBLn1WBLn1					
Capacity (veh/h)	-		-		-		612 678					
HCM Lane V/C Ratio	-		-		-		0.062 0.056					
HCM Control Delay (s)	-		-		-		11.3 10.6					
HCM Lane LOS	-		-		-		B B					
HCM 95th %tile Q(veh)	-		-		-		0.2 0.2					

Lanes, Volumes, Timings
118: Humboldt Parkway SB

03/21/2022

						
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	306			252	236	
Travel Time (s)	7.0			5.7	5.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	18.3%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	395	633	0	0	318	453	62	188	215	0	0	0
Future Volume (vph)	395	633	0	0	318	453	62	188	215	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		0	0		250	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.912				0.850			
Flt Protected	0.950	0.995						0.988				
Satd. Flow (prot)	1610	3373	0	0	3228	0	0	1840	1583	0	0	0
Flt Permitted	0.950	0.995						0.988				
Satd. Flow (perm)	1610	3373	0	0	3228	0	0	1840	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					329				234			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		249			205			354			335	
Travel Time (s)		5.7			4.7			8.0			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	429	688	0	0	346	492	67	204	234	0	0	0
Shared Lane Traffic (%)	16%											
Lane Group Flow (vph)	360	757	0	0	838	0	0	271	234	0	0	0
Turn Type	custom	NA			NA		Perm	NA	Perm			
Protected Phases	6	6			3			4				
Permitted Phases	6						4		4			
Detector Phase	6	6			3		4	4	4			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			9.5		22.5	22.5	22.5			
Total Split (s)	46.8	46.8			19.2		24.0	24.0	24.0			
Total Split (%)	52.0%	52.0%			21.3%		26.7%	26.7%	26.7%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag					Lead		Lag	Lag	Lag			
Lead-Lag Optimize?					Yes		Yes	Yes	Yes			
Recall Mode	None	None			None		C-Max	C-Max	C-Max			
Act Effct Green (s)	42.3	42.3			14.7			19.5	19.5			
Actuated g/C Ratio	0.47	0.47			0.16			0.22	0.22			
v/c Ratio	0.48	0.48			1.04			0.68	0.44			
Control Delay	4.3	4.1			68.0			42.2	7.2			
Queue Delay	3.2	1.8			21.6			0.0	0.0			
Total Delay	7.5	5.9			89.6			42.2	7.2			
LOS	A	A			F			D	A			
Approach Delay		6.4			89.6			26.0				
Approach LOS		A			F			C				
Queue Length 50th (ft)	26	28			~184			142	0			
Queue Length 95th (ft)	m26	m27			#305			228	58			

Lanes, Volumes, Timings
1: EB Off Ramp/EB On Ramp & Best St

03/21/2022

Lane Group	Ø1	Ø2	Ø8
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	1	2	8
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	24.0	22.8	43.2
Total Split (%)	27%	25%	48%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	Max	None	C-Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		169			125			274			255	
Turn Bay Length (ft)	75								250			
Base Capacity (vph)	756	1585			802			398	526			
Starvation Cap Reductn	291	633			90			0	0			
Spillback Cap Reductn	0	0			0			0	0			
Storage Cap Reductn	0	0			0			0	0			
Reduced v/c Ratio	0.77	0.80			1.18			0.68	0.44			

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.04

Intersection Signal Delay: 38.8

Intersection LOS: D

Intersection Capacity Utilization 91.3%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: EB Off Ramp/EB On Ramp & Best St

#2  Ø1 24 s	#2  Ø2 22.8 s	#1  Ø3 19.2 s	#1  Ø4 (R) 24 s
#1  Ø6 46.8 s	#2  Ø8 (R) 43.2 s		

Lane Group	Ø1	Ø2	Ø8
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			
Intersection Summary			

Lanes, Volumes, Timings
2: WB On Ramp/WB Off Ramp & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	686	47	97	259	0	0	0	0	334	1	463
Future Volume (vph)	0	686	47	97	259	0	0	0	0	334	1	463
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	75		0	0		0	0		75
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990										0.850
Flt Protected				0.950							0.953	
Satd. Flow (prot)	0	3504	0	1770	3539	0	0	0	0	0	1775	1583
Flt Permitted				0.950							0.953	
Satd. Flow (perm)	0	3504	0	1770	3539	0	0	0	0	0	1775	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7										278
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		473			249			324			375	
Travel Time (s)		10.8			5.7			7.4			8.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	746	51	105	282	0	0	0	0	363	1	503
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	797	0	105	282	0	0	0	0	0	364	503
Turn Type		NA		custom	NA					Perm	NA	Perm
Protected Phases		1		8	8						2	
Permitted Phases				8						2		2
Detector Phase		1		8	8					2	2	2
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		24.0		43.2	43.2					22.8	22.8	22.8
Total Split (%)		26.7%		48.0%	48.0%					25.3%	25.3%	25.3%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5						4.5	4.5
Lead/Lag		Lead								Lag	Lag	Lag
Lead-Lag Optimize?		Yes								Yes	Yes	Yes
Recall Mode		Max		C-Max	C-Max					None	None	None
Act Effct Green (s)		19.5		38.7	38.7						18.3	18.3
Actuated g/C Ratio		0.22		0.43	0.43						0.20	0.20
v/c Ratio		1.04		0.14	0.19						1.01	0.93
Control Delay		79.9		6.8	6.7						88.1	41.4
Queue Delay		0.0		0.0	0.6						0.0	0.0
Total Delay		79.9		6.8	7.3						88.1	41.4
LOS		E		A	A						F	D
Approach Delay		79.9			7.2						61.0	
Approach LOS		E			A						E	
Queue Length 50th (ft)		~259		12	17						~211	134
Queue Length 95th (ft)		#378		m15	m22						#389	#331

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

03/21/2022

Lane Group	Ø3	Ø4	Ø6
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	3	4	6
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5
Total Split (s)	19.2	24.0	46.8
Total Split (%)	21%	27%	52%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	None	C-Max	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		393			169			244			295	
Turn Bay Length (ft)				75								75
Base Capacity (vph)		764		761	1521						360	543
Starvation Cap Reductn		0		0	887						0	0
Spillback Cap Reductn		0		0	0						0	0
Storage Cap Reductn		0		0	0						0	0
Reduced v/c Ratio		1.04		0.14	0.44						1.01	0.93

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.04

Intersection Signal Delay: 58.2

Intersection LOS: E

Intersection Capacity Utilization 91.3%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: WB On Ramp/WB Off Ramp & Best St

#2  Ø1 24 s	#2  Ø2 22.8 s	#1  Ø3 19.2 s	#1  Ø4 (R) 24 s
#1  Ø6 46.8 s		#2  Ø8 (R) 43.2 s	

Lane Group	Ø3	Ø4	Ø6
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			
Intersection Summary			

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/21/2022

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	19	15	603	152	2	585	63	13	99	40	10	1
Future Volume (vph)	19	15	603	152	2	585	63	13	99	40	10	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		75		0	0		0		0		0	
Storage Lanes		1		1	0		0		0		0	
Taper Length (ft)		25			25				25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.985				0.990		
Flt Protected		0.950								0.968		
Satd. Flow (prot)	0	1770	1863	1583	0	1835	0	0	0	1785	0	0
Flt Permitted		0.226				0.999				0.722		
Satd. Flow (perm)	0	421	1863	1583	0	1833	0	0	0	1331	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)				165		2						
Link Speed (mph)			30			30				30		
Link Distance (ft)			205			1418				1329		
Travel Time (s)			4.7			32.2				30.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	21	16	655	165	2	636	68	14	108	43	11	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	37	655	165	0	720	0	0	0	163	0	0
Turn Type	pm+pt	pm+pt	NA	Perm	Perm	NA			Perm	NA		
Protected Phases	7	7	4			8				2		
Permitted Phases	4	4		4	8				2			
Detector Phase	7	7	4	4	8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0			5.0	5.0		
Minimum Split (s)	9.5	9.5	22.5	22.5	22.5	22.5			22.5	22.5		
Total Split (s)	9.5	9.5	42.5	42.5	33.0	33.0			22.5	22.5		
Total Split (%)	14.6%	14.6%	65.4%	65.4%	50.8%	50.8%			34.6%	34.6%		
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5			3.5	3.5		
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0		
Lost Time Adjust (s)		0.0	0.0	0.0		0.0				0.0		
Total Lost Time (s)		4.5	4.5	4.5		4.5				4.5		
Lead/Lag	Lead	Lead			Lag	Lag						
Lead-Lag Optimize?	Yes	Yes			Yes	Yes						
Recall Mode	None	None	None	None	None	None			C-Max	C-Max		
Act Effct Green (s)		32.1	32.1	32.1		28.3				23.9		
Actuated g/C Ratio		0.49	0.49	0.49		0.44				0.37		
v/c Ratio		0.12	0.71	0.19		0.90				0.33		
Control Delay		7.4	17.0	1.8		34.5				19.6		
Queue Delay		0.0	11.1	0.4		0.0				0.0		
Total Delay		7.4	28.1	2.1		34.5				19.6		
LOS		A	C	A		C				B		
Approach Delay			22.2			34.5				19.6		
Approach LOS			C			C				B		
Queue Length 50th (ft)		7	194	0		228				44		
Queue Length 95th (ft)		15	239	20		#462				104		

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/21/2022



Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	102	46	81
Future Volume (vph)	102	46	81
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	0		100
Storage Lanes	0		1
Taper Length (ft)	25		
Lane Util. Factor	1.00	1.00	1.00
Frt			0.850
Flt Protected		0.967	
Satd. Flow (prot)	0	1801	1583
Flt Permitted		0.741	
Satd. Flow (perm)	0	1380	1583
Right Turn on Red			Yes
Satd. Flow (RTOR)			101
Link Speed (mph)		30	
Link Distance (ft)		738	
Travel Time (s)		16.8	
Peak Hour Factor	0.92	0.92	0.92
Adj. Flow (vph)	111	50	88
Shared Lane Traffic (%)			
Lane Group Flow (vph)	0	161	88
Turn Type	Perm	NA	Perm
Protected Phases		6	
Permitted Phases	6		6
Detector Phase	6	6	6
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5
Total Split (%)	34.6%	34.6%	34.6%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0
Total Lost Time (s)		4.5	4.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	C-Max
Act Effct Green (s)		23.9	23.9
Actuated g/C Ratio		0.37	0.37
v/c Ratio		0.32	0.14
Control Delay		19.3	4.5
Queue Delay		0.0	0.0
Total Delay		19.3	4.5
LOS		B	A
Approach Delay		14.1	
Approach LOS		B	
Queue Length 50th (ft)		43	0
Queue Length 95th (ft)		102	25

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/21/2022

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Internal Link Dist (ft)			125			1338				1249		
Turn Bay Length (ft)		75										
Base Capacity (vph)		311	1089	993		823				490		
Starvation Cap Reductn		0	408	466		0				0		
Spillback Cap Reductn		0	0	0		0				0		
Storage Cap Reductn		0	0	0		0				0		
Reduced v/c Ratio		0.12	0.96	0.31		0.87				0.33		

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 25.4

Intersection LOS: C

Intersection Capacity Utilization 64.2%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Herman St/W Parade Ave & Best St

 Ø2 (R)	 Ø4
22.5 s	42.5 s
 Ø6 (R)	 Ø7
22.5 s	9.5 s
	 Ø8
	33 s

Lanes, Volumes, Timings
3: Herman St/W Parade Ave & Best St

03/21/2022



Lane Group	SBL	SBT	SBR
Internal Link Dist (ft)		658	
Turn Bay Length (ft)			100
Base Capacity (vph)		508	646
Starvation Cap Reductn		0	0
Spillback Cap Reductn		0	0
Storage Cap Reductn		0	0
Reduced v/c Ratio		0.32	0.14
Intersection Summary			

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	133	5	12	71	0	0	0	0	191	213	52
Future Volume (vph)	0	133	5	12	71	0	0	0	0	191	213	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995									0.985	
Flt Protected					0.993						0.980	
Satd. Flow (prot)	0	1853	0	0	1850	0	0	0	0	0	1798	0
Flt Permitted					0.944						0.980	
Satd. Flow (perm)	0	1853	0	0	1758	0	0	0	0	0	1798	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2									16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1045			283			370			293	
Travel Time (s)		23.8			6.4			8.4			6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	145	5	13	77	0	0	0	0	208	232	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	150	0	0	90	0	0	0	0	0	497	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		24.0		24.0	24.0					66.0	66.0	
Total Split (%)		26.7%		26.7%	26.7%					73.3%	73.3%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0			0.0						0.0	
Total Lost Time (s)		4.5			4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					Max	Max	
Act Effct Green (s)		12.8			12.8						61.8	
Actuated g/C Ratio		0.15			0.15						0.74	
v/c Ratio		0.53			0.34						0.37	
Control Delay		38.8			11.3						5.2	
Queue Delay		0.0			0.0						0.0	
Total Delay		38.8			11.3						5.2	
LOS		D			B						A	
Approach Delay		38.8			11.3						5.2	
Approach LOS		D			B						A	
Queue Length 50th (ft)		72			9						71	
Queue Length 95th (ft)		128			14						154	
Internal Link Dist (ft)		965			203			290			213	
Turn Bay Length (ft)												
Base Capacity (vph)		434			410						1333	

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/21/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	66.0
Total Split (%)	73%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0						0	
Spillback Cap Reductn		0			0						0	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.35			0.22						0.37	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 83.6

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 12.8

Intersection LOS: B

Intersection Capacity Utilization 46.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: Humboldt Parkway SB & Northhampton St

#5  Ø2	#4 #5  Ø4
66 s	24 s
#4  Ø6	#4 #5  Ø8
66 s	24 s

Lane Group	Ø2
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
5: Humboldt Parkway NB & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	100	0	0	109	38	2	12	6	0	0	0
Future Volume (vph)	35	100	0	0	109	38	2	12	6	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.965			0.957				
Flt Protected		0.987						0.995				
Satd. Flow (prot)	0	1839	0	0	1798	0	0	1774	0	0	0	0
Flt Permitted		0.802						0.995				
Satd. Flow (perm)	0	1494	0	0	1798	0	0	1774	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					18			7				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		283			1089			152				722
Travel Time (s)		6.4			24.8			3.5				16.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	38	109	0	0	118	41	2	13	7	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	147	0	0	159	0	0	22	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (s)	24.0	24.0			24.0		66.0	66.0				
Total Split (%)	26.7%	26.7%			26.7%		73.3%	73.3%				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max				
Act Effct Green (s)		12.8			12.8			61.8				
Actuated g/C Ratio		0.15			0.15			0.74				
v/c Ratio		0.64			0.55			0.02				
Control Delay		38.4			36.0			3.1				
Queue Delay		0.0			0.0			0.0				
Total Delay		38.4			36.0			3.1				
LOS		D			D			A				
Approach Delay		38.4			36.0			3.1				
Approach LOS		D			D			A				
Queue Length 50th (ft)		51			68			2				
Queue Length 95th (ft)		95			127			9				
Internal Link Dist (ft)		203			1009			72				642
Turn Bay Length (ft)												
Base Capacity (vph)		349			434			1313				

Lanes, Volumes, Timings
5: Humboldt Parkway NB & Northhampton St

03/21/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	66.0
Total Split (%)	73%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.42			0.37			0.02				

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 83.6

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 34.8

Intersection LOS: C

Intersection Capacity Utilization 30.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Humboldt Parkway NB & Northhampton St

#5  Ø2	#4 #5  Ø4
66 s	24 s
#4  Ø6	#4 #5  Ø8
66 s	24 s

Lane Group	Ø6
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
6: Humboldt Parkway SB & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↶		↶	↶						↶↷	
Traffic Volume (vph)	0	195	33	43	88	0	0	0	0	89	369	67
Future Volume (vph)	0	195	33	43	88	0	0	0	0	89	369	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.980									0.981	
Flt Protected				0.950							0.992	
Satd. Flow (prot)	0	1825	0	1770	1863	0	0	0	0	0	3444	0
Flt Permitted				0.600							0.992	
Satd. Flow (perm)	0	1825	0	1118	1863	0	0	0	0	0	3444	0
Right Turn on Red			Yes			Yes				Yes		Yes
Satd. Flow (RTOR)		23									43	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1173			153			636			456	
Travel Time (s)		26.7			3.5			14.5			10.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	212	36	47	96	0	0	0	0	97	401	73
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	248	0	47	96	0	0	0	0	0	571	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		4.5		4.5	4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					Max	Max	
Act Effct Green (s)		11.2		11.2	11.2						19.8	
Actuated g/C Ratio		0.28		0.28	0.28						0.50	
v/c Ratio		0.47		0.15	0.18						0.33	
Control Delay		12.9		8.6	8.4						7.3	
Queue Delay		0.0		0.1	0.2						0.0	
Total Delay		12.9		8.7	8.6						7.3	
LOS		B		A	A						A	
Approach Delay		12.9			8.6						7.3	
Approach LOS		B			A						A	
Queue Length 50th (ft)		37		6	12						31	
Queue Length 95th (ft)		77		18	30						78	

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

03/21/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1093			73			556			376	
Turn Bay Length (ft)												
Base Capacity (vph)		839		506	844						1723	
Starvation Cap Reductn		0		149	336						0	
Spillback Cap Reductn		0		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		0.30		0.13	0.19						0.33	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 9.0

Intersection LOS: A

Intersection Capacity Utilization 56.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 6: Humboldt Parkway SB & E Utica St

#7  Ø2	#6 #7  Ø4
22.5 s	22.5 s
#6  Ø6	#6 #7  Ø8
22.5 s	22.5 s

Lane Group	Ø2
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	175	0	0	106	32	64	173	54	0	0	0
Future Volume (vph)	125	175	0	0	106	32	64	173	54	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.968				0.850			
Fl _t Protected	0.950							0.987				
Satd. Flow (prot)	1770	1863	0	0	1803	0	0	1839	1583	0	0	0
Fl _t Permitted	0.662							0.987				
Satd. Flow (perm)	1233	1863	0	0	1803	0	0	1839	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					35				59			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		153			1083			610			294	
Travel Time (s)		3.5			24.6			13.9			6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	136	190	0	0	115	35	70	188	59	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	190	0	0	150	0	0	258	59	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max	Max			
Act Effct Green (s)	11.2	11.2			11.2			19.8	19.8			
Actuated g/C Ratio	0.28	0.28			0.28			0.50	0.50			
v/c Ratio	0.40	0.37			0.28			0.28	0.07			
Control Delay	10.0	8.7			9.3			8.4	3.2			
Queue Delay	0.2	0.2			0.0			0.0	0.0			
Total Delay	10.2	8.9			9.3			8.4	3.2			
LOS	B	A			A			A	A			
Approach Delay		9.5			9.3			7.5				
Approach LOS		A			A			A				
Queue Length 50th (ft)	14	19			18			29	0			
Queue Length 95th (ft)	33	41			45			86	15			
Internal Link Dist (ft)		73			1003			530			214	
Turn Bay Length (ft)												
Base Capacity (vph)	558	844			836			908	811			

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

03/21/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	119	246			0			0	0			
Spillback Cap Reductn	0	0			0			0	0			
Storage Cap Reductn	0	0			0			0	0			
Reduced v/c Ratio	0.31	0.32			0.18			0.28	0.07			

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 8.6

Intersection LOS: A

Intersection Capacity Utilization 56.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 7: Humboldt Parkway NB & E Utica St

#7  Ø2	#6 #7  Ø4
22.5 s	22.5 s
#6  Ø6	#6 #7  Ø8
22.5 s	22.5 s

Lane Group	Ø6
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	409	72	105	230	0	0	0	0	284	394	368
Future Volume (vph)	0	409	72	105	230	0	0	0	0	284	394	368
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't	0.980											0.850
Flt Protected				0.950							0.979	
Satd. Flow (prot)	0	1825	0	1770	1863	0	0	0	0	0	1824	1583
Flt Permitted				0.295							0.979	
Satd. Flow (perm)	0	1825	0	550	1863	0	0	0	0	0	1824	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18										400
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1179			147			319			270	
Travel Time (s)		26.8			3.3			7.3			6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	445	78	114	250	0	0	0	0	309	428	400
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	523	0	114	250	0	0	0	0	0	737	400
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		30.2		30.2	30.2					29.8	29.8	29.8
Total Split (%)		50.3%		50.3%	50.3%					49.7%	49.7%	49.7%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					Max	Max	Max
Act Effect Green (s)		25.7		25.7	25.7						25.3	25.3
Actuated g/C Ratio		0.43		0.43	0.43						0.42	0.42
v/c Ratio		0.66		0.49	0.31						0.96	0.45
Control Delay		18.1		12.9	6.7						43.8	3.2
Queue Delay		0.9		0.7	1.1						43.2	0.0
Total Delay		19.1		13.6	7.7						87.0	3.2
LOS		B		B	A						F	A
Approach Delay		19.1			9.6						57.6	
Approach LOS		B			A						E	
Queue Length 50th (ft)		138		12	27						246	0
Queue Length 95th (ft)		234		m24	43						#460	43
Internal Link Dist (ft)		1099			67			239			190	
Turn Bay Length (ft)												
Base Capacity (vph)		791		235	797						769	898

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/21/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	29.8
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0		20	337						0	0
Spillback Cap Reductn		92		0	0						191	0
Storage Cap Reductn		0		0	0						0	0
Reduced v/c Ratio		0.75		0.53	0.54						1.28	0.45

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 39.0

Intersection LOS: D

Intersection Capacity Utilization 109.0%

ICU Level of Service G

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Humboldt Parkway SB & E Ferry St

#9  Ø2	#8 #9  Ø4
29.8 s	30.2 s
#8  Ø6	#8 #9  Ø8
29.8 s	30.2 s

Lane Group	Ø2
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
9: Humboldt Parkway NB & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	290	385	0	0	294	75	71	250	60	0	0	0
Future Volume (vph)	290	385	0	0	294	75	71	250	60	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	75		0	0		0
Storage Lanes	1		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.972				0.850			
Flt Protected	0.950							0.989				
Satd. Flow (prot)	1770	1863	0	0	1811	0	0	1842	1583	0	0	0
Flt Permitted	0.416							0.989				
Satd. Flow (perm)	775	1863	0	0	1811	0	0	1842	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					27				65			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		147			1082			312			608	
Travel Time (s)		3.3			24.6			7.1			13.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	315	418	0	0	320	82	77	272	65	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	315	418	0	0	402	0	0	349	65	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	30.2	30.2			30.2		29.8	29.8	29.8			
Total Split (%)	50.3%	50.3%			50.3%		49.7%	49.7%	49.7%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max	Max			
Act Effct Green (s)	25.7	25.7			25.7			25.3	25.3			
Actuated g/C Ratio	0.43	0.43			0.43			0.42	0.42			
v/c Ratio	0.95	0.52			0.51			0.45	0.09			
Control Delay	46.7	10.8			14.4			14.7	3.8			
Queue Delay	22.5	14.5			0.0			0.0	0.0			
Total Delay	69.3	25.4			14.5			14.7	3.8			
LOS	E	C			B			B	A			
Approach Delay		44.2			14.5			13.0				
Approach LOS		D			B			B				
Queue Length 50th (ft)	108	79			93			86	0			
Queue Length 95th (ft)	m#192	m104			163			148	18			

Lanes, Volumes, Timings
9: Humboldt Parkway NB & E Ferry St

03/21/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	29.8
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		67			1002			232			528	
Turn Bay Length (ft)												
Base Capacity (vph)	331	797			791			776	705			
Starvation Cap Reductn	29	360			0			0	0			
Spillback Cap Reductn	0	0			14			0	0			
Storage Cap Reductn	0	0			0			0	0			
Reduced v/c Ratio	1.04	0.96			0.52			0.45	0.09			

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 28.2

Intersection LOS: C

Intersection Capacity Utilization 109.0%

ICU Level of Service G

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Humboldt Parkway NB & E Ferry St

#9  Ø2 29.8 s	#8 #9  Ø4 30.2 s
#8  Ø6 29.8 s	#8 #9  Ø8 30.2 s

Lane Group	Ø6
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

03/21/2022

											
Lane Group	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	Ø8
Lane Configurations											
Traffic Volume (vph)	11	1	0	363	323	327	702	0	0	0	
Future Volume (vph)	11	1	0	363	323	327	702	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	
Frt	0.990			0.929							
Flt Protected	0.956						0.984				
Satd. Flow (prot)	1763	0	0	3288	0	0	3483	0	0	0	
Flt Permitted	0.956						0.598				
Satd. Flow (perm)	1763	0	0	3288	0	0	2116	0	0	0	
Right Turn on Red		Yes			Yes			Yes			
Satd. Flow (RTOR)	22			351							
Link Speed (mph)	30			30			30		30		
Link Distance (ft)	537			328			271		387		
Travel Time (s)	12.2			7.5			6.2		8.8		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	12	1	0	395	351	355	763	0	0	0	
Shared Lane Traffic (%)											
Lane Group Flow (vph)	13	0	0	746	0	0	1118	0	0	0	
Turn Type	Prot			NA		Perm	NA				
Protected Phases	4			2			6				8
Permitted Phases						6					
Detector Phase	4			2		6	6				
Switch Phase											
Minimum Initial (s)	5.0			5.0		5.0	5.0				5.0
Minimum Split (s)	22.5			22.5		22.5	22.5				22.5
Total Split (s)	24.0			51.0		51.0	51.0				24.0
Total Split (%)	32.0%			68.0%		68.0%	68.0%				32%
Yellow Time (s)	3.5			3.5		3.5	3.5				3.5
All-Red Time (s)	1.0			1.0		1.0	1.0				1.0
Lost Time Adjust (s)	0.0			0.0			0.0				
Total Lost Time (s)	4.5			4.5			4.5				
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None			Max		Max	Max				None
Act Effct Green (s)	18.3			46.6			46.6				
Actuated g/C Ratio	0.25			0.63			0.63				
v/c Ratio	0.03			0.34			0.88dl				
Control Delay	6.8			3.8			16.5				
Queue Delay	0.0			0.4			0.0				
Total Delay	6.8			4.2			16.5				
LOS	A			A			B				
Approach Delay	6.8			4.2			16.5				
Approach LOS	A			A			B				
Queue Length 50th (ft)	0			36			236				
Queue Length 95th (ft)	9			60			#365				
Internal Link Dist (ft)	457			248			191		307		
Turn Bay Length (ft)											
Base Capacity (vph)	482			2201			1332				

Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	Ø8
Starvation Cap Reductn	0			880			0				
Spillback Cap Reductn	0			0			0				
Storage Cap Reductn	0			0			0				
Reduced v/c Ratio	0.03			0.56			0.84				

Intersection Summary

Area Type: Other

Cycle Length: 75

Actuated Cycle Length: 73.9

Natural Cycle: 75

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 11.5

Intersection LOS: B

Intersection Capacity Utilization 64.7%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 10: Jefferson Ave & Cherry St & EB On Ramp

#10 #11 ↑ ↑ Ø2	#10 ↖ Ø4
51 s	24 s
#10 #11 ↓ ↓ Ø6	#11 ← Ø8
51 s	24 s

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Volume (vph)	0	0	0	245	12	103	45	326	0	0	794	19
Future Volume (vph)	0	0	0	245	12	103	45	326	0	0	794	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt					0.961						0.996	
Flt Protected					0.967			0.994				
Satd. Flow (prot)	0	0	0	0	1731	0	0	3518	0	0	3525	0
Flt Permitted					0.967			0.802				
Satd. Flow (perm)	0	0	0	0	1731	0	0	2838	0	0	3525	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					26						6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			384			271			880	
Travel Time (s)		12.9			8.7			6.2			20.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	266	13	112	49	354	0	0	863	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	391	0	0	403	0	0	884	0
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8			2					
Detector Phase				8	8		2	2			6	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				24.0	24.0		51.0	51.0			51.0	
Total Split (%)				32.0%	32.0%		68.0%	68.0%			68.0%	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)					18.3			46.6			46.6	
Actuated g/C Ratio					0.25			0.63			0.63	
v/c Ratio					0.87			0.23			0.40	
Control Delay					46.7			4.1			7.5	
Queue Delay					0.2			0.2			0.2	
Total Delay					46.9			4.2			7.7	
LOS					D			A			A	
Approach Delay					46.9			4.2			7.7	
Approach LOS					D			A			A	
Queue Length 50th (ft)					161			22			96	
Queue Length 95th (ft)					#307			27			130	

Lanes, Volumes, Timings
11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/21/2022

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	24.0
Total Split (%)	32%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		487			304			191			800	
Turn Bay Length (ft)												
Base Capacity (vph)					476			1788			2223	
Starvation Cap Reductn					0			611			0	
Spillback Cap Reductn					3			0			502	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.83			0.34			0.51	

Intersection Summary

Area Type: Other

Cycle Length: 75

Actuated Cycle Length: 73.9

Natural Cycle: 75

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 16.0

Intersection LOS: B

Intersection Capacity Utilization 64.6%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

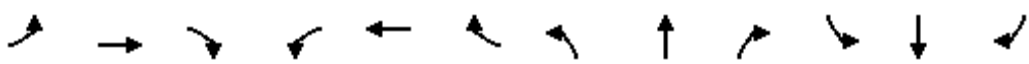
Splits and Phases: 11: Jefferson Ave & BFNC Dr/WB Off Ramp

#10 #11   Ø2	#10  Ø4
51 s	24 s
#10 #11   Ø6	#11  Ø8
51 s	24 s

Lane Group	Ø4
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
12: Jefferson Ave & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Volume (vph)	49	150	38	59	152	88	11	573	50	48	503	112
Future Volume (vph)	49	150	38	59	152	88	11	573	50	48	503	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.976			0.956			0.988			0.975	
Flt Protected		0.990			0.990			0.999			0.996	
Satd. Flow (prot)	0	3420	0	0	3350	0	0	3493	0	0	3437	0
Flt Permitted		0.819			0.835			0.941			0.877	
Satd. Flow (perm)	0	2829	0	0	2825	0	0	3290	0	0	3026	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		41			96			23			63	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		737			2886			735			328	
Travel Time (s)		16.8			65.6			16.7			7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	53	163	41	64	165	96	12	623	54	52	547	122
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	257	0	0	325	0	0	689	0	0	721	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		8.3			8.3			18.0			18.0	
Actuated g/C Ratio		0.23			0.23			0.51			0.51	
v/c Ratio		0.37			0.44			0.41			0.46	
Control Delay		10.9			9.9			6.5			6.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.9			9.9			6.5			6.6	
LOS		B			A			A			A	
Approach Delay		10.9			9.9			6.5			6.6	
Approach LOS		B			A			A			A	
Queue Length 50th (ft)		17			18			34			34	
Queue Length 95th (ft)		37			41			74			77	
Internal Link Dist (ft)		657			2806			655			248	
Turn Bay Length (ft)												
Base Capacity (vph)		1462			1487			1688			1574	

Lanes, Volumes, Timings

12: Jefferson Ave & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.18			0.22			0.41			0.46	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 35.4

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 7.7

Intersection LOS: A

Intersection Capacity Utilization 67.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 12: Jefferson Ave & Genesee St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
13: Herman St & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	348	28	24	361	27	22	107	23	58	229	32
Future Volume (vph)	12	348	28	24	361	27	22	107	23	58	229	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989			0.990			0.980			0.986	
Flt Protected		0.998			0.997			0.993			0.991	
Satd. Flow (prot)	0	3493	0	0	3493	0	0	1813	0	0	1820	0
Flt Permitted		0.939			0.921			0.928			0.911	
Satd. Flow (perm)	0	3287	0	0	3227	0	0	1694	0	0	1673	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			19			24			15	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2886			671			575			1329	
Travel Time (s)		65.6			15.3			13.1			30.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	378	30	26	392	29	24	116	25	63	249	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	421	0	0	447	0	0	165	0	0	347	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effct Green (s)		18.7			18.7			12.7			12.7	
Actuated g/C Ratio		0.46			0.46			0.31			0.31	
v/c Ratio		0.28			0.30			0.30			0.65	
Control Delay		7.8			8.0			10.0			17.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		7.8			8.0			10.0			17.2	
LOS		A			A			B			B	
Approach Delay		7.8			8.0			10.0			17.2	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)		26			28			22			61	
Queue Length 95th (ft)		60			64			52			118	
Internal Link Dist (ft)		2806			591			495			1249	
Turn Bay Length (ft)												
Base Capacity (vph)		1528			1500			771			757	

Lanes, Volumes, Timings

13: Herman St & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.28			0.30			0.21			0.46	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.4

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 10.5

Intersection LOS: B

Intersection Capacity Utilization 58.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 13: Herman St & Genesee St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
14: Reed St/Rich St & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	395	0	0	407	16	17	13	25	11	0	13
Future Volume (vph)	3	395	0	0	407	16	17	13	25	11	0	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.994			0.938			0.927	
Fl _t Protected								0.985			0.977	
Satd. Flow (prot)	0	3539	0	0	3518	0	0	1721	0	0	1687	0
Fl _t Permitted		0.953						0.888			0.974	
Satd. Flow (perm)	0	3373	0	0	3518	0	0	1552	0	0	1682	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10			27			36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		671			961			780			839	
Travel Time (s)		15.3			21.8			17.7			19.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	429	0	0	442	17	18	14	27	12	0	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	432	0	0	459	0	0	59	0	0	26	0
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2						8			4		
Detector Phase	2	2			6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		None	None		None	None	
Act Effct Green (s)		30.2			30.2			6.4			6.3	
Actuated g/C Ratio		0.82			0.82			0.17			0.17	
v/c Ratio		0.16			0.16			0.20			0.08	
Control Delay		2.7			2.7			10.0			5.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		2.7			2.7			10.0			5.0	
LOS		A			A			A			A	
Approach Delay		2.7			2.7			10.0			5.0	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)		0			0			6			0	
Queue Length 95th (ft)		33			34			22			9	
Internal Link Dist (ft)		591			881			700			759	
Turn Bay Length (ft)												
Base Capacity (vph)		2759			2879			771			839	

Lanes, Volumes, Timings
14: Reed St/Rich St & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.16			0.16			0.08			0.03	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36.9

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.20

Intersection Signal Delay: 3.2

Intersection LOS: A

Intersection Capacity Utilization 24.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Reed St/Rich St & Genesee St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
15: Fillmore Ave & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	363	64	75	323	29	42	377	80	54	348	18
Future Volume (vph)	35	363	64	75	323	29	42	377	80	54	348	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.990			0.978			0.994	
Flt Protected		0.996			0.991			0.996			0.994	
Satd. Flow (prot)	0	3451	0	0	3472	0	0	1814	0	0	1840	0
Flt Permitted		0.891			0.778			0.940			0.893	
Satd. Flow (perm)	0	3087	0	0	2726	0	0	1712	0	0	1653	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40			17			25			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		961			671			704			490	
Travel Time (s)		21.8			15.3			16.0			11.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	38	395	70	82	351	32	46	410	87	59	378	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	503	0	0	465	0	0	543	0	0	457	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		27.5	27.5		27.5	27.5	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		55.0%	55.0%		55.0%	55.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		12.7			12.7			23.2			23.2	
Actuated g/C Ratio		0.28			0.28			0.52			0.52	
v/c Ratio		0.56			0.59			0.61			0.53	
Control Delay		14.9			16.5			11.9			11.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.9			16.5			11.9			11.1	
LOS		B			B			B			B	
Approach Delay		14.9			16.5			11.9			11.1	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		52			51			81			67	
Queue Length 95th (ft)		85			85			201			167	
Internal Link Dist (ft)		881			591			624			410	
Turn Bay Length (ft)												
Base Capacity (vph)		1269			1110			894			855	

Lanes, Volumes, Timings
15: Fillmore Ave & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.40			0.42			0.61			0.53	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 44.9

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 13.5

Intersection LOS: B

Intersection Capacity Utilization 70.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 15: Fillmore Ave & Genesee St

 Ø2	 Ø4
27.5 s	22.5 s
 Ø6	 Ø8
27.5 s	22.5 s

Lanes, Volumes, Timings
16: Fillmore Ave & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	517	158	1	418	31	172	268	6	48	248	49
Future Volume (vph)	42	517	158	1	418	31	172	268	6	48	248	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970			0.991			0.998				0.850
Flt Protected		0.997						0.981			0.992	
Satd. Flow (prot)	0	1801	0	0	1846	0	0	1824	0	0	1848	1583
Flt Permitted		0.953			0.999			0.629			0.888	
Satd. Flow (perm)	0	1722	0	0	1844	0	0	1169	0	0	1654	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26			7			1				53
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1418			567			490				61
Travel Time (s)		32.2			12.9			11.1				1.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	562	172	1	454	34	187	291	7	52	270	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	780	0	0	489	0	0	485	0	0	322	53
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (s)	36.0	36.0		36.0	36.0		34.0	34.0		34.0	34.0	34.0
Total Split (%)	51.4%	51.4%		51.4%	51.4%		48.6%	48.6%		48.6%	48.6%	48.6%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)		4.5			4.5			4.5			4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	C-Max
Act Effct Green (s)		31.5			31.5			29.5			29.5	29.5
Actuated g/C Ratio		0.45			0.45			0.42			0.42	0.42
v/c Ratio		0.99			0.59			0.98			0.46	0.08
Control Delay		50.7			17.7			60.3			5.2	0.2
Queue Delay		45.1			58.8			3.7			0.0	0.0
Total Delay		95.7			76.6			64.0			5.2	0.2
LOS		F			E			E			A	A
Approach Delay		95.7			76.6			64.0			4.5	
Approach LOS		F			E			E			A	
Queue Length 50th (ft)		310			148			198			6	0
Queue Length 95th (ft)		#552			238			#394			72	1
Internal Link Dist (ft)		1338			487			410			1	
Turn Bay Length (ft)												
Base Capacity (vph)		789			833			493			697	697

Lanes, Volumes, Timings
16: Fillmore Ave & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	0
Spillback Cap Reductn		496			530			8			0	0
Storage Cap Reductn		0			0			0			0	0
Reduced v/c Ratio		2.66			1.61			1.00			0.46	0.08

Intersection Summary

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.99

Intersection Signal Delay: 68.0

Intersection LOS: E

Intersection Capacity Utilization 117.8%

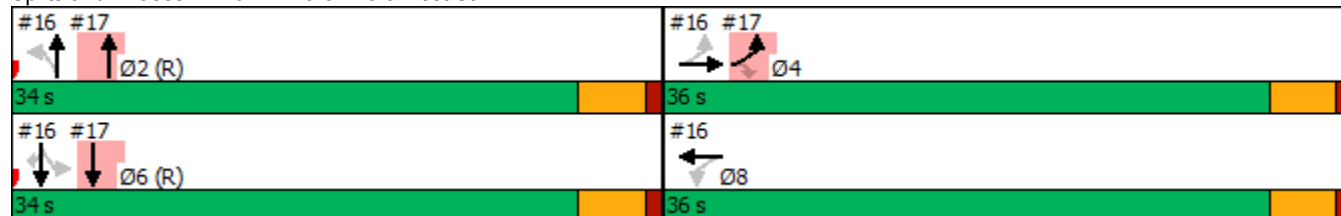
ICU Level of Service H

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: Fillmore Ave & Best St



Lanes, Volumes, Timings
17: Fillmore Ave & East Park

03/21/2022

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	10	9	0	337	333	0	
Future Volume (vph)	10	9	0	337	333	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	0			100	
Storage Lanes	1	1	0			1	
Taper Length (ft)	25		25				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	
Frt		0.850					
Flt Protected	0.950						
Satd. Flow (prot)	1770	1583	0	1863	3539	0	
Flt Permitted	0.950						
Satd. Flow (perm)	1770	1583	0	1863	3539	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		10					
Link Speed (mph)	30			30	30		
Link Distance (ft)	468			61	755		
Travel Time (s)	10.6			1.4	17.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	11	10	0	366	362	0	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	11	10	0	366	362	0	
Turn Type	Prot	Perm		NA	NA		
Protected Phases	4			2	6		8
Permitted Phases		4					
Detector Phase	4	4		2	6		
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5
Total Split (s)	36.0	36.0		34.0	34.0		36.0
Total Split (%)	51.4%	51.4%		48.6%	48.6%		51%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		
Total Lost Time (s)	4.5	4.5		4.5	4.5		
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None		C-Max	C-Max		None
Act Effct Green (s)	31.5	31.5		29.5	29.5		
Actuated g/C Ratio	0.45	0.45		0.42	0.42		
v/c Ratio	0.01	0.01		0.47	0.24		
Control Delay	10.8	6.2		7.0	13.6		
Queue Delay	0.0	0.0		0.0	0.0		
Total Delay	10.8	6.2		7.0	13.6		
LOS	B	A		A	B		
Approach Delay	8.6			7.0	13.6		
Approach LOS	A			A	B		
Queue Length 50th (ft)	3	0		42	51		
Queue Length 95th (ft)	10	7		m47	77		

Lanes, Volumes, Timings

17: Fillmore Ave & East Park

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Internal Link Dist (ft)	388			1	675		
Turn Bay Length (ft)							
Base Capacity (vph)	796	717		785	1491		
Starvation Cap Reductn	0	0		0	0		
Spillback Cap Reductn	0	0		0	89		
Storage Cap Reductn	0	0		0	0		
Reduced v/c Ratio	0.01	0.01		0.47	0.26		

Intersection Summary

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.99

Intersection Signal Delay: 10.2

Intersection LOS: B

Intersection Capacity Utilization 29.4%

ICU Level of Service A

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 17: Fillmore Ave & East Park

#16 #17 Ø2 (R) 34 s	#16 #17 Ø4 36 s
#16 #17 Ø6 (R) 34 s	#16 Ø8 36 s

Lanes, Volumes, Timings
18: Fillmore Ave & MLK Park

03/21/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	4	13	0	354	314	0
Future Volume (vph)	4	13	0	354	314	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr't	0.850					
Flt Protected	0.950					
Satd. Flow (prot)	1770	1583	0	1863	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1583	0	1863	1863	0
Right Turn on Red	Yes					
Satd. Flow (RTOR)	14					
Link Speed (mph)	30			30	30	
Link Distance (ft)	526			755	579	
Travel Time (s)	12.0			17.2	13.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	14	0	385	341	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	14	0	385	341	0
Turn Type	Prot	Perm		NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4				
Detector Phase	4	4		2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None		Max	Max	
Act Effct Green (s)	5.8	5.8		37.1	37.1	
Actuated g/C Ratio	0.15	0.15		0.93	0.93	
v/c Ratio	0.02	0.06		0.22	0.20	
Control Delay	16.5	10.5		1.5	1.4	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	16.5	10.5		1.5	1.4	
LOS	B	B		A	A	
Approach Delay	11.8			1.5	1.4	
Approach LOS	B			A	A	
Queue Length 50th (ft)	1	0		0	0	
Queue Length 95th (ft)	7	12		60	52	
Internal Link Dist (ft)	446			675	499	
Turn Bay Length (ft)						
Base Capacity (vph)	810	732		1743	1743	

Lanes, Volumes, Timings

18: Fillmore Ave & MLK Park

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Starvation Cap Reductn	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	
Storage Cap Reductn	0	0		0	0	
Reduced v/c Ratio	0.00	0.02		0.22	0.20	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 39.7

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.22

Intersection Signal Delay: 1.7

Intersection LOS: A

Intersection Capacity Utilization 30.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Fillmore Ave & MLK Park

Ø2 22.5 s	Ø4 22.5 s
Ø6 22.5 s	

Lanes, Volumes, Timings
19: Fillmore Ave & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	80	20	15	37	16	20	345	9	7	311	48
Future Volume (vph)	18	80	20	15	37	16	20	345	9	7	311	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.977			0.969			0.997			0.982	
Flt Protected		0.992			0.989			0.997			0.999	
Satd. Flow (prot)	0	1805	0	0	1785	0	0	1852	0	0	1827	0
Flt Permitted		0.930			0.928			0.974			0.992	
Satd. Flow (perm)	0	1693	0	0	1675	0	0	1809	0	0	1815	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			17			3			20	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1089			291			579			735	
Travel Time (s)		24.8			6.6			13.2			16.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	87	22	16	40	17	22	375	10	8	338	52
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	129	0	0	73	0	0	407	0	0	398	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		7.6			7.5			25.7			25.7	
Actuated g/C Ratio		0.21			0.21			0.70			0.70	
v/c Ratio		0.35			0.21			0.32			0.31	
Control Delay		12.6			10.4			5.6			5.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.6			10.4			5.6			5.3	
LOS		B			B			A			A	
Approach Delay		12.6			10.4			5.6			5.3	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		17			9			38			35	
Queue Length 95th (ft)		44			27			92			86	
Internal Link Dist (ft)		1009			211			499			655	
Turn Bay Length (ft)												
Base Capacity (vph)		846			834			1275			1285	

Lanes, Volumes, Timings

19: Fillmore Ave & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.15			0.09			0.32			0.31	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36.5

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.35

Intersection Signal Delay: 6.7

Intersection LOS: A

Intersection Capacity Utilization 44.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 19: Fillmore Ave & Northhampton St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
21: Fillmore Ave & Riley St/Urban St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	0	7	9	0	27	3	390	4	17	334	9
Future Volume (vph)	4	0	7	9	0	27	3	390	4	17	334	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.910			0.900			0.999			0.997	
Flt Protected		0.984			0.987						0.998	
Satd. Flow (prot)	0	1668	0	0	1655	0	0	1861	0	0	1853	0
Flt Permitted								0.998			0.979	
Satd. Flow (perm)	0	1695	0	0	1676	0	0	1857	0	0	1818	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			36			1			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			639			735			422	
Travel Time (s)		24.6			14.5			16.7			9.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	0	8	10	0	29	3	424	4	18	363	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	39	0	0	431	0	0	391	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		5.8			6.0			33.7			33.7	
Actuated g/C Ratio		0.16			0.16			0.91			0.91	
v/c Ratio		0.04			0.13			0.26			0.24	
Control Delay		2.5			7.1			2.2			2.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		2.5			7.1			2.2			2.1	
LOS		A			A			A			A	
Approach Delay		2.5			7.1			2.2			2.1	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)		0			1			0			0	
Queue Length 95th (ft)		4			14			75			67	
Internal Link Dist (ft)		1002			559			655			342	
Turn Bay Length (ft)												
Base Capacity (vph)		841			832			1689			1654	

Lanes, Volumes, Timings

21: Fillmore Ave & Riley St/Urban St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.01			0.05			0.26			0.24	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 37.1

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.26

Intersection Signal Delay: 2.4

Intersection LOS: A

Intersection Capacity Utilization 41.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 21: Fillmore Ave & Riley St/Urban St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
22: Fillmore Ave & French St

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	12	59	380	12	74	330
Future Volume (vph)	12	59	380	12	74	330
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.888		0.996			
Flt Protected	0.992					0.991
Satd. Flow (prot)	1641	0	1855	0	0	1846
Flt Permitted	0.992					0.876
Satd. Flow (perm)	1641	0	1855	0	0	1632
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	64		4			
Link Speed (mph)	30		30			30
Link Distance (ft)	600		422			182
Travel Time (s)	13.6		9.6			4.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	64	413	13	80	359
Shared Lane Traffic (%)						
Lane Group Flow (vph)	77	0	426	0	0	439
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		27.5		27.5	27.5
Total Split (%)	45.0%		55.0%		55.0%	55.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.5		36.5			36.5
Actuated g/C Ratio	0.14		0.80			0.80
v/c Ratio	0.27		0.29			0.34
Control Delay	9.6		3.6			4.1
Queue Delay	0.0		0.0			0.8
Total Delay	9.6		3.6			4.9
LOS	A		A			A
Approach Delay	9.6		3.6			4.9
Approach LOS	A		A			A
Queue Length 50th (ft)	4		34			37
Queue Length 95th (ft)	27		80			91
Internal Link Dist (ft)	520		342			102
Turn Bay Length (ft)						
Base Capacity (vph)	689		1479			1301

Lanes, Volumes, Timings

22: Fillmore Ave & French St

03/21/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Starvation Cap Reductn	0		0			561
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.11		0.29			0.59

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 45.8

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.34

Intersection Signal Delay: 4.7

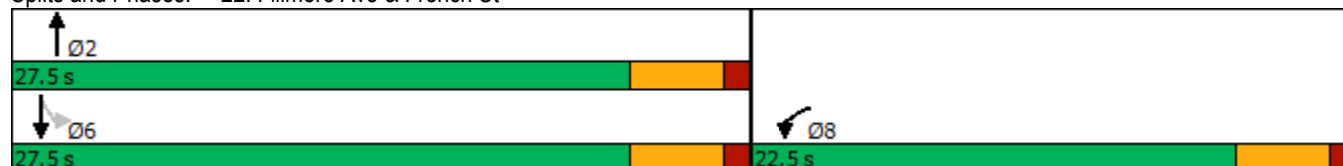
Intersection LOS: A

Intersection Capacity Utilization 57.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 22: Fillmore Ave & French St



Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	85	110	74	373	311	65
Future Volume (vph)	85	110	74	373	311	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.924				0.977	
Flt Protected	0.979			0.992		
Satd. Flow (prot)	1685	0	0	1848	1820	0
Flt Permitted	0.979			0.887		
Satd. Flow (perm)	1685	0	0	1652	1820	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	120				28	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1083			182	1350	
Travel Time (s)	24.6			4.1	30.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	92	120	80	405	338	71
Shared Lane Traffic (%)						
Lane Group Flow (vph)	212	0	0	485	409	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		27.5	27.5	27.5	
Total Split (%)	45.0%		55.0%	55.0%	55.0%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effect Green (s)	8.1			27.9	27.9	
Actuated g/C Ratio	0.19			0.66	0.66	
v/c Ratio	0.50			0.44	0.34	
Control Delay	11.4			7.1	5.6	
Queue Delay	0.0			1.2	0.0	
Total Delay	11.4			8.3	5.6	
LOS	B			A	A	
Approach Delay	11.4			8.3	5.6	
Approach LOS	B			A	A	
Queue Length 50th (ft)	18			51	36	
Queue Length 95th (ft)	57			138	96	
Internal Link Dist (ft)	1003			102	1270	
Turn Bay Length (ft)						
Base Capacity (vph)	790			1093	1213	

Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Starvation Cap Reductn	0			379	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.27			0.68	0.34	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 42.1

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.50

Intersection Signal Delay: 7.9

Intersection LOS: A

Intersection Capacity Utilization 66.8%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 23: Fillmore Ave & E Utica St

  27.5 s	 22.5 s
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Lanes, Volumes, Timings
24: Fillmore Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	269	83	54	253	49	41	288	61	42	290	75
Future Volume (vph)	37	269	83	54	253	49	41	288	61	42	290	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.968			0.979			0.977			0.972	
Flt Protected		0.995			0.992			0.995			0.995	
Satd. Flow (prot)	0	3409	0	0	3437	0	0	3441	0	0	3423	0
Flt Permitted		0.884			0.831			0.885			0.887	
Satd. Flow (perm)	0	3029	0	0	2879	0	0	3060	0	0	3051	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		90			47			56			72	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			797			1350			1620	
Travel Time (s)		24.6			18.1			30.7			36.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	40	292	90	59	275	53	45	313	66	46	315	82
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	422	0	0	387	0	0	424	0	0	443	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		9.9			9.9			18.1			18.1	
Actuated g/C Ratio		0.27			0.27			0.49			0.49	
v/c Ratio		0.48			0.48			0.28			0.29	
Control Delay		10.6			11.9			6.0			5.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.6			11.9			6.0			5.9	
LOS		B			B			A			A	
Approach Delay		10.6			11.9			6.0			5.9	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		28			29			18			19	
Queue Length 95th (ft)		54			54			48			49	

Lanes, Volumes, Timings

24: Fillmore Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1002			717			1270			1540	
Turn Bay Length (ft)												
Base Capacity (vph)		1524			1429			1522			1526	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.28			0.27			0.28			0.29	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 37.1

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 8.5

Intersection LOS: A

Intersection Capacity Utilization 59.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 24: Fillmore Ave & E Ferry St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
25: Fillmore Ave & Northland Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	28	21	48	57	19	12	328	31	27	346	20
Future Volume (vph)	4	28	21	48	57	19	12	328	31	27	346	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.946			0.979			0.989			0.993	
Flt Protected		0.997			0.981			0.998			0.997	
Satd. Flow (prot)	0	1757	0	0	1789	0	0	1839	0	0	1844	0
Flt Permitted		0.970			0.849			0.985			0.963	
Satd. Flow (perm)	0	1709	0	0	1548	0	0	1815	0	0	1781	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			21			12			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1020			890			1620			1011	
Travel Time (s)		23.2			20.2			36.8			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	30	23	52	62	21	13	357	34	29	376	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	57	0	0	135	0	0	404	0	0	427	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		8.0			8.0			23.9			23.9	
Actuated g/C Ratio		0.21			0.21			0.63			0.63	
v/c Ratio		0.15			0.39			0.35			0.38	
Control Delay		8.4			13.9			6.3			6.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.4			13.9			6.3			6.7	
LOS		A			B			A			A	
Approach Delay		8.4			13.9			6.3			6.7	
Approach LOS		A			B			A			A	
Queue Length 50th (ft)		5			18			37			41	
Queue Length 95th (ft)		21			46			94			103	
Internal Link Dist (ft)		940			810			1540			931	
Turn Bay Length (ft)												
Base Capacity (vph)		826			748			1144			1121	

Lanes, Volumes, Timings

25: Fillmore Ave & Northland Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.07			0.18			0.35			0.38	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 38

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 7.6

Intersection LOS: A

Intersection Capacity Utilization 52.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 25: Fillmore Ave & Northland Ave

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	200	46	31	163	40	36	302	30	58	315	70
Future Volume (vph)	90	200	46	31	163	40	36	302	30	58	315	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.982			0.977			0.989			0.979	
Flt Protected		0.987			0.993			0.995			0.993	
Satd. Flow (prot)	0	1805	0	0	1807	0	0	1833	0	0	1811	0
Flt Permitted		0.851			0.932			0.932			0.910	
Satd. Flow (perm)	0	1557	0	0	1696	0	0	1717	0	0	1660	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			23			12			25	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		928			735			1011			742	
Travel Time (s)		21.1			16.7			23.0			16.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	98	217	50	34	177	43	39	328	33	63	342	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	365	0	0	254	0	0	400	0	0	481	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	23.0	23.0		23.0	23.0		27.0	27.0		27.0	27.0	
Total Split (%)	46.0%	46.0%		46.0%	46.0%		54.0%	54.0%		54.0%	54.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		14.5			14.5			22.7			22.7	
Actuated g/C Ratio		0.31			0.31			0.49			0.49	
v/c Ratio		0.73			0.47			0.47			0.58	
Control Delay		22.7			14.2			10.9			12.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		22.7			14.2			10.9			12.5	
LOS		C			B			B			B	
Approach Delay		22.7			14.2			10.9			12.5	
Approach LOS		C			B			B			B	
Queue Length 50th (ft)		79			47			63			80	
Queue Length 95th (ft)		153			95			138			176	
Internal Link Dist (ft)		848			655			931			662	
Turn Bay Length (ft)												
Base Capacity (vph)		639			698			848			827	

Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.57			0.36			0.47			0.58	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 46.2

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 14.8

Intersection LOS: B

Intersection Capacity Utilization 75.1%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 26: Fillmore Ave & E Delavan Ave

 Ø2	 Ø4
27 s	23 s
 Ø6	 Ø8
27 s	23 s

Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	240	271	0	0	271	30	68	211	133	0	0	0
Future Volume (vph)	240	271	0	0	271	30	68	211	133	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	0		150	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.985				0.850			
Flt Protected		0.977						0.988				
Satd. Flow (prot)	0	3458	0	0	3486	0	0	1840	1583	0	0	0
Flt Permitted		0.691						0.988				
Satd. Flow (perm)	0	2446	0	0	3486	0	0	1840	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					31				145			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		310			928			1019			213	
Travel Time (s)		7.0			21.1			23.2			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	261	295	0	0	295	33	74	229	145	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	556	0	0	328	0	0	303	145	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	27.5	27.5			27.5		22.5	22.5	22.5			
Total Split (%)	55.0%	55.0%			55.0%		45.0%	45.0%	45.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)		0.0			0.0			0.0	0.0			
Total Lost Time (s)		4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		None	None	None			
Act Effct Green (s)		24.2			24.2			12.7	12.7			
Actuated g/C Ratio		0.53			0.53			0.28	0.28			
v/c Ratio		0.43			0.18			0.60	0.27			
Control Delay		5.6			6.3			19.1	4.1			
Queue Delay		0.0			0.0			0.0	0.0			
Total Delay		5.6			6.3			19.1	4.1			
LOS		A			A			B	A			
Approach Delay		5.6			6.3			14.2				
Approach LOS		A			A			B				
Queue Length 50th (ft)		20			18			66	0			
Queue Length 95th (ft)		47			44			121	27			

Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

03/21/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	45%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lanes, Volumes, Timings

27: Humboldt Parkway NB & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		230			848			939			133	
Turn Bay Length (ft)									150			
Base Capacity (vph)		1288			1851			722	709			
Starvation Cap Reductn		0			0			0	0			
Spillback Cap Reductn		0			0			0	0			
Storage Cap Reductn		0			0			0	0			
Reduced v/c Ratio		0.43			0.18			0.42	0.20			

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 46

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 8.7

Intersection LOS: A

Intersection Capacity Utilization 49.0%

ICU Level of Service A

Analysis Period (min) 15

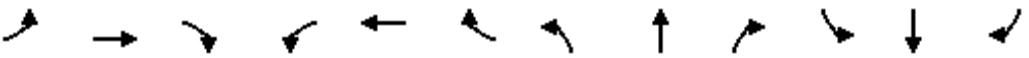
Splits and Phases: 27: Humboldt Parkway NB & E Delavan Ave

#27  Ø2	#27 #28  Ø4
22.5 s	27.5 s
#28  Ø6	#27 #28  Ø8
22.5 s	27.5 s

Lane Group	Ø6
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↶			↶↶						↶↶	↶
Traffic Volume (vph)	0	461	49	100	239	0	0	0	0	42	63	26
Future Volume (vph)	0	461	49	100	239	0	0	0	0	42	63	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987										0.850
Flt Protected					0.985						0.980	
Satd. Flow (prot)	0	1839	0	0	3486	0	0	0	0	0	1825	1583
Flt Permitted					0.715						0.980	
Satd. Flow (perm)	0	1839	0	0	2531	0	0	0	0	0	1825	1583
Right Turn on Red			Yes			Yes				Yes		Yes
Satd. Flow (RTOR)		14										33
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2669			310			684			864	
Travel Time (s)		60.7			7.0			15.5			19.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	501	53	109	260	0	0	0	0	46	68	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	554	0	0	369	0	0	0	0	0	114	28
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		27.5		27.5	27.5					22.5	22.5	22.5
Total Split (%)		55.0%		55.0%	55.0%					45.0%	45.0%	45.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0						0.0	0.0
Total Lost Time (s)		4.5			4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					None	None	None
Act Effct Green (s)		24.2			24.2						12.7	12.7
Actuated g/C Ratio		0.53			0.53						0.28	0.28
v/c Ratio		0.57			0.28						0.23	0.06
Control Delay		11.1			5.1						13.0	4.8
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		11.1			5.1						13.0	4.8
LOS		B			A						B	A
Approach Delay		11.1			5.1						11.4	
Approach LOS		B			A						B	
Queue Length 50th (ft)		82			17						22	0
Queue Length 95th (ft)		200			32						49	11

Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

03/21/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	45%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lanes, Volumes, Timings

28: Humboldt Parkway SB & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		2589			230			604			784	
Turn Bay Length (ft)												100
Base Capacity (vph)		975			1333						716	641
Starvation Cap Reductn		0			0						0	0
Spillback Cap Reductn		0			0						0	0
Storage Cap Reductn		0			0						0	0
Reduced v/c Ratio		0.57			0.28						0.16	0.04

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 46

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 9.0

Intersection LOS: A

Intersection Capacity Utilization 53.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 28: Humboldt Parkway SB & E Delavan Ave

#27  Ø2	#27 #28  Ø4
22.5 s	27.5 s
#28  Ø6	#27 #28  Ø8
22.5 s	27.5 s

Lane Group	Ø2
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
29: Jefferson Ave & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	88	333	54	57	148	23	47	144	70	12	108	43
Future Volume (vph)	88	333	54	57	148	23	47	144	70	12	108	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.985			0.986			0.964			0.964	
Flt Protected		0.991			0.988			0.991			0.996	
Satd. Flow (prot)	0	1818	0	0	1815	0	0	1780	0	0	1789	0
Flt Permitted		0.895			0.824			0.924			0.972	
Satd. Flow (perm)	0	1642	0	0	1513	0	0	1659	0	0	1745	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			14			43			43	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		592			2669			1017			352	
Travel Time (s)		13.5			60.7			23.1			8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	96	362	59	62	161	25	51	157	76	13	117	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	517	0	0	248	0	0	284	0	0	177	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	26.0	26.0		26.0	26.0		24.0	24.0		24.0	24.0	
Total Split (%)	52.0%	52.0%		52.0%	52.0%		48.0%	48.0%		48.0%	48.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		18.1			18.1			19.6			19.6	
Actuated g/C Ratio		0.39			0.39			0.42			0.42	
v/c Ratio		0.80			0.42			0.39			0.23	
Control Delay		23.4			12.0			11.0			8.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		23.4			12.0			11.0			8.8	
LOS		C			B			B			A	
Approach Delay		23.4			12.0			11.0			8.8	
Approach LOS		C			B			B			A	
Queue Length 50th (ft)		113			43			47			24	
Queue Length 95th (ft)		#249			87			98			58	
Internal Link Dist (ft)		512			2589			937			272	
Turn Bay Length (ft)												
Base Capacity (vph)		767			707			720			756	

Lanes, Volumes, Timings

29: Jefferson Ave & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.67			0.35			0.39			0.23	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 46.8

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 16.1

Intersection LOS: B

Intersection Capacity Utilization 65.3%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 29: Jefferson Ave & E Delavan Ave

 Ø2	 Ø4
24 s	26 s
 Ø6	 Ø8
24 s	26 s

Lanes, Volumes, Timings
30: Jefferson Ave & Northland Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	28	18	12	18	20	25	211	30	19	179	13
Future Volume (vph)	28	28	18	12	18	20	25	211	30	19	179	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.946			0.985			0.992	
Flt Protected		0.982			0.988			0.995			0.995	
Satd. Flow (prot)	0	1767	0	0	1741	0	0	1826	0	0	1839	0
Flt Permitted		0.853			0.895			0.967			0.967	
Satd. Flow (perm)	0	1535	0	0	1577	0	0	1774	0	0	1787	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			22			17			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		806			2743			848			1017	
Travel Time (s)		18.3			62.3			19.3			23.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	30	20	13	20	22	27	229	33	21	195	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	80	0	0	55	0	0	289	0	0	230	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		6.9			6.7			28.5			28.5	
Actuated g/C Ratio		0.19			0.19			0.81			0.81	
v/c Ratio		0.26			0.17			0.20			0.16	
Control Delay		11.2			9.2			3.5			3.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.2			9.2			3.5			3.5	
LOS		B			A			A			A	
Approach Delay		11.2			9.2			3.5			3.5	
Approach LOS		B			A			A			A	
Queue Length 50th (ft)		8			5			0			0	
Queue Length 95th (ft)		29			21			54			44	
Internal Link Dist (ft)		726			2663			768			937	
Turn Bay Length (ft)												
Base Capacity (vph)		794			816			1432			1440	

Lanes, Volumes, Timings
30: Jefferson Ave & Northland Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.10			0.07			0.20			0.16	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 35.4

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.26

Intersection Signal Delay: 4.9

Intersection LOS: A

Intersection Capacity Utilization 33.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 30: Jefferson Ave & Northland Ave

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
31: Jefferson Ave & Brunswick Blvd

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	26	26	256	45	9	192
Future Volume (vph)	26	26	256	45	9	192
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932		0.980			
Flt Protected	0.976					0.998
Satd. Flow (prot)	1694	0	1825	0	0	1859
Flt Permitted	0.976					0.986
Satd. Flow (perm)	1694	0	1825	0	0	1837
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	28		24			
Link Speed (mph)	30		30			30
Link Distance (ft)	2734		751			848
Travel Time (s)	62.1		17.1			19.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	28	28	278	49	10	209
Shared Lane Traffic (%)						
Lane Group Flow (vph)	56	0	327	0	0	219
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%	50.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.4		34.3			34.3
Actuated g/C Ratio	0.16		0.85			0.85
v/c Ratio	0.19		0.21			0.14
Control Delay	11.7		2.7			2.7
Queue Delay	0.0		0.0			0.0
Total Delay	11.7		2.7			2.7
LOS	B		A			A
Approach Delay	11.7		2.7			2.7
Approach LOS	B		A			A
Queue Length 50th (ft)	5		0			0
Queue Length 95th (ft)	25		56			40
Internal Link Dist (ft)	2654		671			768
Turn Bay Length (ft)						
Base Capacity (vph)	778		1555			1561

Lanes, Volumes, Timings

31: Jefferson Ave & Brunswick Blvd

03/21/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.07		0.21			0.14

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.4

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.21

Intersection Signal Delay: 3.5

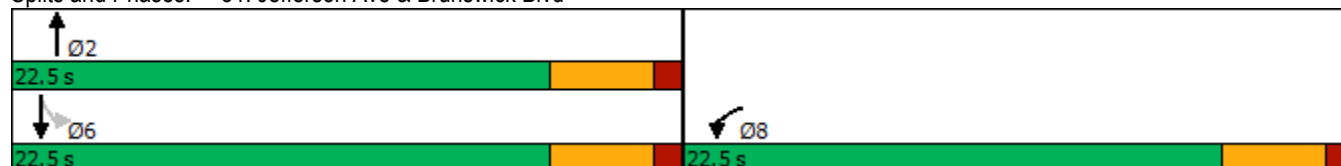
Intersection LOS: A

Intersection Capacity Utilization 29.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 31: Jefferson Ave & Brunswick Blvd



Lanes, Volumes, Timings
32: Jefferson Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	240	55	60	395	65	66	210	73	49	196	27
Future Volume (vph)	25	240	55	60	395	65	66	210	73	49	196	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.977			0.983			0.972			0.987	
Flt Protected		0.996			0.994			0.991			0.991	
Satd. Flow (prot)	0	1813	0	0	1820	0	0	1794	0	0	1822	0
Flt Permitted		0.946			0.926			0.887			0.886	
Satd. Flow (perm)	0	1722	0	0	1696	0	0	1606	0	0	1629	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			18			27			11	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			194			1406			751	
Travel Time (s)		7.5			4.4			32.0			17.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	27	261	60	65	429	71	72	228	79	53	213	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	348	0	0	565	0	0	379	0	0	295	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	30.0	30.0		30.0	30.0		25.0	25.0		25.0	25.0	
Total Split (%)	54.5%	54.5%		54.5%	54.5%		45.5%	45.5%		45.5%	45.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		20.3			20.3			20.7			20.7	
Actuated g/C Ratio		0.41			0.41			0.41			0.41	
v/c Ratio		0.49			0.81			0.56			0.43	
Control Delay		12.4			23.0			15.7			14.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.4			23.0			15.7			14.1	
LOS		B			C			B			B	
Approach Delay		12.4			23.0			15.7			14.1	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)		65			133			79			60	
Queue Length 95th (ft)		120			237			167			128	
Internal Link Dist (ft)		252			114			1326			671	
Turn Bay Length (ft)												
Base Capacity (vph)		897			880			679			679	

Lanes, Volumes, Timings

32: Jefferson Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.39			0.64			0.56			0.43	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 50.1

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 17.2

Intersection LOS: B

Intersection Capacity Utilization 74.9%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 32: Jefferson Ave & E Ferry St

 Ø2	 Ø4
25 s	30 s
 Ø6	 Ø8
25 s	30 s

Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	105	42	50	102	35	39	297	38	16	277	20
Future Volume (vph)	13	105	42	50	102	35	39	297	38	16	277	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.964			0.975			0.986			0.991	
Flt Protected		0.996			0.987			0.995			0.998	
Satd. Flow (prot)	0	1789	0	0	1793	0	0	1827	0	0	1842	0
Flt Permitted		0.967			0.892			0.944			0.976	
Satd. Flow (perm)	0	1736	0	0	1620	0	0	1734	0	0	1802	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		46			31			15			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1023			1295			630			1406	
Travel Time (s)		23.3			29.4			14.3			32.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	114	46	54	111	38	42	323	41	17	301	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	174	0	0	203	0	0	406	0	0	340	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		9.1			9.2			21.9			21.9	
Actuated g/C Ratio		0.24			0.25			0.59			0.59	
v/c Ratio		0.38			0.48			0.40			0.32	
Control Delay		10.8			13.6			7.7			7.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.8			13.6			7.7			7.1	
LOS		B			B			A			A	
Approach Delay		10.8			13.6			7.7			7.1	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		20			28			42			34	
Queue Length 95th (ft)		52			66			113			91	
Internal Link Dist (ft)		943			1215			550			1326	
Turn Bay Length (ft)												
Base Capacity (vph)		865			801			1027			1065	

Lanes, Volumes, Timings

33: Jefferson Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.20			0.25			0.40			0.32	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 37.2

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 9.1

Intersection LOS: A

Intersection Capacity Utilization 62.1%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 33: Jefferson Ave & E Utica St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
34: Jefferson Ave & Riley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	29	11	17	21	18	7	324	41	11	326	19
Future Volume (vph)	12	29	11	17	21	18	7	324	41	11	326	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.972			0.956			0.985			0.993	
Flt Protected		0.989			0.985			0.999			0.998	
Satd. Flow (prot)	0	1791	0	0	1754	0	0	1833	0	0	1846	0
Flt Permitted		0.904			0.880			0.993			0.988	
Satd. Flow (perm)	0	1637	0	0	1567	0	0	1822	0	0	1828	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			20			17			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		870			1108			418			630	
Travel Time (s)		19.8			25.2			9.5			14.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	32	12	18	23	20	8	352	45	12	354	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	57	0	0	61	0	0	405	0	0	387	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		6.5			6.5			28.8			28.8	
Actuated g/C Ratio		0.18			0.18			0.81			0.81	
v/c Ratio		0.18			0.20			0.27			0.26	
Control Delay		11.0			10.3			3.7			3.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.0			10.3			3.7			3.7	
LOS		B			B			A			A	
Approach Delay		11.0			10.3			3.7			3.7	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		7			6			0			0	
Queue Length 95th (ft)		23			23			74			71	
Internal Link Dist (ft)		790			1028			338			550	
Turn Bay Length (ft)												
Base Capacity (vph)		834			803			1477			1480	

Lanes, Volumes, Timings

34: Jefferson Ave & Riley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.07			0.08			0.27			0.26	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 35.6

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.27

Intersection Signal Delay: 4.6

Intersection LOS: A

Intersection Capacity Utilization 36.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 34: Jefferson Ave & Riley St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings

35: Jefferson Ave & Northampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	47	25	12	46	21	22	333	14	28	294	31
Future Volume (vph)	20	47	25	12	46	21	22	333	14	28	294	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.964			0.964			0.995			0.988	
Flt Protected		0.989			0.992			0.997			0.996	
Satd. Flow (prot)	0	1776	0	0	1781	0	0	1848	0	0	1833	0
Flt Permitted		0.900			0.926			0.971			0.959	
Satd. Flow (perm)	0	1616	0	0	1663	0	0	1800	0	0	1765	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			23			5			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1340			1290			1156			278	
Travel Time (s)		30.5			29.3			26.3			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	51	27	13	50	23	24	362	15	30	320	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	100	0	0	86	0	0	401	0	0	384	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		7.1			7.0			25.5			25.5	
Actuated g/C Ratio		0.20			0.19			0.71			0.71	
v/c Ratio		0.29			0.25			0.31			0.31	
Control Delay		11.3			10.8			5.2			5.1	
Queue Delay		0.0			0.0			0.0			0.1	
Total Delay		11.3			10.8			5.2			5.2	
LOS		B			B			A			A	
Approach Delay		11.3			10.8			5.2			5.2	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		11			10			35			32	
Queue Length 95th (ft)		34			30			84			79	
Internal Link Dist (ft)		1260			1210			1076			198	
Turn Bay Length (ft)												
Base Capacity (vph)		824			845			1279			1256	

Lanes, Volumes, Timings

35: Jefferson Ave & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			139	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.12			0.10			0.31			0.34	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 35.9

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.31

Intersection Signal Delay: 6.3

Intersection LOS: A

Intersection Capacity Utilization 41.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 35: Jefferson Ave & Northhampton St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
36: Jefferson Ave & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	490	49	41	335	68	28	284	87	72	242	24
Future Volume (vph)	16	490	49	41	335	68	28	284	87	72	242	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.987			0.977			0.967			0.989	
Flt Protected		0.999			0.995			0.997			0.989	
Satd. Flow (prot)	0	3490	0	0	3441	0	0	3412	0	0	3462	0
Flt Permitted		0.935			0.861			0.917			0.809	
Satd. Flow (perm)	0	3266	0	0	2977	0	0	3138	0	0	2832	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			55			95			21	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		169			169			156			165	
Travel Time (s)		3.8			3.8			3.5			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	533	53	45	364	74	30	309	95	78	263	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	603	0	0	483	0	0	434	0	0	367	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		13.0			13.0			18.1			18.1	
Actuated g/C Ratio		0.32			0.32			0.45			0.45	
v/c Ratio		0.56			0.48			0.30			0.28	
Control Delay		12.7			11.1			6.7			8.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.7			11.1			6.7			8.1	
LOS		B			B			A			A	
Approach Delay		12.7			11.1			6.7			8.1	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		53			38			22			22	
Queue Length 95th (ft)		87			66			53			54	
Internal Link Dist (ft)		89			89			76			85	
Turn Bay Length (ft)												
Base Capacity (vph)		1487			1372			1467			1289	

Lanes, Volumes, Timings

36: Jefferson Ave & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.41			0.35			0.30			0.28	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.2

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.56

Intersection Signal Delay: 10.0

Intersection LOS: B

Intersection Capacity Utilization 64.2%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 36: Jefferson Ave & Best St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
37: Jefferson Ave & E North St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	83	146	47	307	318	22
Future Volume (vph)	83	146	47	307	318	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.914				0.991	
Flt Protected	0.982			0.993		
Satd. Flow (prot)	1672	0	0	1850	1846	0
Flt Permitted	0.982			0.923		
Satd. Flow (perm)	1672	0	0	1719	1846	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	159				9	
Link Speed (mph)	30			30	30	
Link Distance (ft)	879			684	486	
Travel Time (s)	20.0			15.5	11.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	90	159	51	334	346	24
Shared Lane Traffic (%)						
Lane Group Flow (vph)	249	0	0	385	370	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		22.5	22.5	22.5	
Total Split (%)	50.0%		50.0%	50.0%	50.0%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effect Green (s)	7.9			22.2	22.2	
Actuated g/C Ratio	0.22			0.61	0.61	
v/c Ratio	0.51			0.37	0.33	
Control Delay	8.9			7.0	6.4	
Queue Delay	0.0			0.0	0.0	
Total Delay	8.9			7.0	6.4	
LOS	A			A	A	
Approach Delay	8.9			7.0	6.4	
Approach LOS	A			A	A	
Queue Length 50th (ft)	14			36	32	
Queue Length 95th (ft)	51			101	91	
Internal Link Dist (ft)	799			604	406	
Turn Bay Length (ft)						
Base Capacity (vph)	910			1053	1134	

Lanes, Volumes, Timings 37: Jefferson Ave & E North St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.27			0.37	0.33	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36.3

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 7.2

Intersection LOS: A

Intersection Capacity Utilization 61.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 37: Jefferson Ave & E North St

Ø2 22.5 s	Ø4 22.5 s
Ø6 22.5 s	

Lanes, Volumes, Timings
38: Jefferson Ave & High St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	64	125	33	60	33	50	301	21	23	421	9
Future Volume (vph)	14	64	125	33	60	33	50	301	21	23	421	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.917			0.965			0.992			0.997	
Flt Protected		0.997			0.987			0.993			0.997	
Satd. Flow (prot)	0	1703	0	0	1774	0	0	1835	0	0	1852	0
Flt Permitted		0.966			0.865			0.903			0.973	
Satd. Flow (perm)	0	1650	0	0	1555	0	0	1669	0	0	1807	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		136			36			8			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		840			1233			880			684	
Travel Time (s)		19.1			28.0			20.0			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	70	136	36	65	36	54	327	23	25	458	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	221	0	0	137	0	0	404	0	0	493	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		7.9			7.9			21.8			21.8	
Actuated g/C Ratio		0.22			0.22			0.61			0.61	
v/c Ratio		0.47			0.37			0.40			0.45	
Control Delay		8.8			11.8			7.1			7.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.8			11.8			7.1			7.6	
LOS		A			B			A			A	
Approach Delay		8.8			11.8			7.1			7.6	
Approach LOS		A			B			A			A	
Queue Length 50th (ft)		13			16			38			49	
Queue Length 95th (ft)		48			44			103			129	
Internal Link Dist (ft)		760			1153			800			604	
Turn Bay Length (ft)												
Base Capacity (vph)		897			800			1016			1098	

Lanes, Volumes, Timings

38: Jefferson Ave & High St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.25			0.17			0.40			0.45	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 35.9

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 8.1

Intersection LOS: A

Intersection Capacity Utilization 59.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 38: Jefferson Ave & High St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
39: Wohlers Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	392	18	16	497	94	10	59	58	0	0	0
Future Volume (vph)	59	392	18	16	497	94	10	59	58	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.979			0.938				
Flt Protected		0.994			0.999			0.996				
Satd. Flow (prot)	0	1842	0	0	1822	0	0	1740	0	0	0	0
Flt Permitted		0.881			0.984			0.996				
Satd. Flow (perm)	0	1633	0	0	1794	0	0	1740	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			24			63				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		280			1179			1336			278	
Travel Time (s)		6.4			26.8			30.4			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	64	426	20	17	540	102	11	64	63	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	510	0	0	659	0	0	138	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4			8			2					
Detector Phase	4	4		8	8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5				
Total Split (s)	37.0	37.0		37.0	37.0		23.0	23.0				
Total Split (%)	61.7%	61.7%		61.7%	61.7%		38.3%	38.3%				
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max				
Act Effct Green (s)		23.2			23.2			18.8				
Actuated g/C Ratio		0.45			0.45			0.37				
v/c Ratio		0.69			0.80			0.20				
Control Delay		15.9			19.3			9.5				
Queue Delay		0.0			0.0			0.0				
Total Delay		15.9			19.3			9.5				
LOS		B			B			A				
Approach Delay		15.9			19.3			9.5				
Approach LOS		B			B			A				
Queue Length 50th (ft)		109			148			15				
Queue Length 95th (ft)		190			253			54				
Internal Link Dist (ft)		200			1099			1256			198	
Turn Bay Length (ft)												
Base Capacity (vph)		1057			1167			680				

Lanes, Volumes, Timings

39: Wohlers Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.48			0.56			0.20				

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 51.2

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 16.9

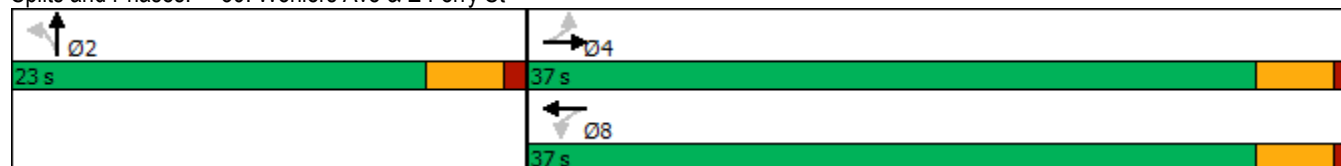
Intersection LOS: B

Intersection Capacity Utilization 65.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 39: Wohlers Ave & E Ferry St



Lanes, Volumes, Timings
40: Wohlers Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	167	7	13	144	30	22	55	28	8	23	10
Future Volume (vph)	13	167	7	13	144	30	22	55	28	8	23	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.978			0.964			0.967	
Flt Protected		0.997			0.997			0.990			0.990	
Satd. Flow (prot)	0	1848	0	0	1816	0	0	1778	0	0	1783	0
Flt Permitted		0.972			0.972			0.956			0.961	
Satd. Flow (perm)	0	1802	0	0	1771	0	0	1717	0	0	1731	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			26			30			11	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		274			1173			1331			1336	
Travel Time (s)		6.2			26.7			30.3			30.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	182	8	14	157	33	24	60	30	9	25	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	204	0	0	204	0	0	114	0	0	45	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		9.2			9.2			21.9			21.9	
Actuated g/C Ratio		0.25			0.25			0.59			0.59	
v/c Ratio		0.45			0.45			0.11			0.04	
Control Delay		14.4			13.1			4.9			4.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.4			13.1			4.9			4.9	
LOS		B			B			A			A	
Approach Delay		14.4			13.1			4.9			4.9	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		33			29			7			3	
Queue Length 95th (ft)		70			66			28			15	
Internal Link Dist (ft)		194			1093			1251			1256	
Turn Bay Length (ft)												
Base Capacity (vph)		877			873			1024			1024	

Lanes, Volumes, Timings

40: Wohlers Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.23			0.23			0.11			0.04	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 37.2

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 11.3

Intersection LOS: B

Intersection Capacity Utilization 28.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 40: Wohlers Ave & E Utica St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
41: Humboldt Parkway SB & Woodlawn Ave

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	498	48
Future Volume (vph)	0	0	0	0	498	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.988	
Flt Protected						
Satd. Flow (prot)	0	0	0	0	1840	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	0	1840	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	780			265	319	
Travel Time (s)	17.7			6.0	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	541	52
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	593	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 32.5% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings
42: Humboldt Parkway SB & Glenwood Ave

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	40	0	0	496	0
Future Volume (vph)	0	40	0	0	496	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1863	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	750			456	296	
Travel Time (s)	17.0			10.4	6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	43	0	0	539	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	43	0	0	539	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 36.1% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
42: Humboldt Parkway SB & Glenwood Ave

03/21/2022

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	40	0	0	496	0
Future Vol, veh/h	0	40	0	0	496	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	43	0	0	539	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	539	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	542	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	542	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	12.2		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	542	-				
HCM Lane V/C Ratio	0.08	-				
HCM Control Delay (s)	12.2	-				
HCM Lane LOS	B	-				
HCM 95th %tile Q(veh)	0.3	-				

Lanes, Volumes, Timings
43: Humboldt Parkway SB & Riley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	16	22	22	16	0	0	0	0	22	401	22
Future Volume (vph)	0	16	22	22	16	0	0	0	0	22	401	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.921										0.993	
Flt Protected					0.972						0.998	
Satd. Flow (prot)	0	1716	0	0	1811	0	0	0	0	0	1846	0
Flt Permitted					0.972						0.998	
Satd. Flow (perm)	0	1716	0	0	1811	0	0	0	0	0	1846	0
Link Speed (mph)	30				30				30			
Link Distance (ft)	873				152				418			
Travel Time (s)	19.8				3.5				9.5			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	17	24	24	17	0	0	0	0	24	436	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	41	0	0	41	0	0	0	0	0	484	0
Sign Control	Stop				Stop				Stop			
Free												
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 39.0%												
ICU Level of Service A												
Analysis Period (min) 15												

HCM 6th TWSC
43: Humboldt Parkway SB & Riley St

03/21/2022

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	16	22	22	16	0	0	0	0	22	401	22
Future Vol, veh/h	0	16	22	22	16	0	0	0	0	22	401	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	17	24	24	17	0	0	0	0	24	436	24
Major/Minor	Minor2		Minor1				Major2					
Conflicting Flow All	-	496	448	517	508	-				0	0	0
Stage 1	-	496	-	0	0	-				-	-	-
Stage 2	-	0	-	517	508	-				-	-	-
Critical Hdwy	-	6.52	6.22	7.12	6.52	-				4.12	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-				-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-				-	-	-
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-				2.218	-	-
Pot Cap-1 Maneuver	0	475	611	469	468	0				-	-	-
Stage 1	0	545	-	-	-	0				-	-	-
Stage 2	0	-	-	541	539	0				-	-	-
Platoon blocked, %											-	-
Mov Cap-1 Maneuver	-	475	611	438	468	-				-	-	-
Mov Cap-2 Maneuver	-	475	-	438	468	-				-	-	-
Stage 1	-	545	-	-	-	-				-	-	-
Stage 2	-	-	-	503	539	-				-	-	-
Approach	EB		WB				SB					
HCM Control Delay, s	12.1		13.8									
HCM LOS	B		B									
Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR							
Capacity (veh/h)	545 450		-	-	-							
HCM Lane V/C Ratio	0.076 0.092		-	-	-							
HCM Control Delay (s)	12.1 13.8		-	-	-							
HCM Lane LOS	B B		-	-	-							
HCM 95th %tile Q(veh)	0.2 0.3		-	-	-							

Lanes, Volumes, Timings
44: Humboldt Parkway SB & Kingsley St

03/21/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	13	0	0	443	4
Future Volume (vph)	0	13	0	0	443	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.999	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1861	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1861	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	736			293	418	
Travel Time (s)	16.7			6.7	9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	14	0	0	482	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	14	0	0	486	0
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	33.6%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
44: Humboldt Parkway SB & Kingsley St

03/21/2022

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	13	0	0	443	4
Future Vol, veh/h	0	13	0	0	443	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	14	0	0	482	4

Major/Minor	Minor2	Major2
Conflicting Flow All	- 484	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 583	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 583	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	11.3	0
HCM LOS	B	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	583	-	-
HCM Lane V/C Ratio	0.024	-	-
HCM Control Delay (s)	11.3	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Lanes, Volumes, Timings

45: W Parade Ave & Humboldt Parkway SB

03/21/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↘	
Traffic Volume (vph)	0	162	90	0	97	46
Future Volume (vph)	0	162	90	0	97	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.956	
Flt Protected					0.967	
Satd. Flow (prot)	0	1863	1863	0	1722	0
Flt Permitted					0.967	
Satd. Flow (perm)	0	1863	1863	0	1722	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		199	738		350	
Travel Time (s)		4.5	16.8		8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	176	98	0	105	50
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	176	98	0	155	0
Sign Control		Stop	Stop		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 23.4% ICU Level of Service A

Analysis Period (min) 15

HCM 6th AWSC
45: W Parade Ave & Humboldt Parkway SB

03/21/2022

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑↑	
Traffic Vol, veh/h	0	162	90	0	97	46
Future Vol, veh/h	0	162	90	0	97	46
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	176	98	0	105	50
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	8.6	8.1	8.6
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	68%
Vol Thru, %	100%	100%	0%
Vol Right, %	0%	0%	32%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	162	90	143
LT Vol	0	0	97
Through Vol	162	90	0
RT Vol	0	0	46
Lane Flow Rate	176	98	155
Geometry Grp	1	1	1
Degree of Util (X)	0.216	0.122	0.194
Departure Headway (Hd)	4.413	4.497	4.5
Convergence, Y/N	Yes	Yes	Yes
Cap	815	799	799
Service Time	2.428	2.514	2.519
HCM Lane V/C Ratio	0.216	0.123	0.194
HCM Control Delay	8.6	8.1	8.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.8	0.4	0.7

Lanes, Volumes, Timings
46: Linden Park & Dodge St/W Parade Ave

03/21/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	160	7	6	131	0	2
Future Volume (vph)	160	7	6	131	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.994				0.865	
Flt Protected				0.998		
Satd. Flow (prot)	1852	0	0	1859	1611	0
Flt Permitted				0.998		
Satd. Flow (perm)	1852	0	0	1859	1611	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	489			199	180	
Travel Time (s)	11.1			4.5	4.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	8	7	142	0	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	182	0	0	149	2	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	21.8%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
46: Linden Park & Dodge St/W Parade Ave

03/21/2022

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	160	7	6	131	0	2
Future Vol, veh/h	160	7	6	131	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	174	8	7	142	0	2
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	182	0	334	178
Stage 1	-	-	-	-	178	-
Stage 2	-	-	-	-	156	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1393	-	661	865
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	872	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1393	-	658	865
Mov Cap-2 Maneuver	-	-	-	-	658	-
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	868	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		9.2	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	865	-	-	1393	-	
HCM Lane V/C Ratio	0.003	-	-	0.005	-	
HCM Control Delay (s)	9.2	-	-	7.6	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Lanes, Volumes, Timings
47: Humboldt Parkway NB & Riley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	22	0	0	22	16	16	289	16	0	0	0
Future Volume (vph)	16	22	0	0	22	16	16	289	16	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.944			0.993				
Flt Protected		0.980						0.998				
Satd. Flow (prot)	0	1825	0	0	1758	0	0	1846	0	0	0	0
Flt Permitted		0.980						0.998				
Satd. Flow (perm)	0	1825	0	0	1758	0	0	1846	0	0	0	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		152			1082			722			610	
Travel Time (s)		3.5			24.6			16.4			13.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	24	0	0	24	17	17	314	17	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	41	0	0	41	0	0	348	0	0	0	0
Sign Control		Stop			Stop			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	32.4%											
Analysis Period (min)	15											
ICU Level of Service A												

HCM 6th TWSC
47: Humboldt Parkway NB & Riley St

03/21/2022

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	22	0	0	22	16	16	289	16	0	0	0
Future Vol, veh/h	16	22	0	0	22	16	16	289	16	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	24	0	0	24	17	17	314	17	0	0	0
Major/Minor	Minor2		Minor1		Major1							
Conflicting Flow All	377	365	-	-	357	323	0	0	0			
Stage 1	0	0	-	-	357	-	-	-	-			
Stage 2	377	365	-	-	0	-	-	-	-			
Critical Hdwy	7.12	6.52	-	-	6.52	6.22	4.12	-	-			
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-			
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-			
Follow-up Hdwy	3.518	4.018	-	-	4.018	3.318	2.218	-	-			
Pot Cap-1 Maneuver	580	563	0	0	569	718	-	-	-			
Stage 1	-	-	0	0	628	-	-	-	-			
Stage 2	644	623	0	0	-	-	-	-	-			
Platoon blocked, %								-	-			
Mov Cap-1 Maneuver	548	563	-	-	569	718	-	-	-			
Mov Cap-2 Maneuver	548	563	-	-	569	-	-	-	-			
Stage 1	-	-	-	-	628	-	-	-	-			
Stage 2	604	623	-	-	-	-	-	-	-			
Approach	EB		WB		NB							
HCM Control Delay, s	12		11.2									
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL		NBT		NBR		EBLn1WBLn1					
Capacity (veh/h)	-		-		-		557 623					
HCM Lane V/C Ratio	-		-		-		0.074 0.066					
HCM Control Delay (s)	-		-		-		12 11.2					
HCM Lane LOS	-		-		-		B B					
HCM 95th %tile Q(veh)	-		-		-		0.2 0.2					

Lanes, Volumes, Timings
48: Humboldt Parkway NB & Woepfel St

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	7	340	12	0	0
Future Volume (vph)	0	7	340	12	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.995			
Flt Protected						
Satd. Flow (prot)	0	1611	1853	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1853	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	744		294			461
Travel Time (s)	16.9		6.7			10.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	8	370	13	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	8	383	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	28.6%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
48: Humboldt Parkway NB & Woepfel St

03/21/2022

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	7	340	12	0	0
Future Vol, veh/h	0	7	340	12	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	370	13	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	377	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	670	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	670	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	10.4		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		-		670	
HCM Lane V/C Ratio	-		-		0.011	
HCM Control Delay (s)	-		-		10.4	
HCM Lane LOS	-		-		B	
HCM 95th %tile Q(veh)	-		-		0	

Lanes, Volumes, Timings
49: Humboldt Parkway NB & Woodlawn Ave

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	21	336	3	0	0
Future Volume (vph)	0	21	336	3	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.999			
Flt Protected						
Satd. Flow (prot)	0	1611	1861	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1861	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	729		268			312
Travel Time (s)	16.6		6.1			7.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	23	365	3	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	23	368	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	27.9%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
49: Humboldt Parkway NB & Woodlawn Ave

03/21/2022

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	21	336	3	0	0
Future Vol, veh/h	0	21	336	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	23	365	3	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	367	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	678	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	678	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	10.5		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		-		678	
HCM Lane V/C Ratio	-		-		0.034	
HCM Control Delay (s)	-		-		10.5	
HCM Lane LOS	-		-		B	
HCM 95th %tile Q(veh)	-		-		0.1	

Lanes, Volumes, Timings
50: Humboldt Parkway SB & Florida St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	40	0	0	216	17
Future Volume (vph)	0	40	0	0	216	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.990	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1844	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1844	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	935			344	684	
Travel Time (s)	21.3			7.8	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	43	0	0	235	18
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	43	0	0	253	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 22.4% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
50: Humboldt Parkway SB & Florida St

03/21/2022

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	40	0	0	216	17
Future Vol, veh/h	0	40	0	0	216	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	43	0	0	235	18
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	244	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	795	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	795	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	9.8		0			
HCM LOS	A					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	795	-	-			
HCM Lane V/C Ratio	0.055	-	-			
HCM Control Delay (s)	9.8	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0.2	-	-			

Lanes, Volumes, Timings
51: Humboldt Parkway SB & Northland Ave

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	67	0	0	233	32
Future Volume (vph)	0	67	0	0	233	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.865			0.984	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1833	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1833	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2743			805	344	
Travel Time (s)	62.3			18.3	7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	73	0	0	253	35
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	73	0	0	288	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 25.0% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
51: Humboldt Parkway SB & Northland Ave

03/21/2022

Intersection

Int Delay, s/veh 2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	67	0	0	233	32
Future Vol, veh/h	0	67	0	0	233	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	73	0	0	253	35

Major/Minor	Minor2	Major2
Conflicting Flow All	- 271	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 768	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 768	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	10.2	0
HCM LOS	B	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	768	-	-
HCM Lane V/C Ratio	0.095	-	-
HCM Control Delay (s)	10.2	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.3	-	-

Lanes, Volumes, Timings
52: Humboldt Parkway SB & Brunswick Blvd

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	71	0	0	275	28
Future Volume (vph)	0	71	0	0	275	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.988	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1840	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1840	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2734			252	805	
Travel Time (s)	62.1			5.7	18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	77	0	0	299	30
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	77	0	0	329	0
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 27.2% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	71	0	0	275	28
Future Vol, veh/h	0	71	0	0	275	28
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	77	0	0	299	30
Number of Lanes	0	1	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	1
HCM Control Delay	7.4	9.4
HCM LOS	A	A

Lane	EBLn1	SBLn1
Vol Left, %	0%	0%
Vol Thru, %	0%	91%
Vol Right, %	100%	9%
Sign Control	Stop	Stop
Traffic Vol by Lane	71	303
LT Vol	0	0
Through Vol	0	275
RT Vol	71	28
Lane Flow Rate	77	329
Geometry Grp	1	1
Degree of Util (X)	0.087	0.367
Departure Headway (Hd)	4.052	4.014
Convergence, Y/N	Yes	Yes
Cap	890	893
Service Time	2.052	2.05
HCM Lane V/C Ratio	0.087	0.368
HCM Control Delay	7.4	9.4
HCM Lane LOS	A	A
HCM 95th-tile Q	0.3	1.7

Lanes, Volumes, Timings
53: Humboldt Parkway SB & Goulding Ave

03/21/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Volume (vph)	0	66	0	0	935	0
Future Volume (vph)	0	66	0	0	935	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Fr _t	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	3539	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	3539	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1067			270	306	
Travel Time (s)	24.3			6.1	7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	72	0	0	1016	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	72	0	0	1016	0
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	30.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
53: Humboldt Parkway SB & Goulding Ave

03/21/2022

Intersection

Int Delay, s/veh 0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↗↗	
Traffic Vol, veh/h	0	66	0	0	935	0
Future Vol, veh/h	0	66	0	0	935	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	72	0	0	1016	0

Major/Minor	Minor2	Major2
Conflicting Flow All	- 508	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.94	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.32	- -
Pot Cap-1 Maneuver	0 510	- 0
Stage 1	0 -	- 0
Stage 2	0 -	- 0
Platoon blocked, %		-
Mov Cap-1 Maneuver	- 510	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	13.2	0
HCM LOS	B	

Minor Lane/Major Mvmt	EBLn1	SBT
Capacity (veh/h)	510	-
HCM Lane V/C Ratio	0.141	-
HCM Control Delay (s)	13.2	-
HCM Lane LOS	B	-
HCM 95th %tile Q(veh)	0.5	-

Lanes, Volumes, Timings
54: Humboldt Parkway NB & Sydney St

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	48	569	0	0	0
Future Volume (vph)	0	48	569	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	913		608			1024
Travel Time (s)	20.8		13.8			23.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	52	618	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	52	618	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	39.9%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
54: Humboldt Parkway NB & Sydney St

03/21/2022

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	48	569	0	0	0
Future Vol, veh/h	0	48	569	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	52	618	0	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	618	0	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	489	-	0		
Stage 1	0	-	-	0		
Stage 2	0	-	-	0		
Platoon blocked, %			-			
Mov Cap-1 Maneuver	-	489	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	13.2		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBTWBLn1					
Capacity (veh/h)	-		489			
HCM Lane V/C Ratio	-		0.107			
HCM Control Delay (s)	-		13.2			
HCM Lane LOS	-		B			
HCM 95th %tile Q(veh)	-		0.4			

Lanes, Volumes, Timings
55: Humboldt Parkway NB & Northland Ave

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	64	549	66	0	0
Future Volume (vph)	0	64	549	66	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865	0.865	0.985			
Flt Protected						
Satd. Flow (prot)	0	1611	1835	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1835	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	1020		1024			1019
Travel Time (s)	23.2		23.3			23.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	70	597	72	0	0
Shared Lane Traffic (%)		10%				
Lane Group Flow (vph)	7	63	669	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	43.5%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
55: Humboldt Parkway NB & Northland Ave

03/21/2022

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	64	549	66	0	0
Future Vol, veh/h	0	64	549	66	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	70	597	72	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	633	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	480	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	480	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	13.8		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		- 480			
HCM Lane V/C Ratio	-		- 0.145			
HCM Control Delay (s)	-		- 13.8			
HCM Lane LOS	-		- B			
HCM 95th %tile Q(veh)	-		- 0.5			

Lanes, Volumes, Timings
56: Roehrer Ave & E Ferry St

03/21/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	428	15	28	486	17	42
Future Volume (vph)	428	15	28	486	17	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.903	
Flt Protected				0.997	0.986	
Satd. Flow (prot)	1855	0	0	1857	1659	0
Flt Permitted				0.997	0.986	
Satd. Flow (perm)	1855	0	0	1857	1659	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1109			280	1331	
Travel Time (s)	25.2			6.4	30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	465	16	30	528	18	46
Shared Lane Traffic (%)						
Lane Group Flow (vph)	481	0	0	558	64	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	58.7%			ICU Level of Service B		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	428	15	28	486	17	42
Future Vol, veh/h	428	15	28	486	17	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	465	16	30	528	18	46
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	481	0	1061	473
Stage 1	-	-	-	-	473	-
Stage 2	-	-	-	-	588	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1082	-	248	591
Stage 1	-	-	-	-	627	-
Stage 2	-	-	-	-	555	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1082	-	238	591
Mov Cap-2 Maneuver	-	-	-	-	238	-
Stage 1	-	-	-	-	627	-
Stage 2	-	-	-	-	533	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.5		15.3	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	414	-	-	1082	-	
HCM Lane V/C Ratio	0.155	-	-	0.028	-	
HCM Control Delay (s)	15.3	-	-	8.4	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-	

Lanes, Volumes, Timings
57: Roehrer Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	161	9	7	155	16	16	26	17	10	29	8
Future Volume (vph)	11	161	9	7	155	16	16	26	17	10	29	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.993			0.988			0.961			0.977	
Flt Protected		0.997			0.998			0.987			0.990	
Satd. Flow (prot)	0	1844	0	0	1837	0	0	1767	0	0	1802	0
Flt Permitted		0.997			0.998			0.987			0.990	
Satd. Flow (perm)	0	1844	0	0	1837	0	0	1767	0	0	1802	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1295			274			1342			1331	
Travel Time (s)		29.4			6.2			30.5			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	175	10	8	168	17	17	28	18	11	32	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	197	0	0	193	0	0	63	0	0	52	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 24.8%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	11	161	9	7	155	16	16	26	17	10	29	8
Future Vol, veh/h	11	161	9	7	155	16	16	26	17	10	29	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	175	10	8	168	17	17	28	18	11	32	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.8	8.8	8.2	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	6%	4%	21%
Vol Thru, %	44%	89%	87%	62%
Vol Right, %	29%	5%	9%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	59	181	178	47
LT Vol	16	11	7	10
Through Vol	26	161	155	29
RT Vol	17	9	16	8
Lane Flow Rate	64	197	193	51
Geometry Grp	1	1	1	1
Degree of Util (X)	0.085	0.241	0.235	0.069
Departure Headway (Hd)	4.752	4.404	4.38	4.829
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	754	816	820	741
Service Time	2.784	2.427	2.404	2.861
HCM Lane V/C Ratio	0.085	0.241	0.235	0.069
HCM Control Delay	8.2	8.8	8.8	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.9	0.9	0.2

Lanes, Volumes, Timings
58: Wohlers Ave & Northampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	112	11	7	94	18	15	98	15	19	36	9
Future Volume (vph)	8	112	11	7	94	18	15	98	15	19	36	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989			0.979			0.984			0.981	
Flt Protected		0.997			0.997			0.994			0.985	
Satd. Flow (prot)	0	1837	0	0	1818	0	0	1822	0	0	1800	0
Flt Permitted		0.997			0.997			0.994			0.985	
Satd. Flow (perm)	0	1837	0	0	1818	0	0	1822	0	0	1800	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		276			1045			1317			1331	
Travel Time (s)		6.3			23.8			29.9			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	122	12	8	102	20	16	107	16	21	39	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	143	0	0	130	0	0	139	0	0	70	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	23.2%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	8	112	11	7	94	18	15	98	15	19	36	9
Future Vol, veh/h	8	112	11	7	94	18	15	98	15	19	36	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	122	12	8	102	20	16	107	16	21	39	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.6	8.4	8.6	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	6%	6%	30%
Vol Thru, %	77%	85%	79%	56%
Vol Right, %	12%	8%	15%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	128	131	119	64
LT Vol	15	8	7	19
Through Vol	98	112	94	36
RT Vol	15	11	18	9
Lane Flow Rate	139	142	129	70
Geometry Grp	1	1	1	1
Degree of Util (X)	0.178	0.18	0.162	0.091
Departure Headway (Hd)	4.599	4.539	4.513	4.704
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	779	790	794	761
Service Time	2.629	2.568	2.545	2.739
HCM Lane V/C Ratio	0.178	0.18	0.162	0.092
HCM Control Delay	8.6	8.6	8.4	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.7	0.6	0.3

Lanes, Volumes, Timings
59: Roehrer Ave & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	109	7	6	89	14	6	25	1	9	38	2
Future Volume (vph)	7	109	7	6	89	14	6	25	1	9	38	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.983			0.996			0.995	
Flt Protected		0.997			0.997			0.990			0.991	
Satd. Flow (prot)	0	1842	0	0	1826	0	0	1837	0	0	1837	0
Flt Permitted		0.997			0.997			0.990			0.991	
Satd. Flow (perm)	0	1842	0	0	1826	0	0	1837	0	0	1837	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1290			276			1313			1342	
Travel Time (s)		29.3			6.3			29.8			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	118	8	7	97	15	7	27	1	10	41	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	134	0	0	119	0	0	35	0	0	53	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	18.6%						ICU Level of Service A					
Analysis Period (min)	15											

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	109	7	6	89	14	6	25	1	9	38	2
Future Vol, veh/h	7	109	7	6	89	14	6	25	1	9	38	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	118	8	7	97	15	7	27	1	10	41	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	7.9	7.8	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	6%	6%	18%
Vol Thru, %	78%	89%	82%	78%
Vol Right, %	3%	6%	13%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	32	123	109	49
LT Vol	6	7	6	9
Through Vol	25	109	89	38
RT Vol	1	7	14	2
Lane Flow Rate	35	134	118	53
Geometry Grp	1	1	1	1
Degree of Util (X)	0.044	0.154	0.136	0.067
Departure Headway (Hd)	4.571	4.154	4.123	4.543
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	788	850	855	793
Service Time	2.573	2.247	2.219	2.543
HCM Lane V/C Ratio	0.044	0.158	0.138	0.067
HCM Control Delay	7.8	8	7.9	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.5	0.5	0.2

Lanes, Volumes, Timings
60: Best St & Wohlers Ave

03/21/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	15	652	469	39	17	11
Future Volume (vph)	15	652	469	39	17	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.990		0.946	
Flt Protected		0.999			0.971	
Satd. Flow (prot)	0	1861	1844	0	1711	0
Flt Permitted		0.999			0.971	
Satd. Flow (perm)	0	1861	1844	0	1711	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		280	473		1317	
Travel Time (s)		6.4	10.8		29.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	709	510	42	18	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	725	552	0	30	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

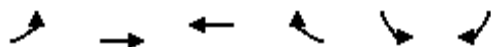
Intersection Capacity Utilization 56.4% ICU Level of Service B

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	652	469	39	17	11
Future Vol, veh/h	15	652	469	39	17	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	709	510	42	18	12
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	552	0	-	0	1272	531
Stage 1	-	-	-	-	531	-
Stage 2	-	-	-	-	741	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1018	-	-	-	185	548
Stage 1	-	-	-	-	590	-
Stage 2	-	-	-	-	471	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1018	-	-	-	180	548
Mov Cap-2 Maneuver	-	-	-	-	180	-
Stage 1	-	-	-	-	575	-
Stage 2	-	-	-	-	471	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		21.8		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1018	-	-	-	245	
HCM Lane V/C Ratio	0.016	-	-	-	0.124	
HCM Control Delay (s)	8.6	0	-	-	21.8	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.4	

Lanes, Volumes, Timings
61: Best St & Roehrer Ave

03/21/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	12	662	462	15	23	13
Future Volume (vph)	12	662	462	15	23	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.996		0.952	
Flt Protected		0.999			0.969	
Satd. Flow (prot)	0	1861	1855	0	1718	0
Flt Permitted		0.999			0.969	
Satd. Flow (perm)	0	1861	1855	0	1718	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1123	280		1313	
Travel Time (s)		25.5	6.4		29.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	720	502	16	25	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	733	518	0	39	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 54.5% ICU Level of Service A

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	662	462	15	23	13
Future Vol, veh/h	12	662	462	15	23	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	720	502	16	25	14
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	518	0	-	0	1256	510
Stage 1	-	-	-	-	510	-
Stage 2	-	-	-	-	746	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1048	-	-	-	189	563
Stage 1	-	-	-	-	603	-
Stage 2	-	-	-	-	469	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1048	-	-	-	185	563
Mov Cap-2 Maneuver	-	-	-	-	185	-
Stage 1	-	-	-	-	590	-
Stage 2	-	-	-	-	469	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		22.6		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1048	-	-	-	244	
HCM Lane V/C Ratio	0.012	-	-	-	0.16	
HCM Control Delay (s)	8.5	0	-	-	22.6	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.6	

Lanes, Volumes, Timings
62: Jefferson Ave & Eaton St/Kingsley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	12	18	8	11	13	6	321	2	10	327	9
Future Volume (vph)	16	12	18	8	11	13	6	321	2	10	327	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.946			0.946			0.999			0.996	
Flt Protected		0.983			0.987			0.999			0.999	
Satd. Flow (prot)	0	1732	0	0	1739	0	0	1859	0	0	1853	0
Flt Permitted								0.994			0.990	
Satd. Flow (perm)	0	1762	0	0	1762	0	0	1850	0	0	1837	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			14			1			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		911			1129			278			418	
Travel Time (s)		20.7			25.7			6.3			9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	13	20	9	12	14	7	349	2	11	355	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	50	0	0	35	0	0	358	0	0	376	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		6.3			6.2			32.1			32.1	
Actuated g/C Ratio		0.18			0.17			0.90			0.90	
v/c Ratio		0.15			0.11			0.21			0.23	
Control Delay		9.1			9.2			2.2			2.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.1			9.2			2.2			2.2	
LOS		A			A			A			A	
Approach Delay		9.1			9.2			2.2			2.2	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)		5			4			0			0	
Queue Length 95th (ft)		19			16			63			67	
Internal Link Dist (ft)		831			1049			198			338	
Turn Bay Length (ft)												
Base Capacity (vph)		910			907			1672			1661	

Lanes, Volumes, Timings

62: Jefferson Ave & Eaton St/Kingsley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			53			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.05			0.04			0.22			0.23	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 35.5

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.23

Intersection Signal Delay: 2.9

Intersection LOS: A

Intersection Capacity Utilization 34.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 62: Jefferson Ave & Eaton St/Kingsley St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
63: Humboldt Parkway SB & Winslow Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	17	25	25	17	0	0	0	0	25	448	25
Future Volume (vph)	0	17	25	25	17	0	0	0	0	25	448	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.919										0.993	
Flt Protected					0.971						0.998	
Satd. Flow (prot)	0	1712	0	0	1809	0	0	0	0	0	1846	0
Flt Permitted					0.971						0.998	
Satd. Flow (perm)	0	1712	0	0	1809	0	0	0	0	0	1846	0
Link Speed (mph)	30				30				30			
Link Distance (ft)	287				154				296			
Travel Time (s)	6.5				3.5				6.7			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	18	27	27	18	0	0	0	0	27	487	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	45	0	0	45	0	0	0	0	0	541	0
Sign Control	Stop				Stop				Stop			
Free												
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 42.1%												
ICU Level of Service A												
Analysis Period (min) 15												

HCM 6th TWSC
63: Humboldt Parkway SB & Winslow Ave

03/21/2022

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	17	25	25	17	0	0	0	0	25	448	25
Future Vol, veh/h	0	17	25	25	17	0	0	0	0	25	448	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	18	27	27	18	0	0	0	0	27	487	27
Major/Minor	Minor2		Minor1				Major2					
Conflicting Flow All	-	555	501	577	568	-				0	0	0
Stage 1	-	555	-	0	0	-				-	-	-
Stage 2	-	0	-	577	568	-				-	-	-
Critical Hdwy	-	6.52	6.22	7.12	6.52	-				4.12	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-				-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-				-	-	-
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-				2.218	-	-
Pot Cap-1 Maneuver	0	440	570	428	432	0				-	-	-
Stage 1	0	513	-	-	-	0				-	-	-
Stage 2	0	-	-	502	506	0				-	-	-
Platoon blocked, %											-	-
Mov Cap-1 Maneuver	-	440	570	395	432	-				-	-	-
Mov Cap-2 Maneuver	-	440	-	395	432	-				-	-	-
Stage 1	-	513	-	-	-	-				-	-	-
Stage 2	-	-	-	461	506	-				-	-	-
Approach	EB		WB				SB					
HCM Control Delay, s	12.8		14.9									
HCM LOS	B		B									
Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR							
Capacity (veh/h)	509 409		-	-	-							
HCM Lane V/C Ratio	0.09 0.112		-	-	-							
HCM Control Delay (s)	12.8 14.9		-	-	-							
HCM Lane LOS	B B		-	-	-							
HCM 95th %tile Q(veh)	0.3 0.4		-	-	-							

Lanes, Volumes, Timings
64: Humboldt Parkway NB & Winslow Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	25	0	0	25	17	17	313	17	0	0	0
Future Volume (vph)	17	25	0	0	25	17	17	313	17	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.946			0.994				
Flt Protected		0.980						0.998				
Satd. Flow (prot)	0	1825	0	0	1762	0	0	1848	0	0	0	0
Flt Permitted		0.980						0.998				
Satd. Flow (perm)	0	1825	0	0	1762	0	0	1848	0	0	0	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		154			330			461			268	
Travel Time (s)		3.5			7.5			10.5			6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	27	0	0	27	18	18	340	18	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	45	0	0	45	0	0	376	0	0	0	0
Sign Control		Stop			Stop			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	34.0%											
Analysis Period (min)	15											
ICU Level of Service A												

HCM 6th TWSC
64: Humboldt Parkway NB & Winslow Ave

03/21/2022

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	25	0	0	25	17	17	313	17	0	0	0
Future Vol, veh/h	17	25	0	0	25	17	17	313	17	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	27	0	0	27	18	18	340	18	0	0	0
Major/Minor	Minor2		Minor1		Major1							
Conflicting Flow All	408	394	-	-	385	349	0	0	0			
Stage 1	0	0	-	-	385	-	-	-	-			
Stage 2	408	394	-	-	0	-	-	-	-			
Critical Hdwy	7.12	6.52	-	-	6.52	6.22	4.12	-	-			
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-			
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-			
Follow-up Hdwy	3.518	4.018	-	-	4.018	3.318	2.218	-	-			
Pot Cap-1 Maneuver	554	542	0	0	549	694	-	-	-			
Stage 1	-	-	0	0	611	-	-	-	-			
Stage 2	620	605	0	0	-	-	-	-	-			
Platoon blocked, %								-	-			
Mov Cap-1 Maneuver	519	542	-	-	549	694	-	-	-			
Mov Cap-2 Maneuver	519	542	-	-	549	-	-	-	-			
Stage 1	-	-	-	-	611	-	-	-	-			
Stage 2	577	605	-	-	-	-	-	-	-			
Approach	EB		WB		NB							
HCM Control Delay, s	12.4		11.5									
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL		NBT		NBR		EBLn1WBLn1					
Capacity (veh/h)	-		-		-		532		600			
HCM Lane V/C Ratio	-		-		-		0.086		0.076			
HCM Control Delay (s)	-		-		-		12.4		11.5			
HCM Lane LOS	-		-		-		B		B			
HCM 95th %tile Q(veh)	-		-		-		0.3		0.2			

Lanes, Volumes, Timings
118: Humboldt Parkway SB

03/21/2022

						
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	306			252	236	
Travel Time (s)	7.0			5.7	5.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 18.3%				ICU Level of Service A		
Analysis Period (min) 15						

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	335	518	0	0	327	304	69	106	228	0	0	0
Future Volume (vph)	335	518	0	0	327	304	69	106	228	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		0	0		250	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.928				0.850			
Flt Protected	0.950	0.995						0.981				
Satd. Flow (prot)	1610	3373	0	0	3284	0	0	1827	1583	0	0	0
Flt Permitted	0.950	0.995						0.981				
Satd. Flow (perm)	1610	3373	0	0	3284	0	0	1827	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					232				248			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		249			205			354			335	
Travel Time (s)		5.7			4.7			8.0			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	364	563	0	0	355	330	75	115	248	0	0	0
Shared Lane Traffic (%)	18%											
Lane Group Flow (vph)	298	629	0	0	685	0	0	190	248	0	0	0
Turn Type	custom	NA			NA		Perm	NA	Perm			
Protected Phases	6	6			3			4				
Permitted Phases	6						4		4			
Detector Phase	6	6			3		4	4	4			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	45.0	45.0			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			25.0%		25.0%	25.0%	25.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag					Lead		Lag	Lag	Lag			
Lead-Lag Optimize?					Yes		Yes	Yes	Yes			
Recall Mode	None	None			Max		C-Max	C-Max	C-Max			
Act Effct Green (s)	40.5	40.5			18.0			18.0	18.0			
Actuated g/C Ratio	0.45	0.45			0.20			0.20	0.20			
v/c Ratio	0.41	0.41			0.81			0.52	0.48			
Control Delay	5.6	5.2			31.5			38.0	7.7			
Queue Delay	2.1	1.2			35.6			0.0	0.0			
Total Delay	7.7	6.3			67.1			38.0	7.7			
LOS	A	A			E			D	A			
Approach Delay		6.8			67.1			20.9				
Approach LOS		A			E			C				
Queue Length 50th (ft)	26	26			131			97	0			
Queue Length 95th (ft)	m26	m28			#207			165	61			

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

03/21/2022

Lane Group	Ø1	Ø2	Ø8
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	1	2	8
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	22.5	22.5	45.0
Total Split (%)	25%	25%	50%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	Max	None	C-Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		169			125			274			255	
Turn Bay Length (ft)	75								250			
Base Capacity (vph)	724	1517			842			365	515			
Starvation Cap Reductn	288	623			197			0	0			
Spillback Cap Reductn	0	0			0			0	0			
Storage Cap Reductn	0	0			0			0	0			
Reduced v/c Ratio	0.68	0.70			1.06			0.52	0.48			

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.03

Intersection Signal Delay: 30.0

Intersection LOS: C

Intersection Capacity Utilization 81.4%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: EB Off Ramp/EB On Ramp & Best St

#2  Ø1 22.5 s	#2  Ø2 22.5 s	#1  Ø3 22.5 s	#1  Ø4 (R) 22.5 s
#1 #2  Ø6 45 s	#2  Ø8 (R) 45 s		

Lane Group	Ø1	Ø2	Ø8
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			
Intersection Summary			

Lanes, Volumes, Timings
2: WB On Ramp/WB Off Ramp & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	541	47	116	258	0	0	0	0	335	0	429
Future Volume (vph)	0	541	47	116	258	0	0	0	0	335	0	429
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	75		0	0		0	0		75
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988										0.850
Flt Protected				0.950							0.950	
Satd. Flow (prot)	0	3497	0	1770	3539	0	0	0	0	0	1770	1583
Flt Permitted				0.950							0.950	
Satd. Flow (perm)	0	3497	0	1770	3539	0	0	0	0	0	1770	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9										372
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		473			249			324			375	
Travel Time (s)		10.8			5.7			7.4			8.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	588	51	126	280	0	0	0	0	364	0	466
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	639	0	126	280	0	0	0	0	0	364	466
Turn Type		NA		custom	NA					Perm	NA	custom
Protected Phases		1		8	8						2	
Permitted Phases				8						2		6
Detector Phase		1		8	8					2	2	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		22.5		45.0	45.0					22.5	22.5	45.0
Total Split (%)		25.0%		50.0%	50.0%					25.0%	25.0%	50.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5						4.5	4.5
Lead/Lag		Lead								Lag	Lag	
Lead-Lag Optimize?		Yes								Yes	Yes	
Recall Mode		Max		C-Max	C-Max					None	None	None
Act Effct Green (s)		18.0		40.5	40.5						18.0	40.5
Actuated g/C Ratio		0.20		0.45	0.45						0.20	0.45
v/c Ratio		0.91		0.16	0.18						1.03	0.51
Control Delay		53.0		4.9	4.8						92.9	5.9
Queue Delay		0.0		0.8	0.4						0.0	0.0
Total Delay		53.0		5.6	5.3						92.9	5.9
LOS		D		A	A						F	A
Approach Delay		53.0			5.4						44.0	
Approach LOS		D			A						D	
Queue Length 50th (ft)		185		12	13						~224	30
Queue Length 95th (ft)		#287		m15	m16						#393	99

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

03/21/2022

Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	3	4
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	22.5	22.5
Total Split (s)	22.5	22.5
Total Split (%)	25%	25%
Yellow Time (s)	3.5	3.5
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes
Recall Mode	Max	C-Max
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		393			169			244			295	
Turn Bay Length (ft)				75								75
Base Capacity (vph)		706		796	1592						354	916
Starvation Cap Reductn		0		449	886						0	0
Spillback Cap Reductn		0		0	0						0	0
Storage Cap Reductn		0		0	0						0	0
Reduced v/c Ratio		0.91		0.36	0.40						1.03	0.51

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.03

Intersection Signal Delay: 38.7

Intersection LOS: D

Intersection Capacity Utilization 81.4%

ICU Level of Service D

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: WB On Ramp/WB Off Ramp & Best St

#2  Ø1 22.5 s	#2  Ø2 22.5 s	#1  Ø3 22.5 s	#1  Ø4 (R) 22.5 s
#1 #2  Ø6 45 s	#2  Ø8 (R) 45 s		

Lane Group	Ø3	Ø4
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/21/2022

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	50	5	579	102	42	524	2	25	60	21	6	1
Future Volume (vph)	50	5	579	102	42	524	2	25	60	21	6	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		75		0	0		0		0		0	
Storage Lanes		1		1	0		0		0		0	
Taper Length (ft)		25			25				25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.994				0.989		
Flt Protected		0.950				0.996				0.967		
Satd. Flow (prot)	0	1770	1863	1583	0	1844	0	0	0	1781	0	0
Flt Permitted		0.262				0.928				0.784		
Satd. Flow (perm)	0	488	1863	1583	0	1718	0	0	0	1444	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)				111		4				1		
Link Speed (mph)			30			30				30		
Link Distance (ft)			205			1418				1329		
Travel Time (s)			4.7			32.2				30.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	5	629	111	46	570	2	27	65	23	7	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	59	629	111	0	645	0	0	0	96	0	0
Turn Type	pm+pt	pm+pt	NA	Perm	Perm	NA			Perm	NA		
Protected Phases	7	7	4			8				2		
Permitted Phases	4	4		4	8				2			
Detector Phase	7	7	4	4	8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0			5.0	5.0		
Minimum Split (s)	9.5	9.5	22.5	22.5	22.5	22.5			22.5	22.5		
Total Split (s)	9.5	9.5	42.5	42.5	33.0	33.0			22.5	22.5		
Total Split (%)	14.6%	14.6%	65.4%	65.4%	50.8%	50.8%			34.6%	34.6%		
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5			3.5	3.5		
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0		
Lost Time Adjust (s)		0.0	0.0	0.0		0.0				0.0		
Total Lost Time (s)		4.5	4.5	4.5		4.5				4.5		
Lead/Lag	Lead	Lead			Lag	Lag						
Lead-Lag Optimize?	Yes	Yes			Yes	Yes						
Recall Mode	None	None	None	None	None	None			C-Max	C-Max		
Act Effect Green (s)		32.7	32.7	32.7		27.0				23.3		
Actuated g/C Ratio		0.50	0.50	0.50		0.42				0.36		
v/c Ratio		0.17	0.67	0.13		0.90				0.19		
Control Delay		7.5	15.3	1.8		35.7				18.5		
Queue Delay		0.0	42.6	0.0		0.0				0.0		
Total Delay		7.5	57.9	1.8		35.7				18.5		
LOS		A	E	A		D				B		
Approach Delay			46.4			35.7				18.5		
Approach LOS			D			D				B		
Queue Length 50th (ft)		9	139	0		217				29		
Queue Length 95th (ft)		22	224	16		#411				64		

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/21/2022



Lane Group	SBL	SBT	SBR
Lane Configurations		↖	↗
Traffic Volume (vph)	55	34	69
Future Volume (vph)	55	34	69
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	0		100
Storage Lanes	0		1
Taper Length (ft)	25		
Lane Util. Factor	1.00	1.00	1.00
Frt			0.850
Flt Protected		0.970	
Satd. Flow (prot)	0	1807	1583
Flt Permitted		0.803	
Satd. Flow (perm)	0	1496	1583
Right Turn on Red			Yes
Satd. Flow (RTOR)			101
Link Speed (mph)		30	
Link Distance (ft)		738	
Travel Time (s)		16.8	
Peak Hour Factor	0.92	0.92	0.92
Adj. Flow (vph)	60	37	75
Shared Lane Traffic (%)			
Lane Group Flow (vph)	0	97	75
Turn Type	Perm	NA	Perm
Protected Phases		6	
Permitted Phases	6		6
Detector Phase	6	6	6
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5
Total Split (%)	34.6%	34.6%	34.6%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0
Total Lost Time (s)		4.5	4.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	C-Max
Act Effct Green (s)		23.3	23.3
Actuated g/C Ratio		0.36	0.36
v/c Ratio		0.18	0.12
Control Delay		18.6	3.4
Queue Delay		0.0	0.0
Total Delay		18.6	3.4
LOS		B	A
Approach Delay		11.9	
Approach LOS		B	
Queue Length 50th (ft)		30	0
Queue Length 95th (ft)		64	18

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/21/2022

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Internal Link Dist (ft)			125			1338				1249		
Turn Bay Length (ft)		75										
Base Capacity (vph)		343	1089	971		755				518		
Starvation Cap Reductn		0	503	0		0				0		
Spillback Cap Reductn		0	0	0		0				0		
Storage Cap Reductn		0	0	0		0				0		
Reduced v/c Ratio		0.17	1.07	0.11		0.85				0.19		

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 37.4

Intersection LOS: D

Intersection Capacity Utilization 83.1%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Herman St/W Parade Ave & Best St

 Ø2 (R)	 Ø4
22.5 s	42.5 s
 Ø6 (R)	 Ø7
22.5 s	9.5 s
	 Ø8
	33 s

Lanes, Volumes, Timings
3: Herman St/W Parade Ave & Best St

03/21/2022



Lane Group	SBL	SBT	SBR
Internal Link Dist (ft)		658	
Turn Bay Length (ft)			100
Base Capacity (vph)		536	632
Starvation Cap Reductn		0	0
Spillback Cap Reductn		0	0
Storage Cap Reductn		0	0
Reduced v/c Ratio		0.18	0.12
Intersection Summary			

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			↰						↰	
Traffic Volume (vph)	0	71	1	4	47	0	0	0	0	195	172	66
Future Volume (vph)	0	71	1	4	47	0	0	0	0	195	172	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't		0.998									0.979	
Flt Protected					0.996						0.978	
Satd. Flow (prot)	0	1859	0	0	1855	0	0	0	0	0	1784	0
Flt Permitted					0.972						0.978	
Satd. Flow (perm)	0	1859	0	0	1811	0	0	0	0	0	1784	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1									24	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1045			283			370			293	
Travel Time (s)		23.8			6.4			8.4			6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	77	1	4	51	0	0	0	0	212	187	72
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	78	0	0	55	0	0	0	0	0	471	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0			0.0						0.0	
Total Lost Time (s)		4.5			4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					Max	Max	
Act Effct Green (s)		7.5			7.5						21.7	
Actuated g/C Ratio		0.21			0.21						0.61	
v/c Ratio		0.20			0.14						0.43	
Control Delay		12.0			8.9						6.8	
Queue Delay		0.0			0.0						0.0	
Total Delay		12.0			8.9						6.8	
LOS		B			A						A	
Approach Delay		12.0			8.9						6.8	
Approach LOS		B			A						A	
Queue Length 50th (ft)		12			6						43	
Queue Length 95th (ft)		31			11						105	
Internal Link Dist (ft)		965			203			290			213	
Turn Bay Length (ft)												
Base Capacity (vph)		943			918						1099	

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/21/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0						0	
Spillback Cap Reductn		0			0						0	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.08			0.06						0.43	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 35.5

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.43

Intersection Signal Delay: 7.6

Intersection LOS: A

Intersection Capacity Utilization 37.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: Humboldt Parkway SB & Northhampton St

#5  Ø2	#4 #5  Ø4
22.5 s	22.5 s
#4  Ø6	#4 #5  Ø8
22.5 s	22.5 s

Lane Group	Ø2
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
5: Humboldt Parkway NB & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	76	0	0	83	22	5	21	9	0	0	0
Future Volume (vph)	23	76	0	0	83	22	5	21	9	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.972			0.964				
Fl _t Protected		0.989						0.993				
Satd. Flow (prot)	0	1842	0	0	1811	0	0	1783	0	0	0	0
Fl _t Permitted		0.887						0.993				
Satd. Flow (perm)	0	1652	0	0	1811	0	0	1783	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					24			10				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		283			1089			152				722
Travel Time (s)		6.4			24.8			3.5				16.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	25	83	0	0	90	24	5	23	10	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	108	0	0	114	0	0	38	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max				
Act Effct Green (s)		7.5			7.5			21.7				
Actuated g/C Ratio		0.21			0.21			0.61				
v/c Ratio		0.31			0.28			0.03				
Control Delay		11.9			11.1			4.0				
Queue Delay		0.0			0.0			0.0				
Total Delay		11.9			11.1			4.0				
LOS		B			B			A				
Approach Delay		11.9			11.1			4.0				
Approach LOS		B			B			A				
Queue Length 50th (ft)		17			14			2				
Queue Length 95th (ft)		43			38			11				
Internal Link Dist (ft)		203			1009			72				642
Turn Bay Length (ft)												
Base Capacity (vph)		838			930			1093				

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

03/21/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.13			0.12			0.03				

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 35.5

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.43

Intersection Signal Delay: 10.4

Intersection LOS: B

Intersection Capacity Utilization 23.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Humboldt Parkway NB & Northhampton St

 #5 22.5 s	 #4 #5 22.5 s
 #4 22.5 s	 #4 #5 22.5 s

Lane Group	Ø6
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰		↰	↰						↰↰	
Traffic Volume (vph)	0	87	35	57	82	0	0	0	0	50	349	60
Future Volume (vph)	0	87	35	57	82	0	0	0	0	50	349	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.961									0.980	
Flt Protected				0.950							0.995	
Satd. Flow (prot)	0	1790	0	1770	1863	0	0	0	0	0	3451	0
Flt Permitted				0.672							0.995	
Satd. Flow (perm)	0	1790	0	1252	1863	0	0	0	0	0	3451	0
Right Turn on Red			Yes			Yes				Yes		Yes
Satd. Flow (RTOR)		38									44	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1173			153			636			456	
Travel Time (s)		26.7			3.5			14.5			10.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	95	38	62	89	0	0	0	0	54	379	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	133	0	62	89	0	0	0	0	0	498	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		4.5		4.5	4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					Max	Max	
Act Effct Green (s)		7.9		7.9	7.9						21.8	
Actuated g/C Ratio		0.22		0.22	0.22						0.61	
v/c Ratio		0.31		0.22	0.22						0.24	
Control Delay		10.4		9.0	8.4						4.9	
Queue Delay		0.0		0.0	0.0						0.0	
Total Delay		10.4		9.1	8.4						4.9	
LOS		B		A	A						A	
Approach Delay		10.4			8.7						4.9	
Approach LOS		B			A						A	
Queue Length 50th (ft)		15		6	9						20	
Queue Length 95th (ft)		41		19	23						48	

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

03/21/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1093			73			556			376	
Turn Bay Length (ft)												
Base Capacity (vph)		916		628	934						2107	
Starvation Cap Reductn		0		77	192						0	
Spillback Cap Reductn		0		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		0.15		0.11	0.12						0.24	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.33

Intersection Signal Delay: 6.6

Intersection LOS: A

Intersection Capacity Utilization 48.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: Humboldt Parkway SB & E Utica St

#7  Ø2	#6 #7  Ø4
22.5 s	22.5 s
#6  Ø6	#6 #7  Ø8
22.5 s	22.5 s

Lane Group	Ø2
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
7: Humboldt Parkway NB & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	57	97	0	0	109	17	61	176	43	0	0	0
Future Volume (vph)	57	97	0	0	109	17	61	176	43	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.982				0.850			
Flt Protected	0.950							0.987				
Satd. Flow (prot)	1770	1863	0	0	1829	0	0	1839	1583	0	0	0
Flt Permitted	0.670							0.987				
Satd. Flow (perm)	1248	1863	0	0	1829	0	0	1839	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					18				47			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		153			1083			610			294	
Travel Time (s)		3.5			24.6			13.9			6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	62	105	0	0	118	18	66	191	47	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	62	105	0	0	136	0	0	257	47	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max	Max			
Act Effct Green (s)	7.9	7.9			7.9			21.8	21.8			
Actuated g/C Ratio	0.22	0.22			0.22			0.61	0.61			
v/c Ratio	0.23	0.26			0.33			0.23	0.05			
Control Delay	10.0	9.7			12.1			5.9	2.4			
Queue Delay	0.0	0.0			0.0			0.0	0.0			
Total Delay	10.1	9.8			12.1			5.9	2.4			
LOS	B	A			B			A	A			
Approach Delay		9.9			12.1			5.4				
Approach LOS		A			B			A				
Queue Length 50th (ft)	7	12			18			22	0			
Queue Length 95th (ft)	20	29			46			63	10			
Internal Link Dist (ft)		73			1003			530			214	
Turn Bay Length (ft)												
Base Capacity (vph)	626	934			926			1114	977			

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

03/21/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	79	190			0			0	0			
Spillback Cap Reductn	0	0			0			0	0			
Storage Cap Reductn	0	0			0			0	0			
Reduced v/c Ratio	0.11	0.14			0.15			0.23	0.05			

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.33

Intersection Signal Delay: 8.1

Intersection LOS: A

Intersection Capacity Utilization 48.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 7: Humboldt Parkway NB & E Utica St

#7  Ø2 22.5 s	#6 #7  Ø4 22.5 s
#6  Ø6 22.5 s	#6 #7  Ø8 22.5 s

Lane Group	Ø6
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
8: Humboldt Parkway SB & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	286	53	86	157	0	0	0	0	241	356	431
Future Volume (vph)	0	286	53	86	157	0	0	0	0	241	356	431
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.979											0.850
Fl _t Protected				0.950						0.980		
Satd. Flow (prot)	0	1824	0	1770	1863	0	0	0	0	0	1825	1583
Fl _t Permitted				0.431						0.980		
Satd. Flow (perm)	0	1824	0	803	1863	0	0	0	0	0	1825	1583
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)	22									468		
Link Speed (mph)	30			30			30			30		
Link Distance (ft)	1179			147			319			270		
Travel Time (s)	26.8			3.3			7.3			6.1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	311	58	93	171	0	0	0	0	262	387	468
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	369	0	93	171	0	0	0	0	0	649	468
Turn Type	NA		Perm		NA				Perm		NA	Perm
Protected Phases	4				8						6	
Permitted Phases				8						6		
Detector Phase	4		8		8						6	6
Switch Phase												
Minimum Initial (s)	5.0		5.0		5.0				5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5				22.5		22.5	22.5
Total Split (s)	24.0		24.0		24.0				26.0		26.0	26.0
Total Split (%)	48.0%		48.0%		48.0%				52.0%		52.0%	52.0%
Yellow Time (s)	3.5		3.5		3.5				3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0				1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0						0.0	0.0
Total Lost Time (s)	4.5		4.5		4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None		None		None				Max		Max	Max
Act Effct Green (s)	16.7		16.7		16.7						21.7	21.7
Actuated g/C Ratio	0.35		0.35		0.35						0.46	0.46
v/c Ratio	0.56		0.33		0.26						0.78	0.48
Control Delay	15.1		8.2		6.1						21.3	3.1
Queue Delay	0.2		0.6		0.7						5.6	0.0
Total Delay	15.3		8.8		6.8						26.8	3.1
LOS	B		A		A						C	A
Approach Delay	15.3				7.5						16.9	
Approach LOS	B				A						B	
Queue Length 50th (ft)	73		8		15						158	0
Queue Length 95th (ft)	136		18		27						#328	41
Internal Link Dist (ft)	1099				67		239				190	
Turn Bay Length (ft)												
Base Capacity (vph)	768		333		772						833	977

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/21/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	26.0
Total Split (%)	52%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0		79	352						0	0
Spillback Cap Reductn		69		0	0						132	0
Storage Cap Reductn		0		0	0						0	0
Reduced v/c Ratio		0.53		0.37	0.41						0.93	0.48

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 47.4

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 15.1

Intersection LOS: B

Intersection Capacity Utilization 88.4%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 8: Humboldt Parkway SB & E Ferry St

#9  Ø2	#8 #9  Ø4
26 s	24 s
#8  Ø6	#8 #9  Ø8
26 s	24 s

Lane Group	Ø2
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
9: Humboldt Parkway NB & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	238	292	0	0	222	66	46	197	39	0	0	0
Future Volume (vph)	238	292	0	0	222	66	46	197	39	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	75		0	0		0
Storage Lanes	1		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.969				0.850			
Flt Protected	0.950							0.991				
Satd. Flow (prot)	1770	1863	0	0	1805	0	0	1846	1583	0	0	0
Flt Permitted	0.503							0.991				
Satd. Flow (perm)	937	1863	0	0	1805	0	0	1846	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					35				42			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		147			1082			312			608	
Travel Time (s)		3.3			24.6			7.1			13.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	259	317	0	0	241	72	50	214	42	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	259	317	0	0	313	0	0	264	42	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	24.0	24.0			24.0		26.0	26.0	26.0			
Total Split (%)	48.0%	48.0%			48.0%		52.0%	52.0%	52.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max	Max			
Act Effct Green (s)	16.7	16.7			16.7			21.7	21.7			
Actuated g/C Ratio	0.35	0.35			0.35			0.46	0.46			
v/c Ratio	0.79	0.48			0.48			0.31	0.06			
Control Delay	27.3	10.8			12.9			10.4	3.7			
Queue Delay	2.6	2.1			0.0			0.0	0.0			
Total Delay	29.9	12.9			12.9			10.4	3.7			
LOS	C	B			B			B	A			
Approach Delay		20.6			12.9			9.5				
Approach LOS		C			B			A				
Queue Length 50th (ft)	46	56			56			48	0			
Queue Length 95th (ft)	m#132	m#81			109			91	13			

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

03/21/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	26.0
Total Split (%)	52%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		67			1002			232			528	
Turn Bay Length (ft)												
Base Capacity (vph)	388	772			768			843	746			
Starvation Cap Reductn	54	314			0			0	0			
Spillback Cap Reductn	0	0			0			0	0			
Storage Cap Reductn	0	0			0			0	0			
Reduced v/c Ratio	0.78	0.69			0.41			0.31	0.06			

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 47.4

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 15.7

Intersection LOS: B

Intersection Capacity Utilization 88.4%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Humboldt Parkway NB & E Ferry St

#9  Ø2	#8 #9  Ø4
26 s	24 s
#8  Ø6	#8 #9  Ø8
26 s	24 s

Lane Group	Ø6
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

03/21/2022

											
Lane Group	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	Ø8
Lane Configurations											
Traffic Volume (vph)	13	0	0	355	217	143	544	0	0	0	
Future Volume (vph)	13	0	0	355	217	143	544	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	
Fr t				0.943							
Flt Protected	0.950						0.990				
Satd. Flow (prot)	1770	0	0	3337	0	0	3504	0	0	0	
Flt Permitted	0.950						0.692				
Satd. Flow (perm)	1770	0	0	3337	0	0	2449	0	0	0	
Right Turn on Red		Yes			Yes			Yes			
Satd. Flow (RTOR)				236							
Link Speed (mph)	30			30			30		30		
Link Distance (ft)	537			328			271		387		
Travel Time (s)	12.2			7.5			6.2		8.8		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	14	0	0	386	236	155	591	0	0	0	
Shared Lane Traffic (%)											
Lane Group Flow (vph)	14	0	0	622	0	0	746	0	0	0	
Turn Type	Prot			NA		Perm	NA				
Protected Phases	4			2			6				8
Permitted Phases						6					
Detector Phase	4			2		6	6				
Switch Phase											
Minimum Initial (s)	5.0			5.0		5.0	5.0				5.0
Minimum Split (s)	22.5			22.5		22.5	22.5				22.5
Total Split (s)	22.5			22.5		22.5	22.5				22.5
Total Split (%)	50.0%			50.0%		50.0%	50.0%				50%
Yellow Time (s)	3.5			3.5		3.5	3.5				3.5
All-Red Time (s)	1.0			1.0		1.0	1.0				1.0
Lost Time Adjust (s)	0.0			0.0			0.0				
Total Lost Time (s)	4.5			4.5			4.5				
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None			Max		Max	Max				None
Act Effct Green (s)	17.5			18.0			18.0				
Actuated g/C Ratio	0.39			0.40			0.40				
v/c Ratio	0.02			0.42			0.75				
Control Delay	8.3			6.8			13.2				
Queue Delay	0.0			0.0			0.0				
Total Delay	8.3			6.8			13.2				
LOS	A			A			B				
Approach Delay	8.3			6.8			13.2				
Approach LOS	A			A			B				
Queue Length 50th (ft)	2			33			52				
Queue Length 95th (ft)	9			62			m69				
Internal Link Dist (ft)	457			248			191		307		
Turn Bay Length (ft)											
Base Capacity (vph)	716			1490			990				

Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	Ø8
Starvation Cap Reductn	0			0			0				
Spillback Cap Reductn	0			0			0				
Storage Cap Reductn	0			0			0				
Reduced v/c Ratio	0.02			0.42			0.75				

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 44.5

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 10.2

Intersection LOS: B

Intersection Capacity Utilization 51.4%

ICU Level of Service A

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

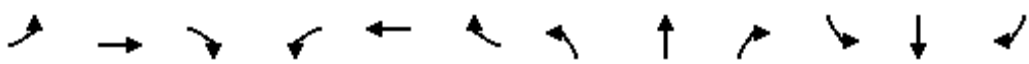
Splits and Phases: 10: Jefferson Ave & Cherry St & EB On Ramp

#10 #11 ↑ ↑ Ø2 22.5 s	#10 ↖ Ø4 22.5 s
#10 #11 ↓ ↓ Ø6 22.5 s	#11 ← Ø8 22.5 s

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Traffic Volume (vph)	0	0	0	255	22	396	42	316	0	0	413	21
Future Volume (vph)	0	0	0	255	22	396	42	316	0	0	413	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt					0.921						0.993	
Flt Protected					0.981			0.994				
Satd. Flow (prot)	0	0	0	0	1683	0	0	3518	0	0	3514	0
Flt Permitted					0.981			0.868				
Satd. Flow (perm)	0	0	0	0	1683	0	0	3072	0	0	3514	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					190						14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			384			271			880	
Travel Time (s)		12.9			8.7			6.2			20.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	277	24	430	46	343	0	0	449	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	731	0	0	389	0	0	472	0
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8			2					
Detector Phase				8	8		2	2			6	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (%)				50.0%	50.0%		50.0%	50.0%			50.0%	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)					17.5			18.0			18.0	
Actuated g/C Ratio					0.39			0.40			0.40	
v/c Ratio					0.94			0.31			0.33	
Control Delay					34.3			6.0			9.8	
Queue Delay					0.0			0.0			0.0	
Total Delay					34.3			6.0			9.8	
LOS					C			A			A	
Approach Delay					34.3			6.0			9.8	
Approach LOS					C			A			A	
Queue Length 50th (ft)					126			17			40	
Queue Length 95th (ft)					#326			24			66	

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/21/2022

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		487			304			191			800	
Turn Bay Length (ft)												
Base Capacity (vph)					794			1242			1430	
Starvation Cap Reductn					0			0			0	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.92			0.31			0.33	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 44.5

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 20.1

Intersection LOS: C

Intersection Capacity Utilization 72.9%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 11: Jefferson Ave & BFNC Dr/WB Off Ramp

#10 #11   Ø2	#10  Ø4
22.5 s	22.5 s
#10 #11   Ø6	#11  Ø8
22.5 s	22.5 s

Lane Group	Ø4
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
12: Jefferson Ave & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	105	13	85	194	43	9	457	27	29	437	69
Future Volume (vph)	44	105	13	85	194	43	9	457	27	29	437	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.988			0.980			0.992			0.981	
Flt Protected		0.987			0.987			0.999			0.997	
Satd. Flow (prot)	0	3451	0	0	3423	0	0	3507	0	0	3462	0
Flt Permitted		0.795			0.827			0.944			0.914	
Satd. Flow (perm)	0	2780	0	0	2868	0	0	3314	0	0	3173	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			46			15			43	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		737			2886			735			328	
Travel Time (s)		16.8			65.6			16.7			7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	48	114	14	92	211	47	10	497	29	32	475	75
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	176	0	0	350	0	0	536	0	0	582	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		9.2			9.2			18.4			18.4	
Actuated g/C Ratio		0.25			0.25			0.50			0.50	
v/c Ratio		0.25			0.46			0.32			0.36	
Control Delay		10.5			11.9			6.4			6.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.5			11.9			6.4			6.4	
LOS		B			B			A			A	
Approach Delay		10.5			11.9			6.4			6.4	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		13			26			27			28	
Queue Length 95th (ft)		28			50			61			64	
Internal Link Dist (ft)		657			2806			655			248	
Turn Bay Length (ft)												
Base Capacity (vph)		1375			1434			1672			1615	

Lanes, Volumes, Timings

12: Jefferson Ave & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.13			0.24			0.32			0.36	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36.7

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 8.0

Intersection LOS: A

Intersection Capacity Utilization 57.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 12: Jefferson Ave & Genesee St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
13: Herman St & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	202	3	15	415	11	19	61	5	44	124	16
Future Volume (vph)	13	202	3	15	415	11	19	61	5	44	124	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.996			0.993			0.989	
Flt Protected		0.997			0.998			0.989			0.988	
Satd. Flow (prot)	0	3522	0	0	3518	0	0	1829	0	0	1820	0
Flt Permitted		0.927			0.944			0.916			0.891	
Satd. Flow (perm)	0	3274	0	0	3328	0	0	1694	0	0	1641	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			7			5			12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2886			671			575			1329	
Travel Time (s)		65.6			15.3			13.1			30.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	220	3	16	451	12	21	66	5	48	135	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	237	0	0	479	0	0	92	0	0	200	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effct Green (s)		21.9			21.9			9.2			9.3	
Actuated g/C Ratio		0.59			0.59			0.25			0.25	
v/c Ratio		0.12			0.24			0.22			0.48	
Control Delay		5.6			6.0			11.2			14.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		5.6			6.0			11.2			14.7	
LOS		A			A			B			B	
Approach Delay		5.6			6.0			11.2			14.7	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)		11			24			13			31	
Queue Length 95th (ft)		28			55			35			69	
Internal Link Dist (ft)		2806			591			495			1249	
Turn Bay Length (ft)												
Base Capacity (vph)		1926			1959			822			800	

Lanes, Volumes, Timings

13: Herman St & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.12			0.24			0.11			0.25	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 37.3

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 8.1

Intersection LOS: A

Intersection Capacity Utilization 43.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 13: Herman St & Genesee St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
14: Reed St/Rich St & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	246	0	0	443	12	11	3	10	4	0	4
Future Volume (vph)	2	246	0	0	443	12	11	3	10	4	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.996			0.943			0.932	
Flt Protected								0.977			0.976	
Satd. Flow (prot)	0	3539	0	0	3525	0	0	1716	0	0	1694	0
Flt Permitted		0.953										
Satd. Flow (perm)	0	3373	0	0	3525	0	0	1757	0	0	1736	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7			11			36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		671			961			780			839	
Travel Time (s)		15.3			21.8			17.7			19.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	267	0	0	482	13	12	3	11	4	0	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	269	0	0	495	0	0	26	0	0	8	0
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2						8			4		
Detector Phase	2	2			6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		None	None		None	None	
Act Effct Green (s)		35.1			35.1			6.0			5.8	
Actuated g/C Ratio		0.92			0.92			0.16			0.15	
v/c Ratio		0.09			0.15			0.09			0.03	
Control Delay		1.3			1.4			11.7			1.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		1.3			1.4			11.7			1.3	
LOS		A			A			B			A	
Approach Delay		1.3			1.4			11.7			1.3	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)		0			0			3			0	
Queue Length 95th (ft)		20			35			17			2	
Internal Link Dist (ft)		591			881			700			759	
Turn Bay Length (ft)												
Base Capacity (vph)		3103			3244			837			841	

Lanes, Volumes, Timings
14: Reed St/Rich St & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.09			0.15			0.03			0.01	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 38.1

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.15

Intersection Signal Delay: 1.7

Intersection LOS: A

Intersection Capacity Utilization 24.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Reed St/Rich St & Genesee St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
15: Fillmore Ave & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	194	35	90	328	4	33	253	51	11	335	42
Future Volume (vph)	34	194	35	90	328	4	33	253	51	11	335	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.999			0.980			0.985	
Flt Protected		0.994			0.989			0.995			0.999	
Satd. Flow (prot)	0	3448	0	0	3497	0	0	1816	0	0	1833	0
Flt Permitted		0.860			0.814			0.938			0.987	
Satd. Flow (perm)	0	2983	0	0	2878	0	0	1712	0	0	1811	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38			2			24			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		961			671			704			490	
Travel Time (s)		21.8			15.3			16.0			11.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	211	38	98	357	4	36	275	55	12	364	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	286	0	0	459	0	0	366	0	0	422	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		11.5			11.5			18.1			18.1	
Actuated g/C Ratio		0.30			0.30			0.47			0.47	
v/c Ratio		0.31			0.53			0.45			0.49	
Control Delay		9.7			13.5			9.6			10.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.7			13.5			9.6			10.2	
LOS		A			B			A			B	
Approach Delay		9.7			13.5			9.6			10.2	
Approach LOS		A			B			A			B	
Queue Length 50th (ft)		20			42			41			51	
Queue Length 95th (ft)		40			71			116			137	
Internal Link Dist (ft)		881			591			624			410	
Turn Bay Length (ft)												
Base Capacity (vph)		1416			1348			814			856	

Lanes, Volumes, Timings

15: Fillmore Ave & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.20			0.34			0.45			0.49	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 38.7

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.53

Intersection Signal Delay: 11.0

Intersection LOS: B

Intersection Capacity Utilization 62.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 15: Fillmore Ave & Genesee St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
16: Fillmore Ave & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	345	161	2	389	15	126	222	9	18	236	43
Future Volume (vph)	41	345	161	2	389	15	126	222	9	18	236	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.995			0.997				0.850
Flt Protected		0.996						0.983			0.996	
Satd. Flow (prot)	0	1781	0	0	1853	0	0	1826	0	0	1855	1583
Flt Permitted		0.949			0.998			0.786			0.962	
Satd. Flow (perm)	0	1697	0	0	1850	0	0	1460	0	0	1792	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		53			5			3				47
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1418			567			490				61
Travel Time (s)		32.2			12.9			11.1				1.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	375	175	2	423	16	137	241	10	20	257	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	595	0	0	441	0	0	388	0	0	277	47
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (s)	26.4	26.4		26.4	26.4		23.6	23.6		23.6	23.6	23.6
Total Split (%)	52.8%	52.8%		52.8%	52.8%		47.2%	47.2%		47.2%	47.2%	47.2%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)		4.5			4.5			4.5			4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	C-Max
Act Effct Green (s)		19.9			19.9			21.1			21.1	21.1
Actuated g/C Ratio		0.40			0.40			0.42			0.42	0.42
v/c Ratio		0.84			0.60			0.63			0.37	0.07
Control Delay		24.9			15.0			18.7			3.3	0.2
Queue Delay		8.4			0.9			0.1			0.0	0.0
Total Delay		33.3			15.9			18.8			3.3	0.2
LOS		C			B			B			A	A
Approach Delay		33.3			15.9			18.8			2.8	
Approach LOS		C			B			B			A	
Queue Length 50th (ft)		125			88			91			3	0
Queue Length 95th (ft)		#283			157			#203			5	1
Internal Link Dist (ft)		1338			487			410			1	
Turn Bay Length (ft)												
Base Capacity (vph)		773			813			616			754	693

Lanes, Volumes, Timings
16: Fillmore Ave & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	0
Spillback Cap Reductn		145			156			8			0	0
Storage Cap Reductn		0			0			0			0	0
Reduced v/c Ratio		0.95			0.67			0.64			0.37	0.07

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 20.0

Intersection LOS: C

Intersection Capacity Utilization 99.3%

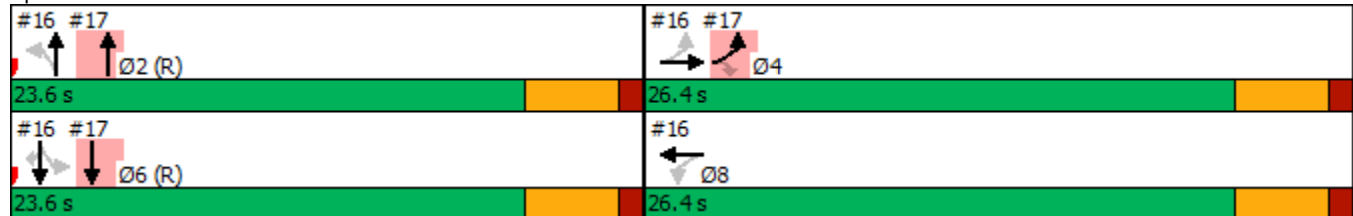
ICU Level of Service F

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: Fillmore Ave & Best St



Lanes, Volumes, Timings
17: Fillmore Ave & East Park

03/21/2022

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	5	3	0	275	298	0	
Future Volume (vph)	5	3	0	275	298	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	0			100	
Storage Lanes	1	1	0			1	
Taper Length (ft)	25		25				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	
Frt		0.850					
Flt Protected	0.950						
Satd. Flow (prot)	1770	1583	0	1863	3539	0	
Flt Permitted	0.950						
Satd. Flow (perm)	1770	1583	0	1863	3539	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		3					
Link Speed (mph)	30			30	30		
Link Distance (ft)	468			61	755		
Travel Time (s)	10.6			1.4	17.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	5	3	0	299	324	0	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	5	3	0	299	324	0	
Turn Type	Prot	Perm		NA	NA		
Protected Phases	4			2	6		8
Permitted Phases		4					
Detector Phase	4	4		2	6		
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5
Total Split (s)	26.4	26.4		23.6	23.6		26.4
Total Split (%)	52.8%	52.8%		47.2%	47.2%		53%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		
Total Lost Time (s)	4.5	4.5		4.5	4.5		
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None		C-Max	C-Max		None
Act Effct Green (s)	19.9	19.9		21.1	21.1		
Actuated g/C Ratio	0.40	0.40		0.42	0.42		
v/c Ratio	0.01	0.00		0.38	0.22		
Control Delay	8.0	6.0		5.5	10.5		
Queue Delay	0.0	0.0		0.0	0.0		
Total Delay	8.0	6.0		5.5	10.5		
LOS	A	A		A	B		
Approach Delay	7.3			5.5	10.5		
Approach LOS	A			A	B		
Queue Length 50th (ft)	1	0		23	32		
Queue Length 95th (ft)	5	3		m42	55		

Lanes, Volumes, Timings

17: Fillmore Ave & East Park

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Internal Link Dist (ft)	388			1	675		
Turn Bay Length (ft)							
Base Capacity (vph)	775	695		784	1490		
Starvation Cap Reductn	0	0		0	0		
Spillback Cap Reductn	0	0		0	81		
Storage Cap Reductn	0	0		0	0		
Reduced v/c Ratio	0.01	0.00		0.38	0.23		

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 8.1

Intersection LOS: A

Intersection Capacity Utilization 26.1%

ICU Level of Service A

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 17: Fillmore Ave & East Park

#16 #17 Ø2 (R) 23.6 s	#16 #17 Ø4 26.4 s
#16 #17 Ø6 (R) 23.6 s	#16 Ø8 26.4 s

Lanes, Volumes, Timings
18: Fillmore Ave & MLK Park

03/21/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	12	22	0	220	273	0
Future Volume (vph)	12	22	0	220	273	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr't	0.850					
Flt Protected	0.950					
Satd. Flow (prot)	1770	1583	0	1863	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1583	0	1863	1863	0
Right Turn on Red	Yes					
Satd. Flow (RTOR)	24					
Link Speed (mph)	30			30	30	
Link Distance (ft)	526			755	579	
Travel Time (s)	12.0			17.2	13.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	24	0	239	297	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	13	24	0	239	297	0
Turn Type	Prot	Perm		NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4				
Detector Phase	4	4		2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None		Max	Max	
Act Effct Green (s)	5.9	5.9		35.1	35.1	
Actuated g/C Ratio	0.15	0.15		0.92	0.92	
v/c Ratio	0.05	0.09		0.14	0.17	
Control Delay	14.3	8.3		1.6	1.7	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	14.3	8.3		1.6	1.7	
LOS	B	A		A	A	
Approach Delay	10.4			1.6	1.7	
Approach LOS	B			A	A	
Queue Length 50th (ft)	2	0		0	0	
Queue Length 95th (ft)	12	13		38	48	
Internal Link Dist (ft)	446			675	499	
Turn Bay Length (ft)						
Base Capacity (vph)	837	762		1717	1717	

Lanes, Volumes, Timings

18: Fillmore Ave & MLK Park

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Starvation Cap Reductn	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	
Storage Cap Reductn	0	0		0	0	
Reduced v/c Ratio	0.02	0.03		0.14	0.17	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 38.1

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.17

Intersection Signal Delay: 2.2

Intersection LOS: A

Intersection Capacity Utilization 26.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Fillmore Ave & MLK Park

Ø2 22.5 s	Ø4 22.5 s
Ø6 22.5 s	

Lanes, Volumes, Timings
19: Fillmore Ave & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	57	10	13	35	10	10	185	21	27	272	49
Future Volume (vph)	16	57	10	13	35	10	10	185	21	27	272	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.983			0.976			0.987			0.981	
Flt Protected		0.991			0.989			0.998			0.996	
Satd. Flow (prot)	0	1815	0	0	1798	0	0	1835	0	0	1820	0
Flt Permitted		0.918			0.898			0.983			0.972	
Satd. Flow (perm)	0	1681	0	0	1633	0	0	1807	0	0	1776	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			11			14			22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1089			291			579			735	
Travel Time (s)		24.8			6.6			13.2			16.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	62	11	14	38	11	11	201	23	29	296	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	90	0	0	63	0	0	235	0	0	378	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		7.1			6.9			28.5			28.5	
Actuated g/C Ratio		0.20			0.19			0.80			0.80	
v/c Ratio		0.26			0.19			0.16			0.26	
Control Delay		12.2			11.0			3.5			3.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.2			11.0			3.5			3.9	
LOS		B			B			A			A	
Approach Delay		12.2			11.0			3.5			3.9	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		11			7			0			0	
Queue Length 95th (ft)		34			25			45			74	
Internal Link Dist (ft)		1009			211			499			655	
Turn Bay Length (ft)												
Base Capacity (vph)		862			837			1455			1432	

Lanes, Volumes, Timings

19: Fillmore Ave & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.10			0.08			0.16			0.26	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 35.5

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.26

Intersection Signal Delay: 5.3

Intersection LOS: A

Intersection Capacity Utilization 40.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 19: Fillmore Ave & Northhampton St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
21: Fillmore Ave & Riley St/Urban St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	0	2	2	0	10	2	225	3	22	346	0
Future Volume (vph)	5	0	2	2	0	10	2	225	3	22	346	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.961			0.886			0.998				
Flt Protected		0.966			0.992						0.997	
Satd. Flow (prot)	0	1729	0	0	1637	0	0	1859	0	0	1857	0
Flt Permitted								0.998			0.979	
Satd. Flow (perm)	0	1790	0	0	1650	0	0	1855	0	0	1824	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			36			2				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			639			735			422	
Travel Time (s)		24.6			14.5			16.7			9.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	0	2	2	0	11	2	245	3	24	376	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	7	0	0	13	0	0	250	0	0	400	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		5.6			5.6			36.8			36.8	
Actuated g/C Ratio		0.14			0.14			0.94			0.94	
v/c Ratio		0.02			0.05			0.14			0.23	
Control Delay		0.5			3.6			1.2			1.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		0.5			3.6			1.2			1.5	
LOS		A			A			A			A	
Approach Delay		0.5			3.6			1.2			1.5	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)		0			0			0			0	
Queue Length 95th (ft)		1			6			34			58	
Internal Link Dist (ft)		1002			559			655			342	
Turn Bay Length (ft)												
Base Capacity (vph)		845			781			1736			1707	

Lanes, Volumes, Timings

21: Fillmore Ave & Riley St/Urban St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.01			0.02			0.14			0.23	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 39.3

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.23

Intersection Signal Delay: 1.4

Intersection LOS: A

Intersection Capacity Utilization 44.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 21: Fillmore Ave & Riley St/Urban St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
22: Fillmore Ave & French St

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	14	39	225	3	44	329
Future Volume (vph)	14	39	225	3	44	329
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.901		0.998			
Flt Protected	0.987					0.994
Satd. Flow (prot)	1657	0	1859	0	0	1852
Flt Permitted	0.987					0.949
Satd. Flow (perm)	1657	0	1859	0	0	1768
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	42		2			
Link Speed (mph)	30		30			30
Link Distance (ft)	600		422			182
Travel Time (s)	13.6		9.6			4.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	42	245	3	48	358
Shared Lane Traffic (%)						
Lane Group Flow (vph)	57	0	248	0	0	406
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%	50.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.3		34.3			34.3
Actuated g/C Ratio	0.16		0.85			0.85
v/c Ratio	0.19		0.16			0.27
Control Delay	9.7		2.6			3.1
Queue Delay	0.0		0.0			0.0
Total Delay	9.7		2.6			3.2
LOS	A		A			A
Approach Delay	9.7		2.6			3.2
Approach LOS	A		A			A
Queue Length 50th (ft)	3		0			0
Queue Length 95th (ft)	23		44			77
Internal Link Dist (ft)	520		342			102
Turn Bay Length (ft)						
Base Capacity (vph)	771		1582			1504

Lanes, Volumes, Timings

22: Fillmore Ave & French St

03/21/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Starvation Cap Reductn	0		0			140
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.07		0.16			0.30

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.3

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.27

Intersection Signal Delay: 3.5

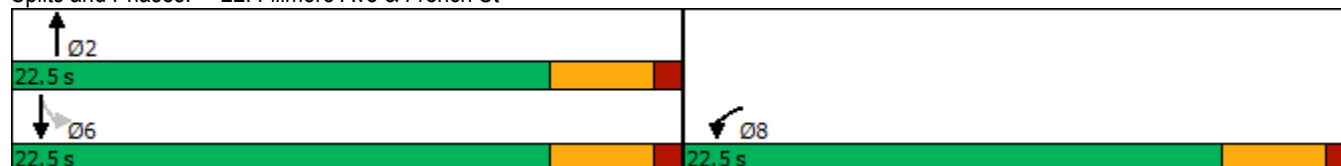
Intersection LOS: A

Intersection Capacity Utilization 47.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 22: Fillmore Ave & French St



Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	50	78	44	204	303	73
Future Volume (vph)	50	78	44	204	303	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.917				0.974	
Flt Protected	0.981			0.991		
Satd. Flow (prot)	1676	0	0	1846	1814	0
Flt Permitted	0.981			0.899		
Satd. Flow (perm)	1676	0	0	1675	1814	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	85				32	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1083			182	1350	
Travel Time (s)	24.6			4.1	30.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	85	48	222	329	79
Shared Lane Traffic (%)						
Lane Group Flow (vph)	139	0	0	270	408	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		22.5	22.5	22.5	
Total Split (%)	50.0%		50.0%	50.0%	50.0%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effect Green (s)	7.1			26.1	26.1	
Actuated g/C Ratio	0.18			0.66	0.66	
v/c Ratio	0.37			0.24	0.34	
Control Delay	9.0			5.1	5.2	
Queue Delay	0.0			0.4	0.0	
Total Delay	9.0			5.6	5.2	
LOS	A			A	A	
Approach Delay	9.0			5.6	5.2	
Approach LOS	A			A	A	
Queue Length 50th (ft)	10			22	32	
Queue Length 95th (ft)	34			57	81	
Internal Link Dist (ft)	1003			102	1270	
Turn Bay Length (ft)						
Base Capacity (vph)	821			1112	1215	

Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Starvation Cap Reductn	0			464	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.17			0.42	0.34	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 39.3

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.37

Intersection Signal Delay: 6.0

Intersection LOS: A

Intersection Capacity Utilization 52.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 23: Fillmore Ave & E Utica St

Lanes, Volumes, Timings
24: Fillmore Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	216	60	32	211	51	25	205	43	33	279	63
Future Volume (vph)	51	216	60	32	211	51	25	205	43	33	279	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.973			0.974			0.976			0.975	
Flt Protected		0.992			0.995			0.995			0.996	
Satd. Flow (prot)	0	3416	0	0	3430	0	0	3437	0	0	3437	0
Flt Permitted		0.848			0.879			0.907			0.913	
Satd. Flow (perm)	0	2920	0	0	3030	0	0	3133	0	0	3151	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		65			55			47			62	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			797			1350			1620	
Travel Time (s)		24.6			18.1			30.7			36.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	55	235	65	35	229	55	27	223	47	36	303	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	355	0	0	319	0	0	297	0	0	407	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		8.9			8.9			18.0			18.0	
Actuated g/C Ratio		0.25			0.25			0.50			0.50	
v/c Ratio		0.46			0.40			0.19			0.25	
Control Delay		11.2			10.7			5.0			5.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.2			10.7			5.0			5.3	
LOS		B			B			A			A	
Approach Delay		11.2			10.7			5.0			5.3	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		24			22			11			16	
Queue Length 95th (ft)		48			44			31			41	

Lanes, Volumes, Timings

24: Fillmore Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1002			717			1270			1540	
Turn Bay Length (ft)												
Base Capacity (vph)		1495			1546			1593			1610	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.24			0.21			0.19			0.25	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 8.0

Intersection LOS: A

Intersection Capacity Utilization 51.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 24: Fillmore Ave & E Ferry St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
25: Fillmore Ave & Northland Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	42	15	21	41	7	3	230	35	41	348	10
Future Volume (vph)	5	42	15	21	41	7	3	230	35	41	348	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.968			0.986			0.982			0.997	
Flt Protected		0.996			0.985			0.999			0.995	
Satd. Flow (prot)	0	1796	0	0	1809	0	0	1827	0	0	1848	0
Flt Permitted		0.965			0.874			0.997			0.951	
Satd. Flow (perm)	0	1740	0	0	1605	0	0	1824	0	0	1766	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			8			20			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1020			890			1620			1011	
Travel Time (s)		23.2			20.2			36.8			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	46	16	23	45	8	3	250	38	45	378	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	67	0	0	76	0	0	291	0	0	434	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		6.8			6.9			28.3			28.3	
Actuated g/C Ratio		0.19			0.20			0.81			0.81	
v/c Ratio		0.19			0.24			0.20			0.31	
Control Delay		10.3			12.1			3.5			4.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.3			12.1			3.5			4.2	
LOS		B			B			A			A	
Approach Delay		10.3			12.1			3.5			4.2	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		7			9			0			0	
Queue Length 95th (ft)		26			30			53			90	
Internal Link Dist (ft)		940			810			1540			931	
Turn Bay Length (ft)												
Base Capacity (vph)		904			830			1472			1422	

Lanes, Volumes, Timings

25: Fillmore Ave & Northland Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.07			0.09			0.20			0.31	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 35.1

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.31

Intersection Signal Delay: 5.1

Intersection LOS: A

Intersection Capacity Utilization 56.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 25: Fillmore Ave & Northland Ave

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	157	18	28	149	30	18	186	26	68	348	71
Future Volume (vph)	80	157	18	28	149	30	18	186	26	68	348	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.980			0.985			0.980	
Flt Protected		0.985			0.993			0.996			0.993	
Satd. Flow (prot)	0	1816	0	0	1813	0	0	1827	0	0	1813	0
Flt Permitted		0.823			0.942			0.953			0.926	
Satd. Flow (perm)	0	1518	0	0	1720	0	0	1749	0	0	1690	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			17			17			23	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		928			735			1011			742	
Travel Time (s)		21.1			16.7			23.0			16.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	171	20	30	162	33	20	202	28	74	378	77
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	278	0	0	225	0	0	250	0	0	529	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.6	22.6		22.6	22.6		32.4	32.4		32.4	32.4	
Total Split (%)	41.1%	41.1%		41.1%	41.1%		58.9%	58.9%		58.9%	58.9%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		13.3			13.3			28.1			28.1	
Actuated g/C Ratio		0.26			0.26			0.56			0.56	
v/c Ratio		0.68			0.48			0.25			0.56	
Control Delay		25.3			17.8			7.1			10.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		25.3			17.8			7.1			10.6	
LOS		C			B			A			B	
Approach Delay		25.3			17.8			7.1			10.6	
Approach LOS		C			B			A			B	
Queue Length 50th (ft)		71			51			31			84	
Queue Length 95th (ft)		134			100			75			191	
Internal Link Dist (ft)		848			655			931			662	
Turn Bay Length (ft)												
Base Capacity (vph)		552			630			981			951	

Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.50			0.36			0.25			0.56	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 50.5

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 14.4

Intersection LOS: B

Intersection Capacity Utilization 76.3%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 26: Fillmore Ave & E Delavan Ave

 Ø2	 Ø4
32.4 s	22.6 s
 Ø6	 Ø8
32.4 s	22.6 s

Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	296	174	0	0	217	17	49	163	78	0	0	0
Future Volume (vph)	296	174	0	0	217	17	49	163	78	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	0		150	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.989				0.850			
Flt Protected		0.969						0.989				
Satd. Flow (prot)	0	3429	0	0	3500	0	0	1842	1583	0	0	0
Flt Permitted		0.678						0.989				
Satd. Flow (perm)	0	2400	0	0	3500	0	0	1842	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					18				85			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		310			928			1019			213	
Travel Time (s)		7.0			21.1			23.2			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	322	189	0	0	236	18	53	177	85	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	511	0	0	254	0	0	230	85	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	27.4	27.4			27.4		22.6	22.6	22.6			
Total Split (%)	54.8%	54.8%			54.8%		45.2%	45.2%	45.2%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)		0.0			0.0			0.0	0.0			
Total Lost Time (s)		4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		None	None	None			
Act Effct Green (s)		26.9			26.9			10.7	10.7			
Actuated g/C Ratio		0.62			0.62			0.25	0.25			
v/c Ratio		0.34			0.12			0.51	0.19			
Control Delay		3.9			5.3			17.8	4.8			
Queue Delay		0.0			0.0			0.0	0.0			
Total Delay		3.9			5.3			17.8	4.8			
LOS		A			A			B	A			
Approach Delay		3.9			5.3			14.3				
Approach LOS		A			A			B				
Queue Length 50th (ft)		16			12			47	0			
Queue Length 95th (ft)		30			32			93	21			

Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

03/21/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.6
Total Split (%)	45%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lanes, Volumes, Timings

27: Humboldt Parkway NB & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		230			848			939			133	
Turn Bay Length (ft)									150			
Base Capacity (vph)		1490			2180			770	711			
Starvation Cap Reductn		0			0			0	0			
Spillback Cap Reductn		0			0			0	0			
Storage Cap Reductn		0			0			0	0			
Reduced v/c Ratio		0.34			0.12			0.30	0.12			

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 43.4

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 7.3

Intersection LOS: A

Intersection Capacity Utilization 45.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 27: Humboldt Parkway NB & E Delavan Ave

#27  Ø2	#27 #28  Ø4
22.6 s	27.4 s
#28  Ø6	#27 #28  Ø8
22.6 s	27.4 s

Lane Group	Ø6
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			↱↱						↱	↱
Traffic Volume (vph)	0	437	29	96	187	0	0	0	0	29	31	13
Future Volume (vph)	0	437	29	96	187	0	0	0	0	29	31	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991										0.850
Flt Protected					0.983						0.976	
Satd. Flow (prot)	0	1846	0	0	3479	0	0	0	0	0	1818	1583
Flt Permitted					0.740						0.976	
Satd. Flow (perm)	0	1846	0	0	2619	0	0	0	0	0	1818	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9										33
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2669			310			684			864	
Travel Time (s)		60.7			7.0			15.5			19.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	475	32	104	203	0	0	0	0	32	34	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	507	0	0	307	0	0	0	0	0	66	14
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		27.4		27.4	27.4					22.6	22.6	22.6
Total Split (%)		54.8%		54.8%	54.8%					45.2%	45.2%	45.2%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0						0.0	0.0
Total Lost Time (s)		4.5			4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					None	None	None
Act Effct Green (s)		26.9			26.9						10.4	10.4
Actuated g/C Ratio		0.62			0.62						0.24	0.24
v/c Ratio		0.44			0.19						0.15	0.03
Control Delay		8.2			4.1						12.8	2.6
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		8.2			4.1						12.8	2.6
LOS		A			A						B	A
Approach Delay		8.2			4.1						11.0	
Approach LOS		A			A						B	
Queue Length 50th (ft)		64			12						12	0
Queue Length 95th (ft)		161			26						32	5

Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

03/21/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.6
Total Split (%)	45%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lanes, Volumes, Timings

28: Humboldt Parkway SB & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		2589			230			604			784	
Turn Bay Length (ft)												100
Base Capacity (vph)		1149			1626						759	681
Starvation Cap Reductn		0			0						0	0
Spillback Cap Reductn		0			0						0	0
Storage Cap Reductn		0			0						0	0
Reduced v/c Ratio		0.44			0.19						0.09	0.02

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 43.4

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 7.1

Intersection LOS: A

Intersection Capacity Utilization 48.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 28: Humboldt Parkway SB & E Delavan Ave

#27  Ø2	#27 #28  Ø4
22.6 s	27.4 s
#28  Ø6	#27 #28  Ø8
22.6 s	27.4 s

Lane Group	Ø2
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
29: Jefferson Ave & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	357	31	28	147	16	30	98	54	5	78	86
Future Volume (vph)	39	357	31	28	147	16	30	98	54	5	78	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.989			0.960			0.931	
Flt Protected		0.995			0.993			0.992			0.999	
Satd. Flow (prot)	0	1835	0	0	1829	0	0	1774	0	0	1732	0
Flt Permitted		0.956			0.920			0.938			0.993	
Satd. Flow (perm)	0	1763	0	0	1695	0	0	1677	0	0	1722	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			12			56			93	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		592			2669			1017			352	
Travel Time (s)		13.5			60.7			23.1			8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	388	34	30	160	17	33	107	59	5	85	93
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	464	0	0	207	0	0	199	0	0	183	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		14.6			14.6			18.1			18.1	
Actuated g/C Ratio		0.35			0.35			0.43			0.43	
v/c Ratio		0.74			0.34			0.26			0.23	
Control Delay		19.8			10.9			7.5			5.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		19.8			10.9			7.5			5.7	
LOS		B			B			A			A	
Approach Delay		19.8			10.9			7.5			5.7	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		89			32			20			12	
Queue Length 95th (ft)		168			68			55			43	
Internal Link Dist (ft)		512			2589			937			272	
Turn Bay Length (ft)												
Base Capacity (vph)		770			742			759			799	

Lanes, Volumes, Timings

29: Jefferson Ave & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.60			0.28			0.26			0.23	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 41.8

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 13.3

Intersection LOS: B

Intersection Capacity Utilization 58.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 29: Jefferson Ave & E Delavan Ave

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
30: Jefferson Ave & Northland Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	23	11	16	5	16	12	145	9	12	139	15
Future Volume (vph)	15	23	11	16	5	16	12	145	9	12	139	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.969			0.941			0.993			0.988	
Flt Protected		0.985			0.979			0.996			0.996	
Satd. Flow (prot)	0	1778	0	0	1716	0	0	1842	0	0	1833	0
Flt Permitted		0.884			0.957			0.982			0.982	
Satd. Flow (perm)	0	1596	0	0	1677	0	0	1816	0	0	1807	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			17			8			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		806			2743			848			1017	
Travel Time (s)		18.3			62.3			19.3			23.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	25	12	17	5	17	13	158	10	13	151	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	53	0	0	39	0	0	181	0	0	180	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		6.5			6.4			29.9			29.9	
Actuated g/C Ratio		0.18			0.17			0.81			0.81	
v/c Ratio		0.18			0.13			0.12			0.12	
Control Delay		11.5			9.6			3.1			3.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.5			9.6			3.1			3.0	
LOS		B			A			A			A	
Approach Delay		11.5			9.6			3.1			3.0	
Approach LOS		B			A			A			A	
Queue Length 50th (ft)		7			4			0			0	
Queue Length 95th (ft)		22			16			32			31	
Internal Link Dist (ft)		726			2663			768			937	
Turn Bay Length (ft)												
Base Capacity (vph)		790			832			1482			1475	

Lanes, Volumes, Timings

30: Jefferson Ave & Northland Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.07			0.05			0.12			0.12	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36.7

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.18

Intersection Signal Delay: 4.6

Intersection LOS: A

Intersection Capacity Utilization 23.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 30: Jefferson Ave & Northland Ave

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
31: Jefferson Ave & Brunswick Blvd

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	27	21	154	25	10	156
Future Volume (vph)	27	21	154	25	10	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.940		0.981			
Flt Protected	0.973					0.997
Satd. Flow (prot)	1704	0	1827	0	0	1857
Flt Permitted	0.973					0.986
Satd. Flow (perm)	1704	0	1827	0	0	1837
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	23		22			
Link Speed (mph)	30		30			30
Link Distance (ft)	2734		751			848
Travel Time (s)	62.1		17.1			19.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	23	167	27	11	170
Shared Lane Traffic (%)						
Lane Group Flow (vph)	52	0	194	0	0	181
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%	50.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.4		34.6			34.6
Actuated g/C Ratio	0.16		0.85			0.85
v/c Ratio	0.18		0.12			0.12
Control Delay	12.4		2.4			2.6
Queue Delay	0.0		0.0			0.0
Total Delay	12.4		2.4			2.6
LOS	B		A			A
Approach Delay	12.4		2.4			2.6
Approach LOS	B		A			A
Queue Length 50th (ft)	5		0			0
Queue Length 95th (ft)	26		33			33
Internal Link Dist (ft)	2654		671			768
Turn Bay Length (ft)						
Base Capacity (vph)	777		1562			1567

Lanes, Volumes, Timings

31: Jefferson Ave & Brunswick Blvd

03/21/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.07		0.12			0.12

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.5

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.18

Intersection Signal Delay: 3.7

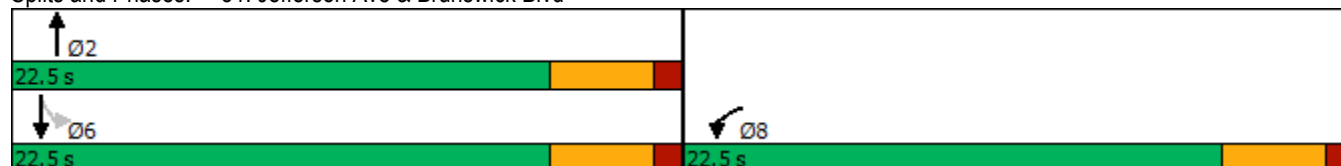
Intersection LOS: A

Intersection Capacity Utilization 28.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 31: Jefferson Ave & Brunswick Blvd



Lanes, Volumes, Timings
32: Jefferson Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	217	47	49	475	42	38	115	25	21	136	25
Future Volume (vph)	29	217	47	49	475	42	38	115	25	21	136	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.978			0.990			0.981			0.982	
Flt Protected		0.995			0.996			0.989			0.994	
Satd. Flow (prot)	0	1813	0	0	1837	0	0	1807	0	0	1818	0
Flt Permitted		0.926			0.947			0.912			0.958	
Satd. Flow (perm)	0	1687	0	0	1746	0	0	1667	0	0	1752	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			10			16			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			194			1406			751	
Travel Time (s)		7.5			4.4			32.0			17.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	32	236	51	53	516	46	41	125	27	23	148	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	319	0	0	615	0	0	193	0	0	198	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	31.0	31.0		31.0	31.0		24.0	24.0		24.0	24.0	
Total Split (%)	56.4%	56.4%		56.4%	56.4%		43.6%	43.6%		43.6%	43.6%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		21.5			21.5			19.7			19.7	
Actuated g/C Ratio		0.43			0.43			0.39			0.39	
v/c Ratio		0.43			0.82			0.29			0.28	
Control Delay		11.0			22.6			12.6			12.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.0			22.6			12.6			12.5	
LOS		B			C			B			B	
Approach Delay		11.0			22.6			12.6			12.5	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)		56			146			36			37	
Queue Length 95th (ft)		105			#260			83			84	
Internal Link Dist (ft)		252			114			1326			671	
Turn Bay Length (ft)												
Base Capacity (vph)		909			934			663			696	

Lanes, Volumes, Timings

32: Jefferson Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.35			0.66			0.29			0.28	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 50.3

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 16.8

Intersection LOS: B

Intersection Capacity Utilization 62.4%

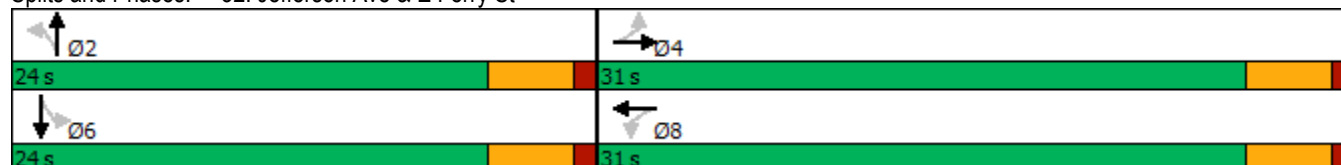
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 32: Jefferson Ave & E Ferry St



Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	100	37	25	107	13	26	164	12	10	205	21
Future Volume (vph)	10	100	37	25	107	13	26	164	12	10	205	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.988			0.992			0.988	
Flt Protected		0.997			0.991			0.994			0.998	
Satd. Flow (prot)	0	1794	0	0	1824	0	0	1837	0	0	1837	0
Flt Permitted		0.966			0.932			0.950			0.987	
Satd. Flow (perm)	0	1738	0	0	1715	0	0	1755	0	0	1816	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40			13			8			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1023			1295			630			1406	
Travel Time (s)		23.3			29.4			14.3			32.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	109	40	27	116	14	28	178	13	11	223	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	160	0	0	157	0	0	219	0	0	257	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		8.3			8.3			21.8			21.8	
Actuated g/C Ratio		0.23			0.23			0.60			0.60	
v/c Ratio		0.38			0.39			0.21			0.23	
Control Delay		11.4			13.4			5.8			5.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.4			13.4			5.8			5.8	
LOS		B			B			A			A	
Approach Delay		11.4			13.4			5.8			5.8	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		19			23			19			22	
Queue Length 95th (ft)		49			54			51			59	
Internal Link Dist (ft)		943			1215			550			1326	
Turn Bay Length (ft)												
Base Capacity (vph)		883			858			1057			1096	

Lanes, Volumes, Timings

33: Jefferson Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.18			0.18			0.21			0.23	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36.3

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 8.4

Intersection LOS: A

Intersection Capacity Utilization 41.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 33: Jefferson Ave & E Utica St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
34: Jefferson Ave & Riley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	26	15	9	16	5	11	193	9	1	221	10
Future Volume (vph)	9	26	15	9	16	5	11	193	9	1	221	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.979			0.994			0.994	
Flt Protected		0.991			0.985			0.997				
Satd. Flow (prot)	0	1772	0	0	1796	0	0	1846	0	0	1852	0
Flt Permitted		0.927			0.875			0.985			0.999	
Satd. Flow (perm)	0	1658	0	0	1596	0	0	1824	0	0	1850	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			5			6			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		870			1108			418			630	
Travel Time (s)		19.8			25.2			9.5			14.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	28	16	10	17	5	12	210	10	1	240	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	54	0	0	32	0	0	232	0	0	252	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		6.4			6.3			30.1			30.1	
Actuated g/C Ratio		0.17			0.17			0.82			0.82	
v/c Ratio		0.18			0.11			0.16			0.17	
Control Delay		10.9			11.6			3.1			3.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.9			11.6			3.1			3.2	
LOS		B			B			A			A	
Approach Delay		10.9			11.6			3.1			3.2	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		7			5			0			0	
Queue Length 95th (ft)		22			16			40			43	
Internal Link Dist (ft)		790			1028			338			550	
Turn Bay Length (ft)												
Base Capacity (vph)		820			783			1492			1513	

Lanes, Volumes, Timings

34: Jefferson Ave & Riley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.07			0.04			0.16			0.17	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36.8

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.18

Intersection Signal Delay: 4.3

Intersection LOS: A

Intersection Capacity Utilization 30.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 34: Jefferson Ave & Riley St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
35: Jefferson Ave & Northampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	36	6	15	67	12	15	178	4	7	209	13
Future Volume (vph)	6	36	6	15	67	12	15	178	4	7	209	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.982			0.983			0.997			0.992	
Flt Protected		0.993			0.992			0.996			0.998	
Satd. Flow (prot)	0	1816	0	0	1816	0	0	1850	0	0	1844	0
Flt Permitted		0.936			0.933			0.976			0.992	
Satd. Flow (perm)	0	1712	0	0	1708	0	0	1813	0	0	1833	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			13			3			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1340			1290			1156			278	
Travel Time (s)		30.5			29.3			26.3			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	39	7	16	73	13	16	193	4	8	227	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	53	0	0	102	0	0	213	0	0	249	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		7.1			7.3			26.0			26.0	
Actuated g/C Ratio		0.19			0.20			0.71			0.71	
v/c Ratio		0.16			0.29			0.16			0.19	
Control Delay		11.1			12.7			4.5			4.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.1			12.7			4.5			4.5	
LOS		B			B			A			A	
Approach Delay		11.1			12.7			4.5			4.5	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		8			15			17			20	
Queue Length 95th (ft)		23			37			44			50	
Internal Link Dist (ft)		1260			1210			1076			198	
Turn Bay Length (ft)												
Base Capacity (vph)		848			849			1294			1310	

Lanes, Volumes, Timings

35: Jefferson Ave & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.06			0.12			0.16			0.19	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36.5

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.29

Intersection Signal Delay: 6.4

Intersection LOS: A

Intersection Capacity Utilization 31.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 35: Jefferson Ave & Northhampton St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
36: Jefferson Ave & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	402	45	48	426	60	23	173	3	45	187	25
Future Volume (vph)	23	402	45	48	426	60	23	173	3	45	187	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.986			0.983			0.998			0.985	
Flt Protected		0.998			0.996			0.994			0.991	
Satd. Flow (prot)	0	3483	0	0	3465	0	0	3511	0	0	3455	0
Flt Permitted		0.911			0.871			0.909			0.882	
Satd. Flow (perm)	0	3179	0	0	3030	0	0	3211	0	0	3075	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30			36			3			27	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		169			169			156			165	
Travel Time (s)		3.8			3.8			3.5			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	25	437	49	52	463	65	25	188	3	49	203	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	511	0	0	580	0	0	216	0	0	279	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		12.9			12.9			18.1			18.1	
Actuated g/C Ratio		0.32			0.32			0.45			0.45	
v/c Ratio		0.49			0.58			0.15			0.20	
Control Delay		11.7			12.9			7.7			7.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.7			12.9			7.7			7.3	
LOS		B			B			A			A	
Approach Delay		11.7			12.9			7.7			7.3	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		43			51			13			16	
Queue Length 95th (ft)		73			84			33			40	
Internal Link Dist (ft)		89			89			76			85	
Turn Bay Length (ft)												
Base Capacity (vph)		1455			1390			1454			1406	

Lanes, Volumes, Timings

36: Jefferson Ave & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.35			0.42			0.15			0.20	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.1

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 10.8

Intersection LOS: B

Intersection Capacity Utilization 56.1%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 36: Jefferson Ave & Best St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
37: Jefferson Ave & E North St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	64	82	180	172	237	62
Future Volume (vph)	64	82	180	172	237	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.924				0.972	
Flt Protected	0.978			0.975		
Satd. Flow (prot)	1683	0	0	1816	1811	0
Flt Permitted	0.978			0.699		
Satd. Flow (perm)	1683	0	0	1302	1811	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	89				35	
Link Speed (mph)	30			30	30	
Link Distance (ft)	879			684	486	
Travel Time (s)	20.0			15.5	11.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	70	89	196	187	258	67
Shared Lane Traffic (%)						
Lane Group Flow (vph)	159	0	0	383	325	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		32.5	32.5	32.5	
Total Split (%)	40.9%		59.1%	59.1%	59.1%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effct Green (s)	7.8			34.9	34.9	
Actuated g/C Ratio	0.16			0.72	0.72	
v/c Ratio	0.46			0.41	0.25	
Control Delay	13.3			6.3	4.1	
Queue Delay	0.0			0.0	0.0	
Total Delay	13.3			6.3	4.1	
LOS	B			A	A	
Approach Delay	13.3			6.3	4.1	
Approach LOS	B			A	A	
Queue Length 50th (ft)	18			40	25	
Queue Length 95th (ft)	53			108	66	
Internal Link Dist (ft)	799			604	406	
Turn Bay Length (ft)						
Base Capacity (vph)	679			931	1305	

Lanes, Volumes, Timings

37: Jefferson Ave & E North St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.23			0.41	0.25	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 48.8

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 6.8

Intersection LOS: A

Intersection Capacity Utilization 55.1%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 37: Jefferson Ave & E North St

32.5 s	22.5 s
32.5 s	

Lanes, Volumes, Timings
38: Jefferson Ave & High St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	37	90	21	78	37	176	317	33	10	266	16
Future Volume (vph)	3	37	90	21	78	37	176	317	33	10	266	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.906			0.964			0.992			0.993	
Flt Protected		0.999			0.992			0.984			0.998	
Satd. Flow (prot)	0	1686	0	0	1781	0	0	1818	0	0	1846	0
Flt Permitted		0.993			0.941			0.782			0.982	
Satd. Flow (perm)	0	1676	0	0	1690	0	0	1445	0	0	1816	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		98			32			9			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		840			1233			880			684	
Travel Time (s)		19.1			28.0			20.0			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	40	98	23	85	40	191	345	36	11	289	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	141	0	0	148	0	0	572	0	0	317	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.6	22.6		22.6	22.6		37.4	37.4		37.4	37.4	
Total Split (%)	37.7%	37.7%		37.7%	37.7%		62.3%	62.3%		62.3%	62.3%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		8.9			8.9			36.8			36.8	
Actuated g/C Ratio		0.17			0.17			0.71			0.71	
v/c Ratio		0.38			0.47			0.56			0.25	
Control Delay		10.8			19.9			8.2			4.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.8			19.9			8.2			4.6	
LOS		B			B			A			A	
Approach Delay		10.8			19.9			8.2			4.6	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		11			31			76			31	
Queue Length 95th (ft)		47			72			195			74	
Internal Link Dist (ft)		760			1153			800			604	
Turn Bay Length (ft)												
Base Capacity (vph)		649			611			1028			1291	

Lanes, Volumes, Timings

38: Jefferson Ave & High St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.22			0.24			0.56			0.25	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 51.8

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.56

Intersection Signal Delay: 9.0

Intersection LOS: A

Intersection Capacity Utilization 73.2%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 38: Jefferson Ave & High St

 Ø2	 Ø4
37.4 s	22.6 s
 Ø6	 Ø8
37.4 s	22.6 s

Lanes, Volumes, Timings
39: Wohlers Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	333	4	29	544	62	9	26	46	0	0	0
Future Volume (vph)	26	333	4	29	544	62	9	26	46	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.987			0.923				
Flt Protected		0.996			0.998			0.994				
Satd. Flow (prot)	0	1853	0	0	1835	0	0	1709	0	0	0	0
Flt Permitted		0.936			0.972			0.994				
Satd. Flow (perm)	0	1742	0	0	1787	0	0	1709	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			14			50				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		280			1179			1336				278
Travel Time (s)		6.4			26.8			30.4				6.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	28	362	4	32	591	67	10	28	50	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	394	0	0	690	0	0	88	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4			8			2					
Detector Phase	4	4		8	8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5				
Total Split (s)	37.0	37.0		37.0	37.0		23.0	23.0				
Total Split (%)	61.7%	61.7%		61.7%	61.7%		38.3%	38.3%				
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max				
Act Effct Green (s)		24.6			24.6			18.8				
Actuated g/C Ratio		0.47			0.47			0.36				
v/c Ratio		0.48			0.82			0.14				
Control Delay		11.3			20.4			8.6				
Queue Delay		0.0			0.0			0.0				
Total Delay		11.3			20.4			8.6				
LOS		B			C			A				
Approach Delay		11.3			20.4			8.6				
Approach LOS		B			C			A				
Queue Length 50th (ft)		76			164			8				
Queue Length 95th (ft)		130			280			37				
Internal Link Dist (ft)		200			1099			1256			198	
Turn Bay Length (ft)												
Base Capacity (vph)		1095			1128			643				

Lanes, Volumes, Timings

39: Wohlers Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.36			0.61			0.14				

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 52.6

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 16.4

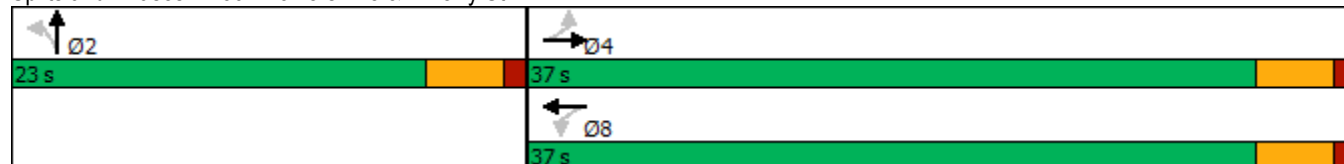
Intersection LOS: B

Intersection Capacity Utilization 52.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 39: Wohlers Ave & E Ferry St



Lanes, Volumes, Timings
40: Wohlers Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	106	9	4	128	16	3	39	23	1	14	5
Future Volume (vph)	13	106	9	4	128	16	3	39	23	1	14	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.986			0.952			0.968	
Flt Protected		0.995			0.999			0.998			0.998	
Satd. Flow (prot)	0	1835	0	0	1835	0	0	1770	0	0	1800	0
Flt Permitted		0.954			0.989			0.995			0.994	
Satd. Flow (perm)	0	1759	0	0	1816	0	0	1764	0	0	1792	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			16			25			5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		274			1173			1331			1336	
Travel Time (s)		6.2			26.7			30.3			30.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	115	10	4	139	17	3	42	25	1	15	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	139	0	0	160	0	0	70	0	0	21	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		8.1			8.1			21.8			21.8	
Actuated g/C Ratio		0.22			0.22			0.60			0.60	
v/c Ratio		0.34			0.38			0.07			0.02	
Control Delay		13.0			13.0			4.0			4.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.0			13.0			4.0			4.6	
LOS		B			B			A			A	
Approach Delay		13.0			13.0			4.0			4.6	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		20			23			4			1	
Queue Length 95th (ft)		49			54			17			8	
Internal Link Dist (ft)		194			1093			1251			1256	
Turn Bay Length (ft)												
Base Capacity (vph)		882			914			1073			1082	

Lanes, Volumes, Timings

40: Wohlers Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.16			0.18			0.07			0.02	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36.1

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 10.9

Intersection LOS: B

Intersection Capacity Utilization 24.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 40: Wohlers Ave & E Utica St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
41: Humboldt Parkway SB & Woodlawn Ave

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	427	34
Future Volume (vph)	0	0	0	0	427	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.990	
Flt Protected						
Satd. Flow (prot)	0	0	0	0	1844	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	0	1844	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	780			265	319	
Travel Time (s)	17.7			6.0	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	464	37
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	501	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 27.9% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings
42: Humboldt Parkway SB & Glenwood Ave

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	31	0	0	431	0
Future Volume (vph)	0	31	0	0	431	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1863	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	750			456	296	
Travel Time (s)	17.0			10.4	6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	34	0	0	468	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	34	0	0	468	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 32.7% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
42: Humboldt Parkway SB & Glenwood Ave

03/21/2022

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↖	
Traffic Vol, veh/h	0	31	0	0	431	0
Future Vol, veh/h	0	31	0	0	431	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	34	0	0	468	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	468	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	595	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	595	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	11.4	-	-	-	0	-
HCM LOS	B	-	-	-	-	-
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	595	-				
HCM Lane V/C Ratio	0.057	-				
HCM Control Delay (s)	11.4	-				
HCM Lane LOS	B	-				
HCM 95th %tile Q(veh)	0.2	-				

Lanes, Volumes, Timings
43: Humboldt Parkway SB & Riley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	14	27	27	14	0	0	0	0	27	387	27
Future Volume (vph)	0	14	27	27	14	0	0	0	0	27	387	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.911										0.992	
Flt Protected	0.968										0.997	
Satd. Flow (prot)	0	1697	0	0	1803	0	0	0	0	0	1842	0
Flt Permitted	0.968										0.997	
Satd. Flow (perm)	0	1697	0	0	1803	0	0	0	0	0	1842	0
Link Speed (mph)	30				30				30			
Link Distance (ft)	873				152				418			
Travel Time (s)	19.8				3.5				9.5			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	15	29	29	15	0	0	0	0	29	421	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	44	0	0	44	0	0	0	0	0	479	0
Sign Control	Stop				Stop				Stop			
Free												
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 39.1%												
ICU Level of Service A												
Analysis Period (min) 15												

HCM 6th TWSC
43: Humboldt Parkway SB & Riley St

03/21/2022

Intersection													
Int Delay, s/veh	2												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Vol, veh/h	0	14	27	27	14	0	0	0	0	27	387	27	
Future Vol, veh/h	0	14	27	27	14	0	0	0	0	27	387	27	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None	
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	0	15	29	29	15	0	0	0	0	29	421	29	
Major/Minor	Minor2		Minor1				Major2						
Conflicting Flow All	-	494	436	516	508	-				0	0	0	
Stage 1	-	494	-	0	0	-				-	-	-	
Stage 2	-	0	-	516	508	-				-	-	-	
Critical Hdwy	-	6.52	6.22	7.12	6.52	-				4.12	-	-	
Critical Hdwy Stg 1	-	5.52	-	-	-	-				-	-	-	
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-				-	-	-	
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-				2.218	-	-	
Pot Cap-1 Maneuver	0	476	620	470	468	0				-	-	-	
Stage 1	0	546	-	-	-	0				-	-	-	
Stage 2	0	-	-	542	539	0				-	-	-	
Platoon blocked, %											-	-	
Mov Cap-1 Maneuver	-	476	620	437	468	-				-	-	-	
Mov Cap-2 Maneuver	-	476	-	437	468	-				-	-	-	
Stage 1	-	546	-	-	-	-				-	-	-	
Stage 2	-	-	-	502	539	-				-	-	-	
Approach	EB		WB				SB						
HCM Control Delay, s	12		13.9										
HCM LOS	B		B										
Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR								
Capacity (veh/h)	562		447	-	-	-							
HCM Lane V/C Ratio	0.079		0.1	-	-	-							
HCM Control Delay (s)	12		13.9	-	-	-							
HCM Lane LOS	B		B	-	-	-							
HCM 95th %tile Q(veh)	0.3		0.3	-	-	-							

Lanes, Volumes, Timings
44: Humboldt Parkway SB & Kingsley St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	14	0	0	419	11
Future Volume (vph)	0	14	0	0	419	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.997	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1857	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1857	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	736			293	418	
Travel Time (s)	16.7			6.7	9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	15	0	0	455	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	15	0	0	467	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 32.7% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
44: Humboldt Parkway SB & Kingsley St

03/21/2022

Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	14	0	0	419	11
Future Vol, veh/h	0	14	0	0	419	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	15	0	0	455	12

Major/Minor	Minor2	Major2
Conflicting Flow All	- 461	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 600	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 600	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	11.2	0
HCM LOS	B	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	600	-	-
HCM Lane V/C Ratio	0.025	-	-
HCM Control Delay (s)	11.2	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Lanes, Volumes, Timings
45: W Parade Ave & Humboldt Parkway SB

03/21/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↘	
Traffic Volume (vph)	0	102	66	0	50	31
Future Volume (vph)	0	102	66	0	50	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.948	
Flt Protected					0.970	
Satd. Flow (prot)	0	1863	1863	0	1713	0
Flt Permitted					0.970	
Satd. Flow (perm)	0	1863	1863	0	1713	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		199	738		350	
Travel Time (s)		4.5	16.8		8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	111	72	0	54	34
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	111	72	0	88	0
Sign Control		Stop	Stop		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 16.7% ICU Level of Service A

Analysis Period (min) 15

HCM 6th AWSC
45: W Parade Ave & Humboldt Parkway SB

03/21/2022

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↘	↘
Traffic Vol, veh/h	0	102	66	0	50	31
Future Vol, veh/h	0	102	66	0	50	31
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	111	72	0	54	34
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	7.8	7.6	7.7
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	62%
Vol Thru, %	100%	100%	0%
Vol Right, %	0%	0%	38%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	102	66	81
LT Vol	0	0	50
Through Vol	102	66	0
RT Vol	0	0	31
Lane Flow Rate	111	72	88
Geometry Grp	1	1	1
Degree of Util (X)	0.128	0.083	0.101
Departure Headway (Hd)	4.143	4.174	4.142
Convergence, Y/N	Yes	Yes	Yes
Cap	858	849	852
Service Time	2.206	2.245	2.232
HCM Lane V/C Ratio	0.129	0.085	0.103
HCM Control Delay	7.8	7.6	7.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.4	0.3	0.3

Lanes, Volumes, Timings
46: Linden Park & Dodge St/W Parade Ave

03/21/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	101	1	5	93	1	1
Future Volume (vph)	101	1	5	93	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999				0.932	
Flt Protected				0.998	0.976	
Satd. Flow (prot)	1861	0	0	1859	1694	0
Flt Permitted				0.998	0.976	
Satd. Flow (perm)	1861	0	0	1859	1694	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	489			199	180	
Travel Time (s)	11.1			4.5	4.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	110	1	5	101	1	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	111	0	0	106	2	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	19.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
46: Linden Park & Dodge St/W Parade Ave

03/21/2022

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	101	1	5	93	1	1
Future Vol, veh/h	101	1	5	93	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	110	1	5	101	1	1
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	111	0	222	111
Stage 1	-	-	-	-	111	-
Stage 2	-	-	-	-	111	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1479	-	766	942
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	914	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1479	-	763	942
Mov Cap-2 Maneuver	-	-	-	-	763	-
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	910	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.4		9.3	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	843	-	-	1479	-	
HCM Lane V/C Ratio	0.003	-	-	0.004	-	
HCM Control Delay (s)	9.3	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Lanes, Volumes, Timings
47: Humboldt Parkway NB & Riley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	27	0	0	27	14	14	222	14	0	0	0
Future Volume (vph)	14	27	0	0	27	14	14	222	14	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.954			0.993				
Flt Protected		0.983						0.997				
Satd. Flow (prot)	0	1831	0	0	1777	0	0	1844	0	0	0	0
Flt Permitted		0.983						0.997				
Satd. Flow (perm)	0	1831	0	0	1777	0	0	1844	0	0	0	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		152			1082			722			610	
Travel Time (s)		3.5			24.6			16.4			13.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	29	0	0	29	15	15	241	15	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	44	0	0	44	0	0	271	0	0	0	0
Sign Control		Stop			Stop			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 28.8%	ICU Level of Service A											
Analysis Period (min) 15												

HCM 6th TWSC
47: Humboldt Parkway NB & Riley St

03/21/2022

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	14	27	0	0	27	14	14	222	14	0	0	0
Future Vol, veh/h	14	27	0	0	27	14	14	222	14	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	29	0	0	29	15	15	241	15	0	0	0
Major/Minor	Minor2		Minor1		Major1							
Conflicting Flow All	301	286	-	-	279	249	0	0	0			
Stage 1	0	0	-	-	279	-	-	-	-			
Stage 2	301	286	-	-	0	-	-	-	-			
Critical Hdwy	7.12	6.52	-	-	6.52	6.22	4.12	-	-			
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-			
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-			
Follow-up Hdwy	3.518	4.018	-	-	4.018	3.318	2.218	-	-			
Pot Cap-1 Maneuver	651	623	0	0	629	790	-	-	-			
Stage 1	-	-	0	0	680	-	-	-	-			
Stage 2	708	675	0	0	-	-	-	-	-			
Platoon blocked, %								-	-			
Mov Cap-1 Maneuver	616	623	-	-	629	790	-	-	-			
Mov Cap-2 Maneuver	616	623	-	-	629	-	-	-	-			
Stage 1	-	-	-	-	680	-	-	-	-			
Stage 2	664	675	-	-	-	-	-	-	-			
Approach	EB		WB		NB							
HCM Control Delay, s	11.2		10.7									
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL		NBT		NBR		EBLn1WBLn1					
Capacity (veh/h)	-		-		-		621 676					
HCM Lane V/C Ratio	-		-		-		0.072 0.066					
HCM Control Delay (s)	-		-		-		11.2 10.7					
HCM Lane LOS	-		-		-		B B					
HCM 95th %tile Q(veh)	-		-		-		0.2 0.2					

Lanes, Volumes, Timings
48: Humboldt Parkway NB & Woepfel St

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	4	273	5	0	0
Future Volume (vph)	0	4	273	5	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.998			
Flt Protected						
Satd. Flow (prot)	0	1611	1859	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1859	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	744		294			461
Travel Time (s)	16.9		6.7			10.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	4	297	5	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	4	302	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	24.7%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
48: Humboldt Parkway NB & Woepfel St

03/21/2022

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	273	5	0	0
Future Vol, veh/h	0	4	273	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	297	5	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	300	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	740	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	740	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	9.9		0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		740			
HCM Lane V/C Ratio	-		0.006			
HCM Control Delay (s)	-		9.9			
HCM Lane LOS	-		A			
HCM 95th %tile Q(veh)	-		0			

Lanes, Volumes, Timings
49: Humboldt Parkway NB & Woodlawn Ave

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	13	270	9	0	0
Future Volume (vph)	0	13	270	9	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.996			
Flt Protected						
Satd. Flow (prot)	0	1611	1855	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1855	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	729		268			312
Travel Time (s)	16.6		6.1			7.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	14	293	10	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	14	303	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	24.8%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
49: Humboldt Parkway NB & Woodlawn Ave

03/21/2022

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	13	270	9	0	0
Future Vol, veh/h	0	13	270	9	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	14	293	10	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	298	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	741	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	741	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	10		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		741			
HCM Lane V/C Ratio	-		0.019			
HCM Control Delay (s)	-		10			
HCM Lane LOS	-		B			
HCM 95th %tile Q(veh)	-		0.1			

Lanes, Volumes, Timings
50: Humboldt Parkway SB & Florida St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	25	0	0	148	9
Future Volume (vph)	0	25	0	0	148	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.992	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1848	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1848	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	935			344	684	
Travel Time (s)	21.3			7.8	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	27	0	0	161	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	27	0	0	171	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 18.3% ICU Level of Service A

Analysis Period (min) 15

Intersection

Int Delay, s/veh 1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	25	0	0	148	9
Future Vol, veh/h	0	25	0	0	148	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	27	0	0	161	10

Major/Minor	Minor2	Major2
Conflicting Flow All	- 166	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 878	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 878	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	9.2	0
HCM LOS	A	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	878	-	-
HCM Lane V/C Ratio	0.031	-	-
HCM Control Delay (s)	9.2	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Lanes, Volumes, Timings
51: Humboldt Parkway SB & Northland Ave

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	27	0	0	169	21
Future Volume (vph)	0	27	0	0	169	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.985	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1835	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1835	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2743			805	344	
Travel Time (s)	62.3			18.3	7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	29	0	0	184	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	29	0	0	207	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 20.2% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
51: Humboldt Parkway SB & Northland Ave

03/21/2022

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	27	0	0	169	21
Future Vol, veh/h	0	27	0	0	169	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	29	0	0	184	23

Major/Minor	Minor2	Major2
Conflicting Flow All	- 196	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 845	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 845	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	9.4	0
HCM LOS	A	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	845	-	-
HCM Lane V/C Ratio	0.035	-	-
HCM Control Delay (s)	9.4	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Lanes, Volumes, Timings
52: Humboldt Parkway SB & Brunswick Blvd

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	65	0	0	168	10
Future Volume (vph)	0	65	0	0	168	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.992	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1848	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1848	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2734			252	805	
Travel Time (s)	62.1			5.7	18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	71	0	0	183	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	71	0	0	194	0
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 20.1% ICU Level of Service A

Analysis Period (min) 15

Intersection

Intersection Delay, s/veh 7.9
Intersection LOS A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	65	0	0	168	10
Future Vol, veh/h	0	65	0	0	168	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	71	0	0	183	11
Number of Lanes	0	1	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	1
HCM Control Delay	7	8.2
HCM LOS	A	A

Lane	EBLn1	SBLn1
Vol Left, %	0%	0%
Vol Thru, %	0%	94%
Vol Right, %	100%	6%
Sign Control	Stop	Stop
Traffic Vol by Lane	65	178
LT Vol	0	0
Through Vol	0	168
RT Vol	65	10
Lane Flow Rate	71	193
Geometry Grp	1	1
Degree of Util (X)	0.072	0.216
Departure Headway (Hd)	3.67	4.024
Convergence, Y/N	Yes	Yes
Cap	959	894
Service Time	1.756	2.042
HCM Lane V/C Ratio	0.074	0.216
HCM Control Delay	7	8.2
HCM Lane LOS	A	A
HCM 95th-tile Q	0.2	0.8

Lanes, Volumes, Timings
53: Humboldt Parkway SB & Goulding Ave

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	48	0	0	982	0
Future Volume (vph)	0	48	0	0	982	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	3539	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	3539	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1067			270	306	
Travel Time (s)	24.3			6.1	7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	52	0	0	1067	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	52	0	0	1067	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 30.0% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
53: Humboldt Parkway SB & Goulding Ave

03/21/2022

Intersection

Int Delay, s/veh 0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	48	0	0	982	0
Future Vol, veh/h	0	48	0	0	982	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	52	0	0	1067	0

Major/Minor	Minor2	Major2
Conflicting Flow All	- 534	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.94	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.32	- -
Pot Cap-1 Maneuver	0 491	- 0
Stage 1	0 -	- 0
Stage 2	0 -	- 0
Platoon blocked, %		-
Mov Cap-1 Maneuver	- 491	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	13.2	0
HCM LOS	B	

Minor Lane/Major Mvmt	EBLn1	SBT
Capacity (veh/h)	491	-
HCM Lane V/C Ratio	0.106	-
HCM Control Delay (s)	13.2	-
HCM Lane LOS	B	-
HCM 95th %tile Q(veh)	0.4	-

Lanes, Volumes, Timings
54: Humboldt Parkway NB & Sydney St

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	41	499	0	0	0
Future Volume (vph)	0	41	499	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	913		608			1024
Travel Time (s)	20.8		13.8			23.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	45	542	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	45	542	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	36.3%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
54: Humboldt Parkway NB & Sydney St

03/21/2022

Intersection

Int Delay, s/veh 0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	41	499	0	0	0
Future Vol, veh/h	0	41	499	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	45	542	0	0	0

Major/Minor	Minor1	Major1
Conflicting Flow All	- 542	0 -
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 540	- 0
Stage 1	0 -	- 0
Stage 2	0 -	- 0
Platoon blocked, %		-
Mov Cap-1 Maneuver	- 540	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	WB	NB
HCM Control Delay, s	12.3	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBTWBLn1
Capacity (veh/h)	- 540
HCM Lane V/C Ratio	- 0.083
HCM Control Delay (s)	- 12.3
HCM Lane LOS	- B
HCM 95th %tile Q(veh)	- 0.3

Lanes, Volumes, Timings
55: Humboldt Parkway NB & Northland Ave

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	63	474	63	0	0
Future Volume (vph)	0	63	474	63	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865	0.865	0.984			
Flt Protected						
Satd. Flow (prot)	0	1611	1833	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1833	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	1020		1024			1019
Travel Time (s)	23.2		23.3			23.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	68	515	68	0	0
Shared Lane Traffic (%)		10%				
Lane Group Flow (vph)	7	61	583	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	39.3%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
55: Humboldt Parkway NB & Northland Ave

03/21/2022

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	63	474	63	0	0
Future Vol, veh/h	0	63	474	63	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	68	515	68	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	549	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	535	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	535	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	12.7		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		-		535	
HCM Lane V/C Ratio	-		-		0.128	
HCM Control Delay (s)	-		-		12.7	
HCM Lane LOS	-		-		B	
HCM 95th %tile Q(veh)	-		-		0.4	

Lanes, Volumes, Timings
56: Roehrer Ave & E Ferry St

03/21/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	346	10	16	543	2	21
Future Volume (vph)	346	10	16	543	2	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.876	
Flt Protected				0.999	0.996	
Satd. Flow (prot)	1855	0	0	1861	1625	0
Flt Permitted				0.999	0.996	
Satd. Flow (perm)	1855	0	0	1861	1625	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1109			280	1331	
Travel Time (s)	25.2			6.4	30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	376	11	17	590	2	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	387	0	0	607	25	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	51.5%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	346	10	16	543	2	21
Future Vol, veh/h	346	10	16	543	2	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	376	11	17	590	2	23
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	387	0	1006	382
Stage 1	-	-	-	-	382	-
Stage 2	-	-	-	-	624	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1171	-	267	665
Stage 1	-	-	-	-	690	-
Stage 2	-	-	-	-	534	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1171	-	261	665
Mov Cap-2 Maneuver	-	-	-	-	261	-
Stage 1	-	-	-	-	690	-
Stage 2	-	-	-	-	522	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		11.4	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	586	-	-	1171	-	
HCM Lane V/C Ratio	0.043	-	-	0.015	-	
HCM Control Delay (s)	11.4	-	-	8.1	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Lanes, Volumes, Timings
57: Roehrer Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	118	0	2	137	7	3	11	4	2	13	4
Future Volume (vph)	4	118	0	2	137	7	3	11	4	2	13	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.993			0.972			0.973	
Flt Protected		0.998			0.999			0.992			0.995	
Satd. Flow (prot)	0	1859	0	0	1848	0	0	1796	0	0	1803	0
Flt Permitted		0.998			0.999			0.992			0.995	
Satd. Flow (perm)	0	1859	0	0	1848	0	0	1796	0	0	1803	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1295			274			1342			1331	
Travel Time (s)		29.4			6.2			30.5			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	128	0	2	149	8	3	12	4	2	14	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	132	0	0	159	0	0	19	0	0	20	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	18.5%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	4	118	0	2	137	7	3	11	4	2	13	4
Future Vol, veh/h	4	118	0	2	137	7	3	11	4	2	13	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	128	0	2	149	8	3	12	4	2	14	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	8	7.6	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	3%	1%	11%
Vol Thru, %	61%	97%	94%	68%
Vol Right, %	22%	0%	5%	21%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	18	122	146	19
LT Vol	3	4	2	2
Through Vol	11	118	137	13
RT Vol	4	0	7	4
Lane Flow Rate	20	133	159	21
Geometry Grp	1	1	1	1
Degree of Util (X)	0.024	0.152	0.18	0.026
Departure Headway (Hd)	4.491	4.129	4.076	4.484
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	802	861	873	803
Service Time	2.492	2.192	2.135	2.484
HCM Lane V/C Ratio	0.025	0.154	0.182	0.026
HCM Control Delay	7.6	7.9	8	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.5	0.7	0.1

Lanes, Volumes, Timings
58: Wohlers Ave & Northampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	68	3	2	83	10	12	35	6	16	18	7
Future Volume (vph)	9	68	3	2	83	10	12	35	6	16	18	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.986			0.984			0.976	
Flt Protected		0.994			0.999			0.989			0.981	
Satd. Flow (prot)	0	1842	0	0	1835	0	0	1813	0	0	1783	0
Flt Permitted		0.994			0.999			0.989			0.981	
Satd. Flow (perm)	0	1842	0	0	1835	0	0	1813	0	0	1783	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		276			1045			1317			1331	
Travel Time (s)		6.3			23.8			29.9			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	74	3	2	90	11	13	38	7	17	20	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	87	0	0	103	0	0	58	0	0	45	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	19.1%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	9	68	3	2	83	10	12	35	6	16	18	7
Future Vol, veh/h	9	68	3	2	83	10	12	35	6	16	18	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	74	3	2	90	11	13	38	7	17	20	8
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.8	7.8	7.7	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	11%	2%	39%
Vol Thru, %	66%	85%	87%	44%
Vol Right, %	11%	4%	11%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	53	80	95	41
LT Vol	12	9	2	16
Through Vol	35	68	83	18
RT Vol	6	3	10	7
Lane Flow Rate	58	87	103	45
Geometry Grp	1	1	1	1
Degree of Util (X)	0.07	0.101	0.118	0.054
Departure Headway (Hd)	4.382	4.191	4.119	4.395
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	822	843	858	820
Service Time	2.383	2.28	2.205	2.396
HCM Lane V/C Ratio	0.071	0.103	0.12	0.055
HCM Control Delay	7.7	7.8	7.8	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.3	0.4	0.2

Lanes, Volumes, Timings
59: Roehrer Ave & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	71	2	3	83	4	4	15	2	4	15	0
Future Volume (vph)	0	71	2	3	83	4	4	15	2	4	15	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.994			0.988				
Flt Protected					0.998			0.991			0.990	
Satd. Flow (prot)	0	1857	0	0	1848	0	0	1824	0	0	1844	0
Flt Permitted					0.998			0.991			0.990	
Satd. Flow (perm)	0	1857	0	0	1848	0	0	1824	0	0	1844	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1290			276			1313			1342	
Travel Time (s)		29.3			6.3			29.8			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	77	2	3	90	4	4	16	2	4	16	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	79	0	0	97	0	0	22	0	0	20	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	17.1%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection												
Intersection Delay, s/veh	7.5											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	71	2	3	83	4	4	15	2	4	15	0
Future Vol, veh/h	0	71	2	3	83	4	4	15	2	4	15	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	77	2	3	90	4	4	16	2	4	16	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.6	7.4	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	0%	3%	21%
Vol Thru, %	71%	97%	92%	79%
Vol Right, %	10%	3%	4%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	73	90	19
LT Vol	4	0	3	4
Through Vol	15	71	83	15
RT Vol	2	2	4	0
Lane Flow Rate	23	79	98	21
Geometry Grp	1	1	1	1
Degree of Util (X)	0.027	0.09	0.11	0.025
Departure Headway (Hd)	4.237	4.066	4.049	4.3
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	833	877	881	821
Service Time	2.323	2.113	2.092	2.387
HCM Lane V/C Ratio	0.028	0.09	0.111	0.026
HCM Control Delay	7.4	7.5	7.6	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.3	0.4	0.1

Lanes, Volumes, Timings
60: Best St & Wohlers Ave

03/21/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	3	452	590	25	19	4
Future Volume (vph)	3	452	590	25	19	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995		0.978	
Flt Protected					0.960	
Satd. Flow (prot)	0	1863	1853	0	1749	0
Flt Permitted					0.960	
Satd. Flow (perm)	0	1863	1853	0	1749	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		280	473		1317	
Travel Time (s)		6.4	10.8		29.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	491	641	27	21	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	494	668	0	25	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

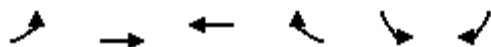
Intersection Capacity Utilization 42.6% ICU Level of Service A

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	452	590	25	19	4
Future Vol, veh/h	3	452	590	25	19	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	491	641	27	21	4
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	668	0	-	0	1152	655
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	497	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	922	-	-	-	219	466
Stage 1	-	-	-	-	517	-
Stage 2	-	-	-	-	611	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	922	-	-	-	218	466
Mov Cap-2 Maneuver	-	-	-	-	218	-
Stage 1	-	-	-	-	515	-
Stage 2	-	-	-	-	611	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		21.7		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	922	-	-	-	240	
HCM Lane V/C Ratio	0.004	-	-	-	0.104	
HCM Control Delay (s)	8.9	0	-	-	21.7	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.3	

Lanes, Volumes, Timings
61: Best St & Roehrer Ave

03/21/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	480	532	19	15	7
Future Volume (vph)	4	480	532	19	15	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995		0.955	
Flt Protected					0.968	
Satd. Flow (prot)	0	1863	1853	0	1722	0
Flt Permitted					0.968	
Satd. Flow (perm)	0	1863	1853	0	1722	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1123	280		1313	
Travel Time (s)		25.5	6.4		29.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	522	578	21	16	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	526	599	0	24	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 39.2% ICU Level of Service A

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	480	532	19	15	7
Future Vol, veh/h	4	480	532	19	15	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	522	578	21	16	8
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	599	0	-	0	1119	589
Stage 1	-	-	-	-	589	-
Stage 2	-	-	-	-	530	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	978	-	-	-	229	508
Stage 1	-	-	-	-	554	-
Stage 2	-	-	-	-	590	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	978	-	-	-	228	508
Mov Cap-2 Maneuver	-	-	-	-	228	-
Stage 1	-	-	-	-	551	-
Stage 2	-	-	-	-	590	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		19.3		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	978	-	-	-	276	
HCM Lane V/C Ratio	0.004	-	-	-	0.087	
HCM Control Delay (s)	8.7	0	-	-	19.3	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.3	

Lanes, Volumes, Timings
62: Jefferson Ave & Eaton St/Kingsley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	9	3	3	14	1	4	192	1	5	223	4
Future Volume (vph)	2	9	3	3	14	1	4	192	1	5	223	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.993			0.999			0.998	
Flt Protected		0.993			0.992			0.999			0.999	
Satd. Flow (prot)	0	1800	0	0	1835	0	0	1859	0	0	1857	0
Flt Permitted								0.996			0.996	
Satd. Flow (perm)	0	1812	0	0	1850	0	0	1853	0	0	1852	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			1			1			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		911			1129			278			418	
Travel Time (s)		20.7			25.7			6.3			9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	10	3	3	15	1	4	209	1	5	242	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	0	19	0	0	214	0	0	251	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		5.9			6.0			34.9			34.9	
Actuated g/C Ratio		0.16			0.16			0.92			0.92	
v/c Ratio		0.05			0.07			0.13			0.15	
Control Delay		13.0			13.9			1.6			1.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.0			13.9			1.6			1.6	
LOS		B			B			A			A	
Approach Delay		13.0			13.9			1.6			1.6	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		2			3			0			0	
Queue Length 95th (ft)		12			15			35			40	
Internal Link Dist (ft)		831			1049			198			338	
Turn Bay Length (ft)												
Base Capacity (vph)		863			879			1704			1704	

Lanes, Volumes, Timings

62: Jefferson Ave & Eaton St/Kingsley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.02			0.02			0.13			0.15	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 37.9

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.15

Intersection Signal Delay: 2.4

Intersection LOS: A

Intersection Capacity Utilization 26.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 62: Jefferson Ave & Eaton St/Kingsley St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
63: Humboldt Parkway SB & Winslow Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	16	21	21	16	0	0	0	0	21	384	21
Future Volume (vph)	0	16	21	21	16	0	0	0	0	21	384	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.922										0.993	
Flt Protected					0.972						0.998	
Satd. Flow (prot)	0	1717	0	0	1811	0	0	0	0	0	1846	0
Flt Permitted					0.972						0.998	
Satd. Flow (perm)	0	1717	0	0	1811	0	0	0	0	0	1846	0
Link Speed (mph)	30				30				30			
Link Distance (ft)	287				154				296			
Travel Time (s)	6.5				3.5				6.7			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	17	23	23	17	0	0	0	0	23	417	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	40	0	0	40	0	0	0	0	0	463	0
Sign Control	Stop				Stop				Stop			
Free												
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 38.0%												
ICU Level of Service A												
Analysis Period (min) 15												

HCM 6th TWSC
63: Humboldt Parkway SB & Winslow Ave

03/21/2022

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	16	21	21	16	0	0	0	0	21	384	21
Future Vol, veh/h	0	16	21	21	16	0	0	0	0	21	384	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	17	23	23	17	0	0	0	0	23	417	23
Major/Minor	Minor2		Minor1				Major2					
Conflicting Flow All	-	475	429	495	486	-				0	0	0
Stage 1	-	475	-	0	0	-				-	-	-
Stage 2	-	0	-	495	486	-				-	-	-
Critical Hdwy	-	6.52	6.22	7.12	6.52	-				4.12	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-				-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-				-	-	-
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-				2.218	-	-
Pot Cap-1 Maneuver	0	488	626	485	481	0				-	-	-
Stage 1	0	557	-	-	-	0				-	-	-
Stage 2	0	-	-	556	551	0				-	-	-
Platoon blocked, %											-	-
Mov Cap-1 Maneuver	-	488	626	454	481	-				-	-	-
Mov Cap-2 Maneuver	-	488	-	454	481	-				-	-	-
Stage 1	-	557	-	-	-	-				-	-	-
Stage 2	-	-	-	519	551	-				-	-	-
Approach	EB		WB				SB					
HCM Control Delay, s	12		13.5									
HCM LOS	B		B									
Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR							
Capacity (veh/h)	558 465		-	-	-							
HCM Lane V/C Ratio	0.072 0.086		-	-	-							
HCM Control Delay (s)	12 13.5		-	-	-							
HCM Lane LOS	B B		-	-	-							
HCM 95th %tile Q(veh)	0.2 0.3		-	-	-							

Lanes, Volumes, Timings
64: Humboldt Parkway NB & Winslow Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	21	0	0	21	16	16	245	16	0	0	0
Future Volume (vph)	16	21	0	0	21	16	16	245	16	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.943			0.992				
Flt Protected		0.979						0.997				
Satd. Flow (prot)	0	1824	0	0	1757	0	0	1842	0	0	0	0
Flt Permitted		0.979						0.997				
Satd. Flow (perm)	0	1824	0	0	1757	0	0	1842	0	0	0	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		154			330			461			268	
Travel Time (s)		3.5			7.5			10.5			6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	23	0	0	23	17	17	266	17	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	40	0	0	40	0	0	300	0	0	0	0
Sign Control		Stop			Stop			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	30.1%											
Analysis Period (min)	15											
ICU Level of Service A												

HCM 6th TWSC
64: Humboldt Parkway NB & Winslow Ave

03/21/2022

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	21	0	0	21	16	16	245	16	0	0	0
Future Vol, veh/h	16	21	0	0	21	16	16	245	16	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	23	0	0	23	17	17	266	17	0	0	0
Major/Minor	Minor2		Minor1		Major1							
Conflicting Flow All	329	317	-	-	309	275	0	0	0			
Stage 1	0	0	-	-	309	-	-	-	-			
Stage 2	329	317	-	-	0	-	-	-	-			
Critical Hdwy	7.12	6.52	-	-	6.52	6.22	4.12	-	-			
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-			
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-			
Follow-up Hdwy	3.518	4.018	-	-	4.018	3.318	2.218	-	-			
Pot Cap-1 Maneuver	624	599	0	0	605	764	-	-	-			
Stage 1	-	-	0	0	660	-	-	-	-			
Stage 2	684	654	0	0	-	-	-	-	-			
Platoon blocked, %								-	-			
Mov Cap-1 Maneuver	592	599	-	-	605	764	-	-	-			
Mov Cap-2 Maneuver	592	599	-	-	605	-	-	-	-			
Stage 1	-	-	-	-	660	-	-	-	-			
Stage 2	645	654	-	-	-	-	-	-	-			
Approach	EB		WB		NB							
HCM Control Delay, s	11.5		10.8									
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL		NBT		NBR		EBLn1WBLn1					
Capacity (veh/h)	-		-		-		596 665					
HCM Lane V/C Ratio	-		-		-		0.067 0.06					
HCM Control Delay (s)	-		-		-		11.5 10.8					
HCM Lane LOS	-		-		-		B B					
HCM 95th %tile Q(veh)	-		-		-		0.2 0.2					

Lanes, Volumes, Timings
118: Humboldt Parkway SB

03/21/2022

						
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	306			252	236	
Travel Time (s)	7.0			5.7	5.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	18.3%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	335	518	0	0	327	304	69	106	228	0	0	0
Future Volume (vph)	335	518	0	0	327	304	69	106	228	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		0	0		250	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.928				0.850			
Flt Protected	0.950	0.995						0.981				
Satd. Flow (prot)	1610	3373	0	0	3284	0	0	1827	1583	0	0	0
Flt Permitted	0.950	0.995						0.981				
Satd. Flow (perm)	1610	3373	0	0	3284	0	0	1827	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					232				248			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		249			205			354			335	
Travel Time (s)		5.7			4.7			8.0			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	364	563	0	0	355	330	75	115	248	0	0	0
Shared Lane Traffic (%)	18%											
Lane Group Flow (vph)	298	629	0	0	685	0	0	190	248	0	0	0
Turn Type	Split	NA			NA		Perm	NA	Perm			
Protected Phases	6	6			3			4				
Permitted Phases							4		4			
Detector Phase	6	6			3		4	4	4			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	44.2	44.2			22.5		23.3	23.3	23.3			
Total Split (%)	49.1%	49.1%			25.0%		25.9%	25.9%	25.9%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag					Lead		Lag	Lag	Lag			
Lead-Lag Optimize?					Yes		Yes	Yes	Yes			
Recall Mode	None	None			Max		C-Max	C-Max	C-Max			
Act Effct Green (s)	39.7	39.7			18.0			18.8	18.8			
Actuated g/C Ratio	0.44	0.44			0.20			0.21	0.21			
v/c Ratio	0.42	0.42			0.81			0.50	0.47			
Control Delay	5.1	4.7			31.5			36.7	7.5			
Queue Delay	2.5	1.4			35.6			0.0	0.0			
Total Delay	7.5	6.1			67.1			36.7	7.5			
LOS	A	A			E			D	A			
Approach Delay		6.5			67.1			20.1				
Approach LOS		A			E			C				
Queue Length 50th (ft)	23	23			131			96	0			
Queue Length 95th (ft)	m24	m25			#207			162	60			

Lanes, Volumes, Timings
1: EB Off Ramp/EB On Ramp & Best St

03/21/2022

Lane Group	Ø1	Ø2	Ø8
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	1	2	8
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5
Total Split (s)	20.6	23.6	45.8
Total Split (%)	23%	26%	51%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	None	None	C-Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		169			125			274			255	
Turn Bay Length (ft)	75								250			
Base Capacity (vph)	710	1487			842			381	526			
Starvation Cap Reductn	288	625			197			0	0			
Spillback Cap Reductn	0	0			0			0	0			
Storage Cap Reductn	0	0			0			0	0			
Reduced v/c Ratio	0.71	0.73			1.06			0.50	0.47			

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.01

Intersection Signal Delay: 29.7

Intersection LOS: C

Intersection Capacity Utilization 81.4%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: EB Off Ramp/EB On Ramp & Best St

#2  Ø1 20.6 s	#2  Ø2 23.6 s	#1  Ø3 22.5 s	#1  Ø4 (R) 23.3 s
#1  Ø6 44.2 s	#2  Ø8 (R) 45.8 s		

Lane Group	Ø1	Ø2	Ø8
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			
Intersection Summary			

Lanes, Volumes, Timings
2: WB On Ramp/WB Off Ramp & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	541	47	116	258	0	0	0	0	335	0	429
Future Volume (vph)	0	541	47	116	258	0	0	0	0	335	0	429
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	75		0	0		0	0		75
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988										0.850
Flt Protected				0.950							0.950	
Satd. Flow (prot)	0	3497	0	1770	3539	0	0	0	0	0	1770	1583
Flt Permitted				0.950							0.950	
Satd. Flow (perm)	0	3497	0	1770	3539	0	0	0	0	0	1770	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9										260
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		473			249			324			375	
Travel Time (s)		10.8			5.7			7.4			8.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	588	51	126	280	0	0	0	0	364	0	466
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	639	0	126	280	0	0	0	0	0	364	466
Turn Type		NA		Split	NA					Perm	NA	Perm
Protected Phases		1		8	8						2	
Permitted Phases										2		2
Detector Phase		1		8	8					2	2	2
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		9.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		20.6		45.8	45.8					23.6	23.6	23.6
Total Split (%)		22.9%		50.9%	50.9%					26.2%	26.2%	26.2%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5						4.5	4.5
Lead/Lag		Lead								Lag	Lag	Lag
Lead-Lag Optimize?		Yes								Yes	Yes	Yes
Recall Mode		None		C-Max	C-Max					None	None	None
Act Effct Green (s)		16.1		41.3	41.3						19.1	19.1
Actuated g/C Ratio		0.18		0.46	0.46						0.21	0.21
v/c Ratio		1.01		0.16	0.17						0.97	0.86
Control Delay		76.3		4.6	4.5						76.9	32.7
Queue Delay		0.0		0.7	0.4						0.0	0.0
Total Delay		76.3		5.3	5.0						76.9	32.7
LOS		E		A	A						E	C
Approach Delay		76.3			5.1						52.1	
Approach LOS		E			A						D	
Queue Length 50th (ft)		~193		11	13						207	116
Queue Length 95th (ft)		#312		m14	m15						#380	#294

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

03/21/2022

Lane Group	Ø3	Ø4	Ø6
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	3	4	6
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	22.5	23.3	44.2
Total Split (%)	25%	26%	49%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	Max	C-Max	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		393			169			244			295	
Turn Bay Length (ft)				75								75
Base Capacity (vph)		632		812	1624						375	540
Starvation Cap Reductn		0		462	914						0	0
Spillback Cap Reductn		0		0	0						0	0
Storage Cap Reductn		0		0	0						0	0
Reduced v/c Ratio		1.01		0.36	0.39						0.97	0.86

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.01

Intersection Signal Delay: 50.2

Intersection LOS: D

Intersection Capacity Utilization 81.4%

ICU Level of Service D

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: WB On Ramp/WB Off Ramp & Best St

#2  Ø1 20.6 s	#2  Ø2 23.6 s	#1  Ø3 22.5 s	#1  Ø4 (R) 23.3 s
#1  Ø6 44.2 s	#2  Ø8 (R) 45.8 s		

Lane Group	Ø3	Ø4	Ø6
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			
Intersection Summary			

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/21/2022

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	50	5	579	102	42	524	2	25	60	21	6	1
Future Volume (vph)	50	5	579	102	42	524	2	25	60	21	6	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		75		0	0		0		0		0	
Storage Lanes		1		1	0		0		0		0	
Taper Length (ft)		25			25				25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.994				0.989		
Flt Protected		0.950				0.996				0.967		
Satd. Flow (prot)	0	1770	1863	1583	0	1844	0	0	0	1781	0	0
Flt Permitted		0.262				0.928				0.784		
Satd. Flow (perm)	0	488	1863	1583	0	1718	0	0	0	1444	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)				111		4				1		
Link Speed (mph)			30			30				30		
Link Distance (ft)			205			1418				1329		
Travel Time (s)			4.7			32.2				30.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	5	629	111	46	570	2	27	65	23	7	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	59	629	111	0	645	0	0	0	96	0	0
Turn Type	pm+pt	pm+pt	NA	Perm	Perm	NA			Perm	NA		
Protected Phases	7	7	4			8				2		
Permitted Phases	4	4		4	8				2			
Detector Phase	7	7	4	4	8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0			5.0	5.0		
Minimum Split (s)	9.5	9.5	22.5	22.5	22.5	22.5			22.5	22.5		
Total Split (s)	9.5	9.5	42.5	42.5	33.0	33.0			22.5	22.5		
Total Split (%)	14.6%	14.6%	65.4%	65.4%	50.8%	50.8%			34.6%	34.6%		
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5			3.5	3.5		
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0		
Lost Time Adjust (s)		0.0	0.0	0.0		0.0				0.0		
Total Lost Time (s)		4.5	4.5	4.5		4.5				4.5		
Lead/Lag	Lead	Lead			Lag	Lag						
Lead-Lag Optimize?	Yes	Yes			Yes	Yes						
Recall Mode	None	None	None	None	None	None			C-Max	C-Max		
Act Effct Green (s)		32.7	32.7	32.7		27.0				23.3		
Actuated g/C Ratio		0.50	0.50	0.50		0.42				0.36		
v/c Ratio		0.17	0.67	0.13		0.90				0.19		
Control Delay		7.5	15.3	1.8		35.7				18.5		
Queue Delay		0.0	42.6	0.0		0.0				0.0		
Total Delay		7.5	57.9	1.8		35.7				18.5		
LOS		A	E	A		D				B		
Approach Delay			46.4			35.7				18.5		
Approach LOS			D			D				B		
Queue Length 50th (ft)		9	139	0		217				29		
Queue Length 95th (ft)		22	224	16		#411				64		

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/21/2022



Lane Group	SBL	SBT	SBR
Lane Configurations		↰	↱
Traffic Volume (vph)	55	34	69
Future Volume (vph)	55	34	69
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	0		100
Storage Lanes	0		1
Taper Length (ft)	25		
Lane Util. Factor	1.00	1.00	1.00
Frt			0.850
Flt Protected		0.970	
Satd. Flow (prot)	0	1807	1583
Flt Permitted		0.803	
Satd. Flow (perm)	0	1496	1583
Right Turn on Red			Yes
Satd. Flow (RTOR)			101
Link Speed (mph)		30	
Link Distance (ft)		738	
Travel Time (s)		16.8	
Peak Hour Factor	0.92	0.92	0.92
Adj. Flow (vph)	60	37	75
Shared Lane Traffic (%)			
Lane Group Flow (vph)	0	97	75
Turn Type	Perm	NA	Perm
Protected Phases		6	
Permitted Phases	6		6
Detector Phase	6	6	6
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5
Total Split (%)	34.6%	34.6%	34.6%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0
Total Lost Time (s)		4.5	4.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	C-Max
Act Effct Green (s)		23.3	23.3
Actuated g/C Ratio		0.36	0.36
v/c Ratio		0.18	0.12
Control Delay		18.6	3.4
Queue Delay		0.0	0.0
Total Delay		18.6	3.4
LOS		B	A
Approach Delay		11.9	
Approach LOS		B	
Queue Length 50th (ft)		30	0
Queue Length 95th (ft)		64	18

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/21/2022

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Internal Link Dist (ft)			125			1338				1249		
Turn Bay Length (ft)		75										
Base Capacity (vph)		343	1089	971		755				518		
Starvation Cap Reductn		0	503	0		0				0		
Spillback Cap Reductn		0	0	0		0				0		
Storage Cap Reductn		0	0	0		0				0		
Reduced v/c Ratio		0.17	1.07	0.11		0.85				0.19		

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 37.4

Intersection LOS: D

Intersection Capacity Utilization 83.1%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Herman St/W Parade Ave & Best St

 Ø2 (R)	 Ø4
22.5 s	42.5 s
 Ø6 (R)	 Ø7
22.5 s	9.5 s
	 Ø8
	33 s

Lanes, Volumes, Timings
3: Herman St/W Parade Ave & Best St

03/21/2022

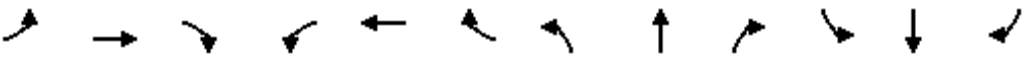


Lane Group	SBL	SBT	SBR
Internal Link Dist (ft)		658	
Turn Bay Length (ft)			100
Base Capacity (vph)		536	632
Starvation Cap Reductn		0	0
Spillback Cap Reductn		0	0
Storage Cap Reductn		0	0
Reduced v/c Ratio		0.18	0.12
Intersection Summary			

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	71	1	4	47	0	0	0	0	195	172	66
Future Volume (vph)	0	71	1	4	47	0	0	0	0	195	172	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.998										0.979	
Flt Protected	0.996										0.978	
Satd. Flow (prot)	0	1859	0	0	1855	0	0	0	0	0	1784	0
Flt Permitted	0.973										0.978	
Satd. Flow (perm)	0	1859	0	0	1812	0	0	0	0	0	1784	0
Right Turn on Red	Yes Yes Yes Yes Yes Yes											
Satd. Flow (RTOR)	1										23	
Link Speed (mph)	30										30	
Link Distance (ft)	1045										293	
Travel Time (s)	23.8										6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	77	1	4	51	0	0	0	0	212	187	72
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	78	0	0	55	0	0	0	0	0	471	0
Turn Type	NA Perm NA Perm NA											
Protected Phases	4 8 6											
Permitted Phases	8 6											
Detector Phase	4 8 8 6 6											
Switch Phase												
Minimum Initial (s)	5.0 5.0 5.0 5.0 5.0											
Minimum Split (s)	22.5 22.5 22.5 22.5 22.5											
Total Split (s)	24.0 24.0 24.0 31.0 31.0											
Total Split (%)	43.6% 43.6% 43.6% 56.4% 56.4%											
Yellow Time (s)	3.5 3.5 3.5 3.5 3.5											
All-Red Time (s)	1.0 1.0 1.0 1.0 1.0											
Lost Time Adjust (s)	0.0 0.0 0.0 0.0 0.0											
Total Lost Time (s)	4.5 4.5 4.5 4.5 4.5											
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None None None Max Max											
Act Effect Green (s)	8.1 8.1 30.3											
Actuated g/C Ratio	0.18 0.18 0.68											
v/c Ratio	0.23 0.17 0.39											
Control Delay	16.5 9.8 5.6											
Queue Delay	0.0 0.0 0.0											
Total Delay	16.5 9.8 5.6											
LOS	B A A											
Approach Delay	16.5 9.8 5.6											
Approach LOS	B A A											
Queue Length 50th (ft)	16 6 46											
Queue Length 95th (ft)	42 12 108											
Internal Link Dist (ft)	965 203 290 213											
Turn Bay Length (ft)												
Base Capacity (vph)	814 793 1220											

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/21/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	31.0
Total Split (%)	56%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0						0	
Spillback Cap Reductn		0			0						0	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.10			0.07						0.39	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 44.6

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 7.4

Intersection LOS: A

Intersection Capacity Utilization 37.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: Humboldt Parkway SB & Northhampton St

#5  Ø2	#4 #5  Ø4
31 s	24 s
#4  Ø6	#4 #5  Ø8
31 s	24 s

Lane Group	Ø2
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	76	0	0	83	22	5	21	9	0	0	0
Future Volume (vph)	23	76	0	0	83	22	5	21	9	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.972			0.964				
Fl _t Protected		0.989						0.993				
Satd. Flow (prot)	0	1842	0	0	1811	0	0	1783	0	0	0	0
Fl _t Permitted		0.889						0.993				
Satd. Flow (perm)	0	1656	0	0	1811	0	0	1783	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					24			10				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		283			1089			152				722
Travel Time (s)		6.4			24.8			3.5				16.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	25	83	0	0	90	24	5	23	10	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	108	0	0	114	0	0	38	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (s)	24.0	24.0			24.0		31.0	31.0				
Total Split (%)	43.6%	43.6%			43.6%		56.4%	56.4%				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max				
Act Effct Green (s)		8.1			8.1			30.3				
Actuated g/C Ratio		0.18			0.18			0.68				
v/c Ratio		0.36			0.33			0.03				
Control Delay		16.9			15.3			3.5				
Queue Delay		0.0			0.0			0.0				
Total Delay		16.9			15.3			3.5				
LOS		B			B			A				
Approach Delay		16.9			15.3			3.5				
Approach LOS		B			B			A				
Queue Length 50th (ft)		22			19			2				
Queue Length 95th (ft)		54			51			11				
Internal Link Dist (ft)		203			1009			72			642	
Turn Bay Length (ft)												
Base Capacity (vph)		725			806			1215				

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

03/21/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	31.0
Total Split (%)	56%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.15			0.14			0.03				

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 44.6

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 14.2

Intersection LOS: B

Intersection Capacity Utilization 23.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Humboldt Parkway NB & Northhampton St

#5  Ø2	#4 #5  Ø4
31 s	24 s
#4  Ø6	#4 #5  Ø8
31 s	24 s

Lane Group	Ø6
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
6: Humboldt Parkway SB & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰		↰	↰						↰↰	
Traffic Volume (vph)	0	87	35	57	82	0	0	0	0	50	349	60
Future Volume (vph)	0	87	35	57	82	0	0	0	0	50	349	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.961									0.980	
Flt Protected				0.950							0.995	
Satd. Flow (prot)	0	1790	0	1770	1863	0	0	0	0	0	3451	0
Flt Permitted				0.672							0.995	
Satd. Flow (perm)	0	1790	0	1252	1863	0	0	0	0	0	3451	0
Right Turn on Red			Yes			Yes				Yes		Yes
Satd. Flow (RTOR)		38									44	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1173			153			636			456	
Travel Time (s)		26.7			3.5			14.5			10.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	95	38	62	89	0	0	0	0	54	379	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	133	0	62	89	0	0	0	0	0	498	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		4.5		4.5	4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					Max	Max	
Act Effct Green (s)		7.9		7.9	7.9						21.8	
Actuated g/C Ratio		0.22		0.22	0.22						0.61	
v/c Ratio		0.31		0.22	0.22						0.24	
Control Delay		10.4		9.0	8.4						4.9	
Queue Delay		0.0		0.0	0.0						0.0	
Total Delay		10.4		9.1	8.4						4.9	
LOS		B		A	A						A	
Approach Delay		10.4			8.7						4.9	
Approach LOS		B			A						A	
Queue Length 50th (ft)		15		6	9						20	
Queue Length 95th (ft)		41		19	23						48	

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

03/21/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1093			73			556			376	
Turn Bay Length (ft)												
Base Capacity (vph)		916		628	934						2107	
Starvation Cap Reductn		0		77	192						0	
Spillback Cap Reductn		0		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		0.15		0.11	0.12						0.24	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.33

Intersection Signal Delay: 6.6

Intersection LOS: A

Intersection Capacity Utilization 48.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: Humboldt Parkway SB & E Utica St

#7  Ø2	#6 #7  Ø4
22.5 s	22.5 s
#6  Ø6	#6 #7  Ø8
22.5 s	22.5 s

Lane Group	Ø2
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	57	97	0	0	109	17	61	176	43	0	0	0
Future Volume (vph)	57	97	0	0	109	17	61	176	43	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.982				0.850			
Flt Protected	0.950							0.987				
Satd. Flow (prot)	1770	1863	0	0	1829	0	0	1839	1583	0	0	0
Flt Permitted	0.670							0.987				
Satd. Flow (perm)	1248	1863	0	0	1829	0	0	1839	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					18				47			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		153			1083			610			294	
Travel Time (s)		3.5			24.6			13.9			6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	62	105	0	0	118	18	66	191	47	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	62	105	0	0	136	0	0	257	47	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max	Max			
Act Effct Green (s)	7.9	7.9			7.9			21.8	21.8			
Actuated g/C Ratio	0.22	0.22			0.22			0.61	0.61			
v/c Ratio	0.23	0.26			0.33			0.23	0.05			
Control Delay	10.0	9.7			12.1			5.9	2.4			
Queue Delay	0.0	0.0			0.0			0.0	0.0			
Total Delay	10.1	9.8			12.1			5.9	2.4			
LOS	B	A			B			A	A			
Approach Delay		9.9			12.1			5.4				
Approach LOS		A			B			A				
Queue Length 50th (ft)	7	12			18			22	0			
Queue Length 95th (ft)	20	29			46			63	10			
Internal Link Dist (ft)		73			1003			530			214	
Turn Bay Length (ft)												
Base Capacity (vph)	626	934			926			1114	977			

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

03/21/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	79	190			0			0	0			
Spillback Cap Reductn	0	0			0			0	0			
Storage Cap Reductn	0	0			0			0	0			
Reduced v/c Ratio	0.11	0.14			0.15			0.23	0.05			

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.33

Intersection Signal Delay: 8.1

Intersection LOS: A

Intersection Capacity Utilization 48.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 7: Humboldt Parkway NB & E Utica St

#7  Ø2 22.5 s	#6 #7  Ø4 22.5 s
#6  Ø6 22.5 s	#6 #7  Ø8 22.5 s

Lane Group	Ø6
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
8: Humboldt Parkway SB & E Ferry St

03/21/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰		↰	↰						↰	↰
Traffic Volume (vph)	0	286	53	86	157	0	0	0	0	241	356	431
Future Volume (vph)	0	286	53	86	157	0	0	0	0	241	356	431
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't	0.979											0.850
Flt Protected				0.950							0.980	
Satd. Flow (prot)	0	1824	0	1770	1863	0	0	0	0	0	1825	1583
Flt Permitted				0.431							0.980	
Satd. Flow (perm)	0	1824	0	803	1863	0	0	0	0	0	1825	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22										468
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1179			147			319			270	
Travel Time (s)		26.8			3.3			7.3			6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	311	58	93	171	0	0	0	0	262	387	468
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	369	0	93	171	0	0	0	0	0	649	468
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		24.0		24.0	24.0					26.0	26.0	26.0
Total Split (%)		48.0%		48.0%	48.0%					52.0%	52.0%	52.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					Max	Max	Max
Act Effct Green (s)		16.7		16.7	16.7						21.7	21.7
Actuated g/C Ratio		0.35		0.35	0.35						0.46	0.46
v/c Ratio		0.56		0.33	0.26						0.78	0.48
Control Delay		15.1		8.2	6.1						21.3	3.1
Queue Delay		0.2		0.6	0.7						5.6	0.0
Total Delay		15.3		8.8	6.8						26.8	3.1
LOS		B		A	A						C	A
Approach Delay		15.3			7.5						16.9	
Approach LOS		B			A						B	
Queue Length 50th (ft)		73		8	15						158	0
Queue Length 95th (ft)		136		18	27						#328	41
Internal Link Dist (ft)		1099			67			239			190	
Turn Bay Length (ft)												
Base Capacity (vph)		768		333	772						833	977

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/21/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	26.0
Total Split (%)	52%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0		79	352						0	0
Spillback Cap Reductn		69		0	0						132	0
Storage Cap Reductn		0		0	0						0	0
Reduced v/c Ratio		0.53		0.37	0.41						0.93	0.48

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 47.4

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 15.1

Intersection LOS: B

Intersection Capacity Utilization 88.4%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 8: Humboldt Parkway SB & E Ferry St

#9  Ø2	#8 #9  Ø4
26 s	24 s
#8  Ø6	#8 #9  Ø8
26 s	24 s

Lane Group	Ø2
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
9: Humboldt Parkway NB & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	238	292	0	0	222	66	46	197	39	0	0	0
Future Volume (vph)	238	292	0	0	222	66	46	197	39	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	75		0	0		0
Storage Lanes	1		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.969				0.850			
Flt Protected	0.950							0.991				
Satd. Flow (prot)	1770	1863	0	0	1805	0	0	1846	1583	0	0	0
Flt Permitted	0.503							0.991				
Satd. Flow (perm)	937	1863	0	0	1805	0	0	1846	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					35				42			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		147			1082			312			608	
Travel Time (s)		3.3			24.6			7.1			13.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	259	317	0	0	241	72	50	214	42	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	259	317	0	0	313	0	0	264	42	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	24.0	24.0			24.0		26.0	26.0	26.0			
Total Split (%)	48.0%	48.0%			48.0%		52.0%	52.0%	52.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max	Max			
Act Effct Green (s)	16.7	16.7			16.7			21.7	21.7			
Actuated g/C Ratio	0.35	0.35			0.35			0.46	0.46			
v/c Ratio	0.79	0.48			0.48			0.31	0.06			
Control Delay	27.3	10.8			12.9			10.4	3.7			
Queue Delay	2.6	2.1			0.0			0.0	0.0			
Total Delay	29.9	12.9			12.9			10.4	3.7			
LOS	C	B			B			B	A			
Approach Delay		20.6			12.9			9.5				
Approach LOS		C			B			A				
Queue Length 50th (ft)	46	56			56			48	0			
Queue Length 95th (ft)	m#132	m#81			109			91	13			

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

03/21/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	26.0
Total Split (%)	52%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		67			1002			232			528	
Turn Bay Length (ft)												
Base Capacity (vph)	388	772			768			843	746			
Starvation Cap Reductn	54	314			0			0	0			
Spillback Cap Reductn	0	0			0			0	0			
Storage Cap Reductn	0	0			0			0	0			
Reduced v/c Ratio	0.78	0.69			0.41			0.31	0.06			

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 47.4

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 15.7

Intersection LOS: B

Intersection Capacity Utilization 88.4%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Humboldt Parkway NB & E Ferry St

#9  Ø2	#8 #9  Ø4
26 s	24 s
#8  Ø6	#8 #9  Ø8
26 s	24 s

Lane Group	Ø6
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

03/21/2022

														
Lane Group	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	Ø8			
Lane Configurations														
Traffic Volume (vph)	13	0	0	355	217	143	544	0	0	0				
Future Volume (vph)	13	0	0	355	217	143	544	0	0	0				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00				
Frts				0.943										
Flt Protected	0.950						0.990							
Satd. Flow (prot)	1770	0	0	3337	0	0	3504	0	0	0				
Flt Permitted	0.950						0.706							
Satd. Flow (perm)	1770	0	0	3337	0	0	2499	0	0	0				
Right Turn on Red		Yes			Yes			Yes						
Satd. Flow (RTOR)				236										
Link Speed (mph)	30			30			30		30					
Link Distance (ft)	537			328			271		387					
Travel Time (s)	12.2			7.5			6.2		8.8					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92				
Adj. Flow (vph)	14	0	0	386	236	155	591	0	0	0				
Shared Lane Traffic (%)														
Lane Group Flow (vph)	14	0	0	622	0	0	746	0	0	0				
Turn Type	Prot			NA		Perm	NA							
Protected Phases	4			2			6							
Permitted Phases						6								
Detector Phase	4			2		6	6							
Switch Phase														
Minimum Initial (s)	5.0			5.0		5.0	5.0						5.0	
Minimum Split (s)	22.5			22.5		22.5	22.5						22.5	
Total Split (s)	23.0			52.0		52.0	52.0						23.0	
Total Split (%)	30.7%			69.3%		69.3%	69.3%						31%	
Yellow Time (s)	3.5			3.5		3.5	3.5						3.5	
All-Red Time (s)	1.0			1.0		1.0	1.0						1.0	
Lost Time Adjust (s)	0.0			0.0			0.0							
Total Lost Time (s)	4.5			4.5			4.5							
Lead/Lag														
Lead-Lag Optimize?														
Recall Mode	None			Max		Max	Max						None	
Act Effect Green (s)	18.5			47.5			47.5							
Actuated g/C Ratio	0.25			0.63			0.63							
v/c Ratio	0.03			0.28			0.47							
Control Delay	21.8			4.0			7.8							
Queue Delay	0.0			0.4			0.4							
Total Delay	21.8			4.4			8.3							
LOS	C			A			A							
Approach Delay	21.8			4.4			8.3							
Approach LOS	C			A			A							
Queue Length 50th (ft)	5			34			81							
Queue Length 95th (ft)	18			55			m84							
Internal Link Dist (ft)	457			248			191		307					
Turn Bay Length (ft)														
Base Capacity (vph)	436			2199			1582							

Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	Ø8
Starvation Cap Reductn	0			989			383				
Spillback Cap Reductn	0			0			0				
Storage Cap Reductn	0			0			0				
Reduced v/c Ratio	0.03			0.51			0.62				

Intersection Summary

Area Type: Other

Cycle Length: 75

Actuated Cycle Length: 75

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 1.51

Intersection Signal Delay: 6.7

Intersection LOS: A

Intersection Capacity Utilization 51.4%

ICU Level of Service A

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 10: Jefferson Ave & Cherry St & EB On Ramp

#10 #11 ↑ ↑ Ø2 52 s	#10 ↘ Ø4 23 s
#10 #11 ↓ ↓ Ø6 52 s	#11 ← Ø8 23 s

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Volume (vph)	0	0	0	255	22	396	42	316	0	0	413	21
Future Volume (vph)	0	0	0	255	22	396	42	316	0	0	413	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt					0.921						0.993	
Flt Protected					0.981			0.994				
Satd. Flow (prot)	0	0	0	0	1683	0	0	3518	0	0	3514	0
Flt Permitted					0.981			0.865				
Satd. Flow (perm)	0	0	0	0	1683	0	0	3061	0	0	3514	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					91						13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			384			271			880	
Travel Time (s)		12.9			8.7			6.2			20.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	277	24	430	46	343	0	0	449	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	731	0	0	389	0	0	472	0
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8			2					
Detector Phase				8	8		2	2			6	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				23.0	23.0		52.0	52.0			52.0	
Total Split (%)				30.7%	30.7%		69.3%	69.3%			69.3%	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)					18.5			47.5			47.5	
Actuated g/C Ratio					0.25			0.63			0.63	
v/c Ratio					1.51			0.20			0.21	
Control Delay					265.0			3.6			5.9	
Queue Delay					0.0			0.0			0.0	
Total Delay					265.0			3.6			5.9	
LOS					F			A			A	
Approach Delay					265.0			3.6			5.9	
Approach LOS					F			A			A	
Queue Length 50th (ft)					~454			17			41	
Queue Length 95th (ft)					#661			22			61	

Lanes, Volumes, Timings
11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/21/2022

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	23.0
Total Split (%)	31%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		487			304			191			800	
Turn Bay Length (ft)												
Base Capacity (vph)					483			1938			2230	
Starvation Cap Reductn					0			0			0	
Spillback Cap Reductn					2			0			109	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					1.52			0.20			0.22	

Intersection Summary

Area Type: Other

Cycle Length: 75

Actuated Cycle Length: 75

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 1.51

Intersection Signal Delay: 124.3

Intersection LOS: F

Intersection Capacity Utilization 72.9%

ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 11: Jefferson Ave & BFNC Dr/WB Off Ramp

#10 	#11 	#10 
52 s	Ø2	23 s
#10 	#11 	#11 
52 s	Ø6	23 s

Lane Group	Ø4
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
12: Jefferson Ave & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	105	13	85	194	43	9	457	27	29	437	69
Future Volume (vph)	44	105	13	85	194	43	9	457	27	29	437	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.988			0.980			0.992			0.981	
Flt Protected		0.987			0.987			0.999			0.997	
Satd. Flow (prot)	0	3451	0	0	3423	0	0	3507	0	0	3462	0
Flt Permitted		0.795			0.827			0.944			0.914	
Satd. Flow (perm)	0	2780	0	0	2868	0	0	3314	0	0	3173	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			46			15			43	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		737			2886			735			328	
Travel Time (s)		16.8			65.6			16.7			7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	48	114	14	92	211	47	10	497	29	32	475	75
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	176	0	0	350	0	0	536	0	0	582	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		9.2			9.2			18.4			18.4	
Actuated g/C Ratio		0.25			0.25			0.50			0.50	
v/c Ratio		0.25			0.46			0.32			0.36	
Control Delay		10.5			11.9			6.4			6.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.5			11.9			6.4			6.4	
LOS		B			B			A			A	
Approach Delay		10.5			11.9			6.4			6.4	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		13			26			27			28	
Queue Length 95th (ft)		28			50			61			64	
Internal Link Dist (ft)		657			2806			655			248	
Turn Bay Length (ft)												
Base Capacity (vph)		1375			1434			1672			1615	

Lanes, Volumes, Timings

12: Jefferson Ave & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.13			0.24			0.32			0.36	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36.7

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 8.0

Intersection LOS: A

Intersection Capacity Utilization 57.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 12: Jefferson Ave & Genesee St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
13: Herman St & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	202	3	15	415	11	19	61	5	44	124	16
Future Volume (vph)	13	202	3	15	415	11	19	61	5	44	124	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.996			0.993			0.989	
Flt Protected		0.997			0.998			0.989			0.988	
Satd. Flow (prot)	0	3522	0	0	3518	0	0	1829	0	0	1820	0
Flt Permitted		0.927			0.944			0.916			0.891	
Satd. Flow (perm)	0	3274	0	0	3328	0	0	1694	0	0	1641	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			7			5			12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2886			671			575			1329	
Travel Time (s)		65.6			15.3			13.1			30.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	220	3	16	451	12	21	66	5	48	135	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	237	0	0	479	0	0	92	0	0	200	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effct Green (s)		21.9			21.9			9.2			9.3	
Actuated g/C Ratio		0.59			0.59			0.25			0.25	
v/c Ratio		0.12			0.24			0.22			0.48	
Control Delay		5.6			6.0			11.2			14.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		5.6			6.0			11.2			14.7	
LOS		A			A			B			B	
Approach Delay		5.6			6.0			11.2			14.7	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)		11			24			13			31	
Queue Length 95th (ft)		28			55			35			69	
Internal Link Dist (ft)		2806			591			495			1249	
Turn Bay Length (ft)												
Base Capacity (vph)		1926			1959			822			800	

Lanes, Volumes, Timings

13: Herman St & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.12			0.24			0.11			0.25	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 37.3

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 8.1

Intersection LOS: A

Intersection Capacity Utilization 43.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 13: Herman St & Genesee St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
14: Reed St/Rich St & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	246	0	0	443	12	11	3	10	4	0	4
Future Volume (vph)	2	246	0	0	443	12	11	3	10	4	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.996			0.943			0.932	
Flt Protected								0.977			0.976	
Satd. Flow (prot)	0	3539	0	0	3525	0	0	1716	0	0	1694	0
Flt Permitted		0.953										
Satd. Flow (perm)	0	3373	0	0	3525	0	0	1757	0	0	1736	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7			11			36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		671			961			780			839	
Travel Time (s)		15.3			21.8			17.7			19.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	267	0	0	482	13	12	3	11	4	0	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	269	0	0	495	0	0	26	0	0	8	0
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2						8			4		
Detector Phase	2	2			6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		None	None		None	None	
Act Effct Green (s)		35.1			35.1			6.0			5.8	
Actuated g/C Ratio		0.92			0.92			0.16			0.15	
v/c Ratio		0.09			0.15			0.09			0.03	
Control Delay		1.3			1.4			11.7			1.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		1.3			1.4			11.7			1.3	
LOS		A			A			B			A	
Approach Delay		1.3			1.4			11.7			1.3	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)		0			0			3			0	
Queue Length 95th (ft)		20			35			17			2	
Internal Link Dist (ft)		591			881			700			759	
Turn Bay Length (ft)												
Base Capacity (vph)		3103			3244			837			841	

Lanes, Volumes, Timings
14: Reed St/Rich St & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.09			0.15			0.03			0.01	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 38.1

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.15

Intersection Signal Delay: 1.7

Intersection LOS: A

Intersection Capacity Utilization 24.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Reed St/Rich St & Genesee St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
15: Fillmore Ave & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	194	35	90	328	4	33	253	51	11	335	42
Future Volume (vph)	34	194	35	90	328	4	33	253	51	11	335	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.999			0.980			0.985	
Flt Protected		0.994			0.989			0.995			0.999	
Satd. Flow (prot)	0	3448	0	0	3497	0	0	1816	0	0	1833	0
Flt Permitted		0.860			0.814			0.938			0.987	
Satd. Flow (perm)	0	2983	0	0	2878	0	0	1712	0	0	1811	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38			2			24			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		961			671			704			490	
Travel Time (s)		21.8			15.3			16.0			11.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	211	38	98	357	4	36	275	55	12	364	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	286	0	0	459	0	0	366	0	0	422	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		11.5			11.5			18.1			18.1	
Actuated g/C Ratio		0.30			0.30			0.47			0.47	
v/c Ratio		0.31			0.53			0.45			0.49	
Control Delay		9.7			13.5			9.6			10.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.7			13.5			9.6			10.2	
LOS		A			B			A			B	
Approach Delay		9.7			13.5			9.6			10.2	
Approach LOS		A			B			A			B	
Queue Length 50th (ft)		20			42			41			51	
Queue Length 95th (ft)		40			71			116			137	
Internal Link Dist (ft)		881			591			624			410	
Turn Bay Length (ft)												
Base Capacity (vph)		1416			1348			814			856	

Lanes, Volumes, Timings

15: Fillmore Ave & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.20			0.34			0.45			0.49	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 38.7

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.53

Intersection Signal Delay: 11.0

Intersection LOS: B

Intersection Capacity Utilization 62.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 15: Fillmore Ave & Genesee St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
16: Fillmore Ave & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	345	161	2	389	15	126	222	9	18	236	43
Future Volume (vph)	41	345	161	2	389	15	126	222	9	18	236	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.995			0.997				0.850
Flt Protected		0.996						0.983			0.996	
Satd. Flow (prot)	0	1781	0	0	1853	0	0	1826	0	0	1855	1583
Flt Permitted		0.950			0.998			0.786			0.962	
Satd. Flow (perm)	0	1699	0	0	1850	0	0	1460	0	0	1792	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		53			5			3				47
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1418			567			490				61
Travel Time (s)		32.2			12.9			11.1				1.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	375	175	2	423	16	137	241	10	20	257	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	595	0	0	441	0	0	388	0	0	277	47
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (s)	26.0	26.0		26.0	26.0		24.0	24.0		24.0	24.0	24.0
Total Split (%)	52.0%	52.0%		52.0%	52.0%		48.0%	48.0%		48.0%	48.0%	48.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)		4.5			4.5			4.5			4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	C-Max
Act Effct Green (s)		19.7			19.7			21.3			21.3	21.3
Actuated g/C Ratio		0.39			0.39			0.43			0.43	0.43
v/c Ratio		0.85			0.60			0.62			0.36	0.07
Control Delay		25.9			15.4			18.1			3.2	0.2
Queue Delay		9.2			0.9			0.1			0.0	0.0
Total Delay		35.0			16.3			18.1			3.2	0.2
LOS		D			B			B			A	A
Approach Delay		35.0			16.3			18.1			2.8	
Approach LOS		D			B			B			A	
Queue Length 50th (ft)		127			89			89			3	0
Queue Length 95th (ft)		#287			159			#199			5	1
Internal Link Dist (ft)		1338			487			410			1	
Turn Bay Length (ft)												
Base Capacity (vph)		760			798			622			761	700

Lanes, Volumes, Timings
16: Fillmore Ave & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	0
Spillback Cap Reductn		137			148			8			0	0
Storage Cap Reductn		0			0			0			0	0
Reduced v/c Ratio		0.96			0.68			0.63			0.36	0.07

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 20.6

Intersection LOS: C

Intersection Capacity Utilization 99.3%

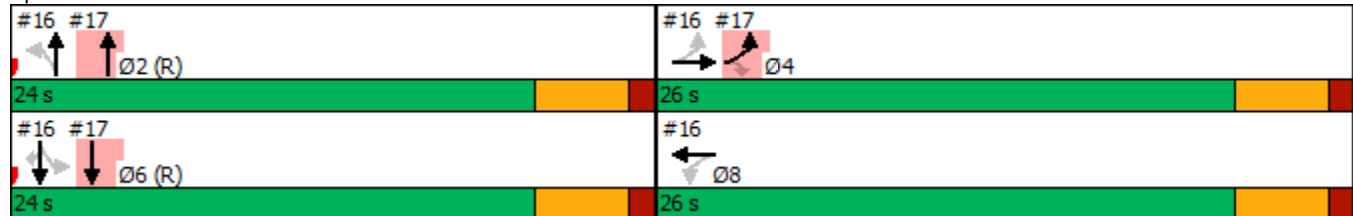
ICU Level of Service F

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: Fillmore Ave & Best St



Lanes, Volumes, Timings
17: Fillmore Ave & East Park

03/21/2022

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	5	3	0	275	298	0	
Future Volume (vph)	5	3	0	275	298	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	0			100	
Storage Lanes	1	1	0			1	
Taper Length (ft)	25		25				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	
Frt		0.850					
Flt Protected	0.950						
Satd. Flow (prot)	1770	1583	0	1863	3539	0	
Flt Permitted	0.950						
Satd. Flow (perm)	1770	1583	0	1863	3539	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		3					
Link Speed (mph)	30			30	30		
Link Distance (ft)	468			61	755		
Travel Time (s)	10.6			1.4	17.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	5	3	0	299	324	0	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	5	3	0	299	324	0	
Turn Type	Prot	Perm		NA	NA		
Protected Phases	4			2	6		8
Permitted Phases		4					
Detector Phase	4	4		2	6		
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5
Total Split (s)	26.0	26.0		24.0	24.0		26.0
Total Split (%)	52.0%	52.0%		48.0%	48.0%		52%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		
Total Lost Time (s)	4.5	4.5		4.5	4.5		
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None		C-Max	C-Max		None
Act Effct Green (s)	19.7	19.7		21.3	21.3		
Actuated g/C Ratio	0.39	0.39		0.43	0.43		
v/c Ratio	0.01	0.00		0.38	0.22		
Control Delay	8.2	6.0		5.4	10.3		
Queue Delay	0.0	0.0		0.0	0.0		
Total Delay	8.2	6.0		5.4	10.3		
LOS	A	A		A	B		
Approach Delay	7.4			5.4	10.3		
Approach LOS	A			A	B		
Queue Length 50th (ft)	1	0		23	32		
Queue Length 95th (ft)	5	3		m41	54		

Lanes, Volumes, Timings

17: Fillmore Ave & East Park

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Internal Link Dist (ft)	388			1	675		
Turn Bay Length (ft)							
Base Capacity (vph)	761	682		792	1504		
Starvation Cap Reductn	0	0		0	0		
Spillback Cap Reductn	0	0		0	81		
Storage Cap Reductn	0	0		0	0		
Reduced v/c Ratio	0.01	0.00		0.38	0.23		

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 7.9

Intersection LOS: A

Intersection Capacity Utilization 26.1%

ICU Level of Service A

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 17: Fillmore Ave & East Park

#16 #17 Ø2 (R) 24 s	#16 #17 Ø4 26 s
#16 #17 Ø6 (R) 24 s	#16 Ø8 26 s

Lanes, Volumes, Timings
18: Fillmore Ave & MLK Park

03/21/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	12	22	0	220	273	0
Future Volume (vph)	12	22	0	220	273	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr't	0.850					
Flt Protected	0.950					
Satd. Flow (prot)	1770	1583	0	1863	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1583	0	1863	1863	0
Right Turn on Red	Yes		Yes			
Satd. Flow (RTOR)	24					
Link Speed (mph)	30			30	30	
Link Distance (ft)	526			755	579	
Travel Time (s)	12.0			17.2	13.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	24	0	239	297	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	13	24	0	239	297	0
Turn Type	Prot	Perm		NA	NA	
Protected Phases	4			2	6	
Permitted Phases	4					
Detector Phase	4	4		2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None		Max	Max	
Act Effct Green (s)	5.9	5.9		35.1	35.1	
Actuated g/C Ratio	0.15	0.15		0.92	0.92	
v/c Ratio	0.05	0.09		0.14	0.17	
Control Delay	14.3	8.3		1.6	1.7	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	14.3	8.3		1.6	1.7	
LOS	B	A		A	A	
Approach Delay	10.4			1.6	1.7	
Approach LOS	B			A	A	
Queue Length 50th (ft)	2	0		0	0	
Queue Length 95th (ft)	12	13		38	48	
Internal Link Dist (ft)	446			675	499	
Turn Bay Length (ft)						
Base Capacity (vph)	837	762		1717	1717	

Lanes, Volumes, Timings

18: Fillmore Ave & MLK Park

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Starvation Cap Reductn	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	
Storage Cap Reductn	0	0		0	0	
Reduced v/c Ratio	0.02	0.03		0.14	0.17	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 38.1

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.17

Intersection Signal Delay: 2.2

Intersection LOS: A

Intersection Capacity Utilization 26.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Fillmore Ave & MLK Park

Ø2 22.5 s	Ø4 22.5 s
Ø6 22.5 s	

Lanes, Volumes, Timings
19: Fillmore Ave & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	57	10	13	35	10	10	185	21	27	272	49
Future Volume (vph)	16	57	10	13	35	10	10	185	21	27	272	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.983			0.976			0.987			0.981	
Flt Protected		0.991			0.989			0.998			0.996	
Satd. Flow (prot)	0	1815	0	0	1798	0	0	1835	0	0	1820	0
Flt Permitted		0.918			0.898			0.983			0.972	
Satd. Flow (perm)	0	1681	0	0	1633	0	0	1807	0	0	1776	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			11			14			22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1089			291			579			735	
Travel Time (s)		24.8			6.6			13.2			16.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	62	11	14	38	11	11	201	23	29	296	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	90	0	0	63	0	0	235	0	0	378	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		7.1			6.9			28.5			28.5	
Actuated g/C Ratio		0.20			0.19			0.80			0.80	
v/c Ratio		0.26			0.19			0.16			0.26	
Control Delay		12.2			11.0			3.5			3.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.2			11.0			3.5			3.9	
LOS		B			B			A			A	
Approach Delay		12.2			11.0			3.5			3.9	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		11			7			0			0	
Queue Length 95th (ft)		34			25			45			74	
Internal Link Dist (ft)		1009			211			499			655	
Turn Bay Length (ft)												
Base Capacity (vph)		862			837			1455			1432	

Lanes, Volumes, Timings

19: Fillmore Ave & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.10			0.08			0.16			0.26	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 35.5

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.26

Intersection Signal Delay: 5.3

Intersection LOS: A

Intersection Capacity Utilization 40.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 19: Fillmore Ave & Northhampton St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
21: Fillmore Ave & Riley St/Urban St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	0	2	2	0	10	2	225	3	22	346	0
Future Volume (vph)	5	0	2	2	0	10	2	225	3	22	346	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.961			0.886			0.998				
Flt Protected		0.966			0.992						0.997	
Satd. Flow (prot)	0	1729	0	0	1637	0	0	1859	0	0	1857	0
Flt Permitted								0.998			0.979	
Satd. Flow (perm)	0	1790	0	0	1650	0	0	1855	0	0	1824	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			36			2				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			639			735			422	
Travel Time (s)		24.6			14.5			16.7			9.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	0	2	2	0	11	2	245	3	24	376	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	7	0	0	13	0	0	250	0	0	400	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		5.6			5.6			36.8			36.8	
Actuated g/C Ratio		0.14			0.14			0.94			0.94	
v/c Ratio		0.02			0.05			0.14			0.23	
Control Delay		0.5			3.6			1.2			1.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		0.5			3.6			1.2			1.5	
LOS		A			A			A			A	
Approach Delay		0.5			3.6			1.2			1.5	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)		0			0			0			0	
Queue Length 95th (ft)		1			6			34			58	
Internal Link Dist (ft)		1002			559			655			342	
Turn Bay Length (ft)												
Base Capacity (vph)		845			781			1736			1707	

Lanes, Volumes, Timings

21: Fillmore Ave & Riley St/Urban St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.01			0.02			0.14			0.23	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 39.3

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.23

Intersection Signal Delay: 1.4

Intersection LOS: A

Intersection Capacity Utilization 44.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 21: Fillmore Ave & Riley St/Urban St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
22: Fillmore Ave & French St

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	14	39	225	3	44	329
Future Volume (vph)	14	39	225	3	44	329
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.901		0.998			
Flt Protected	0.987					0.994
Satd. Flow (prot)	1657	0	1859	0	0	1852
Flt Permitted	0.987					0.949
Satd. Flow (perm)	1657	0	1859	0	0	1768
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	42		2			
Link Speed (mph)	30		30			30
Link Distance (ft)	600		422			182
Travel Time (s)	13.6		9.6			4.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	42	245	3	48	358
Shared Lane Traffic (%)						
Lane Group Flow (vph)	57	0	248	0	0	406
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%	50.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.3		34.3			34.3
Actuated g/C Ratio	0.16		0.85			0.85
v/c Ratio	0.19		0.16			0.27
Control Delay	9.7		2.6			3.1
Queue Delay	0.0		0.0			0.0
Total Delay	9.7		2.6			3.2
LOS	A		A			A
Approach Delay	9.7		2.6			3.2
Approach LOS	A		A			A
Queue Length 50th (ft)	3		0			0
Queue Length 95th (ft)	23		44			77
Internal Link Dist (ft)	520		342			102
Turn Bay Length (ft)						
Base Capacity (vph)	771		1582			1504

Lanes, Volumes, Timings 22: Fillmore Ave & French St

03/21/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Starvation Cap Reductn	0		0			140
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.07		0.16			0.30

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.3

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.27

Intersection Signal Delay: 3.5

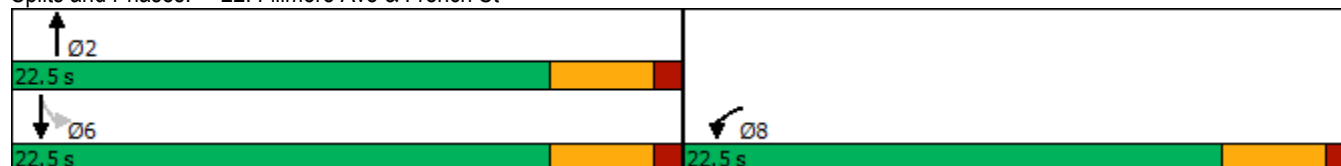
Intersection LOS: A

Intersection Capacity Utilization 47.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 22: Fillmore Ave & French St



Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	50	78	44	204	303	73
Future Volume (vph)	50	78	44	204	303	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.917				0.974	
Flt Protected	0.981			0.991		
Satd. Flow (prot)	1676	0	0	1846	1814	0
Flt Permitted	0.981			0.899		
Satd. Flow (perm)	1676	0	0	1675	1814	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	85				32	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1083			182	1350	
Travel Time (s)	24.6			4.1	30.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	85	48	222	329	79
Shared Lane Traffic (%)						
Lane Group Flow (vph)	139	0	0	270	408	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		22.5	22.5	22.5	
Total Split (%)	50.0%		50.0%	50.0%	50.0%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effect Green (s)	7.1			26.1	26.1	
Actuated g/C Ratio	0.18			0.66	0.66	
v/c Ratio	0.37			0.24	0.34	
Control Delay	9.0			5.1	5.2	
Queue Delay	0.0			0.4	0.0	
Total Delay	9.0			5.6	5.2	
LOS	A			A	A	
Approach Delay	9.0			5.6	5.2	
Approach LOS	A			A	A	
Queue Length 50th (ft)	10			22	32	
Queue Length 95th (ft)	34			57	81	
Internal Link Dist (ft)	1003			102	1270	
Turn Bay Length (ft)						
Base Capacity (vph)	821			1112	1215	

Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Starvation Cap Reductn	0			464	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.17			0.42	0.34	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 39.3

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.37

Intersection Signal Delay: 6.0

Intersection LOS: A

Intersection Capacity Utilization 52.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 23: Fillmore Ave & E Utica St

 22.5 s	 22.5 s
 22.5 s	

Lanes, Volumes, Timings
24: Fillmore Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	216	60	32	211	51	25	205	43	33	279	63
Future Volume (vph)	51	216	60	32	211	51	25	205	43	33	279	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.973			0.974			0.976			0.975	
Flt Protected		0.992			0.995			0.995			0.996	
Satd. Flow (prot)	0	3416	0	0	3430	0	0	3437	0	0	3437	0
Flt Permitted		0.849			0.879			0.907			0.913	
Satd. Flow (perm)	0	2924	0	0	3030	0	0	3133	0	0	3151	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		65			55			47			62	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			797			1350			1620	
Travel Time (s)		24.6			18.1			30.7			36.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	55	235	65	35	229	55	27	223	47	36	303	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	355	0	0	319	0	0	297	0	0	407	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		9.0			9.0			18.1			18.1	
Actuated g/C Ratio		0.25			0.25			0.50			0.50	
v/c Ratio		0.46			0.40			0.19			0.25	
Control Delay		11.1			10.7			5.0			5.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.1			10.7			5.0			5.3	
LOS		B			B			A			A	
Approach Delay		11.1			10.7			5.0			5.3	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		24			22			11			16	
Queue Length 95th (ft)		48			44			31			41	

Lanes, Volumes, Timings

24: Fillmore Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1002			717			1270			1540	
Turn Bay Length (ft)												
Base Capacity (vph)		1496			1544			1592			1608	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.24			0.21			0.19			0.25	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36.1

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 8.0

Intersection LOS: A

Intersection Capacity Utilization 51.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 24: Fillmore Ave & E Ferry St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
25: Fillmore Ave & Northland Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	42	15	21	41	7	3	230	35	41	348	10
Future Volume (vph)	5	42	15	21	41	7	3	230	35	41	348	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.968			0.986			0.982			0.997	
Flt Protected		0.996			0.985			0.999			0.995	
Satd. Flow (prot)	0	1796	0	0	1809	0	0	1827	0	0	1848	0
Flt Permitted		0.965			0.874			0.997			0.951	
Satd. Flow (perm)	0	1740	0	0	1605	0	0	1824	0	0	1766	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			8			20			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1020			890			1620			1011	
Travel Time (s)		23.2			20.2			36.8			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	46	16	23	45	8	3	250	38	45	378	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	67	0	0	76	0	0	291	0	0	434	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		6.8			6.9			28.3			28.3	
Actuated g/C Ratio		0.19			0.20			0.81			0.81	
v/c Ratio		0.19			0.24			0.20			0.31	
Control Delay		10.3			12.1			3.5			4.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.3			12.1			3.5			4.2	
LOS		B			B			A			A	
Approach Delay		10.3			12.1			3.5			4.2	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		7			9			0			0	
Queue Length 95th (ft)		26			30			53			90	
Internal Link Dist (ft)		940			810			1540			931	
Turn Bay Length (ft)												
Base Capacity (vph)		904			830			1472			1422	

Lanes, Volumes, Timings

25: Fillmore Ave & Northland Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.07			0.09			0.20			0.31	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 35.1

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.31

Intersection Signal Delay: 5.1

Intersection LOS: A

Intersection Capacity Utilization 56.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 25: Fillmore Ave & Northland Ave

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	157	18	28	149	30	18	186	26	68	348	71
Future Volume (vph)	80	157	18	28	149	30	18	186	26	68	348	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.980			0.985			0.980	
Flt Protected		0.985			0.993			0.996			0.993	
Satd. Flow (prot)	0	1816	0	0	1813	0	0	1827	0	0	1813	0
Flt Permitted		0.843			0.940			0.951			0.925	
Satd. Flow (perm)	0	1555	0	0	1716	0	0	1745	0	0	1689	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			19			17			23	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		928			735			1011			742	
Travel Time (s)		21.1			16.7			23.0			16.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	171	20	30	162	33	20	202	28	74	378	77
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	278	0	0	225	0	0	250	0	0	529	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.6	22.6		22.6	22.6		27.4	27.4		27.4	27.4	
Total Split (%)	45.2%	45.2%		45.2%	45.2%		54.8%	54.8%		54.8%	54.8%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		12.6			12.6			23.4			23.4	
Actuated g/C Ratio		0.28			0.28			0.52			0.52	
v/c Ratio		0.63			0.46			0.27			0.60	
Control Delay		20.2			14.9			7.7			11.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		20.2			14.9			7.7			11.8	
LOS		C			B			A			B	
Approach Delay		20.2			14.9			7.7			11.8	
Approach LOS		C			B			A			B	
Queue Length 50th (ft)		59			42			29			79	
Queue Length 95th (ft)		115			86			78			197	
Internal Link Dist (ft)		848			655			931			662	
Turn Bay Length (ft)												
Base Capacity (vph)		632			703			914			888	

Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.44			0.32			0.27			0.60	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 45.1

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 13.4

Intersection LOS: B

Intersection Capacity Utilization 76.3%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 26: Fillmore Ave & E Delavan Ave

 Ø2	 Ø4
27.4 s	22.6 s
 Ø6	 Ø8
27.4 s	22.6 s

Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	296	174	0	0	217	17	49	163	78	0	0	0
Future Volume (vph)	296	174	0	0	217	17	49	163	78	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	0		150	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.989				0.850			
Flt Protected		0.969						0.989				
Satd. Flow (prot)	0	3429	0	0	3500	0	0	1842	1583	0	0	0
Flt Permitted		0.682						0.989				
Satd. Flow (perm)	0	2414	0	0	3500	0	0	1842	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					18				85			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		310			928			1019			213	
Travel Time (s)		7.0			21.1			23.2			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	322	189	0	0	236	18	53	177	85	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	511	0	0	254	0	0	230	85	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)		0.0			0.0			0.0	0.0			
Total Lost Time (s)		4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		None	None	None			
Act Effct Green (s)		22.0			22.0			10.0	10.0			
Actuated g/C Ratio		0.58			0.58			0.26	0.26			
v/c Ratio		0.36			0.12			0.47	0.18			
Control Delay		5.4			5.7			14.7	4.1			
Queue Delay		0.0			0.0			0.0	0.0			
Total Delay		5.4			5.7			14.7	4.1			
LOS		A			A			B	A			
Approach Delay		5.4			5.7			11.8				
Approach LOS		A			A			B				
Queue Length 50th (ft)		16			11			38	0			
Queue Length 95th (ft)		47			31			78	19			

Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

03/21/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lanes, Volumes, Timings

27: Humboldt Parkway NB & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		230			848			939			133	
Turn Bay Length (ft)									150			
Base Capacity (vph)		1402			2040			878	799			
Starvation Cap Reductn		0			0			0	0			
Spillback Cap Reductn		0			0			0	0			
Storage Cap Reductn		0			0			0	0			
Reduced v/c Ratio		0.36			0.12			0.26	0.11			

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 37.9

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 7.3

Intersection LOS: A

Intersection Capacity Utilization 45.5%

ICU Level of Service A

Analysis Period (min) 15

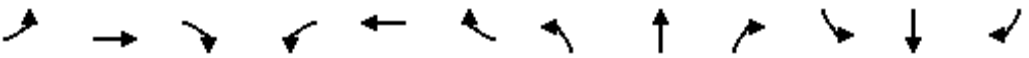
Splits and Phases: 27: Humboldt Parkway NB & E Delavan Ave

#27  Ø2	#27 #28  Ø4
22.5 s	22.5 s
#28  Ø6	#27 #28  Ø8
22.5 s	22.5 s

Lane Group	Ø6
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			↱↱						↱	↱
Traffic Volume (vph)	0	437	29	96	187	0	0	0	0	29	31	13
Future Volume (vph)	0	437	29	96	187	0	0	0	0	29	31	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991										0.850
Flt Protected					0.983						0.976	
Satd. Flow (prot)	0	1846	0	0	3479	0	0	0	0	0	1818	1583
Flt Permitted					0.742						0.976	
Satd. Flow (perm)	0	1846	0	0	2626	0	0	0	0	0	1818	1583
Right Turn on Red			Yes			Yes				Yes		Yes
Satd. Flow (RTOR)		9										36
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2669			310			684			864	
Travel Time (s)		60.7			7.0			15.5			19.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	475	32	104	203	0	0	0	0	32	34	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	507	0	0	307	0	0	0	0	0	66	14
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	50.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0						0.0	0.0
Total Lost Time (s)		4.5			4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					None	None	None
Act Effct Green (s)		22.0			22.0						9.8	9.8
Actuated g/C Ratio		0.58			0.58						0.26	0.26
v/c Ratio		0.47			0.20						0.14	0.03
Control Delay		9.0			4.3						10.6	2.1
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		9.0			4.3						10.6	2.1
LOS		A			A						B	A
Approach Delay		9.0			4.3						9.1	
Approach LOS		A			A						A	
Queue Length 50th (ft)		60			11						10	0
Queue Length 95th (ft)		159			24						28	4

Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

03/21/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lanes, Volumes, Timings

28: Humboldt Parkway SB & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		2589			230			604			784	
Turn Bay Length (ft)												100
Base Capacity (vph)		1076			1525						866	773
Starvation Cap Reductn		0			0						0	0
Spillback Cap Reductn		0			0						0	0
Storage Cap Reductn		0			0						0	0
Reduced v/c Ratio		0.47			0.20						0.08	0.02

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 37.9

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 7.4

Intersection LOS: A

Intersection Capacity Utilization 48.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 28: Humboldt Parkway SB & E Delavan Ave

#27  Ø2	#27 #28  Ø4
22.5 s	22.5 s
#28  Ø6	#27 #28  Ø8
22.5 s	22.5 s

Lane Group	Ø2
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
29: Jefferson Ave & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	357	31	28	147	16	30	98	54	5	78	86
Future Volume (vph)	39	357	31	28	147	16	30	98	54	5	78	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.989			0.960			0.931	
Flt Protected		0.995			0.993			0.992			0.999	
Satd. Flow (prot)	0	1835	0	0	1829	0	0	1774	0	0	1732	0
Flt Permitted		0.956			0.920			0.938			0.993	
Satd. Flow (perm)	0	1763	0	0	1695	0	0	1677	0	0	1722	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			12			56			93	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		592			2669			1017			352	
Travel Time (s)		13.5			60.7			23.1			8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	388	34	30	160	17	33	107	59	5	85	93
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	464	0	0	207	0	0	199	0	0	183	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		14.6			14.6			18.1			18.1	
Actuated g/C Ratio		0.35			0.35			0.43			0.43	
v/c Ratio		0.74			0.34			0.26			0.23	
Control Delay		19.7			10.9			7.5			5.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		19.7			10.9			7.5			5.7	
LOS		B			B			A			A	
Approach Delay		19.7			10.9			7.5			5.7	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		89			32			20			12	
Queue Length 95th (ft)		168			68			55			43	
Internal Link Dist (ft)		512			2589			937			272	
Turn Bay Length (ft)												
Base Capacity (vph)		769			741			758			798	

Lanes, Volumes, Timings

29: Jefferson Ave & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.60			0.28			0.26			0.23	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 41.8

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 13.2

Intersection LOS: B

Intersection Capacity Utilization 58.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 29: Jefferson Ave & E Delavan Ave

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
30: Jefferson Ave & Northland Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	23	11	16	5	16	12	145	9	12	139	15
Future Volume (vph)	15	23	11	16	5	16	12	145	9	12	139	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.969			0.941			0.993			0.988	
Flt Protected		0.985			0.979			0.996			0.996	
Satd. Flow (prot)	0	1778	0	0	1716	0	0	1842	0	0	1833	0
Flt Permitted		0.884			0.957			0.982			0.982	
Satd. Flow (perm)	0	1596	0	0	1677	0	0	1816	0	0	1807	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			17			8			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		806			2743			848			1017	
Travel Time (s)		18.3			62.3			19.3			23.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	25	12	17	5	17	13	158	10	13	151	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	53	0	0	39	0	0	181	0	0	180	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		6.5			6.4			29.9			29.9	
Actuated g/C Ratio		0.18			0.17			0.81			0.81	
v/c Ratio		0.18			0.13			0.12			0.12	
Control Delay		11.5			9.6			3.1			3.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.5			9.6			3.1			3.0	
LOS		B			A			A			A	
Approach Delay		11.5			9.6			3.1			3.0	
Approach LOS		B			A			A			A	
Queue Length 50th (ft)		7			4			0			0	
Queue Length 95th (ft)		22			16			32			31	
Internal Link Dist (ft)		726			2663			768			937	
Turn Bay Length (ft)												
Base Capacity (vph)		790			832			1482			1475	

Lanes, Volumes, Timings

30: Jefferson Ave & Northland Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.07			0.05			0.12			0.12	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36.7

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.18

Intersection Signal Delay: 4.6

Intersection LOS: A

Intersection Capacity Utilization 23.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 30: Jefferson Ave & Northland Ave

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
31: Jefferson Ave & Brunswick Blvd

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	27	21	154	25	10	156
Future Volume (vph)	27	21	154	25	10	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.940		0.981			
Flt Protected	0.973					0.997
Satd. Flow (prot)	1704	0	1827	0	0	1857
Flt Permitted	0.973					0.986
Satd. Flow (perm)	1704	0	1827	0	0	1837
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	23		22			
Link Speed (mph)	30		30			30
Link Distance (ft)	2734		751			848
Travel Time (s)	62.1		17.1			19.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	23	167	27	11	170
Shared Lane Traffic (%)						
Lane Group Flow (vph)	52	0	194	0	0	181
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%	50.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.4		34.6			34.6
Actuated g/C Ratio	0.16		0.85			0.85
v/c Ratio	0.18		0.12			0.12
Control Delay	12.4		2.4			2.6
Queue Delay	0.0		0.0			0.0
Total Delay	12.4		2.4			2.6
LOS	B		A			A
Approach Delay	12.4		2.4			2.6
Approach LOS	B		A			A
Queue Length 50th (ft)	5		0			0
Queue Length 95th (ft)	26		33			33
Internal Link Dist (ft)	2654		671			768
Turn Bay Length (ft)						
Base Capacity (vph)	777		1562			1567

Lanes, Volumes, Timings

31: Jefferson Ave & Brunswick Blvd

03/21/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.07		0.12			0.12

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.5

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.18

Intersection Signal Delay: 3.7

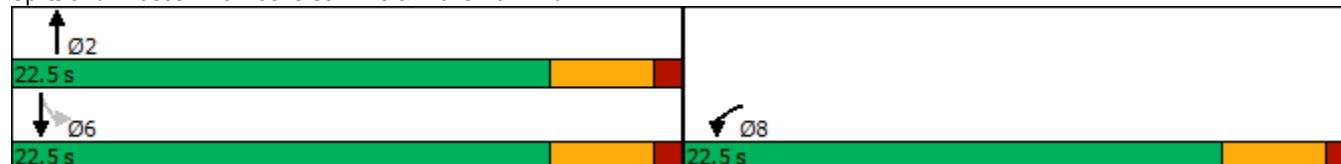
Intersection LOS: A

Intersection Capacity Utilization 28.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 31: Jefferson Ave & Brunswick Blvd



Lanes, Volumes, Timings
32: Jefferson Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	217	47	49	475	42	38	115	25	21	136	25
Future Volume (vph)	29	217	47	49	475	42	38	115	25	21	136	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.978			0.990			0.981			0.982	
Flt Protected		0.995			0.996			0.989			0.994	
Satd. Flow (prot)	0	1813	0	0	1837	0	0	1807	0	0	1818	0
Flt Permitted		0.926			0.947			0.912			0.958	
Satd. Flow (perm)	0	1687	0	0	1746	0	0	1667	0	0	1752	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			10			16			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			194			1406			751	
Travel Time (s)		7.5			4.4			32.0			17.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	32	236	51	53	516	46	41	125	27	23	148	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	319	0	0	615	0	0	193	0	0	198	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	31.0	31.0		31.0	31.0		24.0	24.0		24.0	24.0	
Total Split (%)	56.4%	56.4%		56.4%	56.4%		43.6%	43.6%		43.6%	43.6%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		21.5			21.5			19.7			19.7	
Actuated g/C Ratio		0.43			0.43			0.39			0.39	
v/c Ratio		0.43			0.82			0.29			0.28	
Control Delay		11.0			22.6			12.6			12.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.0			22.6			12.6			12.5	
LOS		B			C			B			B	
Approach Delay		11.0			22.6			12.6			12.5	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)		56			146			36			37	
Queue Length 95th (ft)		105			#260			83			84	
Internal Link Dist (ft)		252			114			1326			671	
Turn Bay Length (ft)												
Base Capacity (vph)		909			934			663			696	

Lanes, Volumes, Timings

32: Jefferson Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.35			0.66			0.29			0.28	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 50.3

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 16.8

Intersection LOS: B

Intersection Capacity Utilization 62.4%

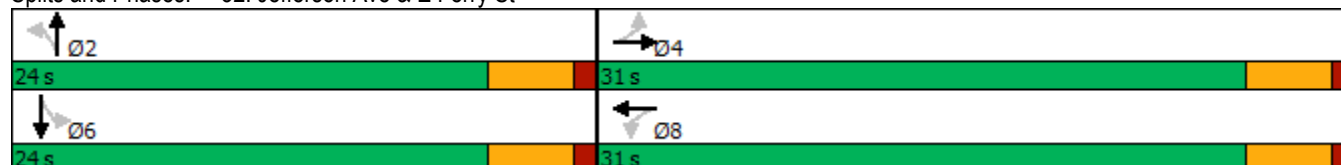
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 32: Jefferson Ave & E Ferry St



Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	100	37	25	107	13	26	164	12	10	205	21
Future Volume (vph)	10	100	37	25	107	13	26	164	12	10	205	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.988			0.992			0.988	
Flt Protected		0.997			0.991			0.994			0.998	
Satd. Flow (prot)	0	1794	0	0	1824	0	0	1837	0	0	1837	0
Flt Permitted		0.966			0.932			0.950			0.987	
Satd. Flow (perm)	0	1738	0	0	1715	0	0	1755	0	0	1816	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40			13			8			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1023			1295			630			1406	
Travel Time (s)		23.3			29.4			14.3			32.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	109	40	27	116	14	28	178	13	11	223	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	160	0	0	157	0	0	219	0	0	257	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		8.3			8.3			21.8			21.8	
Actuated g/C Ratio		0.23			0.23			0.60			0.60	
v/c Ratio		0.38			0.39			0.21			0.23	
Control Delay		11.4			13.4			5.8			5.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.4			13.4			5.8			5.8	
LOS		B			B			A			A	
Approach Delay		11.4			13.4			5.8			5.8	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		19			23			19			22	
Queue Length 95th (ft)		49			54			51			59	
Internal Link Dist (ft)		943			1215			550			1326	
Turn Bay Length (ft)												
Base Capacity (vph)		883			858			1057			1096	

Lanes, Volumes, Timings

33: Jefferson Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.18			0.18			0.21			0.23	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36.3

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 8.4

Intersection LOS: A

Intersection Capacity Utilization 41.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 33: Jefferson Ave & E Utica St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
34: Jefferson Ave & Riley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	26	15	9	16	5	11	193	9	1	221	10
Future Volume (vph)	9	26	15	9	16	5	11	193	9	1	221	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.979			0.994			0.994	
Flt Protected		0.991			0.985			0.997				
Satd. Flow (prot)	0	1772	0	0	1796	0	0	1846	0	0	1852	0
Flt Permitted		0.927			0.875			0.985			0.999	
Satd. Flow (perm)	0	1658	0	0	1596	0	0	1824	0	0	1850	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			5			6			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		870			1108			418			630	
Travel Time (s)		19.8			25.2			9.5			14.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	28	16	10	17	5	12	210	10	1	240	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	54	0	0	32	0	0	232	0	0	252	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		6.4			6.3			30.1			30.1	
Actuated g/C Ratio		0.17			0.17			0.82			0.82	
v/c Ratio		0.18			0.11			0.16			0.17	
Control Delay		10.9			11.6			3.1			3.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.9			11.6			3.1			3.2	
LOS		B			B			A			A	
Approach Delay		10.9			11.6			3.1			3.2	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		7			5			0			0	
Queue Length 95th (ft)		22			16			40			43	
Internal Link Dist (ft)		790			1028			338			550	
Turn Bay Length (ft)												
Base Capacity (vph)		820			783			1492			1513	

Lanes, Volumes, Timings

34: Jefferson Ave & Riley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.07			0.04			0.16			0.17	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36.8

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.18

Intersection Signal Delay: 4.3

Intersection LOS: A

Intersection Capacity Utilization 30.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 34: Jefferson Ave & Riley St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
35: Jefferson Ave & Northampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	6	36	6	15	67	12	15	178	4	7	209	13
Future Volume (vph)	6	36	6	15	67	12	15	178	4	7	209	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.982			0.983			0.997			0.992	
Flt Protected		0.993			0.992			0.996			0.998	
Satd. Flow (prot)	0	1816	0	0	1816	0	0	1850	0	0	1844	0
Flt Permitted		0.936			0.933			0.976			0.992	
Satd. Flow (perm)	0	1712	0	0	1708	0	0	1813	0	0	1833	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			13			3			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1340			1290			1156			278	
Travel Time (s)		30.5			29.3			26.3			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	39	7	16	73	13	16	193	4	8	227	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	53	0	0	102	0	0	213	0	0	249	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		7.1			7.3			26.0			26.0	
Actuated g/C Ratio		0.19			0.20			0.71			0.71	
v/c Ratio		0.16			0.29			0.16			0.19	
Control Delay		11.1			12.7			4.5			4.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.1			12.7			4.5			4.5	
LOS		B			B			A			A	
Approach Delay		11.1			12.7			4.5			4.5	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		8			15			17			20	
Queue Length 95th (ft)		23			37			44			50	
Internal Link Dist (ft)		1260			1210			1076			198	
Turn Bay Length (ft)												
Base Capacity (vph)		848			849			1294			1310	

Lanes, Volumes, Timings

35: Jefferson Ave & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.06			0.12			0.16			0.19	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36.5

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.29

Intersection Signal Delay: 6.4

Intersection LOS: A

Intersection Capacity Utilization 31.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 35: Jefferson Ave & Northhampton St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
36: Jefferson Ave & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	402	45	48	426	60	23	173	3	45	187	25
Future Volume (vph)	23	402	45	48	426	60	23	173	3	45	187	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.986			0.983			0.998			0.985	
Flt Protected		0.998			0.996			0.994			0.991	
Satd. Flow (prot)	0	3483	0	0	3465	0	0	3511	0	0	3455	0
Flt Permitted		0.911			0.871			0.909			0.882	
Satd. Flow (perm)	0	3179	0	0	3030	0	0	3211	0	0	3075	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30			36			3			27	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		169			169			156			165	
Travel Time (s)		3.8			3.8			3.5			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	25	437	49	52	463	65	25	188	3	49	203	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	511	0	0	580	0	0	216	0	0	279	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		12.9			12.9			18.1			18.1	
Actuated g/C Ratio		0.32			0.32			0.45			0.45	
v/c Ratio		0.49			0.58			0.15			0.20	
Control Delay		11.7			12.9			7.7			7.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.7			12.9			7.7			7.3	
LOS		B			B			A			A	
Approach Delay		11.7			12.9			7.7			7.3	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		43			51			13			16	
Queue Length 95th (ft)		73			84			33			40	
Internal Link Dist (ft)		89			89			76			85	
Turn Bay Length (ft)												
Base Capacity (vph)		1455			1390			1454			1406	

Lanes, Volumes, Timings

36: Jefferson Ave & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.35			0.42			0.15			0.20	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.1

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 10.8

Intersection LOS: B

Intersection Capacity Utilization 56.1%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 36: Jefferson Ave & Best St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
37: Jefferson Ave & E North St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	64	82	180	172	237	62
Future Volume (vph)	64	82	180	172	237	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.924				0.972	
Flt Protected	0.978			0.975		
Satd. Flow (prot)	1683	0	0	1816	1811	0
Flt Permitted	0.978			0.699		
Satd. Flow (perm)	1683	0	0	1302	1811	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	89				35	
Link Speed (mph)	30			30	30	
Link Distance (ft)	879			684	486	
Travel Time (s)	20.0			15.5	11.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	70	89	196	187	258	67
Shared Lane Traffic (%)						
Lane Group Flow (vph)	159	0	0	383	325	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		32.5	32.5	32.5	
Total Split (%)	40.9%		59.1%	59.1%	59.1%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effct Green (s)	7.8			34.9	34.9	
Actuated g/C Ratio	0.16			0.72	0.72	
v/c Ratio	0.46			0.41	0.25	
Control Delay	13.3			6.3	4.1	
Queue Delay	0.0			0.0	0.0	
Total Delay	13.3			6.3	4.1	
LOS	B			A	A	
Approach Delay	13.3			6.3	4.1	
Approach LOS	B			A	A	
Queue Length 50th (ft)	18			40	25	
Queue Length 95th (ft)	53			108	66	
Internal Link Dist (ft)	799			604	406	
Turn Bay Length (ft)						
Base Capacity (vph)	679			931	1305	

Lanes, Volumes, Timings

37: Jefferson Ave & E North St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.23			0.41	0.25	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 48.8

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 6.8

Intersection LOS: A

Intersection Capacity Utilization 55.1%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 37: Jefferson Ave & E North St

 02 32.5 s	 04 22.5 s
 06 32.5 s	

Lanes, Volumes, Timings
38: Jefferson Ave & High St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	37	90	21	78	37	176	317	33	10	266	16
Future Volume (vph)	3	37	90	21	78	37	176	317	33	10	266	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.906			0.964			0.992			0.993	
Flt Protected		0.999			0.992			0.984			0.998	
Satd. Flow (prot)	0	1686	0	0	1781	0	0	1818	0	0	1846	0
Flt Permitted		0.993			0.941			0.782			0.982	
Satd. Flow (perm)	0	1676	0	0	1690	0	0	1445	0	0	1816	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		98			32			9			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		840			1233			880			684	
Travel Time (s)		19.1			28.0			20.0			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	40	98	23	85	40	191	345	36	11	289	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	141	0	0	148	0	0	572	0	0	317	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.6	22.6		22.6	22.6		37.4	37.4		37.4	37.4	
Total Split (%)	37.7%	37.7%		37.7%	37.7%		62.3%	62.3%		62.3%	62.3%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		8.9			8.9			36.8			36.8	
Actuated g/C Ratio		0.17			0.17			0.71			0.71	
v/c Ratio		0.38			0.47			0.56			0.25	
Control Delay		10.8			19.9			8.2			4.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.8			19.9			8.2			4.6	
LOS		B			B			A			A	
Approach Delay		10.8			19.9			8.2			4.6	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		11			31			76			31	
Queue Length 95th (ft)		47			72			195			74	
Internal Link Dist (ft)		760			1153			800			604	
Turn Bay Length (ft)												
Base Capacity (vph)		649			611			1028			1291	

Lanes, Volumes, Timings

38: Jefferson Ave & High St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.22			0.24			0.56			0.25	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 51.8

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.56

Intersection Signal Delay: 9.0

Intersection LOS: A

Intersection Capacity Utilization 73.2%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 38: Jefferson Ave & High St

 Ø2	 Ø4
37.4 s	22.6 s
 Ø6	 Ø8
37.4 s	22.6 s

Lanes, Volumes, Timings
39: Wohlers Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	333	4	29	544	62	9	26	46	0	0	0
Future Volume (vph)	26	333	4	29	544	62	9	26	46	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.987			0.923				
Flt Protected		0.996			0.998			0.994				
Satd. Flow (prot)	0	1853	0	0	1835	0	0	1709	0	0	0	0
Flt Permitted		0.936			0.972			0.994				
Satd. Flow (perm)	0	1742	0	0	1787	0	0	1709	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			14			50				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		280			1179			1336			278	
Travel Time (s)		6.4			26.8			30.4			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	28	362	4	32	591	67	10	28	50	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	394	0	0	690	0	0	88	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4			8			2					
Detector Phase	4	4		8	8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5				
Total Split (s)	37.0	37.0		37.0	37.0		23.0	23.0				
Total Split (%)	61.7%	61.7%		61.7%	61.7%		38.3%	38.3%				
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max				
Act Effct Green (s)		24.6			24.6			18.8				
Actuated g/C Ratio		0.47			0.47			0.36				
v/c Ratio		0.48			0.82			0.14				
Control Delay		11.3			20.4			8.6				
Queue Delay		0.0			0.0			0.0				
Total Delay		11.3			20.4			8.6				
LOS		B			C			A				
Approach Delay		11.3			20.4			8.6				
Approach LOS		B			C			A				
Queue Length 50th (ft)		76			164			8				
Queue Length 95th (ft)		130			280			37				
Internal Link Dist (ft)		200			1099			1256			198	
Turn Bay Length (ft)												
Base Capacity (vph)		1095			1128			643				

Lanes, Volumes, Timings

39: Wohlers Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.36			0.61			0.14				

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 52.6

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 16.4

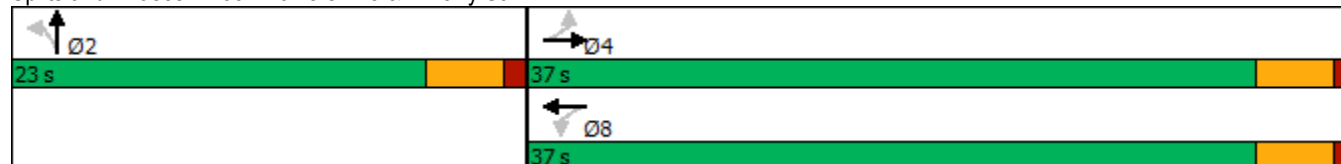
Intersection LOS: B

Intersection Capacity Utilization 52.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 39: Wohlers Ave & E Ferry St



Lanes, Volumes, Timings
40: Wohlers Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	106	9	4	128	16	3	39	23	1	14	5
Future Volume (vph)	13	106	9	4	128	16	3	39	23	1	14	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.986			0.952			0.968	
Flt Protected		0.995			0.999			0.998			0.998	
Satd. Flow (prot)	0	1835	0	0	1835	0	0	1770	0	0	1800	0
Flt Permitted		0.954			0.989			0.995			0.994	
Satd. Flow (perm)	0	1759	0	0	1816	0	0	1764	0	0	1792	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			16			25			5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		274			1173			1331			1336	
Travel Time (s)		6.2			26.7			30.3			30.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	115	10	4	139	17	3	42	25	1	15	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	139	0	0	160	0	0	70	0	0	21	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		8.1			8.1			21.8			21.8	
Actuated g/C Ratio		0.22			0.22			0.60			0.60	
v/c Ratio		0.34			0.38			0.07			0.02	
Control Delay		13.0			13.0			4.0			4.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.0			13.0			4.0			4.6	
LOS		B			B			A			A	
Approach Delay		13.0			13.0			4.0			4.6	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		20			23			4			1	
Queue Length 95th (ft)		49			54			17			8	
Internal Link Dist (ft)		194			1093			1251			1256	
Turn Bay Length (ft)												
Base Capacity (vph)		882			914			1073			1082	

Lanes, Volumes, Timings
40: Wohlers Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.16			0.18			0.07			0.02	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36.1

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 10.9

Intersection LOS: B

Intersection Capacity Utilization 24.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 40: Wohlers Ave & E Utica St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
41: Humboldt Parkway SB & Woodlawn Ave

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	427	34
Future Volume (vph)	0	0	0	0	427	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.990	
Flt Protected						
Satd. Flow (prot)	0	0	0	0	1844	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	0	1844	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	780			265	319	
Travel Time (s)	17.7			6.0	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	464	37
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	501	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 27.9% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings
42: Humboldt Parkway SB & Glenwood Ave

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↗	
Traffic Volume (vph)	0	31	0	0	431	0
Future Volume (vph)	0	31	0	0	431	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1863	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	750			456	296	
Travel Time (s)	17.0			10.4	6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	34	0	0	468	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	34	0	0	468	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 32.7% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
42: Humboldt Parkway SB & Glenwood Ave

03/21/2022

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↖	
Traffic Vol, veh/h	0	31	0	0	431	0
Future Vol, veh/h	0	31	0	0	431	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	34	0	0	468	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	468	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	595	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	595	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	11.4		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	595	-				
HCM Lane V/C Ratio	0.057	-				
HCM Control Delay (s)	11.4	-				
HCM Lane LOS	B	-				
HCM 95th %tile Q(veh)	0.2	-				

Lanes, Volumes, Timings
43: Humboldt Parkway SB & Riley St

03/21/2022

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	14	27	27	14	0	0	0	0	27	387	27	
Future Volume (vph)	0	14	27	27	14	0	0	0	0	27	387	27	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.911										0.992		
Flt Protected					0.968						0.997		
Satd. Flow (prot)	0	1697	0	0	1803	0	0	0	0	0	1842	0	
Flt Permitted					0.968						0.997		
Satd. Flow (perm)	0	1697	0	0	1803	0	0	0	0	0	1842	0	
Link Speed (mph)	30				30				30				
Link Distance (ft)	873				152				418				
Travel Time (s)	19.8				3.5				9.5				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	15	29	29	15	0	0	0	0	29	421	29	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	44	0	0	44	0	0	0	0	0	479	0	
Sign Control	Stop					Stop			Stop			Free	
Intersection Summary													
Area Type:	Other												
Control Type: Unsignalized													
Intersection Capacity Utilization 39.1%													
ICU Level of Service A													
Analysis Period (min) 15													

HCM 6th TWSC
43: Humboldt Parkway SB & Riley St

03/21/2022

Intersection													
Int Delay, s/veh	2												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Vol, veh/h	0	14	27	27	14	0	0	0	0	27	387	27	
Future Vol, veh/h	0	14	27	27	14	0	0	0	0	27	387	27	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None	
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	0	15	29	29	15	0	0	0	0	29	421	29	
Major/Minor	Minor2		Minor1				Major2						
Conflicting Flow All	-	494	436	516	508	-	0			0	0		
Stage 1	-	494	-	0	0	-	-			-	-	-	
Stage 2	-	0	-	516	508	-	-			-	-	-	
Critical Hdwy	-	6.52	6.22	7.12	6.52	-	4.12			-	-	-	
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-			-	-	-	
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-	-			-	-	-	
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-	2.218			-	-	-	
Pot Cap-1 Maneuver	0	476	620	470	468	0	-			-	-	-	
Stage 1	0	546	-	-	-	0	-			-	-	-	
Stage 2	0	-	-	542	539	0	-			-	-	-	
Platoon blocked, %										-	-	-	
Mov Cap-1 Maneuver	-	476	620	437	468	-	-			-	-	-	
Mov Cap-2 Maneuver	-	476	-	437	468	-	-			-	-	-	
Stage 1	-	546	-	-	-	-	-			-	-	-	
Stage 2	-	-	-	502	539	-	-			-	-	-	
Approach	EB		WB				SB						
HCM Control Delay, s	12		13.9										
HCM LOS	B		B										
Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR								
Capacity (veh/h)	562		447	-	-	-							
HCM Lane V/C Ratio	0.079		0.1	-	-	-							
HCM Control Delay (s)	12		13.9	-	-	-							
HCM Lane LOS	B		B	-	-	-							
HCM 95th %tile Q(veh)	0.3		0.3	-	-	-							

Lanes, Volumes, Timings
44: Humboldt Parkway SB & Kingsley St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	14	0	0	419	11
Future Volume (vph)	0	14	0	0	419	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.997	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1857	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1857	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	736			293	418	
Travel Time (s)	16.7			6.7	9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	15	0	0	455	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	15	0	0	467	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 32.7% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
44: Humboldt Parkway SB & Kingsley St

03/21/2022

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	14	0	0	419	11
Future Vol, veh/h	0	14	0	0	419	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	15	0	0	455	12
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	461	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	600	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	600	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	11.2		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	600	-	-			
HCM Lane V/C Ratio	0.025	-	-			
HCM Control Delay (s)	11.2	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings

45: W Parade Ave & Humboldt Parkway SB

03/21/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↘	
Traffic Volume (vph)	0	102	66	0	50	31
Future Volume (vph)	0	102	66	0	50	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.948	
Fl _t Protected					0.970	
Satd. Flow (prot)	0	1863	1863	0	1713	0
Fl _t Permitted					0.970	
Satd. Flow (perm)	0	1863	1863	0	1713	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		199	738		350	
Travel Time (s)		4.5	16.8		8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	111	72	0	54	34
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	111	72	0	88	0
Sign Control		Stop	Stop		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 16.7% ICU Level of Service A

Analysis Period (min) 15

HCM 6th AWSC
45: W Parade Ave & Humboldt Parkway SB

03/21/2022

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑↑	
Traffic Vol, veh/h	0	102	66	0	50	31
Future Vol, veh/h	0	102	66	0	50	31
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	111	72	0	54	34
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	7.8	7.6	7.7
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	62%
Vol Thru, %	100%	100%	0%
Vol Right, %	0%	0%	38%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	102	66	81
LT Vol	0	0	50
Through Vol	102	66	0
RT Vol	0	0	31
Lane Flow Rate	111	72	88
Geometry Grp	1	1	1
Degree of Util (X)	0.128	0.083	0.101
Departure Headway (Hd)	4.143	4.174	4.142
Convergence, Y/N	Yes	Yes	Yes
Cap	858	849	852
Service Time	2.206	2.245	2.232
HCM Lane V/C Ratio	0.129	0.085	0.103
HCM Control Delay	7.8	7.6	7.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.4	0.3	0.3

Lanes, Volumes, Timings
46: Linden Park & Dodge St/W Parade Ave

03/21/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	101	1	5	93	1	1
Future Volume (vph)	101	1	5	93	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999				0.932	
Flt Protected				0.998	0.976	
Satd. Flow (prot)	1861	0	0	1859	1694	0
Flt Permitted				0.998	0.976	
Satd. Flow (perm)	1861	0	0	1859	1694	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	489			199	180	
Travel Time (s)	11.1			4.5	4.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	110	1	5	101	1	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	111	0	0	106	2	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	19.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
46: Linden Park & Dodge St/W Parade Ave

03/21/2022

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	101	1	5	93	1	1
Future Vol, veh/h	101	1	5	93	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	110	1	5	101	1	1
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	111	0	222	111
Stage 1	-	-	-	-	111	-
Stage 2	-	-	-	-	111	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1479	-	766	942
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	914	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1479	-	763	942
Mov Cap-2 Maneuver	-	-	-	-	763	-
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	910	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.4		9.3	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	843	-	-	1479	-	
HCM Lane V/C Ratio	0.003	-	-	0.004	-	
HCM Control Delay (s)	9.3	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Lanes, Volumes, Timings
47: Humboldt Parkway NB & Riley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	27	0	0	27	14	14	222	14	0	0	0
Future Volume (vph)	14	27	0	0	27	14	14	222	14	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.954			0.993				
Flt Protected		0.983						0.997				
Satd. Flow (prot)	0	1831	0	0	1777	0	0	1844	0	0	0	0
Flt Permitted		0.983						0.997				
Satd. Flow (perm)	0	1831	0	0	1777	0	0	1844	0	0	0	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		152			1082			722			610	
Travel Time (s)		3.5			24.6			16.4			13.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	29	0	0	29	15	15	241	15	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	44	0	0	44	0	0	271	0	0	0	0
Sign Control		Stop			Stop			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	28.8%											
Analysis Period (min)	15											
ICU Level of Service A												

HCM 6th TWSC
47: Humboldt Parkway NB & Riley St

03/21/2022

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕				
Traffic Vol, veh/h	14	27	0	0	27	14	14	222	14	0	0	0
Future Vol, veh/h	14	27	0	0	27	14	14	222	14	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	29	0	0	29	15	15	241	15	0	0	0
Major/Minor	Minor2		Minor1		Major1							
Conflicting Flow All	301	286	-	-	279	249	0	0	0			
Stage 1	0	0	-	-	279	-	-	-	-			
Stage 2	301	286	-	-	0	-	-	-	-			
Critical Hdwy	7.12	6.52	-	-	6.52	6.22	4.12	-	-			
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-			
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-			
Follow-up Hdwy	3.518	4.018	-	-	4.018	3.318	2.218	-	-			
Pot Cap-1 Maneuver	651	623	0	0	629	790	-	-	-			
Stage 1	-	-	0	0	680	-	-	-	-			
Stage 2	708	675	0	0	-	-	-	-	-			
Platoon blocked, %								-	-			
Mov Cap-1 Maneuver	616	623	-	-	629	790	-	-	-			
Mov Cap-2 Maneuver	616	623	-	-	629	-	-	-	-			
Stage 1	-	-	-	-	680	-	-	-	-			
Stage 2	664	675	-	-	-	-	-	-	-			
Approach	EB		WB		NB							
HCM Control Delay, s	11.2		10.7									
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL		NBT		NBR		EBLn1WBLn1					
Capacity (veh/h)	-		-		-		621 676					
HCM Lane V/C Ratio	-		-		-		0.072 0.066					
HCM Control Delay (s)	-		-		-		11.2 10.7					
HCM Lane LOS	-		-		-		B B					
HCM 95th %tile Q(veh)	-		-		-		0.2 0.2					

Lanes, Volumes, Timings
48: Humboldt Parkway NB & Woepfel St

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	4	273	5	0	0
Future Volume (vph)	0	4	273	5	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.998			
Flt Protected						
Satd. Flow (prot)	0	1611	1859	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1859	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	744		294			461
Travel Time (s)	16.9		6.7			10.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	4	297	5	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	4	302	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	24.7%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
48: Humboldt Parkway NB & Woepfel St

03/21/2022

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	273	5	0	0
Future Vol, veh/h	0	4	273	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	297	5	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	300	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	740	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	740	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	9.9		0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		740			
HCM Lane V/C Ratio	-		0.006			
HCM Control Delay (s)	-		9.9			
HCM Lane LOS	-		A			
HCM 95th %tile Q(veh)	-		0			

Lanes, Volumes, Timings
49: Humboldt Parkway NB & Woodlawn Ave

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	13	270	9	0	0
Future Volume (vph)	0	13	270	9	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.996			
Flt Protected						
Satd. Flow (prot)	0	1611	1855	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1855	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	729		268			312
Travel Time (s)	16.6		6.1			7.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	14	293	10	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	14	303	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	24.8%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
49: Humboldt Parkway NB & Woodlawn Ave

03/21/2022

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	13	270	9	0	0
Future Vol, veh/h	0	13	270	9	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	14	293	10	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	298	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	741	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	741	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	10		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		- 741			
HCM Lane V/C Ratio	-		- 0.019			
HCM Control Delay (s)	-		- 10			
HCM Lane LOS	-		- B			
HCM 95th %tile Q(veh)	-		- 0.1			

Lanes, Volumes, Timings
50: Humboldt Parkway SB & Florida St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	25	0	0	148	9
Future Volume (vph)	0	25	0	0	148	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.992	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1848	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1848	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	935			344	684	
Travel Time (s)	21.3			7.8	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	27	0	0	161	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	27	0	0	171	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 18.3% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
50: Humboldt Parkway SB & Florida St

03/21/2022

Intersection

Int Delay, s/veh 1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	25	0	0	148	9
Future Vol, veh/h	0	25	0	0	148	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	27	0	0	161	10

Major/Minor	Minor2	Major2
Conflicting Flow All	- 166	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 878	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 878	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	9.2	0
HCM LOS	A	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	878	-	-
HCM Lane V/C Ratio	0.031	-	-
HCM Control Delay (s)	9.2	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Lanes, Volumes, Timings
51: Humboldt Parkway SB & Northland Ave

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	27	0	0	169	21
Future Volume (vph)	0	27	0	0	169	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.985	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1835	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1835	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2743			805	344	
Travel Time (s)	62.3			18.3	7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	29	0	0	184	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	29	0	0	207	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 20.2% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
51: Humboldt Parkway SB & Northland Ave

03/21/2022

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	27	0	0	169	21
Future Vol, veh/h	0	27	0	0	169	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	29	0	0	184	23

Major/Minor	Minor2	Major2
Conflicting Flow All	- 196	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 845	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 845	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	9.4	0
HCM LOS	A	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	845	-	-
HCM Lane V/C Ratio	0.035	-	-
HCM Control Delay (s)	9.4	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Lanes, Volumes, Timings
52: Humboldt Parkway SB & Brunswick Blvd

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	65	0	0	168	10
Future Volume (vph)	0	65	0	0	168	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.992	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1848	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1848	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2734			252	805	
Travel Time (s)	62.1			5.7	18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	71	0	0	183	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	71	0	0	194	0
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 20.1% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	65	0	0	168	10
Future Vol, veh/h	0	65	0	0	168	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	71	0	0	183	11
Number of Lanes	0	1	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	1
HCM Control Delay	7	8.2
HCM LOS	A	A

Lane	EBLn1	SBLn1
Vol Left, %	0%	0%
Vol Thru, %	0%	94%
Vol Right, %	100%	6%
Sign Control	Stop	Stop
Traffic Vol by Lane	65	178
LT Vol	0	0
Through Vol	0	168
RT Vol	65	10
Lane Flow Rate	71	193
Geometry Grp	1	1
Degree of Util (X)	0.072	0.216
Departure Headway (Hd)	3.67	4.024
Convergence, Y/N	Yes	Yes
Cap	959	894
Service Time	1.756	2.042
HCM Lane V/C Ratio	0.074	0.216
HCM Control Delay	7	8.2
HCM Lane LOS	A	A
HCM 95th-tile Q	0.2	0.8

Lanes, Volumes, Timings
53: Humboldt Parkway SB & Goulding Ave

03/21/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Volume (vph)	0	48	0	0	982	0
Future Volume (vph)	0	48	0	0	982	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	3539	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	3539	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1067			270	306	
Travel Time (s)	24.3			6.1	7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	52	0	0	1067	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	52	0	0	1067	0
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	30.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
53: Humboldt Parkway SB & Goulding Ave

03/21/2022

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↗↗	
Traffic Vol, veh/h	0	48	0	0	982	0
Future Vol, veh/h	0	48	0	0	982	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	52	0	0	1067	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	534	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	491	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	491	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	13.2		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	491	-				
HCM Lane V/C Ratio	0.106	-				
HCM Control Delay (s)	13.2	-				
HCM Lane LOS	B	-				
HCM 95th %tile Q(veh)	0.4	-				

Lanes, Volumes, Timings
54: Humboldt Parkway NB & Sydney St

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	41	499	0	0	0
Future Volume (vph)	0	41	499	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	913		608			1024
Travel Time (s)	20.8		13.8			23.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	45	542	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	45	542	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	36.3%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
54: Humboldt Parkway NB & Sydney St

03/21/2022

Intersection

Int Delay, s/veh 0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	41	499	0	0	0
Future Vol, veh/h	0	41	499	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	45	542	0	0	0

Major/Minor	Minor1	Major1
Conflicting Flow All	- 542	0 -
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 540	- 0
Stage 1	0 -	- 0
Stage 2	0 -	- 0
Platoon blocked, %		-
Mov Cap-1 Maneuver	- 540	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	WB	NB
HCM Control Delay, s	12.3	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBTWBLn1
Capacity (veh/h)	- 540
HCM Lane V/C Ratio	- 0.083
HCM Control Delay (s)	- 12.3
HCM Lane LOS	- B
HCM 95th %tile Q(veh)	- 0.3

Lanes, Volumes, Timings
55: Humboldt Parkway NB & Northland Ave

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	63	474	63	0	0
Future Volume (vph)	0	63	474	63	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865	0.865	0.984			
Flt Protected						
Satd. Flow (prot)	0	1611	1833	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1833	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	1020		1024			1019
Travel Time (s)	23.2		23.3			23.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	68	515	68	0	0
Shared Lane Traffic (%)		10%				
Lane Group Flow (vph)	7	61	583	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	39.3%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection

Int Delay, s/veh 1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	63	474	63	0	0
Future Vol, veh/h	0	63	474	63	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	68	515	68	0	0

Major/Minor	Minor1	Major1
Conflicting Flow All	- 549	0 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 535	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 535	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	WB	NB
HCM Control Delay, s	12.7	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBT	NBRWBLn1
Capacity (veh/h)	- -	535
HCM Lane V/C Ratio	- -	0.128
HCM Control Delay (s)	- -	12.7
HCM Lane LOS	- -	B
HCM 95th %tile Q(veh)	- -	0.4

Lanes, Volumes, Timings
56: Roehrer Ave & E Ferry St

03/21/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	346	10	16	543	2	21
Future Volume (vph)	346	10	16	543	2	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.876	
Flt Protected				0.999	0.996	
Satd. Flow (prot)	1855	0	0	1861	1625	0
Flt Permitted				0.999	0.996	
Satd. Flow (perm)	1855	0	0	1861	1625	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1109			280	1331	
Travel Time (s)	25.2			6.4	30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	376	11	17	590	2	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	387	0	0	607	25	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	51.5%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection

Int Delay, s/veh 0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	346	10	16	543	2	21
Future Vol, veh/h	346	10	16	543	2	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	376	11	17	590	2	23

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	387
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1171
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1171
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	11.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	586	-	-	1171	-
HCM Lane V/C Ratio	0.043	-	-	0.015	-
HCM Control Delay (s)	11.4	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Lanes, Volumes, Timings
57: Roehrer Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	118	0	2	137	7	3	11	4	2	13	4
Future Volume (vph)	4	118	0	2	137	7	3	11	4	2	13	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.993			0.972			0.973	
Flt Protected		0.998			0.999			0.992			0.995	
Satd. Flow (prot)	0	1859	0	0	1848	0	0	1796	0	0	1803	0
Flt Permitted		0.998			0.999			0.992			0.995	
Satd. Flow (perm)	0	1859	0	0	1848	0	0	1796	0	0	1803	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1295			274			1342			1331	
Travel Time (s)		29.4			6.2			30.5			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	128	0	2	149	8	3	12	4	2	14	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	132	0	0	159	0	0	19	0	0	20	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	18.5%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	4	118	0	2	137	7	3	11	4	2	13	4
Future Vol, veh/h	4	118	0	2	137	7	3	11	4	2	13	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	128	0	2	149	8	3	12	4	2	14	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	8	7.6	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	3%	1%	11%
Vol Thru, %	61%	97%	94%	68%
Vol Right, %	22%	0%	5%	21%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	18	122	146	19
LT Vol	3	4	2	2
Through Vol	11	118	137	13
RT Vol	4	0	7	4
Lane Flow Rate	20	133	159	21
Geometry Grp	1	1	1	1
Degree of Util (X)	0.024	0.152	0.18	0.026
Departure Headway (Hd)	4.491	4.129	4.076	4.484
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	802	861	873	803
Service Time	2.492	2.192	2.135	2.484
HCM Lane V/C Ratio	0.025	0.154	0.182	0.026
HCM Control Delay	7.6	7.9	8	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.5	0.7	0.1

Lanes, Volumes, Timings
58: Wohlers Ave & Northampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	68	3	2	83	10	12	35	6	16	18	7
Future Volume (vph)	9	68	3	2	83	10	12	35	6	16	18	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.986			0.984			0.976	
Flt Protected		0.994			0.999			0.989			0.981	
Satd. Flow (prot)	0	1842	0	0	1835	0	0	1813	0	0	1783	0
Flt Permitted		0.994			0.999			0.989			0.981	
Satd. Flow (perm)	0	1842	0	0	1835	0	0	1813	0	0	1783	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		276			1045			1317			1331	
Travel Time (s)		6.3			23.8			29.9			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	74	3	2	90	11	13	38	7	17	20	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	87	0	0	103	0	0	58	0	0	45	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	19.1%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection												
Intersection Delay, s/veh	7.7											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	9	68	3	2	83	10	12	35	6	16	18	7
Future Vol, veh/h	9	68	3	2	83	10	12	35	6	16	18	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	74	3	2	90	11	13	38	7	17	20	8
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.8	7.8	7.7	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	11%	2%	39%
Vol Thru, %	66%	85%	87%	44%
Vol Right, %	11%	4%	11%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	53	80	95	41
LT Vol	12	9	2	16
Through Vol	35	68	83	18
RT Vol	6	3	10	7
Lane Flow Rate	58	87	103	45
Geometry Grp	1	1	1	1
Degree of Util (X)	0.07	0.101	0.118	0.054
Departure Headway (Hd)	4.382	4.191	4.119	4.395
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	822	843	858	820
Service Time	2.383	2.28	2.205	2.396
HCM Lane V/C Ratio	0.071	0.103	0.12	0.055
HCM Control Delay	7.7	7.8	7.8	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.3	0.4	0.2

Lanes, Volumes, Timings

59: Roehrer Ave & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	71	2	3	83	4	4	15	2	4	15	0
Future Volume (vph)	0	71	2	3	83	4	4	15	2	4	15	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.994			0.988				
Flt Protected					0.998			0.991			0.990	
Satd. Flow (prot)	0	1857	0	0	1848	0	0	1824	0	0	1844	0
Flt Permitted					0.998			0.991			0.990	
Satd. Flow (perm)	0	1857	0	0	1848	0	0	1824	0	0	1844	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1290			276			1313			1342	
Travel Time (s)		29.3			6.3			29.8			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	77	2	3	90	4	4	16	2	4	16	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	79	0	0	97	0	0	22	0	0	20	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	17.1%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection												
Intersection Delay, s/veh	7.5											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	71	2	3	83	4	4	15	2	4	15	0
Future Vol, veh/h	0	71	2	3	83	4	4	15	2	4	15	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	77	2	3	90	4	4	16	2	4	16	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.6	7.4	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	0%	3%	21%
Vol Thru, %	71%	97%	92%	79%
Vol Right, %	10%	3%	4%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	73	90	19
LT Vol	4	0	3	4
Through Vol	15	71	83	15
RT Vol	2	2	4	0
Lane Flow Rate	23	79	98	21
Geometry Grp	1	1	1	1
Degree of Util (X)	0.027	0.09	0.11	0.025
Departure Headway (Hd)	4.237	4.066	4.049	4.3
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	833	877	881	821
Service Time	2.323	2.113	2.092	2.387
HCM Lane V/C Ratio	0.028	0.09	0.111	0.026
HCM Control Delay	7.4	7.5	7.6	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.3	0.4	0.1

Lanes, Volumes, Timings
60: Best St & Wohlers Ave

03/21/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	3	452	590	25	19	4
Future Volume (vph)	3	452	590	25	19	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995		0.978	
Flt Protected					0.960	
Satd. Flow (prot)	0	1863	1853	0	1749	0
Flt Permitted					0.960	
Satd. Flow (perm)	0	1863	1853	0	1749	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		280	473		1317	
Travel Time (s)		6.4	10.8		29.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	491	641	27	21	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	494	668	0	25	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 42.6% ICU Level of Service A

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	452	590	25	19	4
Future Vol, veh/h	3	452	590	25	19	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	491	641	27	21	4
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	668	0	-	0	1152	655
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	497	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	922	-	-	-	219	466
Stage 1	-	-	-	-	517	-
Stage 2	-	-	-	-	611	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	922	-	-	-	218	466
Mov Cap-2 Maneuver	-	-	-	-	218	-
Stage 1	-	-	-	-	515	-
Stage 2	-	-	-	-	611	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		21.7		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	922	-	-	-	240	
HCM Lane V/C Ratio	0.004	-	-	-	0.104	
HCM Control Delay (s)	8.9	0	-	-	21.7	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.3	

Lanes, Volumes, Timings
61: Best St & Roehrer Ave

03/21/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	480	532	19	15	7
Future Volume (vph)	4	480	532	19	15	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995		0.955	
Flt Protected					0.968	
Satd. Flow (prot)	0	1863	1853	0	1722	0
Flt Permitted					0.968	
Satd. Flow (perm)	0	1863	1853	0	1722	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1123	280		1313	
Travel Time (s)		25.5	6.4		29.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	522	578	21	16	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	526	599	0	24	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 39.2% ICU Level of Service A

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	480	532	19	15	7
Future Vol, veh/h	4	480	532	19	15	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	522	578	21	16	8
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	599	0	-	0	1119	589
Stage 1	-	-	-	-	589	-
Stage 2	-	-	-	-	530	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	978	-	-	-	229	508
Stage 1	-	-	-	-	554	-
Stage 2	-	-	-	-	590	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	978	-	-	-	228	508
Mov Cap-2 Maneuver	-	-	-	-	228	-
Stage 1	-	-	-	-	551	-
Stage 2	-	-	-	-	590	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		19.3		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	978	-	-	-	276	
HCM Lane V/C Ratio	0.004	-	-	-	0.087	
HCM Control Delay (s)	8.7	0	-	-	19.3	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.3	

Lanes, Volumes, Timings
62: Jefferson Ave & Eaton St/Kingsley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	9	3	3	14	1	4	192	1	5	223	4
Future Volume (vph)	2	9	3	3	14	1	4	192	1	5	223	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.993			0.999			0.998	
Flt Protected		0.993			0.992			0.999			0.999	
Satd. Flow (prot)	0	1800	0	0	1835	0	0	1859	0	0	1857	0
Flt Permitted								0.996			0.996	
Satd. Flow (perm)	0	1812	0	0	1850	0	0	1853	0	0	1852	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			1			1			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		911			1129			278			418	
Travel Time (s)		20.7			25.7			6.3			9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	10	3	3	15	1	4	209	1	5	242	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	0	19	0	0	214	0	0	251	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		5.9			6.0			34.9			34.9	
Actuated g/C Ratio		0.16			0.16			0.92			0.92	
v/c Ratio		0.05			0.07			0.13			0.15	
Control Delay		13.0			13.9			1.6			1.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.0			13.9			1.6			1.6	
LOS		B			B			A			A	
Approach Delay		13.0			13.9			1.6			1.6	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		2			3			0			0	
Queue Length 95th (ft)		12			15			35			40	
Internal Link Dist (ft)		831			1049			198			338	
Turn Bay Length (ft)												
Base Capacity (vph)		863			879			1704			1704	

Lanes, Volumes, Timings

62: Jefferson Ave & Eaton St/Kingsley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.02			0.02			0.13			0.15	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 37.9

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.15

Intersection Signal Delay: 2.4

Intersection LOS: A

Intersection Capacity Utilization 26.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 62: Jefferson Ave & Eaton St/Kingsley St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
63: Humboldt Parkway SB & Winslow Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	16	21	21	16	0	0	0	0	21	384	21
Future Volume (vph)	0	16	21	21	16	0	0	0	0	21	384	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.922										0.993	
Flt Protected	0.972										0.998	
Satd. Flow (prot)	0	1717	0	0	1811	0	0	0	0	0	1846	0
Flt Permitted	0.972										0.998	
Satd. Flow (perm)	0	1717	0	0	1811	0	0	0	0	0	1846	0
Link Speed (mph)	30				30				30			
Link Distance (ft)	287				154				296			
Travel Time (s)	6.5				3.5				6.7			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	17	23	23	17	0	0	0	0	23	417	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	40	0	0	40	0	0	0	0	0	463	0
Sign Control	Stop				Stop				Stop			
Free												
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	38.0%											
Analysis Period (min)	15											
ICU Level of Service A												

HCM 6th TWSC
63: Humboldt Parkway SB & Winslow Ave

03/21/2022

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	16	21	21	16	0	0	0	0	21	384	21
Future Vol, veh/h	0	16	21	21	16	0	0	0	0	21	384	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	17	23	23	17	0	0	0	0	23	417	23
Major/Minor	Minor2		Minor1				Major2					
Conflicting Flow All	-	475	429	495	486	-				0	0	0
Stage 1	-	475	-	0	0	-				-	-	-
Stage 2	-	0	-	495	486	-				-	-	-
Critical Hdwy	-	6.52	6.22	7.12	6.52	-				4.12	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-				-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-				-	-	-
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-				2.218	-	-
Pot Cap-1 Maneuver	0	488	626	485	481	0				-	-	-
Stage 1	0	557	-	-	-	0				-	-	-
Stage 2	0	-	-	556	551	0				-	-	-
Platoon blocked, %											-	-
Mov Cap-1 Maneuver	-	488	626	454	481	-				-	-	-
Mov Cap-2 Maneuver	-	488	-	454	481	-				-	-	-
Stage 1	-	557	-	-	-	-				-	-	-
Stage 2	-	-	-	519	551	-				-	-	-
Approach	EB		WB				SB					
HCM Control Delay, s	12		13.5									
HCM LOS	B		B									
Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR							
Capacity (veh/h)	558 465		-	-	-							
HCM Lane V/C Ratio	0.072 0.086		-	-	-							
HCM Control Delay (s)	12 13.5		-	-	-							
HCM Lane LOS	B B		-	-	-							
HCM 95th %tile Q(veh)	0.2 0.3		-	-	-							

Lanes, Volumes, Timings
64: Humboldt Parkway NB & Winslow Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	21	0	0	21	16	16	245	16	0	0	0
Future Volume (vph)	16	21	0	0	21	16	16	245	16	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.943			0.992				
Flt Protected		0.979						0.997				
Satd. Flow (prot)	0	1824	0	0	1757	0	0	1842	0	0	0	0
Flt Permitted		0.979						0.997				
Satd. Flow (perm)	0	1824	0	0	1757	0	0	1842	0	0	0	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		154			330			461			268	
Travel Time (s)		3.5			7.5			10.5			6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	23	0	0	23	17	17	266	17	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	40	0	0	40	0	0	300	0	0	0	0
Sign Control		Stop			Stop			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	30.1%											
Analysis Period (min)	15											
ICU Level of Service A												

HCM 6th TWSC
64: Humboldt Parkway NB & Winslow Ave

03/21/2022

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	21	0	0	21	16	16	245	16	0	0	0
Future Vol, veh/h	16	21	0	0	21	16	16	245	16	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	23	0	0	23	17	17	266	17	0	0	0
Major/Minor	Minor2		Minor1		Major1							
Conflicting Flow All	329	317	-	-	309	275	0	0	0			
Stage 1	0	0	-	-	309	-	-	-	-			
Stage 2	329	317	-	-	0	-	-	-	-			
Critical Hdwy	7.12	6.52	-	-	6.52	6.22	4.12	-	-			
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-			
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-			
Follow-up Hdwy	3.518	4.018	-	-	4.018	3.318	2.218	-	-			
Pot Cap-1 Maneuver	624	599	0	0	605	764	-	-	-			
Stage 1	-	-	0	0	660	-	-	-	-			
Stage 2	684	654	0	0	-	-	-	-	-			
Platoon blocked, %								-	-			
Mov Cap-1 Maneuver	592	599	-	-	605	764	-	-	-			
Mov Cap-2 Maneuver	592	599	-	-	605	-	-	-	-			
Stage 1	-	-	-	-	660	-	-	-	-			
Stage 2	645	654	-	-	-	-	-	-	-			
Approach	EB		WB		NB							
HCM Control Delay, s	11.5		10.8									
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1							
Capacity (veh/h)	-	-	-	596	665							
HCM Lane V/C Ratio	-	-	-	0.067	0.06							
HCM Control Delay (s)	-	-	-	11.5	10.8							
HCM Lane LOS	-	-	-	B	B							
HCM 95th %tile Q(veh)	-	-	-	0.2	0.2							

Lanes, Volumes, Timings
118: Humboldt Parkway SB

03/21/2022

						
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	306			252	236	
Travel Time (s)	7.0			5.7	5.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	18.3%			ICU Level of Service A		
Analysis Period (min)	15					

Appendix C4

Synchro Outputs for Concept 7

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	319	492	0	0	311	289	46	69	148	0	0	0
Future Volume (vph)	319	492	0	0	311	289	46	69	148	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		0	0		250	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.928				0.850			
Flt Protected	0.950	0.995						0.980				
Satd. Flow (prot)	1610	3373	0	0	3284	0	0	1825	1583	0	0	0
Flt Permitted	0.950	0.995						0.980				
Satd. Flow (perm)	1610	3373	0	0	3284	0	0	1825	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					234				161			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		249			205			354			335	
Travel Time (s)		5.7			4.7			8.0			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	347	535	0	0	338	314	50	75	161	0	0	0
Shared Lane Traffic (%)	18%											
Lane Group Flow (vph)	285	597	0	0	652	0	0	125	161	0	0	0
Turn Type	custom	NA			NA		Perm	NA	Perm			
Protected Phases	6	6			3			4				
Permitted Phases	6						4		4			
Detector Phase	6	6			3		4	4	4			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	9.5	9.5			22.5		22.5	22.5	22.5			
Total Split (s)	45.0	45.0			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			25.0%		25.0%	25.0%	25.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag					Lead		Lag	Lag	Lag			
Lead-Lag Optimize?					Yes		Yes	Yes	Yes			
Recall Mode	None	None			Max		C-Max	C-Max	C-Max			
Act Effct Green (s)	40.5	40.5			18.0			18.0	18.0			
Actuated g/C Ratio	0.45	0.45			0.20			0.20	0.20			
v/c Ratio	0.39	0.39			0.77			0.34	0.36			
Control Delay	5.3	4.8			28.7			34.0	7.8			
Queue Delay	1.7	0.9			20.0			0.0	0.0			
Total Delay	7.0	5.7			48.7			34.0	7.8			
LOS	A	A			D			C	A			
Approach Delay		6.1			48.7			19.3				
Approach LOS		A			D			B				
Intersection Summary												

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

03/10/2022

Lane Group	Ø1	Ø2	Ø8
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	1	2	8
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	22.5	22.5	45.0
Total Split (%)	25%	25%	50%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	Max	None	C-Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Intersection Summary			

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

03/10/2022

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 23.4

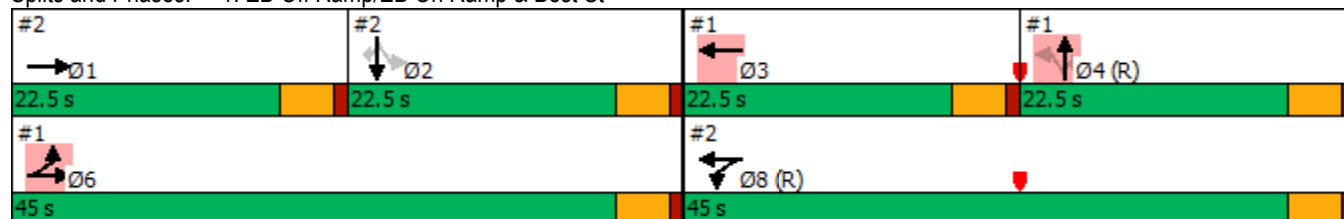
Intersection LOS: C

Intersection Capacity Utilization 72.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: EB Off Ramp/EB On Ramp & Best St



Lanes, Volumes, Timings
2: WB On Ramp/WB Off Ramp & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	505	44	111	246	0	0	0	0	306	0	391
Future Volume (vph)	0	505	44	111	246	0	0	0	0	306	0	391
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	75		0	0		0	0		75
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988										0.850
Flt Protected				0.950							0.950	
Satd. Flow (prot)	0	3497	0	1770	3539	0	0	0	0	0	1770	1583
Flt Permitted				0.950							0.950	
Satd. Flow (perm)	0	3497	0	1770	3539	0	0	0	0	0	1770	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9										255
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		473			249			324			375	
Travel Time (s)		10.8			5.7			7.4			8.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	549	48	121	267	0	0	0	0	333	0	425
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	597	0	121	267	0	0	0	0	0	333	425
Turn Type		NA		custom	NA					Perm	NA	Perm
Protected Phases		1		8	8						2	
Permitted Phases				8						2		2
Detector Phase		1		8	8					2	2	2
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		22.5		45.0	45.0					22.5	22.5	22.5
Total Split (%)		25.0%		50.0%	50.0%					25.0%	25.0%	25.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5						4.5	4.5
Lead/Lag		Lead								Lag	Lag	Lag
Lead-Lag Optimize?		Yes								Yes	Yes	Yes
Recall Mode		Max		C-Max	C-Max					None	None	None
Act Effct Green (s)		18.0		40.5	40.5						18.0	18.0
Actuated g/C Ratio		0.20		0.45	0.45						0.20	0.20
v/c Ratio		0.85		0.15	0.17						0.94	0.82
Control Delay		46.9		4.8	4.8						72.5	27.9
Queue Delay		0.0		0.7	0.0						0.0	0.0
Total Delay		46.9		5.5	4.8						72.5	27.9
LOS		D		A	A						E	C
Approach Delay		46.9			5.0						47.5	
Approach LOS		D			A						D	
Intersection Summary												

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

03/10/2022

Lane Group	Ø3	Ø4	Ø6
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	3	4	6
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5
Total Split (s)	22.5	22.5	45.0
Total Split (%)	25%	25%	50%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	Max	C-Max	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Intersection Summary			

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

03/10/2022

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 37.8

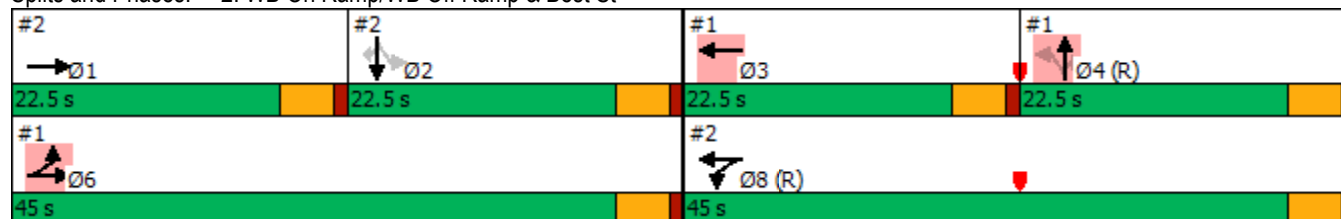
Intersection LOS: D

Intersection Capacity Utilization 72.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 2: WB On Ramp/WB Off Ramp & Best St



Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/10/2022

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	47	5	546	96	40	493	2	23	59	21	6	1
Future Volume (vph)	47	5	546	96	40	493	2	23	59	21	6	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		75		0	0		0		0		0	
Storage Lanes		1		1	0		0		0		0	
Taper Length (ft)		25			25				25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.994				0.989		
Flt Protected		0.950				0.996				0.967		
Satd. Flow (prot)	0	1770	1863	1583	0	1844	0	0	0	1781	0	0
Flt Permitted		0.257				0.932				0.786		
Satd. Flow (perm)	0	479	1863	1583	0	1726	0	0	0	1448	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)				104		4				1		
Link Speed (mph)			30			30				30		
Link Distance (ft)			205			1418				1329		
Travel Time (s)			4.7			32.2				30.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	51	5	593	104	43	536	2	25	64	23	7	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	56	593	104	0	606	0	0	0	95	0	0
Turn Type	pm+pt	pm+pt	NA	Perm	Perm	NA			Perm	NA		
Protected Phases	7	7	4			8				2		
Permitted Phases	4	4		4	8				2			
Detector Phase	7	7	4	4	8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0			5.0	5.0		
Minimum Split (s)	9.5	9.5	22.5	22.5	22.5	22.5			22.5	22.5		
Total Split (s)	9.5	9.5	37.5	37.5	28.0	28.0			22.5	22.5		
Total Split (%)	15.8%	15.8%	62.5%	62.5%	46.7%	46.7%			37.5%	37.5%		
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5			3.5	3.5		
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0		
Lost Time Adjust (s)		0.0	0.0	0.0		0.0				0.0		
Total Lost Time (s)		4.5	4.5	4.5		4.5				4.5		
Lead/Lag	Lead	Lead			Lag	Lag						
Lead-Lag Optimize?	Yes	Yes			Yes	Yes						
Recall Mode	None	None	None	None	None	None			C-Max	C-Max		
Act Effct Green (s)		28.7	28.7	28.7		23.0				22.3		
Actuated g/C Ratio		0.48	0.48	0.48		0.38				0.37		
v/c Ratio		0.17	0.66	0.13		0.91				0.18		
Control Delay		7.8	15.3	2.1		38.8				16.2		
Queue Delay		0.0	35.7	0.0		0.0				0.0		
Total Delay		7.8	51.1	2.1		38.8				16.2		
LOS		A	D	A		D				B		
Approach Delay			41.1			38.8				16.2		
Approach LOS			D			D				B		

Intersection Summary

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/10/2022



Lane Group	SBL	SBT	SBR
Lane Configurations		↰	↱
Traffic Volume (vph)	58	36	72
Future Volume (vph)	58	36	72
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	0		75
Storage Lanes	0		1
Taper Length (ft)	25		
Lane Util. Factor	1.00	1.00	1.00
Frt			0.850
Flt Protected		0.970	
Satd. Flow (prot)	0	1807	1583
Flt Permitted		0.803	
Satd. Flow (perm)	0	1496	1583
Right Turn on Red			Yes
Satd. Flow (RTOR)			109
Link Speed (mph)		30	
Link Distance (ft)		738	
Travel Time (s)		16.8	
Peak Hour Factor	0.92	0.92	0.92
Adj. Flow (vph)	63	39	78
Shared Lane Traffic (%)			
Lane Group Flow (vph)	0	102	78
Turn Type	Perm	NA	Perm
Protected Phases		6	
Permitted Phases	6		6
Detector Phase	6	6	6
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5
Total Split (%)	37.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0
Total Lost Time (s)		4.5	4.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	C-Max
Act Effct Green (s)		22.3	22.3
Actuated g/C Ratio		0.37	0.37
v/c Ratio		0.18	0.12
Control Delay		16.4	2.7
Queue Delay		0.0	0.0
Total Delay		16.4	2.7
LOS		B	A
Approach Delay		10.5	
Approach LOS		B	
Intersection Summary			

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/10/2022

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 35.4

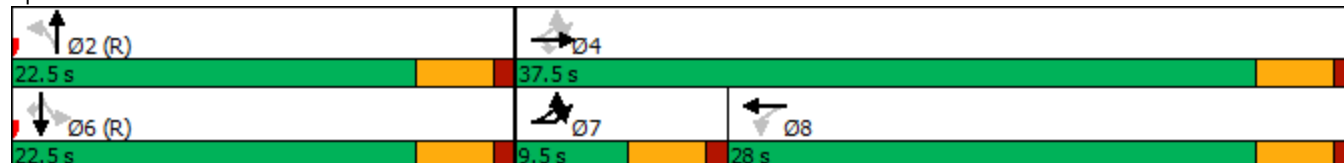
Intersection LOS: D

Intersection Capacity Utilization 79.6%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 3: Herman St/W Parade Ave & Best St



Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/10/2022

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	71	1	4	44	0	0	0	0	195	172	66	
Future Volume (vph)	0	71	1	4	44	0	0	0	0	195	172	66	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.998										0.979		
Flt Protected	0.996										0.978		
Satd. Flow (prot)	0	1859	0	0	1855	0	0	0	0	0	1784	0	
Flt Permitted	0.971										0.978		
Satd. Flow (perm)	0	1859	0	0	1809	0	0	0	0	0	1784	0	
Right Turn on Red	Yes					Yes				Yes			Yes
Satd. Flow (RTOR)	1										23		
Link Speed (mph)	30				30				30				
Link Distance (ft)	1045				283				370				
Travel Time (s)	23.8				6.4				8.4				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	77	1	4	48	0	0	0	0	212	187	72	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	78	0	0	52	0	0	0	0	0	471	0	
Turn Type	NA			Perm		NA		Perm			NA		
Protected Phases	4				8				6				
Permitted Phases					8				6				
Detector Phase	4			8		8		6			6		
Switch Phase													
Minimum Initial (s)	5.0			5.0		5.0		5.0			5.0		
Minimum Split (s)	22.5			22.5		22.5		22.5			22.5		
Total Split (s)	24.0			24.0		24.0		36.0			36.0		
Total Split (%)	40.0%			40.0%		40.0%		60.0%			60.0%		
Yellow Time (s)	3.5			3.5		3.5		3.5			3.5		
All-Red Time (s)	1.0			1.0		1.0		1.0			1.0		
Lost Time Adjust (s)	0.0				0.0				0.0				
Total Lost Time (s)	4.5				4.5				4.5				
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode	None			None		None		Max			Max		
Act Effct Green (s)	7.8				7.8				35.5				
Actuated g/C Ratio	0.16				0.16				0.72				
v/c Ratio	0.27				0.18				0.37				
Control Delay	19.8				16.1				4.8				
Queue Delay	0.0				0.0				0.0				
Total Delay	19.8				16.1				4.8				
LOS	B				B				A				
Approach Delay	19.8				16.1				4.8				
Approach LOS	B				B				A				
Intersection Summary													
Area Type:	Other												
Cycle Length: 60													
Actuated Cycle Length: 49.5													

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/10/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	36.0
Total Split (%)	60%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.37

Intersection Signal Delay: 7.8

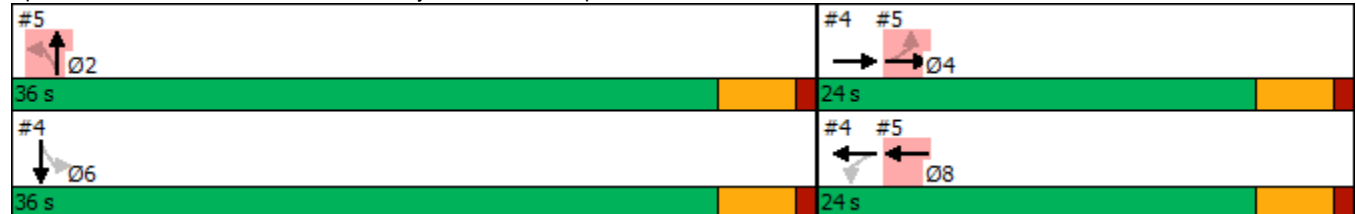
Intersection LOS: A

Intersection Capacity Utilization 37.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: Humboldt Parkway SB & Northhampton St



Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	48	0	0	79	22	5	20	8	0	0	0
Future Volume (vph)	15	48	0	0	79	22	5	20	8	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.971			0.966				
Fl _t Protected		0.988						0.993				
Satd. Flow (prot)	0	1840	0	0	1809	0	0	1787	0	0	0	0
Fl _t Permitted		0.891						0.993				
Satd. Flow (perm)	0	1660	0	0	1809	0	0	1787	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					24			9				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		283			1089			152				722
Travel Time (s)		6.4			24.8			3.5				16.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	52	0	0	86	24	5	22	9	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	68	0	0	110	0	0	36	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (s)	24.0	24.0			24.0		36.0	36.0				
Total Split (%)	40.0%	40.0%			40.0%		60.0%	60.0%				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max				
Act Effct Green (s)		7.8			7.8			35.5				
Actuated g/C Ratio		0.16			0.16			0.72				
v/c Ratio		0.26			0.36			0.03				
Control Delay		19.4			18.2			3.0				
Queue Delay		0.0			0.0			0.0				
Total Delay		19.4			18.2			3.0				
LOS		B			B			A				
Approach Delay		19.4			18.2			3.0				
Approach LOS		B			B			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 49.5												

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

03/10/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	36.0
Total Split (%)	60%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.37

Intersection Signal Delay: 16.0

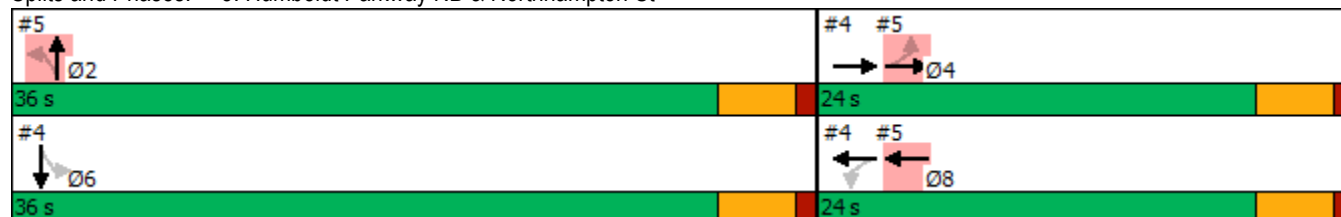
Intersection LOS: B

Intersection Capacity Utilization 21.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Humboldt Parkway NB & Northhampton St



Lanes, Volumes, Timings
6: Humboldt Parkway SB & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	84	33	53	77	0	0	0	0	51	353	61
Future Volume (vph)	0	84	33	53	77	0	0	0	0	51	353	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.962									0.980	
Flt Protected				0.950							0.995	
Satd. Flow (prot)	0	1792	0	1770	1863	0	0	0	0	0	3451	0
Flt Permitted				0.676							0.995	
Satd. Flow (perm)	0	1792	0	1259	1863	0	0	0	0	0	3451	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36									44	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1173			153			636			456	
Travel Time (s)		26.7			3.5			14.5			10.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	91	36	58	84	0	0	0	0	55	384	66
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	127	0	58	84	0	0	0	0	0	505	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		4.5		4.5	4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					Max	Max	
Act Effct Green (s)		7.8		7.8	7.8						21.8	
Actuated g/C Ratio		0.22		0.22	0.22						0.61	
v/c Ratio		0.30		0.21	0.21						0.24	
Control Delay		10.5		9.1	8.5						4.8	
Queue Delay		0.0		0.0	0.0						0.0	
Total Delay		10.5		9.1	8.5						4.8	
LOS		B		A	A						A	
Approach Delay		10.5			8.8						4.8	
Approach LOS		B			A						A	
Intersection Summary												

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

03/10/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

03/10/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 35.8

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.32

Intersection Signal Delay: 6.4

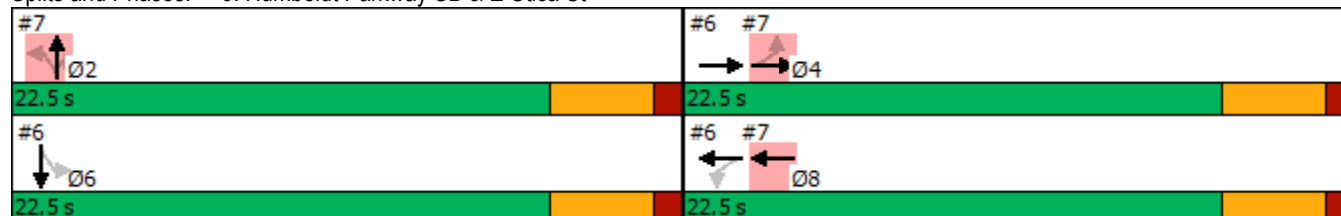
Intersection LOS: A

Intersection Capacity Utilization 48.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: Humboldt Parkway SB & E Utica St



Lanes, Volumes, Timings
7: Humboldt Parkway NB & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	94	0	0	105	16	63	181	44	0	0	0
Future Volume (vph)	55	94	0	0	105	16	63	181	44	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.982				0.850			
Fl _t Protected	0.950							0.987				
Satd. Flow (prot)	1770	1863	0	0	1829	0	0	1839	1583	0	0	0
Fl _t Permitted	0.673							0.987				
Satd. Flow (perm)	1254	1863	0	0	1829	0	0	1839	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					17				48			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		153			1083			610			294	
Travel Time (s)		3.5			24.6			13.9			6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	102	0	0	114	17	68	197	48	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	102	0	0	131	0	0	265	48	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max	Max			
Act Effct Green (s)	7.8	7.8			7.8			21.8	21.8			
Actuated g/C Ratio	0.22	0.22			0.22			0.61	0.61			
v/c Ratio	0.22	0.25			0.32			0.24	0.05			
Control Delay	10.1	9.8			12.1			5.8	2.4			
Queue Delay	0.0	0.0			0.0			0.0	0.0			
Total Delay	10.2	9.9			12.1			5.8	2.4			
LOS	B	A			B			A	A			
Approach Delay		10.0			12.1			5.3				
Approach LOS		A			B			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.8												

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

03/10/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings 7: Humboldt Parkway NB & E Utica St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.32

Intersection Signal Delay: 8.0

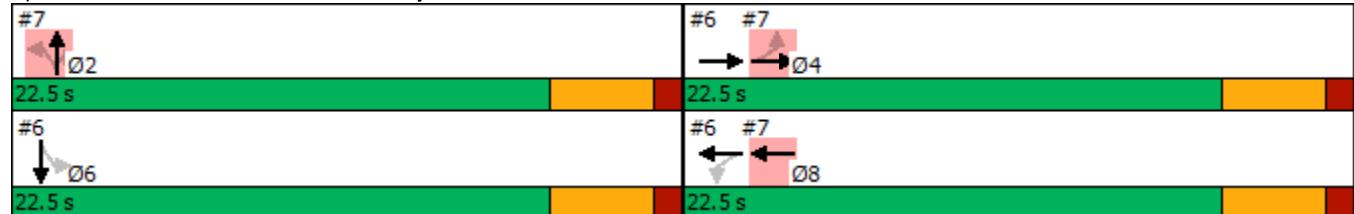
Intersection LOS: A

Intersection Capacity Utilization 48.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 7: Humboldt Parkway NB & E Utica St



Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	269	51	85	154	0	0	0	0	237	349	422
Future Volume (vph)	0	269	51	85	154	0	0	0	0	237	349	422
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't	0.979											0.850
Flt Protected				0.950							0.980	
Satd. Flow (prot)	0	1824	0	1770	1863	0	0	0	0	0	1825	1583
Flt Permitted				0.445							0.980	
Satd. Flow (perm)	0	1824	0	829	1863	0	0	0	0	0	1825	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22										459
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1179			147			319			270	
Travel Time (s)		26.8			3.3			7.3			6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	292	55	92	167	0	0	0	0	258	379	459
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	347	0	92	167	0	0	0	0	0	637	459
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		23.0		23.0	23.0					27.0	27.0	27.0
Total Split (%)		46.0%		46.0%	46.0%					54.0%	54.0%	54.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					Max	Max	Max
Act Effct Green (s)		15.7		15.7	15.7						22.6	22.6
Actuated g/C Ratio		0.33		0.33	0.33						0.48	0.48
v/c Ratio		0.56		0.34	0.27						0.73	0.46
Control Delay		15.8		8.7	6.6						18.1	2.9
Queue Delay		0.2		0.6	0.7						1.5	0.0
Total Delay		16.0		9.3	7.3						19.5	2.9
LOS		B		A	A						B	A
Approach Delay		16.0			8.0						12.6	
Approach LOS		B			A						B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 47.4												

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/10/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	27.0
Total Split (%)	54%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/10/2022

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 12.6

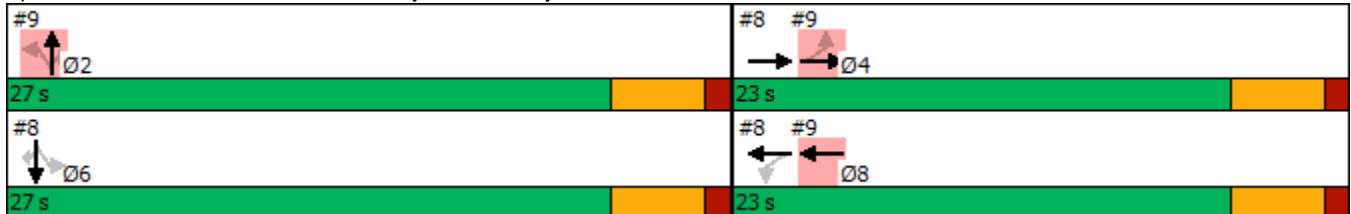
Intersection LOS: B

Intersection Capacity Utilization 86.5%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 8: Humboldt Parkway SB & E Ferry St



Lanes, Volumes, Timings
9: Humboldt Parkway NB & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	219	270	0	0	213	63	47	202	41	0	0	0
Future Volume (vph)	219	270	0	0	213	63	47	202	41	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	75		0	0		0
Storage Lanes	1		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.969				0.850			
Flt Protected	0.950							0.991				
Satd. Flow (prot)	1770	1863	0	0	1805	0	0	1846	1583	0	0	0
Flt Permitted	0.509							0.991				
Satd. Flow (perm)	948	1863	0	0	1805	0	0	1846	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					33				45			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		147			1082			312			608	
Travel Time (s)		3.3			24.6			7.1			13.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	238	293	0	0	232	68	51	220	45	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	238	293	0	0	300	0	0	271	45	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	23.0	23.0			23.0		27.0	27.0	27.0			
Total Split (%)	46.0%	46.0%			46.0%		54.0%	54.0%	54.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max	Max			
Act Effct Green (s)	15.7	15.7			15.7			22.6	22.6			
Actuated g/C Ratio	0.33	0.33			0.33			0.48	0.48			
v/c Ratio	0.76	0.47			0.48			0.31	0.06			
Control Delay	26.4	11.4			13.8			9.7	3.3			
Queue Delay	2.6	2.2			0.0			0.0	0.0			
Total Delay	29.0	13.6			13.8			9.7	3.3			
LOS	C	B			B			A	A			
Approach Delay		20.5			13.8			8.8				
Approach LOS		C			B			A				
Intersection Summary												

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

03/10/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	27.0
Total Split (%)	54%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

03/10/2022

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 47.4

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 15.5

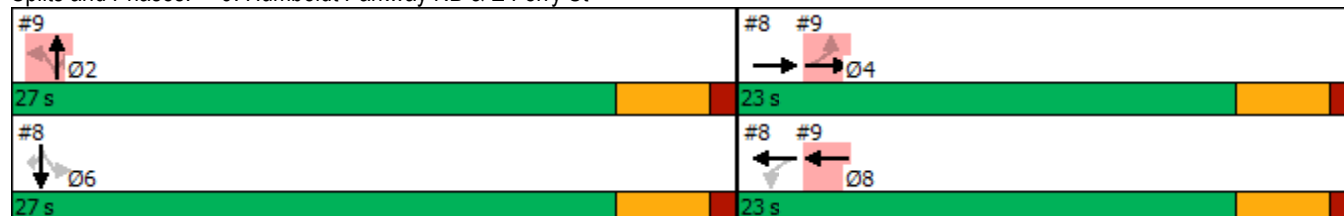
Intersection LOS: B

Intersection Capacity Utilization 86.5%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 9: Humboldt Parkway NB & E Ferry St



Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

03/10/2022

											
Lane Group	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	Ø8
Lane Configurations											
Traffic Volume (vph)	11	0	0	341	208	125	476	0	0	0	
Future Volume (vph)	11	0	0	341	208	125	476	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	
Frt											
				0.943							
Flt Protected	0.950						0.990				
Satd. Flow (prot)	1770	0	0	3337	0	0	3504	0	0	0	
Flt Permitted	0.950						0.734				
Satd. Flow (perm)	1770	0	0	3337	0	0	2598	0	0	0	
Right Turn on Red	Yes			Yes			Yes				
Satd. Flow (RTOR)				226							
Link Speed (mph)	30				30		30		30		
Link Distance (ft)	537				328		271		387		
Travel Time (s)	12.2				7.5		6.2		8.8		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	12	0	0	371	226	136	517	0	0	0	
Shared Lane Traffic (%)											
Lane Group Flow (vph)	12	0	0	597	0	0	653	0	0	0	
Turn Type	Prot				NA		Perm		NA		
Protected Phases	4				2		6				
Permitted Phases							6				
Detector Phase	4				2		6		6		
Switch Phase											
Minimum Initial (s)	5.0				5.0		5.0		5.0		
Minimum Split (s)	22.5				22.5		22.5		22.5		
Total Split (s)	22.5				22.5		22.5		22.5		
Total Split (%)	50.0%				50.0%		50.0%		50.0%		
Yellow Time (s)	3.5				3.5		3.5		3.5		
All-Red Time (s)	1.0				1.0		1.0		1.0		
Lost Time Adjust (s)	0.0				0.0		0.0				
Total Lost Time (s)	4.5				4.5		4.5				
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None				Max		Max		Max		None
Act Effct Green (s)	15.5				18.1		18.1				
Actuated g/C Ratio	0.36				0.42		0.42				
v/c Ratio	0.02				0.39		0.59				
Control Delay	8.4				6.4		8.4				
Queue Delay	0.0				0.0		0.0				
Total Delay	8.4				6.4		8.4				
LOS	A				A		A				
Approach Delay	8.4				6.4		8.4				
Approach LOS	A				A		A				
Intersection Summary											
Area Type:	Other										
Cycle Length: 45											
Actuated Cycle Length: 42.7											

Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 7.5

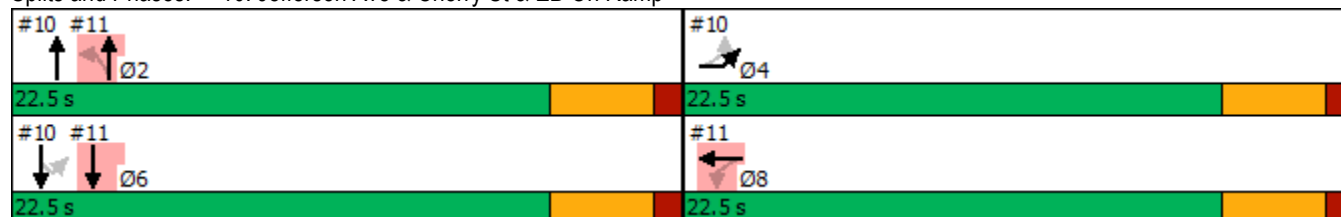
Intersection LOS: A

Intersection Capacity Utilization 48.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 10: Jefferson Ave & Cherry St & EB On Ramp



Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Traffic Volume (vph)	0	0	0	212	19	330	42	316	0	0	405	21
Future Volume (vph)	0	0	0	212	19	330	42	316	0	0	405	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt					0.921						0.993	
Flt Protected					0.981			0.994				
Satd. Flow (prot)	0	0	0	0	1683	0	0	3518	0	0	3514	0
Flt Permitted					0.981			0.871				
Satd. Flow (perm)	0	0	0	0	1683	0	0	3083	0	0	3514	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					191						14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			384			271			880	
Travel Time (s)		12.9			8.7			6.2			20.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	230	21	359	46	343	0	0	440	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	610	0	0	389	0	0	463	0
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8			2					
Detector Phase				8	8		2	2			6	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (%)				50.0%	50.0%		50.0%	50.0%			50.0%	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)					15.5			18.1			18.1	
Actuated g/C Ratio					0.36			0.42			0.42	
v/c Ratio					0.83			0.30			0.31	
Control Delay					20.8			5.8			9.2	
Queue Delay					0.0			0.0			0.0	
Total Delay					20.8			5.8			9.2	
LOS					C			A			A	
Approach Delay					20.8			5.8			9.2	
Approach LOS					C			A			A	
Intersection Summary												

Lanes, Volumes, Timings
11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/10/2022

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/10/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 42.7

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 13.2

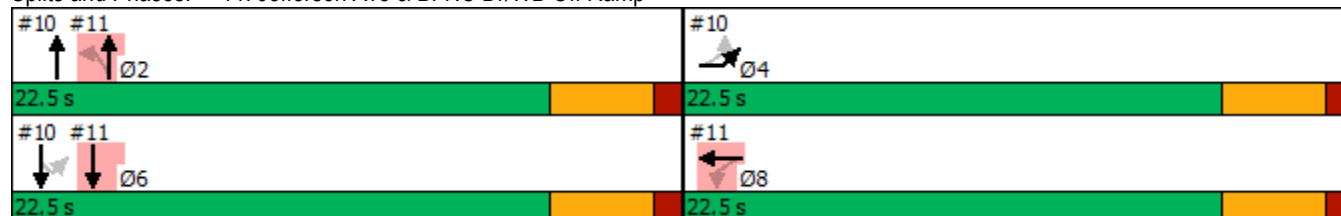
Intersection LOS: B

Intersection Capacity Utilization 66.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 11: Jefferson Ave & BFNC Dr/WB Off Ramp



Lanes, Volumes, Timings
12: Jefferson Ave & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	103	13	82	188	42	8	430	25	26	396	63
Future Volume (vph)	44	103	13	82	188	42	8	430	25	26	396	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Flt		0.988			0.980			0.992			0.981	
Flt Protected		0.986			0.987			0.999			0.997	
Satd. Flow (prot)	0	3448	0	0	3423	0	0	3507	0	0	3462	0
Flt Permitted		0.796			0.828			0.946			0.919	
Satd. Flow (perm)	0	2783	0	0	2872	0	0	3321	0	0	3191	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			46			15			43	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		737			2886			735			328	
Travel Time (s)		16.8			65.6			16.7			7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	48	112	14	89	204	46	9	467	27	28	430	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	174	0	0	339	0	0	503	0	0	526	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		9.1			9.1			18.6			18.6	
Actuated g/C Ratio		0.25			0.25			0.51			0.51	
v/c Ratio		0.25			0.45			0.30			0.32	
Control Delay		10.6			11.8			6.2			6.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.6			11.8			6.2			6.0	
LOS		B			B			A			A	
Approach Delay		10.6			11.8			6.2			6.0	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.7												

Lanes, Volumes, Timings

12: Jefferson Ave & Genesee St

03/10/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 7.9

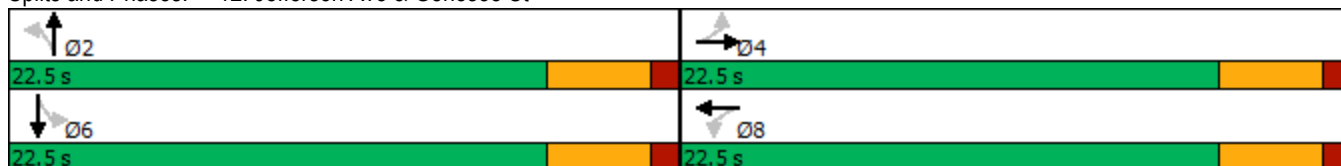
Intersection LOS: A

Intersection Capacity Utilization 55.1%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 12: Jefferson Ave & Genesee St



Lanes, Volumes, Timings
13: Herman St & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	202	3	15	406	10	18	58	5	43	123	16
Future Volume (vph)	13	202	3	15	406	10	18	58	5	43	123	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.996			0.992			0.988	
Flt Protected		0.997			0.998			0.989			0.988	
Satd. Flow (prot)	0	3522	0	0	3518	0	0	1828	0	0	1818	0
Flt Permitted		0.927			0.944			0.916			0.894	
Satd. Flow (perm)	0	3274	0	0	3328	0	0	1693	0	0	1645	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			6			5			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2886			671			575			1329	
Travel Time (s)		65.6			15.3			13.1			30.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	220	3	16	441	11	20	63	5	47	134	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	237	0	0	468	0	0	88	0	0	198	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effct Green (s)		22.0			22.0			9.2			9.2	
Actuated g/C Ratio		0.59			0.59			0.25			0.25	
v/c Ratio		0.12			0.24			0.21			0.47	
Control Delay		5.6			5.9			11.1			14.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		5.6			5.9			11.1			14.6	
LOS		A			A			B			B	
Approach Delay		5.6			5.9			11.1			14.6	
Approach LOS		A			A			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.3												

Lanes, Volumes, Timings

13: Herman St & Genesee St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 8.0

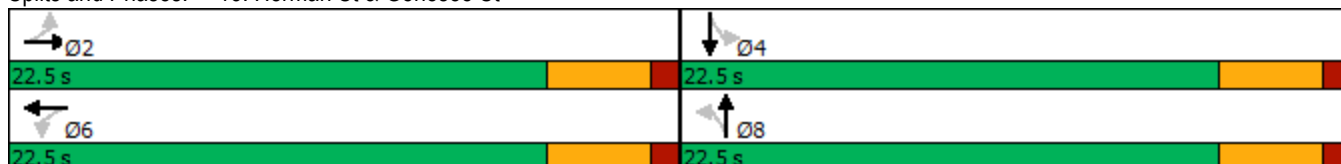
Intersection LOS: A

Intersection Capacity Utilization 42.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 13: Herman St & Genesee St



Lanes, Volumes, Timings
14: Reed St/Rich St & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	242	0	0	436	12	10	3	9	4	0	4
Future Volume (vph)	2	242	0	0	436	12	10	3	9	4	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.996			0.944			0.932	
Fl _t Protected								0.978			0.976	
Satd. Flow (prot)	0	3539	0	0	3525	0	0	1720	0	0	1694	0
Fl _t Permitted		0.953										
Satd. Flow (perm)	0	3373	0	0	3525	0	0	1758	0	0	1736	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7			10			36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		671			961			780			839	
Travel Time (s)		15.3			21.8			17.7			19.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	263	0	0	474	13	11	3	10	4	0	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	265	0	0	487	0	0	24	0	0	8	0
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2						8			4		
Detector Phase	2	2			6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		None	None		None	None	
Act Effct Green (s)		35.2			35.2			6.0			5.8	
Actuated g/C Ratio		0.92			0.92			0.16			0.15	
v/c Ratio		0.09			0.15			0.08			0.03	
Control Delay		1.3			1.3			12.0			1.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		1.3			1.3			12.0			1.3	
LOS		A			A			B			A	
Approach Delay		1.3			1.3			12.0			1.3	
Approach LOS		A			A			B			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 38.2												

Lanes, Volumes, Timings

14: Reed St/Rich St & Genesee St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.15

Intersection Signal Delay: 1.7

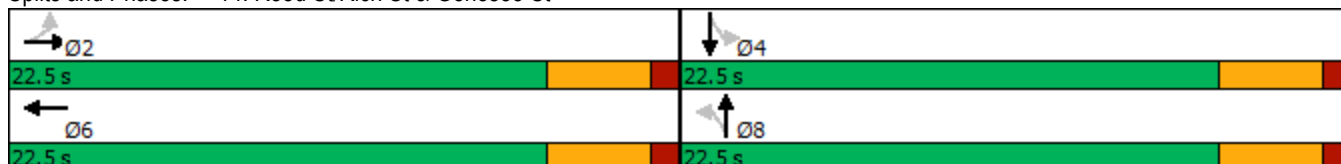
Intersection LOS: A

Intersection Capacity Utilization 24.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Reed St/Rich St & Genesee St



Lanes, Volumes, Timings
15: Fillmore Ave & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	192	35	87	321	4	31	241	49	9	316	40
Future Volume (vph)	33	192	35	87	321	4	31	241	49	9	316	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.999			0.979			0.985	
Flt Protected		0.994			0.990			0.995			0.999	
Satd. Flow (prot)	0	3448	0	0	3500	0	0	1815	0	0	1833	0
Flt Permitted		0.863			0.817			0.942			0.989	
Satd. Flow (perm)	0	2993	0	0	2889	0	0	1718	0	0	1815	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38			2			24			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		961			671			704			490	
Travel Time (s)		21.8			15.3			16.0			11.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	36	209	38	95	349	4	34	262	53	10	343	43
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	283	0	0	448	0	0	349	0	0	396	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		11.4			11.4			18.1			18.1	
Actuated g/C Ratio		0.30			0.30			0.47			0.47	
v/c Ratio		0.31			0.53			0.43			0.46	
Control Delay		9.7			13.5			9.2			9.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.7			13.5			9.2			9.7	
LOS		A			B			A			A	
Approach Delay		9.7			13.5			9.2			9.7	
Approach LOS		A			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 38.5												

Lanes, Volumes, Timings

15: Fillmore Ave & Genesee St

03/10/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.53

Intersection Signal Delay: 10.7

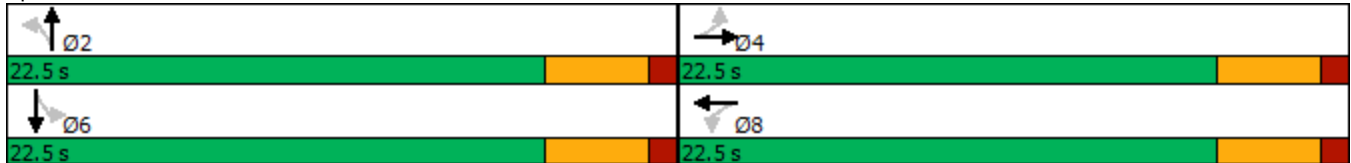
Intersection LOS: B

Intersection Capacity Utilization 61.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 15: Fillmore Ave & Genesee St



Lanes, Volumes, Timings
16: Fillmore Ave & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	328	153	2	366	14	121	213	8	17	224	41
Future Volume (vph)	39	328	153	2	366	14	121	213	8	17	224	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.995			0.997				0.850
Flt Protected		0.996						0.983			0.997	
Satd. Flow (prot)	0	1781	0	0	1853	0	0	1826	0	0	1857	1583
Flt Permitted		0.954			0.998			0.794			0.966	
Satd. Flow (perm)	0	1706	0	0	1850	0	0	1475	0	0	1799	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		55			5			3				45
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1418			567			490				61
Travel Time (s)		32.2			12.9			11.1				1.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	357	166	2	398	15	132	232	9	18	243	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	565	0	0	415	0	0	373	0	0	261	45
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)		4.5			4.5			4.5			4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	C-Max
Act Effct Green (s)		16.6			16.6			19.4			19.4	19.4
Actuated g/C Ratio		0.37			0.37			0.43			0.43	0.43
v/c Ratio		0.85			0.60			0.59			0.34	0.06
Control Delay		26.4			15.3			15.1			2.9	0.2
Queue Delay		7.5			0.8			0.0			0.0	0.0
Total Delay		33.8			16.1			15.2			2.9	0.2
LOS		C			B			B			A	A
Approach Delay		33.8			16.1			15.2			2.5	
Approach LOS		C			B			B			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 45												

Lanes, Volumes, Timings

16: Fillmore Ave & Best St

03/10/2022

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 19.4

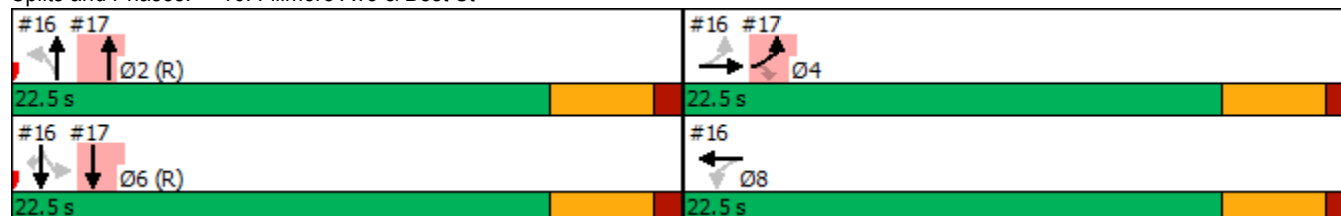
Intersection LOS: B

Intersection Capacity Utilization 95.1%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 16: Fillmore Ave & Best St



Lanes, Volumes, Timings
17: Fillmore Ave & East Park

03/10/2022

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	5	3	0	265	286	0	
Future Volume (vph)	5	3	0	265	286	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	0			100	
Storage Lanes	1	1	0			1	
Taper Length (ft)	25		25				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	
Frt		0.850					
Flt Protected	0.950						
Satd. Flow (prot)	1770	1583	0	1863	3539	0	
Flt Permitted	0.950						
Satd. Flow (perm)	1770	1583	0	1863	3539	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		3					
Link Speed (mph)	30			30	30		
Link Distance (ft)	468			61	755		
Travel Time (s)	10.6			1.4	17.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	5	3	0	288	311	0	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	5	3	0	288	311	0	
Turn Type	Prot	Perm		NA	NA		
Protected Phases	4			2	6		8
Permitted Phases		4					
Detector Phase	4	4		2	6		
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5
Total Split (s)	22.5	22.5		22.5	22.5		22.5
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		
Total Lost Time (s)	4.5	4.5		4.5	4.5		
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None		C-Max	C-Max		None
Act Effct Green (s)	16.6	16.6		19.4	19.4		
Actuated g/C Ratio	0.37	0.37		0.43	0.43		
v/c Ratio	0.01	0.01		0.36	0.20		
Control Delay	8.2	6.3		4.8	9.0		
Queue Delay	0.0	0.0		0.0	0.0		
Total Delay	8.2	6.3		4.8	9.0		
LOS	A	A		A	A		
Approach Delay	7.5			4.8	9.0		
Approach LOS	A			A	A		
Intersection Summary							

Lanes, Volumes, Timings

17: Fillmore Ave & East Park

03/10/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 7.0

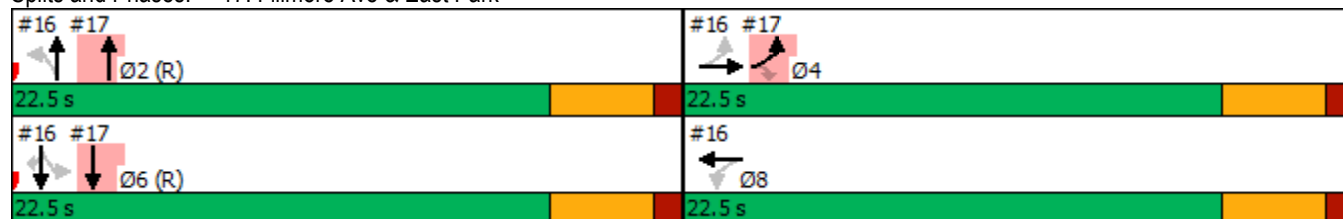
Intersection LOS: A

Intersection Capacity Utilization 25.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Fillmore Ave & East Park



Lanes, Volumes, Timings
18: Fillmore Ave & MLK Park

03/10/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	11	21	0	211	262	0
Future Volume (vph)	11	21	0	211	262	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr't	0.850					
Flt Protected	0.950					
Satd. Flow (prot)	1770	1583	0	1863	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1583	0	1863	1863	0
Right Turn on Red	Yes					
Satd. Flow (RTOR)	23					
Link Speed (mph)	30			30	30	
Link Distance (ft)	526			755	579	
Travel Time (s)	12.0			17.2	13.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	23	0	229	285	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	12	23	0	229	285	0
Turn Type	Prot	Perm		NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4				
Detector Phase	4	4		2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None		Max	Max	
Act Effect Green (s)	5.9	5.9		35.2	35.2	
Actuated g/C Ratio	0.15	0.15		0.92	0.92	
v/c Ratio	0.04	0.09		0.13	0.17	
Control Delay	14.5	8.5		1.6	1.6	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	14.5	8.5		1.6	1.6	
LOS	B	A		A	A	
Approach Delay	10.5			1.6	1.6	
Approach LOS	B			A	A	
Intersection Summary						
Area Type:	Other					
Cycle Length: 45						
Actuated Cycle Length: 38.2						

Lanes, Volumes, Timings

18: Fillmore Ave & MLK Park

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.17

Intersection Signal Delay: 2.2

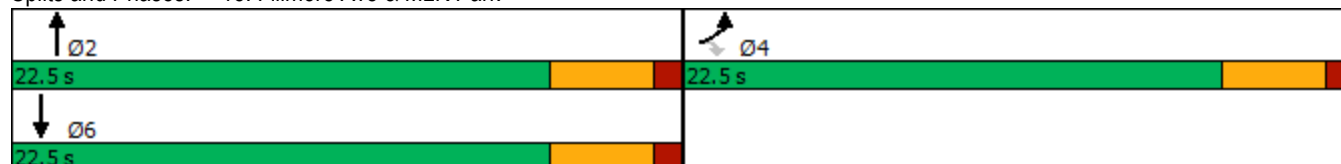
Intersection LOS: A

Intersection Capacity Utilization 25.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Fillmore Ave & MLK Park



Lanes, Volumes, Timings
19: Fillmore Ave & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	55	9	12	33	9	9	178	20	26	267	48
Future Volume (vph)	15	55	9	12	33	9	9	178	20	26	267	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.984			0.977			0.987			0.981	
Flt Protected		0.991			0.989			0.998			0.996	
Satd. Flow (prot)	0	1816	0	0	1800	0	0	1835	0	0	1820	0
Flt Permitted		0.920			0.899			0.984			0.973	
Satd. Flow (perm)	0	1686	0	0	1636	0	0	1809	0	0	1778	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			10			14			22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1089			291			579			735	
Travel Time (s)		24.8			6.6			13.2			16.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	60	10	13	36	10	10	193	22	28	290	52
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	86	0	0	59	0	0	225	0	0	370	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		7.0			6.8			28.6			28.6	
Actuated g/C Ratio		0.20			0.19			0.80			0.80	
v/c Ratio		0.25			0.18			0.15			0.26	
Control Delay		12.2			11.1			3.4			3.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.2			11.1			3.4			3.8	
LOS		B			B			A			A	
Approach Delay		12.2			11.1			3.4			3.8	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.6												

Lanes, Volumes, Timings

19: Fillmore Ave & Northhampton St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.26

Intersection Signal Delay: 5.2

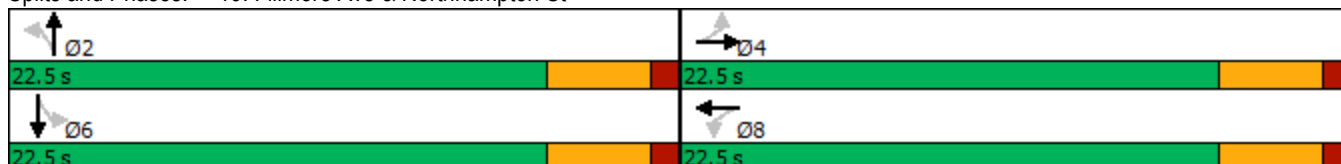
Intersection LOS: A

Intersection Capacity Utilization 39.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 19: Fillmore Ave & Northhampton St



Lanes, Volumes, Timings
21: Fillmore Ave & Riley St/Urban St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	0	2	2	0	10	2	216	3	22	336	0
Future Volume (vph)	5	0	2	2	0	10	2	216	3	22	336	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt		0.961			0.886			0.998				
Flt Protected		0.966			0.992						0.997	
Satd. Flow (prot)	0	1729	0	0	1637	0	0	1859	0	0	1857	0
Flt Permitted								0.998			0.979	
Satd. Flow (perm)	0	1790	0	0	1650	0	0	1855	0	0	1824	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			36			2				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1082			639			735				422
Travel Time (s)		24.6			14.5			16.7				9.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	0	2	2	0	11	2	235	3	24	365	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	7	0	0	13	0	0	240	0	0	389	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		5.6			5.6			36.8			36.8	
Actuated g/C Ratio		0.14			0.14			0.94			0.94	
v/c Ratio		0.02			0.05			0.14			0.23	
Control Delay		0.5			3.6			1.2			1.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		0.5			3.6			1.2			1.5	
LOS		A			A			A			A	
Approach Delay		0.5			3.6			1.2			1.5	
Approach LOS		A			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 39.3												

Lanes, Volumes, Timings

21: Fillmore Ave & Riley St/Urban St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.23

Intersection Signal Delay: 1.4

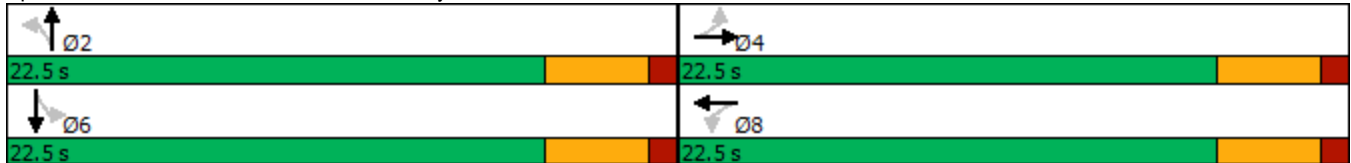
Intersection LOS: A

Intersection Capacity Utilization 43.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 21: Fillmore Ave & Riley St/Urban St



Lanes, Volumes, Timings
22: Fillmore Ave & French St

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	13	39	216	3	43	316
Future Volume (vph)	13	39	216	3	43	316
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.899		0.998			
Flt Protected	0.988					0.994
Satd. Flow (prot)	1655	0	1859	0	0	1852
Flt Permitted	0.988					0.950
Satd. Flow (perm)	1655	0	1859	0	0	1770
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	42		2			
Link Speed (mph)	30		30			30
Link Distance (ft)	600		422			182
Travel Time (s)	13.6		9.6			4.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	42	235	3	47	343
Shared Lane Traffic (%)						
Lane Group Flow (vph)	56	0	238	0	0	390
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%	50.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.3		34.3			34.3
Actuated g/C Ratio	0.16		0.85			0.85
v/c Ratio	0.19		0.15			0.26
Control Delay	9.6		2.6			3.0
Queue Delay	0.0		0.0			0.0
Total Delay	9.6		2.6			3.1
LOS	A		A			A
Approach Delay	9.6		2.6			3.1
Approach LOS	A		A			A
Intersection Summary						
Area Type:	Other					
Cycle Length: 45						
Actuated Cycle Length: 40.3						

Lanes, Volumes, Timings

22: Fillmore Ave & French St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.26

Intersection Signal Delay: 3.4

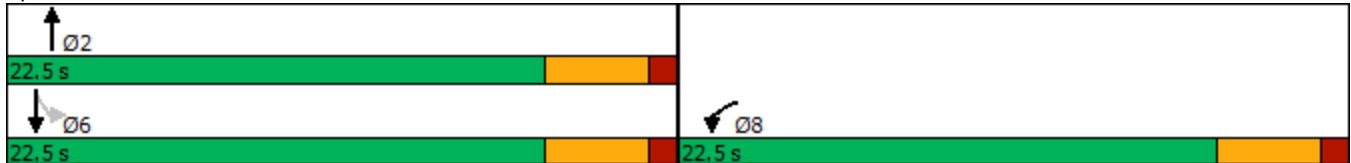
Intersection LOS: A

Intersection Capacity Utilization 46.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 22: Fillmore Ave & French St



Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	48	74	42	194	291	70
Future Volume (vph)	48	74	42	194	291	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.918				0.974	
Flt Protected	0.981			0.991		
Satd. Flow (prot)	1678	0	0	1846	1814	0
Flt Permitted	0.981			0.902		
Satd. Flow (perm)	1678	0	0	1680	1814	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	80				32	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1083			182	1350	
Travel Time (s)	24.6			4.1	30.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	52	80	46	211	316	76
Shared Lane Traffic (%)						
Lane Group Flow (vph)	132	0	0	257	392	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		22.5	22.5	22.5	
Total Split (%)	50.0%		50.0%	50.0%	50.0%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effect Green (s)	7.1			26.4	26.4	
Actuated g/C Ratio	0.18			0.67	0.67	
v/c Ratio	0.36			0.23	0.32	
Control Delay	9.1			5.0	5.1	
Queue Delay	0.0			0.4	0.0	
Total Delay	9.1			5.4	5.1	
LOS	A			A	A	
Approach Delay	9.1			5.4	5.1	
Approach LOS	A			A	A	
Intersection Summary						
Area Type:	Other					
Cycle Length: 45						
Actuated Cycle Length: 39.5						

Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.36

Intersection Signal Delay: 5.9

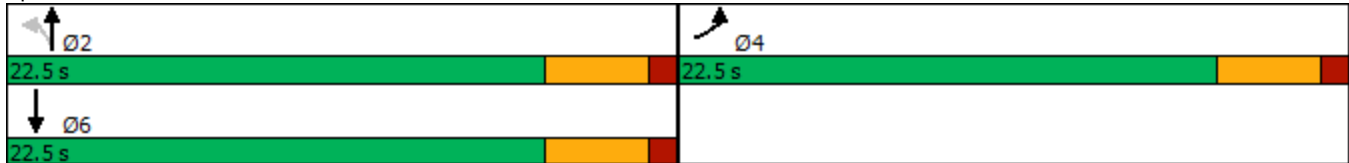
Intersection LOS: A

Intersection Capacity Utilization 50.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 23: Fillmore Ave & E Utica St



Lanes, Volumes, Timings
24: Fillmore Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	48	201	56	30	205	50	23	193	41	33	282	64
Future Volume (vph)	48	201	56	30	205	50	23	193	41	33	282	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.972			0.974			0.976			0.975	
Flt Protected		0.992			0.995			0.996			0.996	
Satd. Flow (prot)	0	3413	0	0	3430	0	0	3440	0	0	3437	0
Flt Permitted		0.849			0.884			0.909			0.915	
Satd. Flow (perm)	0	2921	0	0	3047	0	0	3140	0	0	3157	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		61			54			45			63	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			797			1350			1620	
Travel Time (s)		24.6			18.1			30.7			36.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	52	218	61	33	223	54	25	210	45	36	307	70
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	331	0	0	310	0	0	280	0	0	413	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		8.6			8.6			18.0			18.0	
Actuated g/C Ratio		0.24			0.24			0.50			0.50	
v/c Ratio		0.44			0.40			0.17			0.25	
Control Delay		11.1			10.8			4.8			5.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.1			10.8			4.8			5.1	
LOS		B			B			A			A	
Approach Delay		11.1			10.8			4.8			5.1	
Approach LOS		B			B			A			A	
Intersection Summary												

Lanes, Volumes, Timings

24: Fillmore Ave & E Ferry St

03/10/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 35.7

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.44

Intersection Signal Delay: 7.8

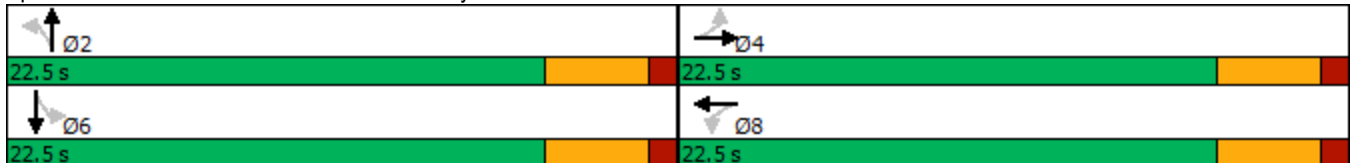
Intersection LOS: A

Intersection Capacity Utilization 50.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 24: Fillmore Ave & E Ferry St



Lanes, Volumes, Timings
25: Fillmore Ave & Northland Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	40	14	20	39	7	3	221	33	38	321	9
Future Volume (vph)	5	40	14	20	39	7	3	221	33	38	321	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.968			0.985			0.983			0.997	
Flt Protected		0.996			0.985			0.999			0.995	
Satd. Flow (prot)	0	1796	0	0	1807	0	0	1829	0	0	1848	0
Flt Permitted		0.963			0.874			0.997			0.955	
Satd. Flow (perm)	0	1736	0	0	1604	0	0	1826	0	0	1774	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			8			20			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1020			890			1620			1011	
Travel Time (s)		23.2			20.2			36.8			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	43	15	22	42	8	3	240	36	41	349	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	63	0	0	72	0	0	279	0	0	400	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		6.7			6.8			28.5			28.5	
Actuated g/C Ratio		0.19			0.19			0.81			0.81	
v/c Ratio		0.18			0.23			0.19			0.28	
Control Delay		10.4			12.1			3.4			4.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.4			12.1			3.4			4.0	
LOS		B			B			A			A	
Approach Delay		10.4			12.1			3.4			4.0	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.3												

Lanes, Volumes, Timings

25: Fillmore Ave & Northland Ave

03/10/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.28

Intersection Signal Delay: 5.0

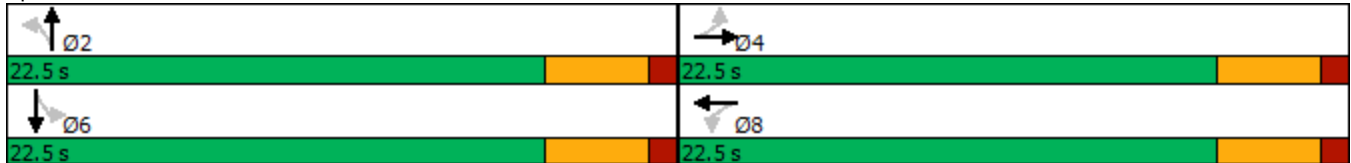
Intersection LOS: A

Intersection Capacity Utilization 53.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 25: Fillmore Ave & Northland Ave



Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	149	17	27	145	29	17	181	24	66	338	69
Future Volume (vph)	76	149	17	27	145	29	17	181	24	66	338	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991			0.980			0.985			0.980	
Flt Protected		0.984			0.993			0.996			0.993	
Satd. Flow (prot)	0	1816	0	0	1813	0	0	1827	0	0	1813	0
Flt Permitted		0.847			0.941			0.957			0.928	
Satd. Flow (perm)	0	1564	0	0	1718	0	0	1756	0	0	1694	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			19			16			23	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		928			735			1011			742	
Travel Time (s)		21.1			16.7			23.0			16.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	83	162	18	29	158	32	18	197	26	72	367	75
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	263	0	0	219	0	0	241	0	0	514	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.6	22.6		22.6	22.6		27.4	27.4		27.4	27.4	
Total Split (%)	45.2%	45.2%		45.2%	45.2%		54.8%	54.8%		54.8%	54.8%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		12.4			12.4			23.7			23.7	
Actuated g/C Ratio		0.27			0.27			0.53			0.53	
v/c Ratio		0.61			0.45			0.26			0.57	
Control Delay		19.7			14.9			7.5			11.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		19.7			14.9			7.5			11.2	
LOS		B			B			A			B	
Approach Delay		19.7			14.9			7.5			11.2	
Approach LOS		B			B			A			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 45.1												

Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

03/10/2022

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 12.9

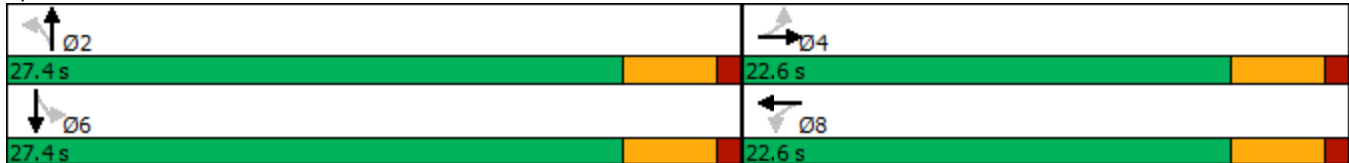
Intersection LOS: B

Intersection Capacity Utilization 74.1%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 26: Fillmore Ave & E Delavan Ave



Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	284	167	0	0	208	17	49	161	77	0	0	0
Future Volume (vph)	284	167	0	0	208	17	49	161	77	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	0		150	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.989				0.850			
Flt Protected		0.969						0.989				
Satd. Flow (prot)	0	3429	0	0	3500	0	0	1842	1583	0	0	0
Flt Permitted		0.685						0.989				
Satd. Flow (perm)	0	2424	0	0	3500	0	0	1842	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					18				84			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		310			928			1019			213	
Travel Time (s)		7.0			21.1			23.2			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	309	182	0	0	226	18	53	175	84	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	491	0	0	244	0	0	228	84	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)		0.0			0.0			0.0	0.0			
Total Lost Time (s)		4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		None	None	None			
Act Effct Green (s)		22.0			22.0			9.9	9.9			
Actuated g/C Ratio		0.58			0.58			0.26	0.26			
v/c Ratio		0.35			0.12			0.47	0.18			
Control Delay		5.2			5.6			14.6	4.1			
Queue Delay		0.0			0.0			0.0	0.0			
Total Delay		5.2			5.6			14.6	4.1			
LOS		A			A			B	A			
Approach Delay		5.2			5.6			11.8				
Approach LOS		A			A			B				
Intersection Summary												

Lanes, Volumes, Timings

27: Humboldt Parkway NB & E Delavan Ave

03/10/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

27: Humboldt Parkway NB & E Delavan Ave

03/10/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 37.8

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 7.3

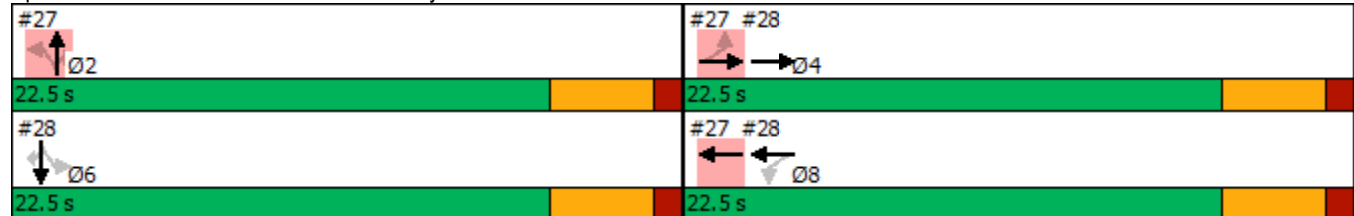
Intersection LOS: A

Intersection Capacity Utilization 44.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 27: Humboldt Parkway NB & E Delavan Ave



Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					 							
Traffic Volume (vph)	0	416	27	92	182	0	0	0	0	29	32	13
Future Volume (vph)	0	416	27	92	182	0	0	0	0	29	32	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992										0.850
Flt Protected					0.983						0.977	
Satd. Flow (prot)	0	1848	0	0	3479	0	0	0	0	0	1820	1583
Flt Permitted					0.752						0.977	
Satd. Flow (perm)	0	1848	0	0	2661	0	0	0	0	0	1820	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9										36
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2669			310			684			864	
Travel Time (s)		60.7			7.0			15.5			19.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	452	29	100	198	0	0	0	0	32	35	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	481	0	0	298	0	0	0	0	0	67	14
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	50.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0						0.0	0.0
Total Lost Time (s)		4.5			4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					None	None	None
Act Effct Green (s)		22.0			22.0						9.7	9.7
Actuated g/C Ratio		0.58			0.58						0.26	0.26
v/c Ratio		0.45			0.19						0.14	0.03
Control Delay		8.7			4.3						10.6	2.1
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		8.7			4.3						10.6	2.1
LOS		A			A						B	A
Approach Delay		8.7			4.3						9.1	
Approach LOS		A			A						A	
Intersection Summary												

Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

03/10/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

28: Humboldt Parkway SB & E Delavan Ave

03/10/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 37.8

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 7.2

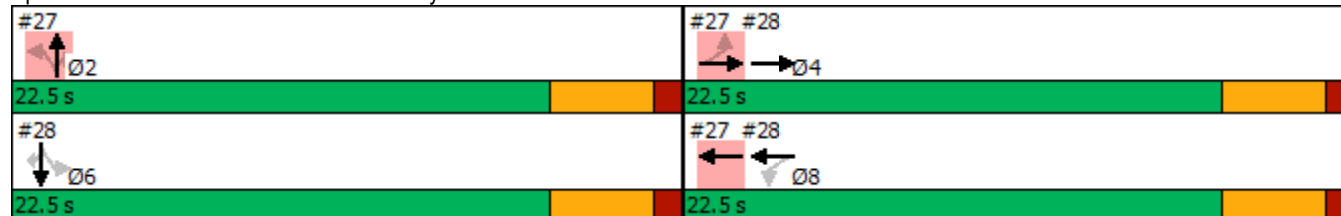
Intersection LOS: A

Intersection Capacity Utilization 46.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 28: Humboldt Parkway SB & E Delavan Ave



Lanes, Volumes, Timings
29: Jefferson Ave & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	340	29	25	135	14	28	93	52	5	78	86
Future Volume (vph)	38	340	29	25	135	14	28	93	52	5	78	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.989			0.959			0.931	
Flt Protected		0.995			0.993			0.992			0.999	
Satd. Flow (prot)	0	1835	0	0	1829	0	0	1772	0	0	1732	0
Flt Permitted		0.957			0.925			0.942			0.993	
Satd. Flow (perm)	0	1765	0	0	1704	0	0	1683	0	0	1722	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			11			57			93	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		592			2669			1017			352	
Travel Time (s)		13.5			60.7			23.1			8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	41	370	32	27	147	15	30	101	57	5	85	93
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	443	0	0	189	0	0	188	0	0	183	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		14.3			14.3			18.1			18.1	
Actuated g/C Ratio		0.34			0.34			0.44			0.44	
v/c Ratio		0.72			0.32			0.25			0.23	
Control Delay		18.8			10.6			7.2			5.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		18.8			10.6			7.2			5.6	
LOS		B			B			A			A	
Approach Delay		18.8			10.6			7.2			5.6	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 41.5												

Lanes, Volumes, Timings

29: Jefferson Ave & E Delavan Ave

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 12.7

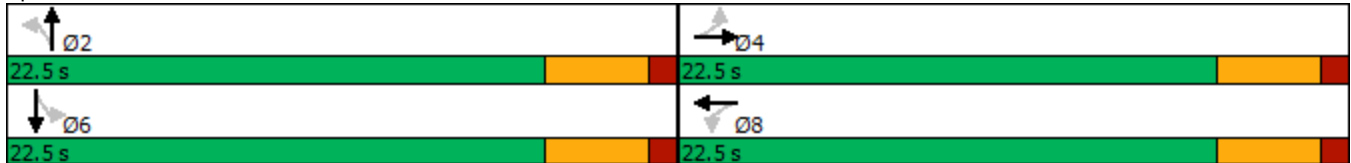
Intersection LOS: B

Intersection Capacity Utilization 55.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 29: Jefferson Ave & E Delavan Ave



Lanes, Volumes, Timings
30: Jefferson Ave & Northland Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	22	10	15	5	15	11	139	8	11	137	14
Future Volume (vph)	14	22	10	15	5	15	11	139	8	11	137	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.970			0.942			0.993			0.988	
Fl _t Protected		0.985			0.979			0.997			0.997	
Satd. Flow (prot)	0	1780	0	0	1718	0	0	1844	0	0	1835	0
Fl _t Permitted								0.984			0.984	
Satd. Flow (perm)	0	1807	0	0	1755	0	0	1820	0	0	1811	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			16			7			12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		806			2743			848			1017	
Travel Time (s)		18.3			62.3			19.3			23.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	24	11	16	5	16	12	151	9	12	149	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	50	0	0	37	0	0	172	0	0	176	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		6.4			6.3			32.0			32.0	
Actuated g/C Ratio		0.18			0.18			0.90			0.90	
v/c Ratio		0.15			0.11			0.10			0.11	
Control Delay		10.3			8.9			2.0			1.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.3			8.9			2.0			1.9	
LOS		B			A			A			A	
Approach Delay		10.3			8.9			2.0			1.9	
Approach LOS		B			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.4												

Lanes, Volumes, Timings

30: Jefferson Ave & Northland Ave

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.15

Intersection Signal Delay: 3.5

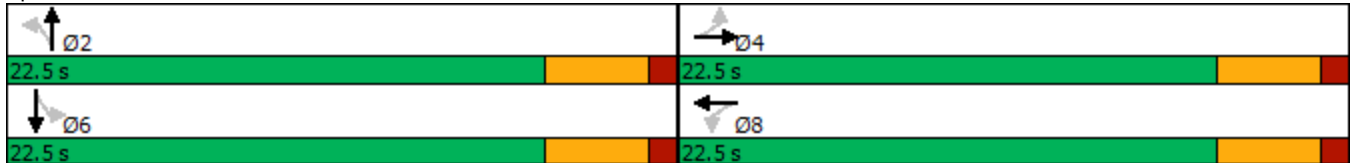
Intersection LOS: A

Intersection Capacity Utilization 22.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 30: Jefferson Ave & Northland Ave



Lanes, Volumes, Timings
31: Jefferson Ave & Brunswick Blvd

03/10/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	25	20	146	23	9	145
Future Volume (vph)	25	20	146	23	9	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.939		0.982			
Flt Protected	0.973					0.997
Satd. Flow (prot)	1702	0	1829	0	0	1857
Flt Permitted	0.973					0.987
Satd. Flow (perm)	1702	0	1829	0	0	1839
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	22		21			
Link Speed (mph)	30		30			30
Link Distance (ft)	2734		751			848
Travel Time (s)	62.1		17.1			19.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	27	22	159	25	10	158
Shared Lane Traffic (%)						
Lane Group Flow (vph)	49	0	184	0	0	168
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%	50.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.3		34.8			34.8
Actuated g/C Ratio	0.15		0.86			0.86
v/c Ratio	0.17		0.12			0.11
Control Delay	12.6		2.3			2.5
Queue Delay	0.0		0.0			0.0
Total Delay	12.6		2.3			2.5
LOS	B		A			A
Approach Delay	12.6		2.3			2.5
Approach LOS	B		A			A

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.7

Lanes, Volumes, Timings

31: Jefferson Ave & Brunswick Blvd

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.17

Intersection Signal Delay: 3.7

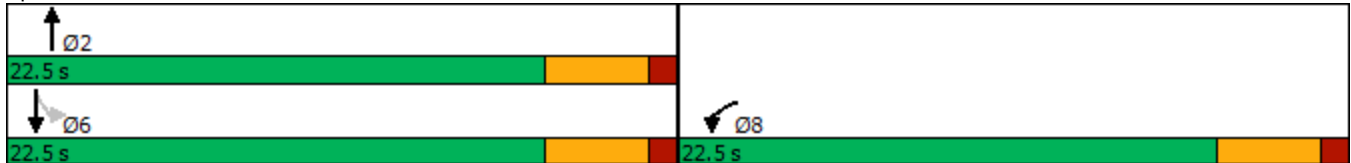
Intersection LOS: A

Intersection Capacity Utilization 26.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 31: Jefferson Ave & Brunswick Blvd



Lanes, Volumes, Timings
32: Jefferson Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	210	45	48	465	41	37	110	23	20	129	23
Future Volume (vph)	27	210	45	48	465	41	37	110	23	20	129	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.978			0.990			0.982			0.982	
Flt Protected		0.995			0.996			0.989			0.994	
Satd. Flow (prot)	0	1813	0	0	1837	0	0	1809	0	0	1818	0
Flt Permitted		0.931			0.949			0.914			0.959	
Satd. Flow (perm)	0	1696	0	0	1750	0	0	1672	0	0	1754	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			10			16			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			194			1406			751	
Travel Time (s)		7.5			4.4			32.0			17.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	228	49	52	505	45	40	120	25	22	140	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	306	0	0	602	0	0	185	0	0	187	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	31.0	31.0		31.0	31.0		24.0	24.0		24.0	24.0	
Total Split (%)	56.4%	56.4%		56.4%	56.4%		43.6%	43.6%		43.6%	43.6%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		21.1			21.1			19.7			19.7	
Actuated g/C Ratio		0.42			0.42			0.39			0.39	
v/c Ratio		0.42			0.81			0.28			0.27	
Control Delay		10.8			21.8			12.3			12.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.8			21.8			12.3			12.1	
LOS		B			C			B			B	
Approach Delay		10.8			21.8			12.3			12.1	
Approach LOS		B			C			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 55												
Actuated Cycle Length: 49.9												

Lanes, Volumes, Timings 32: Jefferson Ave & E Ferry St

03/10/2022

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 16.4

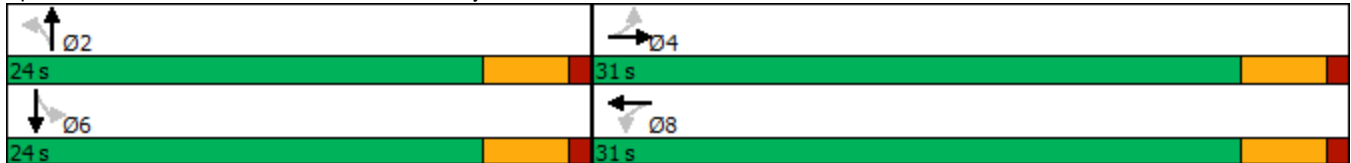
Intersection LOS: B

Intersection Capacity Utilization 61.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 32: Jefferson Ave & E Ferry St



Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	97	37	23	102	12	24	159	11	9	197	21
Future Volume (vph)	9	97	37	23	102	12	24	159	11	9	197	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.965			0.988			0.992			0.987	
Flt Protected		0.997			0.992			0.994			0.998	
Satd. Flow (prot)	0	1792	0	0	1826	0	0	1837	0	0	1835	0
Flt Permitted		0.969			0.932			0.954			0.989	
Satd. Flow (perm)	0	1742	0	0	1715	0	0	1763	0	0	1818	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40			13			8			14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1023			1295			630			1406	
Travel Time (s)		23.3			29.4			14.3			32.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	105	40	25	111	13	26	173	12	10	214	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	155	0	0	149	0	0	211	0	0	247	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.1			8.1			21.8			21.8	
Actuated g/C Ratio		0.22			0.22			0.60			0.60	
v/c Ratio		0.37			0.38			0.20			0.22	
Control Delay		11.3			13.3			5.7			5.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.3			13.3			5.7			5.6	
LOS		B			B			A			A	
Approach Delay		11.3			13.3			5.7			5.6	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.1												

Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 8.3

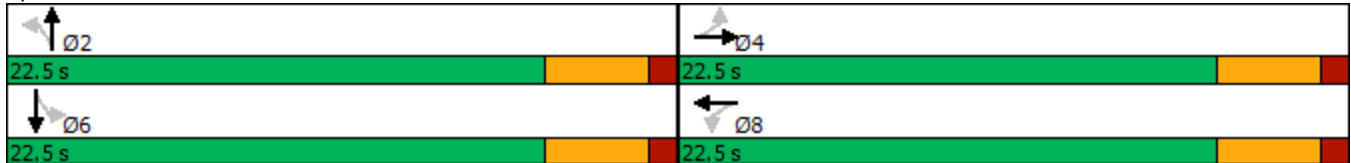
Intersection LOS: A

Intersection Capacity Utilization 40.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 33: Jefferson Ave & E Utica St



Lanes, Volumes, Timings
34: Jefferson Ave & Riley St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	24	14	8	15	5	10	188	8	1	220	10
Future Volume (vph)	8	24	14	8	15	5	10	188	8	1	220	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.959			0.977			0.995			0.994	
Fl _t Protected		0.991			0.985			0.998				
Satd. Flow (prot)	0	1770	0	0	1793	0	0	1850	0	0	1852	0
Fl _t Permitted								0.987			0.999	
Satd. Flow (perm)	0	1786	0	0	1820	0	0	1829	0	0	1850	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			5			6			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		870			1108			418			630	
Travel Time (s)		19.8			25.2			9.5			14.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	26	15	9	16	5	11	204	9	1	239	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	50	0	0	30	0	0	224	0	0	251	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		6.3			6.2			32.2			32.2	
Actuated g/C Ratio		0.18			0.17			0.90			0.90	
v/c Ratio		0.15			0.09			0.14			0.15	
Control Delay		9.8			10.6			2.0			2.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.8			10.6			2.0			2.0	
LOS		A			B			A			A	
Approach Delay		9.8			10.6			2.0			2.0	
Approach LOS		A			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.6												

Lanes, Volumes, Timings

34: Jefferson Ave & Riley St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.15

Intersection Signal Delay: 3.2

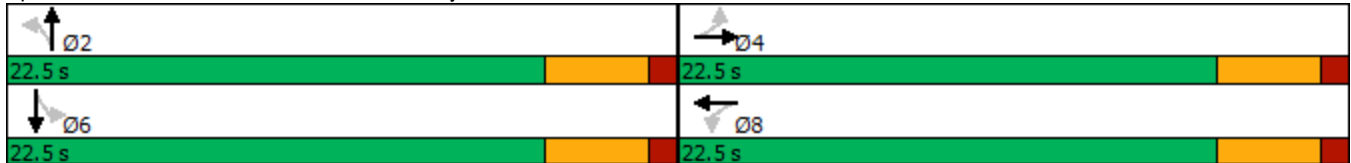
Intersection LOS: A

Intersection Capacity Utilization 29.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 34: Jefferson Ave & Riley St



Lanes, Volumes, Timings

35: Jefferson Ave & Northampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	31	6	14	64	11	14	177	4	8	231	14
Future Volume (vph)	6	31	6	14	64	11	14	177	4	8	231	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.983			0.997			0.993	
Flt Protected		0.993			0.992			0.996			0.998	
Satd. Flow (prot)	0	1813	0	0	1816	0	0	1850	0	0	1846	0
Flt Permitted		0.929			0.935			0.976			0.992	
Satd. Flow (perm)	0	1696	0	0	1712	0	0	1813	0	0	1835	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			12			3			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1340			1290			1156			278	
Travel Time (s)		30.5			29.3			26.3			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	34	7	15	70	12	15	192	4	9	251	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	48	0	0	97	0	0	211	0	0	275	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		7.1			7.2			26.3			26.3	
Actuated g/C Ratio		0.19			0.20			0.72			0.72	
v/c Ratio		0.14			0.28			0.16			0.21	
Control Delay		11.0			12.7			4.4			4.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.0			12.7			4.4			4.5	
LOS		B			B			A			A	
Approach Delay		11.0			12.7			4.4			4.5	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.7												

Lanes, Volumes, Timings

35: Jefferson Ave & Northhampton St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.28

Intersection Signal Delay: 6.2

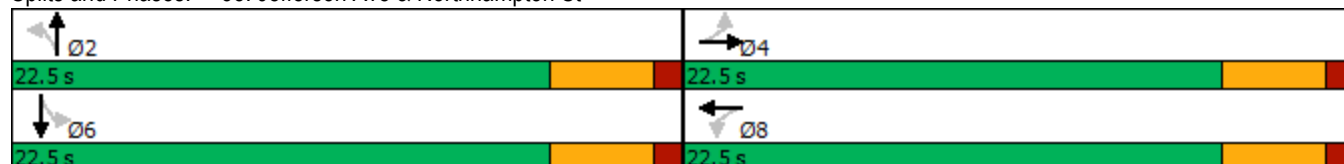
Intersection LOS: A

Intersection Capacity Utilization 29.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 35: Jefferson Ave & Northhampton St



Lanes, Volumes, Timings
36: Jefferson Ave & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	387	43	48	425	60	24	177	53	45	187	24
Future Volume (vph)	22	387	43	48	425	60	24	177	53	45	187	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.986			0.983			0.968			0.986	
Flt Protected		0.998			0.996			0.995			0.991	
Satd. Flow (prot)	0	3483	0	0	3465	0	0	3409	0	0	3458	0
Flt Permitted		0.912			0.873			0.916			0.873	
Satd. Flow (perm)	0	3183	0	0	3037	0	0	3138	0	0	3046	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30			36			58			26	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		169			169			156			165	
Travel Time (s)		3.8			3.8			3.5			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	421	47	52	462	65	26	192	58	49	203	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	492	0	0	579	0	0	276	0	0	278	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		12.8			12.8			18.1			18.1	
Actuated g/C Ratio		0.32			0.32			0.45			0.45	
v/c Ratio		0.47			0.58			0.19			0.20	
Control Delay		11.5			12.9			6.4			7.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.5			12.9			6.4			7.3	
LOS		B			B			A			A	
Approach Delay		11.5			12.9			6.4			7.3	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 40												

Lanes, Volumes, Timings

36: Jefferson Ave & Best St

03/10/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 10.4

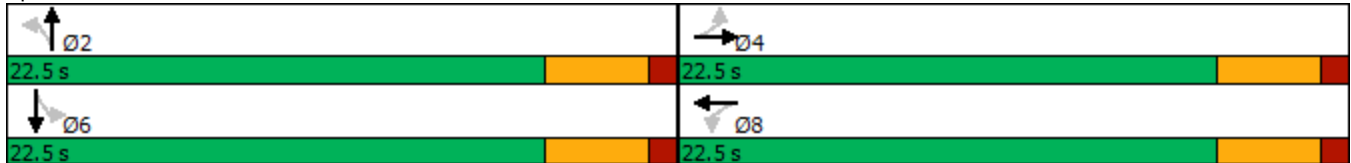
Intersection LOS: B

Intersection Capacity Utilization 57.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 36: Jefferson Ave & Best St



Lanes, Volumes, Timings
37: Jefferson Ave & E North St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	62	80	164	157	285	74
Future Volume (vph)	62	80	164	157	285	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.924				0.972	
Flt Protected	0.979			0.975		
Satd. Flow (prot)	1685	0	0	1816	1811	0
Flt Permitted	0.979			0.680		
Satd. Flow (perm)	1685	0	0	1267	1811	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	87				34	
Link Speed (mph)	30			30	30	
Link Distance (ft)	879			684	486	
Travel Time (s)	20.0			15.5	11.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	67	87	178	171	310	80
Shared Lane Traffic (%)						
Lane Group Flow (vph)	154	0	0	349	390	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		32.5	32.5	32.5	
Total Split (%)	40.9%		59.1%	59.1%	59.1%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effect Green (s)	7.8			35.2	35.2	
Actuated g/C Ratio	0.16			0.72	0.72	
v/c Ratio	0.45			0.38	0.30	
Control Delay	13.2			6.0	4.4	
Queue Delay	0.0			0.0	0.0	
Total Delay	13.2			6.0	4.4	
LOS	B			A	A	
Approach Delay	13.2			6.0	4.4	
Approach LOS	B			A	A	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 49

Lanes, Volumes, Timings
37: Jefferson Ave & E North St

03/10/2022

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 6.6

Intersection LOS: A

Intersection Capacity Utilization 56.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 37: Jefferson Ave & E North St



Lanes, Volumes, Timings
38: Jefferson Ave & High St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	36	84	21	77	37	155	280	29	9	261	15
Future Volume (vph)	3	36	84	21	77	37	155	280	29	9	261	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.908			0.963			0.991			0.993	
Flt Protected		0.999			0.992			0.984			0.998	
Satd. Flow (prot)	0	1690	0	0	1779	0	0	1816	0	0	1846	0
Flt Permitted		0.991			0.946			0.792			0.985	
Satd. Flow (perm)	0	1676	0	0	1697	0	0	1462	0	0	1822	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		91			36			9			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		840			1233			880			684	
Travel Time (s)		19.1			28.0			20.0			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	39	91	23	84	40	168	304	32	10	284	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	133	0	0	147	0	0	504	0	0	310	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.6	22.6		22.6	22.6		32.4	32.4		32.4	32.4	
Total Split (%)	41.1%	41.1%		41.1%	41.1%		58.9%	58.9%		58.9%	58.9%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.5			8.5			31.8			31.8	
Actuated g/C Ratio		0.18			0.18			0.69			0.69	
v/c Ratio		0.35			0.43			0.50			0.25	
Control Delay		9.7			16.8			7.6			4.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.7			16.8			7.6			4.9	
LOS		A			B			A			A	
Approach Delay		9.7			16.8			7.6			4.9	
Approach LOS		A			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 55												
Actuated Cycle Length: 46.4												

Lanes, Volumes, Timings

38: Jefferson Ave & High St

03/10/2022

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.50

Intersection Signal Delay: 8.3

Intersection LOS: A

Intersection Capacity Utilization 65.6%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 38: Jefferson Ave & High St



Lanes, Volumes, Timings
39: Wohlers Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	305	4	27	518	59	9	25	45	0	0	0
Future Volume (vph)	23	305	4	27	518	59	9	25	45	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.987			0.923				
Flt Protected		0.997			0.998			0.994				
Satd. Flow (prot)	0	1855	0	0	1835	0	0	1709	0	0	0	0
Flt Permitted		0.942			0.975			0.994				
Satd. Flow (perm)	0	1753	0	0	1793	0	0	1709	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			14			49				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		280			1179			1336			278	
Travel Time (s)		6.4			26.8			30.4			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	25	332	4	29	563	64	10	27	49	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	361	0	0	656	0	0	86	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4			8			2					
Detector Phase	4	4		8	8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5				
Total Split (s)	37.0	37.0		37.0	37.0		23.0	23.0				
Total Split (%)	61.7%	61.7%		61.7%	61.7%		38.3%	38.3%				
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max				
Act Effect Green (s)		23.3			23.3			18.8				
Actuated g/C Ratio		0.45			0.45			0.37				
v/c Ratio		0.45			0.80			0.13				
Control Delay		11.0			19.5			8.4				
Queue Delay		0.0			0.0			0.0				
Total Delay		11.0			19.5			8.4				
LOS		B			B			A				
Approach Delay		11.0			19.5			8.4				
Approach LOS		B			B			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 51.3												

Lanes, Volumes, Timings
39: Wohlers Ave & E Ferry St

03/10/2022

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 15.8

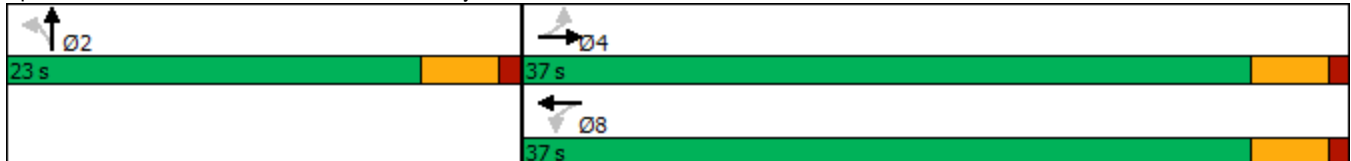
Intersection LOS: B

Intersection Capacity Utilization 50.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 39: Wohlers Ave & E Ferry St



Lanes, Volumes, Timings
40: Wohlers Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	98	8	4	124	15	3	40	23	1	14	5
Future Volume (vph)	12	98	8	4	124	15	3	40	23	1	14	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991			0.986			0.952			0.968	
Flt Protected		0.995			0.999			0.998			0.998	
Satd. Flow (prot)	0	1837	0	0	1835	0	0	1770	0	0	1800	0
Flt Permitted		0.953			0.989			0.995			0.994	
Satd. Flow (perm)	0	1759	0	0	1816	0	0	1764	0	0	1792	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			15			25			5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		274			1173			1331			1336	
Travel Time (s)		6.2			26.7			30.3			30.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	107	9	4	135	16	3	43	25	1	15	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	129	0	0	155	0	0	71	0	0	21	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.1			8.1			21.9			21.9	
Actuated g/C Ratio		0.22			0.22			0.60			0.60	
v/c Ratio		0.32			0.37			0.07			0.02	
Control Delay		12.8			13.0			3.9			4.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.8			13.0			3.9			4.5	
LOS		B			B			A			A	
Approach Delay		12.8			13.0			3.9			4.5	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.2												

Lanes, Volumes, Timings

40: Wohlers Ave & E Utica St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.37

Intersection Signal Delay: 10.7

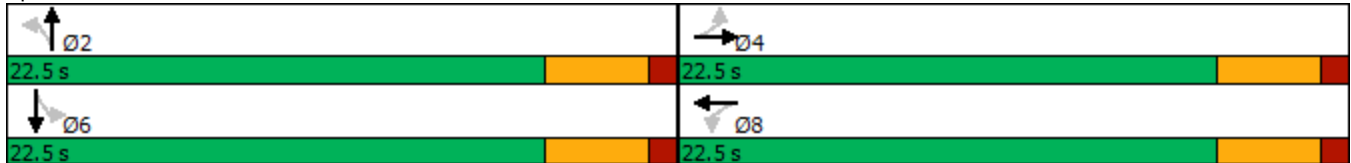
Intersection LOS: B

Intersection Capacity Utilization 23.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 40: Wohlers Ave & E Utica St



Lanes, Volumes, Timings
41: Humboldt Parkway SB & Woodlawn Ave

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	432	36
Future Volume (vph)	0	0	0	0	432	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.990	
Flt Protected						
Satd. Flow (prot)	0	0	0	0	1844	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	0	1844	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	780			265	319	
Travel Time (s)	17.7			6.0	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	470	39
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	509	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 28.3% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings
42: Humboldt Parkway SB & Glenwood Ave

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↗	
Traffic Volume (vph)	0	29	0	0	438	0
Future Volume (vph)	0	29	0	0	438	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1863	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	750			456	296	
Travel Time (s)	17.0			10.4	6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	32	0	0	476	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	32	0	0	476	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 33.1% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
42: Humboldt Parkway SB & Glenwood Ave

03/10/2022

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↖	
Traffic Vol, veh/h	0	29	0	0	438	0
Future Vol, veh/h	0	29	0	0	438	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	32	0	0	476	0

Major/Minor	Minor2	Major2
Conflicting Flow All	- 476	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 589	- 0
Stage 1	0 -	- 0
Stage 2	0 -	- 0
Platoon blocked, %		-
Mov Cap-1 Maneuver	- 589	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	11.5	0
HCM LOS	B	

Minor Lane/Major Mvmt	EBLn1	SBT
Capacity (veh/h)	589	-
HCM Lane V/C Ratio	0.054	-
HCM Control Delay (s)	11.5	-
HCM Lane LOS	B	-
HCM 95th %tile Q(veh)	0.2	-

Lanes, Volumes, Timings

43: Humboldt Parkway SB & Riley St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	22	16	22	16	0	0	0	0	22	401	22
Future Volume (vph)	0	22	16	22	16	0	0	0	0	22	401	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.944										0.993	
Flt Protected	0.972										0.998	
Satd. Flow (prot)	0	1758	0	0	1811	0	0	0	0	0	1846	0
Flt Permitted	0.972										0.998	
Satd. Flow (perm)	0	1758	0	0	1811	0	0	0	0	0	1846	0
Link Speed (mph)	30				30				30			
Link Distance (ft)	873				152				418			
Travel Time (s)	19.8				3.5				9.5			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	24	17	24	17	0	0	0	0	24	436	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	41	0	0	41	0	0	0	0	0	484	0
Sign Control	Stop		Stop			Stop			Free			
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 39.0%												
ICU Level of Service A												
Analysis Period (min) 15												

HCM 6th TWSC
43: Humboldt Parkway SB & Riley St

03/10/2022

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	22	16	22	16	0	0	0	0	22	401	22
Future Vol, veh/h	0	22	16	22	16	0	0	0	0	22	401	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	24	17	24	17	0	0	0	0	24	436	24
Major/Minor	Minor2		Minor1				Major2					
Conflicting Flow All	-	496	448	517	508	-	-	-	-	0	0	0
Stage 1	-	496	-	0	0	-	-	-	-	-	-	-
Stage 2	-	0	-	517	508	-	-	-	-	-	-	-
Critical Hdwy	-	6.52	6.22	7.12	6.52	-	-	-	-	4.12	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	0	475	611	469	468	0	-	-	-	-	-	-
Stage 1	0	545	-	-	-	0	-	-	-	-	-	-
Stage 2	0	-	-	541	539	0	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	475	611	438	468	-	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	475	-	438	468	-	-	-	-	-	-	-
Stage 1	-	545	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	503	539	-	-	-	-	-	-	-
Approach	EB		WB				SB					
HCM Control Delay, s	12.5		13.8									
HCM LOS	B		B									
Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR							
Capacity (veh/h)	524 450		-	-	-							
HCM Lane V/C Ratio	0.079 0.092		-	-	-							
HCM Control Delay (s)	12.5 13.8		-	-	-							
HCM Lane LOS	B B		-	-	-							
HCM 95th %tile Q(veh)	0.3 0.3		-	-	-							

Lanes, Volumes, Timings
44: Humboldt Parkway SB & Kingsley St

03/10/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	13	0	0	419	10
Future Volume (vph)	0	13	0	0	419	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.997	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1857	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1857	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	736			293	418	
Travel Time (s)	16.7			6.7	9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	14	0	0	455	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	14	0	0	466	0
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	32.7%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
44: Humboldt Parkway SB & Kingsley St

03/10/2022

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	13	0	0	419	10
Future Vol, veh/h	0	13	0	0	419	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	14	0	0	455	11

Major/Minor	Minor2	Major2
Conflicting Flow All	- 461	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 600	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 600	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

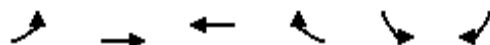
Approach	EB	SB
HCM Control Delay, s	11.1	0
HCM LOS	B	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	600	-	-
HCM Lane V/C Ratio	0.024	-	-
HCM Control Delay (s)	11.1	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Lanes, Volumes, Timings

45: W Parade Ave & Humboldt Parkway SB

03/10/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↘	
Traffic Volume (vph)	0	97	63	0	52	31
Future Volume (vph)	0	97	63	0	52	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.950	
Flt Protected					0.970	
Satd. Flow (prot)	0	1863	1863	0	1717	0
Flt Permitted					0.970	
Satd. Flow (perm)	0	1863	1863	0	1717	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		199	738		350	
Travel Time (s)		4.5	16.8		8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	105	68	0	57	34
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	105	68	0	91	0
Sign Control		Stop	Stop		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 16.5% ICU Level of Service A

Analysis Period (min) 15

HCM 6th AWSC
45: W Parade Ave & Humboldt Parkway SB

03/10/2022

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↘	
Traffic Vol, veh/h	0	97	63	0	52	31
Future Vol, veh/h	0	97	63	0	52	31
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	105	68	0	57	34
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	7.8	7.6	7.7
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	63%
Vol Thru, %	100%	100%	0%
Vol Right, %	0%	0%	37%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	97	63	83
LT Vol	0	0	52
Through Vol	97	63	0
RT Vol	0	0	31
Lane Flow Rate	105	68	90
Geometry Grp	1	1	1
Degree of Util (X)	0.121	0.079	0.104
Departure Headway (Hd)	4.145	4.173	4.134
Convergence, Y/N	Yes	Yes	Yes
Cap	857	849	854
Service Time	2.208	2.245	2.219
HCM Lane V/C Ratio	0.123	0.08	0.105
HCM Control Delay	7.8	7.6	7.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.4	0.3	0.3

Lanes, Volumes, Timings
46: Linden Park & Dodge St/W Parade Ave

03/10/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	96	1	5	88	1	1
Future Volume (vph)	96	1	5	88	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999				0.932	
Flt Protected				0.998	0.976	
Satd. Flow (prot)	1861	0	0	1859	1694	0
Flt Permitted				0.998	0.976	
Satd. Flow (perm)	1861	0	0	1859	1694	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	489			199	180	
Travel Time (s)	11.1			4.5	4.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	104	1	5	96	1	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	105	0	0	101	2	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	18.7%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
46: Linden Park & Dodge St/W Parade Ave

03/10/2022

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	96	1	5	88	1	1
Future Vol, veh/h	96	1	5	88	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	104	1	5	96	1	1
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	105	0	211	105
Stage 1	-	-	-	-	105	-
Stage 2	-	-	-	-	106	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1486	-	777	949
Stage 1	-	-	-	-	919	-
Stage 2	-	-	-	-	918	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1486	-	774	949
Mov Cap-2 Maneuver	-	-	-	-	774	-
Stage 1	-	-	-	-	919	-
Stage 2	-	-	-	-	914	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.4		9.2	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	853	-	-	1486	-	
HCM Lane V/C Ratio	0.003	-	-	0.004	-	
HCM Control Delay (s)	9.2	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Lanes, Volumes, Timings
47: Humboldt Parkway NB & Riley St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	22	0	0	22	16	16	289	16	0	0	0
Future Volume (vph)	16	22	0	0	22	16	16	289	16	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.944			0.993				
Flt Protected		0.980						0.998				
Satd. Flow (prot)	0	1825	0	0	1758	0	0	1846	0	0	0	0
Flt Permitted		0.980						0.998				
Satd. Flow (perm)	0	1825	0	0	1758	0	0	1846	0	0	0	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		152			1082			722			610	
Travel Time (s)		3.5			24.6			16.4			13.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	24	0	0	24	17	17	314	17	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	41	0	0	41	0	0	348	0	0	0	0
Sign Control		Stop			Stop			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	32.4%						ICU Level of Service A					
Analysis Period (min)	15											

HCM 6th TWSC
47: Humboldt Parkway NB & Riley St

03/10/2022

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	22	0	0	22	16	16	289	16	0	0	0
Future Vol, veh/h	16	22	0	0	22	16	16	289	16	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	24	0	0	24	17	17	314	17	0	0	0
Major/Minor	Minor2		Minor1		Major1							
Conflicting Flow All	377	365	-	-	357	323	0	0	0			
Stage 1	0	0	-	-	357	-	-	-	-			
Stage 2	377	365	-	-	0	-	-	-	-			
Critical Hdwy	7.12	6.52	-	-	6.52	6.22	4.12	-	-			
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-			
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-			
Follow-up Hdwy	3.518	4.018	-	-	4.018	3.318	2.218	-	-			
Pot Cap-1 Maneuver	580	563	0	0	569	718	-	-	-			
Stage 1	-	-	0	0	628	-	-	-	-			
Stage 2	644	623	0	0	-	-	-	-	-			
Platoon blocked, %								-	-			
Mov Cap-1 Maneuver	548	563	-	-	569	718	-	-	-			
Mov Cap-2 Maneuver	548	563	-	-	569	-	-	-	-			
Stage 1	-	-	-	-	628	-	-	-	-			
Stage 2	604	623	-	-	-	-	-	-	-			
Approach	EB		WB		NB							
HCM Control Delay, s	12		11.2									
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL		NBT		NBR		EBLn1WBLn1					
Capacity (veh/h)	-		-		-		557 623					
HCM Lane V/C Ratio	-		-		-		0.074 0.066					
HCM Control Delay (s)	-		-		-		12 11.2					
HCM Lane LOS	-		-		-		B B					
HCM 95th %tile Q(veh)	-		-		-		0.2 0.2					

Lanes, Volumes, Timings
48: Humboldt Parkway NB & Woepfel St

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	4	279	5	0	0
Future Volume (vph)	0	4	279	5	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.998			
Flt Protected						
Satd. Flow (prot)	0	1611	1859	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1859	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	744		294			462
Travel Time (s)	16.9		6.7			10.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	4	303	5	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	4	308	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 25.0%	ICU Level of Service A					
Analysis Period (min) 15						

HCM 6th TWSC
48: Humboldt Parkway NB & Woepfel St

03/10/2022

Intersection

Int Delay, s/veh 0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	279	5	0	0
Future Vol, veh/h	0	4	279	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	303	5	0	0

Major/Minor	Minor1	Major1
Conflicting Flow All	- 306	0 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 734	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 734	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	WB	NB
HCM Control Delay, s	9.9	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	NBRWBLn1
Capacity (veh/h)	- -	734
HCM Lane V/C Ratio	- -	0.006
HCM Control Delay (s)	- -	9.9
HCM Lane LOS	- -	A
HCM 95th %tile Q(veh)	- -	0

Lanes, Volumes, Timings
49: Humboldt Parkway NB & Woodlawn Ave

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	12	276	9	0	0
Future Volume (vph)	0	12	276	9	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.996			
Flt Protected						
Satd. Flow (prot)	0	1611	1855	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1855	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	729		267			312
Travel Time (s)	16.6		6.1			7.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	13	300	10	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	13	310	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	25.1%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
49: Humboldt Parkway NB & Woodlawn Ave

03/10/2022

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	12	276	9	0	0
Future Vol, veh/h	0	12	276	9	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	13	300	10	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	305	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	735	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	735	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	10		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		-		735	
HCM Lane V/C Ratio	-		-		0.018	
HCM Control Delay (s)	-		-		10	
HCM Lane LOS	-		-		B	
HCM 95th %tile Q(veh)	-		-		0.1	

Lanes, Volumes, Timings
50: Humboldt Parkway SB & Florida St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	23	0	0	155	9
Future Volume (vph)	0	23	0	0	155	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.992	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1848	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1848	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	935			344	684	
Travel Time (s)	21.3			7.8	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	25	0	0	168	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	25	0	0	178	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 18.7% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
50: Humboldt Parkway SB & Florida St

03/10/2022

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	23	0	0	155	9
Future Vol, veh/h	0	23	0	0	155	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	25	0	0	168	10
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	173	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	871	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	871	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	9.3		0			
HCM LOS	A					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	871	-	-			
HCM Lane V/C Ratio	0.029	-	-			
HCM Control Delay (s)	9.3	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
51: Humboldt Parkway SB & Northland Ave

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	25	0	0	149	19
Future Volume (vph)	0	25	0	0	149	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.985	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1835	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1835	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2743			805	344	
Travel Time (s)	62.3			18.3	7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	27	0	0	162	21
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	27	0	0	183	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 19.0% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
51: Humboldt Parkway SB & Northland Ave

03/10/2022

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	25	0	0	149	19
Future Vol, veh/h	0	25	0	0	149	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	27	0	0	162	21
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	173	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	871	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	871	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	9.3		0			
HCM LOS	A					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	871	-	-			
HCM Lane V/C Ratio	0.031	-	-			
HCM Control Delay (s)	9.3	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
52: Humboldt Parkway SB & Brunswick Blvd

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	62	0	0	152	9
Future Volume (vph)	0	62	0	0	152	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.992	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1848	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1848	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2734			252	805	
Travel Time (s)	62.1			5.7	18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	67	0	0	165	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	67	0	0	175	0
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 19.1% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	62	0	0	152	9
Future Vol, veh/h	0	62	0	0	152	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	67	0	0	165	10
Number of Lanes	0	1	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	1
HCM Control Delay	7	8
HCM LOS	A	A

Lane	EBLn1	SBLn1
Vol Left, %	0%	0%
Vol Thru, %	0%	94%
Vol Right, %	100%	6%
Sign Control	Stop	Stop
Traffic Vol by Lane	62	161
LT Vol	0	0
Through Vol	0	152
RT Vol	62	9
Lane Flow Rate	67	175
Geometry Grp	1	1
Degree of Util (X)	0.068	0.195
Departure Headway (Hd)	3.639	4.018
Convergence, Y/N	Yes	Yes
Cap	970	894
Service Time	1.715	2.034
HCM Lane V/C Ratio	0.069	0.196
HCM Control Delay	7	8
HCM Lane LOS	A	A
HCM 95th-tile Q	0.2	0.7

Lanes, Volumes, Timings
53: Humboldt Parkway SB & Goulding Ave

03/10/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	46	0	0	962	0
Future Volume (vph)	0	46	0	0	962	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Fr _t	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	3539	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	3539	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1067			270	306	
Travel Time (s)	24.3			6.1	7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	50	0	0	1046	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	50	0	0	1046	0
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	30.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
53: Humboldt Parkway SB & Goulding Ave

03/10/2022

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↗↗	
Traffic Vol, veh/h	0	46	0	0	962	0
Future Vol, veh/h	0	46	0	0	962	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	50	0	0	1046	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	523	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	499	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	499	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	13		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	499	-				
HCM Lane V/C Ratio	0.1	-				
HCM Control Delay (s)	13	-				
HCM Lane LOS	B	-				
HCM 95th %tile Q(veh)	0.3	-				

Lanes, Volumes, Timings
54: Humboldt Parkway NB & Sydney St

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	39	498	0	0	0
Future Volume (vph)	0	39	498	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	913		608			1024
Travel Time (s)	20.8		13.8			23.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	42	541	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	42	541	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	36.2%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
54: Humboldt Parkway NB & Sydney St

03/10/2022

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	39	498	0	0	0
Future Vol, veh/h	0	39	498	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	42	541	0	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	541	0	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	541	-	0		
Stage 1	0	-	-	0		
Stage 2	0	-	-	0		
Platoon blocked, %			-			
Mov Cap-1 Maneuver	-	541	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	12.2		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBTWBLn1					
Capacity (veh/h)	-		541			
HCM Lane V/C Ratio	-		0.078			
HCM Control Delay (s)	-		12.2			
HCM Lane LOS	-		B			
HCM 95th %tile Q(veh)	-		0.3			

Lanes, Volumes, Timings
55: Humboldt Parkway NB & Northland Ave

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	60	473	63	0	0
Future Volume (vph)	0	60	473	63	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865	0.865	0.984			
Flt Protected						
Satd. Flow (prot)	0	1611	1833	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1833	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	1020		1024			1019
Travel Time (s)	23.2		23.3			23.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	65	514	68	0	0
Shared Lane Traffic (%)		10%				
Lane Group Flow (vph)	7	58	582	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	39.1%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
55: Humboldt Parkway NB & Northland Ave

03/10/2022

Intersection

Int Delay, s/veh 1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	60	473	63	0	0
Future Vol, veh/h	0	60	473	63	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	65	514	68	0	0

Major/Minor	Minor1	Major1
Conflicting Flow All	- 548	0 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 536	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 536	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	WB	NB
HCM Control Delay, s	12.6	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBT	NBRWBLn1
Capacity (veh/h)	- -	536
HCM Lane V/C Ratio	- -	0.122
HCM Control Delay (s)	- -	12.6
HCM Lane LOS	- -	B
HCM 95th %tile Q(veh)	- -	0.4

Lanes, Volumes, Timings
56: Roehrer Ave & E Ferry St

03/10/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	317	9	15	522	2	20
Future Volume (vph)	317	9	15	522	2	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.876	
Flt Protected				0.999	0.996	
Satd. Flow (prot)	1855	0	0	1861	1625	0
Flt Permitted				0.999	0.996	
Satd. Flow (perm)	1855	0	0	1861	1625	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1109			280	1331	
Travel Time (s)	25.2			6.4	30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	345	10	16	567	2	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	355	0	0	583	24	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	49.6%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	317	9	15	522	2	20
Future Vol, veh/h	317	9	15	522	2	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	345	10	16	567	2	22
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	355	0	949	350
Stage 1	-	-	-	-	350	-
Stage 2	-	-	-	-	599	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1204	-	289	693
Stage 1	-	-	-	-	713	-
Stage 2	-	-	-	-	549	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1204	-	284	693
Mov Cap-2 Maneuver	-	-	-	-	284	-
Stage 1	-	-	-	-	713	-
Stage 2	-	-	-	-	539	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		11.1	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	613	-	-	1204	-	
HCM Lane V/C Ratio	0.039	-	-	0.014	-	
HCM Control Delay (s)	11.1	-	-	8	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Lanes, Volumes, Timings
57: Roehrer Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	111	0	2	130	7	3	10	4	2	12	4
Future Volume (vph)	4	111	0	2	130	7	3	10	4	2	12	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.993			0.970			0.972	
Flt Protected		0.998			0.999			0.992			0.995	
Satd. Flow (prot)	0	1859	0	0	1848	0	0	1792	0	0	1802	0
Flt Permitted		0.998			0.999			0.992			0.995	
Satd. Flow (perm)	0	1859	0	0	1848	0	0	1792	0	0	1802	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1295			274			1342			1331	
Travel Time (s)		29.4			6.2			30.5			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	121	0	2	141	8	3	11	4	2	13	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	125	0	0	151	0	0	18	0	0	19	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	18.1%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	4	111	0	2	130	7	3	10	4	2	12	4
Future Vol, veh/h	4	111	0	2	130	7	3	10	4	2	12	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	121	0	2	141	8	3	11	4	2	13	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	8	7.6	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	3%	1%	11%
Vol Thru, %	59%	97%	94%	67%
Vol Right, %	24%	0%	5%	22%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	17	115	139	18
LT Vol	3	4	2	2
Through Vol	10	111	130	12
RT Vol	4	0	7	4
Lane Flow Rate	18	125	151	20
Geometry Grp	1	1	1	1
Degree of Util (X)	0.023	0.143	0.171	0.024
Departure Headway (Hd)	4.449	4.119	4.065	4.443
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	809	864	876	810
Service Time	2.45	2.179	2.12	2.444
HCM Lane V/C Ratio	0.022	0.145	0.172	0.025
HCM Control Delay	7.6	7.9	8	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.5	0.6	0.1

Lanes, Volumes, Timings
58: Wohlers Ave & Northampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	61	3	2	79	9	11	32	6	16	18	7
Future Volume (vph)	7	61	3	2	79	9	11	32	6	16	18	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.986			0.982			0.976	
Flt Protected		0.995			0.999			0.989			0.981	
Satd. Flow (prot)	0	1844	0	0	1835	0	0	1809	0	0	1783	0
Flt Permitted		0.995			0.999			0.989			0.981	
Satd. Flow (perm)	0	1844	0	0	1835	0	0	1809	0	0	1783	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		276			1045			1317			1331	
Travel Time (s)		6.3			23.8			29.9			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	66	3	2	86	10	12	35	7	17	20	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	77	0	0	98	0	0	54	0	0	45	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	17.6%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	7	61	3	2	79	9	11	32	6	16	18	7
Future Vol, veh/h	7	61	3	2	79	9	11	32	6	16	18	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	66	3	2	86	10	12	35	7	17	20	8
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.7	7.7	7.6	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	22%	10%	2%	39%
Vol Thru, %	65%	86%	88%	44%
Vol Right, %	12%	4%	10%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	49	71	90	41
LT Vol	11	7	2	16
Through Vol	32	61	79	18
RT Vol	6	3	9	7
Lane Flow Rate	53	77	98	45
Geometry Grp	1	1	1	1
Degree of Util (X)	0.063	0.089	0.112	0.054
Departure Headway (Hd)	4.243	4.174	4.108	4.355
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	830	847	862	827
Service Time	2.343	2.255	2.184	2.355
HCM Lane V/C Ratio	0.064	0.091	0.114	0.054
HCM Control Delay	7.6	7.7	7.7	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.3	0.4	0.2

Lanes, Volumes, Timings
59: Roehrer Ave & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	64	2	3	78	4	4	14	2	4	14	0
Future Volume (vph)	0	64	2	3	78	4	4	14	2	4	14	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.994			0.987				
Flt Protected					0.998			0.991			0.990	
Satd. Flow (prot)	0	1855	0	0	1848	0	0	1822	0	0	1844	0
Flt Permitted					0.998			0.991			0.990	
Satd. Flow (perm)	0	1855	0	0	1848	0	0	1822	0	0	1844	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1290			276			1313			1342	
Travel Time (s)		29.3			6.3			29.8			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	70	2	3	85	4	4	15	2	4	15	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	72	0	0	92	0	0	21	0	0	19	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 16.8%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection												
Intersection Delay, s/veh	7.5											
Intersection LOS	A											

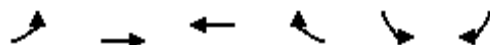
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	64	2	3	78	4	4	14	2	4	14	0
Future Vol, veh/h	0	64	2	3	78	4	4	14	2	4	14	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	70	2	3	85	4	4	15	2	4	15	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.5	7.4	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	0%	4%	22%
Vol Thru, %	70%	97%	92%	78%
Vol Right, %	10%	3%	5%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	66	85	18
LT Vol	4	0	3	4
Through Vol	14	64	78	14
RT Vol	2	2	4	0
Lane Flow Rate	22	72	92	20
Geometry Grp	1	1	1	1
Degree of Util (X)	0.025	0.081	0.104	0.023
Departure Headway (Hd)	4.212	4.056	4.037	4.278
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	839	880	884	826
Service Time	2.292	2.098	2.076	2.359
HCM Lane V/C Ratio	0.026	0.082	0.104	0.024
HCM Control Delay	7.4	7.5	7.5	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.3	0.3	0.1

Lanes, Volumes, Timings
60: Best St & Wohlers Ave

03/10/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	3	430	556	23	17	4
Future Volume (vph)	3	430	556	23	17	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995		0.975	
Flt Protected					0.961	
Satd. Flow (prot)	0	1863	1853	0	1745	0
Flt Permitted					0.961	
Satd. Flow (perm)	0	1863	1853	0	1745	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		280	473		1317	
Travel Time (s)		6.4	10.8		29.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	467	604	25	18	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	470	629	0	22	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

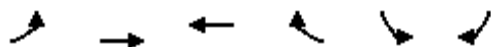
Intersection Capacity Utilization 40.7% ICU Level of Service A

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	430	556	23	17	4
Future Vol, veh/h	3	430	556	23	17	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	467	604	25	18	4
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	629	0	-	0	1090	617
Stage 1	-	-	-	-	617	-
Stage 2	-	-	-	-	473	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	953	-	-	-	238	490
Stage 1	-	-	-	-	538	-
Stage 2	-	-	-	-	627	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	953	-	-	-	237	490
Mov Cap-2 Maneuver	-	-	-	-	237	-
Stage 1	-	-	-	-	536	-
Stage 2	-	-	-	-	627	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		20		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	953	-	-	-	263	
HCM Lane V/C Ratio	0.003	-	-	-	0.087	
HCM Control Delay (s)	8.8	0	-	-	20	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.3	

Lanes, Volumes, Timings
61: Best St & Roehrer Ave

03/10/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	462	566	20	14	7
Future Volume (vph)	4	462	566	20	14	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995		0.953	
Flt Protected					0.968	
Satd. Flow (prot)	0	1863	1853	0	1718	0
Flt Permitted					0.968	
Satd. Flow (perm)	0	1863	1853	0	1718	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1123	280		1313	
Travel Time (s)		25.5	6.4		29.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	502	615	22	15	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	506	637	0	23	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 41.0% ICU Level of Service A

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	462	566	20	14	7
Future Vol, veh/h	4	462	566	20	14	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	502	615	22	15	8
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	637	0	-	0	1136	626
Stage 1	-	-	-	-	626	-
Stage 2	-	-	-	-	510	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	947	-	-	-	223	484
Stage 1	-	-	-	-	533	-
Stage 2	-	-	-	-	603	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	947	-	-	-	222	484
Mov Cap-2 Maneuver	-	-	-	-	222	-
Stage 1	-	-	-	-	530	-
Stage 2	-	-	-	-	603	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		19.5		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	947	-	-	-	271	
HCM Lane V/C Ratio	0.005	-	-	-	0.084	
HCM Control Delay (s)	8.8	0	-	-	19.5	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.3	

Lanes, Volumes, Timings
62: Jefferson Ave & Eaton St/Kingsley St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	8	3	3	13	1	4	188	1	6	247	5
Future Volume (vph)	2	8	3	3	13	1	4	188	1	6	247	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.971			0.992			0.999			0.998	
Flt Protected		0.993			0.992			0.999			0.999	
Satd. Flow (prot)	0	1796	0	0	1833	0	0	1859	0	0	1857	0
Flt Permitted								0.996			0.995	
Satd. Flow (perm)	0	1809	0	0	1848	0	0	1853	0	0	1850	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			1			1			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		911			1129			278			418	
Travel Time (s)		20.7			25.7			6.3			9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	9	3	3	14	1	4	204	1	7	268	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	0	0	18	0	0	209	0	0	280	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		5.9			6.0			35.0			35.0	
Actuated g/C Ratio		0.16			0.16			0.92			0.92	
v/c Ratio		0.05			0.06			0.12			0.16	
Control Delay		13.1			13.9			1.6			1.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.1			13.9			1.6			1.7	
LOS		B			B			A			A	
Approach Delay		13.1			13.9			1.6			1.7	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 38												

Lanes, Volumes, Timings

62: Jefferson Ave & Eaton St/Kingsley St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.16

Intersection Signal Delay: 2.4

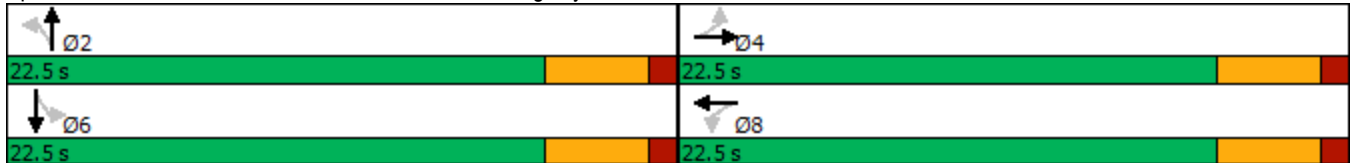
Intersection LOS: A

Intersection Capacity Utilization 28.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 62: Jefferson Ave & Eaton St/Kingsley St



Lanes, Volumes, Timings
63: Humboldt Parkway SB & Winslow Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	14	12	21	14	0	0	0	0	21	390	21
Future Volume (vph)	0	14	12	21	14	0	0	0	0	21	390	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.937										0.993	
Flt Protected					0.971						0.998	
Satd. Flow (prot)	0	1745	0	0	1809	0	0	0	0	0	1846	0
Flt Permitted					0.971						0.998	
Satd. Flow (perm)	0	1745	0	0	1809	0	0	0	0	0	1846	0
Link Speed (mph)	30				30				30			
Link Distance (ft)	304				154				296			
Travel Time (s)	6.9				3.5				6.7			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	15	13	23	15	0	0	0	0	23	424	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	28	0	0	38	0	0	0	0	0	470	0
Sign Control	Stop				Stop				Stop			
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	38.2%						ICU Level of Service A					
Analysis Period (min)	15											

HCM 6th TWSC
63: Humboldt Parkway SB & Winslow Ave

03/10/2022

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱			↱						↱↲	
Traffic Vol, veh/h	0	14	12	21	14	0	0	0	0	21	390	21
Future Vol, veh/h	0	14	12	21	14	0	0	0	0	21	390	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	13	23	15	0	0	0	0	23	424	23
Major/Minor	Minor2		Minor1				Major2					
Conflicting Flow All	-	482	436	496	493	-	0			0	0	
Stage 1	-	482	-	0	0	-	-			-	-	-
Stage 2	-	0	-	496	493	-	-			-	-	-
Critical Hdwy	-	6.52	6.22	7.12	6.52	-	4.12			-	-	
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-			-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-	-			-	-	-
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-	2.218			-	-	
Pot Cap-1 Maneuver	0	484	620	484	477	0	-			-	-	-
Stage 1	0	553	-	-	-	0	-			-	-	-
Stage 2	0	-	-	556	547	0	-			-	-	-
Platoon blocked, %										-	-	
Mov Cap-1 Maneuver	-	484	620	462	477	-	-			-	-	-
Mov Cap-2 Maneuver	-	484	-	462	477	-	-			-	-	-
Stage 1	-	553	-	-	-	-	-			-	-	-
Stage 2	-	-	-	529	547	-	-			-	-	-
Approach	EB		WB				SB					
HCM Control Delay, s	12		13.4									
HCM LOS	B		B									
Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR							
Capacity (veh/h)	539 468		-	-	-							
HCM Lane V/C Ratio	0.052 0.081		-	-	-							
HCM Control Delay (s)	12 13.4		-	-	-							
HCM Lane LOS	B B		-	-	-							
HCM 95th %tile Q(veh)	0.2 0.3		-	-	-							

Lanes, Volumes, Timings
64: Humboldt Parkway NB & Winslow Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	21	0	0	21	14	14	255	14	0	0	0
Future Volume (vph)	14	21	0	0	21	14	14	255	14	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.947			0.993				
Flt Protected		0.981						0.998				
Satd. Flow (prot)	0	1827	0	0	1764	0	0	1846	0	0	0	0
Flt Permitted		0.981						0.998				
Satd. Flow (perm)	0	1827	0	0	1764	0	0	1846	0	0	0	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		154			339			462			267	
Travel Time (s)		3.5			7.7			10.5			6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	23	0	0	23	15	15	277	15	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	38	0	0	38	0	0	307	0	0	0	0
Sign Control		Stop			Stop			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	30.3%											
Analysis Period (min)	15											
ICU Level of Service A												

HCM 6th TWSC
64: Humboldt Parkway NB & Winslow Ave

03/10/2022

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			↱			↰↱				
Traffic Vol, veh/h	14	21	0	0	21	14	14	255	14	0	0	0
Future Vol, veh/h	14	21	0	0	21	14	14	255	14	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	23	0	0	23	15	15	277	15	0	0	0

Major/Minor	Minor2		Minor1		Major1						
Conflicting Flow All	334	322	-	-	315	285	0	0	0		
Stage 1	0	0	-	-	315	-	-	-	-		
Stage 2	334	322	-	-	0	-	-	-	-		
Critical Hdwy	7.12	6.52	-	-	6.52	6.22	4.12	-	-		
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-		
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-		
Follow-up Hdwy	3.518	4.018	-	-	4.018	3.318	2.218	-	-		
Pot Cap-1 Maneuver	620	595	0	0	601	754	-	-	-		
Stage 1	-	-	0	0	656	-	-	-	-		
Stage 2	680	651	0	0	-	-	-	-	-		
Platoon blocked, %								-	-		
Mov Cap-1 Maneuver	590	595	-	-	601	754	-	-	-		
Mov Cap-2 Maneuver	590	595	-	-	601	-	-	-	-		
Stage 1	-	-	-	-	656	-	-	-	-		
Stage 2	643	651	-	-	-	-	-	-	-		

Approach	EB		WB		NB		
HCM Control Delay, s	11.5		10.8				
HCM LOS	B		B				

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	
Capacity (veh/h)	-	-	-	593	654
HCM Lane V/C Ratio	-	-	-	0.064	0.058
HCM Control Delay (s)	-	-	-	11.5	10.8
HCM Lane LOS	-	-	-	B	B
HCM 95th %tile Q(veh)	-	-	-	0.2	0.2

Lanes, Volumes, Timings
118: Humboldt Parkway SB

03/10/2022

						
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	306			252	236	
Travel Time (s)	7.0			5.7	5.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	18.3%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	395	633	0	0	306	435	69	210	240	0	0	0
Future Volume (vph)	395	633	0	0	306	435	69	210	240	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		0	0		250	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.912				0.850			
Flt Protected	0.950	0.995						0.988				
Satd. Flow (prot)	1610	3373	0	0	3228	0	0	1840	1583	0	0	0
Flt Permitted	0.950	0.995						0.988				
Satd. Flow (perm)	1610	3373	0	0	3228	0	0	1840	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					293				261			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		249			205			354			335	
Travel Time (s)		5.7			4.7			8.0			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	429	688	0	0	333	473	75	228	261	0	0	0
Shared Lane Traffic (%)	16%											
Lane Group Flow (vph)	360	757	0	0	806	0	0	303	261	0	0	0
Turn Type	custom	NA			NA		Perm	NA	Perm			
Protected Phases	6	6			3			4				
Permitted Phases	6						4		4			
Detector Phase	6	6			3		4	4	4			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	45.0	45.0			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			25.0%		25.0%	25.0%	25.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag					Lead		Lag	Lag	Lag			
Lead-Lag Optimize?					Yes		Yes	Yes	Yes			
Recall Mode	Max	Max			Max		C-Max	C-Max	C-Max			
Act Effct Green (s)	40.5	40.5			18.0			18.0	18.0			
Actuated g/C Ratio	0.45	0.45			0.20			0.20	0.20			
v/c Ratio	0.50	0.50			0.92			0.82	0.50			
Control Delay	4.6	4.2			39.0			54.4	7.8			
Queue Delay	4.1	2.4			46.5			0.0	0.0			
Total Delay	8.6	6.6			85.5			54.4	7.8			
LOS	A	A			F			D	A			
Approach Delay		7.3			85.5			32.8				
Approach LOS		A			F			C				
Intersection Summary												

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

03/10/2022

Lane Group	Ø1	Ø2	Ø8
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	1	2	8
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	22.5	22.5	45.0
Total Split (%)	25%	25%	50%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	Max	None	C-Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Intersection Summary			

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

03/10/2022

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.13

Intersection Signal Delay: 38.4

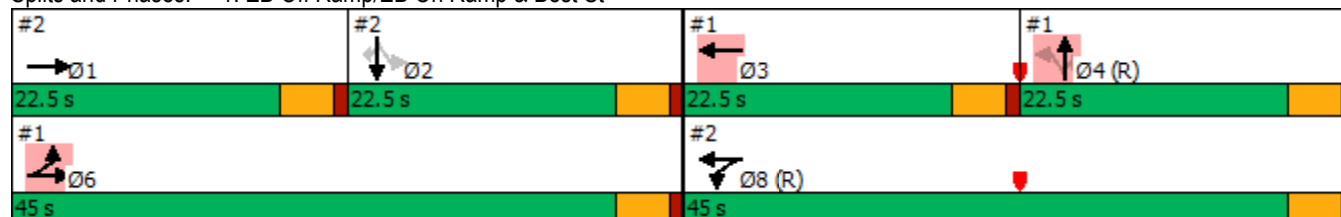
Intersection LOS: D

Intersection Capacity Utilization 81.3%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: EB Off Ramp/EB On Ramp & Best St



Lanes, Volumes, Timings
2: WB On Ramp/WB Off Ramp & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	691	45	97	259	0	0	0	0	323	1	206
Future Volume (vph)	0	691	45	97	259	0	0	0	0	323	1	206
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	75		0	0		0	0		75
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991										0.850
Flt Protected				0.950							0.953	
Satd. Flow (prot)	0	3507	0	1770	3539	0	0	0	0	0	1775	1583
Flt Permitted				0.950							0.953	
Satd. Flow (perm)	0	3507	0	1770	3539	0	0	0	0	0	1775	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7										127
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		473			249			324			375	
Travel Time (s)		10.8			5.7			7.4			8.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	751	49	105	282	0	0	0	0	351	1	224
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	800	0	105	282	0	0	0	0	0	352	224
Turn Type		NA		Split	NA					Perm	NA	Perm
Protected Phases		1		8	8						2	
Permitted Phases										2		2
Detector Phase		1		8	8					2	2	2
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		22.5		45.0	45.0					22.5	22.5	22.5
Total Split (%)		25.0%		50.0%	50.0%					25.0%	25.0%	25.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5						4.5	4.5
Lead/Lag		Lead								Lag	Lag	Lag
Lead-Lag Optimize?		Yes								Yes	Yes	Yes
Recall Mode		Max		C-Max	C-Max					None	None	None
Act Effct Green (s)		18.0		40.5	40.5						18.0	18.0
Actuated g/C Ratio		0.20		0.45	0.45						0.20	0.20
v/c Ratio		1.13		0.13	0.18						0.99	0.54
Control Delay		110.7		6.3	6.3						83.9	19.6
Queue Delay		0.0		0.0	0.5						0.0	0.0
Total Delay		110.7		6.3	6.8						83.9	19.6
LOS		F		A	A						F	B
Approach Delay		110.7			6.7						58.9	
Approach LOS		F			A						E	
Intersection Summary												

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

03/10/2022

Lane Group	Ø3	Ø4	Ø6
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	3	4	6
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	22.5	22.5	45.0
Total Split (%)	25%	25%	50%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	Max	C-Max	Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Intersection Summary			

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

03/10/2022

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.13

Intersection Signal Delay: 70.9

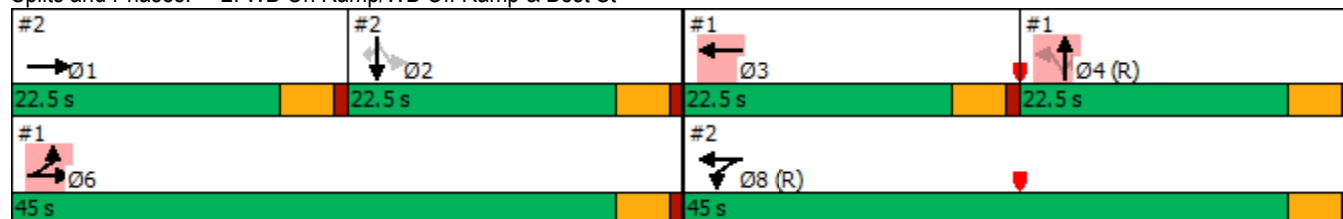
Intersection LOS: E

Intersection Capacity Utilization 81.3%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 2: WB On Ramp/WB Off Ramp & Best St



Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/10/2022

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	19	16	626	158	2	561	61	12	108	43	11	1
Future Volume (vph)	19	16	626	158	2	561	61	12	108	43	11	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		75		0	0		0		0		0	
Storage Lanes		1		1	0		0		0		0	
Taper Length (ft)		25			25				25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.985				0.990		
Flt Protected		0.950								0.968		
Satd. Flow (prot)	0	1770	1863	1583	0	1835	0	0	0	1785	0	0
Flt Permitted		0.228				0.999				0.720		
Satd. Flow (perm)	0	425	1863	1583	0	1833	0	0	0	1328	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)				172		2						
Link Speed (mph)			30			30				30		
Link Distance (ft)			205			1418				1329		
Travel Time (s)			4.7			32.2				30.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	21	17	680	172	2	610	66	13	117	47	12	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	38	680	172	0	691	0	0	0	177	0	0
Turn Type	pm+pt	pm+pt	NA	Perm	Perm	NA			Perm	NA		
Protected Phases	7	7	4			8				2		
Permitted Phases	4	4		4	8				2			
Detector Phase	7	7	4	4	8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0			5.0	5.0		
Minimum Split (s)	9.5	9.5	22.5	22.5	22.5	22.5			22.5	22.5		
Total Split (s)	9.5	9.5	42.5	42.5	33.0	33.0			22.5	22.5		
Total Split (%)	14.6%	14.6%	65.4%	65.4%	50.8%	50.8%			34.6%	34.6%		
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5			3.5	3.5		
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0		
Lost Time Adjust (s)		0.0	0.0	0.0		0.0				0.0		
Total Lost Time (s)		4.5	4.5	4.5		4.5				4.5		
Lead/Lag	Lead	Lead			Lag	Lag						
Lead-Lag Optimize?	Yes	Yes			Yes	Yes						
Recall Mode	None	None	None	None	None	None			C-Max	C-Max		
Act Effect Green (s)		31.3	31.3	31.3		27.5				24.7		
Actuated g/C Ratio		0.48	0.48	0.48		0.42				0.38		
v/c Ratio		0.12	0.76	0.20		0.89				0.35		
Control Delay		7.7	19.0	1.8		33.4				19.6		
Queue Delay		0.0	12.0	0.3		0.0				0.0		
Total Delay		7.7	31.0	2.1		33.4				19.6		
LOS		A	C	A		C				B		
Approach Delay			24.4			33.4				19.6		
Approach LOS			C			C				B		

Intersection Summary

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/10/2022



Lane Group	SBL	SBT	SBR
Lane Configurations		↖	↗
Traffic Volume (vph)	102	46	81
Future Volume (vph)	102	46	81
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	0		75
Storage Lanes	0		1
Taper Length (ft)	25		
Lane Util. Factor	1.00	1.00	1.00
Frt			0.850
Flt Protected		0.967	
Satd. Flow (prot)	0	1801	1583
Flt Permitted		0.735	
Satd. Flow (perm)	0	1369	1583
Right Turn on Red			Yes
Satd. Flow (RTOR)			101
Link Speed (mph)		30	
Link Distance (ft)		738	
Travel Time (s)		16.8	
Peak Hour Factor	0.92	0.92	0.92
Adj. Flow (vph)	111	50	88
Shared Lane Traffic (%)			
Lane Group Flow (vph)	0	161	88
Turn Type	Perm	NA	Perm
Protected Phases		6	
Permitted Phases	6		6
Detector Phase	6	6	6
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5
Total Split (%)	34.6%	34.6%	34.6%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0
Total Lost Time (s)		4.5	4.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	C-Max
Act Effct Green (s)		24.7	24.7
Actuated g/C Ratio		0.38	0.38
v/c Ratio		0.31	0.13
Control Delay		19.0	4.5
Queue Delay		0.0	0.0
Total Delay		19.0	4.5
LOS		B	A
Approach Delay		13.8	
Approach LOS		B	
Intersection Summary			

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/10/2022

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 25.8

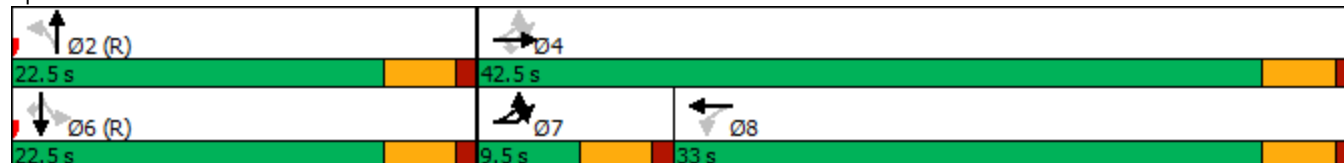
Intersection LOS: C

Intersection Capacity Utilization 63.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 3: Herman St/W Parade Ave & Best St



Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/10/2022

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	135	5	10	56	0	0	0	0	199	222	54	
Future Volume (vph)	0	135	5	10	56	0	0	0	0	199	222	54	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Fr't	0.996										0.985		
Flt Protected	0.992										0.979		
Satd. Flow (prot)	0	1855	0	0	1848	0	0	0	0	0	1796	0	
Flt Permitted	0.943										0.979		
Satd. Flow (perm)	0	1855	0	0	1757	0	0	0	0	0	1796	0	
Right Turn on Red	Yes					Yes				Yes			Yes
Satd. Flow (RTOR)	2										17		
Link Speed (mph)	30				30				30				30
Link Distance (ft)	1045				283				370				293
Travel Time (s)	23.8				6.4				8.4				6.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	147	5	11	61	0	0	0	0	216	241	59	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	152	0	0	72	0	0	0	0	0	516	0	
Turn Type	NA		Perm		NA				Perm		NA		
Protected Phases	4				8				6				
Permitted Phases					8				6				
Detector Phase	4		8		8				6		6		
Switch Phase													
Minimum Initial (s)	5.0		5.0		5.0				5.0		5.0		
Minimum Split (s)	22.5		22.5		22.5				22.5		22.5		
Total Split (s)	23.6		23.6		23.6				66.4		66.4		
Total Split (%)	26.2%		26.2%		26.2%				73.8%		73.8%		
Yellow Time (s)	3.5		3.5		3.5				3.5		3.5		
All-Red Time (s)	1.0		1.0		1.0				1.0		1.0		
Lost Time Adjust (s)	0.0				0.0				0.0				
Total Lost Time (s)	4.5				4.5				4.5				
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode	None		None		None				Max		Max		
Act Effct Green (s)	12.8				12.8				62.3				
Actuated g/C Ratio	0.15				0.15				0.74				
v/c Ratio	0.54				0.27				0.39				
Control Delay	39.2				10.8				5.3				
Queue Delay	0.0				0.0				0.0				
Total Delay	39.2				10.8				5.3				
LOS	D				B				A				
Approach Delay	39.2				10.8				5.3				
Approach LOS	D				B				A				
Intersection Summary													
Area Type:	Other												
Cycle Length: 90													
Actuated Cycle Length: 84.1													

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/10/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	66.4
Total Split (%)	74%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/10/2022

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 12.8

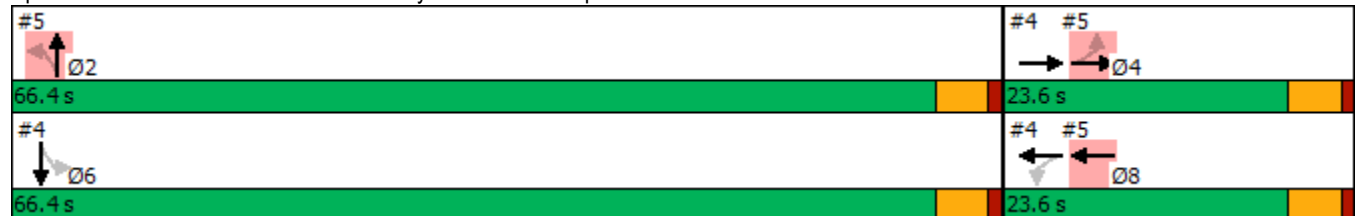
Intersection LOS: B

Intersection Capacity Utilization 44.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: Humboldt Parkway SB & Northhampton St



Lanes, Volumes, Timings
5: Humboldt Parkway NB & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	100	0	0	113	39	2	12	6	0	0	0
Future Volume (vph)	35	100	0	0	113	39	2	12	6	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.966			0.957				
Flt Protected		0.987						0.995				
Satd. Flow (prot)	0	1839	0	0	1799	0	0	1774	0	0	0	0
Flt Permitted		0.776						0.995				
Satd. Flow (perm)	0	1445	0	0	1799	0	0	1774	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					17			7				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		283			1089			152				722
Travel Time (s)		6.4			24.8			3.5				16.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	38	109	0	0	123	42	2	13	7	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	147	0	0	165	0	0	22	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (s)	23.6	23.6			23.6		66.4	66.4				
Total Split (%)	26.2%	26.2%			26.2%		73.8%	73.8%				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max				
Act Effct Green (s)		12.8			12.8			62.3				
Actuated g/C Ratio		0.15			0.15			0.74				
v/c Ratio		0.67			0.57			0.02				
Control Delay		40.6			37.4			3.1				
Queue Delay		0.0			0.0			0.0				
Total Delay		40.6			37.4			3.1				
LOS		D			D			A				
Approach Delay		40.6			37.4			3.1				
Approach LOS		D			D			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 90												
Actuated Cycle Length: 84.1												

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

03/10/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	66.4
Total Split (%)	74%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

03/10/2022

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 36.6

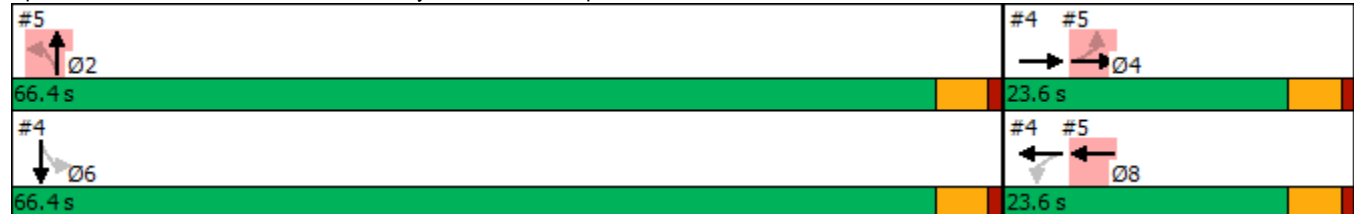
Intersection LOS: D

Intersection Capacity Utilization 30.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Humboldt Parkway NB & Northhampton St



Lanes, Volumes, Timings
6: Humboldt Parkway SB & E Utica St

03/10/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩		↩	↩						↩↪	
Traffic Volume (vph)	0	197	35	37	75	0	0	0	0	95	394	72
Future Volume (vph)	0	197	35	37	75	0	0	0	0	95	394	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.980									0.981	
Flt Protected				0.950							0.992	
Satd. Flow (prot)	0	1825	0	1770	1863	0	0	0	0	0	3444	0
Flt Permitted				0.592							0.992	
Satd. Flow (perm)	0	1825	0	1103	1863	0	0	0	0	0	3444	0
Right Turn on Red			Yes			Yes				Yes		Yes
Satd. Flow (RTOR)		24									43	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1173			153			636			456	
Travel Time (s)		26.7			3.5			14.5			10.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	214	38	40	82	0	0	0	0	103	428	78
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	252	0	40	82	0	0	0	0	0	609	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		4.5		4.5	4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					Max	Max	
Act Effct Green (s)		11.3		11.3	11.3						19.9	
Actuated g/C Ratio		0.28		0.28	0.28						0.50	
v/c Ratio		0.48		0.13	0.16						0.35	
Control Delay		13.0		8.7	8.6						7.5	
Queue Delay		0.0		0.1	0.2						0.0	
Total Delay		13.0		8.8	8.7						7.5	
LOS		B		A	A						A	
Approach Delay		13.0			8.8						7.5	
Approach LOS		B			A						A	
Intersection Summary												

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

03/10/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

03/10/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.2

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 9.0

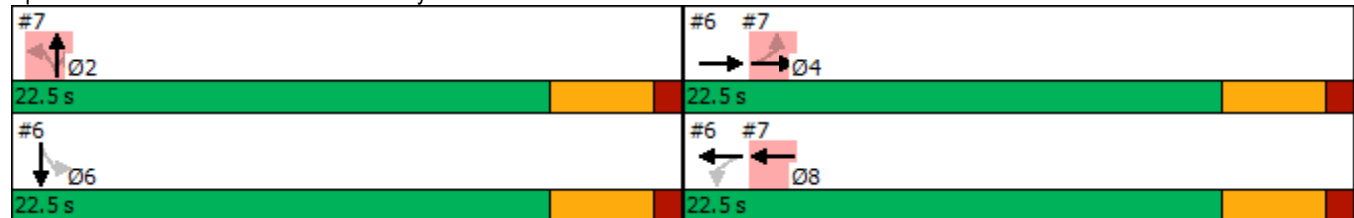
Intersection LOS: A

Intersection Capacity Utilization 59.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 6: Humboldt Parkway SB & E Utica St



Lanes, Volumes, Timings
7: Humboldt Parkway NB & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	124	173	0	0	100	30	74	201	63	0	0	0
Future Volume (vph)	124	173	0	0	100	30	74	201	63	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.969				0.850			
Fl _t Protected	0.950							0.987				
Satd. Flow (prot)	1770	1863	0	0	1805	0	0	1839	1583	0	0	0
Fl _t Permitted	0.666							0.987				
Satd. Flow (perm)	1241	1863	0	0	1805	0	0	1839	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					33				68			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		153			1083			610			294	
Travel Time (s)		3.5			24.6			13.9			6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	135	188	0	0	109	33	80	218	68	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	135	188	0	0	142	0	0	298	68	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max	Max			
Act Effct Green (s)	11.3	11.3			11.3			19.9	19.9			
Actuated g/C Ratio	0.28	0.28			0.28			0.50	0.50			
v/c Ratio	0.39	0.36			0.27			0.33	0.08			
Control Delay	9.8	8.6			9.2			8.8	3.1			
Queue Delay	0.2	0.2			0.0			0.0	0.0			
Total Delay	10.1	8.9			9.2			8.8	3.1			
LOS	B	A			A			A	A			
Approach Delay		9.4			9.2			7.7				
Approach LOS		A			A			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 40.2												

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

03/10/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 8.6

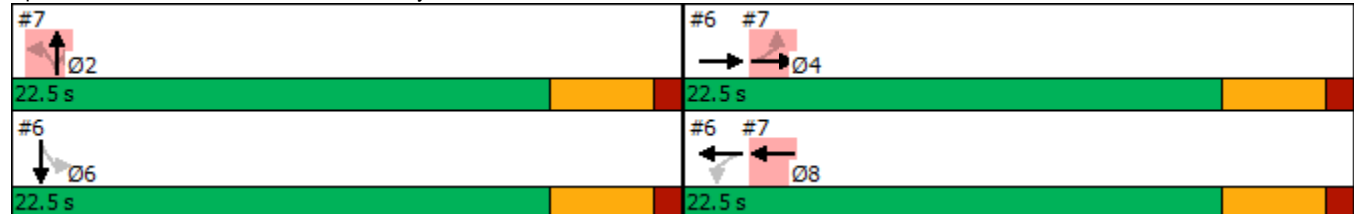
Intersection LOS: A

Intersection Capacity Utilization 59.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 7: Humboldt Parkway NB & E Utica St



Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰		↰	↰						↰	↰
Traffic Volume (vph)	0	425	74	107	236	0	0	0	0	298	414	388
Future Volume (vph)	0	425	74	107	236	0	0	0	0	298	414	388
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't		0.980										0.850
Flt Protected				0.950							0.979	
Satd. Flow (prot)	0	1825	0	1770	1863	0	0	0	0	0	1824	1583
Flt Permitted				0.277							0.979	
Satd. Flow (perm)	0	1825	0	516	1863	0	0	0	0	0	1824	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15										422
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1179			147			319			270	
Travel Time (s)		26.8			3.3			7.3			6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	462	80	116	257	0	0	0	0	324	450	422
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	542	0	116	257	0	0	0	0	0	774	422
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		38.0		38.0	38.0					37.0	37.0	37.0
Total Split (%)		50.7%		50.7%	50.7%					49.3%	49.3%	49.3%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					Max	Max	Max
Act Effect Green (s)		33.5		33.5	33.5						32.5	32.5
Actuated g/C Ratio		0.45		0.45	0.45						0.43	0.43
v/c Ratio		0.66		0.50	0.31						0.98	0.46
Control Delay		20.5		15.7	7.9						50.8	3.3
Queue Delay		0.6		0.8	1.2						40.5	0.0
Total Delay		21.2		16.5	9.2						91.4	3.3
LOS		C		B	A						F	A
Approach Delay		21.2			11.4						60.3	
Approach LOS		C			B						E	
Intersection Summary												
Area Type:	Other											
Cycle Length: 75												
Actuated Cycle Length: 75												

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/10/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	37.0
Total Split (%)	49%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/10/2022

Natural Cycle: 75

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 41.6

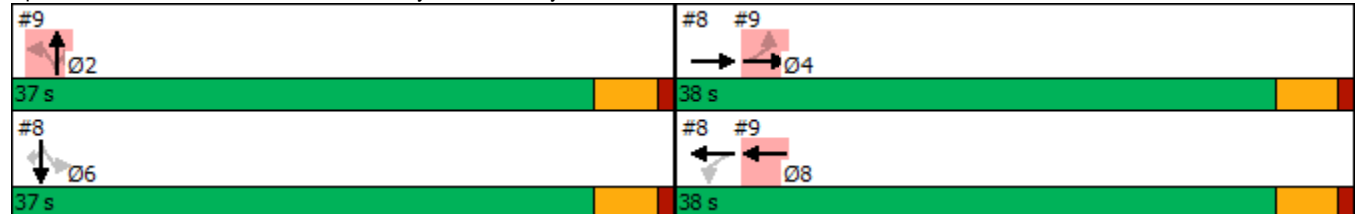
Intersection LOS: D

Intersection Capacity Utilization 114.4%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 8: Humboldt Parkway SB & E Ferry St



Lanes, Volumes, Timings
9: Humboldt Parkway NB & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	302	401	0	0	297	76	81	286	68	0	0	0
Future Volume (vph)	302	401	0	0	297	76	81	286	68	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	75		0	0		0
Storage Lanes	1		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.972				0.850			
Flt Protected	0.950							0.989				
Satd. Flow (prot)	1770	1863	0	0	1811	0	0	1842	1583	0	0	0
Flt Permitted	0.405							0.989				
Satd. Flow (perm)	754	1863	0	0	1811	0	0	1842	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					22				74			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		147			1082			312			608	
Travel Time (s)		3.3			24.6			7.1			13.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	328	436	0	0	323	83	88	311	74	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	328	436	0	0	406	0	0	399	74	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	38.0	38.0			38.0		37.0	37.0	37.0			
Total Split (%)	50.7%	50.7%			50.7%		49.3%	49.3%	49.3%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max	Max			
Act Effct Green (s)	33.5	33.5			33.5			32.5	32.5			
Actuated g/C Ratio	0.45	0.45			0.45			0.43	0.43			
v/c Ratio	0.98	0.52			0.49			0.50	0.10			
Control Delay	53.4	12.7			16.4			18.1	3.9			
Queue Delay	25.3	20.2			0.0			0.1	0.0			
Total Delay	78.8	32.9			16.5			18.2	3.9			
LOS	E	C			B			B	A			
Approach Delay		52.6			16.5			15.9				
Approach LOS		D			B			B				
Intersection Summary												

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

03/10/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	37.0
Total Split (%)	49%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

03/10/2022

Area Type: Other

Cycle Length: 75

Actuated Cycle Length: 75

Natural Cycle: 75

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 33.1

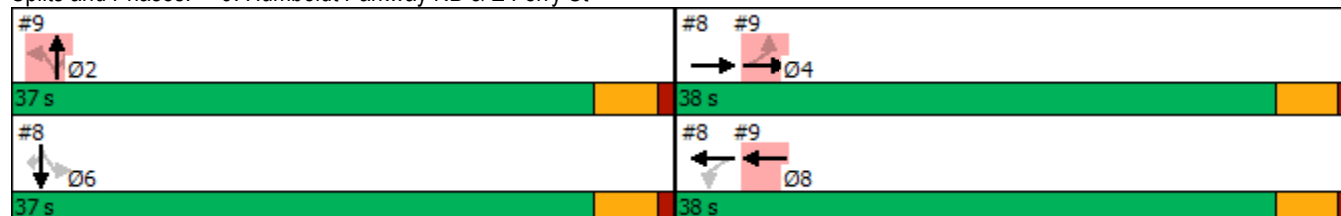
Intersection LOS: C

Intersection Capacity Utilization 114.4%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 9: Humboldt Parkway NB & E Ferry St



Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	Ø8
Lane Configurations											
Traffic Volume (vph)	11	1	0	353	314	295	633	0	0	0	
Future Volume (vph)	11	1	0	353	314	295	633	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	
Fr't	0.990			0.929							
Flt Protected	0.956						0.984				
Satd. Flow (prot)	1763	0	0	3288	0	0	3483	0	0	0	
Flt Permitted	0.956						0.611				
Satd. Flow (perm)	1763	0	0	3288	0	0	2162	0	0	0	
Right Turn on Red		Yes			Yes			Yes			
Satd. Flow (RTOR)	27			341							
Link Speed (mph)	30			30			30		30		
Link Distance (ft)	537			328			271		387		
Travel Time (s)	12.2			7.5			6.2		8.8		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	12	1	0	384	341	321	688	0	0	0	
Shared Lane Traffic (%)											
Lane Group Flow (vph)	13	0	0	725	0	0	1009	0	0	0	
Turn Type	Prot			NA		Perm	NA				
Protected Phases	4			2			6				8
Permitted Phases						6					
Detector Phase	4			2		6	6				
Switch Phase											
Minimum Initial (s)	5.0			5.0		5.0	5.0				5.0
Minimum Split (s)	22.5			22.5		22.5	22.5				22.5
Total Split (s)	22.5			37.5		37.5	37.5				22.5
Total Split (%)	37.5%			62.5%		62.5%	62.5%				38%
Yellow Time (s)	3.5			3.5		3.5	3.5				3.5
All-Red Time (s)	1.0			1.0		1.0	1.0				1.0
Lost Time Adjust (s)	0.0			0.0			0.0				
Total Lost Time (s)	4.5			4.5			4.5				
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None			Max		Max	Max				None
Act Effect Green (s)	14.3			33.5			33.5				
Actuated g/C Ratio	0.25			0.59			0.59				
v/c Ratio	0.03			0.35			0.79				
Control Delay	3.9			3.9			12.8				
Queue Delay	0.0			0.2			0.0				
Total Delay	3.9			4.1			12.8				
LOS	A			A			B				
Approach Delay	3.9			4.1			12.8				
Approach LOS	A			A			B				

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 56.9

Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

03/10/2022

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 9.1

Intersection LOS: A

Intersection Capacity Utilization 61.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 10: Jefferson Ave & Cherry St & EB On Ramp

#10 #11  Ø2	#10  Ø4
37.5 s	22.5 s
#10 #11  Ø6	#11  Ø8
37.5 s	22.5 s

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	211	11	88	48	348	0	0	779	19
Future Volume (vph)	0	0	0	211	11	88	48	348	0	0	779	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt					0.962						0.996	
Flt Protected					0.967			0.994				
Satd. Flow (prot)	0	0	0	0	1733	0	0	3518	0	0	3525	0
Flt Permitted					0.967			0.812				
Satd. Flow (perm)	0	0	0	0	1733	0	0	2874	0	0	3525	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					34						6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			384			271			880	
Travel Time (s)		12.9			8.7			6.2			20.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	229	12	96	52	378	0	0	847	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	337	0	0	430	0	0	868	0
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8			2					
Detector Phase				8	8		2	2			6	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				22.5	22.5		37.5	37.5			37.5	
Total Split (%)				37.5%	37.5%		62.5%	62.5%			62.5%	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)					14.3			33.5			33.5	
Actuated g/C Ratio					0.25			0.59			0.59	
v/c Ratio					0.73			0.25			0.42	
Control Delay					27.2			4.5			7.7	
Queue Delay					0.0			0.0			0.0	
Total Delay					27.2			4.5			7.7	
LOS					C			A			A	
Approach Delay					27.2			4.5			7.7	
Approach LOS					C			A			A	
Intersection Summary												

Lanes, Volumes, Timings
11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/10/2022

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	38%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/10/2022

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 56.9

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 10.9

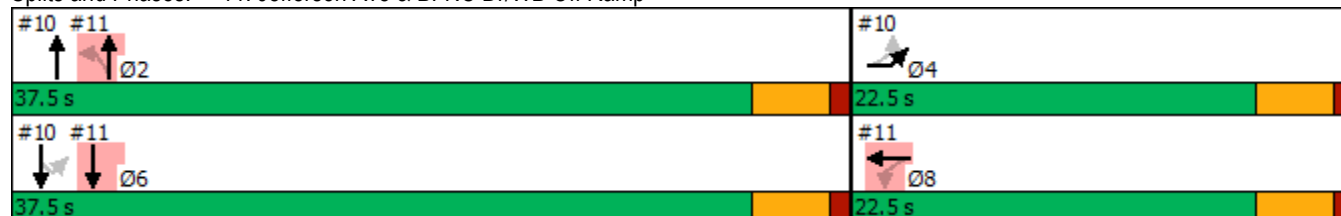
Intersection LOS: B

Intersection Capacity Utilization 62.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 11: Jefferson Ave & BFNC Dr/WB Off Ramp



Lanes, Volumes, Timings
12: Jefferson Ave & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	167	43	60	154	88	11	545	48	47	493	110
Future Volume (vph)	55	167	43	60	154	88	11	545	48	47	493	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.976			0.956			0.988			0.975	
Flt Protected		0.990			0.990			0.999			0.996	
Satd. Flow (prot)	0	3420	0	0	3350	0	0	3493	0	0	3437	0
Flt Permitted		0.814			0.826			0.941			0.881	
Satd. Flow (perm)	0	2812	0	0	2795	0	0	3290	0	0	3040	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		47			96			24			63	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		737			2886			735			328	
Travel Time (s)		16.8			65.6			16.7			7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	182	47	65	167	96	12	592	52	51	536	120
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	289	0	0	328	0	0	656	0	0	707	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.4			8.4			18.0			18.0	
Actuated g/C Ratio		0.24			0.24			0.51			0.51	
v/c Ratio		0.41			0.45			0.39			0.45	
Control Delay		11.2			9.9			6.4			6.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.2			9.9			6.4			6.6	
LOS		B			A			A			A	
Approach Delay		11.2			9.9			6.4			6.6	
Approach LOS		B			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.5												

Lanes, Volumes, Timings

12: Jefferson Ave & Genesee St

03/10/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 7.8

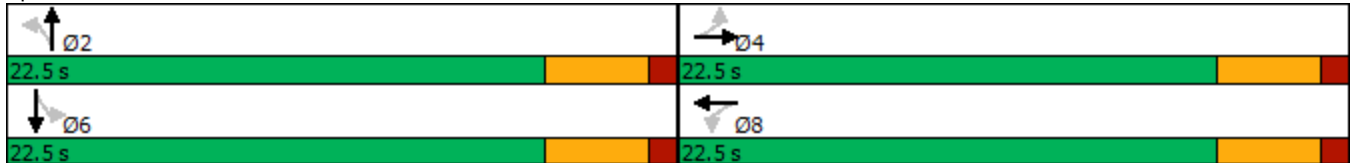
Intersection LOS: A

Intersection Capacity Utilization 66.8%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 12: Jefferson Ave & Genesee St



Lanes, Volumes, Timings
13: Herman St & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	391	31	24	368	27	22	107	23	61	240	33
Future Volume (vph)	13	391	31	24	368	27	22	107	23	61	240	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989			0.990			0.980			0.987	
Flt Protected		0.999			0.997			0.993			0.991	
Satd. Flow (prot)	0	3497	0	0	3493	0	0	1813	0	0	1822	0
Flt Permitted		0.939			0.918			0.927			0.911	
Satd. Flow (perm)	0	3287	0	0	3217	0	0	1692	0	0	1675	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			18			24			15	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2886			671			575			1329	
Travel Time (s)		65.6			15.3			13.1			30.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	425	34	26	400	29	24	116	25	66	261	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	473	0	0	455	0	0	165	0	0	363	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effect Green (s)		18.4			18.4			13.0			13.0	
Actuated g/C Ratio		0.45			0.45			0.32			0.32	
v/c Ratio		0.31			0.31			0.29			0.66	
Control Delay		8.2			8.3			9.9			17.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.2			8.3			9.9			17.5	
LOS		A			A			A			B	
Approach Delay		8.2			8.3			9.9			17.5	
Approach LOS		A			A			A			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 40.5												

Lanes, Volumes, Timings

13: Herman St & Genesee St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 10.7

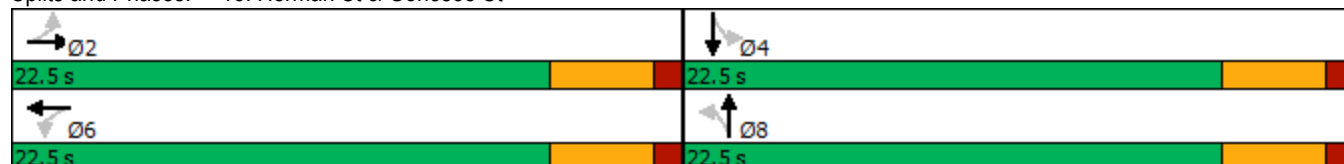
Intersection LOS: B

Intersection Capacity Utilization 61.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 13: Herman St & Genesee St



Lanes, Volumes, Timings
14: Reed St/Rich St & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	410	0	0	418	17	17	13	25	11	0	13
Future Volume (vph)	3	410	0	0	418	17	17	13	25	11	0	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.994			0.938			0.927	
Flt Protected								0.985			0.977	
Satd. Flow (prot)	0	3539	0	0	3518	0	0	1721	0	0	1687	0
Flt Permitted		0.953						0.888			0.974	
Satd. Flow (perm)	0	3373	0	0	3518	0	0	1552	0	0	1682	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10			27			36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		671			961			780			839	
Travel Time (s)		15.3			21.8			17.7			19.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	446	0	0	454	18	18	14	27	12	0	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	449	0	0	472	0	0	59	0	0	26	0
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2						8			4		
Detector Phase	2	2			6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		None	None		None	None	
Act Effct Green (s)		30.2			30.2			6.4			6.3	
Actuated g/C Ratio		0.82			0.82			0.17			0.17	
v/c Ratio		0.16			0.16			0.20			0.08	
Control Delay		2.7			2.7			10.0			5.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		2.7			2.7			10.0			5.0	
LOS		A			A			A			A	
Approach Delay		2.7			2.7			10.0			5.0	
Approach LOS		A			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.9												

Lanes, Volumes, Timings

14: Reed St/Rich St & Genesee St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.20

Intersection Signal Delay: 3.2

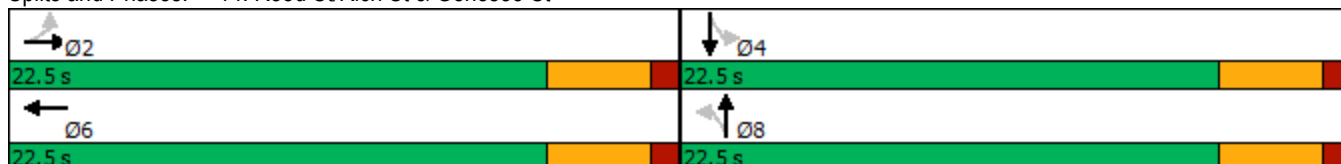
Intersection LOS: A

Intersection Capacity Utilization 25.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Reed St/Rich St & Genesee St



Lanes, Volumes, Timings
15: Fillmore Ave & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	377	66	77	329	29	42	377	80	54	351	18
Future Volume (vph)	36	377	66	77	329	29	42	377	80	54	351	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.990			0.978			0.994	
Flt Protected		0.996			0.991			0.996			0.994	
Satd. Flow (prot)	0	3451	0	0	3472	0	0	1814	0	0	1840	0
Flt Permitted		0.891			0.766			0.939			0.893	
Satd. Flow (perm)	0	3087	0	0	2684	0	0	1711	0	0	1653	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40			17			25			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		961			671			704			490	
Travel Time (s)		21.8			15.3			16.0			11.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	39	410	72	84	358	32	46	410	87	59	382	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	521	0	0	474	0	0	543	0	0	461	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		27.5	27.5		27.5	27.5	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		55.0%	55.0%		55.0%	55.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		12.9			12.9			23.1			23.1	
Actuated g/C Ratio		0.29			0.29			0.51			0.51	
v/c Ratio		0.57			0.61			0.61			0.54	
Control Delay		15.0			16.8			12.1			11.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.0			16.8			12.1			11.3	
LOS		B			B			B			B	
Approach Delay		15.0			16.8			12.1			11.3	
Approach LOS		B			B			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 45.1												

Lanes, Volumes, Timings

15: Fillmore Ave & Genesee St

03/10/2022

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 13.8

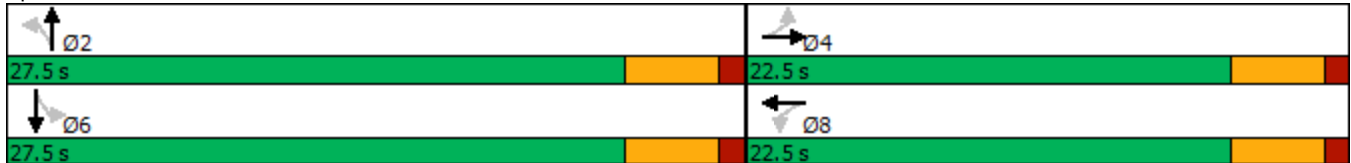
Intersection LOS: B

Intersection Capacity Utilization 70.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 15: Fillmore Ave & Genesee St



Lanes, Volumes, Timings
16: Fillmore Ave & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	522	159	1	434	32	172	268	6	49	253	50
Future Volume (vph)	43	522	159	1	434	32	172	268	6	49	253	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970			0.991			0.998				0.850
Flt Protected		0.997						0.981			0.992	
Satd. Flow (prot)	0	1801	0	0	1846	0	0	1824	0	0	1848	1583
Flt Permitted		0.953			0.999			0.628			0.889	
Satd. Flow (perm)	0	1722	0	0	1844	0	0	1167	0	0	1656	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		28			7			1				54
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1418			567			490				61
Travel Time (s)		32.2			12.9			11.1				1.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	47	567	173	1	472	35	187	291	7	53	275	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	787	0	0	508	0	0	485	0	0	328	54
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (s)	33.4	33.4		33.4	33.4		31.6	31.6		31.6	31.6	31.6
Total Split (%)	51.4%	51.4%		51.4%	51.4%		48.6%	48.6%		48.6%	48.6%	48.6%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)		4.5			4.5			4.5			4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	C-Max
Act Effct Green (s)		28.9			28.9			27.1			27.1	27.1
Actuated g/C Ratio		0.44			0.44			0.42			0.42	0.42
v/c Ratio		1.01			0.62			1.00			0.48	0.08
Control Delay		59.0			17.7			62.7			5.2	0.2
Queue Delay		41.8			59.9			4.9			0.0	0.0
Total Delay		100.8			77.6			67.6			5.2	0.2
LOS		F			E			E			A	A
Approach Delay		100.8			77.6			67.6			4.5	
Approach LOS		F			E			E			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 65												
Actuated Cycle Length: 65												

Lanes, Volumes, Timings

16: Fillmore Ave & Best St

03/10/2022

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.01

Intersection Signal Delay: 70.9

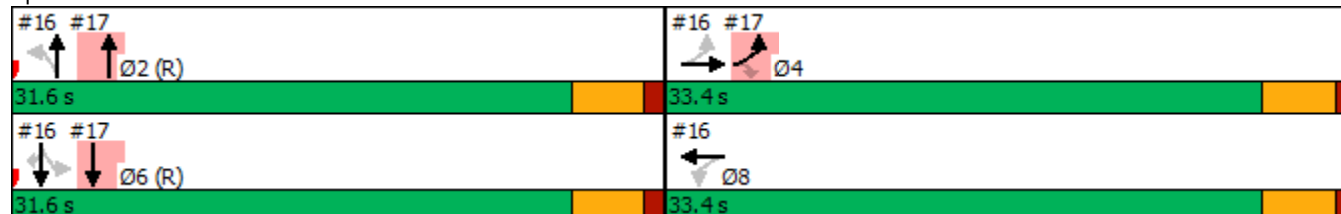
Intersection LOS: E

Intersection Capacity Utilization 119.4%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 16: Fillmore Ave & Best St



Lanes, Volumes, Timings
17: Fillmore Ave & East Park

03/10/2022

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	10	9	0	353	340	0	
Future Volume (vph)	10	9	0	353	340	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	0			100	
Storage Lanes	1	1	0			1	
Taper Length (ft)	25		25				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	
Frt		0.850					
Flt Protected	0.950						
Satd. Flow (prot)	1770	1583	0	1863	3539	0	
Flt Permitted	0.950						
Satd. Flow (perm)	1770	1583	0	1863	3539	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		10					
Link Speed (mph)	30			30	30		
Link Distance (ft)	468			61	755		
Travel Time (s)	10.6			1.4	17.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	11	10	0	384	370	0	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	11	10	0	384	370	0	
Turn Type	Prot	Perm		NA	NA		
Protected Phases	4			2	6		8
Permitted Phases		4					
Detector Phase	4	4		2	6		
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5
Total Split (s)	33.4	33.4		31.6	31.6		33.4
Total Split (%)	51.4%	51.4%		48.6%	48.6%		51%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		
Total Lost Time (s)	4.5	4.5		4.5	4.5		
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None		C-Max	C-Max		None
Act Effct Green (s)	28.9	28.9		27.1	27.1		
Actuated g/C Ratio	0.44	0.44		0.42	0.42		
v/c Ratio	0.01	0.01		0.49	0.25		
Control Delay	10.2	6.0		7.1	12.9		
Queue Delay	0.0	0.0		0.0	0.0		
Total Delay	10.2	6.0		7.1	12.9		
LOS	B	A		A	B		
Approach Delay	8.2			7.1	12.9		
Approach LOS	A			A	B		
Intersection Summary							

Lanes, Volumes, Timings

17: Fillmore Ave & East Park

03/10/2022

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.01

Intersection Signal Delay: 9.9

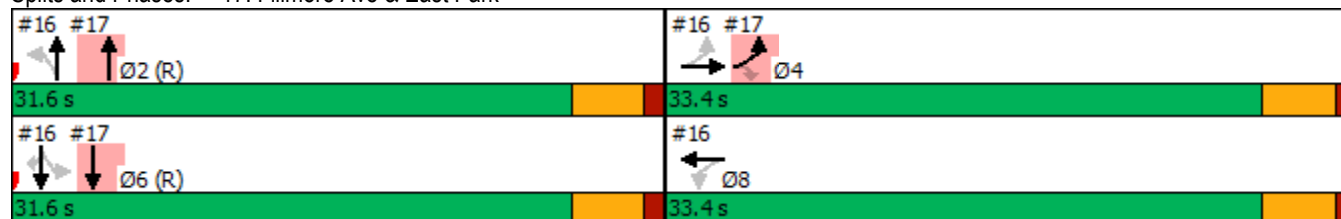
Intersection LOS: A

Intersection Capacity Utilization 30.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Fillmore Ave & East Park



Lanes, Volumes, Timings
18: Fillmore Ave & MLK Park

03/10/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	4	13	0	372	320	0
Future Volume (vph)	4	13	0	372	320	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr't	0.850					
Flt Protected	0.950					
Satd. Flow (prot)	1770	1583	0	1863	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1583	0	1863	1863	0
Right Turn on Red	Yes					
Satd. Flow (RTOR)	14					
Link Speed (mph)	30			30	30	
Link Distance (ft)	526			755	579	
Travel Time (s)	12.0			17.2	13.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	14	0	404	348	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	14	0	404	348	0
Turn Type	Prot	Perm		NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4				
Detector Phase	4	4		2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None		Max	Max	
Act Effct Green (s)	5.8	5.8		37.1	37.1	
Actuated g/C Ratio	0.15	0.15		0.93	0.93	
v/c Ratio	0.02	0.06		0.23	0.20	
Control Delay	16.5	10.5		1.5	1.4	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	16.5	10.5		1.5	1.4	
LOS	B	B		A	A	
Approach Delay	11.8			1.5	1.4	
Approach LOS	B			A	A	
Intersection Summary						
Area Type:	Other					
Cycle Length: 45						
Actuated Cycle Length: 39.7						

Lanes, Volumes, Timings

18: Fillmore Ave & MLK Park

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.23

Intersection Signal Delay: 1.7

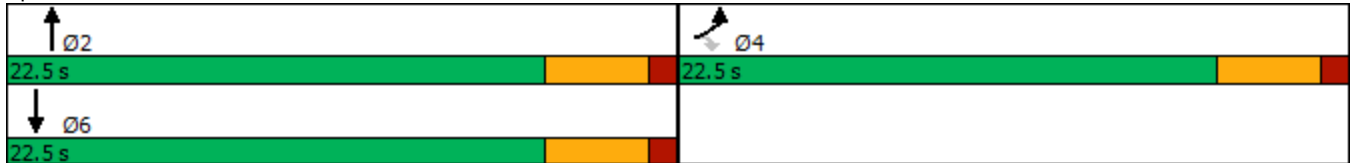
Intersection LOS: A

Intersection Capacity Utilization 31.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Fillmore Ave & MLK Park



Lanes, Volumes, Timings
19: Fillmore Ave & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	79	19	15	37	16	21	361	10	7	320	49
Future Volume (vph)	18	79	19	15	37	16	21	361	10	7	320	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.978			0.969			0.997			0.983	
Flt Protected		0.992			0.989			0.997			0.999	
Satd. Flow (prot)	0	1807	0	0	1785	0	0	1852	0	0	1829	0
Flt Permitted		0.929			0.927			0.973			0.992	
Satd. Flow (perm)	0	1692	0	0	1673	0	0	1807	0	0	1816	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			17			4			20	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1089			291			579			735	
Travel Time (s)		24.8			6.6			13.2			16.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	86	21	16	40	17	23	392	11	8	348	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	127	0	0	73	0	0	426	0	0	409	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		7.6			7.5			25.7			25.7	
Actuated g/C Ratio		0.21			0.21			0.70			0.70	
v/c Ratio		0.35			0.21			0.33			0.32	
Control Delay		12.7			10.5			5.7			5.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.7			10.5			5.7			5.3	
LOS		B			B			A			A	
Approach Delay		12.7			10.5			5.7			5.3	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.5												

Lanes, Volumes, Timings

19: Fillmore Ave & Northhampton St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.35

Intersection Signal Delay: 6.7

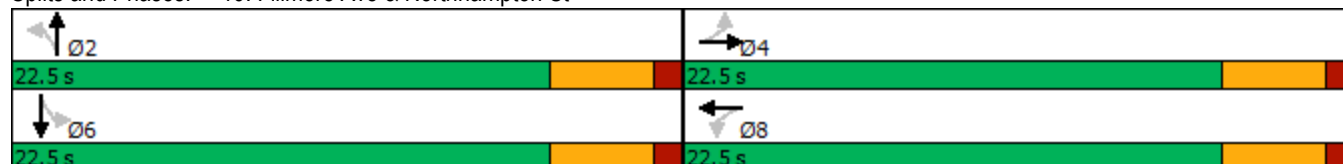
Intersection LOS: A

Intersection Capacity Utilization 46.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 19: Fillmore Ave & Northhampton St



Lanes, Volumes, Timings
21: Fillmore Ave & Riley St/Urban St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	0	7	9	0	27	3	405	4	18	362	10
Future Volume (vph)	4	0	7	9	0	27	3	405	4	18	362	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.910			0.900			0.999			0.996	
Flt Protected		0.984			0.987						0.998	
Satd. Flow (prot)	0	1668	0	0	1655	0	0	1861	0	0	1852	0
Flt Permitted								0.998			0.977	
Satd. Flow (perm)	0	1695	0	0	1676	0	0	1857	0	0	1813	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			36			1			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			639			735			422	
Travel Time (s)		24.6			14.5			16.7			9.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	0	8	10	0	29	3	440	4	20	393	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	39	0	0	447	0	0	424	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		5.8			6.0			33.7			33.7	
Actuated g/C Ratio		0.16			0.16			0.91			0.91	
v/c Ratio		0.04			0.13			0.26			0.26	
Control Delay		2.5			7.1			2.2			2.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		2.5			7.1			2.2			2.2	
LOS		A			A			A			A	
Approach Delay		2.5			7.1			2.2			2.2	
Approach LOS		A			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.1												

Lanes, Volumes, Timings

21: Fillmore Ave & Riley St/Urban St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.26

Intersection Signal Delay: 2.4

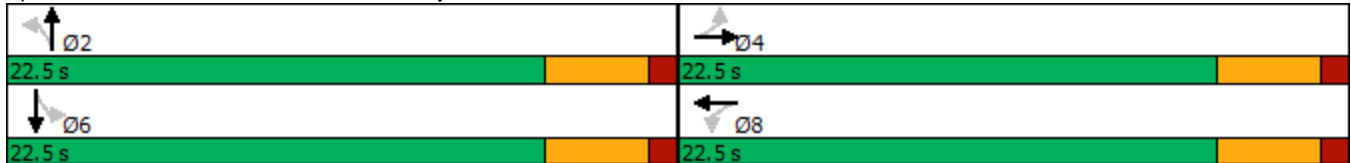
Intersection LOS: A

Intersection Capacity Utilization 43.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 21: Fillmore Ave & Riley St/Urban St



Lanes, Volumes, Timings
22: Fillmore Ave & French St

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	12	59	402	13	76	340
Future Volume (vph)	12	59	402	13	76	340
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.888		0.996			
Flt Protected	0.992					0.991
Satd. Flow (prot)	1641	0	1855	0	0	1846
Flt Permitted	0.992					0.870
Satd. Flow (perm)	1641	0	1855	0	0	1621
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	64		4			
Link Speed (mph)	30		30			30
Link Distance (ft)	600		422			182
Travel Time (s)	13.6		9.6			4.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	64	437	14	83	370
Shared Lane Traffic (%)						
Lane Group Flow (vph)	77	0	451	0	0	453
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		27.5		27.5	27.5
Total Split (%)	45.0%		55.0%		55.0%	55.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.5		36.5			36.5
Actuated g/C Ratio	0.14		0.80			0.80
v/c Ratio	0.27		0.30			0.35
Control Delay	9.6		3.7			4.2
Queue Delay	0.0		0.0			0.9
Total Delay	9.6		3.7			5.1
LOS	A		A			A
Approach Delay	9.6		3.7			5.1
Approach LOS	A		A			A
Intersection Summary						
Area Type:	Other					
Cycle Length: 50						
Actuated Cycle Length: 45.8						

Lanes, Volumes, Timings

22: Fillmore Ave & French St

03/10/2022

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.35

Intersection Signal Delay: 4.8

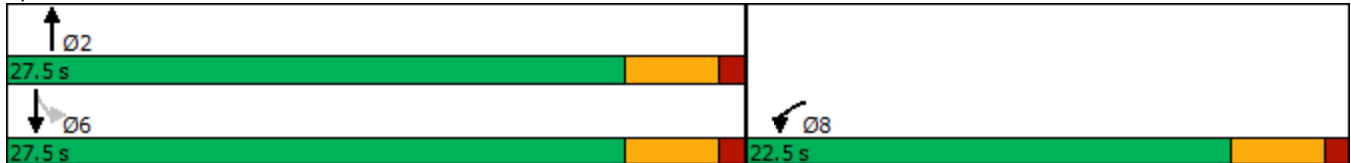
Intersection LOS: A

Intersection Capacity Utilization 59.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 22: Fillmore Ave & French St



Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	82	106	77	388	333	69
Future Volume (vph)	82	106	77	388	333	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.924				0.977	
Flt Protected	0.979			0.992		
Satd. Flow (prot)	1685	0	0	1848	1820	0
Flt Permitted	0.979			0.880		
Satd. Flow (perm)	1685	0	0	1639	1820	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	115				28	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1083			182	1350	
Travel Time (s)	24.6			4.1	30.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	89	115	84	422	362	75
Shared Lane Traffic (%)						
Lane Group Flow (vph)	204	0	0	506	437	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		32.5	32.5	32.5	
Total Split (%)	40.9%		59.1%	59.1%	59.1%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effect Green (s)	8.3			33.0	33.0	
Actuated g/C Ratio	0.18			0.70	0.70	
v/c Ratio	0.52			0.44	0.34	
Control Delay	13.2			6.7	5.2	
Queue Delay	0.0			1.6	0.0	
Total Delay	13.2			8.3	5.2	
LOS	B			A	A	
Approach Delay	13.2			8.3	5.2	
Approach LOS	B			A	A	
Intersection Summary						
Area Type:	Other					
Cycle Length: 55						
Actuated Cycle Length: 47.4						

Lanes, Volumes, Timings

23: Fillmore Ave & E Utica St

03/10/2022

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 8.0

Intersection LOS: A

Intersection Capacity Utilization 68.7%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 23: Fillmore Ave & E Utica St



Lanes, Volumes, Timings
24: Fillmore Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	280	86	55	261	50	44	312	66	43	299	77
Future Volume (vph)	39	280	86	55	261	50	44	312	66	43	299	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.968			0.980			0.976			0.972	
Flt Protected		0.995			0.993			0.995			0.995	
Satd. Flow (prot)	0	3409	0	0	3444	0	0	3437	0	0	3423	0
Flt Permitted		0.881			0.829			0.882			0.883	
Satd. Flow (perm)	0	3018	0	0	2875	0	0	3047	0	0	3038	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		90			46			56			72	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			797			1350			1620	
Travel Time (s)		24.6			18.1			30.7			36.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	304	93	60	284	54	48	339	72	47	325	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	439	0	0	398	0	0	459	0	0	456	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		10.1			10.1			18.1			18.1	
Actuated g/C Ratio		0.27			0.27			0.49			0.49	
v/c Ratio		0.50			0.49			0.30			0.30	
Control Delay		10.8			12.0			6.3			6.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.8			12.0			6.3			6.1	
LOS		B			B			A			A	
Approach Delay		10.8			12.0			6.3			6.1	
Approach LOS		B			B			A			A	
Intersection Summary												

Lanes, Volumes, Timings

24: Fillmore Ave & E Ferry St

03/10/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 37.2

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.50

Intersection Signal Delay: 8.7

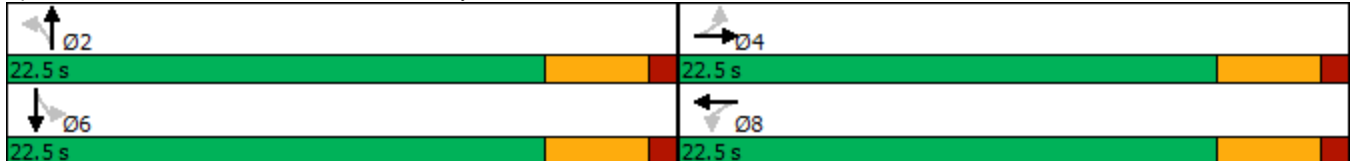
Intersection LOS: A

Intersection Capacity Utilization 61.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 24: Fillmore Ave & E Ferry St



Lanes, Volumes, Timings
25: Fillmore Ave & Northland Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	28	21	48	57	19	13	352	35	28	353	21
Future Volume (vph)	4	28	21	48	57	19	13	352	35	28	353	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.946			0.979			0.988			0.993	
Flt Protected		0.997			0.981			0.998			0.997	
Satd. Flow (prot)	0	1757	0	0	1789	0	0	1837	0	0	1844	0
Flt Permitted		0.970			0.849			0.985			0.960	
Satd. Flow (perm)	0	1709	0	0	1548	0	0	1813	0	0	1776	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			21			13			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1020			890			1620			1011	
Travel Time (s)		23.2			20.2			36.8			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	30	23	52	62	21	14	383	38	30	384	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	57	0	0	135	0	0	435	0	0	437	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.0			8.0			23.9			23.9	
Actuated g/C Ratio		0.21			0.21			0.63			0.63	
v/c Ratio		0.15			0.39			0.38			0.39	
Control Delay		8.4			13.9			6.6			6.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.4			13.9			6.6			6.8	
LOS		A			B			A			A	
Approach Delay		8.4			13.9			6.6			6.8	
Approach LOS		A			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 38												

Lanes, Volumes, Timings

25: Fillmore Ave & Northland Ave

03/10/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 7.7

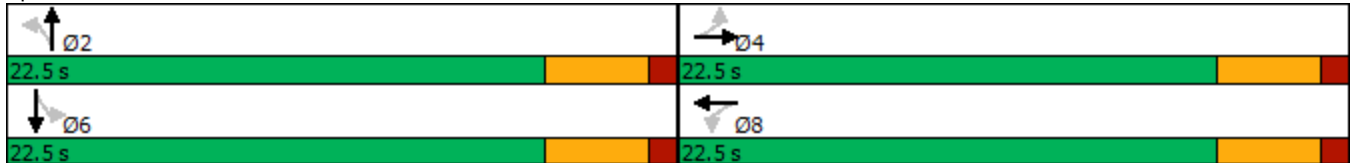
Intersection LOS: A

Intersection Capacity Utilization 53.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 25: Fillmore Ave & Northland Ave



Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	200	46	31	165	41	39	324	33	60	321	72
Future Volume (vph)	90	200	46	31	165	41	39	324	33	60	321	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.982			0.976			0.989			0.979	
Flt Protected		0.987			0.993			0.995			0.993	
Satd. Flow (prot)	0	1805	0	0	1805	0	0	1833	0	0	1811	0
Flt Permitted		0.849			0.933			0.929			0.904	
Satd. Flow (perm)	0	1553	0	0	1696	0	0	1711	0	0	1649	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			24			12			25	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		928			735			1011			742	
Travel Time (s)		21.1			16.7			23.0			16.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	98	217	50	34	179	45	42	352	36	65	349	78
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	365	0	0	258	0	0	430	0	0	492	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	23.0	23.0		23.0	23.0		27.0	27.0		27.0	27.0	
Total Split (%)	46.0%	46.0%		46.0%	46.0%		54.0%	54.0%		54.0%	54.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		14.5			14.5			22.7			22.7	
Actuated g/C Ratio		0.31			0.31			0.49			0.49	
v/c Ratio		0.73			0.47			0.51			0.60	
Control Delay		22.8			14.3			11.4			12.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		22.8			14.3			11.4			12.9	
LOS		C			B			B			B	
Approach Delay		22.8			14.3			11.4			12.9	
Approach LOS		C			B			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 46.2												

Lanes, Volumes, Timings

26: Fillmore Ave & E Delavan Ave

03/10/2022

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 15.1

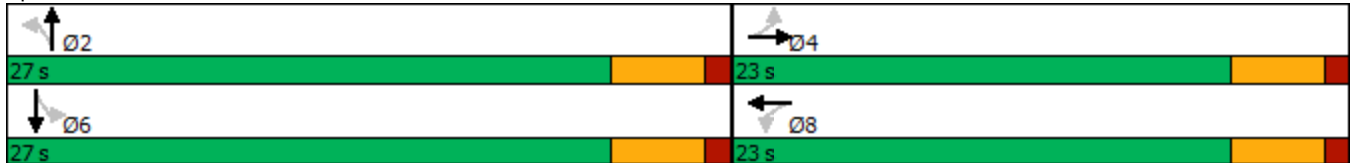
Intersection LOS: B

Intersection Capacity Utilization 76.2%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 26: Fillmore Ave & E Delavan Ave



Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕	↕			
Traffic Volume (vph)	242	274	0	0	274	30	72	223	140	0	0	0
Future Volume (vph)	242	274	0	0	274	30	72	223	140	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	0		150	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.985				0.850			
Flt Protected		0.977						0.988				
Satd. Flow (prot)	0	3458	0	0	3486	0	0	1840	1583	0	0	0
Flt Permitted		0.690						0.988				
Satd. Flow (perm)	0	2442	0	0	3486	0	0	1840	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					31				152			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		310			928			1019			213	
Travel Time (s)		7.0			21.1			23.2			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	263	298	0	0	298	33	78	242	152	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	561	0	0	331	0	0	320	152	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	27.5	27.5			27.5		22.5	22.5	22.5			
Total Split (%)	55.0%	55.0%			55.0%		45.0%	45.0%	45.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)		0.0			0.0			0.0	0.0			
Total Lost Time (s)		4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		None	None	None			
Act Effct Green (s)		23.8			23.8			13.1	13.1			
Actuated g/C Ratio		0.52			0.52			0.28	0.28			
v/c Ratio		0.44			0.18			0.61	0.27			
Control Delay		5.8			6.5			19.1	4.0			
Queue Delay		0.0			0.0			0.0	0.0			
Total Delay		5.8			6.5			19.1	4.0			
LOS		A			A			B	A			
Approach Delay		5.8			6.5			14.3				
Approach LOS		A			A			B				
Intersection Summary												

Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

03/10/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	45%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

27: Humboldt Parkway NB & E Delavan Ave

03/10/2022

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 46

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 8.9

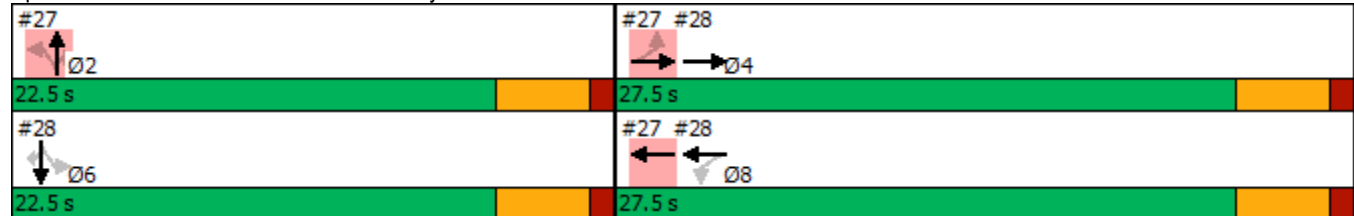
Intersection LOS: A

Intersection Capacity Utilization 50.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 27: Humboldt Parkway NB & E Delavan Ave



Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					 							
Traffic Volume (vph)	0	470	50	103	244	0	0	0	0	43	65	27
Future Volume (vph)	0	470	50	103	244	0	0	0	0	43	65	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987										0.850
Flt Protected					0.985						0.980	
Satd. Flow (prot)	0	1839	0	0	3486	0	0	0	0	0	1825	1583
Flt Permitted					0.700						0.980	
Satd. Flow (perm)	0	1839	0	0	2477	0	0	0	0	0	1825	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14										33
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2669			310			684			864	
Travel Time (s)		60.7			7.0			15.5			19.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	511	54	112	265	0	0	0	0	47	71	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	565	0	0	377	0	0	0	0	0	118	29
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		27.5		27.5	27.5					22.5	22.5	22.5
Total Split (%)		55.0%		55.0%	55.0%					45.0%	45.0%	45.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0						0.0	0.0
Total Lost Time (s)		4.5			4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					None	None	None
Act Effct Green (s)		23.8			23.8						13.1	13.1
Actuated g/C Ratio		0.52			0.52						0.28	0.28
v/c Ratio		0.59			0.29						0.23	0.06
Control Delay		11.7			5.3						12.9	4.9
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		11.7			5.3						12.9	4.9
LOS		B			A						B	A
Approach Delay		11.7			5.3						11.3	
Approach LOS		B			A						B	
Intersection Summary												

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	45%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

28: Humboldt Parkway SB & E Delavan Ave

03/10/2022

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 46

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 9.5

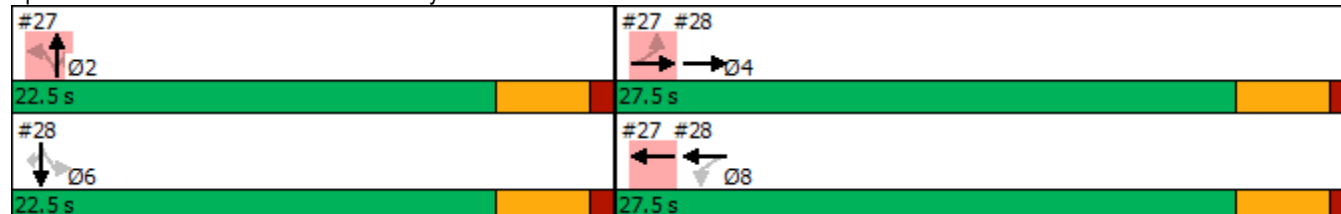
Intersection LOS: A

Intersection Capacity Utilization 54.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 28: Humboldt Parkway SB & E Delavan Ave



Lanes, Volumes, Timings
29: Jefferson Ave & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	336	55	56	145	23	48	147	71	12	112	45
Future Volume (vph)	89	336	55	56	145	23	48	147	71	12	112	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.984			0.986			0.964			0.964	
Flt Protected		0.991			0.988			0.991			0.996	
Satd. Flow (prot)	0	1816	0	0	1815	0	0	1780	0	0	1789	0
Flt Permitted		0.895			0.825			0.923			0.973	
Satd. Flow (perm)	0	1640	0	0	1515	0	0	1657	0	0	1747	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			14			43			43	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		592			2669			1017			352	
Travel Time (s)		13.5			60.7			23.1			8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	97	365	60	61	158	25	52	160	77	13	122	49
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	522	0	0	244	0	0	289	0	0	184	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	26.0	26.0		26.0	26.0		24.0	24.0		24.0	24.0	
Total Split (%)	52.0%	52.0%		52.0%	52.0%		48.0%	48.0%		48.0%	48.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		18.3			18.3			19.7			19.7	
Actuated g/C Ratio		0.39			0.39			0.42			0.42	
v/c Ratio		0.81			0.41			0.40			0.24	
Control Delay		23.8			11.8			11.1			8.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		23.8			11.8			11.1			8.9	
LOS		C			B			B			A	
Approach Delay		23.8			11.8			11.1			8.9	
Approach LOS		C			B			B			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 47												

Lanes, Volumes, Timings

29: Jefferson Ave & E Delavan Ave

03/10/2022

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 16.3

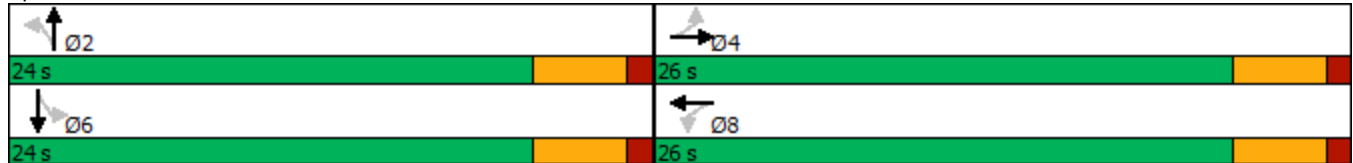
Intersection LOS: B

Intersection Capacity Utilization 66.6%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 29: Jefferson Ave & E Delavan Ave



Lanes, Volumes, Timings
30: Jefferson Ave & Northland Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	28	18	13	18	20	26	217	31	20	188	13
Future Volume (vph)	28	28	18	13	18	20	26	217	31	20	188	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.947			0.985			0.992	
Flt Protected		0.982			0.988			0.995			0.995	
Satd. Flow (prot)	0	1767	0	0	1743	0	0	1826	0	0	1839	0
Flt Permitted		0.853			0.889			0.966			0.965	
Satd. Flow (perm)	0	1535	0	0	1568	0	0	1772	0	0	1783	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			22			17			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		806			2743			848			1017	
Travel Time (s)		18.3			62.3			19.3			23.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	30	20	14	20	22	28	236	34	22	204	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	80	0	0	56	0	0	298	0	0	240	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		6.8			6.7			28.4			28.4	
Actuated g/C Ratio		0.19			0.19			0.80			0.80	
v/c Ratio		0.26			0.18			0.21			0.17	
Control Delay		11.2			9.2			3.6			3.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.2			9.2			3.6			3.5	
LOS		B			A			A			A	
Approach Delay		11.2			9.3			3.6			3.5	
Approach LOS		B			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.3												

Lanes, Volumes, Timings
30: Jefferson Ave & Northland Ave

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.26

Intersection Signal Delay: 4.9

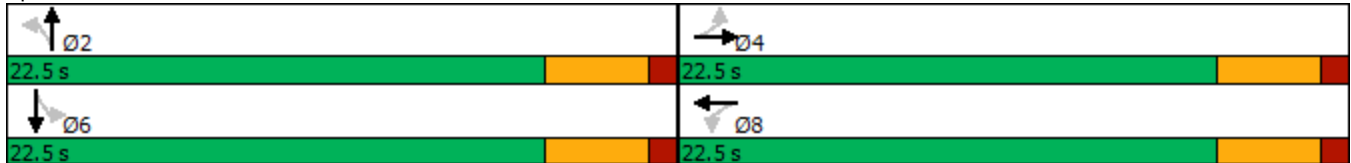
Intersection LOS: A

Intersection Capacity Utilization 33.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 30: Jefferson Ave & Northland Ave



Lanes, Volumes, Timings
31: Jefferson Ave & Brunswick Blvd

03/10/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	26	26	264	46	9	200
Future Volume (vph)	26	26	264	46	9	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932		0.980			
Flt Protected	0.976					0.998
Satd. Flow (prot)	1694	0	1825	0	0	1859
Flt Permitted	0.976					0.986
Satd. Flow (perm)	1694	0	1825	0	0	1837
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	28		23			
Link Speed (mph)	30		30			30
Link Distance (ft)	2734		751			848
Travel Time (s)	62.1		17.1			19.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	28	28	287	50	10	217
Shared Lane Traffic (%)						
Lane Group Flow (vph)	56	0	337	0	0	227
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%	50.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.4		34.3			34.3
Actuated g/C Ratio	0.16		0.85			0.85
v/c Ratio	0.19		0.22			0.15
Control Delay	11.7		2.7			2.7
Queue Delay	0.0		0.0			0.0
Total Delay	11.7		2.7			2.7
LOS	B		A			A
Approach Delay	11.7		2.7			2.7
Approach LOS	B		A			A

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.4

Lanes, Volumes, Timings

31: Jefferson Ave & Brunswick Blvd

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.22

Intersection Signal Delay: 3.5

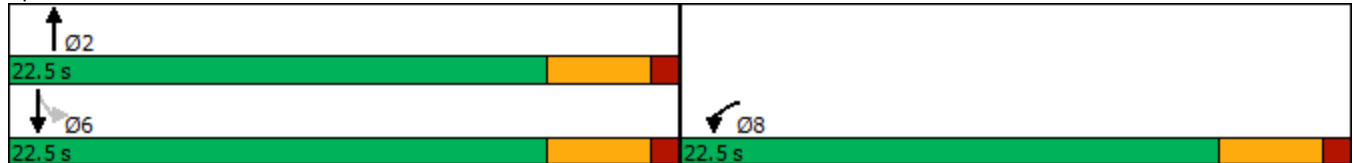
Intersection LOS: A

Intersection Capacity Utilization 29.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 31: Jefferson Ave & Brunswick Blvd



Lanes, Volumes, Timings
32: Jefferson Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	243	55	59	391	64	69	218	76	51	205	28
Future Volume (vph)	25	243	55	59	391	64	69	218	76	51	205	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.977			0.983			0.972			0.987	
Fl _t Protected		0.996			0.994			0.991			0.991	
Satd. Flow (prot)	0	1813	0	0	1820	0	0	1794	0	0	1822	0
Fl _t Permitted		0.947			0.926			0.883			0.886	
Satd. Flow (perm)	0	1723	0	0	1696	0	0	1599	0	0	1629	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			17			28			11	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			194			1406			751	
Travel Time (s)		7.5			4.4			32.0			17.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	27	264	60	64	425	70	75	237	83	55	223	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	351	0	0	559	0	0	395	0	0	308	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	30.0	30.0		30.0	30.0		25.0	25.0		25.0	25.0	
Total Split (%)	54.5%	54.5%		54.5%	54.5%		45.5%	45.5%		45.5%	45.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		20.2			20.2			20.7			20.7	
Actuated g/C Ratio		0.40			0.40			0.41			0.41	
v/c Ratio		0.50			0.81			0.58			0.45	
Control Delay		12.5			22.7			16.1			14.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.5			22.7			16.1			14.3	
LOS		B			C			B			B	
Approach Delay		12.5			22.7			16.1			14.3	
Approach LOS		B			C			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 55												
Actuated Cycle Length: 50												

Lanes, Volumes, Timings

32: Jefferson Ave & E Ferry St

03/10/2022

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 17.3

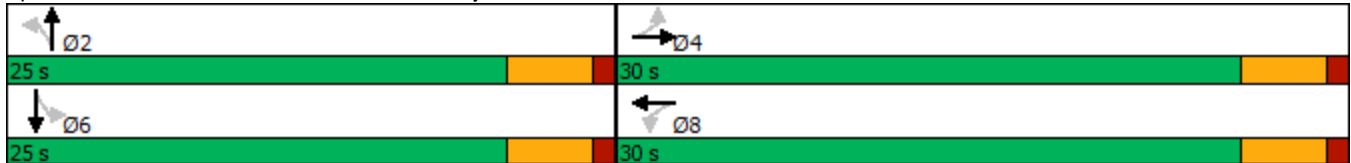
Intersection LOS: B

Intersection Capacity Utilization 75.6%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 32: Jefferson Ave & E Ferry St



Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	104	41	51	105	36	44	337	43	18	300	22
Future Volume (vph)	13	104	41	51	105	36	44	337	43	18	300	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.965			0.975			0.986			0.991	
Flt Protected		0.996			0.987			0.995			0.997	
Satd. Flow (prot)	0	1790	0	0	1793	0	0	1827	0	0	1840	0
Flt Permitted		0.966			0.893			0.938			0.970	
Satd. Flow (perm)	0	1736	0	0	1622	0	0	1723	0	0	1791	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		45			31			15			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1023			1295			630			1406	
Travel Time (s)		23.3			29.4			14.3			32.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	113	45	55	114	39	48	366	47	20	326	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	172	0	0	208	0	0	461	0	0	370	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		9.3			9.3			21.9			21.9	
Actuated g/C Ratio		0.25			0.25			0.59			0.59	
v/c Ratio		0.37			0.49			0.45			0.35	
Control Delay		10.7			13.7			8.5			7.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.7			13.7			8.5			7.4	
LOS		B			B			A			A	
Approach Delay		10.7			13.7			8.5			7.4	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.3												

Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 9.4

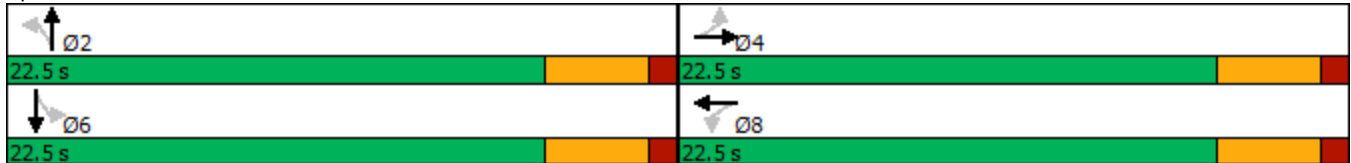
Intersection LOS: A

Intersection Capacity Utilization 66.2%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 33: Jefferson Ave & E Utica St



Lanes, Volumes, Timings
34: Jefferson Ave & Riley St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	29	11	17	21	18	8	366	47	12	358	21
Future Volume (vph)	12	29	11	17	21	18	8	366	47	12	358	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.972			0.956			0.985			0.993	
Flt Protected		0.989			0.985			0.999			0.998	
Satd. Flow (prot)	0	1791	0	0	1754	0	0	1833	0	0	1846	0
Flt Permitted		0.904			0.880			0.992			0.986	
Satd. Flow (perm)	0	1637	0	0	1567	0	0	1820	0	0	1824	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			20			17			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		870			1108			418			630	
Travel Time (s)		19.8			25.2			9.5			14.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	32	12	18	23	20	9	398	51	13	389	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	57	0	0	61	0	0	458	0	0	425	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		6.5			6.5			28.8			28.8	
Actuated g/C Ratio		0.18			0.18			0.81			0.81	
v/c Ratio		0.18			0.20			0.31			0.29	
Control Delay		11.0			10.3			3.9			3.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.0			10.3			3.9			3.8	
LOS		B			B			A			A	
Approach Delay		11.0			10.3			3.9			3.8	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.6												

Lanes, Volumes, Timings

34: Jefferson Ave & Riley St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.31

Intersection Signal Delay: 4.7

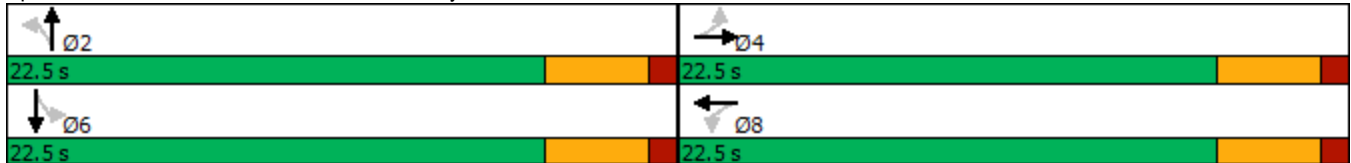
Intersection LOS: A

Intersection Capacity Utilization 38.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 34: Jefferson Ave & Riley St



Lanes, Volumes, Timings

35: Jefferson Ave & Northampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	47	25	12	45	20	24	354	15	28	297	31
Future Volume (vph)	20	47	25	12	45	20	24	354	15	28	297	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.964			0.965			0.995			0.988	
Flt Protected		0.989			0.992			0.997			0.996	
Satd. Flow (prot)	0	1776	0	0	1783	0	0	1848	0	0	1833	0
Flt Permitted		0.900			0.924			0.970			0.957	
Satd. Flow (perm)	0	1616	0	0	1661	0	0	1798	0	0	1761	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			22			5			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1340			1290			1156			278	
Travel Time (s)		30.5			29.3			26.3			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	51	27	13	49	22	26	385	16	30	323	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	100	0	0	84	0	0	427	0	0	387	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		7.1			7.0			25.5			25.5	
Actuated g/C Ratio		0.20			0.19			0.71			0.71	
v/c Ratio		0.29			0.25			0.33			0.31	
Control Delay		11.3			10.8			5.4			5.1	
Queue Delay		0.0			0.0			0.0			0.1	
Total Delay		11.3			10.8			5.4			5.2	
LOS		B			B			A			A	
Approach Delay		11.3			10.8			5.4			5.2	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.9												

Lanes, Volumes, Timings

35: Jefferson Ave & Northhampton St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.33

Intersection Signal Delay: 6.3

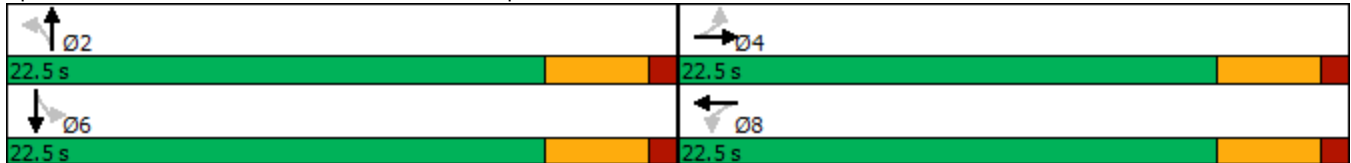
Intersection LOS: A

Intersection Capacity Utilization 41.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 35: Jefferson Ave & Northhampton St



Lanes, Volumes, Timings
36: Jefferson Ave & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	481	48	46	377	76	35	344	107	74	250	25
Future Volume (vph)	16	481	48	46	377	76	35	344	107	74	250	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.987			0.977			0.967			0.989	
Flt Protected		0.999			0.995			0.996			0.990	
Satd. Flow (prot)	0	3490	0	0	3441	0	0	3409	0	0	3465	0
Flt Permitted		0.932			0.859			0.911			0.790	
Satd. Flow (perm)	0	3256	0	0	2970	0	0	3118	0	0	2765	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			55			95			21	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		169			169			156			165	
Travel Time (s)		3.8			3.8			3.5			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	523	52	50	410	83	38	374	116	80	272	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	592	0	0	543	0	0	528	0	0	379	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		12.9			12.9			18.1			18.1	
Actuated g/C Ratio		0.32			0.32			0.45			0.45	
v/c Ratio		0.56			0.55			0.36			0.30	
Control Delay		12.6			12.0			7.4			8.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.6			12.0			7.4			8.2	
LOS		B			B			A			A	
Approach Delay		12.6			12.0			7.4			8.2	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 40.1												

Lanes, Volumes, Timings

36: Jefferson Ave & Best St

03/10/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.56

Intersection Signal Delay: 10.3

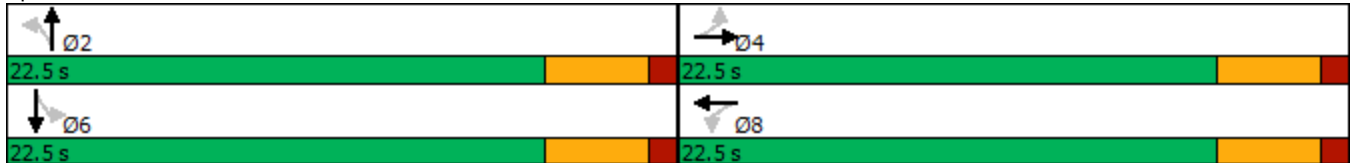
Intersection LOS: B

Intersection Capacity Utilization 68.3%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 36: Jefferson Ave & Best St



Lanes, Volumes, Timings
37: Jefferson Ave & E North St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	86	151	46	294	396	28
Future Volume (vph)	86	151	46	294	396	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.914				0.991	
Flt Protected	0.982			0.993		
Satd. Flow (prot)	1672	0	0	1850	1846	0
Flt Permitted	0.982			0.909		
Satd. Flow (perm)	1672	0	0	1693	1846	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	164				9	
Link Speed (mph)	30			30	30	
Link Distance (ft)	879			684	486	
Travel Time (s)	20.0			15.5	11.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	93	164	50	320	430	30
Shared Lane Traffic (%)						
Lane Group Flow (vph)	257	0	0	370	460	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		22.5	22.5	22.5	
Total Split (%)	50.0%		50.0%	50.0%	50.0%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effct Green (s)	7.9			22.2	22.2	
Actuated g/C Ratio	0.22			0.61	0.61	
v/c Ratio	0.52			0.36	0.41	
Control Delay	8.9			7.0	7.1	
Queue Delay	0.0			0.0	0.0	
Total Delay	8.9			7.0	7.1	
LOS	A			A	A	
Approach Delay	8.9			7.0	7.1	
Approach LOS	A			A	A	
Intersection Summary						
Area Type:	Other					
Cycle Length: 45						
Actuated Cycle Length: 36.3						

Lanes, Volumes, Timings
37: Jefferson Ave & E North St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 7.5

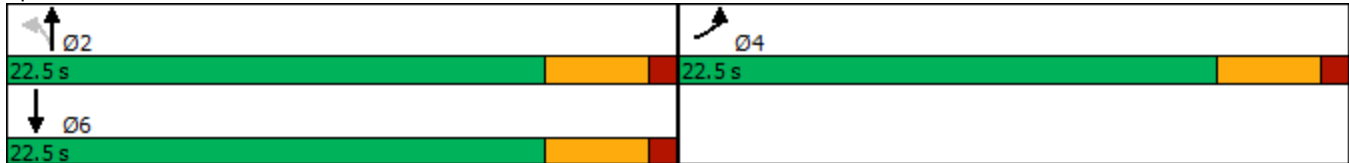
Intersection LOS: A

Intersection Capacity Utilization 65.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 37: Jefferson Ave & E North St



Lanes, Volumes, Timings
38: Jefferson Ave & High St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	62	123	37	65	37	48	286	20	22	412	9
Future Volume (vph)	14	62	123	37	65	37	48	286	20	22	412	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.916			0.964			0.992			0.997	
Flt Protected		0.997			0.987			0.993			0.998	
Satd. Flow (prot)	0	1701	0	0	1772	0	0	1835	0	0	1853	0
Flt Permitted		0.967			0.868			0.905			0.974	
Satd. Flow (perm)	0	1650	0	0	1559	0	0	1672	0	0	1809	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		134			40			8			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		840			1233			880			684	
Travel Time (s)		19.1			28.0			20.0			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	67	134	40	71	40	52	311	22	24	448	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	216	0	0	151	0	0	385	0	0	482	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.0			8.0			21.8			21.8	
Actuated g/C Ratio		0.22			0.22			0.61			0.61	
v/c Ratio		0.46			0.40			0.38			0.44	
Control Delay		8.6			12.2			7.0			7.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.6			12.2			7.0			7.5	
LOS		A			B			A			A	
Approach Delay		8.6			12.2			7.0			7.5	
Approach LOS		A			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36												

Lanes, Volumes, Timings

38: Jefferson Ave & High St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 8.1

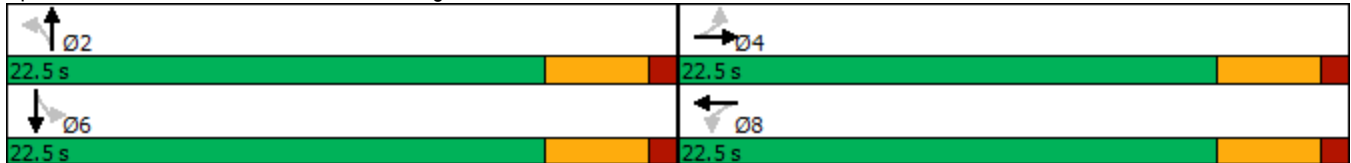
Intersection LOS: A

Intersection Capacity Utilization 59.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 38: Jefferson Ave & High St



Lanes, Volumes, Timings
39: Wohlers Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	400	18	16	502	95	10	63	62	0	0	0
Future Volume (vph)	61	400	18	16	502	95	10	63	62	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.979			0.938				
Flt Protected		0.994			0.999			0.996				
Satd. Flow (prot)	0	1842	0	0	1822	0	0	1740	0	0	0	0
Flt Permitted		0.877			0.984			0.996				
Satd. Flow (perm)	0	1625	0	0	1794	0	0	1740	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			24			67				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		280			1179			1336			278	
Travel Time (s)		6.4			26.8			30.4			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	66	435	20	17	546	103	11	68	67	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	521	0	0	666	0	0	146	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4			8			2					
Detector Phase	4	4		8	8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5				
Total Split (s)	37.0	37.0		37.0	37.0		23.0	23.0				
Total Split (%)	61.7%	61.7%		61.7%	61.7%		38.3%	38.3%				
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max				
Act Effct Green (s)		23.4			23.4			18.8				
Actuated g/C Ratio		0.46			0.46			0.37				
v/c Ratio		0.70			0.80			0.22				
Control Delay		16.3			19.5			9.5				
Queue Delay		0.0			0.0			0.0				
Total Delay		16.3			19.5			9.5				
LOS		B			B			A				
Approach Delay		16.3			19.5			9.5				
Approach LOS		B			B			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 51.4												

Lanes, Volumes, Timings

39: Wohlers Ave & E Ferry St

03/10/2022

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 17.2

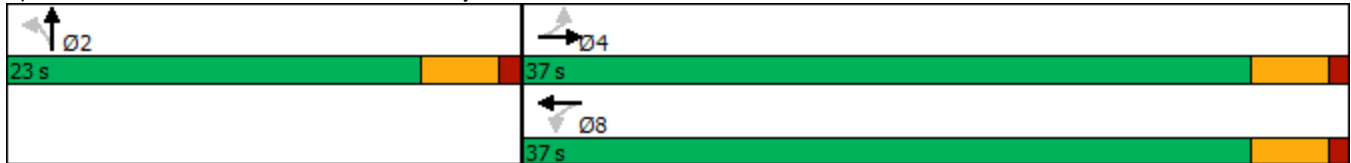
Intersection LOS: B

Intersection Capacity Utilization 67.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 39: Wohlers Ave & E Ferry St



Lanes, Volumes, Timings
40: Wohlers Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	173	7	12	141	29	24	59	30	9	25	11
Future Volume (vph)	13	173	7	12	141	29	24	59	30	9	25	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.978			0.964			0.967	
Flt Protected		0.997			0.997			0.990			0.990	
Satd. Flow (prot)	0	1848	0	0	1816	0	0	1778	0	0	1783	0
Flt Permitted		0.971			0.973			0.954			0.958	
Satd. Flow (perm)	0	1800	0	0	1773	0	0	1713	0	0	1726	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			26			33			12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		274			1173			1331			1336	
Travel Time (s)		6.2			26.7			30.3			30.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	188	8	13	153	32	26	64	33	10	27	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	210	0	0	198	0	0	123	0	0	49	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		9.4			9.3			21.9			21.9	
Actuated g/C Ratio		0.25			0.25			0.59			0.59	
v/c Ratio		0.46			0.43			0.12			0.05	
Control Delay		14.5			12.7			5.0			4.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.5			12.7			5.0			4.9	
LOS		B			B			A			A	
Approach Delay		14.5			12.7			5.0			4.9	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.3												

Lanes, Volumes, Timings
40: Wohlers Ave & E Utica St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 11.1

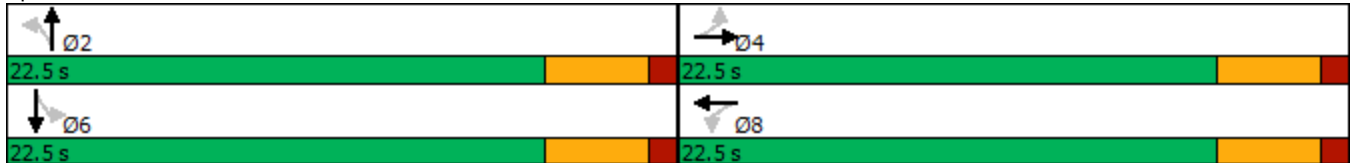
Intersection LOS: B

Intersection Capacity Utilization 29.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 40: Wohlers Ave & E Utica St



Lanes, Volumes, Timings
41: Humboldt Parkway SB & Woodlawn Ave

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	531	51
Future Volume (vph)	0	0	0	0	531	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.988	
Flt Protected						
Satd. Flow (prot)	0	0	0	0	1840	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	0	1840	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	780			265	319	
Travel Time (s)	17.7			6.0	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	577	55
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	632	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 34.4% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings
42: Humboldt Parkway SB & Glenwood Ave

03/10/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	40	0	0	528	0
Future Volume (vph)	0	40	0	0	528	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1863	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	750			456	296	
Travel Time (s)	17.0			10.4	6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	43	0	0	574	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	43	0	0	574	0
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	37.8%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
42: Humboldt Parkway SB & Glenwood Ave

03/10/2022

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↖	
Traffic Vol, veh/h	0	40	0	0	528	0
Future Vol, veh/h	0	40	0	0	528	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	43	0	0	574	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	574	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	518	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	518	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	12.6		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	518	-				
HCM Lane V/C Ratio	0.084	-				
HCM Control Delay (s)	12.6	-				
HCM Lane LOS	B	-				
HCM 95th %tile Q(veh)	0.3	-				

Lanes, Volumes, Timings
43: Humboldt Parkway SB & Riley St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	17	23	23	17	0	0	0	0	23	419	23
Future Volume (vph)	0	17	23	23	17	0	0	0	0	23	419	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.922										0.993	
Flt Protected					0.972						0.998	
Satd. Flow (prot)	0	1717	0	0	1811	0	0	0	0	0	1846	0
Flt Permitted					0.972						0.998	
Satd. Flow (perm)	0	1717	0	0	1811	0	0	0	0	0	1846	0
Link Speed (mph)	30				30				30			
Link Distance (ft)	873				152				418			
Travel Time (s)	19.8				3.5				9.5			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	18	25	25	18	0	0	0	0	25	455	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	43	0	0	43	0	0	0	0	0	505	0
Sign Control	Stop				Stop				Stop			
Free												
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 40.2%												
ICU Level of Service A												
Analysis Period (min) 15												

HCM 6th TWSC
43: Humboldt Parkway SB & Riley St

03/10/2022

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	17	23	23	17	0	0	0	0	23	419	23
Future Vol, veh/h	0	17	23	23	17	0	0	0	0	23	419	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	18	25	25	18	0	0	0	0	25	455	25

Major/Minor	Minor2		Minor1		Major2	
Conflicting Flow All	-	518	468	539	530	-
Stage 1	-	518	-	0	0	-
Stage 2	-	0	-	539	530	-
Critical Hdwy	-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	0	462	595	453	455	0
Stage 1	0	533	-	-	-	0
Stage 2	0	-	-	527	527	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	462	595	421	455	-
Mov Cap-2 Maneuver	-	462	-	421	455	-
Stage 1	-	533	-	-	-	-
Stage 2	-	-	-	487	527	-

Approach	EB		WB		SB	
HCM Control Delay, s	12.4		14.2			
HCM LOS	B		B			

Minor Lane/Major Mvmt	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	530	435	-	-
HCM Lane V/C Ratio	0.082	0.1	-	-
HCM Control Delay (s)	12.4	14.2	-	-
HCM Lane LOS	B	B	-	-
HCM 95th %tile Q(veh)	0.3	0.3	-	-

Lanes, Volumes, Timings
44: Humboldt Parkway SB & Kingsley St

03/10/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	13	0	0	462	4
Future Volume (vph)	0	13	0	0	462	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.999	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1861	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1861	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	736			293	418	
Travel Time (s)	16.7			6.7	9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	14	0	0	502	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	14	0	0	506	0
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	34.6%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
44: Humboldt Parkway SB & Kingsley St

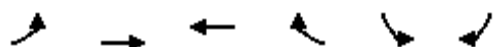
03/10/2022

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	13	0	0	462	4
Future Vol, veh/h	0	13	0	0	462	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	14	0	0	502	4
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	504	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	568	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	568	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	11.5		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	568	-	-			
HCM Lane V/C Ratio	0.025	-	-			
HCM Control Delay (s)	11.5	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings

45: W Parade Ave & Humboldt Parkway SB

03/10/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↘	
Traffic Volume (vph)	0	162	90	0	97	46
Future Volume (vph)	0	162	90	0	97	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.956	
Flt Protected					0.967	
Satd. Flow (prot)	0	1863	1863	0	1722	0
Flt Permitted					0.967	
Satd. Flow (perm)	0	1863	1863	0	1722	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		199	738		350	
Travel Time (s)		4.5	16.8		8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	176	98	0	105	50
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	176	98	0	155	0
Sign Control		Stop	Stop		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 23.4% ICU Level of Service A

Analysis Period (min) 15

HCM 6th AWSC
45: W Parade Ave & Humboldt Parkway SB

03/10/2022

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑↑	
Traffic Vol, veh/h	0	162	90	0	97	46
Future Vol, veh/h	0	162	90	0	97	46
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	176	98	0	105	50
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	8.6	8.1	8.6
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	68%
Vol Thru, %	100%	100%	0%
Vol Right, %	0%	0%	32%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	162	90	143
LT Vol	0	0	97
Through Vol	162	90	0
RT Vol	0	0	46
Lane Flow Rate	176	98	155
Geometry Grp	1	1	1
Degree of Util (X)	0.216	0.122	0.194
Departure Headway (Hd)	4.413	4.497	4.5
Convergence, Y/N	Yes	Yes	Yes
Cap	815	799	799
Service Time	2.428	2.514	2.519
HCM Lane V/C Ratio	0.216	0.123	0.194
HCM Control Delay	8.6	8.1	8.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.8	0.4	0.7

Lanes, Volumes, Timings
46: Linden Park & Dodge St/W Parade Ave

03/10/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	160	7	6	131	0	2
Future Volume (vph)	160	7	6	131	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.994				0.865	
Flt Protected				0.998		
Satd. Flow (prot)	1852	0	0	1859	1611	0
Flt Permitted				0.998		
Satd. Flow (perm)	1852	0	0	1859	1611	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	489			199	180	
Travel Time (s)	11.1			4.5	4.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	8	7	142	0	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	182	0	0	149	2	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 21.8%	ICU Level of Service A					
Analysis Period (min) 15						

HCM 6th TWSC
46: Linden Park & Dodge St/W Parade Ave

03/10/2022

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	160	7	6	131	0	2
Future Vol, veh/h	160	7	6	131	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	174	8	7	142	0	2
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	182	0	334	178
Stage 1	-	-	-	-	178	-
Stage 2	-	-	-	-	156	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1393	-	661	865
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	872	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1393	-	658	865
Mov Cap-2 Maneuver	-	-	-	-	658	-
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	868	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		9.2	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	865	-	-	1393	-	
HCM Lane V/C Ratio	0.003	-	-	0.005	-	
HCM Control Delay (s)	9.2	-	-	7.6	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Lanes, Volumes, Timings
47: Humboldt Parkway NB & Riley St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	23	0	0	23	17	17	304	17	0	0	0
Future Volume (vph)	17	23	0	0	23	17	17	304	17	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.943			0.993				
Flt Protected		0.979						0.998				
Satd. Flow (prot)	0	1824	0	0	1757	0	0	1846	0	0	0	0
Flt Permitted		0.979						0.998				
Satd. Flow (perm)	0	1824	0	0	1757	0	0	1846	0	0	0	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		152			1082			722			610	
Travel Time (s)		3.5			24.6			16.4			13.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	25	0	0	25	18	18	330	18	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	43	0	0	43	0	0	366	0	0	0	0
Sign Control		Stop			Stop			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	33.5%											
Analysis Period (min)	15											
ICU Level of Service A												

HCM 6th TWSC
47: Humboldt Parkway NB & Riley St

03/10/2022

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	23	0	0	23	17	17	304	17	0	0	0
Future Vol, veh/h	17	23	0	0	23	17	17	304	17	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	25	0	0	25	18	18	330	18	0	0	0
Major/Minor	Minor2		Minor1		Major1							
Conflicting Flow All	397	384	-	-	375	339	0	0	0			
Stage 1	0	0	-	-	375	-	-	-	-			
Stage 2	397	384	-	-	0	-	-	-	-			
Critical Hdwy	7.12	6.52	-	-	6.52	6.22	4.12	-	-			
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-			
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-			
Follow-up Hdwy	3.518	4.018	-	-	4.018	3.318	2.218	-	-			
Pot Cap-1 Maneuver	563	550	0	0	556	703	-	-	-			
Stage 1	-	-	0	0	617	-	-	-	-			
Stage 2	629	611	0	0	-	-	-	-	-			
Platoon blocked, %								-	-			
Mov Cap-1 Maneuver	529	550	-	-	556	703	-	-	-			
Mov Cap-2 Maneuver	529	550	-	-	556	-	-	-	-			
Stage 1	-	-	-	-	617	-	-	-	-			
Stage 2	588	611	-	-	-	-	-	-	-			
Approach	EB		WB		NB							
HCM Control Delay, s	12.2		11.4									
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL		NBT		NBR		EBLn1WBLn1					
Capacity (veh/h)	-		-		-		541 610					
HCM Lane V/C Ratio	-		-		-		0.08 0.071					
HCM Control Delay (s)	-		-		-		12.2 11.4					
HCM Lane LOS	-		-		-		B B					
HCM 95th %tile Q(veh)	-		-		-		0.3 0.2					

Lanes, Volumes, Timings
48: Humboldt Parkway NB & Woepfel St

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	7	391	14	0	0
Future Volume (vph)	0	7	391	14	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.995			
Flt Protected						
Satd. Flow (prot)	0	1611	1853	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1853	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	744		294			462
Travel Time (s)	16.9		6.7			10.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	8	425	15	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	8	440	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	31.4%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
48: Humboldt Parkway NB & Woepfel St

03/10/2022

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	7	391	14	0	0
Future Vol, veh/h	0	7	391	14	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	425	15	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	433	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	623	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	623	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	10.9		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		623			
HCM Lane V/C Ratio	-		0.012			
HCM Control Delay (s)	-		10.9			
HCM Lane LOS	-		B			
HCM 95th %tile Q(veh)	-		0			

Lanes, Volumes, Timings
49: Humboldt Parkway NB & Woodlawn Ave

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	21	387	3	0	0
Future Volume (vph)	0	21	387	3	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.999			
Flt Protected						
Satd. Flow (prot)	0	1611	1861	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1861	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	729		267			312
Travel Time (s)	16.6		6.1			7.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	23	421	3	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	23	424	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	30.6%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
49: Humboldt Parkway NB & Woodlawn Ave

03/10/2022

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	21	387	3	0	0
Future Vol, veh/h	0	21	387	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	23	421	3	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	423	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	631	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	631	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	10.9		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		631			
HCM Lane V/C Ratio	-		0.036			
HCM Control Delay (s)	-		10.9			
HCM Lane LOS	-		B			
HCM 95th %tile Q(veh)	-		0.1			

Lanes, Volumes, Timings
50: Humboldt Parkway SB & Florida St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	40	0	0	240	19
Future Volume (vph)	0	40	0	0	240	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.990	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1844	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1844	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	935			344	684	
Travel Time (s)	21.3			7.8	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	43	0	0	261	21
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	43	0	0	282	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 23.8% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
50: Humboldt Parkway SB & Florida St

03/10/2022

Intersection

Int Delay, s/veh 1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	40	0	0	240	19
Future Vol, veh/h	0	40	0	0	240	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	43	0	0	261	21

Major/Minor	Minor2	Major2
Conflicting Flow All	- 272	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 767	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 767	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	10	0
HCM LOS	B	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	767	-	-
HCM Lane V/C Ratio	0.057	-	-
HCM Control Delay (s)	10	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-

Lanes, Volumes, Timings
51: Humboldt Parkway SB & Northland Ave

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	63	0	0	217	30
Future Volume (vph)	0	63	0	0	217	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.865			0.983	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1831	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1831	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2743			805	344	
Travel Time (s)	62.3			18.3	7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	68	0	0	236	33
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	68	0	0	269	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 23.8% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
51: Humboldt Parkway SB & Northland Ave

03/10/2022

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	63	0	0	217	30
Future Vol, veh/h	0	63	0	0	217	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	68	0	0	236	33
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	253	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	786	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	786	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	10		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	786	-	-			
HCM Lane V/C Ratio	0.087	-	-			
HCM Control Delay (s)	10	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q(veh)	0.3	-	-			

Lanes, Volumes, Timings
52: Humboldt Parkway SB & Brunswick Blvd

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	71	0	0	281	28
Future Volume (vph)	0	71	0	0	281	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.988	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1840	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1840	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2734			252	805	
Travel Time (s)	62.1			5.7	18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	77	0	0	305	30
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	77	0	0	335	0
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 27.6% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	71	0	0	281	28
Future Vol, veh/h	0	71	0	0	281	28
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	77	0	0	305	30
Number of Lanes	0	1	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	1
HCM Control Delay	7.5	9.5
HCM LOS	A	A

Lane	EBLn1	SBLn1
Vol Left, %	0%	0%
Vol Thru, %	0%	91%
Vol Right, %	100%	9%
Sign Control	Stop	Stop
Traffic Vol by Lane	71	309
LT Vol	0	0
Through Vol	0	281
RT Vol	71	28
Lane Flow Rate	77	336
Geometry Grp	1	1
Degree of Util (X)	0.087	0.375
Departure Headway (Hd)	4.067	4.015
Convergence, Y/N	Yes	Yes
Cap	886	893
Service Time	2.067	2.051
HCM Lane V/C Ratio	0.087	0.376
HCM Control Delay	7.5	9.5
HCM Lane LOS	A	A
HCM 95th-tile Q	0.3	1.8

Lanes, Volumes, Timings
53: Humboldt Parkway SB & Goulding Ave

03/10/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	66	0	0	982	0
Future Volume (vph)	0	66	0	0	982	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	3539	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	3539	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1067			270	306	
Travel Time (s)	24.3			6.1	7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	72	0	0	1067	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	72	0	0	1067	0
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	30.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
53: Humboldt Parkway SB & Goulding Ave

03/10/2022

Intersection

Int Delay, s/veh 0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	66	0	0	982	0
Future Vol, veh/h	0	66	0	0	982	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	72	0	0	1067	0

Major/Minor	Minor2	Major2
Conflicting Flow All	- 534	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.94	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.32	- -
Pot Cap-1 Maneuver	0 491	- 0
Stage 1	0 -	- 0
Stage 2	0 -	- 0
Platoon blocked, %		-
Mov Cap-1 Maneuver	- 491	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	13.6	0
HCM LOS	B	

Minor Lane/Major Mvmt	EBLn1	SBT
Capacity (veh/h)	491	-
HCM Lane V/C Ratio	0.146	-
HCM Control Delay (s)	13.6	-
HCM Lane LOS	B	-
HCM 95th %tile Q(veh)	0.5	-

Lanes, Volumes, Timings
54: Humboldt Parkway NB & Sydney St

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	48	646	0	0	0
Future Volume (vph)	0	48	646	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	913		608			1024
Travel Time (s)	20.8		13.8			23.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	52	702	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	52	702	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	44.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
54: Humboldt Parkway NB & Sydney St

03/10/2022

Intersection

Int Delay, s/veh 1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	48	646	0	0	0
Future Vol, veh/h	0	48	646	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	52	702	0	0	0

Major/Minor	Minor1	Major1
Conflicting Flow All	- 702	0 -
Stage 1	-	-
Stage 2	-	-
Critical Hdwy	- 6.22	-
Critical Hdwy Stg 1	-	-
Critical Hdwy Stg 2	-	-
Follow-up Hdwy	- 3.318	-
Pot Cap-1 Maneuver	0 438	- 0
Stage 1	0	- 0
Stage 2	0	- 0
Platoon blocked, %		-
Mov Cap-1 Maneuver	- 438	-
Mov Cap-2 Maneuver	-	-
Stage 1	-	-
Stage 2	-	-

Approach	WB	NB
HCM Control Delay, s	14.3	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBTWBLn1
Capacity (veh/h)	- 438
HCM Lane V/C Ratio	- 0.119
HCM Control Delay (s)	- 14.3
HCM Lane LOS	- B
HCM 95th %tile Q(veh)	- 0.4

Lanes, Volumes, Timings
55: Humboldt Parkway NB & Northland Ave

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	64	623	75	0	0
Future Volume (vph)	0	64	623	75	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865	0.865	0.985			
Flt Protected						
Satd. Flow (prot)	0	1611	1835	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1835	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	1020		1024			1019
Travel Time (s)	23.2		23.3			23.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	70	677	82	0	0
Shared Lane Traffic (%)		10%				
Lane Group Flow (vph)	7	63	759	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	48.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
55: Humboldt Parkway NB & Northland Ave

03/10/2022

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	64	623	75	0	0
Future Vol, veh/h	0	64	623	75	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	70	677	82	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	718	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	429	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	429	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	15		0			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		- 429			
HCM Lane V/C Ratio	-		- 0.162			
HCM Control Delay (s)	-		- 15			
HCM Lane LOS	-		- C			
HCM 95th %tile Q(veh)	-		- 0.6			

Lanes, Volumes, Timings
56: Roehrer Ave & E Ferry St

03/10/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	436	15	28	491	17	42
Future Volume (vph)	436	15	28	491	17	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.903	
Flt Protected				0.997	0.986	
Satd. Flow (prot)	1855	0	0	1857	1659	0
Flt Permitted				0.997	0.986	
Satd. Flow (perm)	1855	0	0	1857	1659	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1109			280	1331	
Travel Time (s)	25.2			6.4	30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	474	16	30	534	18	46
Shared Lane Traffic (%)						
Lane Group Flow (vph)	490	0	0	564	64	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	58.9%			ICU Level of Service B		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	436	15	28	491	17	42
Future Vol, veh/h	436	15	28	491	17	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	474	16	30	534	18	46
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	490	0	1076	482
Stage 1	-	-	-	-	482	-
Stage 2	-	-	-	-	594	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1073	-	243	584
Stage 1	-	-	-	-	621	-
Stage 2	-	-	-	-	552	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1073	-	233	584
Mov Cap-2 Maneuver	-	-	-	-	233	-
Stage 1	-	-	-	-	621	-
Stage 2	-	-	-	-	530	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.5		15.5	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	407	-	-	1073	-	
HCM Lane V/C Ratio	0.158	-	-	0.028	-	
HCM Control Delay (s)	15.5	-	-	8.5	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-	

Lanes, Volumes, Timings
57: Roehrer Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	166	0	7	160	16	16	26	17	10	29	8
Future Volume (vph)	11	166	0	7	160	16	16	26	17	10	29	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.988			0.961			0.977	
Flt Protected		0.997			0.998			0.987			0.990	
Satd. Flow (prot)	0	1857	0	0	1837	0	0	1767	0	0	1802	0
Flt Permitted		0.997			0.998			0.987			0.990	
Satd. Flow (perm)	0	1857	0	0	1837	0	0	1767	0	0	1802	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1295			274			1342			1331	
Travel Time (s)		29.4			6.2			30.5			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	180	0	8	174	17	17	28	18	11	32	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	192	0	0	199	0	0	63	0	0	52	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	24.6%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	11	166	0	7	160	16	16	26	17	10	29	8
Future Vol, veh/h	11	166	0	7	160	16	16	26	17	10	29	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	180	0	8	174	17	17	28	18	11	32	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.8	8.8	8.2	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	6%	4%	21%
Vol Thru, %	44%	94%	87%	62%
Vol Right, %	29%	0%	9%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	59	177	183	47
LT Vol	16	11	7	10
Through Vol	26	166	160	29
RT Vol	17	0	16	8
Lane Flow Rate	64	192	199	51
Geometry Grp	1	1	1	1
Degree of Util (X)	0.085	0.237	0.242	0.069
Departure Headway (Hd)	4.758	4.44	4.379	4.834
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	753	810	822	740
Service Time	2.789	2.464	2.401	2.867
HCM Lane V/C Ratio	0.085	0.237	0.242	0.069
HCM Control Delay	8.2	8.8	8.8	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.9	0.9	0.2

Lanes, Volumes, Timings
58: Wohlers Ave & Northampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	102	10	7	95	18	14	92	14	19	36	9
Future Volume (vph)	8	102	10	7	95	18	14	92	14	19	36	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989			0.979			0.984			0.981	
Flt Protected		0.997			0.997			0.994			0.985	
Satd. Flow (prot)	0	1837	0	0	1818	0	0	1822	0	0	1800	0
Flt Permitted		0.997			0.997			0.994			0.985	
Satd. Flow (perm)	0	1837	0	0	1818	0	0	1822	0	0	1800	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		276			1045			1317			1331	
Travel Time (s)		6.3			23.8			29.9			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	111	11	8	103	20	15	100	15	21	39	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	131	0	0	131	0	0	130	0	0	70	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 22.2%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	8	102	10	7	95	18	14	92	14	19	36	9
Future Vol, veh/h	8	102	10	7	95	18	14	92	14	19	36	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	111	11	8	103	20	15	100	15	21	39	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.4	8.4	8.5	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	7%	6%	30%
Vol Thru, %	77%	85%	79%	56%
Vol Right, %	12%	8%	15%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	120	120	120	64
LT Vol	14	8	7	19
Through Vol	92	102	95	36
RT Vol	14	10	18	9
Lane Flow Rate	130	130	130	70
Geometry Grp	1	1	1	1
Degree of Util (X)	0.166	0.164	0.162	0.09
Departure Headway (Hd)	4.571	4.517	4.477	4.665
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	785	794	801	768
Service Time	2.598	2.544	2.504	2.696
HCM Lane V/C Ratio	0.166	0.164	0.162	0.091
HCM Control Delay	8.5	8.4	8.4	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.6	0.6	0.3

Lanes, Volumes, Timings
59: Roehrer Ave & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	99	6	6	85	13	6	25	1	9	38	2
Future Volume (vph)	6	99	6	6	85	13	6	25	1	9	38	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.983			0.996			0.995	
Flt Protected		0.997			0.997			0.990			0.991	
Satd. Flow (prot)	0	1842	0	0	1826	0	0	1837	0	0	1837	0
Flt Permitted		0.997			0.997			0.990			0.991	
Satd. Flow (perm)	0	1842	0	0	1826	0	0	1837	0	0	1837	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1290			276			1313			1342	
Travel Time (s)		29.3			6.3			29.8			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	108	7	7	92	14	7	27	1	10	41	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	122	0	0	113	0	0	35	0	0	53	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	17.6%						ICU Level of Service A					
Analysis Period (min)	15											

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

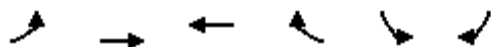
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	6	99	6	6	85	13	6	25	1	9	38	2
Future Vol, veh/h	6	99	6	6	85	13	6	25	1	9	38	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	108	7	7	92	14	7	27	1	10	41	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	7.8	7.7	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	5%	6%	18%
Vol Thru, %	78%	89%	82%	78%
Vol Right, %	3%	5%	12%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	32	111	104	49
LT Vol	6	6	6	9
Through Vol	25	99	85	38
RT Vol	1	6	13	2
Lane Flow Rate	35	121	113	53
Geometry Grp	1	1	1	1
Degree of Util (X)	0.044	0.139	0.129	0.067
Departure Headway (Hd)	4.529	4.151	4.115	4.5
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	795	851	857	801
Service Time	2.531	2.242	2.209	2.502
HCM Lane V/C Ratio	0.044	0.142	0.132	0.066
HCM Control Delay	7.7	7.9	7.8	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.5	0.4	0.2

Lanes, Volumes, Timings
60: Best St & Wohlers Ave

03/10/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	16	664	460	38	14	9
Future Volume (vph)	16	664	460	38	14	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.990		0.946	
Flt Protected		0.999			0.971	
Satd. Flow (prot)	0	1861	1844	0	1711	0
Flt Permitted		0.999			0.971	
Satd. Flow (perm)	0	1861	1844	0	1711	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		280	473		1317	
Travel Time (s)		6.4	10.8		29.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	722	500	41	15	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	739	541	0	25	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 57.8% ICU Level of Service B

Analysis Period (min) 15

Intersection

Int Delay, s/veh 0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	664	460	38	14	9
Future Vol, veh/h	16	664	460	38	14	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	722	500	41	15	10

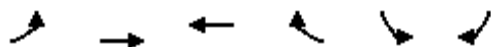
Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	541	0	0 1277 521
Stage 1	-	-	- 521 -
Stage 2	-	-	- 756 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1028	-	- 184 555
Stage 1	-	-	- 596 -
Stage 2	-	-	- 464 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1028	-	- 179 555
Mov Cap-2 Maneuver	-	-	- 179 -
Stage 1	-	-	- 579 -
Stage 2	-	-	- 464 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	21.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1028	-	-	-	244
HCM Lane V/C Ratio	0.017	-	-	-	0.102
HCM Control Delay (s)	8.6	0	-	-	21.4
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Lanes, Volumes, Timings
61: Best St & Roehrer Ave

03/10/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	13	687	484	16	23	13
Future Volume (vph)	13	687	484	16	23	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.996		0.952	
Flt Protected		0.999			0.969	
Satd. Flow (prot)	0	1861	1855	0	1718	0
Flt Permitted		0.999			0.969	
Satd. Flow (perm)	0	1861	1855	0	1718	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1123	280		1313	
Travel Time (s)		25.5	6.4		29.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	747	526	17	25	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	761	543	0	39	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 56.6% ICU Level of Service B

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	687	484	16	23	13
Future Vol, veh/h	13	687	484	16	23	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	747	526	17	25	14
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	543	0	-	0	1310	535
Stage 1	-	-	-	-	535	-
Stage 2	-	-	-	-	775	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1026	-	-	-	175	545
Stage 1	-	-	-	-	587	-
Stage 2	-	-	-	-	454	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1026	-	-	-	171	545
Mov Cap-2 Maneuver	-	-	-	-	171	-
Stage 1	-	-	-	-	573	-
Stage 2	-	-	-	-	454	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		24.1		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1026	-	-	-	227	
HCM Lane V/C Ratio	0.014	-	-	-	0.172	
HCM Control Delay (s)	8.6	0	-	-	24.1	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.6	

Lanes, Volumes, Timings
62: Jefferson Ave & Eaton St/Kingsley St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	12	18	8	11	13	6	345	2	10	330	9
Future Volume (vph)	16	12	18	8	11	13	6	345	2	10	330	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.946			0.946			0.999			0.996	
Flt Protected		0.983			0.987			0.999			0.999	
Satd. Flow (prot)	0	1732	0	0	1739	0	0	1859	0	0	1853	0
Flt Permitted								0.994			0.989	
Satd. Flow (perm)	0	1762	0	0	1762	0	0	1850	0	0	1835	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			14			1			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		911			1129			278			418	
Travel Time (s)		20.7			25.7			6.3			9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	13	20	9	12	14	7	375	2	11	359	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	50	0	0	35	0	0	384	0	0	380	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		6.3			6.2			32.1			32.1	
Actuated g/C Ratio		0.18			0.17			0.90			0.90	
v/c Ratio		0.15			0.11			0.23			0.23	
Control Delay		9.1			9.2			2.3			2.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.1			9.2			2.3			2.2	
LOS		A			A			A			A	
Approach Delay		9.1			9.2			2.3			2.2	
Approach LOS		A			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.5												

Lanes, Volumes, Timings
62: Jefferson Ave & Eaton St/Kingsley St

03/10/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.23

Intersection Signal Delay: 2.9

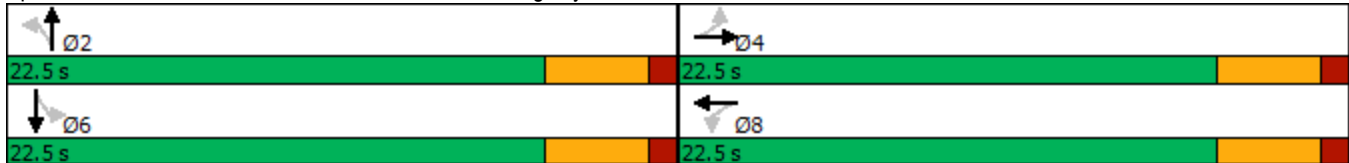
Intersection LOS: A

Intersection Capacity Utilization 35.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 62: Jefferson Ave & Eaton St/Kingsley St



Lanes, Volumes, Timings
63: Humboldt Parkway SB & Winslow Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	17	26	26	17	0	0	0	0	26	478	26
Future Volume (vph)	0	17	26	26	17	0	0	0	0	26	478	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.918										0.993	
Flt Protected					0.970						0.998	
Satd. Flow (prot)	0	1710	0	0	1807	0	0	0	0	0	1846	0
Flt Permitted					0.970						0.998	
Satd. Flow (perm)	0	1710	0	0	1807	0	0	0	0	0	1846	0
Link Speed (mph)	30				30				30			
Link Distance (ft)	304				154				296			
Travel Time (s)	6.9				3.5				6.7			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	18	28	28	18	0	0	0	0	28	520	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	46	0	0	46	0	0	0	0	0	576	0
Sign Control	Stop				Stop				Stop			
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	43.8%				ICU Level of Service A							
Analysis Period (min)	15											

HCM 6th TWSC
63: Humboldt Parkway SB & Winslow Ave

03/10/2022

Intersection													
Int Delay, s/veh	2												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Vol, veh/h	0	17	26	26	17	0	0	0	0	26	478	26	
Future Vol, veh/h	0	17	26	26	17	0	0	0	0	26	478	26	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None	
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	0	18	28	28	18	0	0	0	0	28	520	28	
Major/Minor	Minor2		Minor1				Major2						
Conflicting Flow All	-	590	534	613	604	-	0			0	0		
Stage 1	-	590	-	0	0	-	-			-	-		
Stage 2	-	0	-	613	604	-	-			-	-		
Critical Hdwy	-	6.52	6.22	7.12	6.52	-	4.12			-	-		
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-			-	-		
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-	-			-	-		
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-	2.218			-	-		
Pot Cap-1 Maneuver	0	420	546	405	412	0	-			-	-		
Stage 1	0	495	-	-	-	0	-			-	-		
Stage 2	0	-	-	480	488	0	-			-	-		
Platoon blocked, %											-	-	
Mov Cap-1 Maneuver	-	420	546	371	412	-	-			-	-		
Mov Cap-2 Maneuver	-	420	-	371	412	-	-			-	-		
Stage 1	-	495	-	-	-	-	-			-	-		
Stage 2	-	-	-	438	488	-	-			-	-		
Approach	EB		WB				SB						
HCM Control Delay, s	13.2		15.6										
HCM LOS	B		C										
Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR								
Capacity (veh/h)	488		386	-	-	-							
HCM Lane V/C Ratio	0.096		0.121	-	-	-							
HCM Control Delay (s)	13.2		15.6	-	-	-							
HCM Lane LOS	B		C	-	-	-							
HCM 95th %tile Q(veh)	0.3		0.4	-	-	-							

Lanes, Volumes, Timings
64: Humboldt Parkway NB & Winslow Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	26	0	0	26	17	17	319	17	0	0	0
Future Volume (vph)	17	26	0	0	26	17	17	319	17	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.947			0.994				
Flt Protected		0.981						0.998				
Satd. Flow (prot)	0	1827	0	0	1764	0	0	1848	0	0	0	0
Flt Permitted		0.981						0.998				
Satd. Flow (perm)	0	1827	0	0	1764	0	0	1848	0	0	0	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		154			339			462			267	
Travel Time (s)		3.5			7.7			10.5			6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	28	0	0	28	18	18	347	18	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	46	0	0	46	0	0	383	0	0	0	0
Sign Control		Stop			Stop			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	34.4%											
Analysis Period (min)	15											
ICU Level of Service A												

HCM 6th TWSC
64: Humboldt Parkway NB & Winslow Ave

03/10/2022

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕				
Traffic Vol, veh/h	17	26	0	0	26	17	17	319	17	0	0	0
Future Vol, veh/h	17	26	0	0	26	17	17	319	17	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	28	0	0	28	18	18	347	18	0	0	0
Major/Minor	Minor2		Minor1		Major1							
Conflicting Flow All	415	401	-	-	392	356	0	0	0			
Stage 1	0	0	-	-	392	-	-	-	-			
Stage 2	415	401	-	-	0	-	-	-	-			
Critical Hdwy	7.12	6.52	-	-	6.52	6.22	4.12	-	-			
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-			
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-			
Follow-up Hdwy	3.518	4.018	-	-	4.018	3.318	2.218	-	-			
Pot Cap-1 Maneuver	548	538	0	0	544	688	-	-	-			
Stage 1	-	-	0	0	606	-	-	-	-			
Stage 2	615	601	0	0	-	-	-	-	-			
Platoon blocked, %								-	-			
Mov Cap-1 Maneuver	512	538	-	-	544	688	-	-	-			
Mov Cap-2 Maneuver	512	538	-	-	544	-	-	-	-			
Stage 1	-	-	-	-	606	-	-	-	-			
Stage 2	571	601	-	-	-	-	-	-	-			
Approach	EB		WB		NB							
HCM Control Delay, s	12.5		11.6									
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL		NBT		NBR		EBLn1WBLn1					
Capacity (veh/h)	-		-		-		527 593					
HCM Lane V/C Ratio	-		-		-		0.089 0.079					
HCM Control Delay (s)	-		-		-		12.5 11.6					
HCM Lane LOS	-		-		-		B B					
HCM 95th %tile Q(veh)	-		-		-		0.3 0.3					

Lanes, Volumes, Timings
118: Humboldt Parkway SB

03/10/2022

						
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	306			252	236	
Travel Time (s)	7.0			5.7	5.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	18.3%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	415	666	0	0	334	476	65	197	226	0	0	0
Future Volume (vph)	415	666	0	0	334	476	65	197	226	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		0	0		250	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.912				0.850			
Flt Protected	0.950	0.995						0.988				
Satd. Flow (prot)	1610	3373	0	0	3228	0	0	1840	1583	0	0	0
Flt Permitted	0.950	0.995						0.988				
Satd. Flow (perm)	1610	3373	0	0	3228	0	0	1840	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					288				246			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		249			205			354			335	
Travel Time (s)		5.7			4.7			8.0			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	451	724	0	0	363	517	71	214	246	0	0	0
Shared Lane Traffic (%)	16%											
Lane Group Flow (vph)	379	796	0	0	880	0	0	285	246	0	0	0
Turn Type	Split	NA			NA		Perm	NA	Perm			
Protected Phases	6	6			3			4				
Permitted Phases							4		4			
Detector Phase	6	6			3		4	4	4			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	9.5	9.5			22.5		22.5	22.5	22.5			
Total Split (s)	45.0	45.0			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			25.0%		25.0%	25.0%	25.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag					Lead		Lag	Lag	Lag			
Lead-Lag Optimize?					Yes		Yes	Yes	Yes			
Recall Mode	None	None			Max		C-Max	C-Max	C-Max			
Act Effct Green (s)	40.5	40.5			18.0			18.0	18.0			
Actuated g/C Ratio	0.45	0.45			0.20			0.20	0.20			
v/c Ratio	0.52	0.52			1.00			0.77	0.48			
Control Delay	4.9	4.5			57.1			50.0	7.7			
Queue Delay	5.5	3.5			34.5			0.0	0.0			
Total Delay	10.5	8.0			91.6			50.0	7.7			
LOS	B	A			F			D	A			
Approach Delay		8.8			91.6			30.4				
Approach LOS		A			F			C				
Intersection Summary												

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

03/21/2022

Lane Group	Ø1	Ø2	Ø8
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	1	2	8
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	22.5	22.5	45.0
Total Split (%)	25%	25%	50%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	Max	None	C-Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Intersection Summary			

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

03/21/2022

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.18

Intersection Signal Delay: 41.4

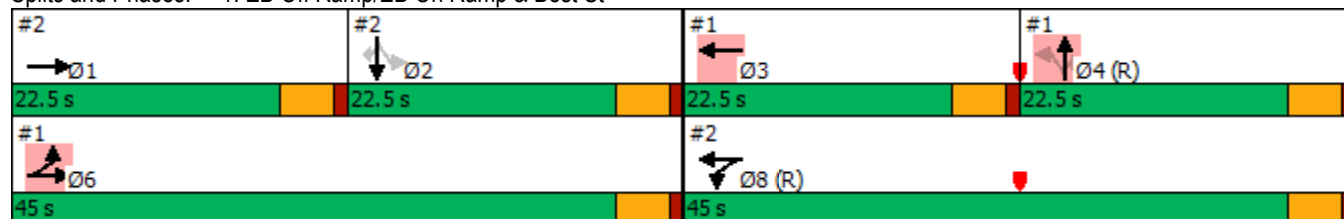
Intersection LOS: D

Intersection Capacity Utilization 95.7%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 1: EB Off Ramp/EB On Ramp & Best St



Lanes, Volumes, Timings
2: WB On Ramp/WB Off Ramp & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	721	49	102	272	0	0	0	0	351	1	487
Future Volume (vph)	0	721	49	102	272	0	0	0	0	351	1	487
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	75		0	0		0	0		75
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991										0.850
Flt Protected				0.950							0.952	
Satd. Flow (prot)	0	3507	0	1770	3539	0	0	0	0	0	1773	1583
Flt Permitted				0.950							0.952	
Satd. Flow (perm)	0	3507	0	1770	3539	0	0	0	0	0	1773	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7										276
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		473			249			324			375	
Travel Time (s)		10.8			5.7			7.4			8.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	784	53	111	296	0	0	0	0	382	1	529
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	837	0	111	296	0	0	0	0	0	383	529
Turn Type		NA		Split	NA					Perm	NA	Perm
Protected Phases		1		8	8						2	
Permitted Phases										2		2
Detector Phase		1		8	8					2	2	2
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		22.5		45.0	45.0					22.5	22.5	22.5
Total Split (%)		25.0%		50.0%	50.0%					25.0%	25.0%	25.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5						4.5	4.5
Lead/Lag		Lead								Lag	Lag	Lag
Lead-Lag Optimize?		Yes								Yes	Yes	Yes
Recall Mode		Max		C-Max	C-Max					None	None	None
Act Effct Green (s)		18.0		40.5	40.5						18.0	18.0
Actuated g/C Ratio		0.20		0.45	0.45						0.20	0.20
v/c Ratio		1.18		0.14	0.19						1.08	0.99
Control Delay		130.4		5.8	5.7						107.9	54.4
Queue Delay		0.0		0.0	0.6						0.0	0.0
Total Delay		130.4		5.8	6.3						107.9	54.4
LOS		F		A	A						F	D
Approach Delay		130.4			6.1						76.9	
Approach LOS		F			A						E	
Intersection Summary												

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

03/21/2022

Lane Group	Ø3	Ø4	Ø6
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	3	4	6
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5
Total Split (s)	22.5	22.5	45.0
Total Split (%)	25%	25%	50%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	Max	C-Max	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Intersection Summary			

Lanes, Volumes, Timings 2: WB On Ramp/WB Off Ramp & Best St

03/21/2022

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.18

Intersection Signal Delay: 84.3

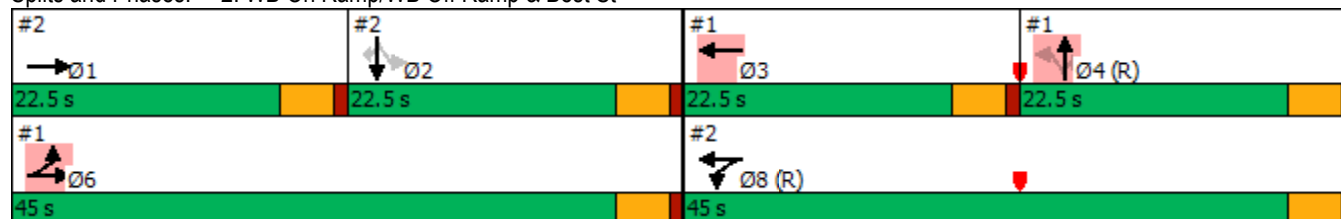
Intersection LOS: F

Intersection Capacity Utilization 95.7%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 2: WB On Ramp/WB Off Ramp & Best St



Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/21/2022

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	20	16	634	160	2	615	66	14	105	42	11	1
Future Volume (vph)	20	16	634	160	2	615	66	14	105	42	11	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		75		0	0		0		0		0	
Storage Lanes		1		1	0		0		0		0	
Taper Length (ft)		25			25				25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.984				0.990		
Flt Protected		0.950								0.968		
Satd. Flow (prot)	0	1770	1863	1583	0	1833	0	0	0	1785	0	0
Flt Permitted		0.230				0.999				0.711		
Satd. Flow (perm)	0	428	1863	1583	0	1831	0	0	0	1311	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)				174		2						
Link Speed (mph)			30			30				30		
Link Distance (ft)			205			1418				1329		
Travel Time (s)			4.7			32.2				30.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	17	689	174	2	668	72	15	114	46	12	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	39	689	174	0	757	0	0	0	173	0	0
Turn Type	pm+pt	pm+pt	NA	Perm	Perm	NA			Perm	NA		
Protected Phases	7	7	4			8				2		
Permitted Phases	4	4		4	8				2			
Detector Phase	7	7	4	4	8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0			5.0	5.0		
Minimum Split (s)	9.5	9.5	22.5	22.5	22.5	22.5			22.5	22.5		
Total Split (s)	9.5	9.5	42.5	42.5	33.0	33.0			22.5	22.5		
Total Split (%)	14.6%	14.6%	65.4%	65.4%	50.8%	50.8%			34.6%	34.6%		
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5			3.5	3.5		
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0		
Lost Time Adjust (s)		0.0	0.0	0.0		0.0				0.0		
Total Lost Time (s)		4.5	4.5	4.5		4.5				4.5		
Lead/Lag	Lead	Lead			Lag	Lag						
Lead-Lag Optimize?	Yes	Yes			Yes	Yes						
Recall Mode	None	None	None	None	None	None			C-Max	C-Max		
Act Effect Green (s)		33.7	33.7	33.7		29.9				22.3		
Actuated g/C Ratio		0.52	0.52	0.52		0.46				0.34		
v/c Ratio		0.12	0.71	0.19		0.90				0.39		
Control Delay		7.1	16.1	1.7		33.2				21.2		
Queue Delay		0.0	28.4	0.5		0.0				0.0		
Total Delay		7.1	44.5	2.2		33.2				21.2		
LOS		A	D	A		C				C		
Approach Delay			34.7			33.2				21.2		
Approach LOS			C			C				C		

Intersection Summary

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/21/2022



Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	107	48	85
Future Volume (vph)	107	48	85
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	0		75
Storage Lanes	0		1
Taper Length (ft)	25		
Lane Util. Factor	1.00	1.00	1.00
Frt			0.850
Flt Protected		0.967	
Satd. Flow (prot)	0	1801	1583
Flt Permitted		0.725	
Satd. Flow (perm)	0	1350	1583
Right Turn on Red			Yes
Satd. Flow (RTOR)			101
Link Speed (mph)		30	
Link Distance (ft)		738	
Travel Time (s)		16.8	
Peak Hour Factor	0.92	0.92	0.92
Adj. Flow (vph)	116	52	92
Shared Lane Traffic (%)			
Lane Group Flow (vph)	0	168	92
Turn Type	Perm	NA	Perm
Protected Phases		6	
Permitted Phases	6		6
Detector Phase	6	6	6
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5
Total Split (%)	34.6%	34.6%	34.6%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0
Total Lost Time (s)		4.5	4.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	C-Max
Act Effct Green (s)		22.3	22.3
Actuated g/C Ratio		0.34	0.34
v/c Ratio		0.36	0.15
Control Delay		20.7	4.8
Queue Delay		0.0	0.0
Total Delay		20.7	4.8
LOS		C	A
Approach Delay		15.1	
Approach LOS		B	
Intersection Summary			

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/21/2022

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 30.6

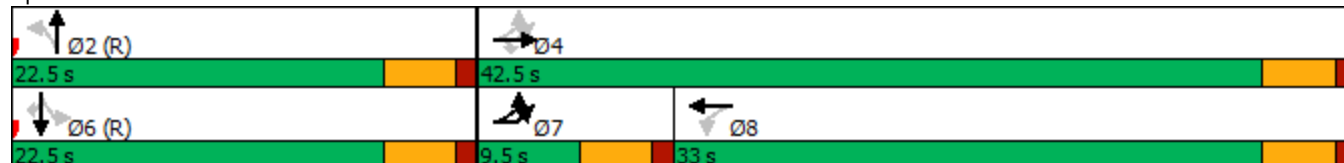
Intersection LOS: C

Intersection Capacity Utilization 66.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 3: Herman St/W Parade Ave & Best St



Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/21/2022

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	140	5	13	75	0	0	0	0	201	224	54	
Future Volume (vph)	0	140	5	13	75	0	0	0	0	201	224	54	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.996										0.985		
Flt Protected	0.993										0.979		
Satd. Flow (prot)	0	1855	0	0	1850	0	0	0	0	0	1796	0	
Flt Permitted	0.933										0.979		
Satd. Flow (perm)	0	1855	0	0	1738	0	0	0	0	0	1796	0	
Right Turn on Red	Yes					Yes				Yes			Yes
Satd. Flow (RTOR)	4										16		
Link Speed (mph)	30				30				30				30
Link Distance (ft)	1045				283				370				293
Travel Time (s)	23.8				6.4				8.4				6.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	152	5	14	82	0	0	0	0	218	243	59	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	157	0	0	96	0	0	0	0	0	520	0	
Turn Type	NA		Perm		NA				Perm		NA		
Protected Phases	4				8				6				
Permitted Phases					8				6				
Detector Phase	4		8		8				6		6		
Switch Phase													
Minimum Initial (s)	5.0		5.0		5.0				5.0		5.0		
Minimum Split (s)	22.5		22.5		22.5				22.5		22.5		
Total Split (s)	24.0		24.0		24.0				26.0		26.0		
Total Split (%)	48.0%		48.0%		48.0%				52.0%		52.0%		
Yellow Time (s)	3.5		3.5		3.5				3.5		3.5		
All-Red Time (s)	1.0		1.0		1.0				1.0		1.0		
Lost Time Adjust (s)	0.0				0.0				0.0				
Total Lost Time (s)	4.5				4.5				4.5				
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode	None		None		None				Max		Max		
Act Effct Green (s)	9.1				9.0				25.4				
Actuated g/C Ratio	0.22				0.22				0.63				
v/c Ratio	0.38				0.25				0.46				
Control Delay	15.1				7.4				7.7				
Queue Delay	0.0				0.0				0.0				
Total Delay	15.1				7.4				7.7				
LOS	B				A				A				
Approach Delay	15.1				7.4				7.7				
Approach LOS	B				A				A				
Intersection Summary													
Area Type:	Other												
Cycle Length: 50													
Actuated Cycle Length: 40.5													

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/21/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	26.0
Total Split (%)	52%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings 4: Humboldt Parkway SB & Northhampton St

03/21/2022

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 9.2

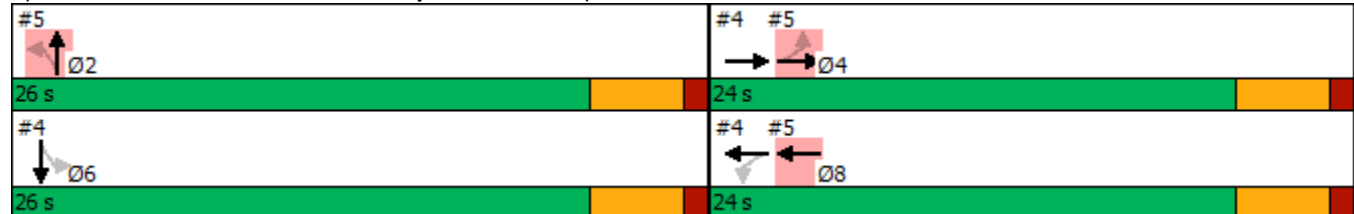
Intersection LOS: A

Intersection Capacity Utilization 48.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: Humboldt Parkway SB & Northhampton St



Lanes, Volumes, Timings
5: Humboldt Parkway NB & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	106	0	0	114	39	2	13	6	0	0	0
Future Volume (vph)	36	106	0	0	114	39	2	13	6	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.966			0.959				
Flt Protected		0.987						0.996				
Satd. Flow (prot)	0	1839	0	0	1799	0	0	1779	0	0	0	0
Flt Permitted		0.864						0.996				
Satd. Flow (perm)	0	1609	0	0	1799	0	0	1779	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					40			7				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		283			1089			152			722	
Travel Time (s)		6.4			24.8			3.5			16.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	39	115	0	0	124	42	2	14	7	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	154	0	0	166	0	0	23	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (s)	24.0	24.0			24.0		26.0	26.0				
Total Split (%)	48.0%	48.0%			48.0%		52.0%	52.0%				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max				
Act Effct Green (s)		9.1			9.0			25.4				
Actuated g/C Ratio		0.22			0.22			0.63				
v/c Ratio		0.43			0.39			0.02				
Control Delay		14.0			12.7			4.6				
Queue Delay		0.0			0.0			0.0				
Total Delay		14.0			12.7			4.6				
LOS		B			B			A				
Approach Delay		14.0			12.7			4.6				
Approach LOS		B			B			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 40.5												

Lanes, Volumes, Timings
5: Humboldt Parkway NB & Northhampton St

03/21/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	26.0
Total Split (%)	52%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings 5: Humboldt Parkway NB & Northhampton St

03/21/2022

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 12.7

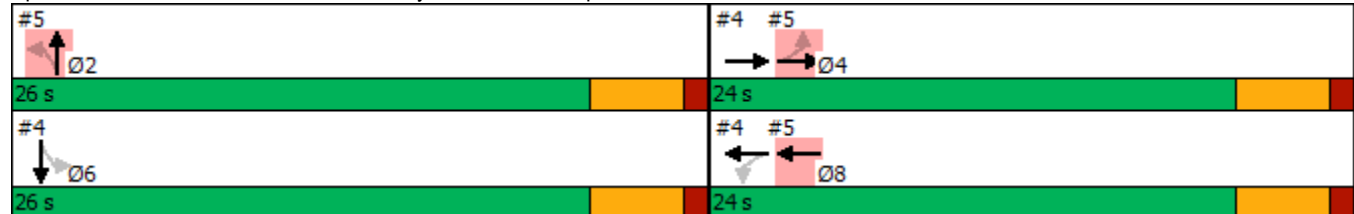
Intersection LOS: B

Intersection Capacity Utilization 31.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Humboldt Parkway NB & Northhampton St



Lanes, Volumes, Timings
6: Humboldt Parkway SB & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩		↩	↩						↩↩	
Traffic Volume (vph)	0	205	35	45	93	0	0	0	0	94	388	70
Future Volume (vph)	0	205	35	45	93	0	0	0	0	94	388	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.980									0.981	
Flt Protected				0.950							0.992	
Satd. Flow (prot)	0	1825	0	1770	1863	0	0	0	0	0	3444	0
Flt Permitted				0.584							0.992	
Satd. Flow (perm)	0	1825	0	1088	1863	0	0	0	0	0	3444	0
Right Turn on Red			Yes			Yes				Yes		Yes
Satd. Flow (RTOR)		23									42	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1173			153			636			456	
Travel Time (s)		26.7			3.5			14.5			10.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	223	38	49	101	0	0	0	0	102	422	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	261	0	49	101	0	0	0	0	0	600	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		4.5		4.5	4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					Max	Max	
Act Effct Green (s)		11.5		11.5	11.5						19.1	
Actuated g/C Ratio		0.29		0.29	0.29						0.48	
v/c Ratio		0.48		0.16	0.19						0.36	
Control Delay		12.9		8.5	8.3						7.7	
Queue Delay		0.0		0.1	0.2						0.0	
Total Delay		12.9		8.7	8.5						7.7	
LOS		B		A	A						A	
Approach Delay		12.9			8.6						7.7	
Approach LOS		B			A						A	
Intersection Summary												

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

03/21/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

03/21/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 39.7

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 9.2

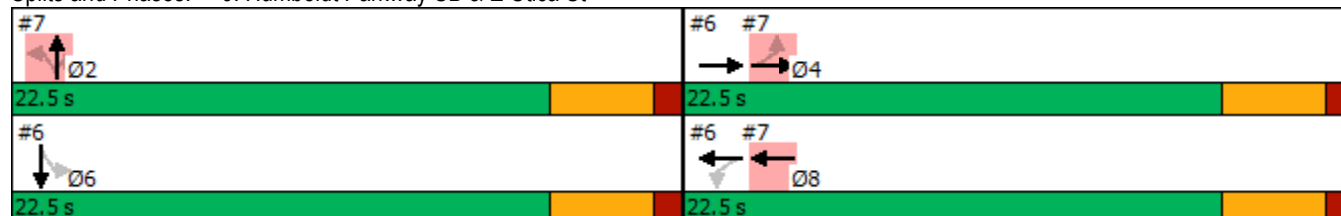
Intersection LOS: A

Intersection Capacity Utilization 58.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 6: Humboldt Parkway SB & E Utica St



Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	131	184	0	0	111	34	67	181	57	0	0	0
Future Volume (vph)	131	184	0	0	111	34	67	181	57	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.968				0.850			
Fl _t Protected	0.950								0.987			
Satd. Flow (prot)	1770	1863	0	0	1803	0	0	1839	1583	0	0	0
Fl _t Permitted	0.657								0.987			
Satd. Flow (perm)	1224	1863	0	0	1803	0	0	1839	1583	0	0	0
Right Turn on Red					Yes				Yes			
Satd. Flow (RTOR)					37				62			
Link Speed (mph)	30				30				30			
Link Distance (ft)	153				1083				610			
Travel Time (s)	3.5				24.6				13.9			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	142	200	0	0	121	37	73	197	62	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	142	200	0	0	158	0	0	270	62	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases	4				8				2			
Permitted Phases	4								2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max	Max			
Act Effct Green (s)	11.5	11.5			11.5			19.1	19.1			
Actuated g/C Ratio	0.29	0.29			0.29			0.48	0.48			
v/c Ratio	0.40	0.37			0.29			0.30	0.08			
Control Delay	9.9	8.6			9.2			8.8	3.3			
Queue Delay	0.2	0.2			0.0			0.0	0.0			
Total Delay	10.2	8.8			9.2			8.8	3.3			
LOS	B	A			A			A	A			
Approach Delay		9.4			9.2			7.8				
Approach LOS		A			A			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 39.7												

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

03/21/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 8.7

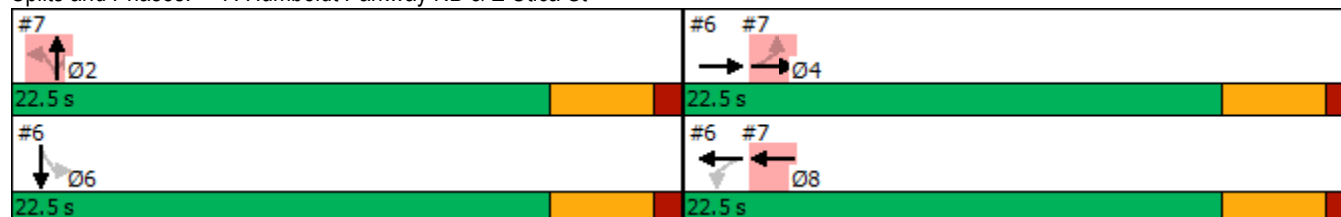
Intersection LOS: A

Intersection Capacity Utilization 58.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 7: Humboldt Parkway NB & E Utica St



Lanes, Volumes, Timings
8: Humboldt Parkway SB & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	430	76	110	242	0	0	0	0	299	414	387
Future Volume (vph)	0	430	76	110	242	0	0	0	0	299	414	387
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.980											0.850
Flt Protected				0.950						0.979		
Satd. Flow (prot)	0	1825	0	1770	1863	0	0	0	0	0	1824	1583
Flt Permitted				0.249						0.979		
Satd. Flow (perm)	0	1825	0	464	1863	0	0	0	0	0	1824	1583
Right Turn on Red	Yes			Yes			Yes			Yes		
Satd. Flow (RTOR)	21									421		
Link Speed (mph)	30			30			30			30		
Link Distance (ft)	1179			147			319			270		
Travel Time (s)	26.8			3.3			7.3			6.1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	467	83	120	263	0	0	0	0	325	450	421
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	550	0	120	263	0	0	0	0	0	775	421
Turn Type	NA		Perm		NA				Perm		NA	Perm
Protected Phases	4				8						6	
Permitted Phases			8								6	
Detector Phase	4		8		8				6		6	
Switch Phase												
Minimum Initial (s)	5.0		5.0		5.0				5.0		5.0	
Minimum Split (s)	22.5		22.5		22.5				22.5		22.5	
Total Split (s)	24.0		24.0		24.0				26.0		26.0	
Total Split (%)	48.0%		48.0%		48.0%				52.0%		52.0%	
Yellow Time (s)	3.5		3.5		3.5				3.5		3.5	
All-Red Time (s)	1.0		1.0		1.0				1.0		1.0	
Lost Time Adjust (s)	0.0		0.0		0.0						0.0	
Total Lost Time (s)	4.5		4.5		4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None		None		None				Max		Max	Max
Act Effct Green (s)	19.5		19.5		19.5						21.5	21.5
Actuated g/C Ratio	0.39		0.39		0.39						0.43	0.43
v/c Ratio	0.76		0.67		0.36						0.99	0.46
Control Delay	21.8		26.7		6.5						47.8	3.1
Queue Delay	5.7		0.3		1.4						38.2	0.0
Total Delay	27.5		27.0		7.9						86.0	3.1
LOS	C		C		A						F	A
Approach Delay	27.5				13.9						56.8	
Approach LOS	C				B						E	
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 50												

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/21/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	26.0
Total Split (%)	52%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/21/2022

Natural Cycle: 70

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 1.18

Intersection Signal Delay: 41.5

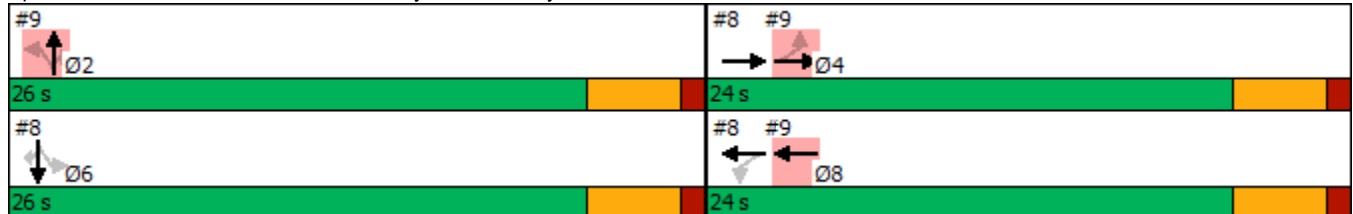
Intersection LOS: D

Intersection Capacity Utilization 114.1%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 8: Humboldt Parkway SB & E Ferry St



Lanes, Volumes, Timings
9: Humboldt Parkway NB & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	305	404	0	0	309	79	75	262	63	0	0	0
Future Volume (vph)	305	404	0	0	309	79	75	262	63	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	75		0	0		0
Storage Lanes	1		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.972				0.850			
Flt Protected	0.950							0.989				
Satd. Flow (prot)	1770	1863	0	0	1811	0	0	1842	1583	0	0	0
Flt Permitted	0.388							0.989				
Satd. Flow (perm)	723	1863	0	0	1811	0	0	1842	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					30				68			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		147			1082			312			608	
Travel Time (s)		3.3			24.6			7.1			13.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	332	439	0	0	336	86	82	285	68	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	332	439	0	0	422	0	0	367	68	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	24.0	24.0			24.0		26.0	26.0	26.0			
Total Split (%)	48.0%	48.0%			48.0%		52.0%	52.0%	52.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max	Max			
Act Effct Green (s)	19.5	19.5			19.5			21.5	21.5			
Actuated g/C Ratio	0.39	0.39			0.39			0.43	0.43			
v/c Ratio	1.18	0.60			0.58			0.46	0.09			
Control Delay	118.5	10.9			15.1			12.6	3.3			
Queue Delay	0.5	38.2			0.2			0.0	0.0			
Total Delay	119.0	49.1			15.2			12.6	3.3			
LOS	F	D			B			B	A			
Approach Delay		79.2			15.3			11.1				
Approach LOS		E			B			B				
Intersection Summary												

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

03/21/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	26.0
Total Split (%)	52%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

03/21/2022

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Natural Cycle: 70

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 1.18

Intersection Signal Delay: 44.4

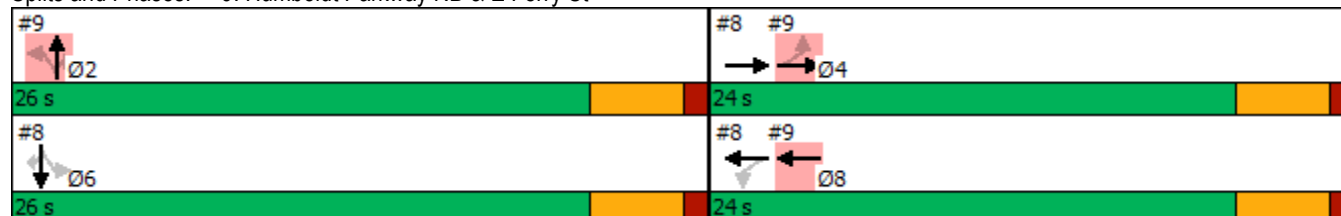
Intersection LOS: D

Intersection Capacity Utilization 114.1%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 9: Humboldt Parkway NB & E Ferry St



Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	Ø8
Lane Configurations											
Traffic Volume (vph)	12	1	0	382	339	344	738	0	0	0	
Future Volume (vph)	12	1	0	382	339	344	738	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	
Frt	0.990			0.930							
Flt Protected	0.956						0.984				
Satd. Flow (prot)	1763	0	0	3291	0	0	3483	0	0	0	
Flt Permitted	0.956						0.602				
Satd. Flow (perm)	1763	0	0	3291	0	0	2131	0	0	0	
Right Turn on Red		Yes			Yes			Yes			
Satd. Flow (RTOR)	36			368							
Link Speed (mph)	30			30			30		30		
Link Distance (ft)	537			328			271		387		
Travel Time (s)	12.2			7.5			6.2		8.8		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	13	1	0	415	368	374	802	0	0	0	
Shared Lane Traffic (%)											
Lane Group Flow (vph)	14	0	0	783	0	0	1176	0	0	0	
Turn Type	Prot			NA		Perm	NA				
Protected Phases	4			2			6				8
Permitted Phases						6					
Detector Phase	4			2		6	6				
Switch Phase											
Minimum Initial (s)	5.0			5.0		5.0	5.0				5.0
Minimum Split (s)	22.5			22.5		22.5	22.5				22.5
Total Split (s)	22.5			22.5		22.5	22.5				22.5
Total Split (%)	50.0%			50.0%		50.0%	50.0%				50%
Yellow Time (s)	3.5			3.5		3.5	3.5				3.5
All-Red Time (s)	1.0			1.0		1.0	1.0				1.0
Lost Time Adjust (s)	0.0			0.0			0.0				
Total Lost Time (s)	4.5			4.5			4.5				
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None			Max		Max	Max				None
Act Effect Green (s)	13.2			18.2			18.2				
Actuated g/C Ratio	0.33			0.45			0.45				
v/c Ratio	0.02			0.47			1.43dl				
Control Delay	1.8			5.6			126.6				
Queue Delay	0.0			0.0			0.0				
Total Delay	1.8			5.6			126.6				
LOS	A			A			F				
Approach Delay	1.8			5.6			126.6				
Approach LOS	A			A			F				

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.5

Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

03/21/2022

Natural Cycle: 80

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 1.23

Intersection Signal Delay: 77.7

Intersection LOS: E

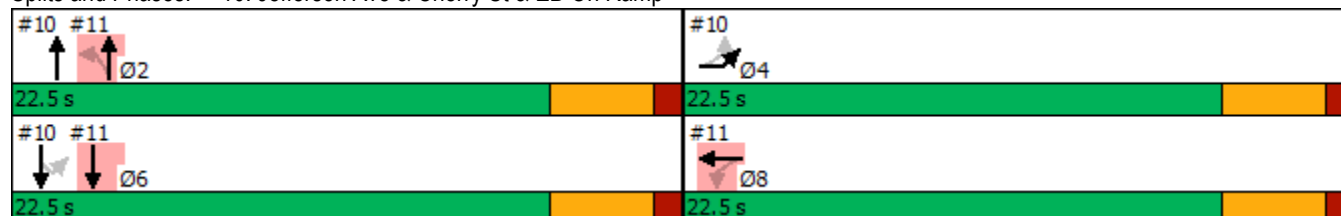
Intersection Capacity Utilization 67.3%

ICU Level of Service C

Analysis Period (min) 15

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 10: Jefferson Ave & Cherry St & EB On Ramp



Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↕			↕	
Traffic Volume (vph)	0	0	0	257	13	108	47	343	0	0	834	20
Future Volume (vph)	0	0	0	257	13	108	47	343	0	0	834	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt					0.961						0.996	
Flt Protected					0.967			0.994				
Satd. Flow (prot)	0	0	0	0	1731	0	0	3518	0	0	3525	0
Flt Permitted					0.967			0.806				
Satd. Flow (perm)	0	0	0	0	1731	0	0	2853	0	0	3525	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					53						6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			384			271			880	
Travel Time (s)		12.9			8.7			6.2			20.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	279	14	117	51	373	0	0	907	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	410	0	0	424	0	0	929	0
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8			2					
Detector Phase				8	8		2	2			6	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (%)				50.0%	50.0%		50.0%	50.0%			50.0%	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)					13.2			18.2			18.2	
Actuated g/C Ratio					0.33			0.45			0.45	
v/c Ratio					0.68			0.33			0.59	
Control Delay					16.4			5.8			11.0	
Queue Delay					0.0			0.0			0.0	
Total Delay					16.4			5.8			11.0	
LOS					B			A			B	
Approach Delay					16.4			5.8			11.0	
Approach LOS					B			A			B	
Intersection Summary												

Lanes, Volumes, Timings
11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/21/2022

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/21/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.5

Natural Cycle: 80

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 1.23

Intersection Signal Delay: 11.0

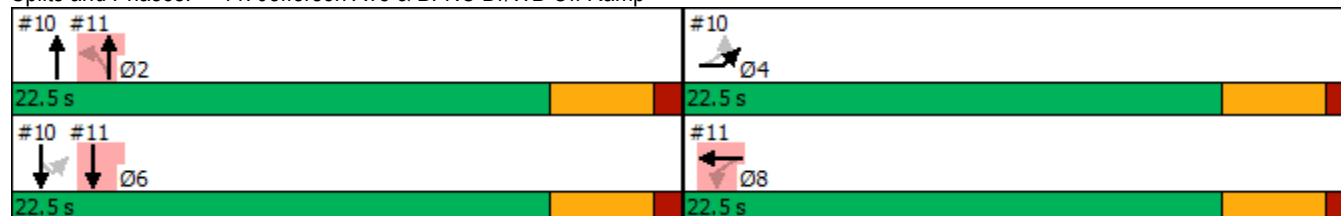
Intersection LOS: B

Intersection Capacity Utilization 67.3%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 11: Jefferson Ave & BFNC Dr/WB Off Ramp



Lanes, Volumes, Timings
12: Jefferson Ave & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	158	39	62	160	93	12	602	52	50	529	117
Future Volume (vph)	51	158	39	62	160	93	12	602	52	50	529	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Fr _t		0.977			0.956			0.988			0.975	
Fl _t Protected		0.990			0.990			0.999			0.996	
Satd. Flow (prot)	0	3423	0	0	3350	0	0	3493	0	0	3437	0
Fl _t Permitted		0.816			0.832			0.940			0.873	
Satd. Flow (perm)	0	2822	0	0	2815	0	0	3287	0	0	3012	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		42			101			23			62	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		737			2886			735			328	
Travel Time (s)		16.8			65.6			16.7			7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	55	172	42	67	174	101	13	654	57	54	575	127
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	269	0	0	342	0	0	724	0	0	756	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		8.5			8.5			18.1			18.1	
Actuated g/C Ratio		0.24			0.24			0.51			0.51	
v/c Ratio		0.38			0.46			0.43			0.49	
Control Delay		11.0			10.0			6.8			7.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.0			10.0			6.8			7.0	
LOS		B			A			A			A	
Approach Delay		11.0			10.0			6.8			7.0	
Approach LOS		B			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.6												

Lanes, Volumes, Timings

12: Jefferson Ave & Genesee St

03/21/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 7.9

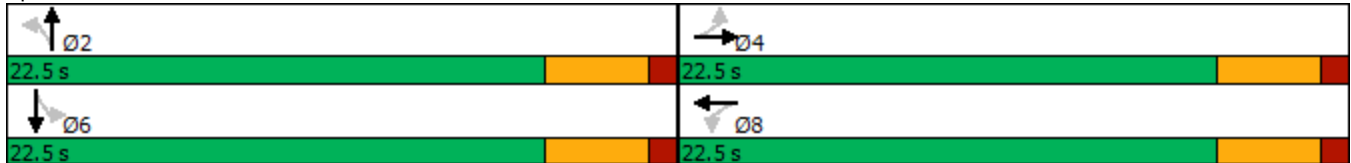
Intersection LOS: A

Intersection Capacity Utilization 69.7%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 12: Jefferson Ave & Genesee St



Lanes, Volumes, Timings
13: Herman St & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	366	30	26	380	29	23	112	25	61	241	34
Future Volume (vph)	13	366	30	26	380	29	23	112	25	61	241	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989			0.990			0.979			0.986	
Flt Protected		0.998			0.997			0.993			0.991	
Satd. Flow (prot)	0	3493	0	0	3493	0	0	1811	0	0	1820	0
Flt Permitted		0.938			0.918			0.928			0.910	
Satd. Flow (perm)	0	3283	0	0	3217	0	0	1692	0	0	1671	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			20			24			15	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2886			671			575			1329	
Travel Time (s)		65.6			15.3			13.1			30.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	398	33	28	413	32	25	122	27	66	262	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	445	0	0	473	0	0	174	0	0	365	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effect Green (s)		18.3			18.3			13.0			13.0	
Actuated g/C Ratio		0.45			0.45			0.32			0.32	
v/c Ratio		0.30			0.32			0.31			0.66	
Control Delay		8.1			8.4			10.0			17.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.1			8.4			10.0			17.5	
LOS		A			A			B			B	
Approach Delay		8.1			8.4			10.0			17.5	
Approach LOS		A			A			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 40.4												

Lanes, Volumes, Timings

13: Herman St & Genesee St

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 10.8

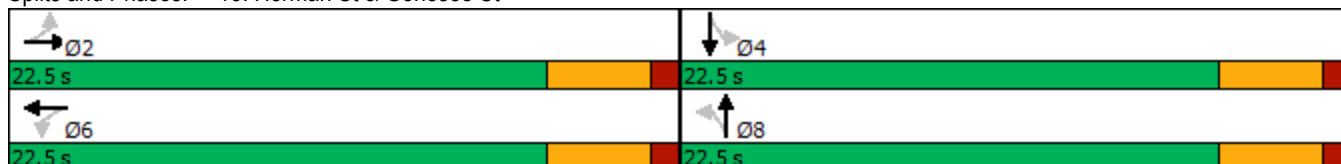
Intersection LOS: B

Intersection Capacity Utilization 61.1%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 13: Herman St & Genesee St



Lanes, Volumes, Timings
14: Reed St/Rich St & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	415	0	0	428	17	18	14	27	12	0	14
Future Volume (vph)	3	415	0	0	428	17	18	14	27	12	0	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.994			0.939			0.928	
Fl _t Protected								0.985			0.977	
Satd. Flow (prot)	0	3539	0	0	3518	0	0	1723	0	0	1689	0
Fl _t Permitted		0.953						0.885			0.945	
Satd. Flow (perm)	0	3373	0	0	3518	0	0	1548	0	0	1634	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10			29			36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		671			961			780			839	
Travel Time (s)		15.3			21.8			17.7			19.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	451	0	0	465	18	20	15	29	13	0	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	454	0	0	483	0	0	64	0	0	28	0
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2						8			4		
Detector Phase	2	2			6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		None	None		None	None	
Act Effct Green (s)		29.9			29.9			6.5			6.3	
Actuated g/C Ratio		0.81			0.81			0.18			0.17	
v/c Ratio		0.17			0.17			0.22			0.09	
Control Delay		2.8			2.7			9.9			5.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		2.8			2.7			9.9			5.2	
LOS		A			A			A			A	
Approach Delay		2.8			2.7			9.9			5.2	
Approach LOS		A			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.7												

Lanes, Volumes, Timings

14: Reed St/Rich St & Genesee St

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.22

Intersection Signal Delay: 3.3

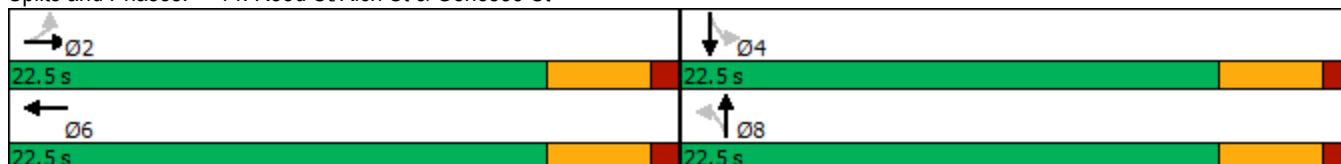
Intersection LOS: A

Intersection Capacity Utilization 25.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Reed St/Rich St & Genesee St



Lanes, Volumes, Timings
15: Fillmore Ave & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	382	67	79	339	31	44	396	84	57	366	19
Future Volume (vph)	36	382	67	79	339	31	44	396	84	57	366	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.990			0.978			0.994	
Flt Protected		0.996			0.991			0.996			0.994	
Satd. Flow (prot)	0	3451	0	0	3472	0	0	1814	0	0	1840	0
Flt Permitted		0.891			0.785			0.934			0.897	
Satd. Flow (perm)	0	3087	0	0	2751	0	0	1702	0	0	1661	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		48			20			25			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		961			671			704			490	
Travel Time (s)		21.8			15.3			16.0			11.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	39	415	73	86	368	34	48	430	91	62	398	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	527	0	0	488	0	0	569	0	0	481	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		12.3			12.3			18.1			18.1	
Actuated g/C Ratio		0.31			0.31			0.46			0.46	
v/c Ratio		0.53			0.56			0.72			0.63	
Control Delay		12.0			13.3			17.4			14.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.0			13.3			17.4			14.7	
LOS		B			B			B			B	
Approach Delay		12.0			13.3			17.4			14.7	
Approach LOS		B			B			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 39.5												

Lanes, Volumes, Timings

15: Fillmore Ave & Genesee St

03/21/2022

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 14.4

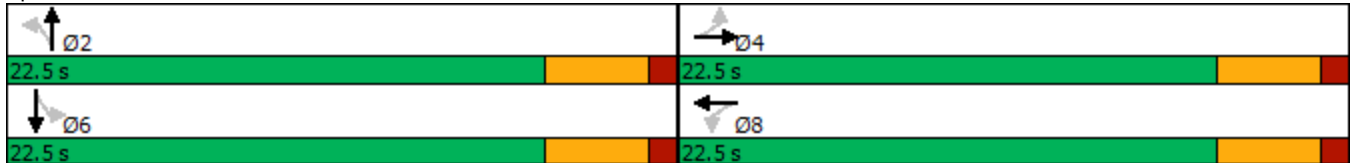
Intersection LOS: B

Intersection Capacity Utilization 73.1%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 15: Fillmore Ave & Genesee St



Lanes, Volumes, Timings
16: Fillmore Ave & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	543	166	1	440	33	180	282	6	50	260	51
Future Volume (vph)	44	543	166	1	440	33	180	282	6	50	260	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970			0.991			0.998				0.850
Flt Protected		0.997						0.981			0.992	
Satd. Flow (prot)	0	1801	0	0	1846	0	0	1824	0	0	1848	1583
Flt Permitted		0.954			0.999			0.632			0.887	
Satd. Flow (perm)	0	1724	0	0	1844	0	0	1175	0	0	1652	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			10			2				55
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1418			567			490				61
Travel Time (s)		32.2			12.9			11.1				1.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	48	590	180	1	478	36	196	307	7	54	283	55
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	818	0	0	515	0	0	510	0	0	337	55
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (s)	26.4	26.4		26.4	26.4		23.6	23.6		23.6	23.6	23.6
Total Split (%)	52.8%	52.8%		52.8%	52.8%		47.2%	47.2%		47.2%	47.2%	47.2%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)		4.5			4.5			4.5			4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	C-Max
Act Effct Green (s)		21.9			21.9			19.1			19.1	19.1
Actuated g/C Ratio		0.44			0.44			0.38			0.38	0.38
v/c Ratio		1.06			0.63			1.13			0.53	0.09
Control Delay		66.2			15.1			105.5			5.9	0.3
Queue Delay		23.9			56.9			0.2			0.0	0.0
Total Delay		90.1			72.0			105.8			5.9	0.3
LOS		F			E			F			A	A
Approach Delay		90.1			72.0			105.8			5.1	
Approach LOS		F			E			F			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 50												

Lanes, Volumes, Timings

16: Fillmore Ave & Best St

03/21/2022

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.13

Intersection Signal Delay: 74.6

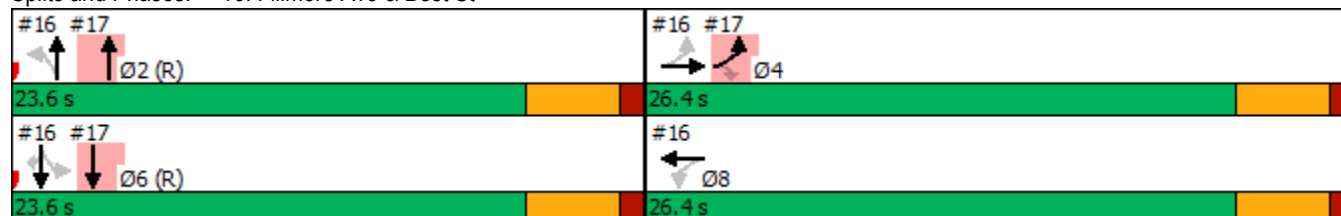
Intersection LOS: E

Intersection Capacity Utilization 122.9%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 16: Fillmore Ave & Best St



Lanes, Volumes, Timings
17: Fillmore Ave & East Park

03/21/2022

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	11	10	0	354	350	0	
Future Volume (vph)	11	10	0	354	350	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	0			100	
Storage Lanes	1	1	0			1	
Taper Length (ft)	25		25				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	
Frt		0.850					
Flt Protected	0.950						
Satd. Flow (prot)	1770	1583	0	1863	3539	0	
Flt Permitted	0.950						
Satd. Flow (perm)	1770	1583	0	1863	3539	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		11					
Link Speed (mph)	30			30	30		
Link Distance (ft)	468			61	755		
Travel Time (s)	10.6			1.4	17.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	12	11	0	385	380	0	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	12	11	0	385	380	0	
Turn Type	Prot	Perm		NA	NA		
Protected Phases	4			2	6		8
Permitted Phases		4					
Detector Phase	4	4		2	6		
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5
Total Split (s)	26.4	26.4		23.6	23.6		26.4
Total Split (%)	52.8%	52.8%		47.2%	47.2%		53%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		
Total Lost Time (s)	4.5	4.5		4.5	4.5		
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None		C-Max	C-Max		None
Act Effct Green (s)	21.9	21.9		19.1	19.1		
Actuated g/C Ratio	0.44	0.44		0.38	0.38		
v/c Ratio	0.02	0.02		0.54	0.28		
Control Delay	8.1	4.9		5.6	11.4		
Queue Delay	0.0	0.0		0.0	0.0		
Total Delay	8.1	4.9		5.6	11.4		
LOS	A	A		A	B		
Approach Delay	6.6			5.6	11.4		
Approach LOS	A			A	B		
Intersection Summary							

Lanes, Volumes, Timings

17: Fillmore Ave & East Park

03/21/2022

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.13

Intersection Signal Delay: 8.5

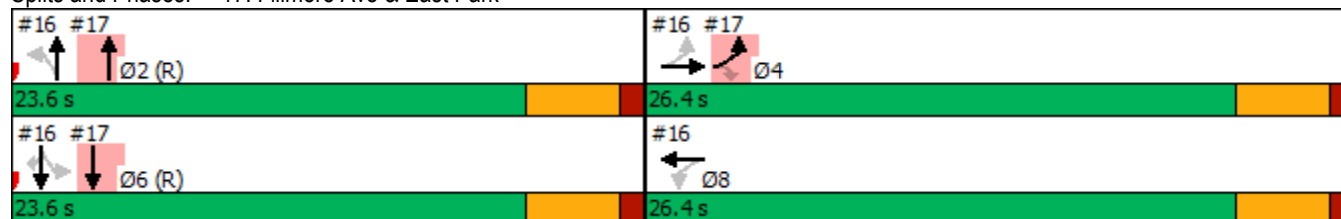
Intersection LOS: A

Intersection Capacity Utilization 30.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Fillmore Ave & East Park



Lanes, Volumes, Timings
18: Fillmore Ave & MLK Park

03/21/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	4	14	0	372	330	0
Future Volume (vph)	4	14	0	372	330	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr't	0.850					
Flt Protected	0.950					
Satd. Flow (prot)	1770	1583	0	1863	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1583	0	1863	1863	0
Right Turn on Red	Yes					
Satd. Flow (RTOR)	15					
Link Speed (mph)	30			30	30	
Link Distance (ft)	526			755	579	
Travel Time (s)	12.0			17.2	13.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	15	0	404	359	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	15	0	404	359	0
Turn Type	Prot	Perm		NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4				
Detector Phase	4	4		2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None		Max	Max	
Act Effect Green (s)	5.8	5.8		37.1	37.1	
Actuated g/C Ratio	0.15	0.15		0.93	0.93	
v/c Ratio	0.02	0.06		0.23	0.21	
Control Delay	16.5	10.4		1.5	1.4	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	16.5	10.4		1.5	1.4	
LOS	B	B		A	A	
Approach Delay	11.7			1.5	1.4	
Approach LOS	B			A	A	
Intersection Summary						
Area Type:	Other					
Cycle Length: 45						
Actuated Cycle Length: 39.7						

Lanes, Volumes, Timings

18: Fillmore Ave & MLK Park

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.23

Intersection Signal Delay: 1.7

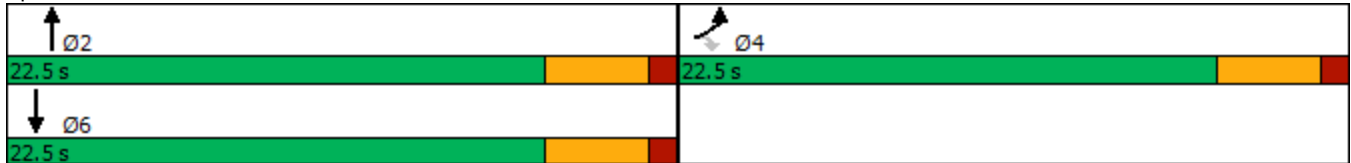
Intersection LOS: A

Intersection Capacity Utilization 31.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Fillmore Ave & MLK Park



Lanes, Volumes, Timings
19: Fillmore Ave & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	84	21	16	38	17	21	363	10	7	327	50
Future Volume (vph)	19	84	21	16	38	17	21	363	10	7	327	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.977			0.968			0.997			0.983	
Flt Protected		0.992			0.989			0.997			0.999	
Satd. Flow (prot)	0	1805	0	0	1783	0	0	1852	0	0	1829	0
Flt Permitted		0.929			0.929			0.972			0.992	
Satd. Flow (perm)	0	1691	0	0	1675	0	0	1805	0	0	1816	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			18			4			20	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1089			291			579			735	
Travel Time (s)		24.8			6.6			13.2			16.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	21	91	23	17	41	18	23	395	11	8	355	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	135	0	0	76	0	0	429	0	0	417	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		7.7			7.6			25.6			25.6	
Actuated g/C Ratio		0.21			0.21			0.70			0.70	
v/c Ratio		0.36			0.21			0.34			0.33	
Control Delay		12.7			10.4			5.8			5.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.7			10.4			5.8			5.5	
LOS		B			B			A			A	
Approach Delay		12.7			10.4			5.8			5.5	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.4												

Lanes, Volumes, Timings

19: Fillmore Ave & Northhampton St

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.36

Intersection Signal Delay: 6.9

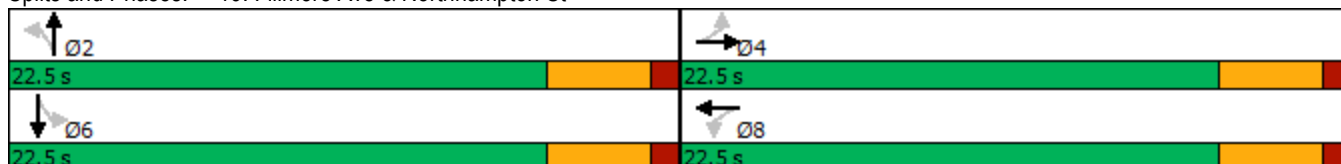
Intersection LOS: A

Intersection Capacity Utilization 46.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 19: Fillmore Ave & Northhampton St



Lanes, Volumes, Timings
21: Fillmore Ave & Riley St/Urban St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	0	7	10	0	29	3	410	4	18	351	10
Future Volume (vph)	4	0	7	10	0	29	3	410	4	18	351	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.910			0.900			0.999			0.996	
Flt Protected		0.984			0.987						0.998	
Satd. Flow (prot)	0	1668	0	0	1655	0	0	1861	0	0	1852	0
Flt Permitted		0.988			0.930			0.998			0.976	
Satd. Flow (perm)	0	1675	0	0	1559	0	0	1857	0	0	1811	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			36			1			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			639			735			422	
Travel Time (s)		24.6			14.5			16.7			9.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	0	8	11	0	32	3	446	4	20	382	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	43	0	0	453	0	0	413	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		6.0			6.0			32.0			32.0	
Actuated g/C Ratio		0.16			0.16			0.84			0.84	
v/c Ratio		0.04			0.16			0.29			0.27	
Control Delay		2.4			8.2			3.3			3.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		2.4			8.2			3.3			3.2	
LOS		A			A			A			A	
Approach Delay		2.4			8.2			3.3			3.2	
Approach LOS		A			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 38.2												

Lanes, Volumes, Timings

21: Fillmore Ave & Riley St/Urban St

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.29

Intersection Signal Delay: 3.5

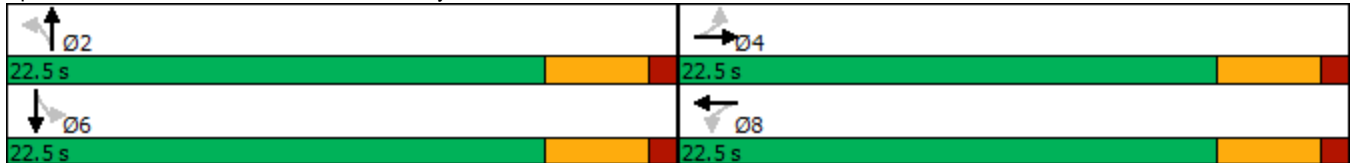
Intersection LOS: A

Intersection Capacity Utilization 43.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 21: Fillmore Ave & Riley St/Urban St



Lanes, Volumes, Timings
22: Fillmore Ave & French St

03/21/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	13	62	399	13	78	347
Future Volume (vph)	13	62	399	13	78	347
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.888		0.996			
Flt Protected	0.991					0.991
Satd. Flow (prot)	1639	0	1855	0	0	1846
Flt Permitted	0.991					0.869
Satd. Flow (perm)	1639	0	1855	0	0	1619
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	67		4			
Link Speed (mph)	30		30			30
Link Distance (ft)	600		422			182
Travel Time (s)	13.6		9.6			4.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	67	434	14	85	377
Shared Lane Traffic (%)						
Lane Group Flow (vph)	81	0	448	0	0	462
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%	50.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.4		30.9			30.9
Actuated g/C Ratio	0.16		0.77			0.77
v/c Ratio	0.26		0.31			0.37
Control Delay	8.0		4.2			4.8
Queue Delay	0.0		0.0			0.8
Total Delay	8.0		4.2			5.6
LOS	A		A			A
Approach Delay	8.0		4.2			5.6
Approach LOS	A		A			A

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.2

Lanes, Volumes, Timings

22: Fillmore Ave & French St

03/21/2022

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.37

Intersection Signal Delay: 5.2

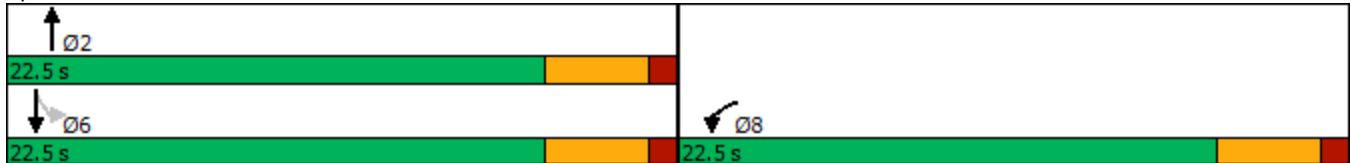
Intersection LOS: A

Intersection Capacity Utilization 60.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 22: Fillmore Ave & French St



Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	90	115	78	392	327	68
Future Volume (vph)	90	115	78	392	327	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.924				0.977	
Flt Protected	0.978			0.992		
Satd. Flow (prot)	1683	0	0	1848	1820	0
Flt Permitted	0.978			0.879		
Satd. Flow (perm)	1683	0	0	1637	1820	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	125				28	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1083			182	1350	
Travel Time (s)	24.6			4.1	30.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	98	125	85	426	355	74
Shared Lane Traffic (%)						
Lane Group Flow (vph)	223	0	0	511	429	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		22.5	22.5	22.5	
Total Split (%)	50.0%		50.0%	50.0%	50.0%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effect Green (s)	7.9			22.7	22.7	
Actuated g/C Ratio	0.21			0.62	0.62	
v/c Ratio	0.48			0.51	0.38	
Control Delay	9.6			9.0	6.5	
Queue Delay	0.0			1.0	0.0	
Total Delay	9.6			10.0	6.5	
LOS	A			A	A	
Approach Delay	9.6			10.0	6.5	
Approach LOS	A			A	A	
Intersection Summary						
Area Type:	Other					
Cycle Length: 45						
Actuated Cycle Length: 36.8						

Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

03/21/2022

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 8.6

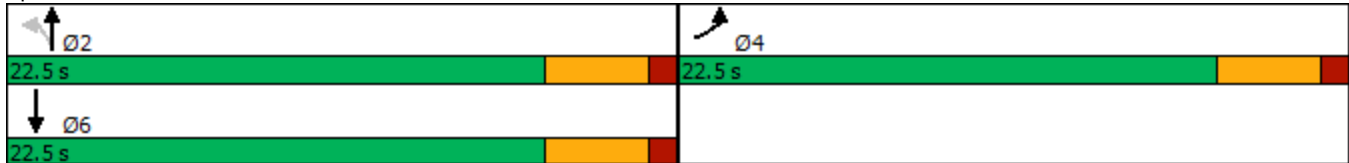
Intersection LOS: A

Intersection Capacity Utilization 69.6%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 23: Fillmore Ave & E Utica St



Lanes, Volumes, Timings
24: Fillmore Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	283	87	57	266	51	43	303	64	44	305	79
Future Volume (vph)	38	283	87	57	266	51	43	303	64	44	305	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.968			0.980			0.976			0.972	
Flt Protected		0.995			0.992			0.995			0.995	
Satd. Flow (prot)	0	3409	0	0	3441	0	0	3437	0	0	3423	0
Flt Permitted		0.883			0.826			0.881			0.884	
Satd. Flow (perm)	0	3025	0	0	2865	0	0	3043	0	0	3041	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		91			46			57			72	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			797			1350			1620	
Travel Time (s)		24.6			18.1			30.7			36.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	41	308	95	62	289	55	47	329	70	48	332	86
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	444	0	0	406	0	0	446	0	0	466	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		10.2			10.2			18.1			18.1	
Actuated g/C Ratio		0.27			0.27			0.48			0.48	
v/c Ratio		0.50			0.50			0.30			0.31	
Control Delay		10.8			12.0			6.3			6.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.8			12.0			6.3			6.2	
LOS		B			B			A			A	
Approach Delay		10.8			12.0			6.3			6.2	
Approach LOS		B			B			A			A	
Intersection Summary												

Lanes, Volumes, Timings
24: Fillmore Ave & E Ferry St

03/21/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 37.4

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.50

Intersection Signal Delay: 8.7

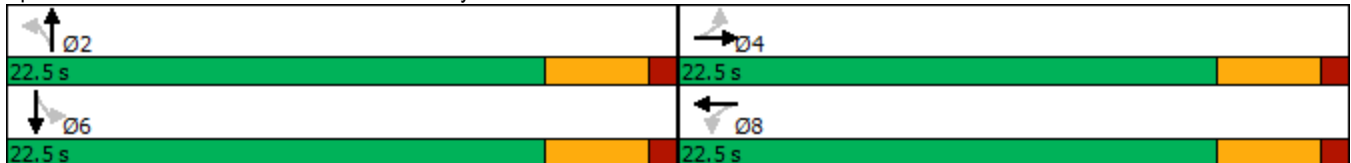
Intersection LOS: A

Intersection Capacity Utilization 61.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 24: Fillmore Ave & E Ferry St



Lanes, Volumes, Timings
25: Fillmore Ave & Northland Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	30	22	50	60	20	13	345	33	29	364	21
Future Volume (vph)	4	30	22	50	60	20	13	345	33	29	364	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.947			0.979			0.989			0.993	
Flt Protected		0.997			0.981			0.998			0.996	
Satd. Flow (prot)	0	1759	0	0	1789	0	0	1839	0	0	1842	0
Flt Permitted		0.972			0.848			0.984			0.959	
Satd. Flow (perm)	0	1715	0	0	1546	0	0	1813	0	0	1774	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			22			12			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1020			890			1620			1011	
Travel Time (s)		23.2			20.2			36.8			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	33	24	54	65	22	14	375	36	32	396	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	0	0	141	0	0	425	0	0	451	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.2			8.2			23.6			23.6	
Actuated g/C Ratio		0.22			0.22			0.62			0.62	
v/c Ratio		0.16			0.40			0.37			0.41	
Control Delay		8.4			13.8			6.6			7.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.4			13.8			6.6			7.1	
LOS		A			B			A			A	
Approach Delay		8.4			13.8			6.6			7.1	
Approach LOS		A			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.9												

Lanes, Volumes, Timings

25: Fillmore Ave & Northland Ave

03/21/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.41

Intersection Signal Delay: 7.9

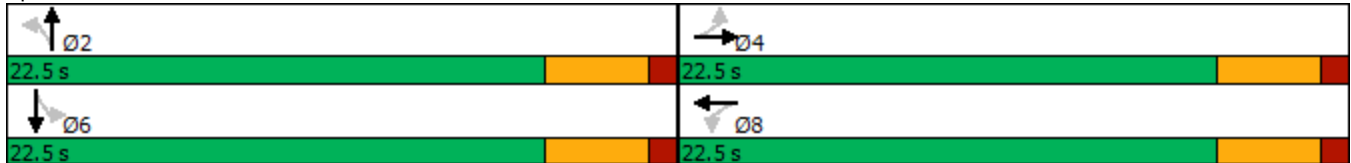
Intersection LOS: A

Intersection Capacity Utilization 54.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 25: Fillmore Ave & Northland Ave



Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	210	48	33	172	42	37	318	32	61	331	74
Future Volume (vph)	95	210	48	33	172	42	37	318	32	61	331	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.982			0.977			0.989			0.979	
Flt Protected		0.987			0.993			0.995			0.994	
Satd. Flow (prot)	0	1805	0	0	1807	0	0	1833	0	0	1813	0
Flt Permitted		0.817			0.922			0.931			0.906	
Satd. Flow (perm)	0	1494	0	0	1678	0	0	1715	0	0	1652	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			20			12			25	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		928			735			1011			742	
Travel Time (s)		21.1			16.7			23.0			16.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	103	228	52	36	187	46	40	346	35	66	360	80
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	383	0	0	269	0	0	421	0	0	506	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.6	22.6		22.6	22.6		32.4	32.4		32.4	32.4	
Total Split (%)	41.1%	41.1%		41.1%	41.1%		58.9%	58.9%		58.9%	58.9%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		15.9			15.9			28.0			28.0	
Actuated g/C Ratio		0.30			0.30			0.53			0.53	
v/c Ratio		0.83			0.52			0.46			0.57	
Control Delay		34.8			18.0			10.2			11.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		34.8			18.0			10.2			11.8	
LOS		C			B			B			B	
Approach Delay		34.8			18.0			10.2			11.8	
Approach LOS		C			B			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 55												
Actuated Cycle Length: 52.9												

Lanes, Volumes, Timings

26: Fillmore Ave & E Delavan Ave

03/21/2022

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 18.0

Intersection LOS: B

Intersection Capacity Utilization 78.8%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 26: Fillmore Ave & E Delavan Ave



Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	252	285	0	0	285	32	71	222	140	0	0	0
Future Volume (vph)	252	285	0	0	285	32	71	222	140	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	0		150	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.985				0.850			
Flt Protected		0.977						0.988				
Satd. Flow (prot)	0	3458	0	0	3486	0	0	1840	1583	0	0	0
Flt Permitted		0.685						0.988				
Satd. Flow (perm)	0	2424	0	0	3486	0	0	1840	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					32				152			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		310			928			1019			213	
Travel Time (s)		7.0			21.1			23.2			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	274	310	0	0	310	35	77	241	152	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	584	0	0	345	0	0	318	152	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	27.4	27.4			27.4		22.6	22.6	22.6			
Total Split (%)	54.8%	54.8%			54.8%		45.2%	45.2%	45.2%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)		0.0			0.0			0.0	0.0			
Total Lost Time (s)		4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		None	None	None			
Act Effct Green (s)		23.7			23.7			13.1	13.1			
Actuated g/C Ratio		0.52			0.52			0.29	0.29			
v/c Ratio		0.47			0.19			0.60	0.27			
Control Delay		6.1			6.5			19.0	4.0			
Queue Delay		0.0			0.0			0.0	0.0			
Total Delay		6.1			6.5			19.0	4.0			
LOS		A			A			B	A			
Approach Delay		6.1			6.5			14.1				
Approach LOS		A			A			B				
Intersection Summary												

Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

03/21/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.6
Total Split (%)	45%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

27: Humboldt Parkway NB & E Delavan Ave

03/21/2022

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 45.9

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 8.9

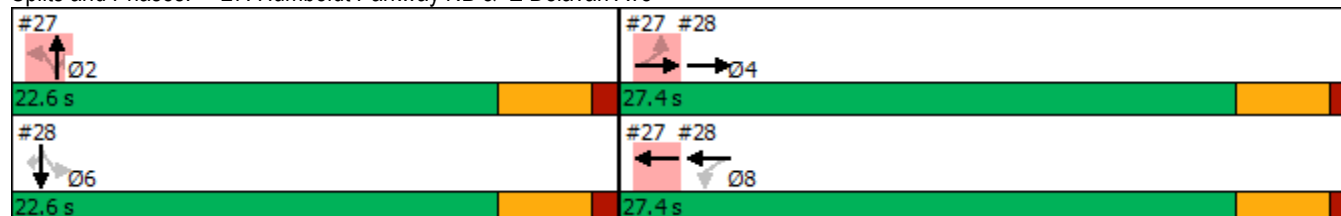
Intersection LOS: A

Intersection Capacity Utilization 51.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 27: Humboldt Parkway NB & E Delavan Ave



Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					 							
Traffic Volume (vph)	0	484	51	106	251	0	0	0	0	44	66	28
Future Volume (vph)	0	484	51	106	251	0	0	0	0	44	66	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987										0.850
Flt Protected					0.985						0.980	
Satd. Flow (prot)	0	1839	0	0	3486	0	0	0	0	0	1825	1583
Flt Permitted					0.689						0.980	
Satd. Flow (perm)	0	1839	0	0	2439	0	0	0	0	0	1825	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14										33
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2669			310			684			864	
Travel Time (s)		60.7			7.0			15.5			19.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	526	55	115	273	0	0	0	0	48	72	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	581	0	0	388	0	0	0	0	0	120	30
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		27.4		27.4	27.4					22.6	22.6	22.6
Total Split (%)		54.8%		54.8%	54.8%					45.2%	45.2%	45.2%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0						0.0	0.0
Total Lost Time (s)		4.5			4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					None	None	None
Act Effct Green (s)		23.7			23.7						13.1	13.1
Actuated g/C Ratio		0.52			0.52						0.29	0.29
v/c Ratio		0.61			0.31						0.23	0.06
Control Delay		12.1			5.4						12.9	4.9
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		12.1			5.4						12.9	4.9
LOS		B			A						B	A
Approach Delay		12.1			5.4						11.3	
Approach LOS		B			A						B	
Intersection Summary												

Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

03/21/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.6
Total Split (%)	45%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

28: Humboldt Parkway SB & E Delavan Ave

03/21/2022

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 45.9

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 9.6

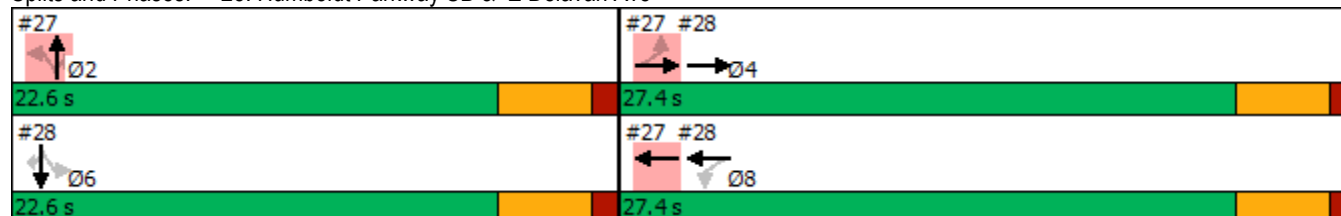
Intersection LOS: A

Intersection Capacity Utilization 55.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 28: Humboldt Parkway SB & E Delavan Ave



Lanes, Volumes, Timings
29: Jefferson Ave & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	350	57	60	156	25	49	152	74	13	113	45
Future Volume (vph)	93	350	57	60	156	25	49	152	74	13	113	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.985			0.986			0.964			0.964	
Flt Protected		0.991			0.988			0.991			0.996	
Satd. Flow (prot)	0	1818	0	0	1815	0	0	1780	0	0	1789	0
Flt Permitted		0.896			0.811			0.922			0.969	
Satd. Flow (perm)	0	1644	0	0	1490	0	0	1656	0	0	1740	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			15			49			48	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		592			2669			1017			352	
Travel Time (s)		13.5			60.7			23.1			8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	380	62	65	170	27	53	165	80	14	123	49
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	543	0	0	262	0	0	298	0	0	186	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		16.6			16.6			18.0			18.0	
Actuated g/C Ratio		0.38			0.38			0.41			0.41	
v/c Ratio		0.86			0.45			0.42			0.25	
Control Delay		28.3			12.4			10.2			7.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		28.3			12.4			10.2			7.9	
LOS		C			B			B			A	
Approach Delay		28.3			12.4			10.2			7.9	
Approach LOS		C			B			B			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 43.7												

Lanes, Volumes, Timings

29: Jefferson Ave & E Delavan Ave

03/21/2022

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 18.0

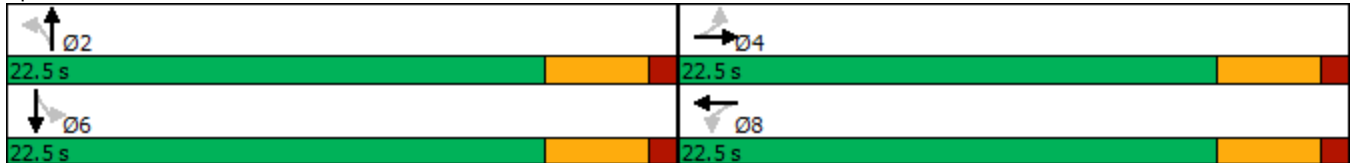
Intersection LOS: B

Intersection Capacity Utilization 68.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 29: Jefferson Ave & E Delavan Ave



Lanes, Volumes, Timings
30: Jefferson Ave & Northland Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	30	19	13	19	21	27	222	32	20	188	14
Future Volume (vph)	30	30	19	13	19	21	27	222	32	20	188	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.967			0.946			0.985			0.992	
Flt Protected		0.981			0.988			0.995			0.995	
Satd. Flow (prot)	0	1767	0	0	1741	0	0	1826	0	0	1839	0
Flt Permitted		0.851			0.891			0.964			0.964	
Satd. Flow (perm)	0	1533	0	0	1570	0	0	1769	0	0	1781	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			23			17			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		806			2743			848			1017	
Travel Time (s)		18.3			62.3			19.3			23.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	33	21	14	21	23	29	241	35	22	204	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	87	0	0	58	0	0	305	0	0	241	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		7.0			6.9			26.2			26.2	
Actuated g/C Ratio		0.19			0.19			0.72			0.72	
v/c Ratio		0.28			0.18			0.24			0.19	
Control Delay		11.9			9.5			4.5			4.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.9			9.5			4.5			4.4	
LOS		B			A			A			A	
Approach Delay		11.9			9.5			4.5			4.4	
Approach LOS		B			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.5												

Lanes, Volumes, Timings

30: Jefferson Ave & Northland Ave

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.28

Intersection Signal Delay: 5.8

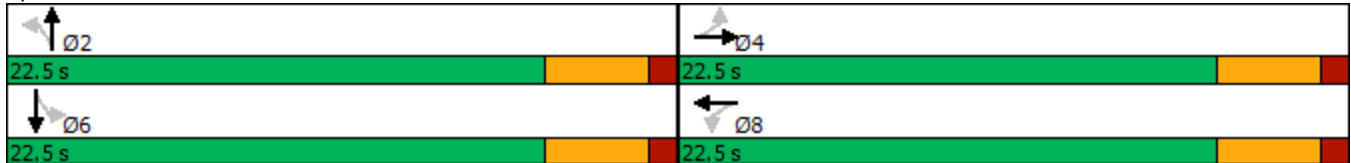
Intersection LOS: A

Intersection Capacity Utilization 34.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 30: Jefferson Ave & Northland Ave



Lanes, Volumes, Timings
31: Jefferson Ave & Brunswick Blvd

03/21/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	28	28	269	47	10	202
Future Volume (vph)	28	28	269	47	10	202
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932		0.980			
Flt Protected	0.976					0.998
Satd. Flow (prot)	1694	0	1825	0	0	1859
Flt Permitted	0.976					0.984
Satd. Flow (perm)	1694	0	1825	0	0	1833
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	30		23			
Link Speed (mph)	30		30			30
Link Distance (ft)	2734		751			848
Travel Time (s)	62.1		17.1			19.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	30	292	51	11	220
Shared Lane Traffic (%)						
Lane Group Flow (vph)	60	0	343	0	0	231
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%	50.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.5		33.9			33.9
Actuated g/C Ratio	0.16		0.85			0.85
v/c Ratio	0.20		0.22			0.15
Control Delay	11.4		2.8			2.8
Queue Delay	0.0		0.0			0.0
Total Delay	11.4		2.8			2.8
LOS	B		A			A
Approach Delay	11.4		2.8			2.8
Approach LOS	B		A			A

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40

Lanes, Volumes, Timings

31: Jefferson Ave & Brunswick Blvd

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.22

Intersection Signal Delay: 3.6

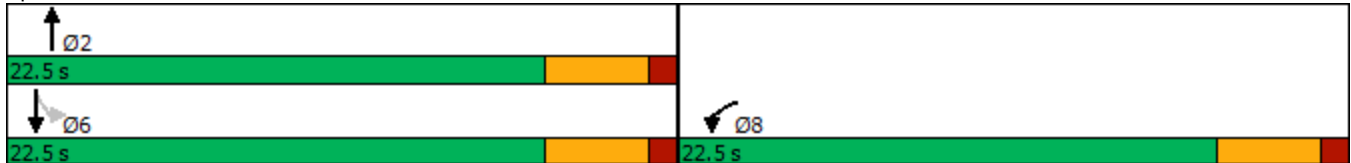
Intersection LOS: A

Intersection Capacity Utilization 30.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 31: Jefferson Ave & Brunswick Blvd



Lanes, Volumes, Timings
32: Jefferson Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	252	58	63	415	68	69	221	77	51	206	29
Future Volume (vph)	27	252	58	63	415	68	69	221	77	51	206	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.977			0.983			0.972			0.986	
Fl _t Protected		0.996			0.994			0.991			0.991	
Satd. Flow (prot)	0	1813	0	0	1820	0	0	1794	0	0	1820	0
Fl _t Permitted		0.937			0.920			0.894			0.896	
Satd. Flow (perm)	0	1705	0	0	1685	0	0	1619	0	0	1646	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26			18			24			10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			194			1406			751	
Travel Time (s)		7.5			4.4			32.0			17.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	274	63	68	451	74	75	240	84	55	224	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	366	0	0	593	0	0	399	0	0	311	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	36.0	36.0		36.0	36.0		24.0	24.0		24.0	24.0	
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%		40.0%	40.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		22.4			22.4			19.8			19.8	
Actuated g/C Ratio		0.44			0.44			0.39			0.39	
v/c Ratio		0.48			0.80			0.62			0.49	
Control Delay		11.3			20.6			20.1			16.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.3			20.6			20.1			16.8	
LOS		B			C			C			B	
Approach Delay		11.3			20.6			20.1			16.8	
Approach LOS		B			C			C			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 51.4												

Lanes, Volumes, Timings

32: Jefferson Ave & E Ferry St

03/21/2022

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 17.7

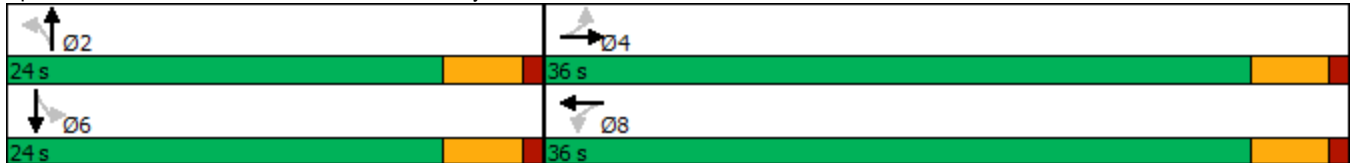
Intersection LOS: B

Intersection Capacity Utilization 78.1%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 32: Jefferson Ave & E Ferry St



Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	110	44	52	107	36	41	313	39	17	291	21
Future Volume (vph)	14	110	44	52	107	36	41	313	39	17	291	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt		0.965			0.975			0.987			0.991	
Flt Protected		0.996			0.987			0.995			0.997	
Satd. Flow (prot)	0	1790	0	0	1793	0	0	1829	0	0	1840	0
Flt Permitted		0.966			0.886			0.940			0.974	
Satd. Flow (perm)	0	1736	0	0	1609	0	0	1728	0	0	1798	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		47			30			15			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1023			1295			630			1406	
Travel Time (s)		23.3			29.4			14.3			32.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	120	48	57	116	39	45	340	42	18	316	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	183	0	0	212	0	0	427	0	0	357	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		9.4			9.5			22.0			22.0	
Actuated g/C Ratio		0.25			0.25			0.59			0.59	
v/c Ratio		0.39			0.50			0.42			0.34	
Control Delay		10.9			13.9			8.2			7.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.9			13.9			8.2			7.4	
LOS		B			B			A			A	
Approach Delay		10.9			13.9			8.2			7.4	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.5												

Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.50

Intersection Signal Delay: 9.4

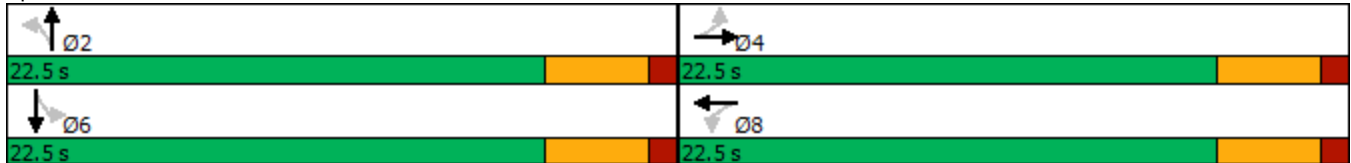
Intersection LOS: A

Intersection Capacity Utilization 64.4%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 33: Jefferson Ave & E Utica St



Lanes, Volumes, Timings
34: Jefferson Ave & Riley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	31	12	18	22	19	7	340	43	12	343	20
Future Volume (vph)	13	31	12	18	22	19	7	340	43	12	343	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.971			0.956			0.985			0.993	
Flt Protected		0.989			0.985			0.999			0.998	
Satd. Flow (prot)	0	1789	0	0	1754	0	0	1833	0	0	1846	0
Flt Permitted		0.902			0.874			0.993			0.986	
Satd. Flow (perm)	0	1631	0	0	1556	0	0	1822	0	0	1824	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			21			17			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		870			1108			418			630	
Travel Time (s)		19.8			25.2			9.5			14.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	34	13	20	24	21	8	370	47	13	373	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	0	0	65	0	0	425	0	0	408	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		6.6			6.5			28.6			28.6	
Actuated g/C Ratio		0.19			0.18			0.81			0.81	
v/c Ratio		0.20			0.21			0.29			0.28	
Control Delay		11.0			10.3			3.8			3.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.0			10.3			3.8			3.8	
LOS		B			B			A			A	
Approach Delay		11.0			10.3			3.8			3.8	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.4												

Lanes, Volumes, Timings

34: Jefferson Ave & Riley St

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.29

Intersection Signal Delay: 4.7

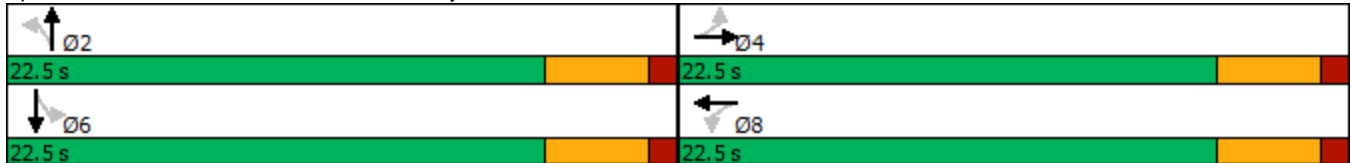
Intersection LOS: A

Intersection Capacity Utilization 38.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 34: Jefferson Ave & Riley St



Lanes, Volumes, Timings

35: Jefferson Ave & Northampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	49	27	13	48	22	23	350	15	30	309	33
Future Volume (vph)	21	49	27	13	48	22	23	350	15	30	309	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.963			0.964			0.995			0.988	
Flt Protected		0.989			0.992			0.997			0.996	
Satd. Flow (prot)	0	1774	0	0	1781	0	0	1848	0	0	1833	0
Flt Permitted		0.899			0.927			0.970			0.954	
Satd. Flow (perm)	0	1613	0	0	1665	0	0	1798	0	0	1756	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29			24			5			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1340			1290			1156			278	
Travel Time (s)		30.5			29.3			26.3			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	53	29	14	52	24	25	380	16	33	336	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	105	0	0	90	0	0	421	0	0	405	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		7.1			7.1			25.5			25.5	
Actuated g/C Ratio		0.20			0.20			0.71			0.71	
v/c Ratio		0.31			0.26			0.33			0.32	
Control Delay		11.4			10.9			5.4			5.3	
Queue Delay		0.0			0.0			0.0			0.1	
Total Delay		11.4			10.9			5.4			5.3	
LOS		B			B			A			A	
Approach Delay		11.4			10.9			5.4			5.3	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36												

Lanes, Volumes, Timings

35: Jefferson Ave & Northhampton St

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.33

Intersection Signal Delay: 6.5

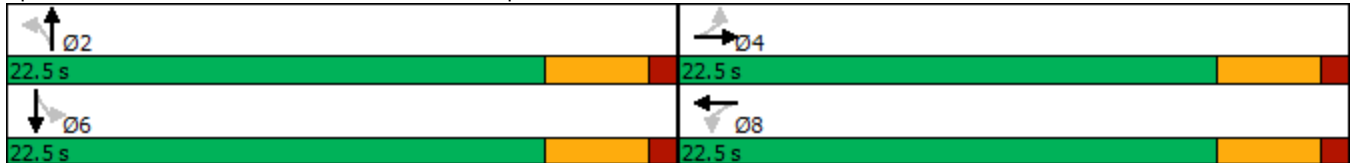
Intersection LOS: A

Intersection Capacity Utilization 43.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 35: Jefferson Ave & Northhampton St



Lanes, Volumes, Timings
36: Jefferson Ave & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	515	51	43	352	71	30	299	92	76	254	26
Future Volume (vph)	17	515	51	43	352	71	30	299	92	76	254	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.987			0.977			0.967			0.989	
Flt Protected		0.999			0.995			0.996			0.989	
Satd. Flow (prot)	0	3490	0	0	3441	0	0	3409	0	0	3462	0
Flt Permitted		0.934			0.857			0.912			0.799	
Satd. Flow (perm)	0	3263	0	0	2963	0	0	3121	0	0	2797	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26			54			95			21	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		169			169			156			165	
Travel Time (s)		3.8			3.8			3.5			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	560	55	47	383	77	33	325	100	83	276	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	633	0	0	507	0	0	458	0	0	387	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		13.5			13.5			18.1			18.1	
Actuated g/C Ratio		0.33			0.33			0.44			0.44	
v/c Ratio		0.57			0.50			0.32			0.31	
Control Delay		12.8			11.2			7.1			8.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.8			11.2			7.1			8.5	
LOS		B			B			A			A	
Approach Delay		12.8			11.2			7.1			8.5	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 40.7												

Lanes, Volumes, Timings

36: Jefferson Ave & Best St

03/21/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 10.2

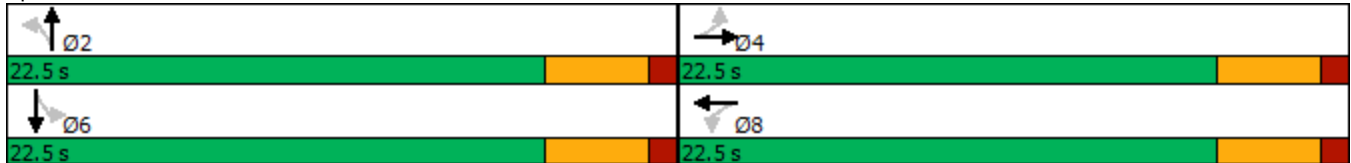
Intersection LOS: B

Intersection Capacity Utilization 66.7%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 36: Jefferson Ave & Best St



Lanes, Volumes, Timings
37: Jefferson Ave & E North St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	87	154	49	322	334	23
Future Volume (vph)	87	154	49	322	334	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.914				0.991	
Flt Protected	0.982			0.993		
Satd. Flow (prot)	1672	0	0	1850	1846	0
Flt Permitted	0.982			0.920		
Satd. Flow (perm)	1672	0	0	1714	1846	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	151				9	
Link Speed (mph)	30			30	30	
Link Distance (ft)	879			684	486	
Travel Time (s)	20.0			15.5	11.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	95	167	53	350	363	25
Shared Lane Traffic (%)						
Lane Group Flow (vph)	262	0	0	403	388	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		37.5	37.5	37.5	
Total Split (%)	37.5%		62.5%	62.5%	62.5%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effct Green (s)	9.6			35.6	35.6	
Actuated g/C Ratio	0.18			0.66	0.66	
v/c Ratio	0.63			0.36	0.32	
Control Delay	15.6			6.1	5.6	
Queue Delay	0.0			0.0	0.0	
Total Delay	15.6			6.1	5.6	
LOS	B			A	A	
Approach Delay	15.6			6.1	5.6	
Approach LOS	B			A	A	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 54.2

Lanes, Volumes, Timings 37: Jefferson Ave & E North St

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 8.2

Intersection LOS: A

Intersection Capacity Utilization 64.2%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 37: Jefferson Ave & E North St



Lanes, Volumes, Timings
38: Jefferson Ave & High St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	67	131	35	63	35	52	317	22	25	443	10
Future Volume (vph)	15	67	131	35	63	35	52	317	22	25	443	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.917			0.964			0.992			0.997	
Flt Protected		0.997			0.987			0.993			0.997	
Satd. Flow (prot)	0	1703	0	0	1772	0	0	1835	0	0	1852	0
Flt Permitted		0.974			0.785			0.898			0.971	
Satd. Flow (perm)	0	1664	0	0	1410	0	0	1659	0	0	1803	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		137			31			8			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		840			1233			880			684	
Travel Time (s)		19.1			28.0			20.0			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	73	142	38	68	38	57	345	24	27	482	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	231	0	0	144	0	0	426	0	0	520	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.6	22.6		22.6	22.6		37.4	37.4		37.4	37.4	
Total Split (%)	37.7%	37.7%		37.7%	37.7%		62.3%	62.3%		62.3%	62.3%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		9.3			9.3			34.8			34.8	
Actuated g/C Ratio		0.18			0.18			0.66			0.66	
v/c Ratio		0.57			0.53			0.39			0.44	
Control Delay		14.4			22.3			6.1			6.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.4			22.3			6.1			6.5	
LOS		B			C			A			A	
Approach Delay		14.4			22.3			6.1			6.5	
Approach LOS		B			C			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 53.1												

Lanes, Volumes, Timings

38: Jefferson Ave & High St

03/21/2022

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 9.5

Intersection LOS: A

Intersection Capacity Utilization 61.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 38: Jefferson Ave & High St



Lanes, Volumes, Timings
39: Wohlers Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	412	19	17	523	99	11	62	61	0	0	0
Future Volume (vph)	62	412	19	17	523	99	11	62	61	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.979			0.939				
Flt Protected		0.994			0.999			0.996				
Satd. Flow (prot)	0	1842	0	0	1822	0	0	1742	0	0	0	0
Flt Permitted		0.874			0.983			0.996				
Satd. Flow (perm)	0	1620	0	0	1793	0	0	1742	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			24			66				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		280			1179			1336			278	
Travel Time (s)		6.4			26.8			30.4			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	67	448	21	18	568	108	12	67	66	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	536	0	0	694	0	0	145	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4			8			2					
Detector Phase	4	4		8	8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5				
Total Split (s)	37.0	37.0		37.0	37.0		23.0	23.0				
Total Split (%)	61.7%	61.7%		61.7%	61.7%		38.3%	38.3%				
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max				
Act Effct Green (s)		24.5			24.5			18.9				
Actuated g/C Ratio		0.47			0.47			0.36				
v/c Ratio		0.71			0.82			0.22				
Control Delay		16.4			20.1			9.9				
Queue Delay		0.0			0.0			0.0				
Total Delay		16.4			20.1			9.9				
LOS		B			C			A				
Approach Delay		16.4			20.1			9.9				
Approach LOS		B			C			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 52.5												

Lanes, Volumes, Timings

39: Wohlers Ave & E Ferry St

03/21/2022

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 17.6

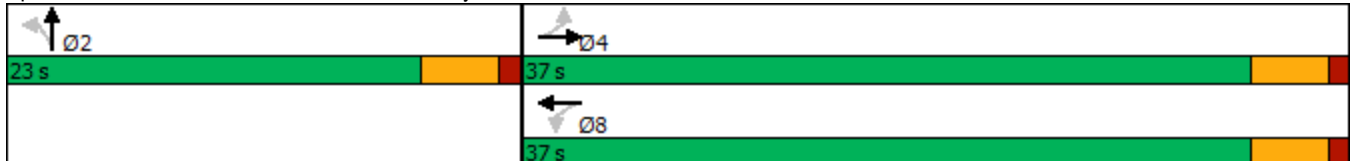
Intersection LOS: B

Intersection Capacity Utilization 68.8%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 39: Wohlers Ave & E Ferry St



Lanes, Volumes, Timings
40: Wohlers Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	176	7	14	152	32	23	58	30	9	25	11
Future Volume (vph)	14	176	7	14	152	32	23	58	30	9	25	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.978			0.963			0.967	
Flt Protected		0.997			0.997			0.990			0.990	
Satd. Flow (prot)	0	1848	0	0	1816	0	0	1776	0	0	1783	0
Flt Permitted		0.972			0.972			0.955			0.958	
Satd. Flow (perm)	0	1802	0	0	1771	0	0	1713	0	0	1726	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			26			33			12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		274			1173			1331			1336	
Travel Time (s)		6.2			26.7			30.3			30.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	191	8	15	165	35	25	63	33	10	27	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	214	0	0	215	0	0	121	0	0	49	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		9.4			9.4			21.9			21.9	
Actuated g/C Ratio		0.25			0.25			0.59			0.59	
v/c Ratio		0.47			0.46			0.12			0.05	
Control Delay		14.6			13.3			5.0			5.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.6			13.3			5.0			5.0	
LOS		B			B			A			A	
Approach Delay		14.6			13.3			5.0			5.0	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.3												

Lanes, Volumes, Timings
40: Wohlers Ave & E Utica St

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 11.4

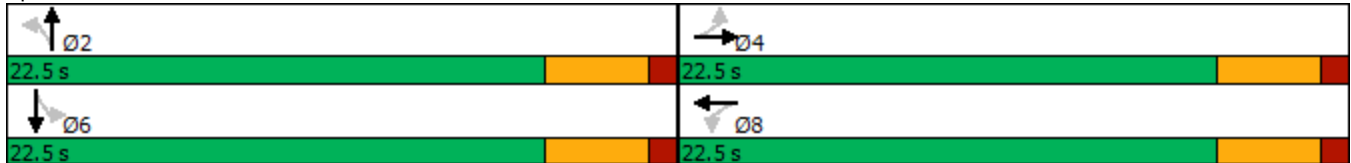
Intersection LOS: B

Intersection Capacity Utilization 29.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 40: Wohlers Ave & E Utica St



Lanes, Volumes, Timings
41: Humboldt Parkway SB & Woodlawn Ave

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	524	50
Future Volume (vph)	0	0	0	0	524	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.988	
Flt Protected						
Satd. Flow (prot)	0	0	0	0	1840	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	0	1840	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	780			265	319	
Travel Time (s)	17.7			6.0	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	570	54
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	624	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 33.9% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings
42: Humboldt Parkway SB & Glenwood Ave

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	42	0	0	522	0
Future Volume (vph)	0	42	0	0	522	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1863	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	750			456	296	
Travel Time (s)	17.0			10.4	6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	46	0	0	567	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	46	0	0	567	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 37.5% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
42: Humboldt Parkway SB & Glenwood Ave

03/21/2022

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	42	0	0	522	0
Future Vol, veh/h	0	42	0	0	522	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	46	0	0	567	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	567	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	523	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	523	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	12.5		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	523	-				
HCM Lane V/C Ratio	0.087	-				
HCM Control Delay (s)	12.5	-				
HCM Lane LOS	B	-				
HCM 95th %tile Q(veh)	0.3	-				

Lanes, Volumes, Timings

43: Humboldt Parkway SB & Riley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	17	23	23	17	0	0	0	0	23	421	23
Future Volume (vph)	0	17	23	23	17	0	0	0	0	23	421	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.922										0.993	
Flt Protected					0.972						0.998	
Satd. Flow (prot)	0	1717	0	0	1811	0	0	0	0	0	1846	0
Flt Permitted					0.972						0.998	
Satd. Flow (perm)	0	1717	0	0	1811	0	0	0	0	0	1846	0
Link Speed (mph)	30				30				30			
Link Distance (ft)	873				152				418			
Travel Time (s)	19.8				3.5				9.5			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	18	25	25	18	0	0	0	0	25	458	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	43	0	0	43	0	0	0	0	0	508	0
Sign Control	Stop				Stop				Stop			
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	40.3%						ICU Level of Service A					
Analysis Period (min)	15											

HCM 6th TWSC
43: Humboldt Parkway SB & Riley St

03/21/2022

Intersection													
Int Delay, s/veh	1.9												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Vol, veh/h	0	17	23	23	17	0	0	0	0	23	421	23	
Future Vol, veh/h	0	17	23	23	17	0	0	0	0	23	421	23	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None	
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	0	18	25	25	18	0	0	0	0	25	458	25	
Major/Minor	Minor2		Minor1				Major2						
Conflicting Flow All	-	521	471	542	533	-			0	0	0		
Stage 1	-	521	-	0	0	-			-	-	-		
Stage 2	-	0	-	542	533	-			-	-	-		
Critical Hdwy	-	6.52	6.22	7.12	6.52	-			4.12	-	-		
Critical Hdwy Stg 1	-	5.52	-	-	-	-			-	-	-		
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-			-	-	-		
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-			2.218	-	-		
Pot Cap-1 Maneuver	0	460	593	451	453	0			-	-	-		
Stage 1	0	532	-	-	-	0			-	-	-		
Stage 2	0	-	-	525	525	0			-	-	-		
Platoon blocked, %										-	-		
Mov Cap-1 Maneuver	-	460	593	419	453	-			-	-	-		
Mov Cap-2 Maneuver	-	460	-	419	453	-			-	-	-		
Stage 1	-	532	-	-	-	-			-	-	-		
Stage 2	-	-	-	485	525	-			-	-	-		
Approach	EB		WB				SB						
HCM Control Delay, s	12.4		14.2										
HCM LOS	B		B										
Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR								
Capacity (veh/h)	528		433	-	-	-							
HCM Lane V/C Ratio	0.082		0.1	-	-	-							
HCM Control Delay (s)	12.4		14.2	-	-	-							
HCM Lane LOS	B		B	-	-	-							
HCM 95th %tile Q(veh)	0.3		0.3	-	-	-							

Lanes, Volumes, Timings
44: Humboldt Parkway SB & Kingsley St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	14	0	0	465	4
Future Volume (vph)	0	14	0	0	465	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.999	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1861	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1861	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	736			293	418	
Travel Time (s)	16.7			6.7	9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	15	0	0	505	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	15	0	0	509	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 34.7% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
44: Humboldt Parkway SB & Kingsley St

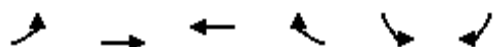
03/21/2022

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	14	0	0	465	4
Future Vol, veh/h	0	14	0	0	465	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	15	0	0	505	4
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	507	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	566	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	566	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	11.5		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	566	-	-			
HCM Lane V/C Ratio	0.027	-	-			
HCM Control Delay (s)	11.5	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings

45: W Parade Ave & Humboldt Parkway SB

03/21/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↘	
Traffic Volume (vph)	0	171	95	0	102	48
Future Volume (vph)	0	171	95	0	102	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.957	
Flt Protected					0.967	
Satd. Flow (prot)	0	1863	1863	0	1724	0
Flt Permitted					0.967	
Satd. Flow (perm)	0	1863	1863	0	1724	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		199	738		350	
Travel Time (s)		4.5	16.8		8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	186	103	0	111	52
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	186	103	0	163	0
Sign Control		Stop	Stop		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 24.3% ICU Level of Service A

Analysis Period (min) 15

HCM 6th AWSC
45: W Parade Ave & Humboldt Parkway SB

03/21/2022

Intersection

Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	↑
Traffic Vol, veh/h	0	171	95	0	102	48
Future Vol, veh/h	0	171	95	0	102	48
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	186	103	0	111	52
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	8.8	8.2	8.7
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	68%
Vol Thru, %	100%	100%	0%
Vol Right, %	0%	0%	32%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	171	95	150
LT Vol	0	0	102
Through Vol	171	95	0
RT Vol	0	0	48
Lane Flow Rate	186	103	163
Geometry Grp	1	1	1
Degree of Util (X)	0.229	0.13	0.205
Departure Headway (Hd)	4.439	4.528	4.537
Convergence, Y/N	Yes	Yes	Yes
Cap	810	793	792
Service Time	2.458	2.549	2.559
HCM Lane V/C Ratio	0.23	0.13	0.206
HCM Control Delay	8.8	8.2	8.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.9	0.4	0.8

Lanes, Volumes, Timings
46: Linden Park & Dodge St/W Parade Ave

03/21/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	169	7	6	138	0	2
Future Volume (vph)	169	7	6	138	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.994				0.865	
Flt Protected				0.998		
Satd. Flow (prot)	1852	0	0	1859	1611	0
Flt Permitted				0.998		
Satd. Flow (perm)	1852	0	0	1859	1611	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	489			199	180	
Travel Time (s)	11.1			4.5	4.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	184	8	7	150	0	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	192	0	0	157	2	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	22.1%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
46: Linden Park & Dodge St/W Parade Ave

03/21/2022

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	169	7	6	138	0	2
Future Vol, veh/h	169	7	6	138	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	184	8	7	150	0	2
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	192	0	352	188
Stage 1	-	-	-	-	188	-
Stage 2	-	-	-	-	164	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1381	-	646	854
Stage 1	-	-	-	-	844	-
Stage 2	-	-	-	-	865	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1381	-	642	854
Mov Cap-2 Maneuver	-	-	-	-	642	-
Stage 1	-	-	-	-	844	-
Stage 2	-	-	-	-	860	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0.3		9.2		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	854	-	-	1381	-	
HCM Lane V/C Ratio	0.003	-	-	0.005	-	
HCM Control Delay (s)	9.2	-	-	7.6	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Lanes, Volumes, Timings
47: Humboldt Parkway NB & Riley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	23	0	0	23	17	17	304	17	0	0	0
Future Volume (vph)	17	23	0	0	23	17	17	304	17	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.943			0.993				
Flt Protected		0.979						0.998				
Satd. Flow (prot)	0	1824	0	0	1757	0	0	1846	0	0	0	0
Flt Permitted		0.979						0.998				
Satd. Flow (perm)	0	1824	0	0	1757	0	0	1846	0	0	0	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		152			1082			722			610	
Travel Time (s)		3.5			24.6			16.4			13.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	25	0	0	25	18	18	330	18	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	43	0	0	43	0	0	366	0	0	0	0
Sign Control		Stop			Stop			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	33.5%											
Analysis Period (min)	15											
ICU Level of Service A												

HCM 6th TWSC
47: Humboldt Parkway NB & Riley St

03/21/2022

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕				
Traffic Vol, veh/h	17	23	0	0	23	17	17	304	17	0	0	0
Future Vol, veh/h	17	23	0	0	23	17	17	304	17	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	25	0	0	25	18	18	330	18	0	0	0
Major/Minor	Minor2		Minor1		Major1							
Conflicting Flow All	397	384	-	-	375	339	0	0	0			
Stage 1	0	0	-	-	375	-	-	-	-			
Stage 2	397	384	-	-	0	-	-	-	-			
Critical Hdwy	7.12	6.52	-	-	6.52	6.22	4.12	-	-			
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-			
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-			
Follow-up Hdwy	3.518	4.018	-	-	4.018	3.318	2.218	-	-			
Pot Cap-1 Maneuver	563	550	0	0	556	703	-	-	-			
Stage 1	-	-	0	0	617	-	-	-	-			
Stage 2	629	611	0	0	-	-	-	-	-			
Platoon blocked, %								-	-			
Mov Cap-1 Maneuver	529	550	-	-	556	703	-	-	-			
Mov Cap-2 Maneuver	529	550	-	-	556	-	-	-	-			
Stage 1	-	-	-	-	617	-	-	-	-			
Stage 2	588	611	-	-	-	-	-	-	-			
Approach	EB		WB		NB							
HCM Control Delay, s	12.2		11.4									
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL		NBT		NBR		EBLn1WBLn1					
Capacity (veh/h)	-		-		-		541		610			
HCM Lane V/C Ratio	-		-		-		0.08		0.071			
HCM Control Delay (s)	-		-		-		12.2		11.4			
HCM Lane LOS	-		-		-		B		B			
HCM 95th %tile Q(veh)	-		-		-		0.3		0.2			

Lanes, Volumes, Timings
48: Humboldt Parkway NB & Woepfel St

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	7	357	13	0	0
Future Volume (vph)	0	7	357	13	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.995			
Flt Protected						
Satd. Flow (prot)	0	1611	1853	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1853	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	744		294			462
Travel Time (s)	16.9		6.7			10.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	8	388	14	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	8	402	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	29.6%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
48: Humboldt Parkway NB & Woepfel St

03/21/2022

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	7	357	13	0	0
Future Vol, veh/h	0	7	357	13	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	388	14	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	395	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	654	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	654	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	10.6		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		654			
HCM Lane V/C Ratio	-		0.012			
HCM Control Delay (s)	-		10.6			
HCM Lane LOS	-		B			
HCM 95th %tile Q(veh)	-		0			

Lanes, Volumes, Timings
49: Humboldt Parkway NB & Woodlawn Ave

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	22	353	3	0	0
Future Volume (vph)	0	22	353	3	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.999			
Flt Protected						
Satd. Flow (prot)	0	1611	1861	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1861	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	729		267			312
Travel Time (s)	16.6		6.1			7.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	24	384	3	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	24	387	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	28.8%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
49: Humboldt Parkway NB & Woodlawn Ave

03/21/2022

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	22	353	3	0	0
Future Vol, veh/h	0	22	353	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	24	384	3	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	386	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	662	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	662	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	10.6		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		-		662	
HCM Lane V/C Ratio	-		-		0.036	
HCM Control Delay (s)	-		-		10.6	
HCM Lane LOS	-		-		B	
HCM 95th %tile Q(veh)	-		-		0.1	

Lanes, Volumes, Timings
50: Humboldt Parkway SB & Florida St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	42	0	0	227	18
Future Volume (vph)	0	42	0	0	227	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.990	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1844	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1844	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	935			344	684	
Travel Time (s)	21.3			7.8	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	46	0	0	247	20
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	46	0	0	267	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 23.0% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
50: Humboldt Parkway SB & Florida St

03/21/2022

Intersection

Int Delay, s/veh 1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	42	0	0	227	18
Future Vol, veh/h	0	42	0	0	227	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	46	0	0	247	20

Major/Minor	Minor2	Major2
Conflicting Flow All	- 257	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 782	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 782	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	9.9	0
HCM LOS	A	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	782	-	-
HCM Lane V/C Ratio	0.058	-	-
HCM Control Delay (s)	9.9	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-

Lanes, Volumes, Timings
51: Humboldt Parkway SB & Northland Ave

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	70	0	0	245	34
Future Volume (vph)	0	70	0	0	245	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.984	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1833	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1833	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2743			805	344	
Travel Time (s)	62.3			18.3	7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	76	0	0	266	37
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	76	0	0	303	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 26.0% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
51: Humboldt Parkway SB & Northland Ave

03/21/2022

Intersection

Int Delay, s/veh 2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	70	0	0	245	34
Future Vol, veh/h	0	70	0	0	245	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	76	0	0	266	37

Major/Minor	Minor2	Major2
Conflicting Flow All	- 285	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 754	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 754	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	10.3	0
HCM LOS	B	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	754	-	-
HCM Lane V/C Ratio	0.101	-	-
HCM Control Delay (s)	10.3	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.3	-	-

Lanes, Volumes, Timings
52: Humboldt Parkway SB & Brunswick Blvd

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	75	0	0	289	30
Future Volume (vph)	0	75	0	0	289	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.987	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1839	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1839	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2734			252	805	
Travel Time (s)	62.1			5.7	18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	82	0	0	314	33
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	82	0	0	347	0
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 28.3% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	75	0	0	289	30
Future Vol, veh/h	0	75	0	0	289	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	82	0	0	314	33
Number of Lanes	0	1	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	1
HCM Control Delay	7.5	9.6
HCM LOS	A	A

Lane	EBLn1	SBLn1
Vol Left, %	0%	0%
Vol Thru, %	0%	91%
Vol Right, %	100%	9%
Sign Control	Stop	Stop
Traffic Vol by Lane	75	319
LT Vol	0	0
Through Vol	0	289
RT Vol	75	30
Lane Flow Rate	82	347
Geometry Grp	1	1
Degree of Util (X)	0.093	0.387
Departure Headway (Hd)	4.091	4.019
Convergence, Y/N	Yes	Yes
Cap	881	891
Service Time	2.091	2.06
HCM Lane V/C Ratio	0.093	0.389
HCM Control Delay	7.5	9.6
HCM Lane LOS	A	A
HCM 95th-tile Q	0.3	1.8

Lanes, Volumes, Timings
53: Humboldt Parkway SB & Goulding Ave

03/21/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	69	0	0	983	0
Future Volume (vph)	0	69	0	0	983	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	3539	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	3539	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1067			270	306	
Travel Time (s)	24.3			6.1	7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	75	0	0	1068	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	75	0	0	1068	0
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	30.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
53: Humboldt Parkway SB & Goulding Ave

03/21/2022

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↗↗	
Traffic Vol, veh/h	0	69	0	0	983	0
Future Vol, veh/h	0	69	0	0	983	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	75	0	0	1068	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	534	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	491	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	491	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	13.6		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	491	-				
HCM Lane V/C Ratio	0.153	-				
HCM Control Delay (s)	13.6	-				
HCM Lane LOS	B	-				
HCM 95th %tile Q(veh)	0.5	-				

Lanes, Volumes, Timings
54: Humboldt Parkway NB & Sydney St

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	50	599	0	0	0
Future Volume (vph)	0	50	599	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	913		608			1024
Travel Time (s)	20.8		13.8			23.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	54	651	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	54	651	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	41.5%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
54: Humboldt Parkway NB & Sydney St

03/21/2022

Intersection						
Int Delay, s/veh	1.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	50	599	0	0	0
Future Vol, veh/h	0	50	599	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	54	651	0	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	651	0	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	469	-	0		
Stage 1	0	-	-	0		
Stage 2	0	-	-	0		
Platoon blocked, %			-			
Mov Cap-1 Maneuver	-	469	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	13.7		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBTWBLn1					
Capacity (veh/h)	-		469			
HCM Lane V/C Ratio	-		0.116			
HCM Control Delay (s)	-		13.7			
HCM Lane LOS	-		B			
HCM 95th %tile Q(veh)	-		0.4			

Lanes, Volumes, Timings
55: Humboldt Parkway NB & Northland Ave

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	67	577	69	0	0
Future Volume (vph)	0	67	577	69	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865	0.865	0.986			
Flt Protected						
Satd. Flow (prot)	0	1611	1837	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1837	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	1020		1024			1019
Travel Time (s)	23.2		23.3			23.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	73	627	75	0	0
Shared Lane Traffic (%)		10%				
Lane Group Flow (vph)	7	66	702	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	45.4%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
55: Humboldt Parkway NB & Northland Ave

03/21/2022

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	67	577	69	0	0
Future Vol, veh/h	0	67	577	69	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	73	627	75	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	665	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	460	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	460	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	14.3		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		-			
HCM Lane V/C Ratio	-		-			
HCM Control Delay (s)	-		-			
HCM Lane LOS	-		-			
HCM 95th %tile Q(veh)	-		-			

Lanes, Volumes, Timings
56: Roehrer Ave & E Ferry St

03/21/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	450	16	30	511	18	44
Future Volume (vph)	450	16	30	511	18	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995				0.905	
Flt Protected				0.997	0.986	
Satd. Flow (prot)	1853	0	0	1857	1662	0
Flt Permitted				0.997	0.986	
Satd. Flow (perm)	1853	0	0	1857	1662	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1109			280	1331	
Travel Time (s)	25.2			6.4	30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	489	17	33	555	20	48
Shared Lane Traffic (%)						
Lane Group Flow (vph)	506	0	0	588	68	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	61.8%			ICU Level of Service B		
Analysis Period (min)	15					

Intersection

Int Delay, s/veh 1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	450	16	30	511	18	44
Future Vol, veh/h	450	16	30	511	18	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	489	17	33	555	20	48

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	506
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1059
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1059
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	16.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	390	-	-	1059	-
HCM Lane V/C Ratio	0.173	-	-	0.031	-
HCM Control Delay (s)	16.1	-	-	8.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-

Lanes, Volumes, Timings
57: Roehrer Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	170	10	7	163	17	17	28	18	11	31	9
Future Volume (vph)	12	170	10	7	163	17	17	28	18	11	31	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.993			0.988			0.960			0.976	
Flt Protected		0.997			0.998			0.987			0.989	
Satd. Flow (prot)	0	1844	0	0	1837	0	0	1765	0	0	1798	0
Flt Permitted		0.997			0.998			0.987			0.989	
Satd. Flow (perm)	0	1844	0	0	1837	0	0	1765	0	0	1798	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1295			274			1342			1331	
Travel Time (s)		29.4			6.2			30.5			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	185	11	8	177	18	18	30	20	12	34	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	209	0	0	203	0	0	68	0	0	56	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 26.2%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection												
Intersection Delay, s/veh	8.8											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	12	170	10	7	163	17	17	28	18	11	31	9
Future Vol, veh/h	12	170	10	7	163	17	17	28	18	11	31	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	185	11	8	177	18	18	30	20	12	34	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9	8.9	8.3	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	6%	4%	22%
Vol Thru, %	44%	89%	87%	61%
Vol Right, %	29%	5%	9%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	63	192	187	51
LT Vol	17	12	7	11
Through Vol	28	170	163	31
RT Vol	18	10	17	9
Lane Flow Rate	68	209	203	55
Geometry Grp	1	1	1	1
Degree of Util (X)	0.092	0.257	0.249	0.075
Departure Headway (Hd)	4.813	4.439	4.418	4.886
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	744	810	813	732
Service Time	2.847	2.465	2.444	2.921
HCM Lane V/C Ratio	0.091	0.258	0.25	0.075
HCM Control Delay	8.3	9	8.9	8.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	1	1	0.2

Lanes, Volumes, Timings
58: Wohlers Ave & Northampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	117	12	7	99	19	16	104	16	20	37	10
Future Volume (vph)	9	117	12	7	99	19	16	104	16	20	37	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988			0.979			0.984			0.980	
Flt Protected		0.997			0.997			0.994			0.985	
Satd. Flow (prot)	0	1835	0	0	1818	0	0	1822	0	0	1798	0
Flt Permitted		0.997			0.997			0.994			0.985	
Satd. Flow (perm)	0	1835	0	0	1818	0	0	1822	0	0	1798	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		276			1045			1317			1331	
Travel Time (s)		6.3			23.8			29.9			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	127	13	8	108	21	17	113	17	22	40	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	150	0	0	137	0	0	147	0	0	73	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	24.4%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	9	117	12	7	99	19	16	104	16	20	37	10
Future Vol, veh/h	9	117	12	7	99	19	16	104	16	20	37	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	127	13	8	108	21	17	113	17	22	40	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.7	8.5	8.8	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	7%	6%	30%
Vol Thru, %	76%	85%	79%	55%
Vol Right, %	12%	9%	15%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	136	138	125	67
LT Vol	16	9	7	20
Through Vol	104	117	99	37
RT Vol	16	12	19	10
Lane Flow Rate	148	150	136	73
Geometry Grp	1	1	1	1
Degree of Util (X)	0.19	0.191	0.172	0.096
Departure Headway (Hd)	4.638	4.577	4.554	4.748
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	773	783	787	753
Service Time	2.674	2.61	2.588	2.787
HCM Lane V/C Ratio	0.191	0.192	0.173	0.097
HCM Control Delay	8.8	8.7	8.5	8.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.7	0.6	0.3

Lanes, Volumes, Timings
59: Roehrer Ave & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	114	7	6	94	15	6	27	1	10	39	2
Future Volume (vph)	7	114	7	6	94	15	6	27	1	10	39	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.983			0.996			0.995	
Flt Protected		0.997			0.997			0.991			0.990	
Satd. Flow (prot)	0	1842	0	0	1826	0	0	1839	0	0	1835	0
Flt Permitted		0.997			0.997			0.991			0.990	
Satd. Flow (perm)	0	1842	0	0	1826	0	0	1839	0	0	1835	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1290			276			1313			1342	
Travel Time (s)		29.3			6.3			29.8			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	124	8	7	102	16	7	29	1	11	42	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	140	0	0	125	0	0	37	0	0	55	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	19.2%						ICU Level of Service A					
Analysis Period (min)	15											

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	7	114	7	6	94	15	6	27	1	10	39	2
Future Vol, veh/h	7	114	7	6	94	15	6	27	1	10	39	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	124	8	7	102	16	7	29	1	11	42	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.1	8	7.8	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	5%	5%	20%
Vol Thru, %	79%	89%	82%	76%
Vol Right, %	3%	5%	13%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	128	115	51
LT Vol	6	7	6	10
Through Vol	27	114	94	39
RT Vol	1	7	15	2
Lane Flow Rate	37	139	125	55
Geometry Grp	1	1	1	1
Degree of Util (X)	0.047	0.161	0.147	0.07
Departure Headway (Hd)	4.601	4.27	4.236	4.577
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	782	845	851	786
Service Time	2.609	2.27	2.236	2.584
HCM Lane V/C Ratio	0.047	0.164	0.147	0.07
HCM Control Delay	7.8	8.1	8	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.6	0.5	0.2

Lanes, Volumes, Timings
60: Best St & Wohlers Ave

03/21/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	16	685	493	41	18	12
Future Volume (vph)	16	685	493	41	18	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.990		0.947	
Flt Protected		0.999			0.971	
Satd. Flow (prot)	0	1861	1844	0	1713	0
Flt Permitted		0.999			0.971	
Satd. Flow (perm)	0	1861	1844	0	1713	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		280	473		1317	
Travel Time (s)		6.4	10.8		29.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	745	536	45	20	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	762	581	0	33	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 58.9% ICU Level of Service B

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	685	493	41	18	12
Future Vol, veh/h	16	685	493	41	18	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	745	536	45	20	13
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	581	0	-	0	1338	559
Stage 1	-	-	-	-	559	-
Stage 2	-	-	-	-	779	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	993	-	-	-	169	529
Stage 1	-	-	-	-	572	-
Stage 2	-	-	-	-	452	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	993	-	-	-	164	529
Mov Cap-2 Maneuver	-	-	-	-	164	-
Stage 1	-	-	-	-	555	-
Stage 2	-	-	-	-	452	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		23.5		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	993	-	-	-	227	
HCM Lane V/C Ratio	0.018	-	-	-	0.144	
HCM Control Delay (s)	8.7	0	-	-	23.5	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5	

Lanes, Volumes, Timings
61: Best St & Roehrer Ave

03/21/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	13	696	486	16	25	14
Future Volume (vph)	13	696	486	16	25	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.996		0.952	
Flt Protected		0.999			0.969	
Satd. Flow (prot)	0	1861	1855	0	1718	0
Flt Permitted		0.999			0.969	
Satd. Flow (perm)	0	1861	1855	0	1718	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1123	280		1313	
Travel Time (s)		25.5	6.4		29.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	757	528	17	27	15
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	771	545	0	42	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 57.0% ICU Level of Service B

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	696	486	16	25	14
Future Vol, veh/h	13	696	486	16	25	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	757	528	17	27	15
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	545	0	-	0	1322	537
Stage 1	-	-	-	-	537	-
Stage 2	-	-	-	-	785	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1024	-	-	-	173	544
Stage 1	-	-	-	-	586	-
Stage 2	-	-	-	-	449	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1024	-	-	-	169	544
Mov Cap-2 Maneuver	-	-	-	-	169	-
Stage 1	-	-	-	-	572	-
Stage 2	-	-	-	-	449	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		24.7		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1024	-	-	-	225	
HCM Lane V/C Ratio	0.014	-	-	-	0.188	
HCM Control Delay (s)	8.6	0	-	-	24.7	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.7	

Lanes, Volumes, Timings

62: Jefferson Ave & Eaton St/Kingsley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	13	19	9	12	14	6	337	2	11	344	10
Future Volume (vph)	17	13	19	9	12	14	6	337	2	11	344	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.947			0.947			0.999			0.996	
Flt Protected		0.983			0.987			0.999			0.998	
Satd. Flow (prot)	0	1734	0	0	1741	0	0	1859	0	0	1852	0
Flt Permitted		0.893			0.893			0.994			0.989	
Satd. Flow (perm)	0	1575	0	0	1575	0	0	1850	0	0	1835	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			15			1			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		911			1129			278			418	
Travel Time (s)		20.7			25.7			6.3			9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	14	21	10	13	15	7	366	2	12	374	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	53	0	0	38	0	0	375	0	0	397	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		6.4			6.3			30.0			30.0	
Actuated g/C Ratio		0.17			0.17			0.82			0.82	
v/c Ratio		0.18			0.13			0.25			0.27	
Control Delay		10.2			10.1			3.5			3.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.2			10.1			3.5			3.6	
LOS		B			B			A			A	
Approach Delay		10.2			10.1			3.5			3.6	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.7												

Lanes, Volumes, Timings

62: Jefferson Ave & Eaton St/Kingsley St

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.27

Intersection Signal Delay: 4.2

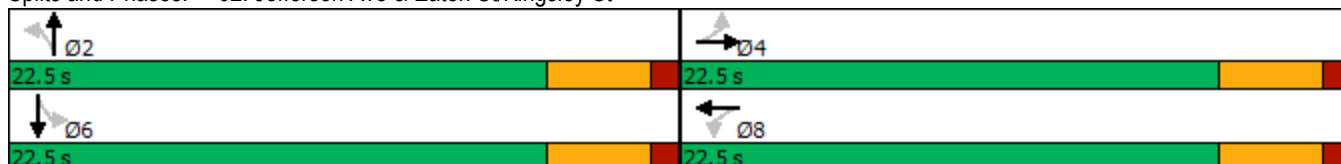
Intersection LOS: A

Intersection Capacity Utilization 36.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 62: Jefferson Ave & Eaton St/Kingsley St



Lanes, Volumes, Timings
63: Humboldt Parkway SB & Winslow Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	18	27	27	18	0	0	0	0	27	471	27
Future Volume (vph)	0	18	27	27	18	0	0	0	0	27	471	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.920										0.993	
Flt Protected					0.971						0.997	
Satd. Flow (prot)	0	1714	0	0	1809	0	0	0	0	0	1844	0
Flt Permitted					0.971						0.997	
Satd. Flow (perm)	0	1714	0	0	1809	0	0	0	0	0	1844	0
Link Speed (mph)	30				30				30			
Link Distance (ft)	304				154				296			
Travel Time (s)	6.9				3.5				6.7			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	20	29	29	20	0	0	0	0	29	512	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	0	49	0	0	0	0	0	570	0
Sign Control	Stop				Stop				Stop			
Free												
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	43.7%				ICU Level of Service A							
Analysis Period (min)	15											

HCM 6th TWSC
63: Humboldt Parkway SB & Winslow Ave

03/21/2022

Intersection													
Int Delay, s/veh	2.1												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Vol, veh/h	0	18	27	27	18	0	0	0	0	27	471	27	
Future Vol, veh/h	0	18	27	27	18	0	0	0	0	27	471	27	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None	
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	0	20	29	29	20	0	0	0	0	29	512	29	
Major/Minor	Minor2		Minor1				Major2						
Conflicting Flow All	-	585	527	609	599	-	0			0	0		
Stage 1	-	585	-	0	0	-	-			-	-		
Stage 2	-	0	-	609	599	-	-			-	-		
Critical Hdwy	-	6.52	6.22	7.12	6.52	-	4.12			-	-		
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-			-	-		
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-	-			-	-		
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-	2.218			-	-		
Pot Cap-1 Maneuver	0	423	551	407	415	0	-			-	-		
Stage 1	0	498	-	-	-	0	-			-	-		
Stage 2	0	-	-	482	490	0	-			-	-		
Platoon blocked, %											-	-	
Mov Cap-1 Maneuver	-	423	551	372	415	-	-			-	-		
Mov Cap-2 Maneuver	-	423	-	372	415	-	-			-	-		
Stage 1	-	498	-	-	-	-	-			-	-		
Stage 2	-	-	-	438	490	-	-			-	-		
Approach	EB		WB				SB						
HCM Control Delay, s	13.1		15.6										
HCM LOS	B		C										
Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR								
Capacity (veh/h)	492 388		-	-	-								
HCM Lane V/C Ratio	0.099 0.126		-	-	-								
HCM Control Delay (s)	13.1 15.6		-	-	-								
HCM Lane LOS	B C		-	-	-								
HCM 95th %tile Q(veh)	0.3 0.4		-	-	-								

Lanes, Volumes, Timings
64: Humboldt Parkway NB & Winslow Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	27	0	0	27	18	18	329	18	0	0	0
Future Volume (vph)	18	27	0	0	27	18	18	329	18	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.945			0.993				
Flt Protected		0.980						0.997				
Satd. Flow (prot)	0	1825	0	0	1760	0	0	1844	0	0	0	0
Flt Permitted		0.980						0.997				
Satd. Flow (perm)	0	1825	0	0	1760	0	0	1844	0	0	0	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		154			339			462			267	
Travel Time (s)		3.5			7.7			10.5			6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	29	0	0	29	20	20	358	20	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	0	49	0	0	398	0	0	0	0
Sign Control		Stop			Stop			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	35.2%											
Analysis Period (min)	15											
ICU Level of Service A												

HCM 6th TWSC
64: Humboldt Parkway NB & Winslow Ave

03/21/2022

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	27	0	0	27	18	18	329	18	0	0	0
Future Vol, veh/h	18	27	0	0	27	18	18	329	18	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	29	0	0	29	20	20	358	20	0	0	0
Major/Minor	Minor2		Minor1		Major1							
Conflicting Flow All	433	418	-	-	408	368	0	0	0			
Stage 1	0	0	-	-	408	-	-	-	-			
Stage 2	433	418	-	-	0	-	-	-	-			
Critical Hdwy	7.12	6.52	-	-	6.52	6.22	4.12	-	-			
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-			
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-			
Follow-up Hdwy	3.518	4.018	-	-	4.018	3.318	2.218	-	-			
Pot Cap-1 Maneuver	533	526	0	0	533	677	-	-	-			
Stage 1	-	-	0	0	597	-	-	-	-			
Stage 2	601	591	0	0	-	-	-	-	-			
Platoon blocked, %								-	-			
Mov Cap-1 Maneuver	496	526	-	-	533	677	-	-	-			
Mov Cap-2 Maneuver	496	526	-	-	533	-	-	-	-			
Stage 1	-	-	-	-	597	-	-	-	-			
Stage 2	555	591	-	-	-	-	-	-	-			
Approach	EB		WB		NB							
HCM Control Delay, s	12.7		11.7									
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1							
Capacity (veh/h)	-	-	-	514	583							
HCM Lane V/C Ratio	-	-	-	0.095	0.084							
HCM Control Delay (s)	-	-	-	12.7	11.7							
HCM Lane LOS	-	-	-	B	B							
HCM 95th %tile Q(veh)	-	-	-	0.3	0.3							

Lanes, Volumes, Timings
118: Humboldt Parkway SB

03/21/2022

						
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	306			252	236	
Travel Time (s)	7.0			5.7	5.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 18.3%				ICU Level of Service A		
Analysis Period (min) 15						

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	344	531	0	0	335	312	49	74	160	0	0	0
Future Volume (vph)	344	531	0	0	335	312	49	74	160	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		0	0		250	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.928				0.850			
Flt Protected	0.950	0.995						0.980				
Satd. Flow (prot)	1610	3373	0	0	3284	0	0	1825	1583	0	0	0
Flt Permitted	0.950	0.995						0.980				
Satd. Flow (perm)	1610	3373	0	0	3284	0	0	1825	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					190				174			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		249			205			354			335	
Travel Time (s)		5.7			4.7			8.0			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	374	577	0	0	364	339	53	80	174	0	0	0
Shared Lane Traffic (%)	18%											
Lane Group Flow (vph)	307	644	0	0	703	0	0	133	174	0	0	0
Turn Type	Split	NA			NA		Perm	NA	Perm			
Protected Phases	6	6			3			4				
Permitted Phases							4		4			
Detector Phase	6	6			3		4	4	4			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			9.5		22.5	22.5	22.5			
Total Split (s)	58.7	58.7			25.5		25.8	25.8	25.8			
Total Split (%)	53.4%	53.4%			23.2%		23.5%	23.5%	23.5%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag					Lead		Lag	Lag	Lag			
Lead-Lag Optimize?					Yes		Yes	Yes	Yes			
Recall Mode	None	None			None		C-Max	C-Max	C-Max			
Act Effct Green (s)	54.2	54.2			20.6			21.8	21.8			
Actuated g/C Ratio	0.49	0.49			0.19			0.20	0.20			
v/c Ratio	0.39	0.39			0.92			0.37	0.38			
Control Delay	4.5	3.9			49.7			41.9	8.4			
Queue Delay	1.7	0.9			48.4			0.0	0.0			
Total Delay	6.2	4.9			98.1			41.9	8.4			
LOS	A	A			F			D	A			
Approach Delay		5.3			98.1			22.9				
Approach LOS		A			F			C				
Intersection Summary												

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

03/21/2022

Lane Group	Ø1	Ø2	Ø8
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	1	2	8
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	30.5	28.2	51.3
Total Split (%)	28%	26%	47%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	Max	None	C-Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Intersection Summary			

Lanes, Volumes, Timings

1: EB Off Ramp/EB On Ramp & Best St

03/21/2022

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 41.3

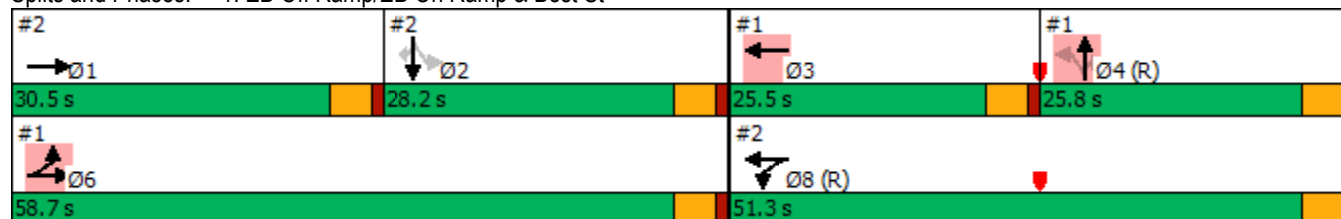
Intersection LOS: D

Intersection Capacity Utilization 77.3%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: EB Off Ramp/EB On Ramp & Best St



Lanes, Volumes, Timings
2: WB On Ramp/WB Off Ramp & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	544	47	119	265	0	0	0	0	329	0	421
Future Volume (vph)	0	544	47	119	265	0	0	0	0	329	0	421
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	75		0	0		0	0		75
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988										0.850
Flt Protected				0.950							0.950	
Satd. Flow (prot)	0	3497	0	1770	3539	0	0	0	0	0	1770	1583
Flt Permitted				0.950							0.950	
Satd. Flow (perm)	0	3497	0	1770	3539	0	0	0	0	0	1770	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8										213
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		473			249			324			375	
Travel Time (s)		10.8			5.7			7.4			8.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	591	51	129	288	0	0	0	0	358	0	458
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	642	0	129	288	0	0	0	0	0	358	458
Turn Type		NA		Split	NA					Perm	NA	Perm
Protected Phases		1		8	8						2	
Permitted Phases										2		2
Detector Phase		1		8	8					2	2	2
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		30.5		51.3	51.3					28.2	28.2	28.2
Total Split (%)		27.7%		46.6%	46.6%					25.6%	25.6%	25.6%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5						4.5	4.5
Lead/Lag		Lead								Lag	Lag	Lag
Lead-Lag Optimize?		Yes								Yes	Yes	Yes
Recall Mode		Max		C-Max	C-Max					None	None	None
Act Effct Green (s)		26.0		46.8	46.8						23.7	23.7
Actuated g/C Ratio		0.24		0.43	0.43						0.22	0.22
v/c Ratio		0.77		0.17	0.19						0.94	0.90
Control Delay		46.0		5.0	5.0						76.9	45.1
Queue Delay		0.0		1.2	0.7						0.0	0.0
Total Delay		46.0		6.2	5.7						76.9	45.1
LOS		D		A	A						E	D
Approach Delay		46.0			5.8						59.0	
Approach LOS		D			A						E	
Intersection Summary												

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

03/21/2022

Lane Group	Ø3	Ø4	Ø6
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	3	4	6
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5
Total Split (s)	25.5	25.8	58.7
Total Split (%)	23%	23%	53%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	
Recall Mode	None	C-Max	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Intersection Summary			

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

03/21/2022

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 4:NBTL and 8:, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 42.7

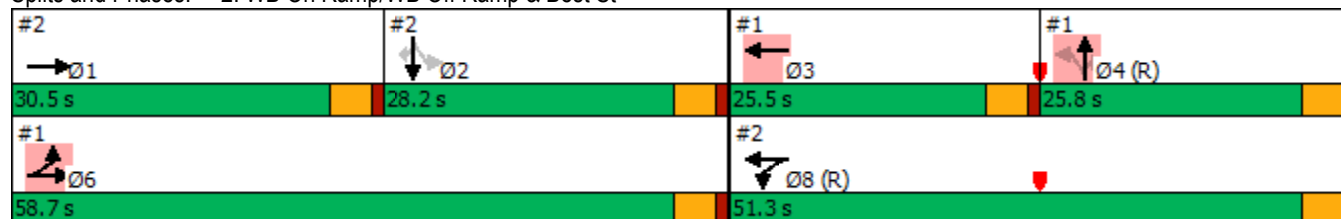
Intersection LOS: D

Intersection Capacity Utilization 77.3%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 2: WB On Ramp/WB Off Ramp & Best St



Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/21/2022

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	50	5	589	104	43	532	2	25	63	23	7	1
Future Volume (vph)	50	5	589	104	43	532	2	25	63	23	7	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		75		0	0		0		0		0	
Storage Lanes		1		1	0		0		0		0	
Taper Length (ft)		25			25				25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.994				0.988		
Flt Protected		0.950				0.996				0.968		
Satd. Flow (prot)	0	1770	1863	1583	0	1844	0	0	0	1781	0	0
Flt Permitted		0.271				0.926				0.777		
Satd. Flow (perm)	0	505	1863	1583	0	1715	0	0	0	1430	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)				113		4				1		
Link Speed (mph)			30			30				30		
Link Distance (ft)			205			1418				1329		
Travel Time (s)			4.7			32.2				30.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	5	640	113	47	578	2	27	68	25	8	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	59	640	113	0	654	0	0	0	102	0	0
Turn Type	pm+pt	pm+pt	NA	Perm	Perm	NA			Perm	NA		
Protected Phases	7	7	4			8				2		
Permitted Phases	4	4		4	8				2			
Detector Phase	7	7	4	4	8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0			5.0	5.0		
Minimum Split (s)	9.5	9.5	22.5	22.5	22.5	22.5			22.5	22.5		
Total Split (s)	9.5	9.5	47.5	47.5	38.0	38.0			22.5	22.5		
Total Split (%)	13.6%	13.6%	67.9%	67.9%	54.3%	54.3%			32.1%	32.1%		
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5			3.5	3.5		
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0		
Lost Time Adjust (s)		0.0	0.0	0.0		0.0				0.0		
Total Lost Time (s)		4.5	4.5	4.5		4.5				4.5		
Lead/Lag	Lead	Lead			Lag	Lag						
Lead-Lag Optimize?	Yes	Yes			Yes	Yes						
Recall Mode	None	None	None	None	None	None			C-Max	C-Max		
Act Effect Green (s)		36.3	36.3	36.3		30.6				24.7		
Actuated g/C Ratio		0.52	0.52	0.52		0.44				0.35		
v/c Ratio		0.17	0.66	0.13		0.87				0.20		
Control Delay		7.2	15.2	1.7		31.3				20.8		
Queue Delay		0.0	37.4	0.6		0.0				0.0		
Total Delay		7.2	52.6	2.2		31.3				20.8		
LOS		A	D	A		C				C		
Approach Delay			42.3			31.3				20.8		
Approach LOS			D			C				C		

Intersection Summary

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/21/2022



Lane Group	SBL	SBT	SBR
Lane Configurations		↰	↱
Traffic Volume (vph)	62	38	78
Future Volume (vph)	62	38	78
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	0		75
Storage Lanes	0		1
Taper Length (ft)	25		
Lane Util. Factor	1.00	1.00	1.00
Frt			0.850
Flt Protected		0.970	
Satd. Flow (prot)	0	1807	1583
Flt Permitted		0.793	
Satd. Flow (perm)	0	1477	1583
Right Turn on Red			Yes
Satd. Flow (RTOR)			94
Link Speed (mph)		30	
Link Distance (ft)		738	
Travel Time (s)		16.8	
Peak Hour Factor	0.92	0.92	0.92
Adj. Flow (vph)	67	41	85
Shared Lane Traffic (%)			
Lane Group Flow (vph)	0	108	85
Turn Type	Perm	NA	Perm
Protected Phases		6	
Permitted Phases	6		6
Detector Phase	6	6	6
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5
Total Split (%)	32.1%	32.1%	32.1%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0
Total Lost Time (s)		4.5	4.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	C-Max
Act Effct Green (s)		24.7	24.7
Actuated g/C Ratio		0.35	0.35
v/c Ratio		0.21	0.14
Control Delay		20.9	5.3
Queue Delay		0.0	0.0
Total Delay		20.9	5.3
LOS		C	A
Approach Delay		14.0	
Approach LOS		B	
Intersection Summary			

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/21/2022

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 33.9

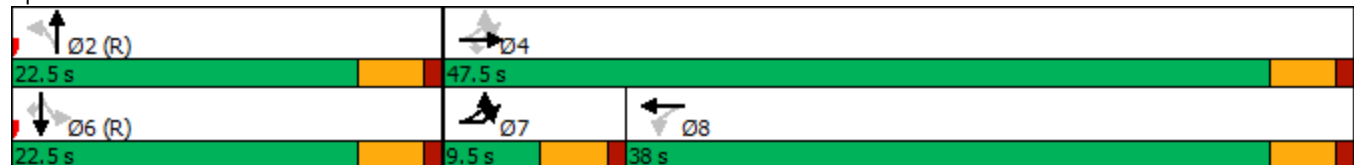
Intersection LOS: C

Intersection Capacity Utilization 84.7%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 3: Herman St/W Parade Ave & Best St



Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/21/2022

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	77	1	4	47	0	0	0	0	210	185	71	
Future Volume (vph)	0	77	1	4	47	0	0	0	0	210	185	71	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Fr't	0.998										0.979		
Flt Protected	0.996										0.978		
Satd. Flow (prot)	0	1859	0	0	1855	0	0	0	0	0	1784	0	
Flt Permitted	0.971										0.978		
Satd. Flow (perm)	0	1859	0	0	1809	0	0	0	0	0	1784	0	
Right Turn on Red	Yes					Yes				Yes			Yes
Satd. Flow (RTOR)	1										23		
Link Speed (mph)	30				30				30				30
Link Distance (ft)	1045				283				370				293
Travel Time (s)	23.8				6.4				8.4				6.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	84	1	4	51	0	0	0	0	228	201	77	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	85	0	0	55	0	0	0	0	0	506	0	
Turn Type	NA		Perm		NA				Perm		NA		
Protected Phases	4				8				6				
Permitted Phases					8				6				
Detector Phase	4		8		8				6		6		
Switch Phase													
Minimum Initial (s)	5.0		5.0		5.0				5.0		5.0		
Minimum Split (s)	22.5		22.5		22.5				22.5		22.5		
Total Split (s)	24.0		24.0		24.0				26.0		26.0		
Total Split (%)	48.0%		48.0%		48.0%				52.0%		52.0%		
Yellow Time (s)	3.5		3.5		3.5				3.5		3.5		
All-Red Time (s)	1.0		1.0		1.0				1.0		1.0		
Lost Time Adjust (s)	0.0				0.0				0.0				
Total Lost Time (s)	4.5				4.5				4.5				
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode	None		None		None				Max		Max		
Act Effct Green (s)	7.4				7.4						25.4		
Actuated g/C Ratio	0.19				0.19				0.65				
v/c Ratio	0.24				0.16				0.43				
Control Delay	14.4				13.1				6.3				
Queue Delay	0.0				0.0				0.0				
Total Delay	14.4				13.1				6.3				
LOS	B				B				A				
Approach Delay	14.4				13.1				6.3				
Approach LOS	B				B				A				
Intersection Summary													
Area Type:	Other												
Cycle Length: 50													
Actuated Cycle Length: 39.1													

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/21/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	26.0
Total Split (%)	52%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/21/2022

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.43

Intersection Signal Delay: 8.0

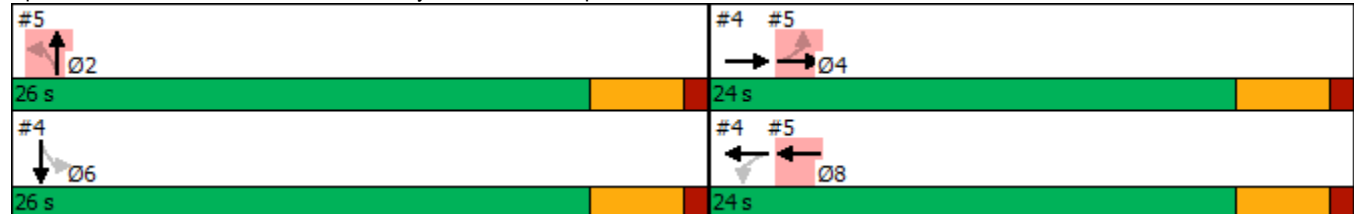
Intersection LOS: A

Intersection Capacity Utilization 39.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: Humboldt Parkway SB & Northhampton St



Lanes, Volumes, Timings
5: Humboldt Parkway NB & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	51	0	0	85	24	5	22	9	0	0	0
Future Volume (vph)	16	51	0	0	85	24	5	22	9	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.970			0.965				
Fl _t Protected		0.988						0.994				
Satd. Flow (prot)	0	1840	0	0	1807	0	0	1787	0	0	0	0
Fl _t Permitted		0.888						0.994				
Satd. Flow (perm)	0	1654	0	0	1807	0	0	1787	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					26			10				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		283			1089			152				722
Travel Time (s)		6.4			24.8			3.5				16.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	55	0	0	92	26	5	24	10	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	72	0	0	118	0	0	39	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (s)	24.0	24.0			24.0		26.0	26.0				
Total Split (%)	48.0%	48.0%			48.0%		52.0%	52.0%				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max				
Act Effct Green (s)		7.4			7.4			25.4				
Actuated g/C Ratio		0.19			0.19			0.65				
v/c Ratio		0.23			0.32			0.03				
Control Delay		13.5			13.2			3.6				
Queue Delay		0.0			0.0			0.0				
Total Delay		13.5			13.2			3.6				
LOS		B			B			A				
Approach Delay		13.5			13.2			3.6				
Approach LOS		B			B			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 39.1												

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

03/21/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	26.0
Total Split (%)	52%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

03/21/2022

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.43

Intersection Signal Delay: 11.7

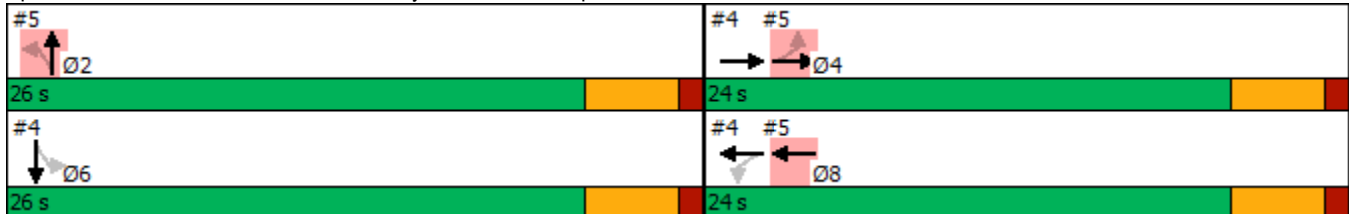
Intersection LOS: B

Intersection Capacity Utilization 21.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Humboldt Parkway NB & Northhampton St



Lanes, Volumes, Timings
6: Humboldt Parkway SB & E Utica St

03/21/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩		↩	↩						↩↩	
Traffic Volume (vph)	0	91	36	57	83	0	0	0	0	55	381	66
Future Volume (vph)	0	91	36	57	83	0	0	0	0	55	381	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.962									0.980	
Flt Protected				0.950							0.995	
Satd. Flow (prot)	0	1792	0	1770	1863	0	0	0	0	0	3451	0
Flt Permitted				0.669							0.995	
Satd. Flow (perm)	0	1792	0	1246	1863	0	0	0	0	0	3451	0
Right Turn on Red			Yes			Yes				Yes		Yes
Satd. Flow (RTOR)		39									45	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1173			153			636			456	
Travel Time (s)		26.7			3.5			14.5			10.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	99	39	62	90	0	0	0	0	60	414	72
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	138	0	62	90	0	0	0	0	0	546	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		4.5		4.5	4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					Max	Max	
Act Effct Green (s)		8.0		8.0	8.0						21.8	
Actuated g/C Ratio		0.22		0.22	0.22						0.60	
v/c Ratio		0.32		0.22	0.22						0.26	
Control Delay		10.5		9.2	8.5						5.0	
Queue Delay		0.0		0.0	0.0						0.0	
Total Delay		10.5		9.3	8.6						5.0	
LOS		B		A	A						A	
Approach Delay		10.5			8.9						5.0	
Approach LOS		B			A						A	
Intersection Summary												

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

03/21/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

03/21/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36.1

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.34

Intersection Signal Delay: 6.6

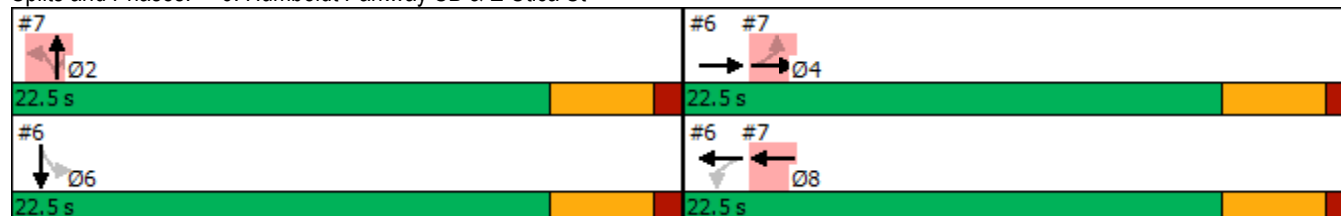
Intersection LOS: A

Intersection Capacity Utilization 51.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: Humboldt Parkway SB & E Utica St



Lanes, Volumes, Timings
7: Humboldt Parkway NB & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	102	0	0	113	18	68	195	47	0	0	0
Future Volume (vph)	59	102	0	0	113	18	68	195	47	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.981				0.850			
Fl _t Protected	0.950							0.987				
Satd. Flow (prot)	1770	1863	0	0	1827	0	0	1839	1583	0	0	0
Fl _t Permitted	0.666							0.987				
Satd. Flow (perm)	1241	1863	0	0	1827	0	0	1839	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					20				51			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		153			1083			610			294	
Travel Time (s)		3.5			24.6			13.9			6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	64	111	0	0	123	20	74	212	51	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	64	111	0	0	143	0	0	286	51	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max	Max			
Act Effct Green (s)	8.0	8.0			8.0			21.8	21.8			
Actuated g/C Ratio	0.22	0.22			0.22			0.60	0.60			
v/c Ratio	0.23	0.27			0.34			0.26	0.05			
Control Delay	10.2	9.9			12.1			6.1	2.4			
Queue Delay	0.0	0.0			0.0			0.0	0.0			
Total Delay	10.2	9.9			12.1			6.1	2.4			
LOS	B	A			B			A	A			
Approach Delay		10.0			12.1			5.6				
Approach LOS		B			B			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.1												

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

03/21/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	50%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.34

Intersection Signal Delay: 8.2

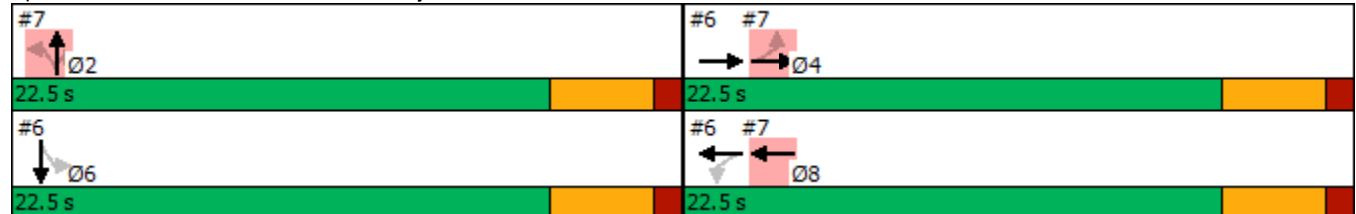
Intersection LOS: A

Intersection Capacity Utilization 51.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 7: Humboldt Parkway NB & E Utica St



Lanes, Volumes, Timings
8: Humboldt Parkway SB & E Ferry St

03/21/2022

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	290	55	92	166	0	0	0	0	255	376	455	
Future Volume (vph)	0	290	55	92	166	0	0	0	0	255	376	455	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Fr't	0.978											0.850	
Flt Protected				0.950							0.980		
Satd. Flow (prot)	0	1822	0	1770	1863	0	0	0	0	0	1825	1583	
Flt Permitted				0.394							0.980		
Satd. Flow (perm)	0	1822	0	734	1863	0	0	0	0	0	1825	1583	
Right Turn on Red				Yes		Yes			Yes			Yes	
Satd. Flow (RTOR)	16												495
Link Speed (mph)	30					30		30			30		
Link Distance (ft)	1179					147		319			270		
Travel Time (s)	26.8					3.3		7.3			6.1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	315	60	100	180	0	0	0	0	277	409	495	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	375	0	100	180	0	0	0	0	0	686	495	
Turn Type	NA		Perm		NA					Perm		NA	Perm
Protected Phases	4				8							6	
Permitted Phases			8							6		6	
Detector Phase	4		8		8					6		6	6
Switch Phase													
Minimum Initial (s)	5.0		5.0		5.0					5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5					22.5		22.5	22.5
Total Split (s)	41.6		41.6		41.6					38.4		38.4	38.4
Total Split (%)	52.0%		52.0%		52.0%					48.0%		48.0%	48.0%
Yellow Time (s)	3.5		3.5		3.5					3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0					1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0							0.0	0.0
Total Lost Time (s)	4.5		4.5		4.5							4.5	4.5
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode	None		None		None					Max		Max	Max
Act Effct Green (s)	25.8		25.8		25.8							34.5	34.5
Actuated g/C Ratio	0.37		0.37		0.37							0.50	0.50
v/c Ratio	0.55		0.37		0.26							0.76	0.48
Control Delay	18.8		10.6		7.7							24.1	3.3
Queue Delay	0.1		0.4		0.3							22.6	0.0
Total Delay	18.8		10.9		8.0							46.7	3.3
LOS	B		B		A							D	A
Approach Delay	18.8				9.0							28.5	
Approach LOS	B				A							C	
Intersection Summary													
Area Type:	Other												
Cycle Length: 80													
Actuated Cycle Length: 69.5													

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/21/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	38.4
Total Split (%)	48%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings 8: Humboldt Parkway SB & E Ferry St

03/21/2022

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 23.6

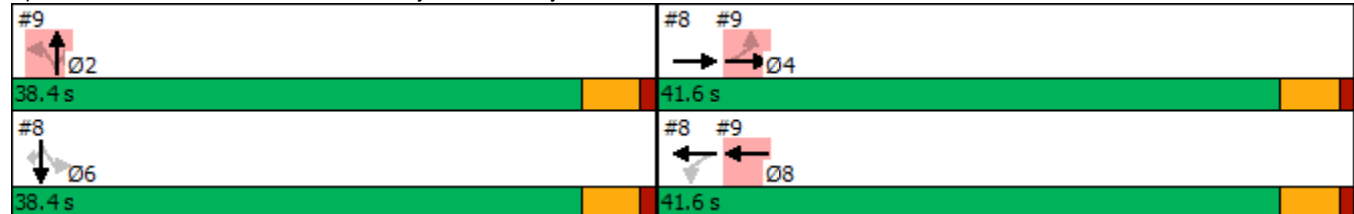
Intersection LOS: C

Intersection Capacity Utilization 92.5%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 8: Humboldt Parkway SB & E Ferry St



Lanes, Volumes, Timings
9: Humboldt Parkway NB & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	236	291	0	0	230	68	50	218	44	0	0	0
Future Volume (vph)	236	291	0	0	230	68	50	218	44	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	75		0	0		0
Storage Lanes	1		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.969				0.850			
Flt Protected	0.950							0.991				
Satd. Flow (prot)	1770	1863	0	0	1805	0	0	1846	1583	0	0	0
Flt Permitted	0.454							0.991				
Satd. Flow (perm)	846	1863	0	0	1805	0	0	1846	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					25				48			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		147			1082			312			608	
Travel Time (s)		3.3			24.6			7.1			13.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	257	316	0	0	250	74	54	237	48	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	257	316	0	0	324	0	0	291	48	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	41.6	41.6			41.6		38.4	38.4	38.4			
Total Split (%)	52.0%	52.0%			52.0%		48.0%	48.0%	48.0%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None		Max	Max	Max			
Act Effct Green (s)	25.8	25.8			25.8			34.5	34.5			
Actuated g/C Ratio	0.37	0.37			0.37			0.50	0.50			
v/c Ratio	0.82	0.46			0.47			0.32	0.06			
Control Delay	35.3	14.7			16.8			14.0	4.7			
Queue Delay	0.9	0.6			0.0			0.0	0.0			
Total Delay	36.2	15.4			16.8			14.0	4.7			
LOS	D	B			B			B	A			
Approach Delay		24.7			16.8			12.7				
Approach LOS		C			B			B				
Intersection Summary												

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

03/21/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	38.4
Total Split (%)	48%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

03/21/2022

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 69.5

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 19.3

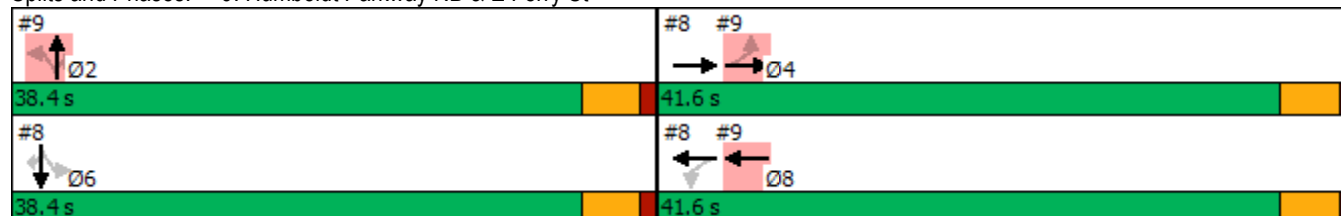
Intersection LOS: B

Intersection Capacity Utilization 92.5%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 9: Humboldt Parkway NB & E Ferry St



Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	Ø8
Lane Configurations											
Traffic Volume (vph)	12	0	0	368	224	135	513	0	0	0	
Future Volume (vph)	12	0	0	368	224	135	513	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	
Frts				0.943							
Flt Protected	0.950						0.990				
Satd. Flow (prot)	1770	0	0	3337	0	0	3504	0	0	0	
Flt Permitted	0.950						0.710				
Satd. Flow (perm)	1770	0	0	3337	0	0	2513	0	0	0	
Right Turn on Red		Yes			Yes			Yes			
Satd. Flow (RTOR)				243							
Link Speed (mph)	30			30			30		30		
Link Distance (ft)	537			328			271		387		
Travel Time (s)	12.2			7.5			6.2		8.8		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	13	0	0	400	243	147	558	0	0	0	
Shared Lane Traffic (%)											
Lane Group Flow (vph)	13	0	0	643	0	0	705	0	0	0	
Turn Type	Prot			NA		Perm	NA				
Protected Phases	4			2			6				8
Permitted Phases						6					
Detector Phase	4			2		6	6				
Switch Phase											
Minimum Initial (s)	5.0			5.0		5.0	5.0				5.0
Minimum Split (s)	22.5			22.5		22.5	22.5				22.5
Total Split (s)	22.5			42.5		42.5	42.5				22.5
Total Split (%)	34.6%			65.4%		65.4%	65.4%				35%
Yellow Time (s)	3.5			3.5		3.5	3.5				3.5
All-Red Time (s)	1.0			1.0		1.0	1.0				1.0
Lost Time Adjust (s)	0.0			0.0			0.0				
Total Lost Time (s)	4.5			4.5			4.5				
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None			Max		Max	Max				None
Act Effect Green (s)	18.0			38.0			38.0				
Actuated g/C Ratio	0.28			0.58			0.58				
v/c Ratio	0.03			0.31			0.48				
Control Delay	17.4			4.5			7.1				
Queue Delay	0.0			0.0			0.3				
Total Delay	17.4			4.5			7.4				
LOS	B			A			A				
Approach Delay	17.4			4.5			7.4				
Approach LOS	B			A			A				

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 1.21

Intersection Signal Delay: 6.1

Intersection LOS: A

Intersection Capacity Utilization 50.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 10: Jefferson Ave & Cherry St & EB On Ramp

#10 #11 42.5 s	#10 #11 22.5 s
#10 #11 42.5 s	#10 #11 22.5 s

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Traffic Volume (vph)	0	0	0	229	21	356	45	340	0	0	437	23
Future Volume (vph)	0	0	0	229	21	356	45	340	0	0	437	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt					0.921						0.992	
Flt Protected					0.981			0.994				
Satd. Flow (prot)	0	0	0	0	1683	0	0	3518	0	0	3511	0
Flt Permitted					0.981			0.863				
Satd. Flow (perm)	0	0	0	0	1683	0	0	3054	0	0	3511	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					109						14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			384			271			880	
Travel Time (s)		12.9			8.7			6.2			20.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	249	23	387	49	370	0	0	475	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	659	0	0	419	0	0	500	0
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8			2					
Detector Phase				8	8		2	2			6	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				22.5	22.5		42.5	42.5			42.5	
Total Split (%)				34.6%	34.6%		65.4%	65.4%			65.4%	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				None	None		Max	Max			Max	
Act Effect Green (s)					18.0			38.0			38.0	
Actuated g/C Ratio					0.28			0.58			0.58	
v/c Ratio					1.21			0.23			0.24	
Control Delay					133.8			4.2			6.7	
Queue Delay					0.0			0.0			0.0	
Total Delay					133.8			4.2			6.7	
LOS					F			A			A	
Approach Delay					133.8			4.2			6.7	
Approach LOS					F			A			A	
Intersection Summary												

Lanes, Volumes, Timings
11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/21/2022

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	35%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/21/2022

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 1.21

Intersection Signal Delay: 59.1

Intersection LOS: E

Intersection Capacity Utilization 70.4%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 11: Jefferson Ave & BFNC Dr/WB Off Ramp



Lanes, Volumes, Timings
12: Jefferson Ave & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	110	14	89	202	45	9	464	27	28	427	68
Future Volume (vph)	47	110	14	89	202	45	9	464	27	28	427	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.988			0.980			0.992			0.980	
Flt Protected		0.986			0.987			0.999			0.997	
Satd. Flow (prot)	0	3448	0	0	3423	0	0	3507	0	0	3458	0
Flt Permitted		0.790			0.823			0.944			0.915	
Satd. Flow (perm)	0	2762	0	0	2855	0	0	3314	0	0	3174	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			45			15			44	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		737			2886			735			328	
Travel Time (s)		16.8			65.6			16.7			7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	51	120	15	97	220	49	10	504	29	30	464	74
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	186	0	0	366	0	0	543	0	0	568	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		9.5			9.5			18.1			18.1	
Actuated g/C Ratio		0.26			0.26			0.49			0.49	
v/c Ratio		0.26			0.47			0.33			0.36	
Control Delay		10.5			12.0			6.6			6.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.5			12.0			6.6			6.5	
LOS		B			B			A			A	
Approach Delay		10.5			12.0			6.6			6.5	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.6												

Lanes, Volumes, Timings

12: Jefferson Ave & Genesee St

03/21/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 8.2

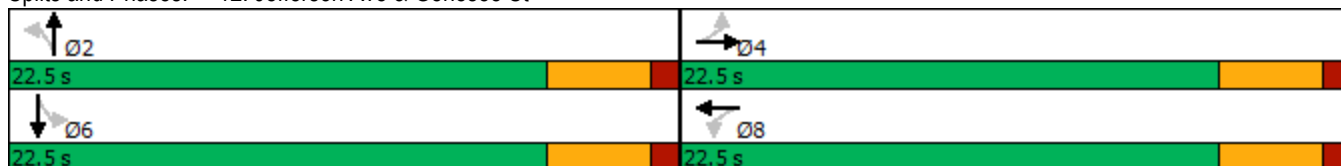
Intersection LOS: A

Intersection Capacity Utilization 58.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 12: Jefferson Ave & Genesee St



Lanes, Volumes, Timings
13: Herman St & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	218	3	16	438	11	20	62	5	46	132	18
Future Volume (vph)	14	218	3	16	438	11	20	62	5	46	132	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.996			0.993			0.987	
Flt Protected		0.997			0.998			0.988			0.988	
Satd. Flow (prot)	0	3522	0	0	3518	0	0	1828	0	0	1816	0
Flt Permitted		0.925			0.943			0.914			0.893	
Satd. Flow (perm)	0	3267	0	0	3324	0	0	1691	0	0	1642	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			6			5			14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2886			671			575			1329	
Travel Time (s)		65.6			15.3			13.1			30.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	237	3	17	476	12	22	67	5	50	143	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	255	0	0	505	0	0	94	0	0	213	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effct Green (s)		21.9			21.9			9.4			9.6	
Actuated g/C Ratio		0.58			0.58			0.25			0.26	
v/c Ratio		0.13			0.26			0.22			0.50	
Control Delay		5.8			6.2			11.1			14.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		5.8			6.2			11.1			14.8	
LOS		A			A			B			B	
Approach Delay		5.8			6.2			11.1			14.8	
Approach LOS		A			A			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.5												

Lanes, Volumes, Timings

13: Herman St & Genesee St

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.50

Intersection Signal Delay: 8.3

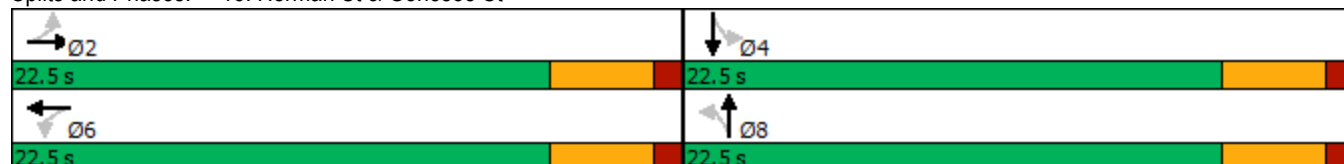
Intersection LOS: A

Intersection Capacity Utilization 45.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 13: Herman St & Genesee St



Lanes, Volumes, Timings
14: Reed St/Rich St & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	260	0	0	470	13	11	3	10	4	0	4
Future Volume (vph)	2	260	0	0	470	13	11	3	10	4	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.996			0.943			0.932	
Fl _t Protected								0.977			0.976	
Satd. Flow (prot)	0	3539	0	0	3525	0	0	1716	0	0	1694	0
Fl _t Permitted		0.953										
Satd. Flow (perm)	0	3373	0	0	3525	0	0	1757	0	0	1736	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7			11			36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		671			961			780			839	
Travel Time (s)		15.3			21.8			17.7			19.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	283	0	0	511	14	12	3	11	4	0	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	285	0	0	525	0	0	26	0	0	8	0
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2						8			4		
Detector Phase	2	2			6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		None	None		None	None	
Act Effct Green (s)		35.1			35.1			6.0			5.8	
Actuated g/C Ratio		0.92			0.92			0.16			0.15	
v/c Ratio		0.09			0.16			0.09			0.03	
Control Delay		1.4			1.4			11.7			1.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		1.4			1.4			11.7			1.3	
LOS		A			A			B			A	
Approach Delay		1.4			1.4			11.7			1.3	
Approach LOS		A			A			B			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 38.1												

Lanes, Volumes, Timings

14: Reed St/Rich St & Genesee St

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.16

Intersection Signal Delay: 1.7

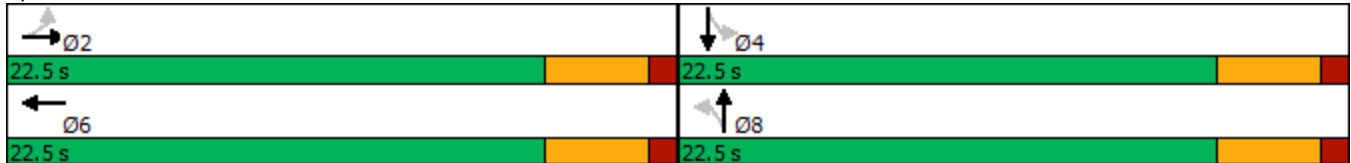
Intersection LOS: A

Intersection Capacity Utilization 25.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Reed St/Rich St & Genesee St



Lanes, Volumes, Timings
15: Fillmore Ave & Genesee St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	207	37	94	346	4	34	259	53	10	340	43
Future Volume (vph)	36	207	37	94	346	4	34	259	53	10	340	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.999			0.979			0.985	
Flt Protected		0.994			0.990			0.995			0.999	
Satd. Flow (prot)	0	3448	0	0	3500	0	0	1815	0	0	1833	0
Flt Permitted		0.855			0.807			0.939			0.989	
Satd. Flow (perm)	0	2966	0	0	2853	0	0	1712	0	0	1815	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38			2			24			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		961			671			704			490	
Travel Time (s)		21.8			15.3			16.0			11.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	39	225	40	102	376	4	37	282	58	11	370	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	304	0	0	482	0	0	377	0	0	428	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		27.5	27.5		27.5	27.5	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		55.0%	55.0%		55.0%	55.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		13.0			13.0			23.1			23.1	
Actuated g/C Ratio		0.29			0.29			0.51			0.51	
v/c Ratio		0.35			0.59			0.42			0.46	
Control Delay		11.8			16.6			9.1			9.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.8			16.6			9.1			9.6	
LOS		B			B			A			A	
Approach Delay		11.8			16.6			9.1			9.6	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 45.2												

Lanes, Volumes, Timings

15: Fillmore Ave & Genesee St

03/21/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.59

Intersection Signal Delay: 12.1

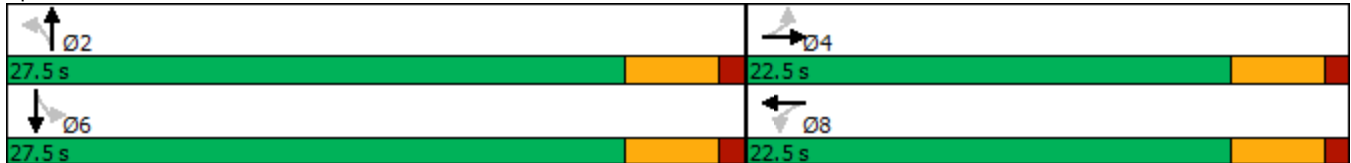
Intersection LOS: B

Intersection Capacity Utilization 65.6%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 15: Fillmore Ave & Genesee St



Lanes, Volumes, Timings
16: Fillmore Ave & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	353	165	2	395	15	130	230	9	19	242	44
Future Volume (vph)	42	353	165	2	395	15	130	230	9	19	242	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.995			0.997				0.850
Flt Protected		0.996						0.983			0.996	
Satd. Flow (prot)	0	1781	0	0	1853	0	0	1826	0	0	1855	1583
Flt Permitted		0.945			0.998			0.764			0.961	
Satd. Flow (perm)	0	1690	0	0	1850	0	0	1419	0	0	1790	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		34			3			2				48
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1418			567			490				61
Travel Time (s)		32.2			12.9			11.1				1.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	384	179	2	429	16	141	250	10	21	263	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	609	0	0	447	0	0	401	0	0	284	48
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (s)	40.0	40.0		40.0	40.0		40.0	40.0		40.0	40.0	40.0
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)		4.5			4.5			4.5			4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	C-Max
Act Effct Green (s)		31.9			31.9			39.1			39.1	39.1
Actuated g/C Ratio		0.40			0.40			0.49			0.49	0.49
v/c Ratio		0.88			0.60			0.58			0.33	0.06
Control Delay		35.8			22.1			19.9			3.0	0.2
Queue Delay		55.2			56.6			0.0			0.0	0.0
Total Delay		91.0			78.7			20.0			3.0	0.2
LOS		F			E			B			A	A
Approach Delay		91.0			78.7			20.0			2.6	
Approach LOS		F			E			B			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 80												
Actuated Cycle Length: 80												

Lanes, Volumes, Timings

16: Fillmore Ave & Best St

03/21/2022

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 55.6

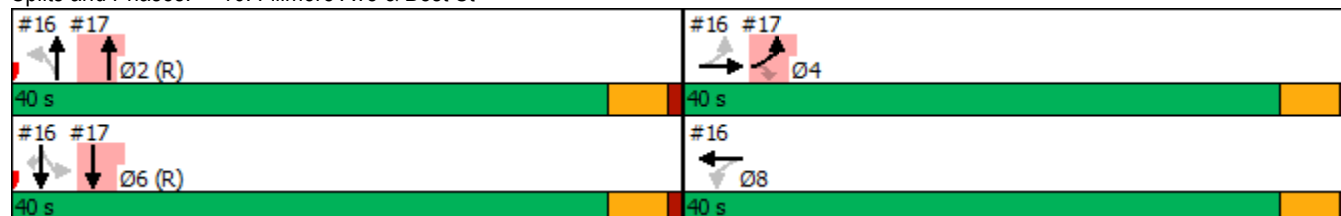
Intersection LOS: E

Intersection Capacity Utilization 101.4%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 16: Fillmore Ave & Best St



Lanes, Volumes, Timings
17: Fillmore Ave & East Park

03/21/2022

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	5	3	0	286	309	0	
Future Volume (vph)	5	3	0	286	309	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	0			100	
Storage Lanes	1	1	0			1	
Taper Length (ft)	25		25				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	
Frt		0.850					
Flt Protected	0.950						
Satd. Flow (prot)	1770	1583	0	1863	3539	0	
Flt Permitted	0.950						
Satd. Flow (perm)	1770	1583	0	1863	3539	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		3					
Link Speed (mph)	30			30	30		
Link Distance (ft)	468			61	755		
Travel Time (s)	10.6			1.4	17.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	5	3	0	311	336	0	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	5	3	0	311	336	0	
Turn Type	Prot	Perm		NA	NA		
Protected Phases	4			2	6		8
Permitted Phases		4					
Detector Phase	4	4		2	6		
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5
Total Split (s)	40.0	40.0		40.0	40.0		40.0
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		
Total Lost Time (s)	4.5	4.5		4.5	4.5		
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None		C-Max	C-Max		None
Act Effct Green (s)	31.9	31.9		39.1	39.1		
Actuated g/C Ratio	0.40	0.40		0.49	0.49		
v/c Ratio	0.01	0.00		0.34	0.19		
Control Delay	12.6	8.7		6.2	12.8		
Queue Delay	0.0	0.0		0.0	0.0		
Total Delay	12.6	8.7		6.2	12.8		
LOS	B	A		A	B		
Approach Delay	11.1			6.2	12.8		
Approach LOS	B			A	B		
Intersection Summary							

Lanes, Volumes, Timings

17: Fillmore Ave & East Park

03/21/2022

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 9.7

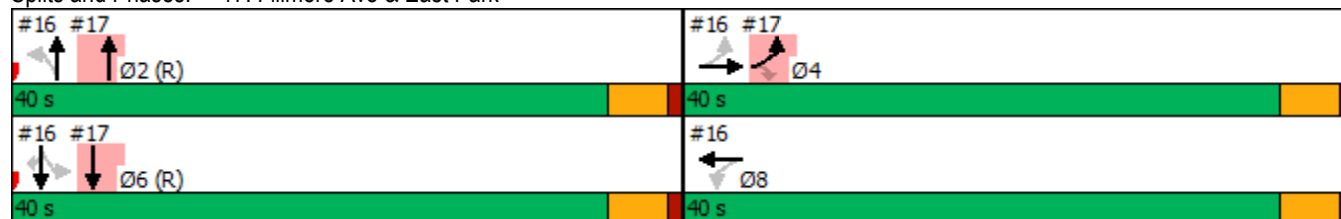
Intersection LOS: A

Intersection Capacity Utilization 26.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Fillmore Ave & East Park



Lanes, Volumes, Timings
18: Fillmore Ave & MLK Park

03/21/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	12	23	0	228	282	0
Future Volume (vph)	12	23	0	228	282	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr't	0.850					
Flt Protected	0.950					
Satd. Flow (prot)	1770	1583	0	1863	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1583	0	1863	1863	0
Right Turn on Red	Yes					
Satd. Flow (RTOR)	25					
Link Speed (mph)	30			30	30	
Link Distance (ft)	526			755	579	
Travel Time (s)	12.0			17.2	13.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	25	0	248	307	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	13	25	0	248	307	0
Turn Type	Prot	Perm		NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4				
Detector Phase	4	4		2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None		Max	Max	
Act Effect Green (s)	5.9	5.9		34.4	34.4	
Actuated g/C Ratio	0.15	0.15		0.86	0.86	
v/c Ratio	0.05	0.10		0.16	0.19	
Control Delay	15.8	9.0		2.4	2.5	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	15.8	9.0		2.4	2.5	
LOS	B	A		A	A	
Approach Delay	11.3			2.4	2.5	
Approach LOS	B			A	A	
Intersection Summary						
Area Type:	Other					
Cycle Length: 45						
Actuated Cycle Length: 40.1						

Lanes, Volumes, Timings

18: Fillmore Ave & MLK Park

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.19

Intersection Signal Delay: 3.0

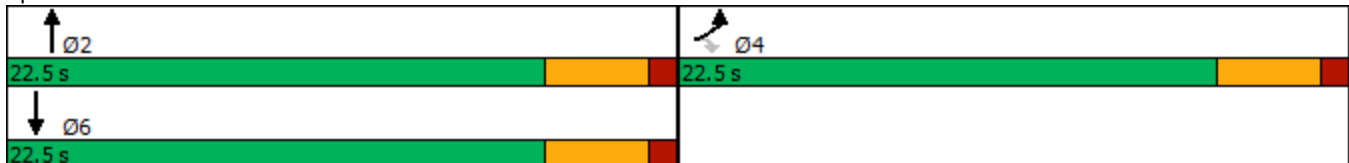
Intersection LOS: A

Intersection Capacity Utilization 26.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Fillmore Ave & MLK Park



Lanes, Volumes, Timings
19: Fillmore Ave & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	59	10	13	36	10	10	191	22	28	288	51
Future Volume (vph)	16	59	10	13	36	10	10	191	22	28	288	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.984			0.977			0.987			0.981	
Fl _t Protected		0.991			0.989			0.998			0.996	
Satd. Flow (prot)	0	1816	0	0	1800	0	0	1835	0	0	1820	0
Fl _t Permitted		0.920			0.898			0.982			0.971	
Satd. Flow (perm)	0	1686	0	0	1634	0	0	1805	0	0	1774	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			11			15			21	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1089			291			579			735	
Travel Time (s)		24.8			6.6			13.2			16.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	64	11	14	39	11	11	208	24	30	313	55
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	92	0	0	64	0	0	243	0	0	398	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		7.2			7.1			26.5			26.5	
Actuated g/C Ratio		0.20			0.19			0.72			0.72	
v/c Ratio		0.27			0.20			0.19			0.31	
Control Delay		12.8			11.5			4.3			5.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.8			11.5			4.3			5.0	
LOS		B			B			A			A	
Approach Delay		12.8			11.5			4.3			5.0	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.9												

Lanes, Volumes, Timings

19: Fillmore Ave & Northhampton St

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.31

Intersection Signal Delay: 6.2

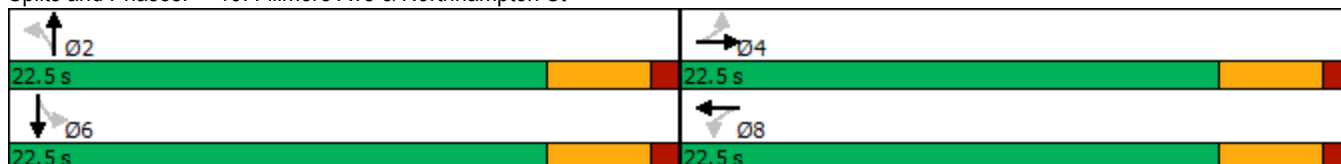
Intersection LOS: A

Intersection Capacity Utilization 42.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 19: Fillmore Ave & Northhampton St



Lanes, Volumes, Timings
21: Fillmore Ave & Riley St/Urban St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	0	2	2	0	10	2	233	3	22	362	0
Future Volume (vph)	5	0	2	2	0	10	2	233	3	22	362	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.961			0.886			0.998				
Flt Protected		0.966			0.992						0.997	
Satd. Flow (prot)	0	1729	0	0	1637	0	0	1859	0	0	1857	0
Flt Permitted								0.998			0.980	
Satd. Flow (perm)	0	1790	0	0	1650	0	0	1855	0	0	1825	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			36			2				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			639			735			422	
Travel Time (s)		24.6			14.5			16.7			9.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	0	2	2	0	11	2	253	3	24	393	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	7	0	0	13	0	0	258	0	0	417	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		5.6			5.6			36.8			36.8	
Actuated g/C Ratio		0.14			0.14			0.94			0.94	
v/c Ratio		0.02			0.05			0.15			0.24	
Control Delay		0.5			3.6			1.3			1.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		0.5			3.6			1.3			1.5	
LOS		A			A			A			A	
Approach Delay		0.5			3.6			1.3			1.5	
Approach LOS		A			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 39.3												

Lanes, Volumes, Timings

21: Fillmore Ave & Riley St/Urban St

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.24

Intersection Signal Delay: 1.4

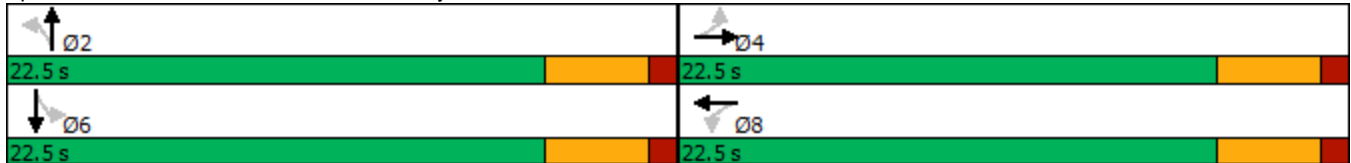
Intersection LOS: A

Intersection Capacity Utilization 45.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 21: Fillmore Ave & Riley St/Urban St



Lanes, Volumes, Timings
22: Fillmore Ave & French St

03/21/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	14	42	233	3	46	340
Future Volume (vph)	14	42	233	3	46	340
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.898		0.998			
Flt Protected	0.988					0.994
Satd. Flow (prot)	1653	0	1859	0	0	1852
Flt Permitted	0.988					0.947
Satd. Flow (perm)	1653	0	1859	0	0	1764
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	46		2			
Link Speed (mph)	30		30			30
Link Distance (ft)	600		422			182
Travel Time (s)	13.6		9.6			4.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	46	253	3	50	370
Shared Lane Traffic (%)						
Lane Group Flow (vph)	61	0	256	0	0	420
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		27.5		27.5	27.5
Total Split (%)	45.0%		55.0%		55.0%	55.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.4		38.9			38.9
Actuated g/C Ratio	0.14		0.86			0.86
v/c Ratio	0.22		0.16			0.28
Control Delay	10.8		2.4			2.9
Queue Delay	0.0		0.0			0.0
Total Delay	10.8		2.4			2.9
LOS	B		A			A
Approach Delay	10.8		2.4			2.9
Approach LOS	B		A			A

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 45.1

Lanes, Volumes, Timings

22: Fillmore Ave & French St

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.28

Intersection Signal Delay: 3.4

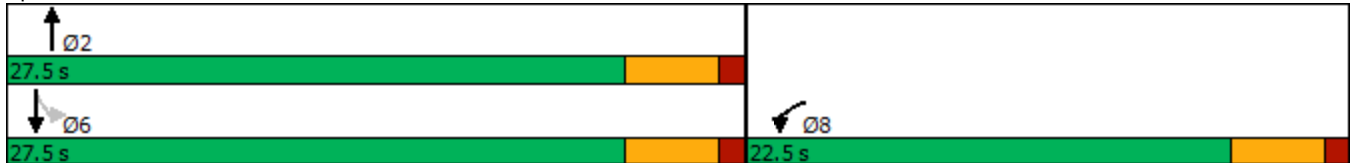
Intersection LOS: A

Intersection Capacity Utilization 48.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 22: Fillmore Ave & French St



Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	51	80	45	209	314	75
Future Volume (vph)	51	80	45	209	314	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.917				0.974	
Flt Protected	0.981			0.991		
Satd. Flow (prot)	1676	0	0	1846	1814	0
Flt Permitted	0.981			0.896		
Satd. Flow (perm)	1676	0	0	1669	1814	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	87				32	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1083			182	1350	
Travel Time (s)	24.6			4.1	30.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	55	87	49	227	341	82
Shared Lane Traffic (%)						
Lane Group Flow (vph)	142	0	0	276	423	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		32.5	32.5	32.5	
Total Split (%)	40.9%		59.1%	59.1%	59.1%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effct Green (s)	7.5			36.1	36.1	
Actuated g/C Ratio	0.15			0.73	0.73	
v/c Ratio	0.43			0.23	0.32	
Control Delay	12.6			4.2	4.4	
Queue Delay	0.0			0.7	0.0	
Total Delay	12.6			4.9	4.4	
LOS	B			A	A	
Approach Delay	12.6			4.9	4.4	
Approach LOS	B			A	A	
Intersection Summary						
Area Type:	Other					
Cycle Length: 55						
Actuated Cycle Length: 49.6						

Lanes, Volumes, Timings

23: Fillmore Ave & E Utica St

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.43

Intersection Signal Delay: 6.0

Intersection LOS: A

Intersection Capacity Utilization 53.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 23: Fillmore Ave & E Utica St



Lanes, Volumes, Timings
24: Fillmore Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	217	60	33	221	54	25	208	44	36	304	69
Future Volume (vph)	51	217	60	33	221	54	25	208	44	36	304	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.973			0.974			0.976			0.975	
Flt Protected		0.992			0.995			0.996			0.996	
Satd. Flow (prot)	0	3416	0	0	3430	0	0	3440	0	0	3437	0
Flt Permitted		0.846			0.880			0.905			0.912	
Satd. Flow (perm)	0	2913	0	0	3034	0	0	3126	0	0	3147	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		65			59			48			63	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			797			1350			1620	
Travel Time (s)		24.6			18.1			30.7			36.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	55	236	65	36	240	59	27	226	48	39	330	75
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	356	0	0	335	0	0	301	0	0	444	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		9.0			9.0			18.1			18.1	
Actuated g/C Ratio		0.25			0.25			0.50			0.50	
v/c Ratio		0.46			0.42			0.19			0.28	
Control Delay		11.2			10.8			5.0			5.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.2			10.8			5.0			5.5	
LOS		B			B			A			A	
Approach Delay		11.2			10.8			5.0			5.5	
Approach LOS		B			B			A			A	
Intersection Summary												

Lanes, Volumes, Timings

24: Fillmore Ave & E Ferry St

03/21/2022

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 36.1

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 8.0

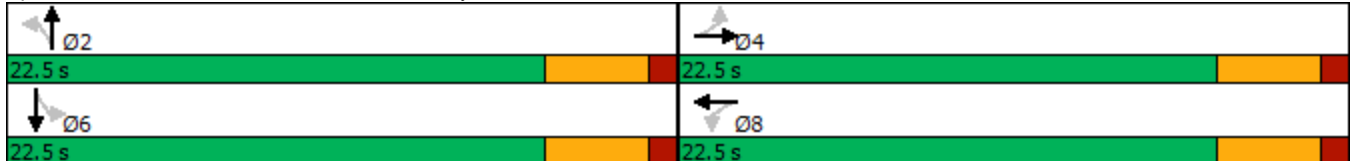
Intersection LOS: A

Intersection Capacity Utilization 52.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 24: Fillmore Ave & E Ferry St



Lanes, Volumes, Timings
25: Fillmore Ave & Northland Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	43	15	22	42	8	3	239	36	40	346	10
Future Volume (vph)	5	43	15	22	42	8	3	239	36	40	346	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.968			0.985			0.983			0.997	
Fl _t Protected		0.996			0.985						0.995	
Satd. Flow (prot)	0	1796	0	0	1807	0	0	1831	0	0	1848	0
Fl _t Permitted		0.965			0.873			0.997			0.953	
Satd. Flow (perm)	0	1740	0	0	1602	0	0	1826	0	0	1770	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			9			20			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1020			890			1620			1011	
Travel Time (s)		23.2			20.2			36.8			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	47	16	24	46	9	3	260	39	43	376	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	68	0	0	79	0	0	302	0	0	430	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		6.8			6.9			28.3			28.3	
Actuated g/C Ratio		0.19			0.20			0.81			0.81	
v/c Ratio		0.19			0.24			0.20			0.30	
Control Delay		10.3			12.0			3.5			4.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.3			12.0			3.5			4.2	
LOS		B			B			A			A	
Approach Delay		10.3			12.0			3.5			4.2	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 35.1												

Lanes, Volumes, Timings

25: Fillmore Ave & Northland Ave

03/21/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.30

Intersection Signal Delay: 5.1

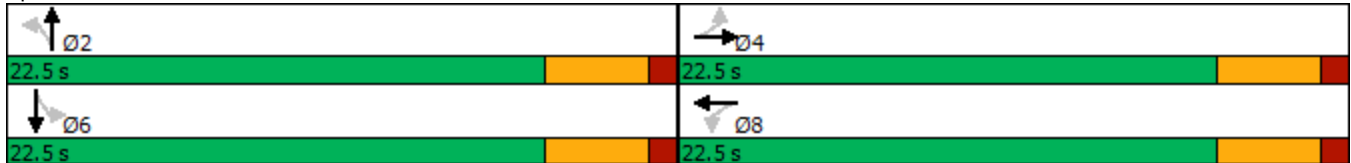
Intersection LOS: A

Intersection Capacity Utilization 56.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 25: Fillmore Ave & Northland Ave



Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	82	161	19	30	156	32	19	195	26	71	364	74
Future Volume (vph)	82	161	19	30	156	32	19	195	26	71	364	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.980			0.986			0.980	
Flt Protected		0.985			0.993			0.996			0.993	
Satd. Flow (prot)	0	1816	0	0	1813	0	0	1829	0	0	1813	0
Flt Permitted		0.835			0.937			0.948			0.923	
Satd. Flow (perm)	0	1540	0	0	1710	0	0	1741	0	0	1685	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			19			16			23	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		928			735			1011			742	
Travel Time (s)		21.1			16.7			23.0			16.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	89	175	21	33	170	35	21	212	28	77	396	80
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	285	0	0	238	0	0	261	0	0	553	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		27.5	27.5		27.5	27.5	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		55.0%	55.0%		55.0%	55.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		12.8			12.8			23.3			23.3	
Actuated g/C Ratio		0.28			0.28			0.52			0.52	
v/c Ratio		0.64			0.48			0.29			0.63	
Control Delay		20.8			15.3			7.9			12.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		20.8			15.3			7.9			12.9	
LOS		C			B			A			B	
Approach Delay		20.8			15.3			7.9			12.9	
Approach LOS		C			B			A			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 45.1												

Lanes, Volumes, Timings 26: Fillmore Ave & E Delavan Ave

03/21/2022

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 14.0

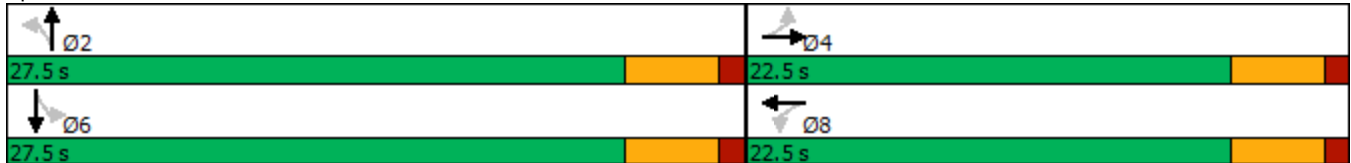
Intersection LOS: B

Intersection Capacity Utilization 78.5%

ICU Level of Service D

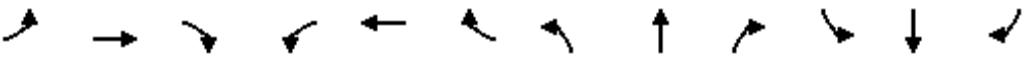
Analysis Period (min) 15

Splits and Phases: 26: Fillmore Ave & E Delavan Ave



Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑	↑			
Traffic Volume (vph)	306	181	0	0	224	19	53	174	83	0	0	0
Future Volume (vph)	306	181	0	0	224	19	53	174	83	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	0		150	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.988				0.850			
Flt Protected		0.970						0.988				
Satd. Flow (prot)	0	3433	0	0	3497	0	0	1840	1583	0	0	0
Flt Permitted		0.672						0.988				
Satd. Flow (perm)	0	2378	0	0	3497	0	0	1840	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					21				90			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		310			928			1019			213	
Travel Time (s)		7.0			21.1			23.2			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	333	197	0	0	243	21	58	189	90	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	530	0	0	264	0	0	247	90	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phase	4	4			8		2	2	2			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	32.5	32.5			32.5		22.5	22.5	22.5			
Total Split (%)	59.1%	59.1%			59.1%		40.9%	40.9%	40.9%			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)		0.0			0.0			0.0	0.0			
Total Lost Time (s)		4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		None	None	None			
Act Effct Green (s)		30.9			30.9			12.3	12.3			
Actuated g/C Ratio		0.59			0.59			0.24	0.24			
v/c Ratio		0.38			0.13			0.57	0.20			
Control Delay		3.9			5.3			22.2	5.2			
Queue Delay		0.0			0.0			0.0	0.0			
Total Delay		3.9			5.3			22.2	5.2			
LOS		A			A			C	A			
Approach Delay		3.9			5.3			17.6				
Approach LOS		A			A			B				
Intersection Summary												

Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

03/21/2022

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	41%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

27: Humboldt Parkway NB & E Delavan Ave

03/21/2022

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 52.2

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 8.3

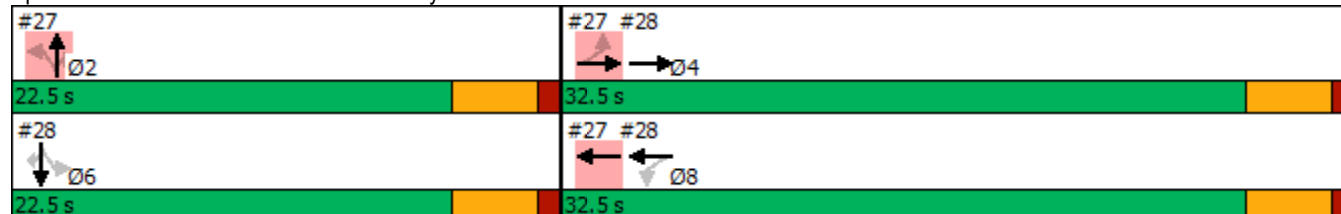
Intersection LOS: A

Intersection Capacity Utilization 47.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 27: Humboldt Parkway NB & E Delavan Ave



Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	449	30	100	196	0	0	0	0	32	35	14
Future Volume (vph)	0	449	30	100	196	0	0	0	0	32	35	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991										0.850
Flt Protected					0.983						0.977	
Satd. Flow (prot)	0	1846	0	0	3479	0	0	0	0	0	1820	1583
Flt Permitted					0.726						0.977	
Satd. Flow (perm)	0	1846	0	0	2569	0	0	0	0	0	1820	1583
Right Turn on Red			Yes			Yes				Yes		Yes
Satd. Flow (RTOR)		9										30
Link Speed (mph)		30			30				30		30	
Link Distance (ft)		2669			310				684		864	
Travel Time (s)		60.7			7.0				15.5		19.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	488	33	109	213	0	0	0	0	35	38	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	521	0	0	322	0	0	0	0	0	73	15
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		32.5		32.5	32.5					22.5	22.5	22.5
Total Split (%)		59.1%		59.1%	59.1%					40.9%	40.9%	40.9%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0						0.0	0.0
Total Lost Time (s)		4.5			4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					None	None	None
Act Effct Green (s)		30.9			30.9						12.3	12.3
Actuated g/C Ratio		0.59			0.59						0.24	0.24
v/c Ratio		0.48			0.21						0.17	0.04
Control Delay		8.7			4.4						15.1	3.6
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		8.7			4.4						15.1	3.6
LOS		A			A						B	A
Approach Delay		8.7			4.4						13.1	
Approach LOS		A			A						B	
Intersection Summary												

Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

03/21/2022

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	41%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

28: Humboldt Parkway SB & E Delavan Ave

03/21/2022

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 52.2

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 7.6

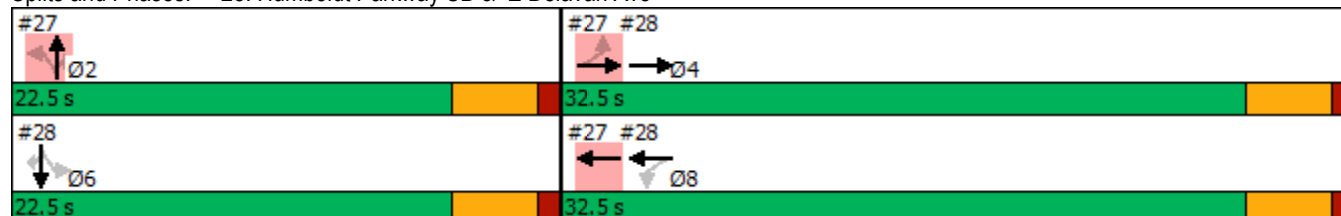
Intersection LOS: A

Intersection Capacity Utilization 49.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 28: Humboldt Parkway SB & E Delavan Ave



Lanes, Volumes, Timings
29: Jefferson Ave & E Delavan Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	367	32	27	146	15	31	101	56	5	84	93
Future Volume (vph)	40	367	32	27	146	15	31	101	56	5	84	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.989			0.960			0.931	
Flt Protected		0.996			0.993			0.992			0.999	
Satd. Flow (prot)	0	1837	0	0	1829	0	0	1774	0	0	1732	0
Flt Permitted		0.958			0.917			0.935			0.993	
Satd. Flow (perm)	0	1767	0	0	1689	0	0	1672	0	0	1722	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			11			43			101	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		592			2669			1017			352	
Travel Time (s)		13.5			60.7			23.1			8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	399	35	29	159	16	34	110	61	5	91	101
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	477	0	0	204	0	0	205	0	0	197	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	31.0	31.0		31.0	31.0		24.0	24.0		24.0	24.0	
Total Split (%)	56.4%	56.4%		56.4%	56.4%		43.6%	43.6%		43.6%	43.6%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		17.5			17.5			19.8			19.8	
Actuated g/C Ratio		0.38			0.38			0.43			0.43	
v/c Ratio		0.71			0.32			0.28			0.25	
Control Delay		18.1			10.4			9.8			6.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		18.1			10.4			9.8			6.8	
LOS		B			B			A			A	
Approach Delay		18.1			10.4			9.8			6.8	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 55												
Actuated Cycle Length: 46.4												

Lanes, Volumes, Timings

29: Jefferson Ave & E Delavan Ave

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 13.0

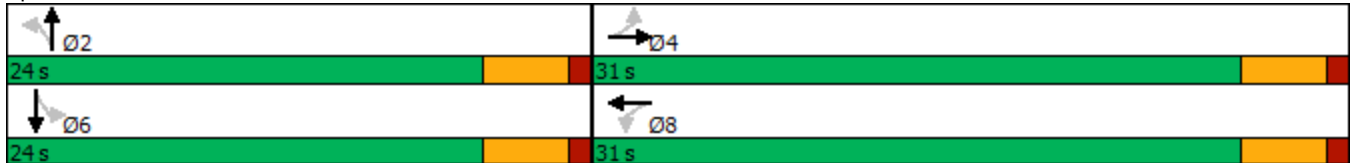
Intersection LOS: B

Intersection Capacity Utilization 60.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 29: Jefferson Ave & E Delavan Ave



Lanes, Volumes, Timings
30: Jefferson Ave & Northland Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	24	11	16	5	16	12	150	9	12	148	15
Future Volume (vph)	15	24	11	16	5	16	12	150	9	12	148	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970			0.941			0.993			0.989	
Flt Protected		0.985			0.979			0.997			0.997	
Satd. Flow (prot)	0	1780	0	0	1716	0	0	1844	0	0	1837	0
Flt Permitted		0.886			0.926			0.982			0.983	
Satd. Flow (perm)	0	1601	0	0	1623	0	0	1816	0	0	1811	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			17			8			12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		806			2743			848			1017	
Travel Time (s)		18.3			62.3			19.3			23.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	26	12	17	5	17	13	163	10	13	161	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	54	0	0	39	0	0	186	0	0	190	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		6.5			6.4			29.9			29.9	
Actuated g/C Ratio		0.18			0.17			0.81			0.81	
v/c Ratio		0.18			0.13			0.13			0.13	
Control Delay		11.5			9.7			3.1			3.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.5			9.7			3.1			3.1	
LOS		B			A			A			A	
Approach Delay		11.5			9.7			3.1			3.1	
Approach LOS		B			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.7												

Lanes, Volumes, Timings

30: Jefferson Ave & Northland Ave

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.18

Intersection Signal Delay: 4.6

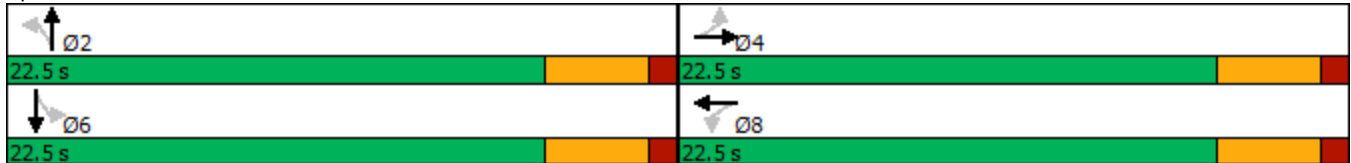
Intersection LOS: A

Intersection Capacity Utilization 23.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 30: Jefferson Ave & Northland Ave



Lanes, Volumes, Timings
31: Jefferson Ave & Brunswick Blvd

03/21/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	27	22	158	25	10	156
Future Volume (vph)	27	22	158	25	10	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.939		0.982			
Flt Protected	0.973					0.997
Satd. Flow (prot)	1702	0	1829	0	0	1857
Flt Permitted	0.973					0.986
Satd. Flow (perm)	1702	0	1829	0	0	1837
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	24		21			
Link Speed (mph)	30		30			30
Link Distance (ft)	2734		751			848
Travel Time (s)	62.1		17.1			19.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	24	172	27	11	170
Shared Lane Traffic (%)						
Lane Group Flow (vph)	53	0	199	0	0	181
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0		5.0	5.0
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%	50.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max		Max	Max
Act Effct Green (s)	6.4		34.5			34.5
Actuated g/C Ratio	0.16		0.85			0.85
v/c Ratio	0.18		0.13			0.12
Control Delay	12.3		2.4			2.6
Queue Delay	0.0		0.0			0.0
Total Delay	12.3		2.4			2.6
LOS	B		A			A
Approach Delay	12.3		2.4			2.6
Approach LOS	B		A			A

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.5

Lanes, Volumes, Timings

31: Jefferson Ave & Brunswick Blvd

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.18

Intersection Signal Delay: 3.7

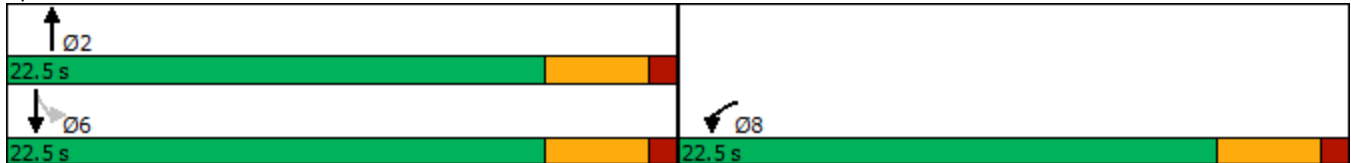
Intersection LOS: A

Intersection Capacity Utilization 28.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 31: Jefferson Ave & Brunswick Blvd



Lanes, Volumes, Timings
32: Jefferson Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	226	48	51	501	44	39	118	25	22	139	25
Future Volume (vph)	30	226	48	51	501	44	39	118	25	22	139	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.990			0.981			0.982	
Flt Protected		0.995			0.996			0.989			0.994	
Satd. Flow (prot)	0	1815	0	0	1837	0	0	1807	0	0	1818	0
Flt Permitted		0.926			0.946			0.910			0.955	
Satd. Flow (perm)	0	1689	0	0	1745	0	0	1663	0	0	1747	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			10			18			18	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			194			1406			751	
Travel Time (s)		7.5			4.4			32.0			17.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	246	52	55	545	48	42	128	27	24	151	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	331	0	0	648	0	0	197	0	0	202	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	27.0	27.0		27.0	27.0		23.0	23.0		23.0	23.0	
Total Split (%)	54.0%	54.0%		54.0%	54.0%		46.0%	46.0%		46.0%	46.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		20.5			20.5			18.6			18.6	
Actuated g/C Ratio		0.43			0.43			0.39			0.39	
v/c Ratio		0.45			0.87			0.30			0.29	
Control Delay		11.2			27.2			11.6			11.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.2			27.2			11.6			11.5	
LOS		B			C			B			B	
Approach Delay		11.2			27.2			11.6			11.5	
Approach LOS		B			C			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 48.1												

Lanes, Volumes, Timings 32: Jefferson Ave & E Ferry St

03/21/2022

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 18.8

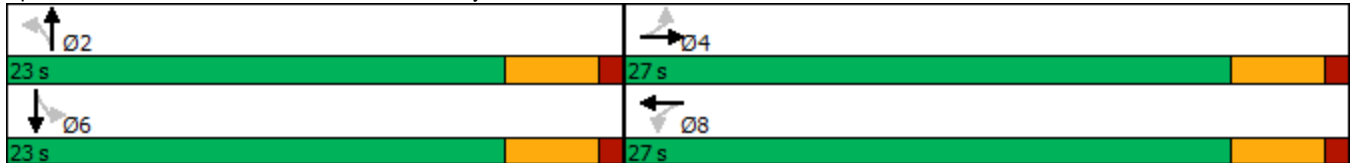
Intersection LOS: B

Intersection Capacity Utilization 64.6%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 32: Jefferson Ave & E Ferry St



Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	105	39	25	109	13	26	172	12	10	212	23
Future Volume (vph)	10	105	39	25	109	13	26	172	12	10	212	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.988			0.992			0.987	
Flt Protected		0.997			0.992			0.994			0.998	
Satd. Flow (prot)	0	1794	0	0	1826	0	0	1837	0	0	1835	0
Flt Permitted		0.974			0.936			0.952			0.988	
Satd. Flow (perm)	0	1753	0	0	1723	0	0	1759	0	0	1816	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38			11			8			14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1023			1295			630			1406	
Travel Time (s)		23.3			29.4			14.3			32.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	114	42	27	118	14	28	187	13	11	230	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	167	0	0	159	0	0	228	0	0	266	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		27.5	27.5		27.5	27.5	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		55.0%	55.0%		55.0%	55.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.8			8.8			26.9			26.9	
Actuated g/C Ratio		0.21			0.21			0.64			0.64	
v/c Ratio		0.42			0.43			0.20			0.23	
Control Delay		14.2			16.5			5.4			5.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.2			16.5			5.4			5.4	
LOS		B			B			A			A	
Approach Delay		14.2			16.5			5.4			5.4	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 41.8												

Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.43

Intersection Signal Delay: 9.3

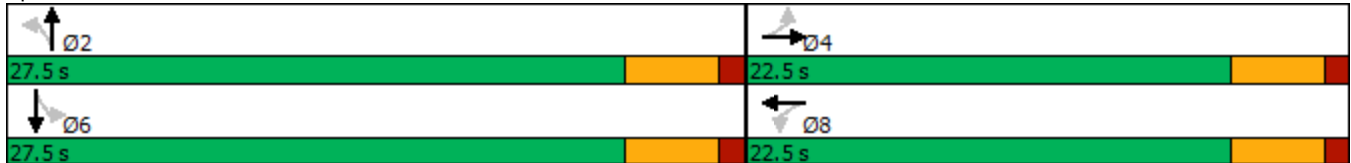
Intersection LOS: A

Intersection Capacity Utilization 42.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 33: Jefferson Ave & E Utica St



Lanes, Volumes, Timings
34: Jefferson Ave & Riley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	26	15	9	16	5	11	202	9	1	237	11
Future Volume (vph)	9	26	15	9	16	5	11	202	9	1	237	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.979			0.994			0.994	
Flt Protected		0.991			0.985			0.998				
Satd. Flow (prot)	0	1772	0	0	1796	0	0	1848	0	0	1852	0
Flt Permitted		0.927			0.875			0.985			0.999	
Satd. Flow (perm)	0	1658	0	0	1596	0	0	1824	0	0	1850	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			5			6			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		870			1108			418			630	
Travel Time (s)		19.8			25.2			9.5			14.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	28	16	10	17	5	12	220	10	1	258	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	54	0	0	32	0	0	242	0	0	271	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		6.4			6.3			30.1			30.1	
Actuated g/C Ratio		0.17			0.17			0.82			0.82	
v/c Ratio		0.18			0.11			0.16			0.18	
Control Delay		10.9			11.6			3.1			3.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.9			11.6			3.1			3.2	
LOS		B			B			A			A	
Approach Delay		10.9			11.6			3.1			3.2	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.8												

Lanes, Volumes, Timings

34: Jefferson Ave & Riley St

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.18

Intersection Signal Delay: 4.3

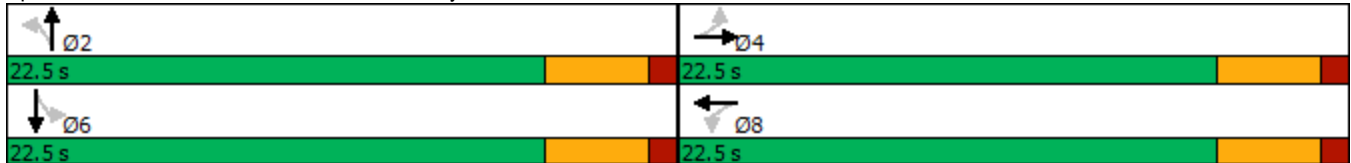
Intersection LOS: A

Intersection Capacity Utilization 30.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 34: Jefferson Ave & Riley St



Lanes, Volumes, Timings
35: Jefferson Ave & Northampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	34	7	15	69	12	15	190	4	9	249	15
Future Volume (vph)	7	34	7	15	69	12	15	190	4	9	249	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.983			0.998			0.993	
Flt Protected		0.993			0.992			0.996			0.998	
Satd. Flow (prot)	0	1813	0	0	1816	0	0	1852	0	0	1846	0
Flt Permitted		0.930			0.935			0.975			0.991	
Satd. Flow (perm)	0	1698	0	0	1712	0	0	1813	0	0	1833	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			13			2			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1340			1290			1156			278	
Travel Time (s)		30.5			29.3			26.3			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	37	8	16	75	13	16	207	4	10	271	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	53	0	0	104	0	0	227	0	0	297	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		7.2			7.3			26.0			26.0	
Actuated g/C Ratio		0.20			0.20			0.71			0.71	
v/c Ratio		0.16			0.30			0.18			0.23	
Control Delay		10.9			12.7			4.6			4.7	
Queue Delay		0.0			0.0			0.0			0.1	
Total Delay		10.9			12.7			4.6			4.8	
LOS		B			B			A			A	
Approach Delay		10.9			12.7			4.6			4.8	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.5												

Lanes, Volumes, Timings

35: Jefferson Ave & Northhampton St

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.30

Intersection Signal Delay: 6.4

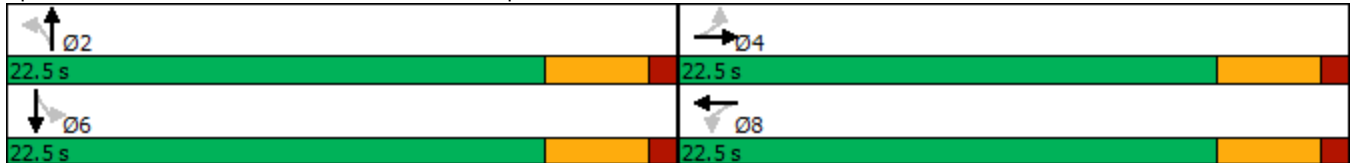
Intersection LOS: A

Intersection Capacity Utilization 31.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 35: Jefferson Ave & Northhampton St



Lanes, Volumes, Timings
36: Jefferson Ave & Best St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	417	46	51	458	65	26	190	57	48	201	26
Future Volume (vph)	24	417	46	51	458	65	26	190	57	48	201	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.986			0.983			0.969			0.986	
Flt Protected		0.998			0.996			0.995			0.991	
Satd. Flow (prot)	0	3483	0	0	3465	0	0	3412	0	0	3458	0
Flt Permitted		0.908			0.869			0.913			0.867	
Satd. Flow (perm)	0	3169	0	0	3023	0	0	3131	0	0	3026	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29			37			62			28	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		169			169			156			165	
Travel Time (s)		3.8			3.8			3.5			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	453	50	55	498	71	28	207	62	52	218	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	529	0	0	624	0	0	297	0	0	298	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		13.5			13.5			18.1			18.1	
Actuated g/C Ratio		0.33			0.33			0.44			0.44	
v/c Ratio		0.49			0.61			0.21			0.22	
Control Delay		11.7			13.2			6.7			7.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.7			13.2			6.7			7.6	
LOS		B			B			A			A	
Approach Delay		11.7			13.2			6.7			7.6	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 40.7												

Lanes, Volumes, Timings

36: Jefferson Ave & Best St

03/21/2022

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 10.7

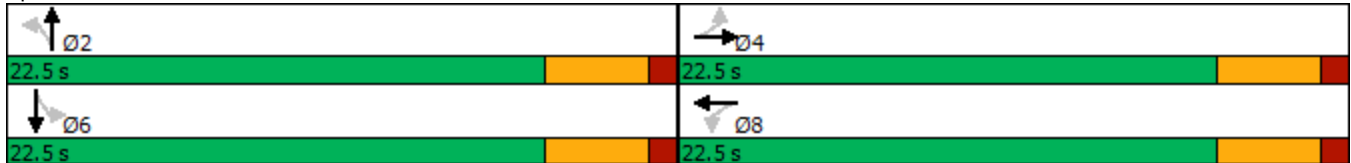
Intersection LOS: B

Intersection Capacity Utilization 60.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 36: Jefferson Ave & Best St



Lanes, Volumes, Timings
37: Jefferson Ave & E North St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	67	86	177	170	307	80
Future Volume (vph)	67	86	177	170	307	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.924				0.972	
Flt Protected	0.978			0.975		
Satd. Flow (prot)	1683	0	0	1816	1811	0
Flt Permitted	0.978			0.660		
Satd. Flow (perm)	1683	0	0	1229	1811	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	93				35	
Link Speed (mph)	30			30	30	
Link Distance (ft)	879			684	486	
Travel Time (s)	20.0			15.5	11.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	73	93	192	185	334	87
Shared Lane Traffic (%)						
Lane Group Flow (vph)	166	0	0	377	421	0
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		22.5	22.5	22.5	
Total Split (%)	50.0%		50.0%	50.0%	50.0%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None		Max	Max	Max	
Act Effect Green (s)	7.4			24.7	24.7	
Actuated g/C Ratio	0.19			0.65	0.65	
v/c Ratio	0.41			0.48	0.36	
Control Delay	9.5			8.8	5.7	
Queue Delay	0.0			0.0	0.0	
Total Delay	9.5			8.8	5.7	
LOS	A			A	A	
Approach Delay	9.5			8.8	5.7	
Approach LOS	A			A	A	
Intersection Summary						
Area Type:	Other					
Cycle Length: 45						
Actuated Cycle Length: 38.2						

Lanes, Volumes, Timings 37: Jefferson Ave & E North St

03/21/2022

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 7.6

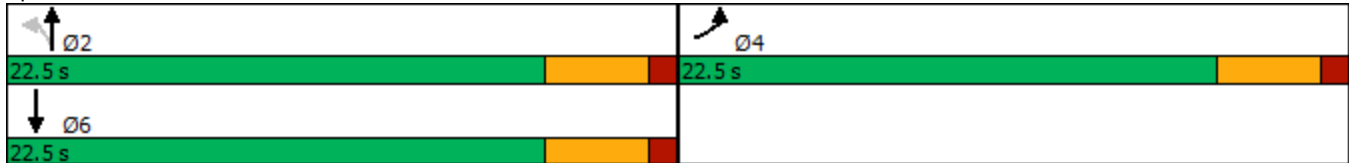
Intersection LOS: A

Intersection Capacity Utilization 60.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 37: Jefferson Ave & E North St



Lanes, Volumes, Timings
38: Jefferson Ave & High St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	38	91	23	83	39	167	302	32	10	281	16
Future Volume (vph)	3	38	91	23	83	39	167	302	32	10	281	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.907			0.964			0.991			0.993	
Flt Protected		0.999			0.992			0.984			0.998	
Satd. Flow (prot)	0	1688	0	0	1781	0	0	1816	0	0	1846	0
Flt Permitted		0.991			0.942			0.779			0.983	
Satd. Flow (perm)	0	1674	0	0	1692	0	0	1438	0	0	1818	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		99			41			9			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		840			1233			880			684	
Travel Time (s)		19.1			28.0			20.0			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	41	99	25	90	42	182	328	35	11	305	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	143	0	0	157	0	0	545	0	0	333	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		27.5	27.5		27.5	27.5	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		55.0%	55.0%		55.0%	55.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		8.2			8.2			26.8			26.8	
Actuated g/C Ratio		0.20			0.20			0.65			0.65	
v/c Ratio		0.35			0.43			0.58			0.28	
Control Delay		8.4			14.3			10.3			5.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.4			14.3			10.3			5.5	
LOS		A			B			B			A	
Approach Delay		8.4			14.3			10.3			5.5	
Approach LOS		A			B			B			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 41.2												

Lanes, Volumes, Timings 38: Jefferson Ave & High St

03/21/2022

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 9.3

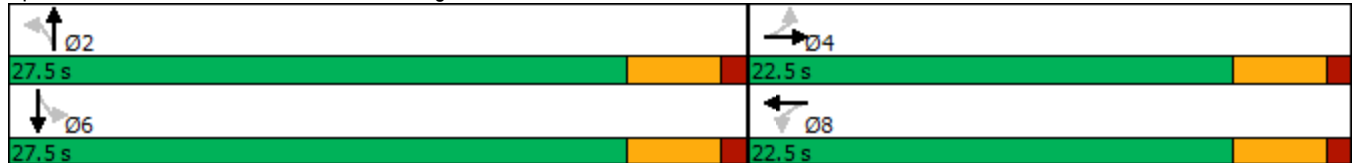
Intersection LOS: A

Intersection Capacity Utilization 74.2%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 38: Jefferson Ave & High St



Lanes, Volumes, Timings
39: Wohlers Ave & E Ferry St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	328	4	30	558	63	10	27	48	0	0	0
Future Volume (vph)	25	328	4	30	558	63	10	27	48	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.987			0.924				
Flt Protected		0.997			0.998			0.994				
Satd. Flow (prot)	0	1855	0	0	1835	0	0	1711	0	0	0	0
Flt Permitted		0.937			0.972			0.994				
Satd. Flow (perm)	0	1744	0	0	1787	0	0	1711	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			14			52				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		280			1179			1336				278
Travel Time (s)		6.4			26.8			30.4				6.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	27	357	4	33	607	68	11	29	52	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	388	0	0	708	0	0	92	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4			8			2					
Detector Phase	4	4		8	8		2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5				
Total Split (s)	37.0	37.0		37.0	37.0		23.0	23.0				
Total Split (%)	61.7%	61.7%		61.7%	61.7%		38.3%	38.3%				
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.5			4.5			4.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max				
Act Effect Green (s)		25.1			25.1			18.8				
Actuated g/C Ratio		0.47			0.47			0.35				
v/c Ratio		0.47			0.83			0.14				
Control Delay		11.0			21.1			8.7				
Queue Delay		0.0			0.0			0.0				
Total Delay		11.0			21.1			8.7				
LOS		B			C			A				
Approach Delay		11.0			21.1			8.7				
Approach LOS		B			C			A				
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 53.1												

Lanes, Volumes, Timings

39: Wohlers Ave & E Ferry St

03/21/2022

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 16.9

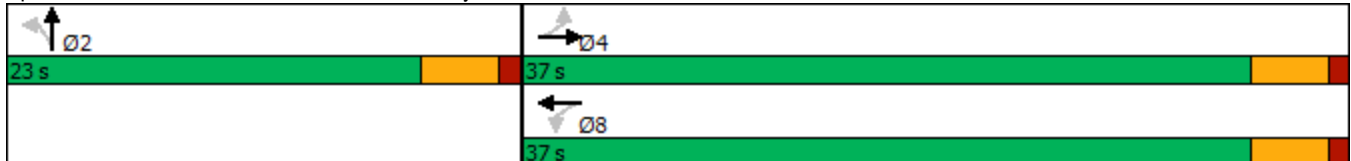
Intersection LOS: B

Intersection Capacity Utilization 53.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 39: Wohlers Ave & E Ferry St



Lanes, Volumes, Timings
40: Wohlers Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	106	9	4	133	16	3	43	25	1	15	5
Future Volume (vph)	13	106	9	4	133	16	3	43	25	1	15	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.986			0.953			0.969	
Flt Protected		0.995			0.999			0.998			0.998	
Satd. Flow (prot)	0	1835	0	0	1835	0	0	1772	0	0	1801	0
Flt Permitted		0.956			0.990			0.995			0.994	
Satd. Flow (perm)	0	1763	0	0	1818	0	0	1766	0	0	1794	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			15			27			5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		274			1173			1331			1336	
Travel Time (s)		6.2			26.7			30.3			30.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	115	10	4	145	17	3	47	27	1	16	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	139	0	0	166	0	0	77	0	0	22	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		8.3			8.3			21.8			21.8	
Actuated g/C Ratio		0.23			0.23			0.60			0.60	
v/c Ratio		0.34			0.39			0.07			0.02	
Control Delay		12.8			13.1			4.0			4.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.8			13.1			4.0			4.7	
LOS		B			B			A			A	
Approach Delay		12.8			13.1			4.0			4.7	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 36.3												

Lanes, Volumes, Timings

40: Wohlers Ave & E Utica St

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 10.8

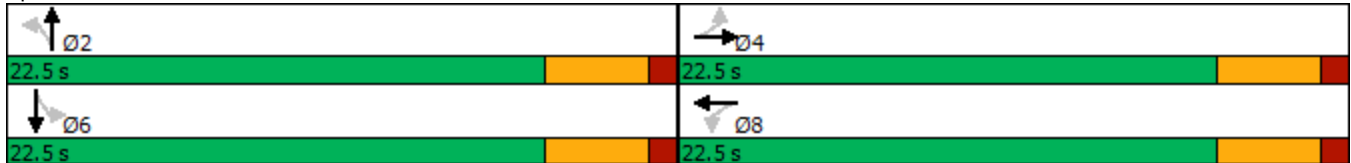
Intersection LOS: B

Intersection Capacity Utilization 24.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 40: Wohlers Ave & E Utica St



Lanes, Volumes, Timings
41: Humboldt Parkway SB & Woodlawn Ave

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	466	38
Future Volume (vph)	0	0	0	0	466	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.990	
Flt Protected						
Satd. Flow (prot)	0	0	0	0	1844	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	0	1844	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	780			265	319	
Travel Time (s)	17.7			6.0	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	507	41
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	548	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 30.2% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings
42: Humboldt Parkway SB & Glenwood Ave

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	32	0	0	472	0
Future Volume (vph)	0	32	0	0	472	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1863	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	750			456	296	
Travel Time (s)	17.0			10.4	6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	35	0	0	513	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	35	0	0	513	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 34.8% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
42: Humboldt Parkway SB & Glenwood Ave

03/21/2022

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↖	
Traffic Vol, veh/h	0	32	0	0	472	0
Future Vol, veh/h	0	32	0	0	472	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	35	0	0	513	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	513	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	561	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	561	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	11.8		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	561	-				
HCM Lane V/C Ratio	0.062	-				
HCM Control Delay (s)	11.8	-				
HCM Lane LOS	B	-				
HCM 95th %tile Q(veh)	0.2	-				

Lanes, Volumes, Timings
43: Humboldt Parkway SB & Riley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	18	24	24	18	0	0	0	0	24	432	24
Future Volume (vph)	0	18	24	24	18	0	0	0	0	24	432	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.924										0.993	
Flt Protected	0.973										0.998	
Satd. Flow (prot)	0	1721	0	0	1812	0	0	0	0	0	1846	0
Flt Permitted	0.973										0.998	
Satd. Flow (perm)	0	1721	0	0	1812	0	0	0	0	0	1846	0
Link Speed (mph)	30				30				30			
Link Distance (ft)	873				152				418			
Travel Time (s)	19.8				3.5				9.5			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	20	26	26	20	0	0	0	0	26	470	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	46	0	0	46	0	0	0	0	0	522	0
Sign Control	Stop				Stop				Stop			
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	41.1%											
Analysis Period (min)	15											
ICU Level of Service A												

HCM 6th TWSC
43: Humboldt Parkway SB & Riley St

03/21/2022

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	18	24	24	18	0	0	0	0	24	432	24
Future Vol, veh/h	0	18	24	24	18	0	0	0	0	24	432	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	20	26	26	20	0	0	0	0	26	470	26
Major/Minor	Minor2		Minor1				Major2					
Conflicting Flow All	-	535	483	558	548	-				0	0	0
Stage 1	-	535	-	0	0	-				-	-	-
Stage 2	-	0	-	558	548	-				-	-	-
Critical Hdwy	-	6.52	6.22	7.12	6.52	-				4.12	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-				-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-				-	-	-
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-				2.218	-	-
Pot Cap-1 Maneuver	0	452	584	440	444	0				-	-	-
Stage 1	0	524	-	-	-	0				-	-	-
Stage 2	0	-	-	514	517	0				-	-	-
Platoon blocked, %											-	-
Mov Cap-1 Maneuver	-	452	584	407	444	-				-	-	-
Mov Cap-2 Maneuver	-	452	-	407	444	-				-	-	-
Stage 1	-	524	-	-	-	-				-	-	-
Stage 2	-	-	-	473	517	-				-	-	-
Approach	EB		WB				SB					
HCM Control Delay, s	12.6		14.6									
HCM LOS	B		B									
Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR							
Capacity (veh/h)	519 422		-	-	-							
HCM Lane V/C Ratio	0.088 0.108		-	-	-							
HCM Control Delay (s)	12.6 14.6		-	-	-							
HCM Lane LOS	B B		-	-	-							
HCM 95th %tile Q(veh)	0.3 0.4		-	-	-							

Lanes, Volumes, Timings
44: Humboldt Parkway SB & Kingsley St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	14	0	0	469	11
Future Volume (vph)	0	14	0	0	469	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.997	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1857	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1857	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	736			293	418	
Travel Time (s)	16.7			6.7	9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	15	0	0	510	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	15	0	0	522	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 35.4% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
44: Humboldt Parkway SB & Kingsley St

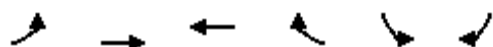
03/21/2022

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	14	0	0	469	11
Future Vol, veh/h	0	14	0	0	469	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	15	0	0	510	12
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	516	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	559	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	559	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	11.6		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	559	-	-			
HCM Lane V/C Ratio	0.027	-	-			
HCM Control Delay (s)	11.6	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings

45: W Parade Ave & Humboldt Parkway SB

03/21/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↘	
Traffic Volume (vph)	0	105	68	0	56	34
Future Volume (vph)	0	105	68	0	56	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.949	
Flt Protected					0.970	
Satd. Flow (prot)	0	1863	1863	0	1715	0
Flt Permitted					0.970	
Satd. Flow (perm)	0	1863	1863	0	1715	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		199	738		350	
Travel Time (s)		4.5	16.8		8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	114	74	0	61	37
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	114	74	0	98	0
Sign Control		Stop	Stop		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 17.4% ICU Level of Service A

Analysis Period (min) 15

HCM 6th AWSC
45: W Parade Ave & Humboldt Parkway SB

03/21/2022

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑↑	
Traffic Vol, veh/h	0	105	68	0	56	34
Future Vol, veh/h	0	105	68	0	56	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	114	74	0	61	37
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	7.9	7.7	7.8
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	62%
Vol Thru, %	100%	100%	0%
Vol Right, %	0%	0%	38%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	105	68	90
LT Vol	0	0	56
Through Vol	105	68	0
RT Vol	0	0	34
Lane Flow Rate	114	74	98
Geometry Grp	1	1	1
Degree of Util (X)	0.132	0.086	0.113
Departure Headway (Hd)	4.163	4.193	4.153
Convergence, Y/N	Yes	Yes	Yes
Cap	853	843	848
Service Time	2.233	2.273	2.25
HCM Lane V/C Ratio	0.134	0.088	0.116
HCM Control Delay	7.9	7.7	7.8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0.3	0.4

Lanes, Volumes, Timings
46: Linden Park & Dodge St/W Parade Ave

03/21/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	104	1	5	95	1	1
Future Volume (vph)	104	1	5	95	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999				0.932	
Flt Protected				0.998	0.976	
Satd. Flow (prot)	1861	0	0	1859	1694	0
Flt Permitted				0.998	0.976	
Satd. Flow (perm)	1861	0	0	1859	1694	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	489			199	180	
Travel Time (s)	11.1			4.5	4.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	113	1	5	103	1	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	114	0	0	108	2	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	19.1%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
46: Linden Park & Dodge St/W Parade Ave

03/21/2022

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	104	1	5	95	1	1
Future Vol, veh/h	104	1	5	95	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	113	1	5	103	1	1
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	114	0	227	114
Stage 1	-	-	-	-	114	-
Stage 2	-	-	-	-	113	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1475	-	761	939
Stage 1	-	-	-	-	911	-
Stage 2	-	-	-	-	912	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1475	-	758	939
Mov Cap-2 Maneuver	-	-	-	-	758	-
Stage 1	-	-	-	-	911	-
Stage 2	-	-	-	-	908	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.4		9.3	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	839	-	-	1475	-	
HCM Lane V/C Ratio	0.003	-	-	0.004	-	
HCM Control Delay (s)	9.3	-	-	7.5	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Lanes, Volumes, Timings
47: Humboldt Parkway NB & Riley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	24	0	0	24	18	18	312	18	0	0	0
Future Volume (vph)	18	24	0	0	24	18	18	312	18	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.941			0.993				
Flt Protected		0.979						0.997				
Satd. Flow (prot)	0	1824	0	0	1753	0	0	1844	0	0	0	0
Flt Permitted		0.979						0.997				
Satd. Flow (perm)	0	1824	0	0	1753	0	0	1844	0	0	0	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		152			1082			722			610	
Travel Time (s)		3.5			24.6			16.4			13.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	26	0	0	26	20	20	339	20	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	46	0	0	46	0	0	379	0	0	0	0
Sign Control		Stop			Stop			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	34.1%											
Analysis Period (min)	15											
ICU Level of Service A												

HCM 6th TWSC
47: Humboldt Parkway NB & Riley St

03/21/2022

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	24	0	0	24	18	18	312	18	0	0	0
Future Vol, veh/h	18	24	0	0	24	18	18	312	18	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	26	0	0	26	20	20	339	20	0	0	0
Major/Minor	Minor2		Minor1		Major1							
Conflicting Flow All	412	399	-	-	389	349	0	0	0			
Stage 1	0	0	-	-	389	-	-	-	-			
Stage 2	412	399	-	-	0	-	-	-	-			
Critical Hdwy	7.12	6.52	-	-	6.52	6.22	4.12	-	-			
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-			
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-			
Follow-up Hdwy	3.518	4.018	-	-	4.018	3.318	2.218	-	-			
Pot Cap-1 Maneuver	550	539	0	0	546	694	-	-	-			
Stage 1	-	-	0	0	608	-	-	-	-			
Stage 2	617	602	0	0	-	-	-	-	-			
Platoon blocked, %								-	-			
Mov Cap-1 Maneuver	515	539	-	-	546	694	-	-	-			
Mov Cap-2 Maneuver	515	539	-	-	546	-	-	-	-			
Stage 1	-	-	-	-	608	-	-	-	-			
Stage 2	574	602	-	-	-	-	-	-	-			
Approach	EB		WB		NB							
HCM Control Delay, s	12.5		11.5									
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL		NBT		NBR		EBLn1WBLn1					
Capacity (veh/h)	-		-		-		528		601			
HCM Lane V/C Ratio	-		-		-		0.086		0.076			
HCM Control Delay (s)	-		-		-		12.5		11.5			
HCM Lane LOS	-		-		-		B		B			
HCM 95th %tile Q(veh)	-		-		-		0.3		0.2			

Lanes, Volumes, Timings
48: Humboldt Parkway NB & Woepfel St

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	4	301	5	0	0
Future Volume (vph)	0	4	301	5	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.998			
Flt Protected						
Satd. Flow (prot)	0	1611	1859	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1859	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	744		294			462
Travel Time (s)	16.9		6.7			10.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	4	327	5	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	4	332	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	26.1%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
48: Humboldt Parkway NB & Woepfel St

03/21/2022

Intersection

Int Delay, s/veh 0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	301	5	0	0
Future Vol, veh/h	0	4	301	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	327	5	0	0

Major/Minor	Minor1	Major1
Conflicting Flow All	- 330	0 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 712	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 712	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	WB	NB
HCM Control Delay, s	10.1	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBT	NBRWBLn1
Capacity (veh/h)	- -	712
HCM Lane V/C Ratio	- -	0.006
HCM Control Delay (s)	- -	10.1
HCM Lane LOS	- -	B
HCM 95th %tile Q(veh)	- -	0

Lanes, Volumes, Timings
49: Humboldt Parkway NB & Woodlawn Ave

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	13	298	10	0	0
Future Volume (vph)	0	13	298	10	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.996			
Flt Protected						
Satd. Flow (prot)	0	1611	1855	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1855	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	729		267			312
Travel Time (s)	16.6		6.1			7.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	14	324	11	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	14	335	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	26.3%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
49: Humboldt Parkway NB & Woodlawn Ave

03/21/2022

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	13	298	10	0	0
Future Vol, veh/h	0	13	298	10	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	14	324	11	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	330	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	712	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	712	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	10.2		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		-		712	
HCM Lane V/C Ratio	-		-		0.02	
HCM Control Delay (s)	-		-		10.2	
HCM Lane LOS	-		-		B	
HCM 95th %tile Q(veh)	-		-		0.1	

Lanes, Volumes, Timings
50: Humboldt Parkway SB & Florida St

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	25	0	0	167	10
Future Volume (vph)	0	25	0	0	167	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.992	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1848	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1848	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	935			344	684	
Travel Time (s)	21.3			7.8	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	27	0	0	182	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	27	0	0	193	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 19.4% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
50: Humboldt Parkway SB & Florida St

03/21/2022

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	25	0	0	167	10
Future Vol, veh/h	0	25	0	0	167	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	27	0	0	182	11

Major/Minor	Minor2	Major2
Conflicting Flow All	- 188	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 854	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 854	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	9.4	0
HCM LOS	A	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	854	-	-
HCM Lane V/C Ratio	0.032	-	-
HCM Control Delay (s)	9.4	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Lanes, Volumes, Timings
51: Humboldt Parkway SB & Northland Ave

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	27	0	0	161	21
Future Volume (vph)	0	27	0	0	161	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.984	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1833	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1833	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2743			805	344	
Travel Time (s)	62.3			18.3	7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	29	0	0	175	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	29	0	0	198	0
Sign Control	Stop			Stop	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 19.7% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
51: Humboldt Parkway SB & Northland Ave

03/21/2022

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	27	0	0	161	21
Future Vol, veh/h	0	27	0	0	161	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	29	0	0	175	23

Major/Minor	Minor2	Major2
Conflicting Flow All	- 187	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 855	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 855	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	9.4	0
HCM LOS	A	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	855	-	-
HCM Lane V/C Ratio	0.034	-	-
HCM Control Delay (s)	9.4	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Lanes, Volumes, Timings
52: Humboldt Parkway SB & Brunswick Blvd

03/21/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	67	0	0	164	10
Future Volume (vph)	0	67	0	0	164	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.992	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1848	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1848	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2734			252	805	
Travel Time (s)	62.1			5.7	18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	73	0	0	178	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	73	0	0	189	0
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 20.1% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	67	0	0	164	10
Future Vol, veh/h	0	67	0	0	164	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	73	0	0	178	11
Number of Lanes	0	1	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	1
HCM Control Delay	7	8.1
HCM LOS	A	A

Lane	EBLn1	SBLn1
Vol Left, %	0%	0%
Vol Thru, %	0%	94%
Vol Right, %	100%	6%
Sign Control	Stop	Stop
Traffic Vol by Lane	67	174
LT Vol	0	0
Through Vol	0	164
RT Vol	67	10
Lane Flow Rate	73	189
Geometry Grp	1	1
Degree of Util (X)	0.074	0.212
Departure Headway (Hd)	3.663	4.027
Convergence, Y/N	Yes	Yes
Cap	961	893
Service Time	1.749	2.045
HCM Lane V/C Ratio	0.076	0.212
HCM Control Delay	7	8.1
HCM Lane LOS	A	A
HCM 95th-tile Q	0.2	0.8

Lanes, Volumes, Timings
53: Humboldt Parkway SB & Goulding Ave

03/21/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Volume (vph)	0	49	0	0	1037	0
Future Volume (vph)	0	49	0	0	1037	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	3539	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	3539	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1067			270	306	
Travel Time (s)	24.3			6.1	7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	53	0	0	1127	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	53	0	0	1127	0
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	30.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
53: Humboldt Parkway SB & Goulding Ave

03/21/2022

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	49	0	0	1037	0
Future Vol, veh/h	0	49	0	0	1037	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	53	0	0	1127	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	564	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	469	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	469	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	13.7		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	469	-				
HCM Lane V/C Ratio	0.114	-				
HCM Control Delay (s)	13.7	-				
HCM Lane LOS	B	-				
HCM 95th %tile Q(veh)	0.4	-				

Lanes, Volumes, Timings
54: Humboldt Parkway NB & Sydney St

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	42	537	0	0	0
Future Volume (vph)	0	42	537	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	913		608			1024
Travel Time (s)	20.8		13.8			23.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	46	584	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	46	584	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	38.3%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
54: Humboldt Parkway NB & Sydney St

03/21/2022

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	42	537	0	0	0
Future Vol, veh/h	0	42	537	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	46	584	0	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	584	0	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	512	-	0		
Stage 1	0	-	-	0		
Stage 2	0	-	-	0		
Platoon blocked, %			-			
Mov Cap-1 Maneuver	-	512	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	12.7		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBTWBLn1					
Capacity (veh/h)	-		512			
HCM Lane V/C Ratio	-		0.089			
HCM Control Delay (s)	-		12.7			
HCM Lane LOS	-		B			
HCM 95th %tile Q(veh)	-		0.3			

Lanes, Volumes, Timings
55: Humboldt Parkway NB & Northland Ave

03/21/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	65	510	68	0	0
Future Volume (vph)	0	65	510	68	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865	0.865	0.984			
Flt Protected						
Satd. Flow (prot)	0	1611	1833	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1833	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	1020		1024			1019
Travel Time (s)	23.2		23.3			23.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	71	554	74	0	0
Shared Lane Traffic (%)		10%				
Lane Group Flow (vph)	7	64	628	0	0	0
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	41.7%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
55: Humboldt Parkway NB & Northland Ave

03/21/2022

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	65	510	68	0	0
Future Vol, veh/h	0	65	510	68	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	71	554	74	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	591	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	507	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	507	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	13.2		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		507			
HCM Lane V/C Ratio	-		0.139			
HCM Control Delay (s)	-		13.2			
HCM Lane LOS	-		B			
HCM 95th %tile Q(veh)	-		0.5			

Lanes, Volumes, Timings
56: Roehrer Ave & E Ferry St

03/21/2022

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↗	
Traffic Volume (vph)	341	10	16	562	2	22
Future Volume (vph)	341	10	16	562	2	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.875	
Flt Protected				0.999	0.996	
Satd. Flow (prot)	1855	0	0	1861	1623	0
Flt Permitted				0.999	0.996	
Satd. Flow (perm)	1855	0	0	1861	1623	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1109			280	1331	
Travel Time (s)	25.2			6.4	30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	371	11	17	611	2	24
Shared Lane Traffic (%)						
Lane Group Flow (vph)	382	0	0	628	26	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	52.5%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection

Int Delay, s/veh 0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	341	10	16	562	2	22
Future Vol, veh/h	341	10	16	562	2	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	371	11	17	611	2	24

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	382
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1176
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1176
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	11.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	590	-	-	1176	-
HCM Lane V/C Ratio	0.044	-	-	0.015	-
HCM Control Delay (s)	11.4	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Lanes, Volumes, Timings
57: Roehrer Ave & E Utica St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	119	0	2	140	8	3	11	4	2	13	4
Future Volume (vph)	4	119	0	2	140	8	3	11	4	2	13	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.993			0.972			0.973	
Flt Protected		0.998			0.999			0.992			0.995	
Satd. Flow (prot)	0	1859	0	0	1848	0	0	1796	0	0	1803	0
Flt Permitted		0.998			0.999			0.992			0.995	
Satd. Flow (perm)	0	1859	0	0	1848	0	0	1796	0	0	1803	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1295			274			1342			1331	
Travel Time (s)		29.4			6.2			30.5			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	129	0	2	152	9	3	12	4	2	14	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	133	0	0	163	0	0	19	0	0	20	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 18.7%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	4	119	0	2	140	8	3	11	4	2	13	4
Future Vol, veh/h	4	119	0	2	140	8	3	11	4	2	13	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	129	0	2	152	9	3	12	4	2	14	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	8.1	7.6	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	3%	1%	11%
Vol Thru, %	61%	97%	93%	68%
Vol Right, %	22%	0%	5%	21%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	18	123	150	19
LT Vol	3	4	2	2
Through Vol	11	119	140	13
RT Vol	4	0	8	4
Lane Flow Rate	20	134	163	21
Geometry Grp	1	1	1	1
Degree of Util (X)	0.024	0.153	0.185	0.026
Departure Headway (Hd)	4.502	4.132	4.074	4.495
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	800	860	874	801
Service Time	2.503	2.196	2.133	2.495
HCM Lane V/C Ratio	0.025	0.156	0.186	0.026
HCM Control Delay	7.6	8	8.1	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.5	0.7	0.1

Lanes, Volumes, Timings
58: Wohlers Ave & Northampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	66	3	2	85	10	12	35	7	18	20	8
Future Volume (vph)	8	66	3	2	85	10	12	35	7	18	20	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.986			0.982			0.976	
Flt Protected		0.995			0.999			0.989			0.981	
Satd. Flow (prot)	0	1844	0	0	1835	0	0	1809	0	0	1783	0
Flt Permitted		0.995			0.999			0.989			0.981	
Satd. Flow (perm)	0	1844	0	0	1835	0	0	1809	0	0	1783	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		276			1045			1317			1331	
Travel Time (s)		6.3			23.8			29.9			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	72	3	2	92	11	13	38	8	20	22	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	84	0	0	105	0	0	59	0	0	51	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	19.0%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection												
Intersection Delay, s/veh	7.8											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	8	66	3	2	85	10	12	35	7	18	20	8
Future Vol, veh/h	8	66	3	2	85	10	12	35	7	18	20	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	72	3	2	92	11	13	38	8	20	22	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.8	7.8	7.7	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	22%	10%	2%	39%
Vol Thru, %	65%	86%	88%	43%
Vol Right, %	13%	4%	10%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	54	77	97	46
LT Vol	12	8	2	18
Through Vol	35	66	85	20
RT Vol	7	3	10	8
Lane Flow Rate	59	84	105	50
Geometry Grp	1	1	1	1
Degree of Util (X)	0.071	0.098	0.121	0.061
Departure Headway (Hd)	4.377	4.2	4.128	4.395
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	823	839	855	820
Service Time	2.379	2.295	2.22	2.396
HCM Lane V/C Ratio	0.072	0.1	0.123	0.061
HCM Control Delay	7.7	7.8	7.8	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.3	0.4	0.2

Lanes, Volumes, Timings
59: Roehrer Ave & Northhampton St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	69	2	3	84	4	4	15	2	4	15	0
Future Volume (vph)	0	69	2	3	84	4	4	15	2	4	15	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.994			0.988				
Flt Protected					0.998			0.991			0.990	
Satd. Flow (prot)	0	1855	0	0	1848	0	0	1824	0	0	1844	0
Flt Permitted					0.998			0.991			0.990	
Satd. Flow (perm)	0	1855	0	0	1848	0	0	1824	0	0	1844	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1290			276			1313			1342	
Travel Time (s)		29.3			6.3			29.8			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	75	2	3	91	4	4	16	2	4	16	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	77	0	0	98	0	0	22	0	0	20	0
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	17.1%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	69	2	3	84	4	4	15	2	4	15	0
Future Vol, veh/h	0	69	2	3	84	4	4	15	2	4	15	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	75	2	3	91	4	4	16	2	4	16	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.6	7.4	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	0%	3%	21%
Vol Thru, %	71%	97%	92%	79%
Vol Right, %	10%	3%	4%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	71	91	19
LT Vol	4	0	3	4
Through Vol	15	69	84	15
RT Vol	2	2	4	0
Lane Flow Rate	23	77	99	21
Geometry Grp	1	1	1	1
Degree of Util (X)	0.027	0.087	0.111	0.025
Departure Headway (Hd)	4.235	4.066	4.047	4.298
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	834	876	881	822
Service Time	2.32	2.114	2.09	2.383
HCM Lane V/C Ratio	0.028	0.088	0.112	0.026
HCM Control Delay	7.4	7.5	7.6	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.3	0.4	0.1

Lanes, Volumes, Timings
60: Best St & Wohlers Ave

03/21/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	3	464	600	25	19	4
Future Volume (vph)	3	464	600	25	19	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995		0.978	
Flt Protected					0.960	
Satd. Flow (prot)	0	1863	1853	0	1749	0
Flt Permitted					0.960	
Satd. Flow (perm)	0	1863	1853	0	1749	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		280	473		1317	
Travel Time (s)		6.4	10.8		29.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	504	652	27	21	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	507	679	0	25	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 43.1% ICU Level of Service A

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	464	600	25	19	4
Future Vol, veh/h	3	464	600	25	19	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	504	652	27	21	4
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	679	0	-	0	1176	666
Stage 1	-	-	-	-	666	-
Stage 2	-	-	-	-	510	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	913	-	-	-	211	459
Stage 1	-	-	-	-	511	-
Stage 2	-	-	-	-	603	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	913	-	-	-	210	459
Mov Cap-2 Maneuver	-	-	-	-	210	-
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	603	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		22.4		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	913	-	-	-	232	
HCM Lane V/C Ratio	0.004	-	-	-	0.108	
HCM Control Delay (s)	9	0	-	-	22.4	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.4	

Lanes, Volumes, Timings
61: Best St & Roehrer Ave

03/21/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	498	610	22	15	8
Future Volume (vph)	4	498	610	22	15	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995		0.951	
Flt Protected					0.969	
Satd. Flow (prot)	0	1863	1853	0	1717	0
Flt Permitted					0.969	
Satd. Flow (perm)	0	1863	1853	0	1717	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1123	280		1313	
Travel Time (s)		25.5	6.4		29.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	541	663	24	16	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	545	687	0	25	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 43.4% ICU Level of Service A

Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	498	610	22	15	8
Future Vol, veh/h	4	498	610	22	15	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	541	663	24	16	9
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	687	0	-	0	1224	675
Stage 1	-	-	-	-	675	-
Stage 2	-	-	-	-	549	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	907	-	-	-	198	454
Stage 1	-	-	-	-	506	-
Stage 2	-	-	-	-	579	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	907	-	-	-	197	454
Mov Cap-2 Maneuver	-	-	-	-	197	-
Stage 1	-	-	-	-	503	-
Stage 2	-	-	-	-	579	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		21.4		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	907	-	-	-	245	
HCM Lane V/C Ratio	0.005	-	-	-	0.102	
HCM Control Delay (s)	9	0	-	-	21.4	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.3	

Lanes, Volumes, Timings
62: Jefferson Ave & Eaton St/Kingsley St

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	9	3	3	14	1	4	202	1	7	266	5
Future Volume (vph)	2	9	3	3	14	1	4	202	1	7	266	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.993			0.999			0.998	
Flt Protected		0.993			0.992			0.999			0.999	
Satd. Flow (prot)	0	1800	0	0	1835	0	0	1859	0	0	1857	0
Flt Permitted								0.996			0.994	
Satd. Flow (perm)	0	1812	0	0	1850	0	0	1853	0	0	1848	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			1			1			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		911			1129			278			418	
Travel Time (s)		20.7			25.7			6.3			9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	10	3	3	15	1	4	220	1	8	289	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	0	19	0	0	225	0	0	302	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		5.9			6.0			34.9			34.9	
Actuated g/C Ratio		0.16			0.16			0.92			0.92	
v/c Ratio		0.05			0.07			0.13			0.18	
Control Delay		13.0			13.9			1.6			1.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.0			13.9			1.6			1.7	
LOS		B			B			A			A	
Approach Delay		13.0			13.9			1.6			1.7	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.9												

Lanes, Volumes, Timings
62: Jefferson Ave & Eaton St/Kingsley St

03/21/2022

Natural Cycle: 45

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.18

Intersection Signal Delay: 2.4

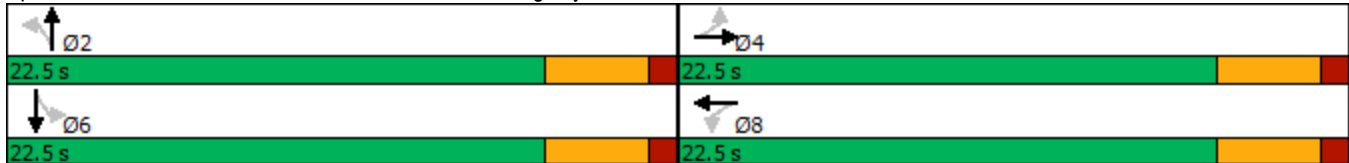
Intersection LOS: A

Intersection Capacity Utilization 29.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 62: Jefferson Ave & Eaton St/Kingsley St



Lanes, Volumes, Timings
63: Humboldt Parkway SB & Winslow Ave

03/21/2022

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	15	23	23	15	0	0	0	0	23	420	23	
Future Volume (vph)	0	15	23	23	15	0	0	0	0	23	420	23	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.918										0.993		
Flt Protected					0.970						0.998		
Satd. Flow (prot)	0	1710	0	0	1807	0	0	0	0	0	1846	0	
Flt Permitted					0.970						0.998		
Satd. Flow (perm)	0	1710	0	0	1807	0	0	0	0	0	1846	0	
Link Speed (mph)	30				30				30		30		
Link Distance (ft)	304				154				296		265		
Travel Time (s)	6.9				3.5				6.7		6.0		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	16	25	25	16	0	0	0	0	25	457	25	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	41	0	0	41	0	0	0	0	0	507	0	
Sign Control	Stop					Stop			Stop			Free	
Intersection Summary													
Area Type:	Other												
Control Type:	Unsignalized												
Intersection Capacity Utilization	40.2%				ICU Level of Service A								
Analysis Period (min)	15												

HCM 6th TWSC
63: Humboldt Parkway SB & Winslow Ave

03/21/2022

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	15	23	23	15	0	0	0	0	23	420	23
Future Vol, veh/h	0	15	23	23	15	0	0	0	0	23	420	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	16	25	25	16	0	0	0	0	25	457	25
Major/Minor	Minor2		Minor1				Major2					
Conflicting Flow All	-	520	470	540	532	-				0	0	0
Stage 1	-	520	-	0	0	-				-	-	-
Stage 2	-	0	-	540	532	-				-	-	-
Critical Hdwy	-	6.52	6.22	7.12	6.52	-				4.12	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-				-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-				-	-	-
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-				2.218	-	-
Pot Cap-1 Maneuver	0	461	594	453	453	0				-	-	-
Stage 1	0	532	-	-	-	0				-	-	-
Stage 2	0	-	-	526	526	0				-	-	-
Platoon blocked, %											-	-
Mov Cap-1 Maneuver	-	461	594	422	453	-				-	-	-
Mov Cap-2 Maneuver	-	461	-	422	453	-				-	-	-
Stage 1	-	532	-	-	-	-				-	-	-
Stage 2	-	-	-	488	526	-				-	-	-
Approach	EB		WB				SB					
HCM Control Delay, s	12.3		14.2									
HCM LOS	B		B									
Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR							
Capacity (veh/h)	533 434		-	-	-							
HCM Lane V/C Ratio	0.077 0.095		-	-	-							
HCM Control Delay (s)	12.3 14.2		-	-	-							
HCM Lane LOS	B B		-	-	-							
HCM 95th %tile Q(veh)	0.3 0.3		-	-	-							

Lanes, Volumes, Timings
64: Humboldt Parkway NB & Winslow Ave

03/21/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	23	0	0	23	15	15	275	15	0	0	0
Future Volume (vph)	15	23	0	0	23	15	15	275	15	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.947			0.993				
Flt Protected		0.981						0.998				
Satd. Flow (prot)	0	1827	0	0	1764	0	0	1846	0	0	0	0
Flt Permitted		0.981						0.998				
Satd. Flow (perm)	0	1827	0	0	1764	0	0	1846	0	0	0	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		154			339			462			267	
Travel Time (s)		3.5			7.7			10.5			6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	25	0	0	25	16	16	299	16	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	41	0	0	41	0	0	331	0	0	0	0
Sign Control		Stop			Stop			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	31.6%											
Analysis Period (min)	15											
ICU Level of Service A												

HCM 6th TWSC
64: Humboldt Parkway NB & Winslow Ave

03/21/2022

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			↱			↰↱				
Traffic Vol, veh/h	15	23	0	0	23	15	15	275	15	0	0	0
Future Vol, veh/h	15	23	0	0	23	15	15	275	15	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	25	0	0	25	16	16	299	16	0	0	0
Major/Minor	Minor2		Minor1		Major1							
Conflicting Flow All	360	347	-	-	339	307	0	0	0			
Stage 1	0	0	-	-	339	-	-	-	-			
Stage 2	360	347	-	-	0	-	-	-	-			
Critical Hdwy	7.12	6.52	-	-	6.52	6.22	4.12	-	-			
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-			
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-			
Follow-up Hdwy	3.518	4.018	-	-	4.018	3.318	2.218	-	-			
Pot Cap-1 Maneuver	596	576	0	0	582	733	-	-	-			
Stage 1	-	-	0	0	640	-	-	-	-			
Stage 2	658	635	0	0	-	-	-	-	-			
Platoon blocked, %								-	-			
Mov Cap-1 Maneuver	564	576	-	-	582	733	-	-	-			
Mov Cap-2 Maneuver	564	576	-	-	582	-	-	-	-			
Stage 1	-	-	-	-	640	-	-	-	-			
Stage 2	618	635	-	-	-	-	-	-	-			
Approach	EB		WB		NB							
HCM Control Delay, s	11.8		11.1									
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL		NBT		NBR		EBLn1WBLn1					
Capacity (veh/h)	-		-		-		571		634			
HCM Lane V/C Ratio	-		-		-		0.072		0.065			
HCM Control Delay (s)	-		-		-		11.8		11.1			
HCM Lane LOS	-		-		-		B		B			
HCM 95th %tile Q(veh)	-		-		-		0.2		0.2			

Lanes, Volumes, Timings
118: Humboldt Parkway SB

03/21/2022

						
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	306			252	236	
Travel Time (s)	7.0			5.7	5.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	18.3%			ICU Level of Service A		
Analysis Period (min)	15					

Appendix C5

Synchro Outputs for Concept 9

Lanes, Volumes, Timings
1: EB Off Ramp & Best St

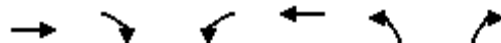
03/10/2022

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘↗	
Traffic Volume (vph)	203	0	0	161	55	264
Future Volume (vph)	203	0	0	161	55	264
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Fr _t					0.888	
Fl _t Protected					0.991	
Satd. Flow (prot)	3539	0	0	3539	1639	0
Fl _t Permitted					0.991	
Satd. Flow (perm)	3539	0	0	3539	1639	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)					287	
Link Speed (mph)	30			30	30	
Link Distance (ft)	249			205	354	
Travel Time (s)	5.7			4.7	8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	221	0	0	175	60	287
Shared Lane Traffic (%)						
Lane Group Flow (vph)	221	0	0	175	347	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA			NA	Prot	
Protected Phases	4			8	2	
Permitted Phases						
Minimum Split (s)	22.5			22.5	22.5	
Total Split (s)	22.5			22.5	22.5	
Total Split (%)	50.0%			50.0%	50.0%	
Maximum Green (s)	18.0			18.0	18.0	
Yellow Time (s)	3.5			3.5	3.5	
All-Red Time (s)	1.0			1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0			7.0	7.0	
Flash Dont Walk (s)	11.0			11.0	11.0	
Pedestrian Calls (#/hr)	0			0	0	
Act Effect Green (s)	18.0			18.0	18.0	
Actuated g/C Ratio	0.40			0.40	0.40	
v/c Ratio	0.16			0.12	0.42	
Control Delay	9.0			8.9	4.2	
Queue Delay	0.0			0.0	0.0	
Total Delay	9.0			8.9	4.2	

Lanes, Volumes, Timings

1: EB Off Ramp & Best St

03/10/2022



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
LOS	A			A	A	
Approach Delay	9.0			8.9	4.2	
Approach LOS	A			A	A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBL and 6:, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 6.7

Intersection LOS: A

Intersection Capacity Utilization 32.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: EB Off Ramp & Best St

Ø2 (R) 22.5 s	Ø4 22.5 s
	Ø8 22.5 s

Lanes, Volumes, Timings
2: WB On Ramp/WB Off Ramp & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	561	49	196	434	0	0	0	0	54	0	69
Future Volume (vph)	0	561	49	196	434	0	0	0	0	54	0	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988									0.924	
Flt Protected					0.985						0.978	
Satd. Flow (prot)	0	3497	0	0	3486	0	0	0	0	0	1683	0
Flt Permitted					0.626						0.978	
Satd. Flow (perm)	0	3497	0	0	2216	0	0	0	0	0	1683	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23									75	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		473			249			324			329	
Travel Time (s)		10.8			5.7			7.4			7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	610	53	213	472	0	0	0	0	59	0	75
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	663	0	0	685	0	0	0	0	0	134	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases	4			8						6		
Minimum Split (s)	22.5	22.5		22.5	22.5					22.5	22.5	
Total Split (s)	27.0	27.0		27.0	27.0					23.0	23.0	
Total Split (%)	54.0%	54.0%		54.0%	54.0%					46.0%	46.0%	
Maximum Green (s)	22.5	22.5		22.5	22.5					18.5	18.5	
Yellow Time (s)	3.5	3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0			0.0						0.0	
Total Lost Time (s)		4.5			4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0					7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0					11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0					0	0	
Act Effect Green (s)		22.5			22.5						18.5	
Actuated g/C Ratio		0.45			0.45						0.37	
v/c Ratio		0.42			0.69						0.20	

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		10.0			15.4						6.5	
Queue Delay		0.0			0.6						0.0	
Total Delay		10.0			16.0						6.5	
LOS		A			B						A	
Approach Delay		10.0			16.0						6.5	
Approach LOS		A			B						A	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 0 (0%), Referenced to phase 2: and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Pretimed

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 12.4

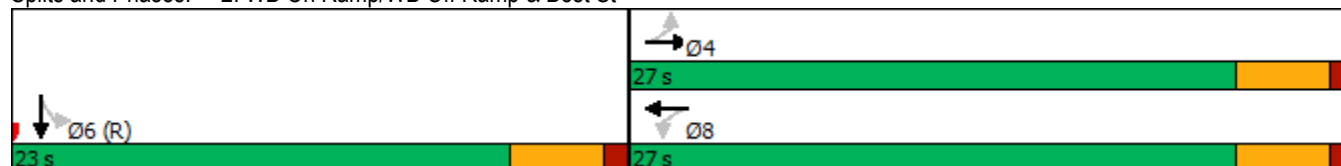
Intersection LOS: B

Intersection Capacity Utilization 53.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: WB On Ramp/WB Off Ramp & Best St



Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/10/2022

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	166	28	329	58	44	538	152	25	40	14	4	1
Future Volume (vph)	166	28	329	58	44	538	152	25	40	14	4	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.985			0.969				0.989		
Flt Protected			0.984			0.997				0.967		
Satd. Flow (prot)	0	0	3430	0	0	1800	0	0	0	1781	0	0
Flt Permitted			0.567			0.940				0.768		
Satd. Flow (perm)	0	0	1977	0	0	1697	0	0	0	1415	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			31			4				1		
Link Speed (mph)			30			30				30		
Link Distance (ft)			205			1418				1329		
Travel Time (s)			4.7			32.2				30.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	180	30	358	63	48	585	165	27	43	15	4	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	631	0	0	825	0	0	0	63	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Right	Right
Median Width(ft)			0			0				0		
Link Offset(ft)			0			0				0		
Crosswalk Width(ft)			16			16				16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15		9	15		9	9	15		9	9
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		
Protected Phases			4			8				2		
Permitted Phases	4	4			8				2			
Minimum Split (s)	22.5	22.5	22.5		22.5	22.5			22.5	22.5		
Total Split (s)	37.0	37.0	37.0		37.0	37.0			23.0	23.0		
Total Split (%)	61.7%	61.7%	61.7%		61.7%	61.7%			38.3%	38.3%		
Maximum Green (s)	32.5	32.5	32.5		32.5	32.5			18.5	18.5		
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5			3.5	3.5		
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0			1.0	1.0		
Lost Time Adjust (s)			0.0			0.0				0.0		
Total Lost Time (s)			4.5			4.5				4.5		
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0	7.0		7.0	7.0			7.0	7.0		
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	11.0			11.0	11.0		
Pedestrian Calls (#/hr)	0	0	0		0	0			0	0		
Act Effect Green (s)			32.5			32.5				18.5		
Actuated g/C Ratio			0.54			0.54				0.31		
v/c Ratio			0.58			0.90				0.14		
Control Delay			11.4			27.7				16.0		
Queue Delay			2.1			0.0				0.0		
Total Delay			13.5			27.7				16.0		

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/10/2022



Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	58	36	72
Future Volume (vph)	58	36	72
Ideal Flow (vphpl)	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00
Fr't		0.941	
Flt Protected		0.983	
Satd. Flow (prot)	0	1723	0
Flt Permitted		0.882	
Satd. Flow (perm)	0	1546	0
Right Turn on Red			Yes
Satd. Flow (RTOR)		66	
Link Speed (mph)		30	
Link Distance (ft)		623	
Travel Time (s)		14.2	
Peak Hour Factor	0.92	0.92	0.92
Adj. Flow (vph)	63	39	78
Shared Lane Traffic (%)			
Lane Group Flow (vph)	0	180	0
Enter Blocked Intersection	No	No	No
Lane Alignment	Left	Left	Right
Median Width(ft)		0	
Link Offset(ft)		0	
Crosswalk Width(ft)		16	
Two way Left Turn Lane			
Headway Factor	1.00	1.00	1.00
Turning Speed (mph)	15		9
Turn Type	Perm	NA	
Protected Phases		6	
Permitted Phases	6		
Minimum Split (s)	22.5	22.5	
Total Split (s)	23.0	23.0	
Total Split (%)	38.3%	38.3%	
Maximum Green (s)	18.5	18.5	
Yellow Time (s)	3.5	3.5	
All-Red Time (s)	1.0	1.0	
Lost Time Adjust (s)		0.0	
Total Lost Time (s)		4.5	
Lead/Lag			
Lead-Lag Optimize?			
Walk Time (s)	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0	
Pedestrian Calls (#/hr)	0	0	
Act Effct Green (s)		18.5	
Actuated g/C Ratio		0.31	
v/c Ratio		0.34	
Control Delay		12.5	
Queue Delay		0.0	
Total Delay		12.5	

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/10/2022



Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
LOS			B			C				B		
Approach Delay			13.5			27.7				16.0		
Approach LOS			B			C				B		

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 20.4

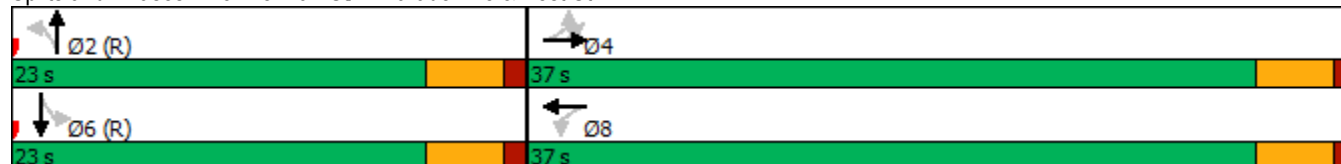
Intersection LOS: C

Intersection Capacity Utilization 78.9%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 3: Herman St/W Parade Ave & Best St



Lanes, Volumes, Timings
3: Herman St/W Parade Ave & Best St

03/10/2022



Lane Group	SBL	SBT	SBR
LOS		B	
Approach Delay		12.5	
Approach LOS		B	
Intersection Summary			

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/10/2022

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	50	1	3	272	0	0	0	0	457	400	154	
Future Volume (vph)	0	50	1	3	272	0	0	0	0	457	400	154	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Fr't	0.998										0.979		
Flt Protected	0.999										0.978		
Satd. Flow (prot)	0	1859	0	0	1861	0	0	0	0	0	1784	0	
Flt Permitted	0.999										0.978		
Satd. Flow (perm)	0	1859	0	0	1861	0	0	0	0	0	1784	0	
Right Turn on Red	Yes					Yes				Yes			Yes
Satd. Flow (RTOR)	1										6		
Link Speed (mph)	30				30				30				
Link Distance (ft)	1032				100				717				
Travel Time (s)	23.5				2.3				16.3				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	54	1	3	296	0	0	0	0	497	435	167	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	55	0	0	299	0	0	0	0	0	1099	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)	0				0				0				
Link Offset(ft)	0				0				0				
Crosswalk Width(ft)	16				16				16				
Two way Left Turn Lane													
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Turn Type	NA		Perm		NA				Perm		NA		
Protected Phases	3				3 5 10						9		
Permitted Phases			3 5 10								9		
Minimum Split (s)	22.5										9.5	9.5	
Total Split (s)	22.5										38.0	38.0	
Total Split (%)	15.0%										25.3%	25.3%	
Maximum Green (s)	18.0										33.5	33.5	
Yellow Time (s)	3.5										3.5	3.5	
All-Red Time (s)	1.0										1.0	1.0	
Lost Time Adjust (s)	0.0										0.0		
Total Lost Time (s)	4.5										4.5		
Lead/Lag											Lead	Lead	
Lead-Lag Optimize?											Yes	Yes	
Walk Time (s)	7.0												
Flash Dont Walk (s)	11.0												
Pedestrian Calls (#/hr)	0												
Act Effct Green (s)	18.0				107.5				33.5				
Actuated g/C Ratio	0.12				0.72				0.22				
v/c Ratio	0.25				0.22				2.73				
Control Delay	62.0				4.1				806.8				
Queue Delay	0.0				0.0				2.8				
Total Delay	62.0				4.1				809.6				

Lanes, Volumes, Timings
4: Humboldt Parkway SB & Northhampton St

03/10/2022

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø10
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	1	2	5	7	10
Permitted Phases					
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5
Total Split (s)	9.5	57.5	67.0	22.5	22.5
Total Split (%)	6%	38%	45%	15%	15%
Maximum Green (s)	5.0	53.0	62.5	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lag	Lead			Lag
Lead-Lag Optimize?	Yes	Yes			Yes
Walk Time (s)		7.0	7.0	7.0	7.0
Flash Dont Walk (s)		11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0	0	0
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		E			A						F	
Approach Delay		62.0			4.1						809.6	
Approach LOS		E			A						F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 28 (19%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 2.73

Intersection Signal Delay: 615.6

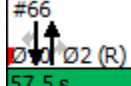
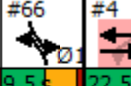
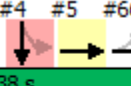
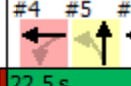
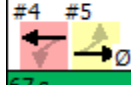
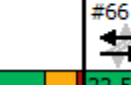
Intersection LOS: F

Intersection Capacity Utilization 79.9%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 4: Humboldt Parkway SB & Northhampton St

			
Ø2 (R)	Ø1	Ø3	Ø9
57.5 s	9.5 s	22.5 s	38 s
			
Ø5	Ø7		
67 s	22.5 s		

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø10
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
5: Humboldt Parkway NB & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	567	0	0	122	1	2	8	3	0	0	0
Future Volume (vph)	1	567	0	0	122	1	2	8	3	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.999			0.971				
Flt Protected								0.993				
Satd. Flow (prot)	0	1863	0	0	1861	0	0	1796	0	0	0	0
Flt Permitted								0.993				
Satd. Flow (perm)	0	1863	0	0	1861	0	0	1796	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								3				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		196			1089			152			722	
Travel Time (s)		4.5			24.8			3.5			16.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	616	0	0	133	1	2	9	3	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	617	0	0	134	0	0	14	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	custom	NA			NA		Perm	NA				
Protected Phases		3 5 9			3			10				
Permitted Phases	5						10					
Minimum Split (s)	22.5				22.5		22.5	22.5				
Total Split (s)	67.0				22.5		22.5	22.5				
Total Split (%)	44.7%				15.0%		15.0%	15.0%				
Maximum Green (s)	62.5				18.0		18.0	18.0				
Yellow Time (s)	3.5				3.5		3.5	3.5				
All-Red Time (s)	1.0				1.0		1.0	1.0				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					4.5			4.5				
Lead/Lag							Lag	Lag				
Lead-Lag Optimize?							Yes	Yes				
Walk Time (s)	7.0				7.0		7.0	7.0				
Flash Dont Walk (s)	11.0				11.0		11.0	11.0				
Pedestrian Calls (#/hr)	0				0		0	0				
Act Effct Green (s)		123.0			18.0			18.0				
Actuated g/C Ratio		0.82			0.12			0.12				
v/c Ratio		0.40			0.60			0.06				
Control Delay		3.0			74.7			50.5				
Queue Delay		2.2			0.0			0.0				
Total Delay		5.1			74.7			50.5				

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

03/10/2022

Lane Group	Ø1	Ø2	Ø7	Ø9
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Turn Type				
Protected Phases	1	2	7	9
Permitted Phases				
Minimum Split (s)	9.5	22.5	22.5	9.5
Total Split (s)	9.5	57.5	22.5	38.0
Total Split (%)	6%	38%	15%	25%
Maximum Green (s)	5.0	53.0	18.0	33.5
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lag	Lead		Lead
Lead-Lag Optimize?	Yes	Yes		Yes
Walk Time (s)		7.0	7.0	
Flash Dont Walk (s)		11.0	11.0	
Pedestrian Calls (#/hr)		0	0	
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			E			D				
Approach Delay		5.1			74.7			50.5				
Approach LOS		A			E			D				

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 28 (19%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 2.73

Intersection Signal Delay: 18.2

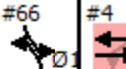
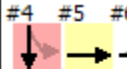
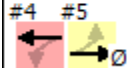
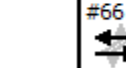
Intersection LOS: B

Intersection Capacity Utilization 42.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Humboldt Parkway NB & Northhampton St

				
Ø2 (R)	Ø1	Ø3	Ø9	Ø9
57.5 s	9.5 s	22.5 s	38 s	22.5 s
				
Ø5	Ø7			
67 s	22.5 s			

Lane Group	Ø1	Ø2	Ø7	Ø9
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				

Lanes, Volumes, Timings
6: Humboldt Parkway SB & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	131	2	6	539	0	0	0	0	58	402	69
Future Volume (vph)	0	131	2	6	539	0	0	0	0	58	402	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.998									0.980	
Flt Protected				0.950							0.995	
Satd. Flow (prot)	0	1859	0	1770	1863	0	0	0	0	0	3451	0
Flt Permitted				0.665							0.995	
Satd. Flow (perm)	0	1859	0	1239	1863	0	0	0	0	0	3451	0
Right Turn on Red			Yes			Yes				Yes		Yes
Satd. Flow (RTOR)											9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1162			94			635			457	
Travel Time (s)		26.4			2.1			14.4			10.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	142	2	7	586	0	0	0	0	63	437	75
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	144	0	7	586	0	0	0	0	0	575	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		3			3 5 10						9	
Permitted Phases				3 5 10						9		
Minimum Split (s)		22.5								9.5	9.5	
Total Split (s)		22.5								17.0	17.0	
Total Split (%)		15.0%								11.3%	11.3%	
Maximum Green (s)		18.0								12.5	12.5	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.0								1.0	1.0	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		4.5									4.5	
Lead/Lag										Lead	Lead	
Lead-Lag Optimize?										Yes	Yes	
Walk Time (s)		7.0										
Flash Dont Walk (s)		11.0										
Pedestrian Calls (#/hr)		0										
Act Effect Green (s)		18.0		128.5	128.5						12.5	
Actuated g/C Ratio		0.12		0.86	0.86						0.08	
v/c Ratio		0.65		0.01	0.37						1.95	

Lanes, Volumes, Timings
6: Humboldt Parkway SB & E Utica St

03/10/2022

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø10
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	1	2	5	7	10
Permitted Phases					
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5
Total Split (s)	11.0	71.5	82.5	22.5	28.0
Total Split (%)	7%	48%	55%	15%	19%
Maximum Green (s)	6.5	67.0	78.0	18.0	23.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lag	Lead			Lag
Lead-Lag Optimize?	Yes	Yes			Yes
Walk Time (s)		7.0	7.0	7.0	7.0
Flash Dont Walk (s)		11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0	0	0
Act Effect Green (s)					
Actuated g/C Ratio					
v/c Ratio					

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		77.2		0.3	1.1						452.6	
Queue Delay		0.0		0.0	0.0						0.0	
Total Delay		77.2		0.3	1.1						452.6	
LOS		E		A	A						F	
Approach Delay		77.2			1.1						452.6	
Approach LOS		E			A						F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 27 (18%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 1.95

Intersection Signal Delay: 207.3

Intersection LOS: F

Intersection Capacity Utilization 50.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: Humboldt Parkway SB & E Utica St

#67  Ø2 (R)	#67  Ø1	#6 #7  Ø3	#6 #7 #67  Ø10
71.5 s	11 s	22.5 s	17 s
#6 #7  Ø5	#67  Ø7		
82.5 s	22.5 s		

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø10
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
7: Humboldt Parkway NB & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	222	0	0	120	1	95	275	66	0	0	0
Future Volume (vph)	12	222	0	0	120	1	95	275	66	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.999				0.850			
Fl _t Protected	0.950							0.987				
Satd. Flow (prot)	1770	1863	0	0	1861	0	0	1839	1583	0	0	0
Fl _t Permitted	0.167							0.987				
Satd. Flow (perm)	311	1863	0	0	1861	0	0	1839	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)									109			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		77			1076			613			291	
Travel Time (s)		1.8			24.5			13.9			6.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	241	0	0	130	1	103	299	72	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	241	0	0	131	0	0	402	72	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		3 5 9			3			10				
Permitted Phases	3 5 9						10		10			
Minimum Split (s)					22.5		22.5	22.5	22.5			
Total Split (s)					22.5		28.0	28.0	28.0			
Total Split (%)					15.0%		18.7%	18.7%	18.7%			
Maximum Green (s)					18.0		23.5	23.5	23.5			
Yellow Time (s)					3.5		3.5	3.5	3.5			
All-Red Time (s)					1.0		1.0	1.0	1.0			
Lost Time Adjust (s)					0.0			0.0	0.0			
Total Lost Time (s)					4.5			4.5	4.5			
Lead/Lag							Lag	Lag	Lag			
Lead-Lag Optimize?							Yes	Yes	Yes			
Walk Time (s)					7.0		7.0	7.0	7.0			
Flash Dont Walk (s)					11.0		11.0	11.0	11.0			
Pedestrian Calls (#/hr)					0		0	0	0			
Act Effct Green (s)	117.5	117.5			18.0			23.5	23.5			
Actuated g/C Ratio	0.78	0.78			0.12			0.16	0.16			
v/c Ratio	0.05	0.17			0.59			1.40	0.21			
Control Delay	1.3	1.5			74.0			242.9	4.2			
Queue Delay	0.0	0.0			0.0			0.0	0.0			
Total Delay	1.3	1.5			74.0			242.9	4.2			

Lanes, Volumes, Timings
7: Humboldt Parkway NB & E Utica St

03/10/2022

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø9
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	1	2	5	7	9
Permitted Phases					
Minimum Split (s)	9.5	22.5	22.5	22.5	9.5
Total Split (s)	11.0	71.5	82.5	22.5	17.0
Total Split (%)	7%	48%	55%	15%	11%
Maximum Green (s)	6.5	67.0	78.0	18.0	12.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lag	Lead			Lead
Lead-Lag Optimize?	Yes	Yes			Yes
Walk Time (s)		7.0	7.0	7.0	
Flash Dont Walk (s)		11.0	11.0	11.0	
Pedestrian Calls (#/hr)		0	0	0	
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	A	A			E			F	A			
Approach Delay		1.5			74.0			206.6				
Approach LOS		A			E			F				

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 27 (18%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 1.95

Intersection Signal Delay: 125.8

Intersection LOS: F

Intersection Capacity Utilization 38.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 7: Humboldt Parkway NB & E Utica St

				
Ø2 (R)	Ø1	Ø3	Ø4	Ø10
71.5 s	11 s	22.5 s	17 s	28 s
				
Ø5	Ø7			
82.5 s	22.5 s			

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø9
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	556	9	12	1036	0	0	0	0	217	322	390
Future Volume (vph)	0	556	9	12	1036	0	0	0	0	217	322	390
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.998									0.943	
Fl _t Protected				0.950							0.988	
Satd. Flow (prot)	0	1859	0	1770	1863	0	0	0	0	0	1735	0
Fl _t Permitted				0.432							0.988	
Satd. Flow (perm)	0	1859	0	805	1863	0	0	0	0	0	1735	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)											21	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1165			84			321			268	
Travel Time (s)		26.5			1.9			7.3			6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	604	10	13	1126	0	0	0	0	236	350	424
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	614	0	13	1126	0	0	0	0	0	1010	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		3			3 5 10						9	
Permitted Phases				3 5 10						9		
Minimum Split (s)		22.5								9.5	9.5	
Total Split (s)		30.0								29.0	29.0	
Total Split (%)		20.0%								19.3%	19.3%	
Maximum Green (s)		25.5								24.5	24.5	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.0								1.0	1.0	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		4.5									4.5	
Lead/Lag										Lead	Lead	
Lead-Lag Optimize?										Yes	Yes	
Walk Time (s)		7.0										
Flash Dont Walk (s)		11.0										
Pedestrian Calls (#/hr)		0										
Act Effect Green (s)		25.5		116.5	116.5						24.5	
Actuated g/C Ratio		0.17		0.78	0.78						0.16	
v/c Ratio		1.94		0.02	0.78						3.37	
Control Delay		467.3		1.0	6.5						1091.1	
Queue Delay		4.7		0.0	0.0						0.1	
Total Delay		472.0		1.0	6.5						1091.3	

Lanes, Volumes, Timings
8: Humboldt Parkway SB & E Ferry St

03/10/2022

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø10
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	1	2	5	7	10
Permitted Phases					
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5
Total Split (s)	12.0	56.0	68.0	30.0	23.0
Total Split (%)	8%	37%	45%	20%	15%
Maximum Green (s)	7.5	51.5	63.5	25.5	18.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead	Lag		Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	
Walk Time (s)		7.0		7.0	7.0
Flash Dont Walk (s)		11.0		11.0	11.0
Pedestrian Calls (#/hr)		0		0	0
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		F		A	A						F	
Approach Delay		472.0			6.4						1091.3	
Approach LOS		F			A						F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green, Master Intersection

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 3.37

Intersection Signal Delay: 506.4

Intersection LOS: F

Intersection Capacity Utilization 114.8%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 8: Humboldt Parkway SB & E Ferry St

#68  Ø1	#68  Ø2 (R)	#8 #9  Ø3	#8 #9 #68  Ø9	#8 #9 #68  Ø10
12 s	56 s	30 s	29 s	23 s
#8 #9  Ø5	#68  Ø7			
68 s	30 s			

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø10
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
9: Humboldt Parkway NB & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	592	0	0	256	6	52	222	45	0	0	0
Future Volume (vph)	21	592	0	0	256	6	52	222	45	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	75		0	0		0
Storage Lanes	1		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.997				0.850			
Flt Protected	0.950							0.991				
Satd. Flow (prot)	1770	1863	0	0	1857	0	0	1846	1583	0	0	0
Flt Permitted	0.170							0.991				
Satd. Flow (perm)	317	1863	0	0	1857	0	0	1846	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1				109			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		78			1081			317			602	
Travel Time (s)		1.8			24.6			7.2			13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	643	0	0	278	7	57	241	49	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	643	0	0	285	0	0	298	49	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		3 5 9			3			10				
Permitted Phases	3 5 9						10		10			
Minimum Split (s)					22.5		22.5	22.5	22.5			
Total Split (s)					30.0		23.0	23.0	23.0			
Total Split (%)					20.0%		15.3%	15.3%	15.3%			
Maximum Green (s)					25.5		18.5	18.5	18.5			
Yellow Time (s)					3.5		3.5	3.5	3.5			
All-Red Time (s)					1.0		1.0	1.0	1.0			
Lost Time Adjust (s)					0.0			0.0	0.0			
Total Lost Time (s)					4.5			4.5	4.5			
Lead/Lag							Lag	Lag	Lag			
Lead-Lag Optimize?							Yes	Yes	Yes			
Walk Time (s)					7.0		7.0	7.0	7.0			
Flash Dont Walk (s)					11.0		11.0	11.0	11.0			
Pedestrian Calls (#/hr)					0		0	0	0			
Act Effct Green (s)	122.5	122.5			25.5			18.5	18.5			
Actuated g/C Ratio	0.82	0.82			0.17			0.12	0.12			
v/c Ratio	0.09	0.42			0.90			1.31	0.17			

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

03/10/2022

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø9
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	1	2	5	7	9
Permitted Phases					
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5
Total Split (s)	12.0	56.0	68.0	30.0	29.0
Total Split (%)	8%	37%	45%	20%	19%
Maximum Green (s)	7.5	51.5	63.5	25.5	24.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead	Lag			Lead
Lead-Lag Optimize?	Yes	Yes			Yes
Walk Time (s)		7.0		7.0	
Flash Dont Walk (s)		11.0		11.0	
Pedestrian Calls (#/hr)		0		0	
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	1.1	1.2			91.3			201.0	24.1			
Queue Delay	0.0	0.0			4.0			0.0	0.0			
Total Delay	1.1	1.2			95.3			201.0	24.1			
LOS	A	A			F			F	C			
Approach Delay		1.2			95.3			176.0				
Approach LOS		A			F			F				

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green, Master Intersection

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 3.37

Intersection Signal Delay: 68.6

Intersection LOS: E

Intersection Capacity Utilization 53.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 9: Humboldt Parkway NB & E Ferry St

#68  Ø1	#68  Ø2 (R)	#8 #9  Ø3	#8 #9 #68  Ø9	#8 #9 #68  Ø10
12 s	56 s	30 s	29 s	23 s
#8 #9  Ø5	#68  Ø7			
68 s	30 s			

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø9
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
10: Jefferson Ave & Cherry St & EB On Ramp

03/10/2022

										
Lane Group	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Traffic Volume (vph)	12	0	0	321	196	99	378	0	0	0
Future Volume (vph)	12	0	0	321	196	99	378	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00
Fr t	0.943									
Flt Protected	0.950						0.990			
Satd. Flow (prot)	1770	0	0	3337	0	0	3504	0	0	0
Flt Permitted	0.950						0.755			
Satd. Flow (perm)	1770	0	0	3337	0	0	2672	0	0	0
Right Turn on Red	Yes				Yes			Yes		
Satd. Flow (RTOR)	213									
Link Speed (mph)	30			30			30		30	
Link Distance (ft)	537			328			271		387	
Travel Time (s)	12.2			7.5			6.2		8.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	0	0	349	213	108	411	0	0	0
Shared Lane Traffic (%)										
Lane Group Flow (vph)	13	0	0	562	0	0	519	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right
Median Width(ft)	12			0			0		0	
Link Offset(ft)	0			0			0		0	
Crosswalk Width(ft)	16			16			16		16	
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15		9	15		9	15	9
Turn Type	Prot			NA		Perm	NA			
Protected Phases	4			2			6			
Permitted Phases	6									
Minimum Split (s)	22.5			22.5		22.5	22.5			
Total Split (s)	22.5			22.5		22.5	22.5			
Total Split (%)	50.0%			50.0%		50.0%	50.0%			
Maximum Green (s)	18.0			18.0		18.0	18.0			
Yellow Time (s)	3.5			3.5		3.5	3.5			
All-Red Time (s)	1.0			1.0		1.0	1.0			
Lost Time Adjust (s)	0.0			0.0			0.0			
Total Lost Time (s)	4.5			4.5			4.5			
Lead/Lag										
Lead-Lag Optimize?										
Walk Time (s)	7.0			7.0		7.0	7.0			
Flash Dont Walk (s)	11.0			11.0		11.0	11.0			
Pedestrian Calls (#/hr)	0			0		0	0			
Act Effect Green (s)	18.0			18.0			18.0			
Actuated g/C Ratio	0.40			0.40			0.40			
v/c Ratio	0.02			0.38			0.49			
Control Delay	8.3			3.7			7.8			
Queue Delay	0.0			0.0			0.0			
Total Delay	8.3			3.7			7.8			

Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
LOS	A			A			A			
Approach Delay	8.3			3.7			7.8			
Approach LOS	A			A			A			

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 29 (64%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 5.7

Intersection LOS: A

Intersection Capacity Utilization 43.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 10: Jefferson Ave & Cherry St & EB On Ramp

Ø2 (R) 22.5 s	Ø4 22.5 s
Ø6 (R) 22.5 s	

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	123	11	190	47	357	0	0	401	20
Future Volume (vph)	0	0	0	123	11	190	47	357	0	0	401	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt					0.921						0.993	
Flt Protected					0.981			0.994				
Satd. Flow (prot)	0	0	0	0	1683	0	0	3518	0	0	3514	0
Flt Permitted					0.981			0.867				
Satd. Flow (perm)	0	0	0	0	1683	0	0	3068	0	0	3514	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					189						13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			384			271			880	
Travel Time (s)		12.9			8.7			6.2			20.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	134	12	207	51	388	0	0	436	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	353	0	0	439	0	0	458	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8			2					
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (%)				50.0%	50.0%		50.0%	50.0%			50.0%	
Maximum Green (s)				18.0	18.0		18.0	18.0			18.0	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)				7.0	7.0		7.0	7.0			7.0	
Flash Dont Walk (s)				11.0	11.0		11.0	11.0			11.0	
Pedestrian Calls (#/hr)				0	0		0	0			0	
Act Effect Green (s)					18.0			18.0			18.0	
Actuated g/C Ratio					0.40			0.40			0.40	
v/c Ratio					0.45			0.36			0.32	

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay					6.8			7.7			9.8	
Queue Delay					0.0			0.0			0.0	
Total Delay					6.8			7.7			9.8	
LOS					A			A			A	
Approach Delay					6.8			7.7			9.8	
Approach LOS					A			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 32 (71%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 8.2

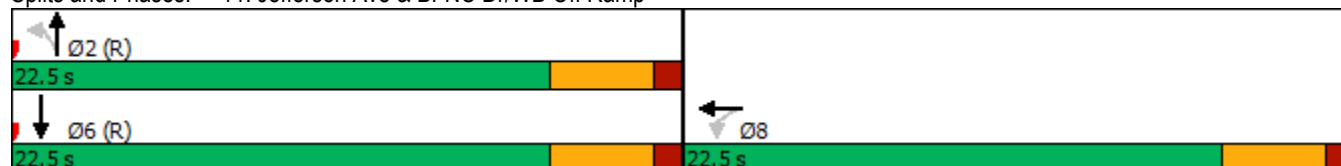
Intersection LOS: A

Intersection Capacity Utilization 53.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 11: Jefferson Ave & BFNC Dr/WB Off Ramp



Lanes, Volumes, Timings
12: Jefferson Ave & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	94	12	77	175	39	7	389	22	22	337	54
Future Volume (vph)	40	94	12	77	175	39	7	389	22	22	337	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.988			0.980			0.992			0.980	
Flt Protected		0.987			0.987			0.999			0.997	
Satd. Flow (prot)	0	3451	0	0	3423	0	0	3507	0	0	3458	0
Flt Permitted		0.835			0.843			0.947			0.921	
Satd. Flow (perm)	0	2920	0	0	2924	0	0	3325	0	0	3194	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			42			15			44	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		737			2886			735			328	
Travel Time (s)		16.8			65.6			16.7			7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	102	13	84	190	42	8	423	24	24	366	59
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	158	0	0	316	0	0	455	0	0	449	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.13			0.26			0.34			0.34	
Control Delay		8.2			1.4			9.9			5.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.2			1.4			9.9			5.1	

Lanes, Volumes, Timings

12: Jefferson Ave & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			A			A			A	
Approach Delay		8.2			1.4			9.9			5.1	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 32 (71%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.34

Intersection Signal Delay: 6.2

Intersection LOS: A

Intersection Capacity Utilization 50.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 12: Jefferson Ave & Genesee St

					
Ø2 (R)			Ø4		
22.5 s			22.5 s		
					
Ø6 (R)			Ø8		
22.5 s			22.5 s		

Lanes, Volumes, Timings
13: Herman St & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	163	3	14	381	10	17	55	5	25	72	9
Future Volume (vph)	10	163	3	14	381	10	17	55	5	25	72	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.996			0.992			0.988	
Flt Protected		0.997			0.998			0.989			0.988	
Satd. Flow (prot)	0	3522	0	0	3518	0	0	1828	0	0	1818	0
Flt Permitted		0.928			0.944			0.943			0.936	
Satd. Flow (perm)	0	3278	0	0	3328	0	0	1743	0	0	1723	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			7			5			10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2886			671			575			1329	
Travel Time (s)		65.6			15.3			13.1			30.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	177	3	15	414	11	18	60	5	27	78	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	191	0	0	440	0	0	83	0	0	115	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.15			0.33			0.12			0.17	
Control Delay		8.8			1.5			8.7			8.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.8			1.5			8.7			8.9	

Lanes, Volumes, Timings

13: Herman St & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			A			A			A	
Approach Delay		8.8			1.5			8.7			8.9	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 36 (80%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.33

Intersection Signal Delay: 4.9

Intersection LOS: A

Intersection Capacity Utilization 35.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 13: Herman St & Genesee St

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
14: Reed St/Rich St & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	239	0	0	436	12	10	3	9	4	0	4
Future Volume (vph)	2	239	0	0	436	12	10	3	9	4	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.996			0.944			0.932	
Flt Protected								0.978			0.976	
Satd. Flow (prot)	0	3539	0	0	3525	0	0	1720	0	0	1694	0
Flt Permitted		0.952						0.929			0.937	
Satd. Flow (perm)	0	3369	0	0	3525	0	0	1634	0	0	1627	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7			10			36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		671			961			780			839	
Travel Time (s)		15.3			21.8			17.7			19.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	260	0	0	474	13	11	3	10	4	0	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	262	0	0	487	0	0	24	0	0	8	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			50	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2						8			4		
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0			18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0			7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	
Act Effct Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.19			0.34			0.04			0.01	
Control Delay		11.0			10.1			6.8			0.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.0			10.1			6.8			0.4	

Lanes, Volumes, Timings
14: Reed St/Rich St & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			B			A			A	
Approach Delay		11.0			10.1			6.8			0.4	
Approach LOS		B			B			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 20 (44%), Referenced to phase 2:EBTL and 6:WBT, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.34

Intersection Signal Delay: 10.2

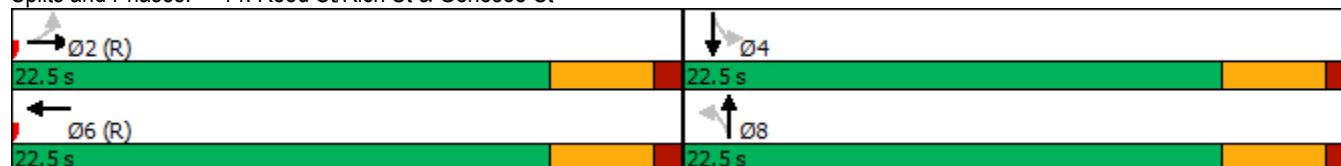
Intersection LOS: B

Intersection Capacity Utilization 24.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Reed St/Rich St & Genesee St



Lanes, Volumes, Timings
15: Fillmore Ave & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	189	35	86	318	4	31	237	49	9	307	39
Future Volume (vph)	32	189	35	86	318	4	31	237	49	9	307	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Flt		0.979			0.999			0.979			0.985	
Flt Protected		0.994			0.990			0.995			0.999	
Satd. Flow (prot)	0	3444	0	0	3500	0	0	1815	0	0	1833	0
Flt Permitted		0.865			0.820			0.942			0.989	
Satd. Flow (perm)	0	2997	0	0	2899	0	0	1718	0	0	1815	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38			2			24			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		961			671			704			490	
Travel Time (s)		21.8			15.3			16.0			11.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	35	205	38	93	346	4	34	258	53	10	334	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	278	0	0	443	0	0	345	0	0	386	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	

Lanes, Volumes, Timings
15: Fillmore Ave & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		11.2			11.2			18.1			18.1	
Actuated g/C Ratio		0.29			0.29			0.47			0.47	
v/c Ratio		0.31			0.52			0.42			0.45	
Control Delay		9.7			13.4			9.1			9.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.7			13.4			9.1			9.5	
LOS		A			B			A			A	
Approach Delay		9.7			13.4			9.1			9.5	
Approach LOS		A			B			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 38.4

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 10.6

Intersection LOS: B

Intersection Capacity Utilization 61.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 15: Fillmore Ave & Genesee St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
16: Fillmore Ave & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	366	171	3	503	19	114	201	8	20	260	48
Future Volume (vph)	44	366	171	3	503	19	114	201	8	20	260	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.995			0.997				0.850
Flt Protected		0.996						0.983			0.996	
Satd. Flow (prot)	0	1781	0	0	1853	0	0	1826	0	0	1855	1583
Flt Permitted		0.939			0.997			0.774			0.963	
Satd. Flow (perm)	0	1679	0	0	1848	0	0	1437	0	0	1794	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		55			5			3				52
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1418			567			490				61
Travel Time (s)		32.2			12.9			11.1				1.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	48	398	186	3	547	21	124	218	9	22	283	52
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	632	0	0	571	0	0	351	0	0	305	52
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0

Lanes, Volumes, Timings
16: Fillmore Ave & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (s)	27.2	27.2		27.2	27.2		22.8	22.8		22.8	22.8	22.8
Total Split (%)	54.4%	54.4%		54.4%	54.4%		45.6%	45.6%		45.6%	45.6%	45.6%
Maximum Green (s)	22.7	22.7		22.7	22.7		18.3	18.3		18.3	18.3	18.3
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)		4.5			4.5			4.5			4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	0
Act Effect Green (s)		20.9			20.9			20.1			20.1	20.1
Actuated g/C Ratio		0.42			0.42			0.40			0.40	0.40
v/c Ratio		0.86			0.74			0.61			0.42	0.08
Control Delay		26.0			18.3			18.7			3.9	0.2
Queue Delay		54.2			55.2			0.1			0.0	0.0
Total Delay		80.3			73.4			18.9			3.9	0.2
LOS		F			E			B			A	A
Approach Delay		80.3			73.4			18.9			3.4	
Approach LOS		F			E			B			A	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 52.6

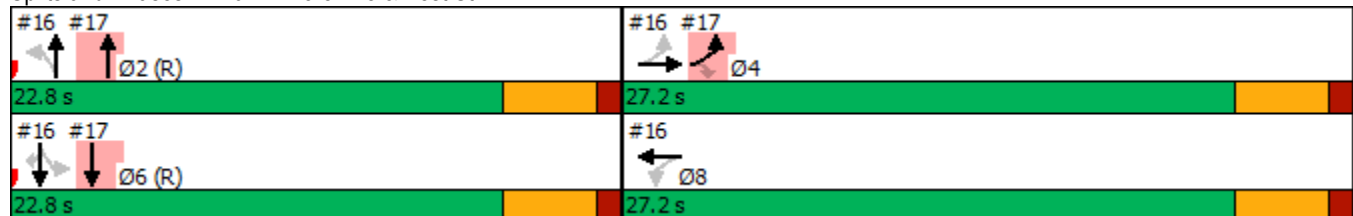
Intersection LOS: D

Intersection Capacity Utilization 105.8%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 16: Fillmore Ave & Best St



Lanes, Volumes, Timings
17: Fillmore Ave & East Park

03/10/2022

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	5	3	0	296	328	0	
Future Volume (vph)	5	3	0	296	328	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	0			100	
Storage Lanes	1	1	0			1	
Taper Length (ft)	25		25				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	
Frt		0.850					
Flt Protected	0.950						
Satd. Flow (prot)	1770	1583	0	1863	3539	0	
Flt Permitted	0.950						
Satd. Flow (perm)	1770	1583	0	1863	3539	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		3					
Link Speed (mph)	30			30	30		
Link Distance (ft)	468			61	755		
Travel Time (s)	10.6			1.4	17.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	5	3	0	322	357	0	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	5	3	0	322	357	0	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	Right	
Median Width(ft)	12			0	0		
Link Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9	15			9	
Number of Detectors	1	1		2	2		
Detector Template	Left	Right		Thru	Thru		
Leading Detector (ft)	20	20		100	100		
Trailing Detector (ft)	0	0		0	0		
Detector 1 Position(ft)	0	0		0	0		
Detector 1 Size(ft)	20	20		6	6		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel							
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		
Detector 2 Position(ft)				94	94		
Detector 2 Size(ft)				6	6		
Detector 2 Type				Cl+Ex	Cl+Ex		
Detector 2 Channel							
Detector 2 Extend (s)				0.0	0.0		
Turn Type	Prot	Perm		NA	NA		
Protected Phases	4			2	6		8
Permitted Phases		4					

Lanes, Volumes, Timings

17: Fillmore Ave & East Park

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Detector Phase	4	4		2	6		
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5
Total Split (s)	27.2	27.2		22.8	22.8		27.2
Total Split (%)	54.4%	54.4%		45.6%	45.6%		54%
Maximum Green (s)	22.7	22.7		18.3	18.3		22.7
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		
Total Lost Time (s)	4.5	4.5		4.5	4.5		
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0
Recall Mode	None	None		C-Max	C-Max		None
Walk Time (s)	7.0	7.0		7.0	7.0		7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0
Pedestrian Calls (#/hr)	0	0		0	0		0
Act Effect Green (s)	20.9	20.9		20.1	20.1		
Actuated g/C Ratio	0.42	0.42		0.40	0.40		
v/c Ratio	0.01	0.00		0.43	0.25		
Control Delay	7.6	5.7		7.4	11.3		
Queue Delay	0.0	0.0		0.0	0.0		
Total Delay	7.6	5.7		7.4	11.3		
LOS	A	A		A	B		
Approach Delay	6.9			7.4	11.3		
Approach LOS	A			A	B		

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 9.4

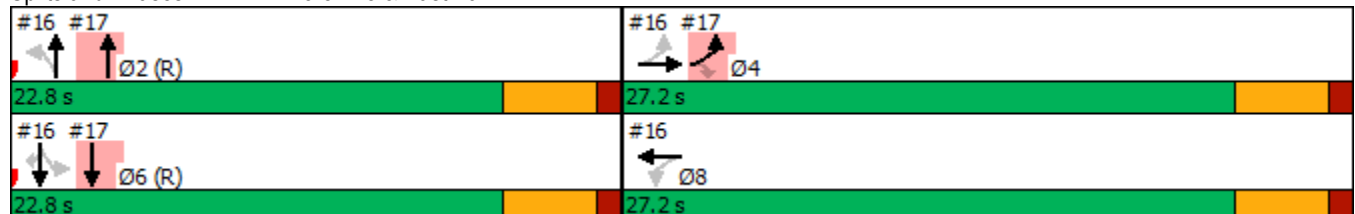
Intersection LOS: A

Intersection Capacity Utilization 27.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Fillmore Ave & East Park



Lanes, Volumes, Timings
18: Fillmore Ave & MLK Park

03/10/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	11	21	0	237	300	0
Future Volume (vph)	11	21	0	237	300	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr't	0.850					
Flt Protected	0.950					
Satd. Flow (prot)	1770	1583	0	1863	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1583	0	1863	1863	0
Right Turn on Red	Yes					
Satd. Flow (RTOR)	23					
Link Speed (mph)	30			30	30	
Link Distance (ft)	526			755	579	
Travel Time (s)	12.0			17.2	13.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	23	0	258	326	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	12	23	0	258	326	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	Prot	Perm		NA	NA	
Protected Phases	4			2	6	
Permitted Phases	4					
Minimum Split (s)	22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	
Act Effect Green (s)	18.0	18.0		18.0	18.0	
Actuated g/C Ratio	0.40	0.40		0.40	0.40	
v/c Ratio	0.02	0.04		0.35	0.44	
Control Delay	8.4	4.5		11.1	12.2	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	8.4	4.5		11.1	12.2	

Lanes, Volumes, Timings

18: Fillmore Ave & MLK Park

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
LOS	A	A		B	B	
Approach Delay	5.8			11.1	12.2	
Approach LOS	A			B	B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.44

Intersection Signal Delay: 11.4

Intersection LOS: B

Intersection Capacity Utilization 27.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Fillmore Ave & MLK Park

 Ø2 (R) 22.5 s	 Ø4 22.5 s
 Ø6 (R) 22.5 s	

Lanes, Volumes, Timings
19: Fillmore Ave & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	54	9	12	33	9	10	198	23	45	450	80
Future Volume (vph)	15	54	9	12	33	9	10	198	23	45	450	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.984			0.977			0.987			0.981	
Flt Protected		0.991			0.989			0.998			0.996	
Satd. Flow (prot)	0	1816	0	0	1800	0	0	1835	0	0	1820	0
Flt Permitted		0.956			0.948			0.973			0.961	
Satd. Flow (perm)	0	1752	0	0	1725	0	0	1789	0	0	1756	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			10			15			21	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1089			291			579			735	
Travel Time (s)		24.8			6.6			13.2			16.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	59	10	13	36	10	11	215	25	49	489	87
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	85	0	0	59	0	0	251	0	0	625	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.6	22.6		22.6	22.6		32.4	32.4		32.4	32.4	
Total Split (%)	41.1%	41.1%		41.1%	41.1%		58.9%	58.9%		58.9%	58.9%	
Maximum Green (s)	18.1	18.1		18.1	18.1		27.9	27.9		27.9	27.9	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.1			18.1			27.9			27.9	
Actuated g/C Ratio		0.33			0.33			0.51			0.51	
v/c Ratio		0.15			0.10			0.27			0.69	
Control Delay		12.6			11.8			8.3			15.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.6			11.8			8.3			15.0	

Lanes, Volumes, Timings

19: Fillmore Ave & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			B			A			B	
Approach Delay		12.6			11.8			8.3			15.0	
Approach LOS		B			B			A			B	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 55

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Pretimed

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 13.0

Intersection LOS: B

Intersection Capacity Utilization 58.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 19: Fillmore Ave & Northhampton St

 Ø2 (R)	 Ø4
32.4 s	22.6 s
 Ø6 (R)	 Ø8
32.4 s	22.6 s

Lanes, Volumes, Timings
21: Fillmore Ave & Riley St/Urban St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	0	2	0	0	0	3	329	0	0	589	0
Future Volume (vph)	5	0	2	0	0	0	3	329	0	0	589	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.961											
Flt Protected	0.966											
Satd. Flow (prot)	0	1729	0	0	3539	0	0	1863	0	0	1863	0
Flt Permitted	0.997											
Satd. Flow (perm)	0	1790	0	0	3539	0	0	1857	0	0	1863	0
Right Turn on Red	Yes											
Satd. Flow (RTOR)	30											
Link Speed (mph)	30											
Link Distance (ft)	1082											
Travel Time (s)	24.6											
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	0	2	0	0	0	3	358	0	0	640	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	7	0	0	0	0	0	361	0	0	640	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0											
Link Offset(ft)	0											
Crosswalk Width(ft)	16											
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	0		1	0	
Detector Template	Left	Thru			Thru		Left			Left		
Leading Detector (ft)	20	100			100		20	0		20	0	
Trailing Detector (ft)	0	0			0		0	0		0	0	
Detector 1 Position(ft)	0	0			0		0	0		0	0	
Detector 1 Size(ft)	20	6			6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA					Perm	NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4						2			6		
Detector Phase	4	4			8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	

Lanes, Volumes, Timings
21: Fillmore Ave & Riley St/Urban St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5			22.5		32.5	32.5		32.5	32.5	
Total Split (%)	40.9%	40.9%			40.9%		59.1%	59.1%		59.1%	59.1%	
Maximum Green (s)	18.0	18.0			18.0		28.0	28.0		28.0	28.0	
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None			None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0			7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	
Act Effct Green (s)		5.5						47.0			47.0	
Actuated g/C Ratio		0.11						0.95			0.95	
v/c Ratio		0.03						0.20			0.36	
Control Delay		1.8						1.1			1.6	
Queue Delay		0.0						0.0			0.0	
Total Delay		1.8						1.1			1.6	
LOS		A						A			A	
Approach Delay		1.8						1.1			1.6	
Approach LOS		A						A			A	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 49.5

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.36

Intersection Signal Delay: 1.4

Intersection LOS: A

Intersection Capacity Utilization 42.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 21: Fillmore Ave & Riley St/Urban St



Lanes, Volumes, Timings
22: Fillmore Ave & French St

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	18	52	329	5	59	440
Future Volume (vph)	18	52	329	5	59	440
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.900		0.998			
Flt Protected	0.987					0.994
Satd. Flow (prot)	1655	0	1859	0	0	1852
Flt Permitted	0.987					0.921
Satd. Flow (perm)	1655	0	1859	0	0	1716
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	57		2			
Link Speed (mph)	30		30			30
Link Distance (ft)	600		422			182
Travel Time (s)	13.6		9.6			4.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	57	358	5	64	478
Shared Lane Traffic (%)						
Lane Group Flow (vph)	77	0	363	0	0	542
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		27.5		27.5	27.5
Total Split (%)	45.0%		55.0%		55.0%	55.0%
Maximum Green (s)	18.0		23.0		23.0	23.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0		7.0		7.0	7.0
Flash Dont Walk (s)	11.0		11.0		11.0	11.0
Pedestrian Calls (#/hr)	0		0		0	0
Act Effct Green (s)	18.0		23.0			23.0
Actuated g/C Ratio	0.36		0.46			0.46
v/c Ratio	0.12		0.42			0.69
Control Delay	5.6		10.9			16.3
Queue Delay	0.0		0.0			53.8
Total Delay	5.6		10.9			70.1

Lanes, Volumes, Timings

22: Fillmore Ave & French St

03/10/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
LOS	A		B			E
Approach Delay	5.6		10.9			70.1
Approach LOS	A		B			E

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Pretimed

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 43.2

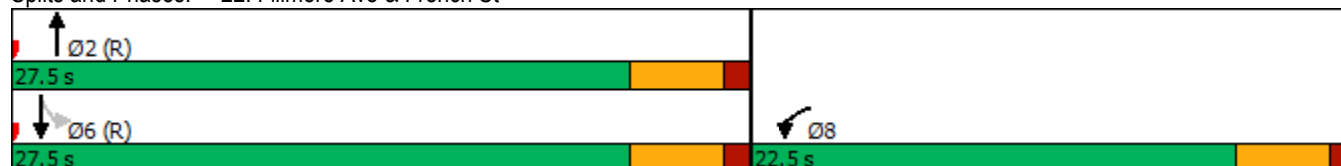
Intersection LOS: D

Intersection Capacity Utilization 59.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 22: Fillmore Ave & French St



Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	41	63	53	248	565	135
Future Volume (vph)	41	63	53	248	565	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.919				0.974	
Flt Protected	0.980			0.991		
Satd. Flow (prot)	1678	0	0	1846	1814	0
Flt Permitted	0.980			0.693		
Satd. Flow (perm)	1678	0	0	1291	1814	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	68				32	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1076			182	1350	
Travel Time (s)	24.5			4.1	30.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	68	58	270	614	147
Shared Lane Traffic (%)						
Lane Group Flow (vph)	113	0	0	328	761	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		37.5	37.5	37.5	
Total Split (%)	37.5%		62.5%	62.5%	62.5%	
Maximum Green (s)	18.0		33.0	33.0	33.0	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0		7.0	7.0	7.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Act Effect Green (s)	18.0			33.0	33.0	
Actuated g/C Ratio	0.30			0.55	0.55	
v/c Ratio	0.21			0.46	0.75	
Control Delay	8.8			10.8	16.0	
Queue Delay	0.0			7.0	0.0	
Total Delay	8.8			17.8	16.0	

Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
LOS	A			B	B	
Approach Delay	8.8			17.8	16.0	
Approach LOS	A			B	B	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 15.8

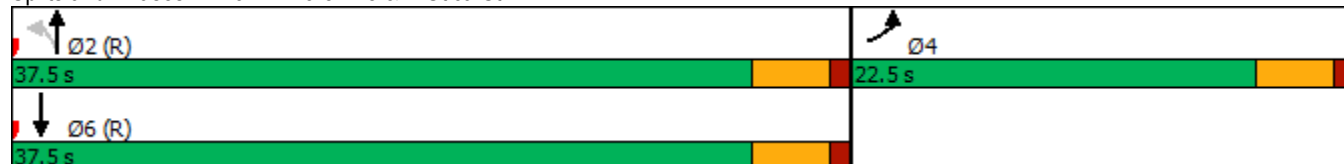
Intersection LOS: B

Intersection Capacity Utilization 71.3%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 23: Fillmore Ave & E Utica St



Lanes, Volumes, Timings
24: Fillmore Ave & E Ferry St

03/10/2022

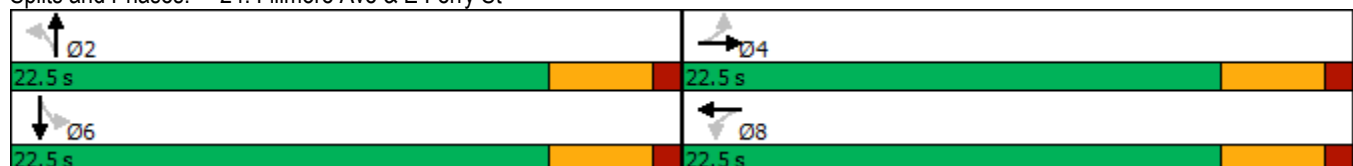
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	247	68	27	184	45	43	349	73	42	351	79
Future Volume (vph)	59	247	68	27	184	45	43	349	73	42	351	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.973			0.974			0.977			0.975	
Flt Protected		0.992			0.995			0.995			0.996	
Satd. Flow (prot)	0	3416	0	0	3430	0	0	3441	0	0	3437	0
Flt Permitted		0.854			0.882			0.883			0.887	
Satd. Flow (perm)	0	2941	0	0	3040	0	0	3053	0	0	3061	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		70			49			56			62	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1081			797			1350			1620	
Travel Time (s)		24.6			18.1			30.7			36.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	64	268	74	29	200	49	47	379	79	46	382	86
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	406	0	0	278	0	0	505	0	0	514	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		

Lanes, Volumes, Timings
24: Fillmore Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		9.9			9.9			18.1			18.1	
Actuated g/C Ratio		0.27			0.27			0.49			0.49	
v/c Ratio		0.49			0.33			0.33			0.34	
Control Delay		11.2			9.7			6.5			6.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.2			9.7			6.5			6.4	
LOS		B			A			A			A	
Approach Delay		11.2			9.7			6.5			6.4	
Approach LOS		B			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37												
Natural Cycle: 45												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.49												
Intersection Signal Delay: 8.1												
Intersection LOS: A												
Intersection Capacity Utilization 59.7%												
ICU Level of Service B												
Analysis Period (min) 15												

Splits and Phases: 24: Fillmore Ave & E Ferry St



Lanes, Volumes, Timings
25: Fillmore Ave & Northland Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	40	14	20	39	7	4	300	46	49	417	11
Future Volume (vph)	5	40	14	20	39	7	4	300	46	49	417	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.968			0.985			0.982			0.997	
Flt Protected		0.996			0.985			0.999			0.995	
Satd. Flow (prot)	0	1796	0	0	1807	0	0	1827	0	0	1848	0
Flt Permitted		0.986			0.929			0.995			0.931	
Satd. Flow (perm)	0	1778	0	0	1705	0	0	1820	0	0	1729	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			8			20			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1020			890			1620			1011	
Travel Time (s)		23.2			20.2			36.8			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	43	15	22	42	8	4	326	50	53	453	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	63	0	0	72	0	0	380	0	0	518	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.09			0.10			0.51			0.75	
Control Delay		7.3			8.3			12.7			20.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		7.3			8.3			12.7			20.7	

Lanes, Volumes, Timings

25: Fillmore Ave & Northland Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			A			B			C	
Approach Delay		7.3			8.3			12.7			20.7	
Approach LOS		A			A			B			C	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Pretimed

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 16.1

Intersection LOS: B

Intersection Capacity Utilization 63.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 25: Fillmore Ave & Northland Ave

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	133	16	28	152	30	23	248	33	77	394	81
Future Volume (vph)	67	133	16	28	152	30	23	248	33	77	394	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.980			0.985			0.980	
Flt Protected		0.985			0.993			0.996			0.993	
Satd. Flow (prot)	0	1816	0	0	1813	0	0	1827	0	0	1813	0
Flt Permitted		0.844			0.941			0.948			0.912	
Satd. Flow (perm)	0	1556	0	0	1718	0	0	1739	0	0	1665	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			24			18			26	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		928			735			1011			742	
Travel Time (s)		21.1			16.7			23.0			16.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	73	145	17	30	165	33	25	270	36	84	428	88
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	235	0	0	228	0	0	331	0	0	600	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	19.5	19.5		19.5	19.5		20.5	20.5		20.5	20.5	
Total Split (%)	48.8%	48.8%		48.8%	48.8%		51.3%	51.3%		51.3%	51.3%	
Maximum Green (s)	15.0	15.0		15.0	15.0		16.0	16.0		16.0	16.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		15.0			15.0			16.0			16.0	
Actuated g/C Ratio		0.38			0.38			0.40			0.40	
v/c Ratio		0.40			0.35			0.47			0.88	
Control Delay		11.3			9.9			11.1			30.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.3			9.9			11.1			30.0	

Lanes, Volumes, Timings

26: Fillmore Ave & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			A			B			C	
Approach Delay		11.3			9.9			11.1			30.0	
Approach LOS		B			A			B			C	

Intersection Summary

Area Type: Other

Cycle Length: 40

Actuated Cycle Length: 40

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 19.1

Intersection LOS: B

Intersection Capacity Utilization 78.3%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 26: Fillmore Ave & E Delavan Ave

 Ø2 (R)	 Ø4
20.5 s	19.5 s
 Ø6 (R)	 Ø8
20.5 s	19.5 s

Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	284	167	0	0	246	20	17	58	27	0	0	0
Future Volume (vph)	284	167	0	0	246	20	17	58	27	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	0		150	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.989				0.850			
Flt Protected		0.969						0.989				
Satd. Flow (prot)	0	3429	0	0	3500	0	0	1842	1583	0	0	0
Flt Permitted		0.673						0.989				
Satd. Flow (perm)	0	2382	0	0	3500	0	0	1842	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					22				36			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		310			928			1019			213	
Travel Time (s)		7.0			21.1			23.2			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	309	182	0	0	267	22	18	63	29	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	491	0	0	289	0	0	81	29	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Maximum Green (s)	18.0	18.0			18.0		18.0	18.0	18.0			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)		0.0			0.0			0.0	0.0			
Total Lost Time (s)		4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0			7.0		7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0	11.0			
Pedestrian Calls (#/hr)	0	0			0		0	0	0			
Act Effct Green (s)		18.0			18.0			18.0	18.0			
Actuated g/C Ratio		0.40			0.40			0.40	0.40			
v/c Ratio		0.52			0.20			0.11	0.04			

Lanes, Volumes, Timings

27: Humboldt Parkway NB & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		12.6			8.6			9.0	3.6			
Queue Delay		0.0			0.0			0.0	0.0			
Total Delay		12.6			8.6			9.0	3.6			
LOS		B			A			A	A			
Approach Delay		12.6			8.6			7.6				
Approach LOS		B			A			A				

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 10.7

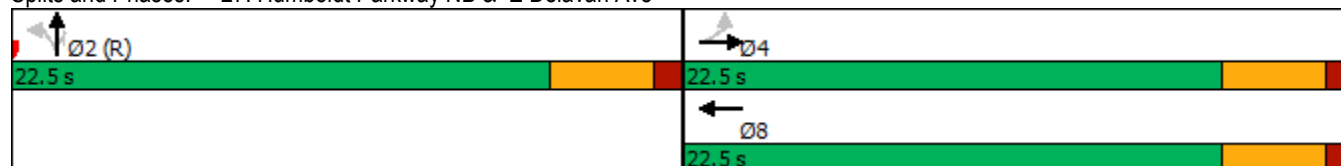
Intersection LOS: B

Intersection Capacity Utilization 38.6%

ICU Level of Service A

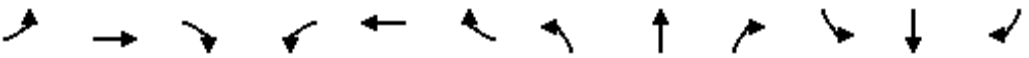
Analysis Period (min) 15

Splits and Phases: 27: Humboldt Parkway NB & E Delavan Ave



Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			↱↱						↱	↱
Traffic Volume (vph)	0	428	28	88	173	0	0	0	0	42	45	18
Future Volume (vph)	0	428	28	88	173	0	0	0	0	42	45	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992										0.850
Flt Protected					0.983						0.976	
Satd. Flow (prot)	0	1848	0	0	3479	0	0	0	0	0	1818	1583
Flt Permitted					0.664						0.976	
Satd. Flow (perm)	0	1848	0	0	2350	0	0	0	0	0	1818	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9										41
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2669			310			684			864	
Travel Time (s)		60.7			7.0			15.5			19.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	465	30	96	188	0	0	0	0	46	49	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	495	0	0	284	0	0	0	0	0	95	20
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		19.5		19.5	19.5					20.5	20.5	20.5
Total Split (%)		48.8%		48.8%	48.8%					51.3%	51.3%	51.3%
Maximum Green (s)		15.0		15.0	15.0					16.0	16.0	16.0
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0						0.0	0.0
Total Lost Time (s)		4.5			4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)		7.0		7.0	7.0					7.0	7.0	7.0
Flash Dont Walk (s)		11.0		11.0	11.0					11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0					0	0	0
Act Effect Green (s)		15.0			15.0						16.0	16.0
Actuated g/C Ratio		0.38			0.38						0.40	0.40
v/c Ratio		0.71			0.32						0.13	0.03

Lanes, Volumes, Timings

28: Humboldt Parkway SB & E Delavan Ave

03/10/2022

	↖	→	↘	↙	←	↖	↙	↑	↘	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		18.3			10.2						8.2	1.9
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		18.3			10.2						8.2	1.9
LOS		B			B						A	A
Approach Delay		18.3			10.2						7.1	
Approach LOS		B			B						A	

Intersection Summary

Area Type: Other

Cycle Length: 40

Actuated Cycle Length: 40

Offset: 8 (20%), Referenced to phase 2: and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 14.3

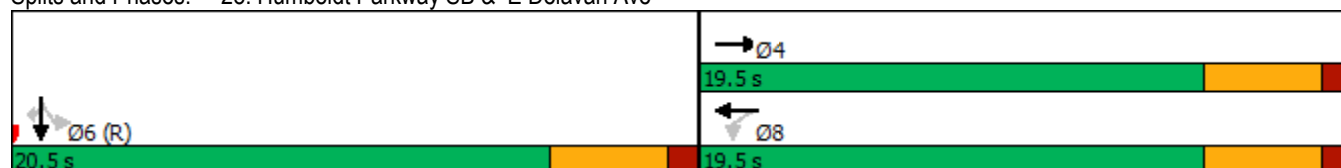
Intersection LOS: B

Intersection Capacity Utilization 47.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 28: Humboldt Parkway SB & E Delavan Ave



Lanes, Volumes, Timings
29: Jefferson Ave & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	347	30	21	111	12	35	112	62	6	92	102
Future Volume (vph)	39	347	30	21	111	12	35	112	62	6	92	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.989			0.960			0.931	
Flt Protected		0.995			0.993			0.992			0.998	
Satd. Flow (prot)	0	1835	0	0	1829	0	0	1774	0	0	1731	0
Flt Permitted		0.962			0.915			0.927			0.990	
Satd. Flow (perm)	0	1774	0	0	1686	0	0	1658	0	0	1717	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			12			56			111	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		592			2669			1017			352	
Travel Time (s)		13.5			60.7			23.1			8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	377	33	23	121	13	38	122	67	7	100	111
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	452	0	0	157	0	0	227	0	0	218	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.63			0.23			0.33			0.29	
Control Delay		15.4			9.4			15.6			6.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.4			9.4			15.6			6.1	

Lanes, Volumes, Timings

29: Jefferson Ave & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			A			B			A	
Approach Delay		15.4			9.4			15.6			6.1	
Approach LOS		B			A			B			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 12.6

Intersection LOS: B

Intersection Capacity Utilization 61.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 29: Jefferson Ave & E Delavan Ave

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
30: Jefferson Ave & Northland Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	20	9	19	7	19	12	157	9	13	155	16
Future Volume (vph)	13	20	9	19	7	19	12	157	9	13	155	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.971			0.943			0.993			0.988	
Flt Protected		0.985			0.979			0.997			0.996	
Satd. Flow (prot)	0	1782	0	0	1720	0	0	1844	0	0	1833	0
Flt Permitted		0.940			0.912			0.978			0.977	
Satd. Flow (perm)	0	1700	0	0	1602	0	0	1809	0	0	1798	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			21			7			12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		806			2743			848			1017	
Travel Time (s)		18.3			62.3			19.3			23.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	22	10	21	8	21	13	171	10	14	168	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	46	0	0	50	0	0	194	0	0	199	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.07			0.08			0.27			0.27	
Control Delay		7.4			6.3			10.0			10.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		7.4			6.3			10.0			10.2	

Lanes, Volumes, Timings

30: Jefferson Ave & Northland Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			A			A			B	
Approach Delay		7.4			6.3			10.0			10.2	
Approach LOS		A			A			A			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.27

Intersection Signal Delay: 9.5

Intersection LOS: A

Intersection Capacity Utilization 24.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 30: Jefferson Ave & Northland Ave

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
31: Jefferson Ave & Brunswick Blvd

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	25	20	165	26	11	169
Future Volume (vph)	25	20	165	26	11	169
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.939		0.982			
Flt Protected	0.973					0.997
Satd. Flow (prot)	1702	0	1829	0	0	1857
Flt Permitted	0.973					0.979
Satd. Flow (perm)	1702	0	1829	0	0	1824
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	22		23			
Link Speed (mph)	30		30			30
Link Distance (ft)	2734		751			848
Travel Time (s)	62.1		17.1			19.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	27	22	179	28	12	184
Shared Lane Traffic (%)						
Lane Group Flow (vph)	49	0	207	0	0	196
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	19.5		20.5		20.5	20.5
Total Split (%)	48.8%		51.3%		51.3%	51.3%
Maximum Green (s)	15.0		16.0		16.0	16.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0		7.0		7.0	7.0
Flash Dont Walk (s)	11.0		11.0		11.0	11.0
Pedestrian Calls (#/hr)	0		0		0	0
Act Effct Green (s)	15.0		16.0			16.0
Actuated g/C Ratio	0.38		0.40			0.40
v/c Ratio	0.08		0.28			0.27
Control Delay	6.1		8.9			9.3
Queue Delay	0.0		0.0			0.0
Total Delay	6.1		8.9			9.3

Lanes, Volumes, Timings

31: Jefferson Ave & Brunswick Blvd

03/10/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
LOS	A		A			A
Approach Delay	6.1		8.9			9.3
Approach LOS	A		A			A

Intersection Summary

Area Type: Other

Cycle Length: 40

Actuated Cycle Length: 40

Offset: 27 (68%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.28

Intersection Signal Delay: 8.8

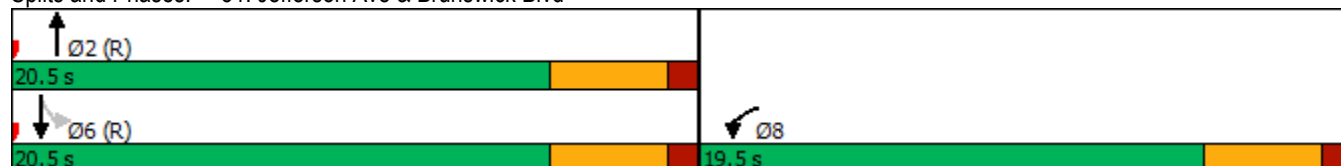
Intersection LOS: A

Intersection Capacity Utilization 29.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 31: Jefferson Ave & Brunswick Blvd



Lanes, Volumes, Timings
32: Jefferson Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	246	53	53	520	45	50	149	31	26	169	30
Future Volume (vph)	32	246	53	53	520	45	50	149	31	26	169	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.978			0.990			0.982			0.982	
Flt Protected		0.995			0.996			0.989			0.994	
Satd. Flow (prot)	0	1813	0	0	1837	0	0	1809	0	0	1818	0
Flt Permitted		0.916			0.945			0.893			0.949	
Satd. Flow (perm)	0	1669	0	0	1743	0	0	1633	0	0	1736	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		28			11			24			23	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			194			1406			751	
Travel Time (s)		7.5			4.4			32.0			17.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	35	267	58	58	565	49	54	162	34	28	184	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	360	0	0	672	0	0	250	0	0	245	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	19.5	19.5		19.5	19.5		20.5	20.5		20.5	20.5	
Total Split (%)	48.8%	48.8%		48.8%	48.8%		51.3%	51.3%		51.3%	51.3%	
Maximum Green (s)	15.0	15.0		15.0	15.0		16.0	16.0		16.0	16.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		15.0			15.0			16.0			16.0	
Actuated g/C Ratio		0.38			0.38			0.40			0.40	
v/c Ratio		0.56			1.02			0.37			0.35	
Control Delay		13.2			24.4			9.7			3.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.2			24.4			9.7			3.7	

Lanes, Volumes, Timings

32: Jefferson Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			C			A			A	
Approach Delay		13.2			24.4			9.7			3.7	
Approach LOS		B			C			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 40

Actuated Cycle Length: 40

Offset: 4 (10%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 1.02

Intersection Signal Delay: 16.0

Intersection LOS: B

Intersection Capacity Utilization 71.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 32: Jefferson Ave & E Ferry St

 Ø2 (R)	 Ø4
20.5 s	19.5 s
 Ø6 (R)	 Ø8
20.5 s	19.5 s

Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	113	42	26	116	14	39	253	17	13	265	28
Future Volume (vph)	11	113	42	26	116	14	39	253	17	13	265	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.988			0.993			0.988	
Flt Protected		0.997			0.992			0.994			0.998	
Satd. Flow (prot)	0	1794	0	0	1826	0	0	1839	0	0	1837	0
Flt Permitted		0.980			0.940			0.927			0.981	
Satd. Flow (perm)	0	1763	0	0	1730	0	0	1715	0	0	1805	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		45			13			8			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1023			1295			630			1406	
Travel Time (s)		23.3			29.4			14.3			32.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	123	46	28	126	15	42	275	18	14	288	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	181	0	0	169	0	0	335	0	0	332	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.25			0.24			0.49			0.46	
Control Delay		7.9			9.4			4.5			12.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		7.9			9.4			4.5			12.0	

Lanes, Volumes, Timings

33: Jefferson Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			A			A			B	
Approach Delay		7.9			9.4			4.5			12.0	
Approach LOS		A			A			A			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 12 (27%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 8.4

Intersection LOS: A

Intersection Capacity Utilization 52.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 33: Jefferson Ave & E Utica St

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
34: Jefferson Ave & Riley St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	24	14	8	15	5	16	296	12	2	332	14
Future Volume (vph)	8	24	14	8	15	5	16	296	12	2	332	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.959			0.977			0.995			0.995	
Flt Protected		0.991			0.985			0.998				
Satd. Flow (prot)	0	1770	0	0	1793	0	0	1850	0	0	1853	0
Flt Permitted		0.969			0.947			0.975			0.998	
Satd. Flow (perm)	0	1731	0	0	1723	0	0	1807	0	0	1850	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			5			5			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		870			1108			418			630	
Travel Time (s)		19.8			25.2			9.5			14.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	26	15	9	16	5	17	322	13	2	361	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	50	0	0	30	0	0	352	0	0	378	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.07			0.04			0.49			0.51	
Control Delay		6.9			7.6			14.0			13.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		6.9			7.6			14.0			13.3	

Lanes, Volumes, Timings

34: Jefferson Ave & Riley St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			A			B			B	
Approach Delay		6.9			7.6			14.0			13.3	
Approach LOS		A			A			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 40 (89%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 13.0

Intersection LOS: B

Intersection Capacity Utilization 39.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 34: Jefferson Ave & Riley St

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
35: Jefferson Ave & Northampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	51	10	14	62	10	20	242	6	14	408	24
Future Volume (vph)	10	51	10	14	62	10	20	242	6	14	408	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.981			0.984			0.997			0.993	
Flt Protected		0.993			0.992			0.996			0.998	
Satd. Flow (prot)	0	1815	0	0	1818	0	0	1850	0	0	1846	0
Flt Permitted		0.968			0.962			0.951			0.987	
Satd. Flow (perm)	0	1769	0	0	1763	0	0	1766	0	0	1826	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			11			3			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1340			1290			1156			278	
Travel Time (s)		30.5			29.3			26.3			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	55	11	15	67	11	22	263	7	15	443	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	77	0	0	93	0	0	292	0	0	484	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.11			0.13			0.41			0.66	
Control Delay		8.1			8.4			8.0			3.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.1			8.4			8.0			3.9	

Lanes, Volumes, Timings

35: Jefferson Ave & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			A			A			A	
Approach Delay		8.1			8.4			8.0			3.9	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 5 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 5.9

Intersection LOS: A

Intersection Capacity Utilization 40.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 35: Jefferson Ave & Northhampton St

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
36: Jefferson Ave & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	321	36	44	385	54	25	185	56	67	281	38
Future Volume (vph)	18	321	36	44	385	54	25	185	56	67	281	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.986			0.983			0.968			0.985	
Flt Protected		0.998			0.995			0.995			0.991	
Satd. Flow (prot)	0	3483	0	0	3462	0	0	3409	0	0	3455	0
Flt Permitted		0.922			0.890			0.901			0.853	
Satd. Flow (perm)	0	3217	0	0	3096	0	0	3087	0	0	2974	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30			36			61			30	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		169			169			156			165	
Travel Time (s)		3.8			3.8			3.5			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	349	39	48	418	59	27	201	61	73	305	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	408	0	0	525	0	0	289	0	0	419	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.31			0.42			0.23			0.35	
Control Delay		9.4			10.3			7.0			3.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.4			10.3			7.0			3.9	

Lanes, Volumes, Timings
36: Jefferson Ave & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			B			A			A	
Approach Delay		9.4			10.3			7.0			3.9	
Approach LOS		A			B			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 32 (71%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 7.8

Intersection LOS: A

Intersection Capacity Utilization 57.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 36: Jefferson Ave & Best St

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
37: Jefferson Ave & E North St

03/10/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	60	76	156	149	322	84
Future Volume (vph)	60	76	156	149	322	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.924				0.972	
Flt Protected	0.979			0.975		
Satd. Flow (prot)	1685	0	0	1816	1811	0
Flt Permitted	0.979			0.479		
Satd. Flow (perm)	1685	0	0	892	1811	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	83				35	
Link Speed (mph)	30			30	30	
Link Distance (ft)	879			684	486	
Travel Time (s)	20.0			15.5	11.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	83	170	162	350	91
Shared Lane Traffic (%)						
Lane Group Flow (vph)	148	0	0	332	441	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		22.5	22.5	22.5	
Total Split (%)	50.0%		50.0%	50.0%	50.0%	
Maximum Green (s)	18.0		18.0	18.0	18.0	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0		7.0	7.0	7.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Act Effect Green (s)	18.0			18.0	18.0	
Actuated g/C Ratio	0.40			0.40	0.40	
v/c Ratio	0.20			0.93	0.59	
Control Delay	5.5			53.0	8.4	
Queue Delay	0.0			0.0	0.0	
Total Delay	5.5			53.0	8.4	

Lanes, Volumes, Timings

37: Jefferson Ave & E North St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
LOS	A			D	A	
Approach Delay	5.5			53.0	8.4	
Approach LOS	A			D	A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 2 (4%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 55

Control Type: Pretimed

Maximum v/c Ratio: 0.93

Intersection Signal Delay: 24.0

Intersection LOS: C

Intersection Capacity Utilization 57.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 37: Jefferson Ave & E North St

Ø2 (R) 22.5 s	Ø4 22.5 s
Ø6 (R) 22.5 s	

Lanes, Volumes, Timings
38: Jefferson Ave & High St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	28	67	19	69	32	142	257	27	10	286	17
Future Volume (vph)	2	28	67	19	69	32	142	257	27	10	286	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.906			0.964			0.992			0.993	
Flt Protected		0.999			0.992			0.984			0.998	
Satd. Flow (prot)	0	1686	0	0	1781	0	0	1818	0	0	1846	0
Flt Permitted		0.996			0.953			0.792			0.985	
Satd. Flow (perm)	0	1681	0	0	1711	0	0	1463	0	0	1822	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		73			35			9			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		840			1233			880			684	
Travel Time (s)		19.1			28.0			20.0			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	30	73	21	75	35	154	279	29	11	311	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	105	0	0	131	0	0	462	0	0	340	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.6	22.6		22.6	22.6		32.4	32.4		32.4	32.4	
Total Split (%)	41.1%	41.1%		41.1%	41.1%		58.9%	58.9%		58.9%	58.9%	
Maximum Green (s)	18.1	18.1		18.1	18.1		27.9	27.9		27.9	27.9	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.1			18.1			27.9			27.9	
Actuated g/C Ratio		0.33			0.33			0.51			0.51	
v/c Ratio		0.17			0.22			0.62			0.37	
Control Delay		6.8			11.4			14.1			9.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		6.8			11.4			14.1			9.5	

Lanes, Volumes, Timings

38: Jefferson Ave & High St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			B			B			A	
Approach Delay		6.8			11.4			14.1			9.5	
Approach LOS		A			B			B			A	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 55

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Pretimed

Maximum v/c Ratio: 0.62

Intersection Signal Delay: 11.5

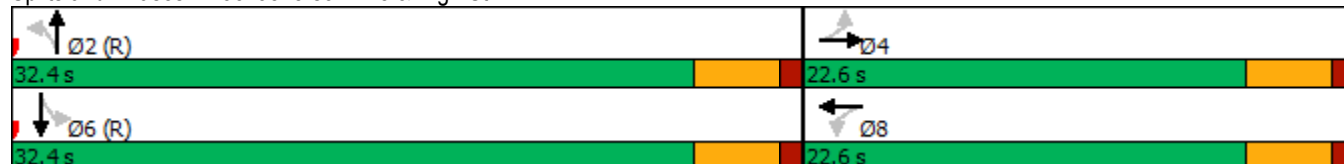
Intersection LOS: B

Intersection Capacity Utilization 64.2%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 38: Jefferson Ave & High St



Lanes, Volumes, Timings
39: Wohlers Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	407	5	39	730	83	15	45	79	0	0	0
Future Volume (vph)	31	407	5	39	730	83	15	45	79	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.987			0.923				
Flt Protected		0.996			0.998			0.995				
Satd. Flow (prot)	0	1853	0	0	1835	0	0	1711	0	0	1863	0
Flt Permitted		0.889			0.969			0.980				
Satd. Flow (perm)	0	1654	0	0	1782	0	0	1685	0	0	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			16			86				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		280			1165			1336				278
Travel Time (s)		6.4			26.5			30.4				6.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	442	5	42	793	90	16	49	86	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	481	0	0	925	0	0	151	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	19.5	19.5		19.5	19.5		20.5	20.5		20.5	20.5	
Total Split (%)	48.8%	48.8%		48.8%	48.8%		51.3%	51.3%		51.3%	51.3%	
Maximum Green (s)	15.0	15.0		15.0	15.0		16.0	16.0		16.0	16.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		15.0			15.0			16.0				
Actuated g/C Ratio		0.38			0.38			0.40				
v/c Ratio		0.77			1.36			0.21				
Control Delay		21.3			192.4			5.0				
Queue Delay		0.0			0.0			0.0				
Total Delay		21.3			192.4			5.0				

Lanes, Volumes, Timings

39: Wohlers Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		C			F			A				
Approach Delay		21.3			192.4			5.0				
Approach LOS		C			F			A				

Intersection Summary

Area Type: Other

Cycle Length: 40

Actuated Cycle Length: 40

Offset: 8 (20%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Pretimed

Maximum v/c Ratio: 1.36

Intersection Signal Delay: 121.4

Intersection LOS: F

Intersection Capacity Utilization 69.7%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 39: Wohlers Ave & E Ferry St

 Ø2 (R)	 Ø4
20.5 s	19.5 s
 Ø6 (R)	 Ø8
20.5 s	19.5 s

Lanes, Volumes, Timings
40: Wohlers Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	125	10	4	121	15	6	83	49	3	32	12
Future Volume (vph)	15	125	10	4	121	15	6	83	49	3	32	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991			0.986			0.952			0.966	
Flt Protected		0.995			0.999			0.998			0.997	
Satd. Flow (prot)	0	1837	0	0	1835	0	0	1770	0	0	1794	0
Flt Permitted		0.970			0.994			0.991			0.988	
Satd. Flow (perm)	0	1791	0	0	1826	0	0	1757	0	0	1778	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			16			53			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		274			1162			1331			1336	
Travel Time (s)		6.2			26.4			30.3			30.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	136	11	4	132	16	7	90	53	3	35	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	163	0	0	152	0	0	150	0	0	51	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.23			0.21			0.20			0.07	
Control Delay		9.4			8.8			7.0			7.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.4			8.8			7.0			7.2	

Lanes, Volumes, Timings

40: Wohlers Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			A			A			A	
Approach Delay		9.4			8.8			7.0			7.2	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.23

Intersection Signal Delay: 8.3

Intersection LOS: A

Intersection Capacity Utilization 31.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 40: Wohlers Ave & E Utica St

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
41: Humboldt Parkway SB & Woodlawn Ave

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	495	41
Future Volume (vph)	0	0	0	0	495	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.990	
Flt Protected						
Satd. Flow (prot)	0	0	0	0	1844	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	0	1844	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	780			561	321	
Travel Time (s)	17.7			12.8	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	538	45
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	583	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 36.1%				ICU Level of Service A		
Analysis Period (min) 15						

Lanes, Volumes, Timings
42: Humboldt Parkway SB & Glenwood Ave

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↗	
Traffic Volume (vph)	0	29	0	0	496	0
Future Volume (vph)	0	29	0	0	496	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1863	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	750			457	561	
Travel Time (s)	17.0			10.4	12.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	32	0	0	539	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	32	0	0	539	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	36.1%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
42: Humboldt Parkway SB & Glenwood Ave

03/10/2022

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	29	0	0	496	0
Future Vol, veh/h	0	29	0	0	496	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	32	0	0	539	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	539	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	542	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	542	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	12.1		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	542	-				
HCM Lane V/C Ratio	0.058	-				
HCM Control Delay (s)	12.1	-				
HCM Lane LOS	B	-				
HCM 95th %tile Q(veh)	0.2	-				

Lanes, Volumes, Timings
43: Humboldt Parkway SB & Riley St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	14	0	0	753	150
Future Volume (vph)	0	14	0	0	753	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.978	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1822	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1822	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	873			418	635	
Travel Time (s)	19.8			9.5	14.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	15	0	0	818	163
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	15	0	0	981	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	58.7%			ICU Level of Service B		
Analysis Period (min)	15					

HCM 6th TWSC
43: Humboldt Parkway SB & Riley St

03/10/2022

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	14	0	0	753	150
Future Vol, veh/h	0	14	0	0	753	150
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	15	0	0	818	163
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	900	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	337	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	337	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	16.2		0			
HCM LOS	C					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	337	-	-			
HCM Lane V/C Ratio	0.045	-	-			
HCM Control Delay (s)	16.2	-	-			
HCM Lane LOS	C	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
44: Humboldt Parkway SB & Kinglsey St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	13	0	0	878	70
Future Volume (vph)	0	13	0	0	878	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.990	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1844	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1844	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	662			296	418	
Travel Time (s)	15.0			6.7	9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	14	0	0	954	76
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	14	0	0	1030	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	60.5%			ICU Level of Service B		
Analysis Period (min)	15					

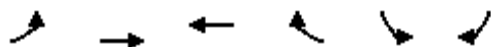
HCM 6th TWSC
44: Humboldt Parkway SB & Kinglsey St

03/10/2022

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	13	0	0	878	70
Future Vol, veh/h	0	13	0	0	878	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	14	0	0	954	76
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	992	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	298	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	298	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	17.7		0			
HCM LOS	C					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	298	-	-			
HCM Lane V/C Ratio	0.047	-	-			
HCM Control Delay (s)	17.7	-	-			
HCM Lane LOS	C	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
45: W Parade Ave

03/10/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↘	
Traffic Volume (vph)	0	97	60	0	52	31
Future Volume (vph)	0	97	60	0	52	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.950	
Fl _t Protected					0.970	
Satd. Flow (prot)	0	1863	1863	0	1717	0
Fl _t Permitted					0.970	
Satd. Flow (perm)	0	1863	1863	0	1717	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		199	98		717	
Travel Time (s)		4.5	2.2		16.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	105	65	0	57	34
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	105	65	0	91	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	16.5%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	3.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	97	60	0	52	31
Future Vol, veh/h	0	97	60	0	52	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	105	65	0	57	34
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	170	65
Stage 1	-	-	-	-	65	-
Stage 2	-	-	-	-	105	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	0	-	-	0	820	999
Stage 1	0	-	-	0	958	-
Stage 2	0	-	-	0	919	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	820	999
Mov Cap-2 Maneuver	-	-	-	-	820	-
Stage 1	-	-	-	-	958	-
Stage 2	-	-	-	-	919	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		9.6		
HCM LOS					A	
Minor Lane/Major Mvmt	EBT	WBT	SBLn1			
Capacity (veh/h)	-	-	879			
HCM Lane V/C Ratio	-	-	0.103			
HCM Control Delay (s)	-	-	9.6			
HCM Lane LOS	-	-	A			
HCM 95th %tile Q(veh)	-	-	0.3			

Lanes, Volumes, Timings
46: Linden Park & Dodge St/W Parade Ave

03/10/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	96	1	5	88	1	1
Future Volume (vph)	96	1	5	88	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999				0.932	
Flt Protected				0.998	0.976	
Satd. Flow (prot)	1861	0	0	1859	1694	0
Flt Permitted				0.998	0.976	
Satd. Flow (perm)	1861	0	0	1859	1694	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	489			199	335	
Travel Time (s)	11.1			4.5	7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	104	1	5	96	1	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	105	0	0	101	2	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	18.7%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
46: Linden Park & Dodge St/W Parade Ave

03/10/2022

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	96	1	5	88	1	1
Future Vol, veh/h	96	1	5	88	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	104	1	5	96	1	1
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	105	0	211	105
Stage 1	-	-	-	-	105	-
Stage 2	-	-	-	-	106	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1486	-	777	949
Stage 1	-	-	-	-	919	-
Stage 2	-	-	-	-	918	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1486	-	774	949
Mov Cap-2 Maneuver	-	-	-	-	774	-
Stage 1	-	-	-	-	919	-
Stage 2	-	-	-	-	914	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.4		9.2	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	853	-	-	1486	-	
HCM Lane V/C Ratio	0.003	-	-	0.004	-	
HCM Control Delay (s)	9.2	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Lanes, Volumes, Timings
47: Humboldt Parkway NB & Riley St

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	8	160	11	0	0
Future Volume (vph)	0	8	160	11	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.991			
Flt Protected						
Satd. Flow (prot)	0	1611	1846	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1846	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	1082		722			613
Travel Time (s)	24.6		16.4			13.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	9	174	12	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	9	186	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	19.1%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
47: Humboldt Parkway NB & Riley St

03/10/2022

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	8	160	11	0	0
Future Vol, veh/h	0	8	160	11	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	9	174	12	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	180	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	863	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	863	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	9.2		0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		863			
HCM Lane V/C Ratio	-		0.01			
HCM Control Delay (s)	-		9.2			
HCM Lane LOS	-		A			
HCM 95th %tile Q(veh)	-		0			

Lanes, Volumes, Timings
48: Humboldt Parkway NB & Woepfel St

03/10/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	4	310	6	0	0
Future Volume (vph)	0	4	310	6	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.997			
Flt Protected						
Satd. Flow (prot)	0	1611	1857	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1857	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	744		291			730
Travel Time (s)	16.9		6.6			16.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	4	337	7	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	4	344	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	26.7%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
48: Humboldt Parkway NB & Woepfel St

03/10/2022

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	310	6	0	0
Future Vol, veh/h	0	4	310	6	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	337	7	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	341	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	701	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	701	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	10.2		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		701			
HCM Lane V/C Ratio	-		0.006			
HCM Control Delay (s)	-		10.2			
HCM Lane LOS	-		B			
HCM 95th %tile Q(veh)	-		0			

Lanes, Volumes, Timings
49: Humboldt Parkway NB & Woodlawn Ave

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	12	304	10	0	0
Future Volume (vph)	0	12	304	10	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.996			
Flt Protected						
Satd. Flow (prot)	0	1611	1855	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1855	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	729		730			317
Travel Time (s)	16.6		16.6			7.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	13	330	11	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	13	341	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	26.6%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
49: Humboldt Parkway NB & Woodlawn Ave

03/10/2022

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	12	304	10	0	0
Future Vol, veh/h	0	12	304	10	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	13	330	11	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	336	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	706	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	706	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	10.2		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		- 706			
HCM Lane V/C Ratio	-		- 0.018			
HCM Control Delay (s)	-		- 10.2			
HCM Lane LOS	-		- B			
HCM 95th %tile Q(veh)	-		- 0.1			

Lanes, Volumes, Timings
50: Humboldt Parkway SB & Florida St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	23	0	0	245	14
Future Volume (vph)	0	23	0	0	245	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.993	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1850	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1850	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	935			344	684	
Travel Time (s)	21.3			7.8	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	25	0	0	266	15
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	25	0	0	281	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	23.7%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
50: Humboldt Parkway SB & Florida St

03/10/2022

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	23	0	0	245	14
Future Vol, veh/h	0	23	0	0	245	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	25	0	0	266	15
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	274	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	765	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	765	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	9.9		0			
HCM LOS	A					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	765	-	-			
HCM Lane V/C Ratio	0.033	-	-			
HCM Control Delay (s)	9.9	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
51: Humboldt Parkway SB & Northland Ave

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	52	0	0	272	35
Future Volume (vph)	0	52	0	0	272	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.985	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1835	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1835	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2743			805	344	
Travel Time (s)	62.3			18.3	7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	57	0	0	296	38
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	57	0	0	334	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	26.4%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
51: Humboldt Parkway SB & Northland Ave

03/10/2022

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	52	0	0	272	35
Future Vol, veh/h	0	52	0	0	272	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	57	0	0	296	38
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	315	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	725	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	725	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	10.4		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	725	-	-			
HCM Lane V/C Ratio	0.078	-	-			
HCM Control Delay (s)	10.4	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q(veh)	0.3	-	-			

Lanes, Volumes, Timings
52: Humboldt Parkway SB & Brunswick Blvd

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	62	0	0	9	1
Future Volume (vph)	0	62	0	0	9	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.988	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1840	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1840	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2734			252	805	
Travel Time (s)	62.1			5.7	18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	67	0	0	10	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	67	0	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	13.8%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection	
Intersection Delay, s/veh	6.7
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	62	0	0	9	1
Future Vol, veh/h	0	62	0	0	9	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	67	0	0	10	1
Number of Lanes	0	1	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	1
HCM Control Delay	6.6	7
HCM LOS	A	A

Lane	EBLn1	SBLn1
Vol Left, %	0%	0%
Vol Thru, %	0%	90%
Vol Right, %	100%	10%
Sign Control	Stop	Stop
Traffic Vol by Lane	62	10
LT Vol	0	0
Through Vol	0	9
RT Vol	62	1
Lane Flow Rate	67	11
Geometry Grp	1	1
Degree of Util (X)	0.063	0.012
Departure Headway (Hd)	3.354	3.992
Convergence, Y/N	Yes	Yes
Cap	1074	901
Service Time	1.357	1.998
HCM Lane V/C Ratio	0.062	0.012
HCM Control Delay	6.6	7
HCM Lane LOS	A	A
HCM 95th-tile Q	0.2	0

Lanes, Volumes, Timings

53: Humboldt Parkway SB & Goulding Ave

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↰			↱	
Traffic Volume (vph)	0	46	0	0	886	0
Future Volume (vph)	0	46	0	0	886	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1863	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1067			268	306	
Travel Time (s)	24.3			6.1	7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	50	0	0	963	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	50	0	0	963	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9		
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	30.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
53: Humboldt Parkway SB & Goulding Ave

03/10/2022

Intersection

Int Delay, s/veh 0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	46	0	0	886	0
Future Vol, veh/h	0	46	0	0	886	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	50	0	0	963	0

Major/Minor	Minor2	Major2
Conflicting Flow All	- 963	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 310	- 0
Stage 1	0 -	- 0
Stage 2	0 -	- 0
Platoon blocked, %		-
Mov Cap-1 Maneuver	- 310	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	18.8	0
HCM LOS	C	

Minor Lane/Major Mvmt	EBLn1	SBT
Capacity (veh/h)	310	-
HCM Lane V/C Ratio	0.161	-
HCM Control Delay (s)	18.8	-
HCM Lane LOS	C	-
HCM 95th %tile Q(veh)	0.6	-

Lanes, Volumes, Timings
54: Humboldt Parkway NB & Sydney St

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	39	560	0	0	0
Future Volume (vph)	0	39	560	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	913		602			1024
Travel Time (s)	20.8		13.7			23.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	42	609	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	42	609	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	39.5%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
54: Humboldt Parkway NB & Sydney St

03/10/2022

Intersection

Int Delay, s/veh 0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	39	560	0	0	0
Future Vol, veh/h	0	39	560	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	42	609	0	0	0

Major/Minor	Minor1	Major1
Conflicting Flow All	- 609	0 -
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 495	- 0
Stage 1	0 -	- 0
Stage 2	0 -	- 0
Platoon blocked, %		-
Mov Cap-1 Maneuver	- 495	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	WB	NB
HCM Control Delay, s	13	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBTWBLn1
Capacity (veh/h)	- 495
HCM Lane V/C Ratio	- 0.086
HCM Control Delay (s)	- 13
HCM Lane LOS	- B
HCM 95th %tile Q(veh)	- 0.3

Lanes, Volumes, Timings

55: Humboldt Parkway NB & Northland Ave & EB On Ramp

03/10/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations								
Traffic Volume (vph)	0	60	113	15	0	0	0	0
Future Volume (vph)	0	60	113	15	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.984					
Flt Protected								
Satd. Flow (prot)	0	1611	1833	0	0	0	0	0
Flt Permitted								
Satd. Flow (perm)	0	1611	1833	0	0	0	0	0
Link Speed (mph)	30		30			30	30	
Link Distance (ft)	1020		1024			304	1019	
Travel Time (s)	23.2		23.3			6.9	23.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	65	123	16	0	0	0	0
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	65	139	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left	Left	Right
Median Width(ft)	0		0			0	0	
Link Offset(ft)	0		0			0	0	
Crosswalk Width(ft)	16		16			16	16	
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15		15	9
Sign Control	Stop		Stop			Stop	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 17.2% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations								
Traffic Vol, veh/h	0	60	113	15	0	0	0	0
Future Vol, veh/h	0	60	113	15	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2
Mvmt Flow	0	65	123	16	0	0	0	0
Number of Lanes	0	1	1	0	0	0	0	0

Approach	WB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	NB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		WB
Conflicting Lanes Right	0	1
HCM Control Delay	6.9	7.7
HCM LOS	A	A

Lane	NBLn1	WBLn1
Vol Left, %	0%	0%
Vol Thru, %	88%	0%
Vol Right, %	12%	100%
Sign Control	Stop	Stop
Traffic Vol by Lane	128	60
LT Vol	0	0
Through Vol	113	0
RT Vol	15	60
Lane Flow Rate	139	65
Geometry Grp	1	1
Degree of Util (X)	0.154	0.065
Departure Headway (Hd)	3.978	3.576
Convergence, Y/N	Yes	Yes
Cap	904	991
Service Time	1.991	1.635
HCM Lane V/C Ratio	0.154	0.066
HCM Control Delay	7.7	6.9
HCM Lane LOS	A	A
HCM 95th-tile Q	0.5	0.2

Lanes, Volumes, Timings
56: Roehrer Ave & E Ferry St

03/10/2022

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰			↱	↗	
Traffic Volume (vph)	423	12	18	604	2	20
Future Volume (vph)	423	12	18	604	2	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.876	
Flt Protected				0.999	0.996	
Satd. Flow (prot)	1855	0	0	1861	1625	0
Flt Permitted				0.999	0.996	
Satd. Flow (perm)	1855	0	0	1861	1625	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1109			280	1331	
Travel Time (s)	25.2			6.4	30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	460	13	20	657	2	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	473	0	0	677	24	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	56.3%			ICU Level of Service B		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	423	12	18	604	2	20
Future Vol, veh/h	423	12	18	604	2	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	460	13	20	657	2	22
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	473	0	1164	467
Stage 1	-	-	-	-	467	-
Stage 2	-	-	-	-	697	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1089	-	215	596
Stage 1	-	-	-	-	631	-
Stage 2	-	-	-	-	494	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1089	-	209	596
Mov Cap-2 Maneuver	-	-	-	-	209	-
Stage 1	-	-	-	-	631	-
Stage 2	-	-	-	-	480	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		12.4	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	510	-	-	1089	-	
HCM Lane V/C Ratio	0.047	-	-	0.018	-	
HCM Control Delay (s)	12.4	-	-	8.4	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-	

Lanes, Volumes, Timings
57: Roehrer Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	140	0	2	148	8	3	10	4	2	12	4
Future Volume (vph)	5	140	0	2	148	8	3	10	4	2	12	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.993			0.970			0.972	
Flt Protected		0.998			0.999			0.992			0.995	
Satd. Flow (prot)	0	1859	0	0	1848	0	0	1792	0	0	1802	0
Flt Permitted		0.998			0.999			0.992			0.995	
Satd. Flow (perm)	0	1859	0	0	1848	0	0	1792	0	0	1802	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1295			274			1342			1331	
Travel Time (s)		29.4			6.2			30.5			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	152	0	2	161	9	3	11	4	2	13	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	157	0	0	172	0	0	18	0	0	19	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	20.3%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	5	140	0	2	148	8	3	10	4	2	12	4
Future Vol, veh/h	5	140	0	2	148	8	3	10	4	2	12	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	152	0	2	161	9	3	11	4	2	13	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.1	8.2	7.7	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	3%	1%	11%
Vol Thru, %	59%	97%	94%	67%
Vol Right, %	24%	0%	5%	22%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	17	145	158	18
LT Vol	3	5	2	2
Through Vol	10	140	148	12
RT Vol	4	0	8	4
Lane Flow Rate	18	158	172	20
Geometry Grp	1	1	1	1
Degree of Util (X)	0.023	0.181	0.195	0.025
Departure Headway (Hd)	4.565	4.135	4.089	4.559
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	789	859	869	790
Service Time	2.566	2.201	2.154	2.559
HCM Lane V/C Ratio	0.023	0.184	0.198	0.025
HCM Control Delay	7.7	8.1	8.2	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.7	0.7	0.1

Lanes, Volumes, Timings
58: Wohlers Ave & Northampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	63	3	2	58	7	30	91	17	42	46	19
Future Volume (vph)	8	63	3	2	58	7	30	91	17	42	46	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.985			0.984			0.976	
Flt Protected		0.994			0.999			0.989			0.981	
Satd. Flow (prot)	0	1842	0	0	1833	0	0	1813	0	0	1783	0
Flt Permitted		0.994			0.999			0.989			0.981	
Satd. Flow (perm)	0	1842	0	0	1833	0	0	1813	0	0	1783	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		276			1032			1317			1331	
Travel Time (s)		6.3			23.5			29.9			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	68	3	2	63	8	33	99	18	46	50	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	80	0	0	73	0	0	150	0	0	117	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	24.2%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	63	3	2	58	7	30	91	17	42	46	19
Future Vol, veh/h	8	63	3	2	58	7	30	91	17	42	46	19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	68	3	2	63	8	33	99	18	46	50	21
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.2	8.1	8.4	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	22%	11%	3%	39%
Vol Thru, %	66%	85%	87%	43%
Vol Right, %	12%	4%	10%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	138	74	67	107
LT Vol	30	8	2	42
Through Vol	91	63	58	46
RT Vol	17	3	7	19
Lane Flow Rate	150	80	73	116
Geometry Grp	1	1	1	1
Degree of Util (X)	0.183	0.103	0.093	0.143
Departure Headway (Hd)	4.394	4.622	4.578	4.432
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	818	776	784	811
Service Time	2.414	2.645	2.601	2.453
HCM Lane V/C Ratio	0.183	0.103	0.093	0.143
HCM Control Delay	8.4	8.2	8.1	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.3	0.3	0.5

Lanes, Volumes, Timings
59: Roehrer Ave & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	66	2	3	80	4	4	14	2	4	14	0
Future Volume (vph)	0	66	2	3	80	4	4	14	2	4	14	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.994			0.987				
Flt Protected					0.998			0.991			0.990	
Satd. Flow (prot)	0	1855	0	0	1848	0	0	1822	0	0	1844	0
Flt Permitted					0.998			0.991			0.990	
Satd. Flow (perm)	0	1855	0	0	1848	0	0	1822	0	0	1844	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1290			276			1313			1342	
Travel Time (s)		29.3			6.3			29.8			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	72	2	3	87	4	4	15	2	4	15	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	74	0	0	94	0	0	21	0	0	19	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 16.9%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection												
Intersection Delay, s/veh	7.5											
Intersection LOS	A											

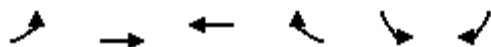
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	66	2	3	80	4	4	14	2	4	14	0
Future Vol, veh/h	0	66	2	3	80	4	4	14	2	4	14	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	72	2	3	87	4	4	15	2	4	15	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.6	7.4	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	0%	3%	22%
Vol Thru, %	70%	97%	92%	78%
Vol Right, %	10%	3%	5%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	68	87	18
LT Vol	4	0	3	4
Through Vol	14	66	80	14
RT Vol	2	2	4	0
Lane Flow Rate	22	74	95	20
Geometry Grp	1	1	1	1
Degree of Util (X)	0.025	0.083	0.106	0.023
Departure Headway (Hd)	4.22	4.058	4.04	4.286
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	838	879	884	825
Service Time	2.3	2.101	2.078	2.366
HCM Lane V/C Ratio	0.026	0.084	0.107	0.024
HCM Control Delay	7.4	7.5	7.6	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.3	0.4	0.1

Lanes, Volumes, Timings
60: Best St & Wohlers Ave

03/10/2022

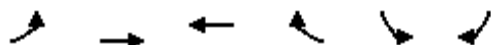


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	2	276	489	20	53	12
Future Volume (vph)	2	276	489	20	53	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995		0.975	
Flt Protected					0.961	
Satd. Flow (prot)	0	1863	1853	0	1745	0
Flt Permitted					0.961	
Satd. Flow (perm)	0	1863	1853	0	1745	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		280	473		1317	
Travel Time (s)		6.4	10.8		29.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	300	532	22	58	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	302	554	0	71	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	37.3%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	276	489	20	53	12
Future Vol, veh/h	2	276	489	20	53	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	300	532	22	58	13
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	554	0	-	0	847	543
Stage 1	-	-	-	-	543	-
Stage 2	-	-	-	-	304	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1016	-	-	-	332	540
Stage 1	-	-	-	-	582	-
Stage 2	-	-	-	-	748	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1016	-	-	-	331	540
Mov Cap-2 Maneuver	-	-	-	-	331	-
Stage 1	-	-	-	-	581	-
Stage 2	-	-	-	-	748	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		17.6		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1016	-	-	-	356	
HCM Lane V/C Ratio	0.002	-	-	-	0.198	
HCM Control Delay (s)	8.6	0	-	-	17.6	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.7	

Lanes, Volumes, Timings
61: Best St & Roehrer Ave

03/10/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	416	480	17	14	7
Future Volume (vph)	4	416	480	17	14	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995		0.953	
Flt Protected					0.968	
Satd. Flow (prot)	0	1863	1853	0	1718	0
Flt Permitted					0.968	
Satd. Flow (perm)	0	1863	1853	0	1718	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1123	280		1313	
Travel Time (s)		25.5	6.4		29.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	452	522	18	15	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	456	540	0	23	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	36.3%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	416	480	17	14	7
Future Vol, veh/h	4	416	480	17	14	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	452	522	18	15	8
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	540	0	-	0	991	531
Stage 1	-	-	-	-	531	-
Stage 2	-	-	-	-	460	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1028	-	-	-	273	548
Stage 1	-	-	-	-	590	-
Stage 2	-	-	-	-	636	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1028	-	-	-	272	548
Mov Cap-2 Maneuver	-	-	-	-	272	-
Stage 1	-	-	-	-	587	-
Stage 2	-	-	-	-	636	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		16.8		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1028	-	-	-	327	
HCM Lane V/C Ratio	0.004	-	-	-	0.07	
HCM Control Delay (s)	8.5	0	-	-	16.8	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Lanes, Volumes, Timings

62: Jefferson Ave & Eaton St/Kingsley st

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	8	3	3	13	1	6	294	2	10	434	8
Future Volume (vph)	2	8	3	3	13	1	6	294	2	10	434	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.971			0.992			0.999			0.998	
Flt Protected		0.993			0.992			0.999			0.999	
Satd. Flow (prot)	0	1796	0	0	1833	0	0	1859	0	0	1857	0
Flt Permitted		0.982			0.978			0.989			0.990	
Satd. Flow (perm)	0	1776	0	0	1807	0	0	1840	0	0	1840	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			1			1			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		911			1129			278			418	
Travel Time (s)		20.7			25.7			6.3			9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	9	3	3	14	1	7	320	2	11	472	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	0	0	18	0	0	329	0	0	492	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		-50			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.02			0.02			0.45			0.67	
Control Delay		7.6			8.2			13.0			8.7	
Queue Delay		0.0			0.0			0.1			0.0	
Total Delay		7.6			8.2			13.2			8.7	

Lanes, Volumes, Timings

62: Jefferson Ave & Eaton St/Kingsley st

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			A			B			A	
Approach Delay		7.6			8.2			13.2			8.7	
Approach LOS		A			A			B			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 44 (98%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 10.4

Intersection LOS: B

Intersection Capacity Utilization 40.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 62: Jefferson Ave & Eaton St/Kingsley st

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
65: Route 33 & W Parade Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	145	2	1	19	313	15	730	7	25	2472	25
Future Volume (vph)	2	145	2	1	19	313	15	730	7	25	2472	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		0	150		325
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.998			0.873				0.850			0.850
Flt Protected		0.999					0.950			0.950		
Satd. Flow (prot)	0	1857	0	0	1626	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.987					0.950			0.950		
Satd. Flow (perm)	0	1835	0	0	1626	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					308				44			44
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		98			623			486			778	
Travel Time (s)		2.2			14.2			11.0			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	158	2	1	21	340	16	793	8	27	2687	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	162	0	0	362	0	16	793	8	27	2687	27
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		3			3		5	2		1	6	
Permitted Phases	3			3					2			6
Minimum Split (s)	22.5	22.5		22.5	22.5		9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	22.8	22.8		22.8	22.8		9.5	116.2	116.2	11.0	117.7	117.7
Total Split (%)	15.2%	15.2%		15.2%	15.2%		6.3%	77.5%	77.5%	7.3%	78.5%	78.5%
Maximum Green (s)	18.3	18.3		18.3	18.3		5.0	111.7	111.7	6.5	113.2	113.2
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5			4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)		18.3			18.3		5.0	111.7	111.7	6.5	113.2	113.2
Actuated g/C Ratio		0.12			0.12		0.03	0.74	0.74	0.04	0.75	0.75
v/c Ratio		0.73			0.77		0.27	0.30	0.01	0.36	1.01	0.02

Lanes, Volumes, Timings
65: Route 33 & W Parade Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		82.4			23.5		82.3	6.6	0.0	33.7	54.0	0.0
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	21.7	0.0
Total Delay		82.4			23.5		82.3	6.6	0.0	33.7	75.7	0.0
LOS		F			C		F	A	A	C	E	A
Approach Delay		82.4			23.5			8.1			74.5	
Approach LOS		F			C			A			E	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 136 (91%), Referenced to phase 2:NBT, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 1.01

Intersection Signal Delay: 57.0

Intersection LOS: E

Intersection Capacity Utilization 96.8%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 65: Route 33 & W Parade Ave

 Ø2 (R)	 Ø1	 Ø3
116.2 s	11 s	22.8 s
 Ø6	 Ø5	
117.7 s	9.5 s	

Lanes, Volumes, Timings
66: Route 33 & Northampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	479	12	3	95	25	52	966	26	63	2520	130
Future Volume (vph)	15	479	12	3	95	25	52	966	26	63	2520	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	125		125	125		125
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.997			0.973				0.850			0.850
Flt Protected		0.999			0.999		0.950			0.950		
Satd. Flow (prot)	0	1855	0	0	1811	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.991			0.991		0.950			0.950		
Satd. Flow (perm)	0	1840	0	0	1796	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			8				109			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		100			196			778			726	
Travel Time (s)		2.3			4.5			17.7			16.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	521	13	3	103	27	57	1050	28	68	2739	141
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	550	0	0	133	0	57	1050	28	68	2739	141
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		7 9			7 10		1	2		1	2	
Permitted Phases	7 9			7 10					2			2
Minimum Split (s)							9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)							9.5	57.5	57.5	9.5	57.5	57.5
Total Split (%)							6.3%	38.3%	38.3%	6.3%	38.3%	38.3%
Maximum Green (s)							5.0	53.0	53.0	5.0	53.0	53.0
Yellow Time (s)							3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)							1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)							0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)							4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)								7.0	7.0		7.0	7.0
Flash Dont Walk (s)								11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)								0	0		0	0
Act Effct Green (s)		56.0			36.0		5.0	53.0	53.0	5.0	53.0	53.0
Actuated g/C Ratio		0.37			0.24		0.03	0.35	0.35	0.03	0.35	0.35
v/c Ratio		0.80			0.30		0.97	0.84	0.04	1.15	2.19	0.22

Lane Group	Ø3	Ø5	Ø7	Ø9	Ø10
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	3	5	7	9	10
Permitted Phases					
Minimum Split (s)	22.5	22.5	22.5	9.5	22.5
Total Split (s)	22.5	67.0	22.5	38.0	22.5
Total Split (%)	15%	45%	15%	25%	15%
Maximum Green (s)	18.0	62.5	18.0	33.5	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag				Lead	Lag
Lead-Lag Optimize?				Yes	Yes
Walk Time (s)	7.0	7.0	7.0		7.0
Flash Dont Walk (s)	11.0	11.0	11.0		11.0
Pedestrian Calls (#/hr)	0	0	0		0
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					

Lanes, Volumes, Timings

66: Route 33 & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		25.9			4.7		170.7	47.9	0.8	145.7	563.8	25.2
Queue Delay		0.0			0.7		0.0	0.0	0.0	0.0	0.4	0.0
Total Delay		25.9			5.4		170.7	47.9	0.8	145.7	564.1	25.2
LOS		C			A		F	D	A	F	F	C
Approach Delay		25.9			5.4			52.9			528.7	
Approach LOS		C			A			D			F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 28 (19%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 2.73

Intersection Signal Delay: 342.8

Intersection LOS: F

Intersection Capacity Utilization 110.2%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 66: Route 33 & Northhampton St

#66  Ø2 (R) 57.5 s	#66  Ø1 9.5 s	#4 #5  Ø3 22.5 s	#4 #5 #66  Ø9 38 s	#4 #5 #66  Ø7 22.5 s
#4 #5  Ø5 67 s	#66  Ø7 22.5 s			

Lane Group	Ø3	Ø5	Ø7	Ø9	Ø10
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
67: Route 33 & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	134	36	55	145	15	100	881	25	75	2623	299
Future Volume (vph)	19	134	36	55	145	15	100	881	25	75	2623	299
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		150
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.972			0.990				0.850			0.850
Flt Protected		0.995			0.987		0.950			0.950		
Satd. Flow (prot)	0	3423	0	0	3458	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.904			0.812		0.950			0.950		
Satd. Flow (perm)	0	3110	0	0	2845	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			5				109			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		94			77			620			1337	
Travel Time (s)		2.1			1.8			14.1			30.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	21	146	39	60	158	16	109	958	27	82	2851	325
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	206	0	0	234	0	109	958	27	82	2851	325
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		7 9			7 10		1	2		1	2	
Permitted Phases	7 9			7 10					2			2
Minimum Split (s)							9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)							11.0	71.5	71.5	11.0	71.5	71.5
Total Split (%)							7.3%	47.7%	47.7%	7.3%	47.7%	47.7%
Maximum Green (s)							6.5	67.0	67.0	6.5	67.0	67.0
Yellow Time (s)							3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)							1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)							0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)							4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)								7.0	7.0		7.0	7.0
Flash Dont Walk (s)								11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)								0	0		0	0
Act Effct Green (s)		35.0			41.5		6.5	67.0	67.0	6.5	67.0	67.0
Actuated g/C Ratio		0.23			0.28		0.04	0.45	0.45	0.04	0.45	0.45
v/c Ratio		0.28			0.30		1.43	0.61	0.04	1.08	1.80	0.42

Lane Group	Ø3	Ø5	Ø7	Ø9	Ø10
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	3	5	7	9	10
Permitted Phases					
Minimum Split (s)	22.5	22.5	22.5	9.5	22.5
Total Split (s)	22.5	82.5	22.5	17.0	28.0
Total Split (%)	15%	55%	15%	11%	19%
Maximum Green (s)	18.0	78.0	18.0	12.5	23.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag				Lead	Lag
Lead-Lag Optimize?				Yes	Yes
Walk Time (s)	7.0	7.0	7.0		7.0
Flash Dont Walk (s)	11.0	11.0	11.0		11.0
Pedestrian Calls (#/hr)	0	0	0		0
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					

Lanes, Volumes, Timings

67: Route 33 & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		2.7			2.7		260.3	19.8	0.7	101.0	379.7	0.2
Queue Delay		0.0			0.0		1.1	0.0	0.0	0.0	0.0	0.0
Total Delay		2.7			2.7		261.4	19.8	0.7	101.0	379.7	0.2
LOS		A			A		F	B	A	F	F	A
Approach Delay		2.7			2.7			43.4			334.8	
Approach LOS		A			A			D			F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 27 (18%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 1.95

Intersection Signal Delay: 237.8

Intersection LOS: F

Intersection Capacity Utilization 104.5%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 67: Route 33 & E Utica St

#67  Ø2 (R)	#67  Ø1	#6 #7  Ø3	#6 #7 #67  Ø10
71.5 s	11 s	22.5 s	17 s
#6 #7  Ø5	#67  Ø7		
82.5 s	22.5 s		

Lane Group	Ø3	Ø5	Ø7	Ø9	Ø10
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
68: Route 33 & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	194	499	80	112	142	54	183	710	23	90	2836	724
Future Volume (vph)	194	499	80	112	142	54	183	710	23	90	2836	724
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.984			0.974				0.850			0.850
Flt Protected		0.988			0.982		0.950			0.950		
Satd. Flow (prot)	0	3441	0	0	3385	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.707			0.525		0.950			0.950		
Satd. Flow (perm)	0	2462	0	0	1810	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			17				109			195
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		84			78			1337			636	
Travel Time (s)		1.9			1.8			30.4			14.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	211	542	87	122	154	59	199	772	25	98	3083	787
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	840	0	0	335	0	199	772	25	98	3083	787
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		7 9			7 10		1	2		1	2	
Permitted Phases	7 9			7 10					2			2
Minimum Split (s)							9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)							12.0	56.0	56.0	12.0	56.0	56.0
Total Split (%)							8.0%	37.3%	37.3%	8.0%	37.3%	37.3%
Maximum Green (s)							7.5	51.5	51.5	7.5	51.5	51.5
Yellow Time (s)							3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)							1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)							0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)							4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)								7.0	7.0		7.0	7.0
Flash Dont Walk (s)								11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)								0	0		0	0
Act Effct Green (s)		54.5			44.0		7.5	51.5	51.5	7.5	51.5	51.5
Actuated g/C Ratio		0.36			0.29		0.05	0.34	0.34	0.05	0.34	0.34
v/c Ratio		0.93			1.45dl		2.26	0.64	0.04	1.11	2.54	1.17

Lane Group	Ø3	Ø5	Ø7	Ø9	Ø10
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	3	5	7	9	10
Permitted Phases					
Minimum Split (s)	22.5	9.5	22.5	9.5	22.5
Total Split (s)	30.0	68.0	30.0	29.0	23.0
Total Split (%)	20%	45%	20%	19%	15%
Maximum Green (s)	25.5	63.5	25.5	24.5	18.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag				Lead	Lag
Lead-Lag Optimize?				Yes	Yes
Walk Time (s)	7.0		7.0		7.0
Flash Dont Walk (s)	11.0		11.0		11.0
Pedestrian Calls (#/hr)	0		0		0
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					

Lanes, Volumes, Timings

68: Route 33 & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		11.2			5.0		620.0	71.1	2.5	191.3	716.3	125.8
Queue Delay		0.0			0.0		7.5	0.0	0.0	0.0	0.0	0.2
Total Delay		11.2			5.0		627.5	71.1	2.5	191.3	716.3	126.0
LOS		B			A		F	E	A	F	F	F
Approach Delay		11.2			5.0		180.5			586.2		
Approach LOS		B			A		F			F		

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green, Master Intersection

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 3.37

Intersection Signal Delay: 410.0

Intersection LOS: F

Intersection Capacity Utilization 134.4%

ICU Level of Service H

Analysis Period (min) 15

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 68: Route 33 & E Ferry St

#68  Ø1	#68  Ø2 (R)	#8 #9  Ø3	#8 #9 #68  Ø9	#8 #9 #68  Ø10
12 s	56 s	30 s	29 s	23 s
#8 #9  Ø5	#68  Ø7			
68 s	30 s			

Lane Group	Ø3	Ø5	Ø7	Ø9	Ø10
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
118: Humboldt Parkway SB

03/10/2022

						
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	306			252	236	
Travel Time (s)	7.0			5.7	5.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Free	Yield	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 18.3%						
ICU Level of Service A						
Analysis Period (min) 15						

Lanes, Volumes, Timings
1: EB Off Ramp & Best St

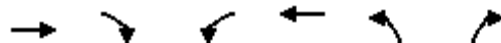
03/10/2022

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘↗	
Traffic Volume (vph)	226	0	0	145	54	351
Future Volume (vph)	226	0	0	145	54	351
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Fr _t					0.883	
Fl _t Protected					0.993	
Satd. Flow (prot)	3539	0	0	3539	1633	0
Fl _t Permitted					0.993	
Satd. Flow (perm)	3539	0	0	3539	1633	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)					382	
Link Speed (mph)	30			30	30	
Link Distance (ft)	249			205	354	
Travel Time (s)	5.7			4.7	8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	246	0	0	158	59	382
Shared Lane Traffic (%)						
Lane Group Flow (vph)	246	0	0	158	441	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA			NA	Prot	
Protected Phases	4			8	2	
Permitted Phases						
Minimum Split (s)	22.5			22.5	22.5	
Total Split (s)	22.5			22.5	22.5	
Total Split (%)	50.0%			50.0%	50.0%	
Maximum Green (s)	18.0			18.0	18.0	
Yellow Time (s)	3.5			3.5	3.5	
All-Red Time (s)	1.0			1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0			7.0	7.0	
Flash Dont Walk (s)	11.0			11.0	11.0	
Pedestrian Calls (#/hr)	0			0	0	
Act Effect Green (s)	18.0			18.0	18.0	
Actuated g/C Ratio	0.40			0.40	0.40	
v/c Ratio	0.17			0.11	0.50	
Control Delay	9.1			8.8	4.4	
Queue Delay	0.0			0.0	0.0	
Total Delay	9.1			8.8	4.4	

Lanes, Volumes, Timings

1: EB Off Ramp & Best St

03/10/2022



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
LOS	A			A	A	
Approach Delay	9.1			8.8	4.4	
Approach LOS	A			A	A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBL and 6:, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.50

Intersection Signal Delay: 6.6

Intersection LOS: A

Intersection Capacity Utilization 38.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: EB Off Ramp & Best St

Ø2 (R)	Ø4
22.5 s	22.5 s
	Ø8
	22.5 s

Lanes, Volumes, Timings
2: WB On Ramp/WB Off Ramp & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	629	43	181	479	0	0	0	0	55	0	35
Future Volume (vph)	0	629	43	181	479	0	0	0	0	55	0	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990									0.948	
Flt Protected					0.986						0.970	
Satd. Flow (prot)	0	3504	0	0	3490	0	0	0	0	0	1713	0
Flt Permitted					0.616						0.970	
Satd. Flow (perm)	0	3504	0	0	2180	0	0	0	0	0	1713	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18									38	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		473			249			324			329	
Travel Time (s)		10.8			5.7			7.4			7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	684	47	197	521	0	0	0	0	60	0	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	731	0	0	718	0	0	0	0	0	98	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases	4			8						6		
Minimum Split (s)	22.5	22.5		22.5	22.5					22.5	22.5	
Total Split (s)	27.0	27.0		27.0	27.0					23.0	23.0	
Total Split (%)	54.0%	54.0%		54.0%	54.0%					46.0%	46.0%	
Maximum Green (s)	22.5	22.5		22.5	22.5					18.5	18.5	
Yellow Time (s)	3.5	3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0			0.0						0.0	
Total Lost Time (s)		4.5			4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0					7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0					11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0					0	0	
Act Effect Green (s)		22.5			22.5						18.5	
Actuated g/C Ratio		0.45			0.45						0.37	
v/c Ratio		0.46			0.73						0.15	

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		10.5			17.0						7.9	
Queue Delay		0.0			0.7						0.0	
Total Delay		10.5			17.7						7.9	
LOS		B			B						A	
Approach Delay		10.5			17.7						7.9	
Approach LOS		B			B						A	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 0 (0%), Referenced to phase 2: and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Pretimed

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 13.7

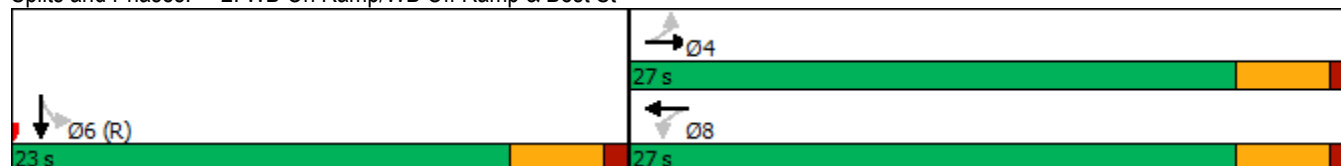
Intersection LOS: B

Intersection Capacity Utilization 53.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: WB On Ramp/WB Off Ramp & Best St



Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/10/2022

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	263	13	416	106	2	608	272	13	57	22	6	1
Future Volume (vph)	263	13	416	106	2	608	272	13	57	22	6	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.980			0.957				0.989		
Flt Protected			0.983							0.968		
Satd. Flow (prot)	0	0	3409	0	0	1783	0	0	0	1783	0	0
Flt Permitted			0.541			0.999				0.712		
Satd. Flow (perm)	0	0	1876	0	0	1781	0	0	0	1312	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			44			2				1		
Link Speed (mph)			30			30				30		
Link Distance (ft)			205			1418				1329		
Travel Time (s)			4.7			32.2				30.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	286	14	452	115	2	661	296	14	62	24	7	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	867	0	0	973	0	0	0	94	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Right	Right
Median Width(ft)			0			0				0		
Link Offset(ft)			0			0				0		
Crosswalk Width(ft)			16			16				16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15		9	15		9	9	15		9	9
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		
Protected Phases			4			8				2		
Permitted Phases	4	4			8				2			
Minimum Split (s)	22.5	22.5	22.5		22.5	22.5			22.5	22.5		
Total Split (s)	47.0	47.0	47.0		47.0	47.0			23.0	23.0		
Total Split (%)	67.1%	67.1%	67.1%		67.1%	67.1%			32.9%	32.9%		
Maximum Green (s)	42.5	42.5	42.5		42.5	42.5			18.5	18.5		
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5			3.5	3.5		
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0			1.0	1.0		
Lost Time Adjust (s)			0.0			0.0				0.0		
Total Lost Time (s)			4.5			4.5				4.5		
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0	7.0		7.0	7.0			7.0	7.0		
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	11.0			11.0	11.0		
Pedestrian Calls (#/hr)	0	0	0		0	0			0	0		
Act Effct Green (s)			42.5			42.5				18.5		
Actuated g/C Ratio			0.61			0.61				0.26		
v/c Ratio			0.95dl			0.90				0.27		
Control Delay			14.5			25.6				22.8		
Queue Delay			20.4			0.0				0.0		
Total Delay			35.0			25.6				22.8		

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/10/2022



Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	102	46	81
Future Volume (vph)	102	46	81
Ideal Flow (vphpl)	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00
Fr _t		0.952	
Fl _t Protected		0.978	
Satd. Flow (prot)	0	1734	0
Fl _t Permitted		0.834	
Satd. Flow (perm)	0	1479	0
Right Turn on Red			Yes
Satd. Flow (RTOR)		38	
Link Speed (mph)		30	
Link Distance (ft)		623	
Travel Time (s)		14.2	
Peak Hour Factor	0.92	0.92	0.92
Adj. Flow (vph)	111	50	88
Shared Lane Traffic (%)			
Lane Group Flow (vph)	0	249	0
Enter Blocked Intersection	No	No	No
Lane Alignment	Left	Left	Right
Median Width(ft)		0	
Link Offset(ft)		0	
Crosswalk Width(ft)		16	
Two way Left Turn Lane			
Headway Factor	1.00	1.00	1.00
Turning Speed (mph)	15		9
Turn Type	Perm	NA	
Protected Phases		6	
Permitted Phases	6		
Minimum Split (s)	22.5	22.5	
Total Split (s)	23.0	23.0	
Total Split (%)	32.9%	32.9%	
Maximum Green (s)	18.5	18.5	
Yellow Time (s)	3.5	3.5	
All-Red Time (s)	1.0	1.0	
Lost Time Adjust (s)		0.0	
Total Lost Time (s)		4.5	
Lead/Lag			
Lead-Lag Optimize?			
Walk Time (s)	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0	
Pedestrian Calls (#/hr)	0	0	
Act Effct Green (s)		18.5	
Actuated g/C Ratio		0.26	
v/c Ratio		0.60	
Control Delay		25.8	
Queue Delay		0.0	
Total Delay		25.8	

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/10/2022



Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
LOS			C			C				C		
Approach Delay			35.0			25.6				22.8		
Approach LOS			C			C				C		

Intersection Summary

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 70

Control Type: Pretimed

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 29.2

Intersection LOS: C

Intersection Capacity Utilization 97.3%

ICU Level of Service F

Analysis Period (min) 15

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 3: Herman St/W Parade Ave & Best St



Lanes, Volumes, Timings
3: Herman St/W Parade Ave & Best St

03/10/2022



Lane Group	SBL	SBT	SBR
LOS		C	
Approach Delay		25.8	
Approach LOS		C	
Intersection Summary			

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	99	3	1	363	0	0	0	0	539	601	144
Future Volume (vph)	0	99	3	1	363	0	0	0	0	539	601	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frts		0.996									0.985	
Flt Protected											0.979	
Satd. Flow (prot)	0	1855	0	0	1863	0	0	0	0	0	1796	0
Flt Permitted											0.979	
Satd. Flow (perm)	0	1855	0	0	1863	0	0	0	0	0	1796	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1									4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1032			100			717			296	
Travel Time (s)		23.5			2.3			16.3			6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	108	3	1	395	0	0	0	0	586	653	157
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	111	0	0	396	0	0	0	0	0	1396	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		3			3 5 10						9	
Permitted Phases				3 5 10						9		
Minimum Split (s)		22.5								9.5	9.5	
Total Split (s)		22.5								35.0	35.0	
Total Split (%)		15.0%								23.3%	23.3%	
Maximum Green (s)		18.0								30.5	30.5	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.0								1.0	1.0	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		4.5									4.5	
Lead/Lag										Lead	Lead	
Lead-Lag Optimize?										Yes	Yes	
Walk Time (s)		7.0										
Flash Dont Walk (s)		11.0										
Pedestrian Calls (#/hr)		0										
Act Effect Green (s)		18.0			110.5						30.5	
Actuated g/C Ratio		0.12			0.74						0.20	
v/c Ratio		0.50			0.29						3.79	
Control Delay		69.6			3.6						1279.7	
Queue Delay		0.0			0.0						6.6	
Total Delay		69.6			3.6						1286.4	

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/10/2022

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø10
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	1	2	5	7	10
Permitted Phases					
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5
Total Split (s)	22.5	47.5	70.0	22.5	22.5
Total Split (%)	15%	32%	47%	15%	15%
Maximum Green (s)	18.0	43.0	65.5	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead	Lag			Lag
Lead-Lag Optimize?	Yes	Yes			Yes
Walk Time (s)	7.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		E			A						F	
Approach Delay		69.6			3.6						1286.4	
Approach LOS		E			A						F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 3.79

Intersection Signal Delay: 948.5

Intersection LOS: F

Intersection Capacity Utilization 97.6%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 4: Humboldt Parkway SB & Northhampton St

#66  Ø1, Ø1	#66  Ø2 (R)	#4 #5  Ø3	#4 #5 #66  Ø9	#4 #5 #66  Ø9
22.5 s	47.5 s	22.5 s	35 s	22.5 s
#4 #5  Ø5	#66  Ø7			
70 s	22.5 s			

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø10
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
5: Humboldt Parkway NB & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	691	0	0	158	4	2	12	6	0	0	0
Future Volume (vph)	4	691	0	0	158	4	2	12	6	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.997			0.957				
Flt Protected								0.995				
Satd. Flow (prot)	0	1863	0	0	1857	0	0	1774	0	0	0	0
Flt Permitted		0.999						0.995				
Satd. Flow (perm)	0	1861	0	0	1857	0	0	1774	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1			7				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		196			1089			152				722
Travel Time (s)		4.5			24.8			3.5				16.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	751	0	0	172	4	2	13	7	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	755	0	0	176	0	0	22	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		3 5 9			3			10				
Permitted Phases	3 5 9						10					
Minimum Split (s)					22.5		22.5	22.5				
Total Split (s)					22.5		22.5	22.5				
Total Split (%)					15.0%		15.0%	15.0%				
Maximum Green (s)					18.0		18.0	18.0				
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.0		1.0	1.0				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					4.5			4.5				
Lead/Lag							Lag	Lag				
Lead-Lag Optimize?							Yes	Yes				
Walk Time (s)					7.0		7.0	7.0				
Flash Dont Walk (s)					11.0		11.0	11.0				
Pedestrian Calls (#/hr)					0		0	0				
Act Effct Green (s)		123.0			18.0			18.0				
Actuated g/C Ratio		0.82			0.12			0.12				
v/c Ratio		0.49			0.79			0.10				
Control Delay		6.1			87.9			45.9				
Queue Delay		5.3			0.0			0.1				
Total Delay		11.4			87.9			46.0				

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

03/10/2022

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø9
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	1	2	5	7	9
Permitted Phases					
Minimum Split (s)	22.5	22.5	9.5	22.5	9.5
Total Split (s)	22.5	47.5	70.0	22.5	35.0
Total Split (%)	15%	32%	47%	15%	23%
Maximum Green (s)	18.0	43.0	65.5	18.0	30.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead	Lag		Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	
Walk Time (s)	7.0	7.0		7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	
Pedestrian Calls (#/hr)	0	0		0	
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			F			D				
Approach Delay		11.4			87.9			46.0				
Approach LOS		B			F			D				

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 3.79

Intersection Signal Delay: 26.3

Intersection LOS: C

Intersection Capacity Utilization 51.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Humboldt Parkway NB & Northhampton St

#66 Ø10, Ø1 22.5 s	#66 Ø2 (R) 47.5 s	#4 #5 Ø3 22.5 s	#4 #5 #66 Ø9 35 s	#4 #5 #66 Ø7 22.5 s
#4 #5 Ø5 70 s	#66 Ø7 22.5 s			

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø9
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
6: Humboldt Parkway SB & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰		↰	↰						↰↰	
Traffic Volume (vph)	0	251	4	4	661	0	0	0	0	85	353	64
Future Volume (vph)	0	251	4	4	661	0	0	0	0	85	353	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.998									0.981	
Flt Protected				0.950							0.992	
Satd. Flow (prot)	0	1859	0	1770	1863	0	0	0	0	0	3444	0
Flt Permitted				0.589							0.992	
Satd. Flow (perm)	0	1859	0	1097	1863	0	0	0	0	0	3444	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)											8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1162			94			635			457	
Travel Time (s)		26.4			2.1			14.4			10.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	273	4	4	718	0	0	0	0	92	384	70
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	277	0	4	718	0	0	0	0	0	546	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		3			3 5 10						9	
Permitted Phases				3 5 10						9		
Minimum Split (s)		22.5								9.5	9.5	
Total Split (s)		23.0								16.0	16.0	
Total Split (%)		15.3%								10.7%	10.7%	
Maximum Green (s)		18.5								11.5	11.5	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.0								1.0	1.0	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		4.5									4.5	
Lead/Lag										Lead	Lead	
Lead-Lag Optimize?										Yes	Yes	
Walk Time (s)		7.0										
Flash Dont Walk (s)		11.0										
Pedestrian Calls (#/hr)		0										
Act Effect Green (s)		18.5		129.5	129.5						11.5	
Actuated g/C Ratio		0.12		0.86	0.86						0.08	
v/c Ratio		1.21		0.00	0.45						2.01	

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

03/10/2022

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø10
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	1	2	5	7	10
Permitted Phases					
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5
Total Split (s)	18.0	63.0	81.0	23.0	30.0
Total Split (%)	12%	42%	54%	15%	20%
Maximum Green (s)	13.5	58.5	76.5	18.5	25.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead	Lag			Lag
Lead-Lag Optimize?	Yes	Yes			Yes
Walk Time (s)		7.0		7.0	7.0
Flash Dont Walk (s)		11.0		11.0	11.0
Pedestrian Calls (#/hr)		0		0	0
Act Effect Green (s)					
Actuated g/C Ratio					
v/c Ratio					

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		180.9		0.5	3.4						496.2	
Queue Delay		0.0		0.0	0.0						0.0	
Total Delay		180.9		0.5	3.4						496.2	
LOS		F		A	A						F	
Approach Delay		180.9			3.4						496.2	
Approach LOS		F			A						F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 2.01

Intersection Signal Delay: 209.3

Intersection LOS: F

Intersection Capacity Utilization 56.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 6: Humboldt Parkway SB & E Utica St

#67  Ø1 18 s	#67  Ø2 (R) 63 s	#6 #7  Ø3 23 s	#6 #7 #67 #6 #7 #67  Ø10 16 s	30 s
#6 #7  Ø5 81 s		#67  Ø7 23 s		

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø10
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	371	0	0	139	3	113	306	95	0	0	0
Future Volume (vph)	5	371	0	0	139	3	113	306	95	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.997				0.850			
Flt Protected	0.950							0.987				
Satd. Flow (prot)	1770	1863	0	0	1857	0	0	1839	1583	0	0	0
Flt Permitted	0.152							0.987				
Satd. Flow (perm)	283	1863	0	0	1857	0	0	1839	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1				109			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		77			1076			613			291	
Travel Time (s)		1.8			24.5			13.9			6.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	403	0	0	151	3	123	333	103	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	403	0	0	154	0	0	456	103	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		3 5 9			3			10				
Permitted Phases	3 5 9						10		10			
Minimum Split (s)					22.5		22.5	22.5	22.5			
Total Split (s)					23.0		30.0	30.0	30.0			
Total Split (%)					15.3%		20.0%	20.0%	20.0%			
Maximum Green (s)					18.5		25.5	25.5	25.5			
Yellow Time (s)					3.5		3.5	3.5	3.5			
All-Red Time (s)					1.0		1.0	1.0	1.0			
Lost Time Adjust (s)					0.0			0.0	0.0			
Total Lost Time (s)					4.5			4.5	4.5			
Lead/Lag							Lag	Lag	Lag			
Lead-Lag Optimize?							Yes	Yes	Yes			
Walk Time (s)					7.0		7.0	7.0	7.0			
Flash Dont Walk (s)					11.0		11.0	11.0	11.0			
Pedestrian Calls (#/hr)					0		0	0	0			
Act Effct Green (s)	115.5	115.5			18.5			25.5	25.5			
Actuated g/C Ratio	0.77	0.77			0.12			0.17	0.17			
v/c Ratio	0.02	0.28			0.67			1.46	0.29			
Control Delay	1.6	2.0			77.8			267.1	10.7			
Queue Delay	0.0	0.0			0.0			0.0	0.0			
Total Delay	1.6	2.0			77.8			267.1	10.7			

Lanes, Volumes, Timings
7: Humboldt Parkway NB & E Utica St

03/10/2022

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø9
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	1	2	5	7	9
Permitted Phases					
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5
Total Split (s)	18.0	63.0	81.0	23.0	16.0
Total Split (%)	12%	42%	54%	15%	11%
Maximum Green (s)	13.5	58.5	76.5	18.5	11.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead	Lag		Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	
Walk Time (s)		7.0		7.0	
Flash Dont Walk (s)		11.0		11.0	
Pedestrian Calls (#/hr)		0		0	
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	A	A			E			F	B			
Approach Delay		2.0			77.8			219.8				
Approach LOS		A			E			F				

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 2.01

Intersection Signal Delay: 121.0

Intersection LOS: F

Intersection Capacity Utilization 49.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 7: Humboldt Parkway NB & E Utica St

#67  Ø1 18 s	#67  Ø2 (R) 63 s	#6 #7  Ø3 23 s	#6 #7 #67 #6 #7 #67  Ø10 16 s	#67  Ø7 23 s
#6 #7  Ø5 81 s				

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø9
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	865	13	14	1235	0	0	0	0	236	326	306
Future Volume (vph)	0	865	13	14	1235	0	0	0	0	236	326	306
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998									0.952	
Flt Protected				0.950							0.987	
Satd. Flow (prot)	0	1859	0	1770	1863	0	0	0	0	0	1750	0
Flt Permitted				0.315							0.987	
Satd. Flow (perm)	0	1859	0	587	1863	0	0	0	0	0	1750	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)											15	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1165			84			321			268	
Travel Time (s)		26.5			1.9			7.3			6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	940	14	15	1342	0	0	0	0	257	354	333
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	954	0	15	1342	0	0	0	0	0	944	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		3			3 5 10						9	
Permitted Phases				3 5 10						9		
Minimum Split (s)		22.5								9.5	9.5	
Total Split (s)		36.0								27.0	27.0	
Total Split (%)		24.0%								18.0%	18.0%	
Maximum Green (s)		31.5								22.5	22.5	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.0								1.0	1.0	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		4.5									4.5	
Lead/Lag										Lead	Lead	
Lead-Lag Optimize?										Yes	Yes	
Walk Time (s)		7.0										
Flash Dont Walk (s)		11.0										
Pedestrian Calls (#/hr)		0										
Act Effect Green (s)		31.5		118.5	118.5						22.5	
Actuated g/C Ratio		0.21		0.79	0.79						0.15	
v/c Ratio		2.45		0.03	0.91						3.43	
Control Delay		682.9		0.7	19.0						1121.4	
Queue Delay		5.2		0.0	0.0						0.1	
Total Delay		688.1		0.7	19.0						1121.5	

Lanes, Volumes, Timings
8: Humboldt Parkway SB & E Ferry St

03/10/2022

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø10
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	1	2	5	7	10
Permitted Phases					
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5
Total Split (s)	19.0	42.0	61.0	36.0	26.0
Total Split (%)	13%	28%	41%	24%	17%
Maximum Green (s)	14.5	37.5	56.5	31.5	21.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead	Lag			Lag
Lead-Lag Optimize?	Yes	Yes			Yes
Walk Time (s)		7.0		7.0	7.0
Flash Dont Walk (s)		11.0		11.0	11.0
Pedestrian Calls (#/hr)		0		0	0
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		F		A	B						F	
Approach Delay		688.1			18.8						1121.5	
Approach LOS		F			B						F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green, Master Intersection

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 3.43

Intersection Signal Delay: 534.7

Intersection LOS: F

Intersection Capacity Utilization 121.4%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 8: Humboldt Parkway SB & E Ferry St

#68  Ø1	#68  Ø2 (R)	#8 #9  Ø3	#8 #9 #68  Ø9	#8 #9 #68  Ø10
19 s	42 s	36 s	27 s	26 s
#8 #9  Ø5	#68  Ø7			
61 s	36 s			

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø10
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
9: Humboldt Parkway NB & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	764	0	0	391	8	84	294	70	0	0	0
Future Volume (vph)	33	764	0	0	391	8	84	294	70	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	75		0	0		0
Storage Lanes	1		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.997				0.850			
Flt Protected	0.950							0.989				
Satd. Flow (prot)	1770	1863	0	0	1857	0	0	1842	1583	0	0	0
Flt Permitted	0.115							0.989				
Satd. Flow (perm)	214	1863	0	0	1857	0	0	1842	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1				109			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		78			1081			317			602	
Travel Time (s)		1.8			24.6			7.2			13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	36	830	0	0	425	9	91	320	76	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	36	830	0	0	434	0	0	411	76	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		3 5 9			3			10				
Permitted Phases	3 5 9						10		10			
Minimum Split (s)					22.5		22.5	22.5	22.5			
Total Split (s)					36.0		26.0	26.0	26.0			
Total Split (%)					24.0%		17.3%	17.3%	17.3%			
Maximum Green (s)					31.5		21.5	21.5	21.5			
Yellow Time (s)					3.5		3.5	3.5	3.5			
All-Red Time (s)					1.0		1.0	1.0	1.0			
Lost Time Adjust (s)					0.0			0.0	0.0			
Total Lost Time (s)					4.5			4.5	4.5			
Lead/Lag							Lag	Lag	Lag			
Lead-Lag Optimize?							Yes	Yes	Yes			
Walk Time (s)					7.0		7.0	7.0	7.0			
Flash Dont Walk (s)					11.0		11.0	11.0	11.0			
Pedestrian Calls (#/hr)					0		0	0	0			
Act Effct Green (s)	119.5	119.5			31.5			21.5	21.5			
Actuated g/C Ratio	0.80	0.80			0.21			0.14	0.14			
v/c Ratio	0.21	0.56			1.11			1.56	0.24			

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

03/10/2022

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø9
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	1	2	5	7	9
Permitted Phases					
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5
Total Split (s)	19.0	42.0	61.0	36.0	27.0
Total Split (%)	13%	28%	41%	24%	18%
Maximum Green (s)	14.5	37.5	56.5	31.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead	Lag		Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	
Walk Time (s)		7.0		7.0	
Flash Dont Walk (s)		11.0		11.0	
Pedestrian Calls (#/hr)		0		0	
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	1.4	5.3			132.5			312.3	31.4			
Queue Delay	0.0	0.0			1.2			0.0	0.0			
Total Delay	1.4	5.3			133.7			312.3	31.4			
LOS	A	A			F			F	C			
Approach Delay		5.2			133.7			268.5				
Approach LOS		A			F			F				

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green, Master Intersection

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 3.43

Intersection Signal Delay: 108.2

Intersection LOS: F

Intersection Capacity Utilization 67.8%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 9: Humboldt Parkway NB & E Ferry St

#68  Ø1	#68  Ø2 (R)	#8 #9  Ø3	#8 #9 #68  Ø9	#8 #9 #68  Ø10
19 s	42 s	36 s	27 s	26 s
#8 #9  Ø5	#68  Ø7			
61 s	36 s			

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø9
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
10: Jefferson Ave & Cherry St & EB On Ramp

03/10/2022

										
Lane Group	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Traffic Volume (vph)	12	1	0	311	276	231	495	0	0	0
Future Volume (vph)	12	1	0	311	276	231	495	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00
Fr't	0.990			0.929						
Flt Protected	0.956						0.984			
Satd. Flow (prot)	1763	0	0	3288	0	0	3483	0	0	0
Flt Permitted	0.956						0.632			
Satd. Flow (perm)	1763	0	0	3288	0	0	2237	0	0	0
Right Turn on Red		Yes			Yes			Yes		
Satd. Flow (RTOR)	30			300						
Link Speed (mph)	30			30			30		30	
Link Distance (ft)	537			328			271		387	
Travel Time (s)	12.2			7.5			6.2		8.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	1	0	338	300	251	538	0	0	0
Shared Lane Traffic (%)										
Lane Group Flow (vph)	14	0	0	638	0	0	789	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right
Median Width(ft)	12			0			0		0	
Link Offset(ft)	0			0			0		0	
Crosswalk Width(ft)	16			16			16		16	
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15		9	15		9	15	9
Turn Type	Prot			NA		Perm	NA			
Protected Phases	4			2			6			
Permitted Phases						6				
Minimum Split (s)	22.5			22.5		22.5	22.5			
Total Split (s)	22.5			32.5		32.5	32.5			
Total Split (%)	40.9%			59.1%		59.1%	59.1%			
Maximum Green (s)	18.0			28.0		28.0	28.0			
Yellow Time (s)	3.5			3.5		3.5	3.5			
All-Red Time (s)	1.0			1.0		1.0	1.0			
Lost Time Adjust (s)	0.0			0.0			0.0			
Total Lost Time (s)	4.5			4.5			4.5			
Lead/Lag										
Lead-Lag Optimize?										
Walk Time (s)	7.0			7.0		7.0	7.0			
Flash Dont Walk (s)	11.0			11.0		11.0	11.0			
Pedestrian Calls (#/hr)	0			0		0	0			
Act Effect Green (s)	18.0			28.0			28.0			
Actuated g/C Ratio	0.33			0.51			0.51			
v/c Ratio	0.02			0.35			0.69			
Control Delay	3.1			4.6			14.3			
Queue Delay	0.0			0.0			0.9			
Total Delay	3.1			4.6			15.2			

Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
LOS	A			A			B			
Approach Delay	3.1			4.6			15.2			
Approach LOS	A			A			B			

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 55

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Pretimed

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 10.4

Intersection LOS: B

Intersection Capacity Utilization 53.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 10: Jefferson Ave & Cherry St & EB On Ramp

Ø2 (R) 32.5 s	Ø4 22.5 s
Ø6 (R) 32.5 s	

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	126	6	53	49	358	0	0	693	17
Future Volume (vph)	0	0	0	126	6	53	49	358	0	0	693	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt					0.961						0.996	
Flt Protected					0.967			0.994				
Satd. Flow (prot)	0	0	0	0	1731	0	0	3518	0	0	3525	0
Flt Permitted					0.967			0.818				
Satd. Flow (perm)	0	0	0	0	1731	0	0	2895	0	0	3525	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					54						6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			384			271			880	
Travel Time (s)		12.9			8.7			6.2			20.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	137	7	58	53	389	0	0	753	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	202	0	0	442	0	0	771	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8			2					
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (%)				50.0%	50.0%		50.0%	50.0%			50.0%	
Maximum Green (s)				18.0	18.0		18.0	18.0			18.0	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)				7.0	7.0		7.0	7.0			7.0	
Flash Dont Walk (s)				11.0	11.0		11.0	11.0			11.0	
Pedestrian Calls (#/hr)				0	0		0	0			0	
Act Effect Green (s)					18.0			18.0			18.0	
Actuated g/C Ratio					0.40			0.40			0.40	
v/c Ratio					0.28			0.38			0.55	

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay					8.0			10.8			12.1	
Queue Delay					0.0			0.0			0.0	
Total Delay					8.0			10.8			12.1	
LOS					A			B			B	
Approach Delay					8.0			10.8			12.1	
Approach LOS					A			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 11.1

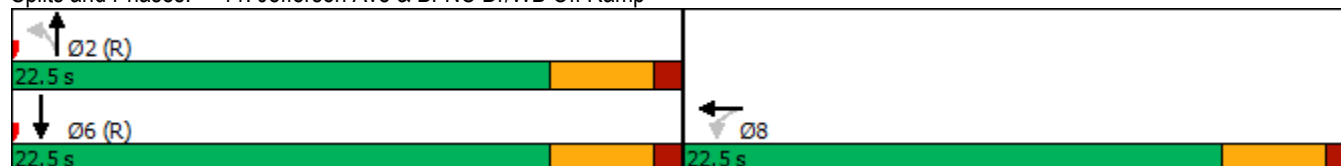
Intersection LOS: B

Intersection Capacity Utilization 52.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 11: Jefferson Ave & BFNC Dr/WB Off Ramp



Lanes, Volumes, Timings
12: Jefferson Ave & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	125	31	51	131	75	10	479	42	44	457	102
Future Volume (vph)	41	125	31	51	131	75	10	479	42	44	457	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.976			0.956			0.988			0.975	
Flt Protected		0.990			0.990			0.999			0.996	
Satd. Flow (prot)	0	3420	0	0	3350	0	0	3493	0	0	3437	0
Flt Permitted		0.859			0.868			0.941			0.883	
Satd. Flow (perm)	0	2967	0	0	2937	0	0	3290	0	0	3047	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		34			82			24			63	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		737			2886			735			328	
Travel Time (s)		16.8			65.6			16.7			7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	136	34	55	142	82	11	521	46	48	497	111
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	215	0	0	279	0	0	578	0	0	656	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.18			0.23			0.43			0.52	
Control Delay		7.8			14.5			10.6			11.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		7.8			14.5			10.6			11.0	

Lanes, Volumes, Timings

12: Jefferson Ave & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			B			B			B	
Approach Delay		7.8			14.5			10.6			11.0	
Approach LOS		A			B			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 11.0

Intersection LOS: B

Intersection Capacity Utilization 60.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 12: Jefferson Ave & Genesee St

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
13: Herman St & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	316	25	22	341	25	20	97	21	41	160	22
Future Volume (vph)	11	316	25	22	341	25	20	97	21	41	160	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989			0.990			0.979			0.987	
Flt Protected		0.998			0.997			0.993			0.991	
Satd. Flow (prot)	0	3493	0	0	3493	0	0	1811	0	0	1822	0
Flt Permitted		0.939			0.923			0.942			0.929	
Satd. Flow (perm)	0	3287	0	0	3234	0	0	1718	0	0	1708	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			18			23			15	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2886			671			575			1329	
Travel Time (s)		65.6			15.3			13.1			30.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	343	27	24	371	27	22	105	23	45	174	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	382	0	0	422	0	0	150	0	0	243	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.29			0.32			0.21			0.35	
Control Delay		11.2			13.5			8.6			10.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.2			13.5			8.6			10.6	

Lanes, Volumes, Timings

13: Herman St & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			B			A			B	
Approach Delay		11.2			13.5			8.6			10.6	
Approach LOS		B			B			A			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 22.5 (50%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.35

Intersection Signal Delay: 11.6

Intersection LOS: B

Intersection Capacity Utilization 49.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 13: Herman St & Genesee St

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
14: Reed St/Rich St & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	450	0	0	410	16	17	13	25	11	0	13
Future Volume (vph)	4	450	0	0	410	16	17	13	25	11	0	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.994			0.938			0.927	
Fl _t Protected								0.985			0.977	
Satd. Flow (prot)	0	3539	0	0	3518	0	0	1721	0	0	1687	0
Fl _t Permitted		0.952						0.940			0.915	
Satd. Flow (perm)	0	3369	0	0	3518	0	0	1642	0	0	1580	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10			27			36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		671			961			780			839	
Travel Time (s)		15.3			21.8			17.7			19.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	489	0	0	446	17	18	14	27	12	0	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	493	0	0	463	0	0	59	0	0	26	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			50	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2						8			4		
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0			18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0			7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	
Act Effct Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.37			0.33			0.09			0.04	
Control Delay		11.9			9.9			6.1			3.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.9			9.9			6.1			3.3	

Lanes, Volumes, Timings
14: Reed St/Rich St & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			A			A			A	
Approach Delay		11.9			9.9			6.1			3.3	
Approach LOS		B			A			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 22.5 (50%), Referenced to phase 2:EBTL and 6:WBT, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.37

Intersection Signal Delay: 10.5

Intersection LOS: B

Intersection Capacity Utilization 26.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Reed St/Rich St & Genesee St

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
15: Fillmore Ave & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	425	75	84	361	32	39	354	75	47	305	15
Future Volume (vph)	41	425	75	84	361	32	39	354	75	47	305	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr't		0.979			0.990			0.978			0.995	
Flt Protected		0.996			0.991			0.996			0.994	
Satd. Flow (prot)	0	3451	0	0	3472	0	0	1814	0	0	1842	0
Flt Permitted		0.884			0.764			0.946			0.899	
Satd. Flow (perm)	0	3063	0	0	2677	0	0	1723	0	0	1666	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		48			20			26			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		961			671			704			490	
Travel Time (s)		21.8			15.3			16.0			11.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	462	82	91	392	35	42	385	82	51	332	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	589	0	0	518	0	0	509	0	0	399	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	

Lanes, Volumes, Timings
15: Fillmore Ave & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		13.1			13.1			18.1			18.1	
Actuated g/C Ratio		0.33			0.33			0.45			0.45	
v/c Ratio		0.57			0.59			0.64			0.53	
Control Delay		12.5			13.6			14.7			12.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.5			13.6			14.7			12.1	
LOS		B			B			B			B	
Approach Delay		12.5			13.6			14.7			12.1	
Approach LOS		B			B			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.3

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 13.3

Intersection LOS: B

Intersection Capacity Utilization 70.5%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 15: Fillmore Ave & Genesee St

	
22.5 s	22.5 s
	
22.5 s	22.5 s

Lanes, Volumes, Timings
16: Fillmore Ave & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	616	189	1	612	46	161	252	6	51	266	52
Future Volume (vph)	50	616	189	1	612	46	161	252	6	51	266	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970			0.991			0.998				0.850
Flt Protected		0.997						0.981			0.992	
Satd. Flow (prot)	0	1801	0	0	1846	0	0	1824	0	0	1848	1583
Flt Permitted		0.933			0.999			0.575			0.886	
Satd. Flow (perm)	0	1686	0	0	1844	0	0	1069	0	0	1650	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26			7			1				57
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1418			567			490			61	
Travel Time (s)		32.2			12.9			11.1			1.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	670	205	1	665	50	175	274	7	55	289	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	929	0	0	716	0	0	456	0	0	344	57
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0

Lanes, Volumes, Timings
16: Fillmore Ave & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (s)	41.0	41.0		41.0	41.0		34.0	34.0		34.0	34.0	34.0
Total Split (%)	54.7%	54.7%		54.7%	54.7%		45.3%	45.3%		45.3%	45.3%	45.3%
Maximum Green (s)	36.5	36.5		36.5	36.5		29.5	29.5		29.5	29.5	29.5
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)		4.5			4.5			4.5			4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	0
Act Effect Green (s)		36.5			36.5			29.5			29.5	29.5
Actuated g/C Ratio		0.49			0.49			0.39			0.39	0.39
v/c Ratio		1.12			0.79			1.08			0.53	0.09
Control Delay		89.4			24.3			93.9			6.6	0.3
Queue Delay		17.4			65.7			6.5			0.0	0.0
Total Delay		106.8			90.0			100.4			6.6	0.3
LOS		F			F			F			A	A
Approach Delay		106.8			90.0			100.4			5.7	
Approach LOS		F			F			F			A	

Intersection Summary

Area Type: Other

Cycle Length: 75

Actuated Cycle Length: 75

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.12

Intersection Signal Delay: 84.6

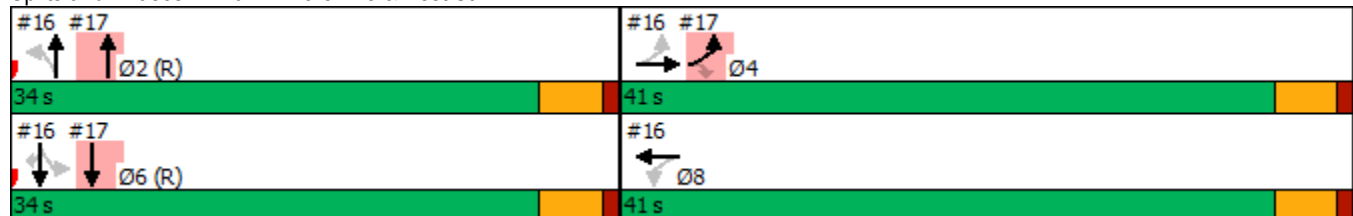
Intersection LOS: F

Intersection Capacity Utilization 135.0%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 16: Fillmore Ave & Best St



Lanes, Volumes, Timings
17: Fillmore Ave & East Park

03/10/2022

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	10	9	0	399	357	0	
Future Volume (vph)	10	9	0	399	357	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	0			100	
Storage Lanes	1	1	0			1	
Taper Length (ft)	25		25				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	
Frt		0.850					
Flt Protected	0.950						
Satd. Flow (prot)	1770	1583	0	1863	3539	0	
Flt Permitted	0.950						
Satd. Flow (perm)	1770	1583	0	1863	3539	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		10					
Link Speed (mph)	30			30	30		
Link Distance (ft)	468			61	755		
Travel Time (s)	10.6			1.4	17.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	11	10	0	434	388	0	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	11	10	0	434	388	0	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	Right	
Median Width(ft)	12			0	0		
Link Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9	15			9	
Number of Detectors	1	1		2	2		
Detector Template	Left	Right		Thru	Thru		
Leading Detector (ft)	20	20		100	100		
Trailing Detector (ft)	0	0		0	0		
Detector 1 Position(ft)	0	0		0	0		
Detector 1 Size(ft)	20	20		6	6		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel							
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		
Detector 2 Position(ft)				94	94		
Detector 2 Size(ft)				6	6		
Detector 2 Type				Cl+Ex	Cl+Ex		
Detector 2 Channel							
Detector 2 Extend (s)				0.0	0.0		
Turn Type	Prot	Perm		NA	NA		
Protected Phases	4			2	6		8
Permitted Phases		4					

Lanes, Volumes, Timings

17: Fillmore Ave & East Park

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Detector Phase	4	4		2	6		
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5
Total Split (s)	41.0	41.0		34.0	34.0		41.0
Total Split (%)	54.7%	54.7%		45.3%	45.3%		55%
Maximum Green (s)	36.5	36.5		29.5	29.5		36.5
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		
Total Lost Time (s)	4.5	4.5		4.5	4.5		
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0
Recall Mode	None	None		C-Max	C-Max		None
Walk Time (s)	7.0	7.0		7.0	7.0		7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0
Pedestrian Calls (#/hr)	0	0		0	0		0
Act Effect Green (s)	36.5	36.5		29.5	29.5		
Actuated g/C Ratio	0.49	0.49		0.39	0.39		
v/c Ratio	0.01	0.01		0.59	0.28		
Control Delay	10.1	5.8		11.5	16.2		
Queue Delay	0.0	0.0		0.0	0.0		
Total Delay	10.1	5.8		11.5	16.2		
LOS	B	A		B	B		
Approach Delay	8.0			11.5	16.2		
Approach LOS	A			B	B		

Intersection Summary

Area Type: Other

Cycle Length: 75

Actuated Cycle Length: 75

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.12

Intersection Signal Delay: 13.6

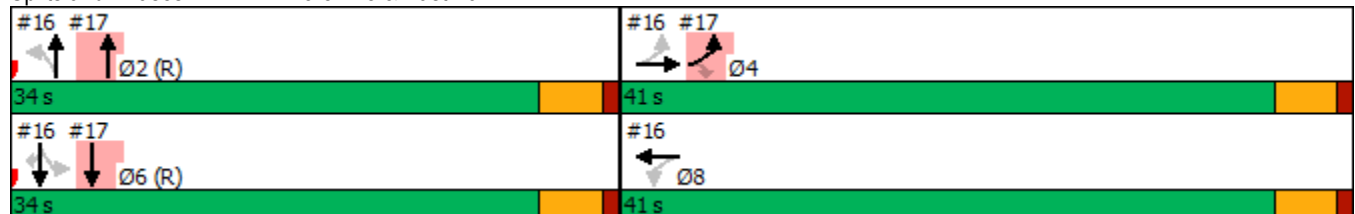
Intersection LOS: B

Intersection Capacity Utilization 32.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Fillmore Ave & East Park



Lanes, Volumes, Timings
18: Fillmore Ave & MLK Park

03/10/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	4	13	0	423	337	0
Future Volume (vph)	4	13	0	423	337	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr't	0.850					
Flt Protected	0.950					
Satd. Flow (prot)	1770	1583	0	1863	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1583	0	1863	1863	0
Right Turn on Red	Yes					
Satd. Flow (RTOR)	14					
Link Speed (mph)	30			30	30	
Link Distance (ft)	526			755	579	
Travel Time (s)	12.0			17.2	13.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	14	0	460	366	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	14	0	460	366	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	Prot	Perm		NA	NA	
Protected Phases	4			2	6	
Permitted Phases	4					
Minimum Split (s)	22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	
Act Effect Green (s)	18.0	18.0		18.0	18.0	
Actuated g/C Ratio	0.40	0.40		0.40	0.40	
v/c Ratio	0.01	0.02		0.62	0.49	
Control Delay	8.2	4.9		15.2	12.9	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	8.2	4.9		15.2	12.9	

Lanes, Volumes, Timings

18: Fillmore Ave & MLK Park

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
LOS	A	A		B	B	
Approach Delay	5.7			15.2	12.9	
Approach LOS	A			B	B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.62

Intersection Signal Delay: 14.0

Intersection LOS: B

Intersection Capacity Utilization 33.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Fillmore Ave & MLK Park

Ø2 (R) 22.5 s	Ø4 22.5 s
Ø6 (R) 22.5 s	

Lanes, Volumes, Timings
19: Fillmore Ave & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	81	20	15	37	16	24	412	11	11	512	78
Future Volume (vph)	18	81	20	15	37	16	24	412	11	11	512	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.977			0.969			0.997			0.982	
Flt Protected		0.992			0.989			0.997			0.999	
Satd. Flow (prot)	0	1805	0	0	1785	0	0	1852	0	0	1827	0
Flt Permitted		0.935			0.932			0.959			0.991	
Satd. Flow (perm)	0	1702	0	0	1682	0	0	1781	0	0	1813	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			17			3			20	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1089			291			579			735	
Travel Time (s)		24.8			6.6			13.2			16.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	88	22	16	40	17	26	448	12	12	557	85
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	130	0	0	73	0	0	486	0	0	654	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	0		1	0		1	0	
Detector Template	Left			Left			Left	Thru		Left		
Leading Detector (ft)	20	10		20	0		20	0		20	0	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	10		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		32.5	32.5		32.5	32.5	
Total Split (%)	40.9%	40.9%		40.9%	40.9%		59.1%	59.1%		59.1%	59.1%	
Maximum Green (s)	18.0	18.0		18.0	18.0		28.0	28.0		28.0	28.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	

Lanes, Volumes, Timings
19: Fillmore Ave & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		8.4			8.4			33.8			33.8	
Actuated g/C Ratio		0.17			0.17			0.70			0.70	
v/c Ratio		0.42			0.24			0.39			0.51	
Control Delay		18.8			14.9			5.8			6.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		18.8			14.9			5.8			6.9	
LOS		B			B			A			A	
Approach Delay		18.8			14.9			5.8			6.9	
Approach LOS		B			B			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 48.3

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 8.1

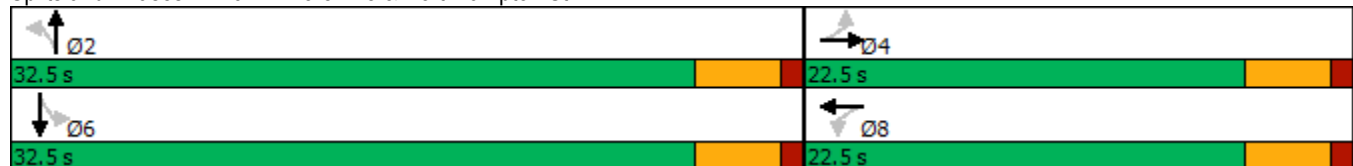
Intersection LOS: A

Intersection Capacity Utilization 50.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 19: Fillmore Ave & Northhampton St



Lanes, Volumes, Timings
21: Fillmore Ave & Riley St/Urban St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	0	7	9	0	27	6	738	8	29	580	16
Future Volume (vph)	4	0	7	9	0	27	6	738	8	29	580	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.910			0.888			0.999			0.997	
Flt Protected		0.984			0.987						0.998	
Satd. Flow (prot)	0	1668	0	0	3102	0	0	1861	0	0	1853	0
Flt Permitted					0.955			0.996			0.952	
Satd. Flow (perm)	0	1695	0	0	3001	0	0	1853	0	0	1768	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			29			1			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			639			735			422	
Travel Time (s)		24.6			14.5			16.7			9.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	0	8	10	0	29	7	802	9	32	630	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	39	0	0	818	0	0	679	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			50			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	0		1	0	
Detector Template	Left	Thru		Left	Thru		Left			Left		
Leading Detector (ft)	20	100		20	100		20	0		20	0	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	

Lanes, Volumes, Timings
21: Fillmore Ave & Riley St/Urban St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		37.5	37.5		37.5	37.5	
Total Split (%)	37.5%	37.5%		37.5%	37.5%		62.5%	62.5%		62.5%	62.5%	
Maximum Green (s)	18.0	18.0		18.0	18.0		33.0	33.0		33.0	33.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		5.9			5.9			48.3			48.3	
Actuated g/C Ratio		0.11			0.11			0.89			0.89	
v/c Ratio		0.06			0.11			0.50			0.43	
Control Delay		5.5			12.6			3.6			3.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		5.5			12.6			3.6			3.1	
LOS		A			B			A			A	
Approach Delay		5.5			12.6			3.6			3.1	
Approach LOS		A			B			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 54.2

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.50

Intersection Signal Delay: 3.6

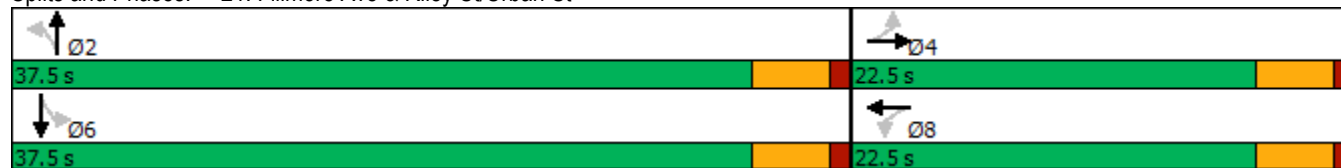
Intersection LOS: A

Intersection Capacity Utilization 62.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 21: Fillmore Ave & Riley St/Urban St



Lanes, Volumes, Timings
22: Fillmore Ave & French St

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	17	88	731	24	94	423
Future Volume (vph)	17	88	731	24	94	423
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.886		0.996			
Flt Protected	0.992					0.991
Satd. Flow (prot)	1637	0	1855	0	0	1846
Flt Permitted	0.992					0.578
Satd. Flow (perm)	1637	0	1855	0	0	1077
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	96		4			
Link Speed (mph)	30		30			30
Link Distance (ft)	600		422			182
Travel Time (s)	13.6		9.6			4.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	96	795	26	102	460
Shared Lane Traffic (%)						
Lane Group Flow (vph)	114	0	821	0	0	562
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		47.5		47.5	47.5
Total Split (%)	32.1%		67.9%		67.9%	67.9%
Maximum Green (s)	18.0		43.0		43.0	43.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0		7.0		7.0	7.0
Flash Dont Walk (s)	11.0		11.0		11.0	11.0
Pedestrian Calls (#/hr)	0		0		0	0
Act Effct Green (s)	18.0		43.0			43.0
Actuated g/C Ratio	0.26		0.61			0.61
v/c Ratio	0.23		0.72			0.85
Control Delay	8.0		13.9			26.4
Queue Delay	0.0		4.2			50.9
Total Delay	8.0		18.1			77.3

Lanes, Volumes, Timings

22: Fillmore Ave & French St

03/10/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
LOS	A		B			E
Approach Delay	8.0		18.1			77.3
Approach LOS	A		B			E

Intersection Summary

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 70

Control Type: Pretimed

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 39.5

Intersection LOS: D

Intersection Capacity Utilization 85.0%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 22: Fillmore Ave & French St



Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

03/10/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	104	132	107	536	586	122
Future Volume (vph)	104	132	107	536	586	122
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.925				0.977	
Flt Protected	0.978			0.992		
Satd. Flow (prot)	1685	0	0	1848	1820	0
Flt Permitted	0.978			0.654		
Satd. Flow (perm)	1685	0	0	1218	1820	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	73				28	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1076			182	1350	
Travel Time (s)	24.5			4.1	30.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	113	143	116	583	637	133
Shared Lane Traffic (%)						
Lane Group Flow (vph)	256	0	0	699	770	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		57.5	57.5	57.5	
Total Split (%)	28.1%		71.9%	71.9%	71.9%	
Maximum Green (s)	18.0		53.0	53.0	53.0	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0		7.0	7.0	7.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Act Effect Green (s)	18.0			53.0	53.0	
Actuated g/C Ratio	0.22			0.66	0.66	
v/c Ratio	0.59			0.87	0.63	
Control Delay	25.9			25.0	10.5	
Queue Delay	0.0			49.5	0.0	
Total Delay	25.9			74.5	10.5	

Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
LOS	C			E	B	
Approach Delay	25.9			74.5	10.5	
Approach LOS	C			E	B	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 80

Control Type: Pretimed

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 38.7

Intersection LOS: D

Intersection Capacity Utilization 97.5%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 23: Fillmore Ave & E Utica St

Ø2 (R) 57.5 s	Ø4 22.5 s
Ø6 (R) 57.5 s	

Lanes, Volumes, Timings
24: Fillmore Ave & E Ferry St

03/10/2022

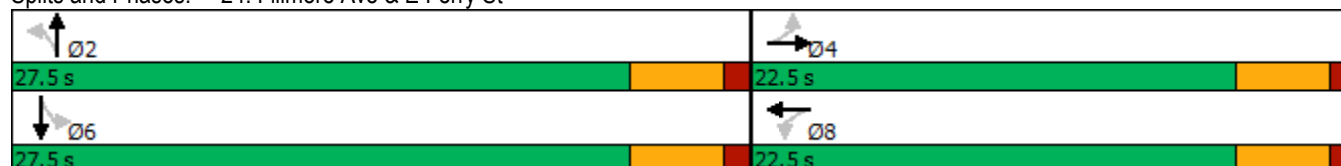
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	269	83	48	226	44	96	680	143	51	359	92
Future Volume (vph)	37	269	83	48	226	44	96	680	143	51	359	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.968			0.979			0.977			0.972	
Flt Protected		0.995			0.993			0.995			0.995	
Satd. Flow (prot)	0	3409	0	0	3441	0	0	3441	0	0	3423	0
Flt Permitted		0.888			0.835			0.841			0.814	
Satd. Flow (perm)	0	3042	0	0	2893	0	0	2908	0	0	2800	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		77			40			56			71	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1081			797			1350			1620	
Travel Time (s)		24.6			18.1			30.7			36.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	40	292	90	52	246	48	104	739	155	55	390	100
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	422	0	0	346	0	0	998	0	0	545	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		

Lanes, Volumes, Timings
24: Fillmore Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		27.5	27.5		27.5	27.5	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		55.0%	55.0%		55.0%	55.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		23.0	23.0		23.0	23.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		10.5			10.5			23.1			23.1	
Actuated g/C Ratio		0.25			0.25			0.54			0.54	
v/c Ratio		0.52			0.47			0.62			0.35	
Control Delay		13.5			13.9			9.2			6.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.5			13.9			9.2			6.1	
LOS		B			B			A			A	
Approach Delay		13.5			13.9			9.2			6.1	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 50												
Actuated Cycle Length: 42.6												
Natural Cycle: 50												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.62												
Intersection Signal Delay: 10.0							Intersection LOS: A					
Intersection Capacity Utilization 75.7%							ICU Level of Service D					
Analysis Period (min) 15												

Splits and Phases: 24: Fillmore Ave & E Ferry St



Lanes, Volumes, Timings
25: Fillmore Ave & Northland Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	28	21	48	57	19	18	495	48	36	447	26
Future Volume (vph)	4	28	21	48	57	19	18	495	48	36	447	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.946			0.979			0.988			0.993	
Flt Protected		0.997			0.981			0.998			0.996	
Satd. Flow (prot)	0	1757	0	0	1789	0	0	1837	0	0	1842	0
Flt Permitted		0.985			0.883			0.978			0.938	
Satd. Flow (perm)	0	1736	0	0	1610	0	0	1800	0	0	1735	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			18			12			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1020			890			1620			1011	
Travel Time (s)		23.2			20.2			36.8			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	30	23	52	62	21	20	538	52	39	486	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	57	0	0	135	0	0	610	0	0	553	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		32.5	32.5		32.5	32.5	
Total Split (%)	40.9%	40.9%		40.9%	40.9%		59.1%	59.1%		59.1%	59.1%	
Maximum Green (s)	18.0	18.0		18.0	18.0		28.0	28.0		28.0	28.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			28.0			28.0	
Actuated g/C Ratio		0.33			0.33			0.51			0.51	
v/c Ratio		0.10			0.25			0.66			0.62	
Control Delay		9.5			13.3			14.1			17.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.5			13.3			14.1			17.1	

Lanes, Volumes, Timings 25: Fillmore Ave & Northland Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			B			B			B	
Approach Delay		9.5			13.3			14.1			17.1	
Approach LOS		A			B			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 55

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Pretimed

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 15.1

Intersection LOS: B

Intersection Capacity Utilization 61.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 25: Fillmore Ave & Northland Ave

					
Ø2 (R)					Ø4
32.5 s					22.5 s
					
Ø6 (R)					Ø8
32.5 s					22.5 s

Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	97	214	49	36	186	46	52	435	45	68	368	82
Future Volume (vph)	97	214	49	36	186	46	52	435	45	68	368	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.982			0.977			0.989			0.979	
Flt Protected		0.987			0.993			0.995			0.993	
Satd. Flow (prot)	0	1805	0	0	1807	0	0	1833	0	0	1811	0
Flt Permitted		0.822			0.925			0.912			0.885	
Satd. Flow (perm)	0	1504	0	0	1683	0	0	1680	0	0	1614	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			20			12			25	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		928			735			1011			742	
Travel Time (s)		21.1			16.7			23.0			16.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	105	233	53	39	202	50	57	473	49	74	400	89
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	391	0	0	291	0	0	579	0	0	563	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	23.0	23.0		23.0	23.0		32.0	32.0		32.0	32.0	
Total Split (%)	41.8%	41.8%		41.8%	41.8%		58.2%	58.2%		58.2%	58.2%	
Maximum Green (s)	18.5	18.5		18.5	18.5		27.5	27.5		27.5	27.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.5			18.5			27.5			27.5	
Actuated g/C Ratio		0.34			0.34			0.50			0.50	
v/c Ratio		0.76			0.50			0.68			0.69	
Control Delay		27.9			17.2			22.1			15.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		27.9			17.2			22.1			15.4	

Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		C			B			C			B	
Approach Delay		27.9			17.2			22.1			15.4	
Approach LOS		C			B			C			B	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 55

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Pretimed

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 20.5

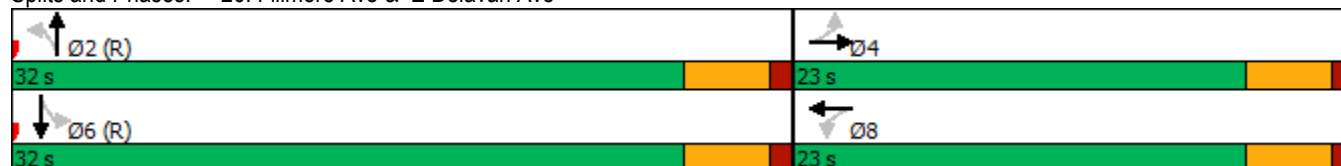
Intersection LOS: C

Intersection Capacity Utilization 83.3%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 26: Fillmore Ave & E Delavan Ave



Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	261	295	0	0	330	37	6	20	13	0	0	0
Future Volume (vph)	261	295	0	0	330	37	6	20	13	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	0		150	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.985				0.850			
Flt Protected		0.977						0.988				
Satd. Flow (prot)	0	3458	0	0	3486	0	0	1840	1583	0	0	0
Flt Permitted		0.675						0.988				
Satd. Flow (perm)	0	2389	0	0	3486	0	0	1840	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					31				36			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		310			928			1019			213	
Travel Time (s)		7.0			21.1			23.2			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	284	321	0	0	359	40	7	22	14	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	605	0	0	399	0	0	29	14	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Maximum Green (s)	18.0	18.0			18.0		18.0	18.0	18.0			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)		0.0			0.0			0.0	0.0			
Total Lost Time (s)		4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0			7.0		7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0	11.0			
Pedestrian Calls (#/hr)	0	0			0		0	0	0			
Act Effct Green (s)		18.0			18.0			18.0	18.0			
Actuated g/C Ratio		0.40			0.40			0.40	0.40			
v/c Ratio		0.63			0.28			0.04	0.02			

Lanes, Volumes, Timings

27: Humboldt Parkway NB & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		14.5			9.1			8.5	1.7			
Queue Delay		0.0			0.0			0.0	0.0			
Total Delay		14.5			9.1			8.5	1.7			
LOS		B			A			A	A			
Approach Delay		14.5			9.1			6.3				
Approach LOS		B			A			A				

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 12.1

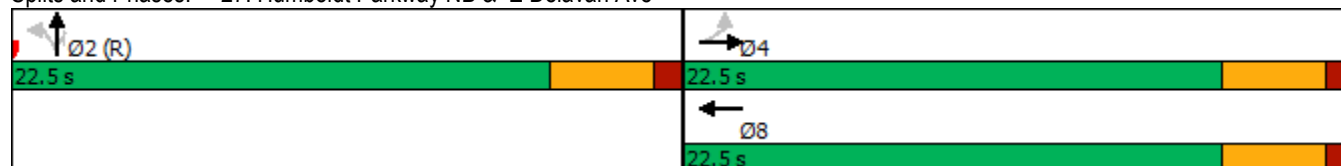
Intersection LOS: B

Intersection Capacity Utilization 41.5%

ICU Level of Service A

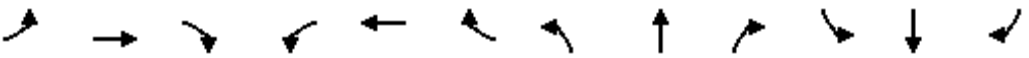
Analysis Period (min) 15

Splits and Phases: 27: Humboldt Parkway NB & E Delavan Ave



Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			↱↱						↱	↱
Traffic Volume (vph)	0	531	56	94	224	0	0	0	0	43	63	26
Future Volume (vph)	0	531	56	94	224	0	0	0	0	43	63	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987										0.850
Flt Protected					0.985						0.980	
Satd. Flow (prot)	0	1839	0	0	3486	0	0	0	0	0	1825	1583
Flt Permitted					0.650						0.980	
Satd. Flow (perm)	0	1839	0	0	2300	0	0	0	0	0	1825	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14										30
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2669			310			684			864	
Travel Time (s)		60.7			7.0			15.5			19.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	577	61	102	243	0	0	0	0	47	68	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	638	0	0	345	0	0	0	0	0	115	28
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		32.0		32.0	32.0					23.0	23.0	23.0
Total Split (%)		58.2%		58.2%	58.2%					41.8%	41.8%	41.8%
Maximum Green (s)		27.5		27.5	27.5					18.5	18.5	18.5
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0						0.0	0.0
Total Lost Time (s)		4.5			4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)		7.0		7.0	7.0					7.0	7.0	7.0
Flash Dont Walk (s)		11.0		11.0	11.0					11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0					0	0	0
Act Effect Green (s)		27.5			27.5						18.5	18.5
Actuated g/C Ratio		0.50			0.50						0.34	0.34
v/c Ratio		0.69			0.30						0.19	0.05

Lanes, Volumes, Timings

28: Humboldt Parkway SB & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		10.8			9.0						14.0	5.6
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		10.8			9.0						14.0	5.6
LOS		B			A						B	A
Approach Delay		10.8			9.0						12.4	
Approach LOS		B			A						B	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 55

Offset: 0 (0%), Referenced to phase 2: and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Pretimed

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 10.4

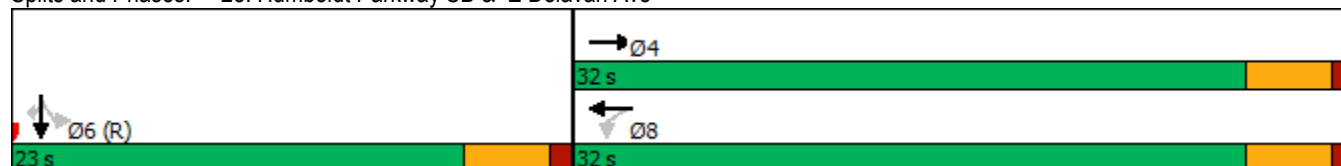
Intersection LOS: B

Intersection Capacity Utilization 57.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 28: Humboldt Parkway SB & E Delavan Ave



Lanes, Volumes, Timings
29: Jefferson Ave & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	346	56	46	119	19	58	180	86	14	127	51
Future Volume (vph)	91	346	56	46	119	19	58	180	86	14	127	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.985			0.986			0.964			0.964	
Flt Protected		0.991			0.988			0.991			0.996	
Satd. Flow (prot)	0	1818	0	0	1815	0	0	1780	0	0	1789	0
Flt Permitted		0.903			0.829			0.911			0.966	
Satd. Flow (perm)	0	1657	0	0	1523	0	0	1636	0	0	1735	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			14			37			38	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		592			2669			1017			352	
Travel Time (s)		13.5			60.7			23.1			8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	99	376	61	50	129	21	63	196	93	15	138	55
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	536	0	0	200	0	0	352	0	0	208	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	30.0	30.0		30.0	30.0		25.0	25.0		25.0	25.0	
Total Split (%)	54.5%	54.5%		54.5%	54.5%		45.5%	45.5%		45.5%	45.5%	
Maximum Green (s)	25.5	25.5		25.5	25.5		20.5	20.5		20.5	20.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		25.5			25.5			20.5			20.5	
Actuated g/C Ratio		0.46			0.46			0.37			0.37	
v/c Ratio		0.69			0.28			0.56			0.31	
Control Delay		17.0			4.1			16.2			11.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		17.0			4.1			16.2			11.5	

Lanes, Volumes, Timings

29: Jefferson Ave & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			A			B			B	
Approach Delay		17.0			4.1			16.2			11.5	
Approach LOS		B			A			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 55

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Pretimed

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 13.9

Intersection LOS: B

Intersection Capacity Utilization 72.3%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 29: Jefferson Ave & E Delavan Ave

 Ø2 (R)	 Ø4
25 s	30 s
 Ø6 (R)	 Ø8
25 s	30 s

Lanes, Volumes, Timings
30: Jefferson Ave & Northland Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	28	18	17	24	26	29	250	36	23	211	15
Future Volume (vph)	28	28	18	17	24	26	29	250	36	23	211	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.947			0.985			0.992	
Flt Protected		0.982			0.988			0.995			0.995	
Satd. Flow (prot)	0	1767	0	0	1743	0	0	1826	0	0	1839	0
Flt Permitted		0.904			0.941			0.955			0.952	
Satd. Flow (perm)	0	1627	0	0	1660	0	0	1752	0	0	1759	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			28			17			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		806			2743			848			1017	
Travel Time (s)		18.3			62.3			19.3			23.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	30	20	18	26	28	32	272	39	25	229	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	80	0	0	72	0	0	343	0	0	270	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.12			0.11			0.48			0.38	
Control Delay		7.5			6.5			24.0			11.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		7.5			6.5			24.0			11.2	

Lanes, Volumes, Timings

30: Jefferson Ave & Northland Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			A			C			B	
Approach Delay		7.5			6.5			24.0			11.3	
Approach LOS		A			A			C			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 16.1

Intersection LOS: B

Intersection Capacity Utilization 36.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 30: Jefferson Ave & Northland Ave

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
31: Jefferson Ave & Brunswick Blvd

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	26	26	302	52	10	217
Future Volume (vph)	26	26	302	52	10	217
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932		0.980			
Flt Protected	0.976					0.998
Satd. Flow (prot)	1694	0	1825	0	0	1859
Flt Permitted	0.976					0.979
Satd. Flow (perm)	1694	0	1825	0	0	1824
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	28		23			
Link Speed (mph)	30		30			30
Link Distance (ft)	2734		751			848
Travel Time (s)	62.1		17.1			19.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	28	28	328	57	11	236
Shared Lane Traffic (%)						
Lane Group Flow (vph)	56	0	385	0	0	247
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%	50.0%
Maximum Green (s)	18.0		18.0		18.0	18.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0		7.0		7.0	7.0
Flash Dont Walk (s)	11.0		11.0		11.0	11.0
Pedestrian Calls (#/hr)	0		0		0	0
Act Effct Green (s)	18.0		18.0			18.0
Actuated g/C Ratio	0.40		0.40			0.40
v/c Ratio	0.08		0.52			0.34
Control Delay	5.9		12.6			22.2
Queue Delay	0.0		0.0			0.0
Total Delay	5.9		12.6			22.2

Lanes, Volumes, Timings

31: Jefferson Ave & Brunswick Blvd

03/10/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
LOS	A		B			C
Approach Delay	5.9		12.6			22.2
Approach LOS	A		B			C

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 15.5

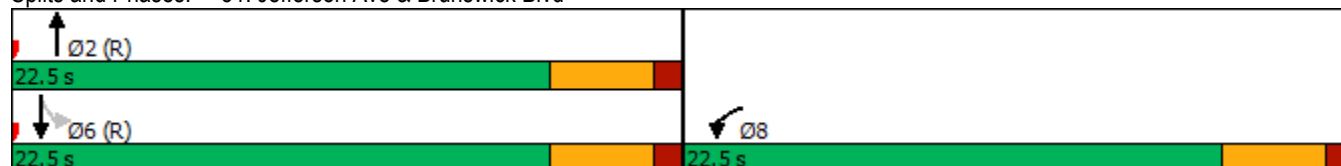
Intersection LOS: B

Intersection Capacity Utilization 31.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 31: Jefferson Ave & Brunswick Blvd



Lanes, Volumes, Timings
32: Jefferson Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	257	59	68	450	73	96	306	107	65	263	37
Future Volume (vph)	26	257	59	68	450	73	96	306	107	65	263	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.977			0.983			0.972			0.986	
Flt Protected		0.996			0.994			0.991			0.991	
Satd. Flow (prot)	0	1813	0	0	1820	0	0	1794	0	0	1820	0
Flt Permitted		0.943			0.923			0.857			0.843	
Satd. Flow (perm)	0	1716	0	0	1690	0	0	1552	0	0	1548	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			16			29			12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			194			1406			751	
Travel Time (s)		7.5			4.4			32.0			17.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	28	279	64	74	489	79	104	333	116	71	286	40
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	371	0	0	642	0	0	553	0	0	397	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	28.0	28.0		28.0	28.0		27.0	27.0		27.0	27.0	
Total Split (%)	50.9%	50.9%		50.9%	50.9%		49.1%	49.1%		49.1%	49.1%	
Maximum Green (s)	23.5	23.5		23.5	23.5		22.5	22.5		22.5	22.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		23.5			23.5			22.5			22.5	
Actuated g/C Ratio		0.43			0.43			0.41			0.41	
v/c Ratio		0.50			0.88			0.85			0.62	
Control Delay		13.5			31.0			29.4			17.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.5			31.0			29.4			17.7	

Lanes, Volumes, Timings
32: Jefferson Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			C			C			B	
Approach Delay		13.5			31.0			29.4			17.7	
Approach LOS		B			C			C			B	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 55

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Pretimed

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 24.5

Intersection LOS: C

Intersection Capacity Utilization 92.9%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 32: Jefferson Ave & E Ferry St

 Ø2 (R)	 Ø4
27 s	28 s
 Ø6 (R)	 Ø8
27 s	28 s

Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	110	44	58	119	41	71	546	69	25	431	31
Future Volume (vph)	14	110	44	58	119	41	71	546	69	25	431	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.965			0.974			0.986			0.991	
Flt Protected		0.996			0.987			0.995			0.997	
Satd. Flow (prot)	0	1790	0	0	1791	0	0	1827	0	0	1840	0
Flt Permitted		0.967			0.885			0.905			0.952	
Satd. Flow (perm)	0	1738	0	0	1606	0	0	1662	0	0	1757	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30			20			15			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1023			1295			630			1406	
Travel Time (s)		23.3			29.4			14.3			32.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	120	48	63	129	45	77	593	75	27	468	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	183	0	0	237	0	0	745	0	0	529	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		37.5	37.5		37.5	37.5	
Total Split (%)	37.5%	37.5%		37.5%	37.5%		62.5%	62.5%		62.5%	62.5%	
Maximum Green (s)	18.0	18.0		18.0	18.0		33.0	33.0		33.0	33.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			33.0			33.0	
Actuated g/C Ratio		0.30			0.30			0.55			0.55	
v/c Ratio		0.34			0.48			0.81			0.55	
Control Delay		15.7			19.5			19.3			11.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.7			19.5			19.3			11.2	

Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			B			B			B	
Approach Delay		15.7			19.5			19.3			11.2	
Approach LOS		B			B			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 16.4

Intersection LOS: B

Intersection Capacity Utilization 90.6%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 33: Jefferson Ave & E Utica St

					
Ø2 (R)			Ø4		
37.5 s			22.5 s		
					
Ø6 (R)			Ø8		
37.5 s			22.5 s		

Lanes, Volumes, Timings
34: Jefferson Ave & Riley St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	29	11	17	21	18	13	594	75	21	617	38
Future Volume (vph)	12	29	11	17	21	18	13	594	75	21	617	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.972			0.956			0.985			0.992	
Flt Protected		0.989			0.985			0.999			0.998	
Satd. Flow (prot)	0	1791	0	0	1754	0	0	1833	0	0	1844	0
Flt Permitted		0.949			0.930			0.985			0.971	
Satd. Flow (perm)	0	1718	0	0	1656	0	0	1807	0	0	1794	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			20			17			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		870			1108			418			630	
Travel Time (s)		19.8			25.2			9.5			14.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	32	12	18	23	20	14	646	82	23	671	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	57	0	0	61	0	0	742	0	0	735	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		37.5	37.5		37.5	37.5	
Total Split (%)	37.5%	37.5%		37.5%	37.5%		62.5%	62.5%		62.5%	62.5%	
Maximum Green (s)	18.0	18.0		18.0	18.0		33.0	33.0		33.0	33.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			33.0			33.0	
Actuated g/C Ratio		0.30			0.30			0.55			0.55	
v/c Ratio		0.11			0.12			0.74			0.74	
Control Delay		13.4			12.1			8.7			12.1	
Queue Delay		0.0			0.0			0.1			0.0	
Total Delay		13.4			12.1			8.8			12.1	

Lanes, Volumes, Timings

34: Jefferson Ave & Riley St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			B			A			B	
Approach Delay		13.4			12.1			8.8			12.1	
Approach LOS		B			B			A			B	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 10.6

Intersection LOS: B

Intersection Capacity Utilization 58.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 34: Jefferson Ave & Riley St

 Ø2 (R)	 Ø4
37.5 s	22.5 s
 Ø6 (R)	 Ø8
37.5 s	22.5 s

Lanes, Volumes, Timings
35: Jefferson Ave & Northampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	58	31	12	45	20	35	517	21	52	536	57
Future Volume (vph)	25	58	31	12	45	20	35	517	21	52	536	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.963			0.965			0.995			0.988	
Flt Protected		0.989			0.992			0.997			0.996	
Satd. Flow (prot)	0	1774	0	0	1783	0	0	1848	0	0	1833	0
Flt Permitted		0.935			0.957			0.939			0.920	
Satd. Flow (perm)	0	1677	0	0	1720	0	0	1740	0	0	1693	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32			22			5			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1340			1290			1156			278	
Travel Time (s)		30.5			29.3			26.3			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	27	63	34	13	49	22	38	562	23	57	583	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	124	0	0	84	0	0	623	0	0	702	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		37.5	37.5		37.5	37.5	
Total Split (%)	37.5%	37.5%		37.5%	37.5%		62.5%	62.5%		62.5%	62.5%	
Maximum Green (s)	18.0	18.0		18.0	18.0		33.0	33.0		33.0	33.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			33.0			33.0	
Actuated g/C Ratio		0.30			0.30			0.55			0.55	
v/c Ratio		0.24			0.16			0.65			0.75	
Control Delay		13.5			13.1			13.4			11.1	
Queue Delay		0.0			0.0			0.1			0.0	
Total Delay		13.5			13.1			13.5			11.1	

Lanes, Volumes, Timings

35: Jefferson Ave & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			B			B			B	
Approach Delay		13.5			13.1			13.5			11.1	
Approach LOS		B			B			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 12.4

Intersection LOS: B

Intersection Capacity Utilization 65.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 35: Jefferson Ave & Northhampton St

 Ø2 (R)	 Ø4
37.5 s	22.5 s
 Ø6 (R)	 Ø8
37.5 s	22.5 s

Lanes, Volumes, Timings
36: Jefferson Ave & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	422	42	40	328	67	31	314	96	94	315	31
Future Volume (vph)	14	422	42	40	328	67	31	314	96	94	315	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.987			0.977			0.967			0.989	
Flt Protected		0.999			0.995			0.996			0.989	
Satd. Flow (prot)	0	3490	0	0	3441	0	0	3409	0	0	3462	0
Flt Permitted		0.938			0.880			0.903			0.775	
Satd. Flow (perm)	0	3277	0	0	3043	0	0	3090	0	0	2713	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			55			94			21	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		169			169			156			165	
Travel Time (s)		3.8			3.8			3.5			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	459	46	43	357	73	34	341	104	102	342	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	520	0	0	473	0	0	479	0	0	478	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.39			0.38			0.37			0.44	
Control Delay		10.2			9.4			12.1			10.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.2			9.4			12.1			10.9	

Lanes, Volumes, Timings 36: Jefferson Ave & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			A			B			B	
Approach Delay		10.2			9.4			12.1			10.9	
Approach LOS		B			A			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.44

Intersection Signal Delay: 10.6

Intersection LOS: B

Intersection Capacity Utilization 65.8%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 36: Jefferson Ave & Best St

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
37: Jefferson Ave & E North St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	83	146	44	282	384	27
Future Volume (vph)	83	146	44	282	384	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.914				0.991	
Flt Protected	0.982			0.993		
Satd. Flow (prot)	1672	0	0	1850	1846	0
Flt Permitted	0.982			0.902		
Satd. Flow (perm)	1672	0	0	1680	1846	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	159				9	
Link Speed (mph)	30			30	30	
Link Distance (ft)	879			684	486	
Travel Time (s)	20.0			15.5	11.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	90	159	48	307	417	29
Shared Lane Traffic (%)						
Lane Group Flow (vph)	249	0	0	355	446	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		22.5	22.5	22.5	
Total Split (%)	50.0%		50.0%	50.0%	50.0%	
Maximum Green (s)	18.0		18.0	18.0	18.0	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0		7.0	7.0	7.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Act Effect Green (s)	18.0			18.0	18.0	
Actuated g/C Ratio	0.40			0.40	0.40	
v/c Ratio	0.33			0.53	0.60	
Control Delay	5.2			13.8	17.2	
Queue Delay	0.0			0.0	0.0	
Total Delay	5.2			13.8	17.2	

Lanes, Volumes, Timings

37: Jefferson Ave & E North St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
LOS	A			B	B	
Approach Delay	5.2			13.8	17.2	
Approach LOS	A			B	B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 13.2

Intersection LOS: B

Intersection Capacity Utilization 63.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 37: Jefferson Ave & E North St

 Ø2 (R) 22.5 s	 Ø4 22.5 s
 Ø6 (R) 22.5 s	

Lanes, Volumes, Timings
38: Jefferson Ave & High St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	51	98	30	55	30	46	274	19	23	429	9
Future Volume (vph)	11	51	98	30	55	30	46	274	19	23	429	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.917			0.965			0.992			0.997	
Flt Protected		0.997			0.987			0.993			0.998	
Satd. Flow (prot)	0	1703	0	0	1774	0	0	1835	0	0	1853	0
Flt Permitted		0.981			0.904			0.896			0.973	
Satd. Flow (perm)	0	1676	0	0	1625	0	0	1656	0	0	1807	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		107			33			8			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		840			1233			880			684	
Travel Time (s)		19.1			28.0			20.0			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	55	107	33	60	33	50	298	21	25	466	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	174	0	0	126	0	0	369	0	0	501	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		27.5	27.5		27.5	27.5	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		55.0%	55.0%		55.0%	55.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		23.0	23.0		23.0	23.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			23.0			23.0	
Actuated g/C Ratio		0.36			0.36			0.46			0.46	
v/c Ratio		0.26			0.21			0.48			0.60	
Control Delay		6.3			9.7			11.8			13.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		6.3			9.7			11.8			13.8	

Lanes, Volumes, Timings 38: Jefferson Ave & High St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			A			B			B	
Approach Delay		6.3			9.7			11.8			13.8	
Approach LOS		A			A			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Pretimed

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 11.6

Intersection LOS: B

Intersection Capacity Utilization 55.1%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 38: Jefferson Ave & High St

 Ø2 (R)	 Ø4
27.5 s	22.5 s
 Ø6 (R)	 Ø8
27.5 s	22.5 s

Lanes, Volumes, Timings
39: Wohlers Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	71	471	21	22	692	132	19	116	114	0	0	0
Future Volume (vph)	71	471	21	22	692	132	19	116	114	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.979			0.938				
Flt Protected		0.994			0.999			0.996				
Satd. Flow (prot)	0	1842	0	0	1822	0	0	1740	0	0	1863	0
Flt Permitted		0.831			0.980			0.983				
Satd. Flow (perm)	0	1540	0	0	1787	0	0	1718	0	0	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			24			65				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		280			1165			1336				278
Travel Time (s)		6.4			26.5			30.4				6.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	77	512	23	24	752	143	21	126	124	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	612	0	0	919	0	0	271	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	42.0	42.0		42.0	42.0		23.0	23.0		23.0	23.0	
Total Split (%)	64.6%	64.6%		64.6%	64.6%		35.4%	35.4%		35.4%	35.4%	
Maximum Green (s)	37.5	37.5		37.5	37.5		18.5	18.5		18.5	18.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		37.5			37.5			18.5				
Actuated g/C Ratio		0.58			0.58			0.28				
v/c Ratio		0.69			0.88			0.51				
Control Delay		14.6			24.3			18.5				
Queue Delay		0.0			0.0			0.0				
Total Delay		14.6			24.3			18.5				

Lanes, Volumes, Timings
39: Wohlers Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			C			B				
Approach Delay		14.6			24.3			18.5				
Approach LOS		B			C			B				

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Pretimed

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 20.1

Intersection LOS: C

Intersection Capacity Utilization 83.3%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 39: Wohlers Ave & E Ferry St



Lanes, Volumes, Timings
40: Wohlers Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	199	8	11	130	27	58	141	74	16	47	20
Future Volume (vph)	15	199	8	11	130	27	58	141	74	16	47	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.978			0.964			0.967	
Flt Protected		0.997			0.997			0.989			0.991	
Satd. Flow (prot)	0	1848	0	0	1816	0	0	1776	0	0	1785	0
Flt Permitted		0.978			0.977			0.924			0.925	
Satd. Flow (perm)	0	1813	0	0	1780	0	0	1659	0	0	1666	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			25			49			22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		274			1162			1331			1336	
Travel Time (s)		6.2			26.4			30.3			30.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	216	9	12	141	29	63	153	80	17	51	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	241	0	0	182	0	0	296	0	0	90	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.33			0.25			0.43			0.13	
Control Delay		10.8			8.9			10.4			7.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.8			8.9			10.4			7.5	

Lanes, Volumes, Timings
40: Wohlers Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			A			B			A	
Approach Delay		10.8			8.9			10.4			7.5	
Approach LOS		B			A			B			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.43

Intersection Signal Delay: 9.8

Intersection LOS: A

Intersection Capacity Utilization 43.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 40: Wohlers Ave & E Utica St

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
41: Humboldt Parkway SB & Woodlawn Ave

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	477	46
Future Volume (vph)	0	0	0	0	477	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.988					
Flt Protected						
Satd. Flow (prot)	0	0	0	0	1840	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	0	1840	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	780			561	321	
Travel Time (s)	17.7			12.8	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	518	50
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	568	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	34.9%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings
42: Humboldt Parkway SB & Glenwood Ave

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	40	0	0	474	0
Future Volume (vph)	0	40	0	0	474	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1863	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	750			457	561	
Travel Time (s)	17.0			10.4	12.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	43	0	0	515	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	43	0	0	515	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	34.9%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
42: Humboldt Parkway SB & Glenwood Ave

03/10/2022

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↖	
Traffic Vol, veh/h	0	40	0	0	474	0
Future Vol, veh/h	0	40	0	0	474	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	43	0	0	515	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	515	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	560	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	560	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	12	-	0	-	-	-
HCM LOS	B	-	-	-	-	-
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	560	-				
HCM Lane V/C Ratio	0.078	-				
HCM Control Delay (s)	12	-				
HCM Lane LOS	B	-				
HCM 95th %tile Q(veh)	0.3	-				

Lanes, Volumes, Timings

43: Humboldt Parkway SB & Riley St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↰			↱	
Traffic Volume (vph)	0	32	0	0	918	158
Future Volume (vph)	0	32	0	0	918	158
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.980	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1825	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1825	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	873			418	635	
Travel Time (s)	19.8			9.5	14.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	35	0	0	998	172
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	35	0	0	1170	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 67.9%				ICU Level of Service C		
Analysis Period (min) 15						

HCM 6th TWSC
43: Humboldt Parkway SB & Riley St

03/10/2022

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	32	0	0	918	158
Future Vol, veh/h	0	32	0	0	918	158
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	35	0	0	998	172
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	1084	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	264	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	264	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	20.7		0			
HCM LOS	C					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	264	-	-			
HCM Lane V/C Ratio	0.132	-	-			
HCM Control Delay (s)	20.7	-	-			
HCM Lane LOS	C	-	-			
HCM 95th %tile Q(veh)	0.4	-	-			

Lanes, Volumes, Timings
44: Humboldt Parkway SB & Kinglsey St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	13	0	0	485	9
Future Volume (vph)	0	13	0	0	485	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.997	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1857	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1857	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	662			296	418	
Travel Time (s)	15.0			6.7	9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	14	0	0	527	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	14	0	0	537	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	36.1%			ICU Level of Service A		
Analysis Period (min)	15					

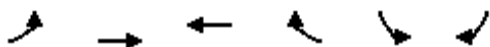
HCM 6th TWSC
44: Humboldt Parkway SB & Kinglsey St

03/10/2022

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	13	0	0	485	9
Future Vol, veh/h	0	13	0	0	485	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	14	0	0	527	10
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	532	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	547	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	547	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	11.8		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	547	-	-			
HCM Lane V/C Ratio	0.026	-	-			
HCM Control Delay (s)	11.8	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
45: W Parade Ave

03/10/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↔	
Traffic Volume (vph)	0	162	180	0	97	46
Future Volume (vph)	0	162	180	0	97	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Flt					0.956	
Flt Protected					0.967	
Satd. Flow (prot)	0	1863	1863	0	1722	0
Flt Permitted					0.967	
Satd. Flow (perm)	0	1863	1863	0	1722	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		199	98		717	
Travel Time (s)		4.5	2.2		16.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	176	196	0	105	50
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	176	196	0	155	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	24.3%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	3.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↓	↓
Traffic Vol, veh/h	0	162	180	0	97	46
Future Vol, veh/h	0	162	180	0	97	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	176	196	0	105	50
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	372	196
Stage 1	-	-	-	-	196	-
Stage 2	-	-	-	-	176	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	0	-	-	0	629	845
Stage 1	0	-	-	0	837	-
Stage 2	0	-	-	0	855	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	629	845
Mov Cap-2 Maneuver	-	-	-	-	629	-
Stage 1	-	-	-	-	837	-
Stage 2	-	-	-	-	855	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		11.8		
HCM LOS	B					
Minor Lane/Major Mvmt	EBT	WBT	SBLn1			
Capacity (veh/h)	-	-	685			
HCM Lane V/C Ratio	-	-	0.227			
HCM Control Delay (s)	-	-	11.8			
HCM Lane LOS	-	-	B			
HCM 95th %tile Q(veh)	-	-	0.9			

Lanes, Volumes, Timings
46: Linden Park & Dodge St/W Parade Ave

03/10/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	160	7	6	131	0	2
Future Volume (vph)	160	7	6	131	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.994				0.865	
Flt Protected				0.998		
Satd. Flow (prot)	1852	0	0	1859	1611	0
Flt Permitted				0.998		
Satd. Flow (perm)	1852	0	0	1859	1611	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	489			199	335	
Travel Time (s)	11.1			4.5	7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	8	7	142	0	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	182	0	0	149	2	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	21.8%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
46: Linden Park & Dodge St/W Parade Ave

03/10/2022

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	160	7	6	131	0	2
Future Vol, veh/h	160	7	6	131	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	174	8	7	142	0	2
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	182	0	334	178
Stage 1	-	-	-	-	178	-
Stage 2	-	-	-	-	156	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1393	-	661	865
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	872	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1393	-	658	865
Mov Cap-2 Maneuver	-	-	-	-	658	-
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	868	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0.3		9.2		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	865	-	-	1393	-	
HCM Lane V/C Ratio	0.003	-	-	0.005	-	
HCM Control Delay (s)	9.2	-	-	7.6	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Lanes, Volumes, Timings
47: Humboldt Parkway NB & Riley St

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	10	124	12	0	0
Future Volume (vph)	0	10	124	12	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.988			
Flt Protected						
Satd. Flow (prot)	0	1611	1840	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1840	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	1082		722			613
Travel Time (s)	24.6		16.4			13.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	11	135	13	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	11	148	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	17.3%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
47: Humboldt Parkway NB & Riley St

03/10/2022

Intersection

Int Delay, s/veh 0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	10	124	12	0	0
Future Vol, veh/h	0	10	124	12	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	135	13	0	0

Major/Minor	Minor1	Major1
Conflicting Flow All	- 142	0 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 906	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 906	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	WB	NB
HCM Control Delay, s	9	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	NBRWBLn1
Capacity (veh/h)	- -	906
HCM Lane V/C Ratio	- -	0.012
HCM Control Delay (s)	- -	9
HCM Lane LOS	- -	A
HCM 95th %tile Q(veh)	- -	0

Lanes, Volumes, Timings
48: Humboldt Parkway NB & Woepfel St

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	7	402	14	0	0
Future Volume (vph)	0	7	402	14	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.996			
Flt Protected						
Satd. Flow (prot)	0	1611	1855	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1855	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	744		291			730
Travel Time (s)	16.9		6.6			16.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	8	437	15	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	8	452	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	32.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
48: Humboldt Parkway NB & Woepfel St

03/10/2022

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	7	402	14	0	0
Future Vol, veh/h	0	7	402	14	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	437	15	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	445	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	613	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	613	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	10.9		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		613			
HCM Lane V/C Ratio	-		0.012			
HCM Control Delay (s)	-		10.9			
HCM Lane LOS	-		B			
HCM 95th %tile Q(veh)	-		0			

Lanes, Volumes, Timings
49: Humboldt Parkway NB & Woodlawn Ave

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	21	398	3	0	0
Future Volume (vph)	0	21	398	3	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.999			
Flt Protected						
Satd. Flow (prot)	0	1611	1861	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1861	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	729		730			317
Travel Time (s)	16.6		16.6			7.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	23	433	3	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	23	436	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	31.1%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
49: Humboldt Parkway NB & Woodlawn Ave

03/10/2022

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	21	398	3	0	0
Future Vol, veh/h	0	21	398	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	23	433	3	0	0
Major/Minor	Minor1	Major1				
Conflicting Flow All	-	435	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	621	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	621	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB	NB				
HCM Control Delay, s	11	0				
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1				
Capacity (veh/h)	-	-	621			
HCM Lane V/C Ratio	-	-	0.037			
HCM Control Delay (s)	-	-	11			
HCM Lane LOS	-	-	B			
HCM 95th %tile Q(veh)	-	-	0.1			

Lanes, Volumes, Timings
50: Humboldt Parkway SB & Florida St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	40	0	0	274	22
Future Volume (vph)	0	40	0	0	274	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.990	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1844	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1844	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	935			344	684	
Travel Time (s)	21.3			7.8	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	43	0	0	298	24
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	43	0	0	322	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	25.8%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
50: Humboldt Parkway SB & Florida St

03/10/2022

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	40	0	0	274	22
Future Vol, veh/h	0	40	0	0	274	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	43	0	0	298	24
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	310	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	730	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	730	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	10.2		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	730	-	-			
HCM Lane V/C Ratio	0.06	-	-			
HCM Control Delay (s)	10.2	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q(veh)	0.2	-	-			

Lanes, Volumes, Timings
51: Humboldt Parkway SB & Northland Ave

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	24	0	0	296	42
Future Volume (vph)	0	24	0	0	296	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.983	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1831	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1831	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2743			805	344	
Travel Time (s)	62.3			18.3	7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	26	0	0	322	46
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	26	0	0	368	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	28.1%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
51: Humboldt Parkway SB & Northland Ave

03/10/2022

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	24	0	0	296	42
Future Vol, veh/h	0	24	0	0	296	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	26	0	0	322	46
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	345	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	698	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	698	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	10.4		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	698	-	-			
HCM Lane V/C Ratio	0.037	-	-			
HCM Control Delay (s)	10.4	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
52: Humboldt Parkway SB & Brunswick Blvd

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	71	0	0	146	15
Future Volume (vph)	0	71	0	0	146	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.988	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1840	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1840	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2734			252	805	
Travel Time (s)	62.1			5.7	18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	77	0	0	159	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	77	0	0	175	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	19.7%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	71	0	0	146	15
Future Vol, veh/h	0	71	0	0	146	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	77	0	0	159	16
Number of Lanes	0	1	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	1
HCM Control Delay	7	8
HCM LOS	A	A

Lane	EBLn1	SBLn1
Vol Left, %	0%	0%
Vol Thru, %	0%	91%
Vol Right, %	100%	9%
Sign Control	Stop	Stop
Traffic Vol by Lane	71	161
LT Vol	0	0
Through Vol	0	146
RT Vol	71	15
Lane Flow Rate	77	175
Geometry Grp	1	1
Degree of Util (X)	0.078	0.195
Departure Headway (Hd)	3.639	4.014
Convergence, Y/N	Yes	Yes
Cap	970	896
Service Time	1.715	2.031
HCM Lane V/C Ratio	0.079	0.195
HCM Control Delay	7	8
HCM Lane LOS	A	A
HCM 95th-tile Q	0.3	0.7

Lanes, Volumes, Timings
53: Humboldt Parkway SB & Goulding Ave

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↰			↱	
Traffic Volume (vph)	0	66	0	0	775	0
Future Volume (vph)	0	66	0	0	775	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1863	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1067			268	306	
Travel Time (s)	24.3			6.1	7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	72	0	0	842	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	72	0	0	842	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9		
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 30.0%				ICU Level of Service A		
Analysis Period (min) 15						

HCM 6th TWSC
53: Humboldt Parkway SB & Goulding Ave

03/10/2022

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↖	
Traffic Vol, veh/h	0	66	0	0	775	0
Future Vol, veh/h	0	66	0	0	775	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	72	0	0	842	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	842	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	364	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	364	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	17.3		0			
HCM LOS	C					
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	364	-				
HCM Lane V/C Ratio	0.197	-				
HCM Control Delay (s)	17.3	-				
HCM Lane LOS	C	-				
HCM 95th %tile Q(veh)	0.7	-				

Lanes, Volumes, Timings
54: Humboldt Parkway NB & Sydney St

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	48	686	0	0	0
Future Volume (vph)	0	48	686	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	913		602			1024
Travel Time (s)	20.8		13.7			23.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	52	746	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	52	746	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	46.1%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
54: Humboldt Parkway NB & Sydney St

03/10/2022

Intersection

Int Delay, s/veh 1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	48	686	0	0	0
Future Vol, veh/h	0	48	686	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	52	746	0	0	0

Major/Minor	Minor1	Major1
Conflicting Flow All	- 746	0 -
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 413	- 0
Stage 1	0 -	- 0
Stage 2	0 -	- 0
Platoon blocked, %		-
Mov Cap-1 Maneuver	- 413	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	WB	NB
HCM Control Delay, s	15	0
HCM LOS	C	

Minor Lane/Major Mvmt	NBTWBLn1
Capacity (veh/h)	- 413
HCM Lane V/C Ratio	- 0.126
HCM Control Delay (s)	- 15
HCM Lane LOS	- C
HCM 95th %tile Q(veh)	- 0.4

Lanes, Volumes, Timings

55: Humboldt Parkway NB & Northland Ave & EB On Ramp

03/10/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations								
Traffic Volume (vph)	0	64	74	9	0	0	0	0
Future Volume (vph)	0	64	74	9	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.985					
Flt Protected								
Satd. Flow (prot)	0	1611	1835	0	0	0	0	0
Flt Permitted								
Satd. Flow (perm)	0	1611	1835	0	0	0	0	0
Link Speed (mph)	30		30			30	30	
Link Distance (ft)	1020		1024			304	1019	
Travel Time (s)	23.2		23.3			6.9	23.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	70	80	10	0	0	0	0
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	70	90	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left	Left	Right
Median Width(ft)	0		0			0	0	
Link Offset(ft)	0		0			0	0	
Crosswalk Width(ft)	16		16			16	16	
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15		15	9
Sign Control	Stop		Stop			Stop	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 15.1% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations								
Traffic Vol, veh/h	0	64	74	9	0	0	0	0
Future Vol, veh/h	0	64	74	9	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2
Mvmt Flow	0	70	80	10	0	0	0	0
Number of Lanes	0	1	1	0	0	0	0	0

Approach	WB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	NB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		WB
Conflicting Lanes Right	0	1
HCM Control Delay	6.8	7.4
HCM LOS	A	A

Lane	NBLn1	WBLn1
Vol Left, %	0%	0%
Vol Thru, %	89%	0%
Vol Right, %	11%	100%
Sign Control	Stop	Stop
Traffic Vol by Lane	83	64
LT Vol	0	0
Through Vol	74	0
RT Vol	9	64
Lane Flow Rate	90	70
Geometry Grp	1	1
Degree of Util (X)	0.1	0.067
Departure Headway (Hd)	3.991	3.49
Convergence, Y/N	Yes	Yes
Cap	901	1021
Service Time	2.001	1.53
HCM Lane V/C Ratio	0.1	0.069
HCM Control Delay	7.4	6.8
HCM Lane LOS	A	A
HCM 95th-tile Q	0.3	0.2

Lanes, Volumes, Timings
56: Roehrer Ave & E Ferry St

03/10/2022

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰			↱	↱	
Traffic Volume (vph)	515	18	32	560	17	42
Future Volume (vph)	515	18	32	560	17	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995				0.903	
Flt Protected				0.997	0.986	
Satd. Flow (prot)	1853	0	0	1857	1659	0
Flt Permitted				0.997	0.986	
Satd. Flow (perm)	1853	0	0	1857	1659	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1109			280	1331	
Travel Time (s)	25.2			6.4	30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	560	20	35	609	18	46
Shared Lane Traffic (%)						
Lane Group Flow (vph)	580	0	0	644	64	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	65.8%			ICU Level of Service C		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	1.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	515	18	32	560	17	42
Future Vol, veh/h	515	18	32	560	17	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	560	20	35	609	18	46
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	580	0	1249	570
Stage 1	-	-	-	-	570	-
Stage 2	-	-	-	-	679	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	994	-	191	521
Stage 1	-	-	-	-	566	-
Stage 2	-	-	-	-	504	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	994	-	181	521
Mov Cap-2 Maneuver	-	-	-	-	181	-
Stage 1	-	-	-	-	566	-
Stage 2	-	-	-	-	477	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0.5		18.1		
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	338	-	-	994	-	
HCM Lane V/C Ratio	0.19	-	-	0.035	-	
HCM Control Delay (s)	18.1	-	-	8.8	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-	

Lanes, Volumes, Timings
57: Roehrer Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	192	0	8	180	19	16	26	17	10	29	8
Future Volume (vph)	13	192	0	8	180	19	16	26	17	10	29	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.987			0.961			0.977	
Flt Protected		0.997			0.998			0.987			0.990	
Satd. Flow (prot)	0	1857	0	0	1835	0	0	1767	0	0	1802	0
Flt Permitted		0.997			0.998			0.987			0.990	
Satd. Flow (perm)	0	1857	0	0	1835	0	0	1767	0	0	1802	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1295			274			1342			1331	
Travel Time (s)		29.4			6.2			30.5			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	209	0	9	196	21	17	28	18	11	32	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	223	0	0	226	0	0	63	0	0	52	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 26.7%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	13	192	0	8	180	19	16	26	17	10	29	8
Future Vol, veh/h	13	192	0	8	180	19	16	26	17	10	29	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	209	0	9	196	21	17	28	18	11	32	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.2	9.1	8.4	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	6%	4%	21%
Vol Thru, %	44%	94%	87%	62%
Vol Right, %	29%	0%	9%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	59	205	207	47
LT Vol	16	13	8	10
Through Vol	26	192	180	29
RT Vol	17	0	19	8
Lane Flow Rate	64	223	225	51
Geometry Grp	1	1	1	1
Degree of Util (X)	0.087	0.277	0.276	0.07
Departure Headway (Hd)	4.885	4.473	4.414	4.963
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	732	802	814	720
Service Time	2.926	2.501	2.441	3.005
HCM Lane V/C Ratio	0.087	0.278	0.276	0.071
HCM Control Delay	8.4	9.2	9.1	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	1.1	1.1	0.2

Lanes, Volumes, Timings
58: Wohlers Ave & Northampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	111	11	5	73	14	44	281	44	36	64	16
Future Volume (vph)	8	111	11	5	73	14	44	281	44	36	64	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989			0.980			0.984			0.982	
Flt Protected		0.997			0.997			0.994			0.985	
Satd. Flow (prot)	0	1837	0	0	1820	0	0	1822	0	0	1802	0
Flt Permitted		0.997			0.997			0.994			0.985	
Satd. Flow (perm)	0	1837	0	0	1820	0	0	1822	0	0	1802	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		276			1032			1317			1331	
Travel Time (s)		6.3			23.5			29.9			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	121	12	5	79	15	48	305	48	39	70	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	142	0	0	99	0	0	401	0	0	126	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 37.4%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	8	111	11	5	73	14	44	281	44	36	64	16
Future Vol, veh/h	8	111	11	5	73	14	44	281	44	36	64	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	121	12	5	79	15	48	305	48	39	70	17
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.8	9.3	12.8	9.2
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	6%	5%	31%
Vol Thru, %	76%	85%	79%	55%
Vol Right, %	12%	8%	15%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	369	130	92	116
LT Vol	44	8	5	36
Through Vol	281	111	73	64
RT Vol	44	11	14	16
Lane Flow Rate	401	141	100	126
Geometry Grp	1	1	1	1
Degree of Util (X)	0.521	0.207	0.147	0.176
Departure Headway (Hd)	4.674	5.285	5.309	5.03
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	766	671	667	706
Service Time	2.738	3.378	3.409	3.116
HCM Lane V/C Ratio	0.523	0.21	0.15	0.178
HCM Control Delay	12.8	9.8	9.3	9.2
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	3.1	0.8	0.5	0.6

Lanes, Volumes, Timings
59: Roehrer Ave & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	108	7	7	98	15	6	25	1	9	38	2
Future Volume (vph)	7	108	7	7	98	15	6	25	1	9	38	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.984			0.996			0.995	
Flt Protected		0.997			0.997			0.990			0.991	
Satd. Flow (prot)	0	1842	0	0	1827	0	0	1837	0	0	1837	0
Flt Permitted		0.997			0.997			0.990			0.991	
Satd. Flow (perm)	0	1842	0	0	1827	0	0	1837	0	0	1837	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1290			276			1313			1342	
Travel Time (s)		29.3			6.3			29.8			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	117	8	8	107	16	7	27	1	10	41	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	133	0	0	131	0	0	35	0	0	53	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	18.5%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

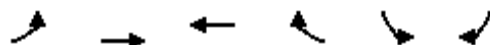
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	7	108	7	7	98	15	6	25	1	9	38	2
Future Vol, veh/h	7	108	7	7	98	15	6	25	1	9	38	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	117	8	8	107	16	7	27	1	10	41	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	8	7.8	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	6%	6%	18%
Vol Thru, %	78%	89%	82%	78%
Vol Right, %	3%	6%	12%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	32	122	120	49
LT Vol	6	7	7	9
Through Vol	25	108	98	38
RT Vol	1	7	15	2
Lane Flow Rate	35	133	130	53
Geometry Grp	1	1	1	1
Degree of Util (X)	0.044	0.153	0.149	0.068
Departure Headway (Hd)	4.593	4.164	4.125	4.565
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	784	847	854	789
Service Time	2.596	2.26	2.223	2.566
HCM Lane V/C Ratio	0.045	0.157	0.152	0.067
HCM Control Delay	7.8	8	8	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.5	0.5	0.2

Lanes, Volumes, Timings
60: Best St & Wohlers Ave

03/10/2022

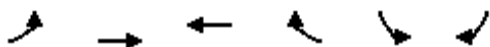


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	10	441	438	36	31	19
Future Volume (vph)	10	441	438	36	31	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.990		0.948	
Flt Protected		0.999			0.970	
Satd. Flow (prot)	0	1861	1844	0	1713	0
Flt Permitted		0.999			0.970	
Satd. Flow (perm)	0	1861	1844	0	1713	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		280	473		1317	
Travel Time (s)		6.4	10.8		29.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	479	476	39	34	21
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	490	515	0	55	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 41.2%				ICU Level of Service A		
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	441	438	36	31	19
Future Vol, veh/h	10	441	438	36	31	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	479	476	39	34	21
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	515	0	-	0	997	496
Stage 1	-	-	-	-	496	-
Stage 2	-	-	-	-	501	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1051	-	-	-	271	574
Stage 1	-	-	-	-	612	-
Stage 2	-	-	-	-	609	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1051	-	-	-	267	574
Mov Cap-2 Maneuver	-	-	-	-	267	-
Stage 1	-	-	-	-	603	-
Stage 2	-	-	-	-	609	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		17.8		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1051	-	-	-	335	
HCM Lane V/C Ratio	0.01	-	-	-	0.162	
HCM Control Delay (s)	8.5	0	-	-	17.8	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.6	

Lanes, Volumes, Timings
61: Best St & Roehrer Ave

03/10/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	11	571	413	14	23	13
Future Volume (vph)	11	571	413	14	23	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.996		0.952	
Flt Protected		0.999			0.969	
Satd. Flow (prot)	0	1861	1855	0	1718	0
Flt Permitted		0.999			0.969	
Satd. Flow (perm)	0	1861	1855	0	1718	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1123	280		1313	
Travel Time (s)		25.5	6.4		29.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	621	449	15	25	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	633	464	0	39	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	48.9%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	571	413	14	23	13
Future Vol, veh/h	11	571	413	14	23	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	621	449	15	25	14
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	464	0	-	0	1102	457
Stage 1	-	-	-	-	457	-
Stage 2	-	-	-	-	645	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1097	-	-	-	234	604
Stage 1	-	-	-	-	638	-
Stage 2	-	-	-	-	522	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1097	-	-	-	230	604
Mov Cap-2 Maneuver	-	-	-	-	230	-
Stage 1	-	-	-	-	627	-
Stage 2	-	-	-	-	522	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		19		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1097	-	-	-	296	
HCM Lane V/C Ratio	0.011	-	-	-	0.132	
HCM Control Delay (s)	8.3	0	-	-	19	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.5	

Lanes, Volumes, Timings

62: Jefferson Ave & Eaton St/Kingsley st

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	12	18	8	11	13	12	679	4	18	595	16
Future Volume (vph)	16	12	18	8	11	13	12	679	4	18	595	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.946			0.946			0.999			0.997	
Flt Protected		0.983			0.987			0.999			0.999	
Satd. Flow (prot)	0	1732	0	0	1739	0	0	1859	0	0	1855	0
Flt Permitted		0.927			0.950			0.988			0.974	
Satd. Flow (perm)	0	1634	0	0	1674	0	0	1839	0	0	1809	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			14			1			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		911			1129			278			418	
Travel Time (s)		20.7			25.7			6.3			9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	13	20	9	12	14	13	738	4	20	647	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	50	0	0	35	0	0	755	0	0	684	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		-50			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		37.5	37.5		37.5	37.5	
Total Split (%)	37.5%	37.5%		37.5%	37.5%		62.5%	62.5%		62.5%	62.5%	
Maximum Green (s)	18.0	18.0		18.0	18.0		33.0	33.0		33.0	33.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			33.0			33.0	
Actuated g/C Ratio		0.30			0.30			0.55			0.55	
v/c Ratio		0.10			0.07			0.75			0.69	
Control Delay		11.2			11.4			9.3			8.5	
Queue Delay		0.0			0.0			0.3			0.1	
Total Delay		11.2			11.4			9.7			8.6	

Lanes, Volumes, Timings

62: Jefferson Ave & Eaton St/Kingsley st

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			B			A			A	
Approach Delay		11.2			11.4			9.7			8.6	
Approach LOS		B			B			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 9.3

Intersection LOS: A

Intersection Capacity Utilization 53.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 62: Jefferson Ave & Eaton St/Kingsley st

 Ø2 (R)		 Ø4
37.5 s		22.5 s
 Ø6 (R)		 Ø8
37.5 s		22.5 s

Lanes, Volumes, Timings
65: Route 33 & W Parade Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	250	5	5	94	458	50	2431	25	18	1730	36
Future Volume (vph)	5	250	5	5	94	458	50	2431	25	18	1730	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		0	150		325
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.998			0.889				0.850			0.850
Flt Protected		0.999					0.950			0.950		
Satd. Flow (prot)	0	1857	0	0	1656	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.974			0.997		0.950			0.950		
Satd. Flow (perm)	0	1811	0	0	1651	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			60				44			44
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		98			623			486			778	
Travel Time (s)		2.2			14.2			11.0			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	272	5	5	102	498	54	2642	27	20	1880	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	282	0	0	605	0	54	2642	27	20	1880	39
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		3			7		5	2		1		6
Permitted Phases	3			7					2			6
Minimum Split (s)	22.5	22.5		22.5	22.5		9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	45.0	45.0		45.0	45.0		10.8	95.5	95.5	9.5	94.2	94.2
Total Split (%)	30.0%	30.0%		30.0%	30.0%		7.2%	63.7%	63.7%	6.3%	62.8%	62.8%
Maximum Green (s)	40.5	40.5		40.5	40.5		6.3	91.0	91.0	5.0	89.7	89.7
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5			4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effect Green (s)		40.5			40.5		6.3	91.0	91.0	5.0	89.7	89.7
Actuated g/C Ratio		0.27			0.27		0.04	0.61	0.61	0.03	0.60	0.60
v/c Ratio		0.58			1.24		0.73	1.23	0.03	0.34	0.89	0.04

Lanes, Volumes, Timings
65: Route 33 & W Parade Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		52.7			163.9		117.5	136.9	1.4	105.7	23.8	0.0
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	46.9	0.0
Total Delay		52.7			163.9		117.5	136.9	1.4	105.7	70.7	0.0
LOS		D			F		F	F	A	F	E	A
Approach Delay		52.7			163.9			135.2			69.7	
Approach LOS		D			F			F			E	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBT, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 1.24

Intersection Signal Delay: 111.2

Intersection LOS: F

Intersection Capacity Utilization 110.7%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 65: Route 33 & W Parade Ave

								
Ø1	Ø2 (R)					Ø3		
9.5 s	95.5 s					45 s		
								
Ø5	Ø6					Ø7		
10.8 s	94.2 s					45 s		

Lanes, Volumes, Timings
66: Route 33 & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕	↗	↗	↕	↗
Traffic Volume (vph)	31	576	31	4	125	38	145	2677	72	48	1748	94
Future Volume (vph)	31	576	31	4	125	38	145	2677	72	48	1748	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	125		125	125		125
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.993			0.969				0.850			0.850
Flt Protected		0.998			0.999		0.950			0.950		
Satd. Flow (prot)	0	1846	0	0	1803	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.977			0.965		0.950			0.950		
Satd. Flow (perm)	0	1807	0	0	1742	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			9				109			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		100			196			778			726	
Travel Time (s)		2.3			4.5			17.7			16.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	626	34	4	136	41	158	2910	78	52	1900	102
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	694	0	0	181	0	158	2910	78	52	1900	102
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		7 9			7 10		1	2		1	2	
Permitted Phases	7 9			7 10					2			2
Minimum Split (s)							22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)							22.5	47.5	47.5	22.5	47.5	47.5
Total Split (%)							15.0%	31.7%	31.7%	15.0%	31.7%	31.7%
Maximum Green (s)							18.0	43.0	43.0	18.0	43.0	43.0
Yellow Time (s)							3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)							1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)							0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)							4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)							7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)							11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		53.0			36.0		18.0	43.0	43.0	18.0	43.0	43.0
Actuated g/C Ratio		0.35			0.24		0.12	0.29	0.29	0.12	0.29	0.29
v/c Ratio		1.09			0.43		0.75	2.87	0.15	0.25	1.87	0.19

Lane Group	Ø3	Ø5	Ø7	Ø9	Ø10
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	3	5	7	9	10
Permitted Phases					
Minimum Split (s)	22.5	9.5	22.5	9.5	22.5
Total Split (s)	22.5	70.0	22.5	35.0	22.5
Total Split (%)	15%	47%	15%	23%	15%
Maximum Green (s)	18.0	65.5	18.0	30.5	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag				Lead	Lag
Lead-Lag Optimize?				Yes	Yes
Walk Time (s)	7.0		7.0		7.0
Flash Dont Walk (s)	11.0		11.0		11.0
Pedestrian Calls (#/hr)	0		0		0
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					

Lanes, Volumes, Timings

66: Route 33 & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		76.5			10.1		67.9	862.9	7.8	70.7	431.0	28.4
Queue Delay		5.8			1.4		0.0	0.0	0.0	0.2	0.0	0.0
Total Delay		82.3			11.5		67.9	862.9	7.8	70.9	431.0	28.4
LOS		F			B		E	F	A	E	F	C
Approach Delay		82.3			11.5			801.7			401.9	
Approach LOS		F			B			F			F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 3.79

Intersection Signal Delay: 560.8

Intersection LOS: F

Intersection Capacity Utilization 136.2%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 66: Route 33 & Northhampton St

#66  Ø10, Ø1	#66  Ø2 (R)	#4 #5  Ø3	#4 #5 #66  Ø9	#4 #5 #66  Ø9
22.5 s	47.5 s	22.5 s	35 s	22.5 s
#4 #5  Ø5	#66  Ø7			
70 s	22.5 s			

Lane Group	Ø3	Ø5	Ø7	Ø9	Ø10
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
67: Route 33 & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	48	255	33	40	182	30	275	2402	69	52	1817	208
Future Volume (vph)	48	255	33	40	182	30	275	2402	69	52	1817	208
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		150
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.985			0.982				0.850			0.850
Flt Protected		0.993			0.992		0.950			0.950		
Satd. Flow (prot)	0	3462	0	0	3448	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.828			0.812		0.950			0.950		
Satd. Flow (perm)	0	2887	0	0	2822	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			10				109			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		94			77			620			1337	
Travel Time (s)		2.1			1.8			14.1			30.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	52	277	36	43	198	33	299	2611	75	57	1975	226
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	365	0	0	274	0	299	2611	75	57	1975	226
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		7 9			7 10		1	2		1	2	
Permitted Phases	7 9			7 10					2			2
Minimum Split (s)							9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)							18.0	63.0	63.0	18.0	63.0	63.0
Total Split (%)							12.0%	42.0%	42.0%	12.0%	42.0%	42.0%
Maximum Green (s)							13.5	58.5	58.5	13.5	58.5	58.5
Yellow Time (s)							3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)							1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)							0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)							4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)								7.0	7.0		7.0	7.0
Flash Dont Walk (s)								11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)								0	0		0	0
Act Effct Green (s)		34.5			44.0		13.5	58.5	58.5	13.5	58.5	58.5
Actuated g/C Ratio		0.23			0.29		0.09	0.39	0.39	0.09	0.39	0.39
v/c Ratio		0.55			0.33		1.88	1.89	0.11	0.36	1.43	0.33

Lane Group	Ø3	Ø5	Ø7	Ø9	Ø10
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	3	5	7	9	10
Permitted Phases					
Minimum Split (s)	22.5	9.5	22.5	9.5	22.5
Total Split (s)	23.0	81.0	23.0	16.0	30.0
Total Split (%)	15%	54%	15%	11%	20%
Maximum Green (s)	18.5	76.5	18.5	11.5	25.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag				Lead	Lag
Lead-Lag Optimize?				Yes	Yes
Walk Time (s)	7.0		7.0		7.0
Flash Dont Walk (s)	11.0		11.0		11.0
Pedestrian Calls (#/hr)	0		0		0
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					

Lanes, Volumes, Timings
67: Route 33 & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		4.9			2.3		437.6	431.8	5.3	82.9	232.3	11.7
Queue Delay		0.0			0.0		4.5	0.0	0.0	0.0	0.0	0.0
Total Delay		4.9			2.3		442.1	431.8	5.3	82.9	232.3	11.7
LOS		A			A		F	F	A	F	F	B
Approach Delay		4.9			2.3			422.1			206.5	
Approach LOS		A			A			F			F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 2.01

Intersection Signal Delay: 293.9

Intersection LOS: F

Intersection Capacity Utilization 102.2%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 67: Route 33 & E Utica St

#67  Ø1 18 s	#67  Ø2 (R) 63 s	#6 #7  Ø3 23 s	#6 #7 #67 #6 #7 #67  Ø10 16 s 30 s
#6 #7  Ø5 81 s		#67  Ø7 23 s	

Lane Group	Ø3	Ø5	Ø7	Ø9	Ø10
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
68: Route 33 & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	306	677	118	123	279	73	496	1922	62	59	1836	474
Future Volume (vph)	306	677	118	123	279	73	496	1922	62	59	1836	474
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.984			0.977				0.850			0.850
Flt Protected		0.986			0.987		0.950			0.950		
Satd. Flow (prot)	0	3434	0	0	3413	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.620			0.522		0.950			0.950		
Satd. Flow (perm)	0	2159	0	0	1805	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			15				109			172
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		84			78			1337			636	
Travel Time (s)		1.9			1.8			30.4			14.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	333	736	128	134	303	79	539	2089	67	64	1996	515
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1197	0	0	516	0	539	2089	67	64	1996	515
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		7 9			7 10		1	2		1	2	
Permitted Phases	7 9			7 10					2			2
Minimum Split (s)							9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)							19.0	42.0	42.0	19.0	42.0	42.0
Total Split (%)							12.7%	28.0%	28.0%	12.7%	28.0%	28.0%
Maximum Green (s)							14.5	37.5	37.5	14.5	37.5	37.5
Yellow Time (s)							3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)							1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)							0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)							4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)								7.0	7.0		7.0	7.0
Flash Dont Walk (s)								11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)								0	0		0	0
Act Effct Green (s)		58.5			53.0		14.5	37.5	37.5	14.5	37.5	37.5
Actuated g/C Ratio		0.39			0.35		0.10	0.25	0.25	0.10	0.25	0.25
v/c Ratio		1.41			2.27dl		3.15	2.36	0.14	0.37	2.26	0.98

Lane Group	Ø3	Ø5	Ø7	Ø9	Ø10
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	3	5	7	9	10
Permitted Phases					
Minimum Split (s)	22.5	9.5	22.5	9.5	22.5
Total Split (s)	36.0	61.0	36.0	27.0	26.0
Total Split (%)	24%	41%	24%	18%	17%
Maximum Green (s)	31.5	56.5	31.5	22.5	21.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag				Lead	Lag
Lead-Lag Optimize?				Yes	Yes
Walk Time (s)	7.0		7.0		7.0
Flash Dont Walk (s)	11.0		11.0		11.0
Pedestrian Calls (#/hr)	0		0		0
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					

Lanes, Volumes, Timings

68: Route 33 & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		203.3			9.6		990.6	644.4	21.5	70.3	595.5	72.0
Queue Delay		0.1			0.3		7.5	0.0	0.0	0.0	0.0	12.9
Total Delay		203.3			9.9		998.1	644.4	21.5	70.3	595.5	84.9
LOS		F			A		F	F	C	E	F	F
Approach Delay		203.3			9.9			699.7			480.4	
Approach LOS		F			A			F			F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green, Master Intersection

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 3.43

Intersection Signal Delay: 482.8

Intersection LOS: F

Intersection Capacity Utilization 138.2%

ICU Level of Service H

Analysis Period (min) 15

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 68: Route 33 & E Ferry St

#68  Ø1 19 s	#68  Ø2 (R) 42 s	#8 #9  Ø3 36 s	#8 #9 #68  Ø9 27 s	#8 #9 #68  Ø10 26 s
#8 #9  Ø5 61 s	#68  Ø7 36 s			

Lane Group	Ø3	Ø5	Ø7	Ø9	Ø10
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
118: Humboldt Parkway SB

03/10/2022

						
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	306			252	236	
Travel Time (s)	7.0			5.7	5.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Free	Yield	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 18.3%				ICU Level of Service A		
Analysis Period (min) 15						

Lanes, Volumes, Timings

1: EB Off Ramp & Best St

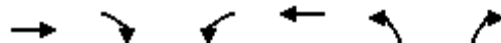
03/10/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘	
Traffic Volume (vph)	213	0	0	170	58	277
Future Volume (vph)	213	0	0	170	58	277
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Fr _t					0.888	
Fl _t Protected					0.991	
Satd. Flow (prot)	3539	0	0	3539	1639	0
Fl _t Permitted					0.991	
Satd. Flow (perm)	3539	0	0	3539	1639	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)					301	
Link Speed (mph)	30			30	30	
Link Distance (ft)	249			205	354	
Travel Time (s)	5.7			4.7	8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	232	0	0	185	63	301
Shared Lane Traffic (%)						
Lane Group Flow (vph)	232	0	0	185	364	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA			NA	Prot	
Protected Phases	4			8	2	
Permitted Phases						
Minimum Split (s)	22.5			22.5	22.5	
Total Split (s)	22.5			22.5	22.5	
Total Split (%)	50.0%			50.0%	50.0%	
Maximum Green (s)	18.0			18.0	18.0	
Yellow Time (s)	3.5			3.5	3.5	
All-Red Time (s)	1.0			1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0			7.0	7.0	
Flash Dont Walk (s)	11.0			11.0	11.0	
Pedestrian Calls (#/hr)	0			0	0	
Act Effect Green (s)	18.0			18.0	18.0	
Actuated g/C Ratio	0.40			0.40	0.40	
v/c Ratio	0.16			0.13	0.44	
Control Delay	9.1			8.9	4.3	
Queue Delay	0.0			0.0	0.0	
Total Delay	9.1			8.9	4.3	

Lanes, Volumes, Timings

1: EB Off Ramp & Best St

03/10/2022



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
LOS	A			A	A	
Approach Delay	9.1			8.9	4.3	
Approach LOS	A			A	A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBL and 6:, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.44

Intersection Signal Delay: 6.8

Intersection LOS: A

Intersection Capacity Utilization 33.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: EB Off Ramp & Best St

 Ø2 (R)	 Ø4
22.5 s	22.5 s
	 Ø8
	22.5 s

Lanes, Volumes, Timings
2: WB On Ramp/WB Off Ramp & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	590	51	206	457	0	0	0	0	57	0	73
Future Volume (vph)	0	590	51	206	457	0	0	0	0	57	0	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988									0.924	
Flt Protected					0.985						0.978	
Satd. Flow (prot)	0	3497	0	0	3486	0	0	0	0	0	1683	0
Flt Permitted					0.615						0.978	
Satd. Flow (perm)	0	3497	0	0	2177	0	0	0	0	0	1683	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23									79	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		473			249			324			329	
Travel Time (s)		10.8			5.7			7.4			7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	641	55	224	497	0	0	0	0	62	0	79
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	696	0	0	721	0	0	0	0	0	141	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases	4			8						6		
Minimum Split (s)	22.5	22.5		22.5	22.5					22.5	22.5	
Total Split (s)	27.0	27.0		27.0	27.0					23.0	23.0	
Total Split (%)	54.0%	54.0%		54.0%	54.0%					46.0%	46.0%	
Maximum Green (s)	22.5	22.5		22.5	22.5					18.5	18.5	
Yellow Time (s)	3.5	3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0			0.0						0.0	
Total Lost Time (s)		4.5			4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0					7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0					11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0					0	0	
Act Effect Green (s)		22.5			22.5						18.5	
Actuated g/C Ratio		0.45			0.45						0.37	
v/c Ratio		0.44			0.74						0.21	

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		10.2			17.2						6.5	
Queue Delay		0.0			0.7						0.0	
Total Delay		10.2			18.0						6.5	
LOS		B			B						A	
Approach Delay		10.2			18.0						6.5	
Approach LOS		B			B						A	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 0 (0%), Referenced to phase 2: and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Pretimed

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 13.5

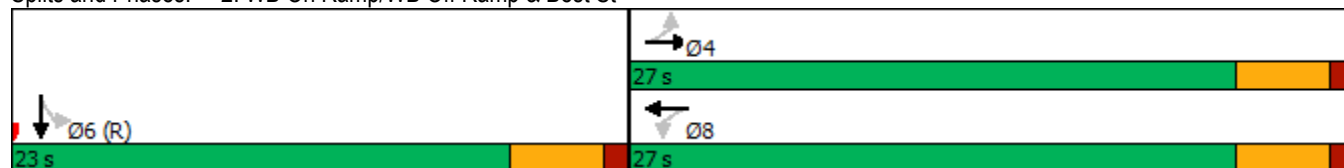
Intersection LOS: B

Intersection Capacity Utilization 55.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 2: WB On Ramp/WB Off Ramp & Best St



Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/10/2022

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	175	30	346	61	46	566	160	27	42	15	4	1
Future Volume (vph)	175	30	346	61	46	566	160	27	42	15	4	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr t			0.985			0.968				0.990		
Fl t Protected			0.984			0.997				0.967		
Satd. Flow (prot)	0	0	3430	0	0	1798	0	0	0	1783	0	0
Fl t Permitted			0.562			0.937				0.774		
Satd. Flow (perm)	0	0	1959	0	0	1690	0	0	0	1427	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			30			5				1		
Link Speed (mph)			30			30				30		
Link Distance (ft)			205			1418				1329		
Travel Time (s)			4.7			32.2				30.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	190	33	376	66	50	615	174	29	46	16	4	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	665	0	0	868	0	0	0	67	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Right	Right
Median Width(ft)			0			0				0		
Link Offset(ft)			0			0				0		
Crosswalk Width(ft)			16			16				16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15		9	15		9	9	15		9	9
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		
Protected Phases			4			8				2		
Permitted Phases	4	4			8				2			
Minimum Split (s)	22.5	22.5	22.5		22.5	22.5			22.5	22.5		
Total Split (s)	42.0	42.0	42.0		42.0	42.0			23.0	23.0		
Total Split (%)	64.6%	64.6%	64.6%		64.6%	64.6%			35.4%	35.4%		
Maximum Green (s)	37.5	37.5	37.5		37.5	37.5			18.5	18.5		
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5			3.5	3.5		
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0			1.0	1.0		
Lost Time Adjust (s)			0.0			0.0				0.0		
Total Lost Time (s)			4.5			4.5				4.5		
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0	7.0		7.0	7.0			7.0	7.0		
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	11.0			11.0	11.0		
Pedestrian Calls (#/hr)	0	0	0		0	0			0	0		
Act Effct Green (s)			37.5			37.5				18.5		
Actuated g/C Ratio			0.58			0.58				0.28		
v/c Ratio			0.58			0.89				0.17		
Control Delay			10.9			25.8				18.6		
Queue Delay			2.9			0.0				0.0		
Total Delay			13.8			25.8				18.6		

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/10/2022



Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	61	37	76
Future Volume (vph)	61	37	76
Ideal Flow (vphpl)	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00
Frt		0.941	
Flt Protected		0.983	
Satd. Flow (prot)	0	1723	0
Flt Permitted		0.877	
Satd. Flow (perm)	0	1537	0
Right Turn on Red			Yes
Satd. Flow (RTOR)		61	
Link Speed (mph)		30	
Link Distance (ft)		623	
Travel Time (s)		14.2	
Peak Hour Factor	0.92	0.92	0.92
Adj. Flow (vph)	66	40	83
Shared Lane Traffic (%)			
Lane Group Flow (vph)	0	189	0
Enter Blocked Intersection	No	No	No
Lane Alignment	Left	Left	Right
Median Width(ft)		0	
Link Offset(ft)		0	
Crosswalk Width(ft)		16	
Two way Left Turn Lane			
Headway Factor	1.00	1.00	1.00
Turning Speed (mph)	15		9
Turn Type	Perm	NA	
Protected Phases		6	
Permitted Phases	6		
Minimum Split (s)	22.5	22.5	
Total Split (s)	23.0	23.0	
Total Split (%)	35.4%	35.4%	
Maximum Green (s)	18.5	18.5	
Yellow Time (s)	3.5	3.5	
All-Red Time (s)	1.0	1.0	
Lost Time Adjust (s)		0.0	
Total Lost Time (s)		4.5	
Lead/Lag			
Lead-Lag Optimize?			
Walk Time (s)	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0	
Pedestrian Calls (#/hr)	0	0	
Act Effct Green (s)		18.5	
Actuated g/C Ratio		0.28	
v/c Ratio		0.39	
Control Delay		15.4	
Queue Delay		0.0	
Total Delay		15.4	

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/10/2022



Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
LOS			B			C				B		
Approach Delay			13.8			25.8				18.6		
Approach LOS			B			C				B		

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Pretimed

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 20.0

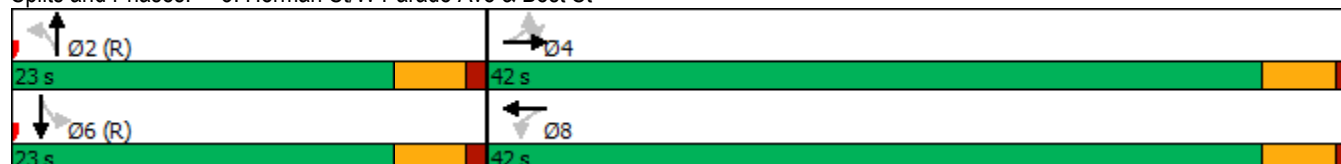
Intersection LOS: B

Intersection Capacity Utilization 82.5%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 3: Herman St/W Parade Ave & Best St



Lanes, Volumes, Timings
3: Herman St/W Parade Ave & Best St

03/10/2022



Lane Group	SBL	SBT	SBR
LOS		B	
Approach Delay		15.4	
Approach LOS		B	
Intersection Summary			

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	52	1	3	286	0	0	0	0	480	420	162
Future Volume (vph)	0	52	1	3	286	0	0	0	0	480	420	162
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't		0.998									0.979	
Flt Protected											0.978	
Satd. Flow (prot)	0	1859	0	0	1863	0	0	0	0	0	1784	0
Flt Permitted					0.999						0.978	
Satd. Flow (perm)	0	1859	0	0	1861	0	0	0	0	0	1784	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)											6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1032			100			717			296	
Travel Time (s)		23.5			2.3			16.3			6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	57	1	3	311	0	0	0	0	522	457	176
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	58	0	0	314	0	0	0	0	0	1155	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		3			3 5 10						9	
Permitted Phases				3 5 10						9		
Minimum Split (s)		22.5								9.5	9.5	
Total Split (s)		22.5								38.0	38.0	
Total Split (%)		15.0%								25.3%	25.3%	
Maximum Green (s)		18.0								33.5	33.5	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.0								1.0	1.0	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		4.5									4.5	
Lead/Lag										Lead	Lead	
Lead-Lag Optimize?										Yes	Yes	
Walk Time (s)		7.0										
Flash Dont Walk (s)		11.0										
Pedestrian Calls (#/hr)		0										
Act Effect Green (s)		18.0			107.5						33.5	
Actuated g/C Ratio		0.12			0.72						0.22	
v/c Ratio		0.26			0.24						2.87	
Control Delay		63.4			4.2						867.7	
Queue Delay		0.0			0.0						3.4	
Total Delay		63.4			4.2						871.1	

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/10/2022

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø10
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	1	2	5	7	10
Permitted Phases					
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5
Total Split (s)	10.0	57.0	67.0	22.5	22.5
Total Split (%)	7%	38%	45%	15%	15%
Maximum Green (s)	5.5	52.5	62.5	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead	Lag			Lag
Lead-Lag Optimize?	Yes	Yes			Yes
Walk Time (s)		7.0		7.0	7.0
Flash Dont Walk (s)		11.0		11.0	11.0
Pedestrian Calls (#/hr)		0		0	0
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		E			A						F	
Approach Delay		63.4			4.2						871.1	
Approach LOS		E			A						F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 2.87

Intersection Signal Delay: 662.2

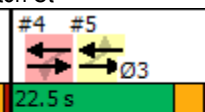
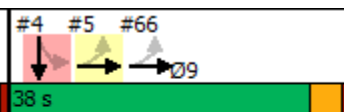
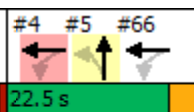
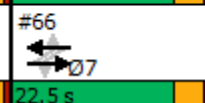
Intersection LOS: F

Intersection Capacity Utilization 83.5%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 4: Humboldt Parkway SB & Northhampton St

 #66 #65 Ø10 Ø1 Ø2 (R) 10 s 57 s	 #4 #5 Ø3 22.5 s	 #4 #5 #66 Ø9 38 s	 #4 #5 #66 22.5 s
 #4 #5 Ø5 67 s	 #66 Ø7 22.5 s		

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø10
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
5: Humboldt Parkway NB & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	596	0	0	128	1	2	9	3	0	0	0
Future Volume (vph)	1	596	0	0	128	1	2	9	3	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.999			0.973				
Flt Protected								0.993				
Satd. Flow (prot)	0	1863	0	0	1861	0	0	1800	0	0	0	0
Flt Permitted								0.993				
Satd. Flow (perm)	0	1863	0	0	1861	0	0	1800	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								3				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		196			1089			152			722	
Travel Time (s)		4.5			24.8			3.5			16.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	648	0	0	139	1	2	10	3	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	649	0	0	140	0	0	15	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		3 5 9			3			10				
Permitted Phases	3 5 9						10					
Minimum Split (s)					22.5		22.5	22.5				
Total Split (s)					22.5		22.5	22.5				
Total Split (%)					15.0%		15.0%	15.0%				
Maximum Green (s)					18.0		18.0	18.0				
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.0		1.0	1.0				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					4.5			4.5				
Lead/Lag							Lag	Lag				
Lead-Lag Optimize?							Yes	Yes				
Walk Time (s)					7.0		7.0	7.0				
Flash Dont Walk (s)					11.0		11.0	11.0				
Pedestrian Calls (#/hr)					0		0	0				
Act Effct Green (s)		123.0			18.0			18.0				
Actuated g/C Ratio		0.82			0.12			0.12				
v/c Ratio		0.43			0.63			0.07				
Control Delay		2.9			76.2			51.1				
Queue Delay		3.5			0.0			0.0				
Total Delay		6.4			76.2			51.1				

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

03/10/2022

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø9
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	1	2	5	7	9
Permitted Phases					
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5
Total Split (s)	10.0	57.0	67.0	22.5	38.0
Total Split (%)	7%	38%	45%	15%	25%
Maximum Green (s)	5.5	52.5	62.5	18.0	33.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead	Lag		Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	
Walk Time (s)		7.0		7.0	
Flash Dont Walk (s)		11.0		11.0	
Pedestrian Calls (#/hr)		0		0	
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			E			D				
Approach Delay		6.4			76.2			51.1				
Approach LOS		A			E			D				

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 2.87

Intersection Signal Delay: 19.4

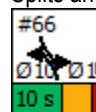
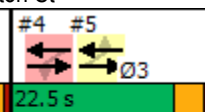
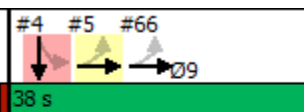
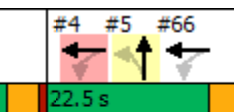
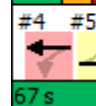
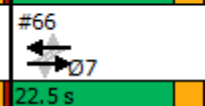
Intersection LOS: B

Intersection Capacity Utilization 43.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Humboldt Parkway NB & Northhampton St

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø9
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
6: Humboldt Parkway SB & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰		↰	↰						↰↰	
Traffic Volume (vph)	0	138	2	6	567	0	0	0	0	61	423	73
Future Volume (vph)	0	138	2	6	567	0	0	0	0	61	423	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.998									0.980	
Flt Protected				0.950							0.995	
Satd. Flow (prot)	0	1859	0	1770	1863	0	0	0	0	0	3451	0
Flt Permitted				0.660							0.995	
Satd. Flow (perm)	0	1859	0	1229	1863	0	0	0	0	0	3451	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)											9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1162			94			635			457	
Travel Time (s)		26.4			2.1			14.4			10.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	150	2	7	616	0	0	0	0	66	460	79
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	152	0	7	616	0	0	0	0	0	605	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		3			3 5 10						9	
Permitted Phases				3 5 10						9		
Minimum Split (s)		22.5								9.5	9.5	
Total Split (s)		22.5								17.0	17.0	
Total Split (%)		15.0%								11.3%	11.3%	
Maximum Green (s)		18.0								12.5	12.5	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.0								1.0	1.0	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		4.5									4.5	
Lead/Lag										Lead	Lead	
Lead-Lag Optimize?										Yes	Yes	
Walk Time (s)		7.0										
Flash Dont Walk (s)		11.0										
Pedestrian Calls (#/hr)		0										
Act Effect Green (s)		18.0		128.5	128.5						12.5	
Actuated g/C Ratio		0.12		0.86	0.86						0.08	
v/c Ratio		0.68		0.01	0.39						2.05	

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

03/10/2022

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø10
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	1	2	5	7	10
Permitted Phases					
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5
Total Split (s)	11.0	70.5	81.5	22.5	29.0
Total Split (%)	7%	47%	54%	15%	19%
Maximum Green (s)	6.5	66.0	77.0	18.0	24.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead	Lag			Lag
Lead-Lag Optimize?	Yes	Yes			Yes
Walk Time (s)		7.0		7.0	7.0
Flash Dont Walk (s)		11.0		11.0	11.0
Pedestrian Calls (#/hr)		0		0	0
Act Effect Green (s)					
Actuated g/C Ratio					
v/c Ratio					

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		79.4		0.5	1.4						511.1	
Queue Delay		0.0		0.0	0.0						0.0	
Total Delay		79.4		0.5	1.4						511.1	
LOS		E		A	A						F	
Approach Delay		79.4			1.4						511.1	
Approach LOS		E			A						F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 2.05

Intersection Signal Delay: 233.4

Intersection LOS: F

Intersection Capacity Utilization 53.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: Humboldt Parkway SB & E Utica St

 #67 Ø1	 #67 Ø2 (R)	 #6  #7 Ø3	 #6  #7 Ø6  #67 Ø7  #6  #7 Ø10
11 s	70.5 s	22.5 s	17 s
 #6  #7 Ø5		 #67 Ø7	
81.5 s		22.5 s	

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø10
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
7: Humboldt Parkway NB & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	234	0	0	126	1	100	289	69	0	0	0
Future Volume (vph)	13	234	0	0	126	1	100	289	69	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.999				0.850			
Fl _t Protected	0.950							0.987				
Satd. Flow (prot)	1770	1863	0	0	1861	0	0	1839	1583	0	0	0
Fl _t Permitted	0.164							0.987				
Satd. Flow (perm)	305	1863	0	0	1861	0	0	1839	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)									109			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		77			1076			613			291	
Travel Time (s)		1.8			24.5			13.9			6.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	254	0	0	137	1	109	314	75	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	14	254	0	0	138	0	0	423	75	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		3 5 9			3			10				
Permitted Phases	3 5 9						10		10			
Minimum Split (s)					22.5		22.5	22.5	22.5			
Total Split (s)					22.5		29.0	29.0	29.0			
Total Split (%)					15.0%		19.3%	19.3%	19.3%			
Maximum Green (s)					18.0		24.5	24.5	24.5			
Yellow Time (s)					3.5		3.5	3.5	3.5			
All-Red Time (s)					1.0		1.0	1.0	1.0			
Lost Time Adjust (s)					0.0			0.0	0.0			
Total Lost Time (s)					4.5			4.5	4.5			
Lead/Lag							Lag	Lag	Lag			
Lead-Lag Optimize?							Yes	Yes	Yes			
Walk Time (s)					7.0		7.0	7.0	7.0			
Flash Dont Walk (s)					11.0		11.0	11.0	11.0			
Pedestrian Calls (#/hr)					0		0	0	0			
Act Effct Green (s)	116.5	116.5			18.0			24.5	24.5			
Actuated g/C Ratio	0.78	0.78			0.12			0.16	0.16			
v/c Ratio	0.06	0.18			0.62			1.41	0.21			
Control Delay	1.5	1.7			75.7			247.5	4.7			
Queue Delay	0.0	0.0			0.0			0.0	0.0			
Total Delay	1.5	1.7			75.7			247.5	4.7			

Lanes, Volumes, Timings
7: Humboldt Parkway NB & E Utica St

03/10/2022

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø9
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	1	2	5	7	9
Permitted Phases					
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5
Total Split (s)	11.0	70.5	81.5	22.5	17.0
Total Split (%)	7%	47%	54%	15%	11%
Maximum Green (s)	6.5	66.0	77.0	18.0	12.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead	Lag		Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	
Walk Time (s)		7.0		7.0	
Flash Dont Walk (s)		11.0		11.0	
Pedestrian Calls (#/hr)		0		0	
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	A	A			E			F	A			
Approach Delay		1.6			75.7			210.9				
Approach LOS		A			E			F				

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 2.05

Intersection Signal Delay: 128.2

Intersection LOS: F

Intersection Capacity Utilization 40.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 7: Humboldt Parkway NB & E Utica St

 #67 Ø1	 #67 Ø2 (R)	 #6  #7 Ø3	 #6  #7 Ø67	 #6  #7 Ø10
11 s	70.5 s	22.5 s	17 s	29 s
 #6  #7 Ø5		 #67 Ø7		
81.5 s		22.5 s		

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø9
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰		↰	↰						↰	
Traffic Volume (vph)	0	585	10	13	1089	0	0	0	0	228	338	410
Future Volume (vph)	0	585	10	13	1089	0	0	0	0	228	338	410
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.998									0.943	
Fl _t Protected				0.950							0.988	
Satd. Flow (prot)	0	1859	0	1770	1863	0	0	0	0	0	1735	0
Fl _t Permitted				0.419							0.988	
Satd. Flow (perm)	0	1859	0	780	1863	0	0	0	0	0	1735	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1									21	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1165			84			321			268	
Travel Time (s)		26.5			1.9			7.3			6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	636	11	14	1184	0	0	0	0	248	367	446
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	647	0	14	1184	0	0	0	0	0	1061	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		3			3 5 10						9	
Permitted Phases				3 5 10						9		
Minimum Split (s)		22.5								9.5	9.5	
Total Split (s)		30.0								29.0	29.0	
Total Split (%)		20.0%								19.3%	19.3%	
Maximum Green (s)		25.5								24.5	24.5	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.0								1.0	1.0	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		4.5									4.5	
Lead/Lag										Lead	Lead	
Lead-Lag Optimize?										Yes	Yes	
Walk Time (s)		7.0										
Flash Dont Walk (s)		11.0										
Pedestrian Calls (#/hr)		0										
Act Effect Green (s)		25.5		116.5	116.5						24.5	
Actuated g/C Ratio		0.17		0.78	0.78						0.16	
v/c Ratio		2.05		0.02	0.82						3.54	
Control Delay		512.0		1.0	8.6						1166.6	
Queue Delay		2.6		0.0	0.0						0.0	
Total Delay		514.6		1.0	8.6						1166.6	

Lanes, Volumes, Timings
8: Humboldt Parkway SB & E Ferry St

03/10/2022

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø10
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	1	2	5	7	10
Permitted Phases					
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5
Total Split (s)	12.0	55.0	67.0	30.0	24.0
Total Split (%)	8%	37%	45%	20%	16%
Maximum Green (s)	7.5	50.5	62.5	25.5	19.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead	Lag		Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	
Walk Time (s)		7.0		7.0	7.0
Flash Dont Walk (s)		11.0		11.0	11.0
Pedestrian Calls (#/hr)		0		0	0
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		F		A	A						F	
Approach Delay		514.6			8.6						1166.6	
Approach LOS		F			A						F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green, Master Intersection

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 3.54

Intersection Signal Delay: 544.0

Intersection LOS: F

Intersection Capacity Utilization 120.3%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 8: Humboldt Parkway SB & E Ferry St

#68  Ø1	#68  Ø2 (R)	#8 #9  Ø3	#8 #9 #68  Ø9	#8 #9 #68  Ø10
12 s	55 s	30 s	29 s	24 s
#8 #9  Ø5	#68  Ø7			
67 s	30 s			

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø10
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
9: Humboldt Parkway NB & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	622	0	0	269	6	54	234	47	0	0	0
Future Volume (vph)	22	622	0	0	269	6	54	234	47	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	75		0	0		0
Storage Lanes	1		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.997				0.850			
Flt Protected	0.950							0.991				
Satd. Flow (prot)	1770	1863	0	0	1857	0	0	1846	1583	0	0	0
Flt Permitted	0.163							0.991				
Satd. Flow (perm)	304	1863	0	0	1857	0	0	1846	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1				109			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		78			1081			317			602	
Travel Time (s)		1.8			24.6			7.2			13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	676	0	0	292	7	59	254	51	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	24	676	0	0	299	0	0	313	51	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		3 5 9			3			10				
Permitted Phases	3 5 9						10		10			
Minimum Split (s)					22.5		22.5	22.5	22.5			
Total Split (s)					30.0		24.0	24.0	24.0			
Total Split (%)					20.0%		16.0%	16.0%	16.0%			
Maximum Green (s)					25.5		19.5	19.5	19.5			
Yellow Time (s)					3.5		3.5	3.5	3.5			
All-Red Time (s)					1.0		1.0	1.0	1.0			
Lost Time Adjust (s)					0.0			0.0	0.0			
Total Lost Time (s)					4.5			4.5	4.5			
Lead/Lag							Lag	Lag	Lag			
Lead-Lag Optimize?							Yes	Yes	Yes			
Walk Time (s)					7.0		7.0	7.0	7.0			
Flash Dont Walk (s)					11.0		11.0	11.0	11.0			
Pedestrian Calls (#/hr)					0		0	0	0			
Act Effct Green (s)	121.5	121.5			25.5			19.5	19.5			
Actuated g/C Ratio	0.81	0.81			0.17			0.13	0.13			
v/c Ratio	0.10	0.45			0.95			1.31	0.17			

Lanes, Volumes, Timings
9: Humboldt Parkway NB & E Ferry St

03/10/2022

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø9
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	1	2	5	7	9
Permitted Phases					
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5
Total Split (s)	12.0	55.0	67.0	30.0	29.0
Total Split (%)	8%	37%	45%	20%	19%
Maximum Green (s)	7.5	50.5	62.5	25.5	24.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead	Lag			Lead
Lead-Lag Optimize?	Yes	Yes			Yes
Walk Time (s)		7.0		7.0	
Flash Dont Walk (s)		11.0		11.0	
Pedestrian Calls (#/hr)		0		0	
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	1.0	1.6			99.3			216.4	27.2			
Queue Delay	0.0	0.0			8.6			0.0	0.0			
Total Delay	1.0	1.6			107.9			216.4	27.2			
LOS	A	A			F			F	C			
Approach Delay		1.6			107.9			189.9				
Approach LOS		A			F			F				

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green, Master Intersection

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 3.54

Intersection Signal Delay: 75.2

Intersection LOS: E

Intersection Capacity Utilization 55.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 9: Humboldt Parkway NB & E Ferry St

#68  Ø1	#68  Ø2 (R)	#8 #9  Ø3	#8 #9 #68  Ø9	#8 #9 #68  Ø10
12 s	55 s	30 s	29 s	24 s
#8 #9  Ø5	#68  Ø7			
67 s	30 s			

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø9
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
10: Jefferson Ave & Cherry St & EB On Ramp

03/10/2022

										
Lane Group	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Traffic Volume (vph)	13	0	0	337	206	105	397	0	0	0
Future Volume (vph)	13	0	0	337	206	105	397	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00
Fr t	0.943									
Flt Protected	0.950						0.990			
Satd. Flow (prot)	1770	0	0	3337	0	0	3504	0	0	0
Flt Permitted	0.950						0.744			
Satd. Flow (perm)	1770	0	0	3337	0	0	2633	0	0	0
Right Turn on Red	Yes				Yes			Yes		
Satd. Flow (RTOR)	224									
Link Speed (mph)	30			30			30		30	
Link Distance (ft)	537			328			271		387	
Travel Time (s)	12.2			7.5			6.2		8.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	0	0	366	224	114	432	0	0	0
Shared Lane Traffic (%)										
Lane Group Flow (vph)	14	0	0	590	0	0	546	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right
Median Width(ft)	12			0			0		0	
Link Offset(ft)	0			0			0		0	
Crosswalk Width(ft)	16			16			16		16	
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15		9	15		9	15	9
Turn Type	Prot			NA		Perm	NA			
Protected Phases	4			2			6			
Permitted Phases	6									
Minimum Split (s)	22.5			22.5		22.5	22.5			
Total Split (s)	22.5			22.5		22.5	22.5			
Total Split (%)	50.0%			50.0%		50.0%	50.0%			
Maximum Green (s)	18.0			18.0		18.0	18.0			
Yellow Time (s)	3.5			3.5		3.5	3.5			
All-Red Time (s)	1.0			1.0		1.0	1.0			
Lost Time Adjust (s)	0.0			0.0			0.0			
Total Lost Time (s)	4.5			4.5			4.5			
Lead/Lag										
Lead-Lag Optimize?										
Walk Time (s)	7.0			7.0		7.0	7.0			
Flash Dont Walk (s)	11.0			11.0		11.0	11.0			
Pedestrian Calls (#/hr)	0			0		0	0			
Act Effect Green (s)	18.0			18.0			18.0			
Actuated g/C Ratio	0.40			0.40			0.40			
v/c Ratio	0.02			0.40			0.52			
Control Delay	8.3			3.4			7.3			
Queue Delay	0.0			0.0			0.0			
Total Delay	8.3			3.4			7.3			

Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
LOS	A			A			A			
Approach Delay	8.3			3.4			7.3			
Approach LOS	A			A			A			

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 5.3

Intersection LOS: A

Intersection Capacity Utilization 45.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 10: Jefferson Ave & Cherry St & EB On Ramp

Ø2 (R) 22.5 s	Ø4 22.5 s
Ø6 (R) 22.5 s	

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	129	12	200	49	376	0	0	421	21
Future Volume (vph)	0	0	0	129	12	200	49	376	0	0	421	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt					0.921						0.993	
Flt Protected					0.981			0.994				
Satd. Flow (prot)	0	0	0	0	1683	0	0	3518	0	0	3514	0
Flt Permitted					0.981			0.863				
Satd. Flow (perm)	0	0	0	0	1683	0	0	3054	0	0	3514	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					189						13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			384			271			880	
Travel Time (s)		12.9			8.7			6.2			20.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	140	13	217	53	409	0	0	458	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	370	0	0	462	0	0	481	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8			2					
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (%)				50.0%	50.0%		50.0%	50.0%			50.0%	
Maximum Green (s)				18.0	18.0		18.0	18.0			18.0	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)				7.0	7.0		7.0	7.0			7.0	
Flash Dont Walk (s)				11.0	11.0		11.0	11.0			11.0	
Pedestrian Calls (#/hr)				0	0		0	0			0	
Act Effect Green (s)					18.0			18.0			18.0	
Actuated g/C Ratio					0.40			0.40			0.40	
v/c Ratio					0.47			0.38			0.34	

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay					7.2			8.7			10.0	
Queue Delay					0.0			0.0			0.0	
Total Delay					7.2			8.7			10.0	
LOS					A			A			A	
Approach Delay					7.2			8.7			10.0	
Approach LOS					A			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 8.7

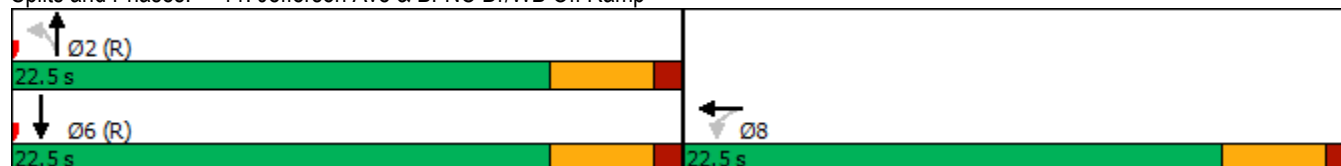
Intersection LOS: A

Intersection Capacity Utilization 55.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 11: Jefferson Ave & BFNC Dr/WB Off Ramp



Lanes, Volumes, Timings
12: Jefferson Ave & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	99	13	81	184	41	7	409	23	23	354	57
Future Volume (vph)	42	99	13	81	184	41	7	409	23	23	354	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.987			0.980			0.992			0.980	
Flt Protected		0.986			0.987			0.999			0.997	
Satd. Flow (prot)	0	3444	0	0	3423	0	0	3507	0	0	3458	0
Flt Permitted		0.828			0.839			0.947			0.919	
Satd. Flow (perm)	0	2892	0	0	2910	0	0	3325	0	0	3187	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			45			15			44	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		737			2886			735			328	
Travel Time (s)		16.8			65.6			16.7			7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	108	14	88	200	45	8	445	25	25	385	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	168	0	0	333	0	0	478	0	0	472	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.14			0.28			0.36			0.36	
Control Delay		8.3			17.6			10.1			6.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.3			17.6			10.1			6.8	

Lanes, Volumes, Timings

12: Jefferson Ave & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			B			B			A	
Approach Delay		8.3			17.6			10.1			6.8	
Approach LOS		A			B			B			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.36

Intersection Signal Delay: 10.5

Intersection LOS: B

Intersection Capacity Utilization 52.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 12: Jefferson Ave & Genesee St

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
13: Herman St & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	172	3	15	400	11	18	58	5	27	76	10
Future Volume (vph)	11	172	3	15	400	11	18	58	5	27	76	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.996			0.992			0.988	
Flt Protected		0.997			0.998			0.989			0.988	
Satd. Flow (prot)	0	3522	0	0	3518	0	0	1828	0	0	1818	0
Flt Permitted		0.925			0.943			0.937			0.934	
Satd. Flow (perm)	0	3267	0	0	3324	0	0	1731	0	0	1719	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			7			5			11	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2886			671			575			1329	
Travel Time (s)		65.6			15.3			13.1			30.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	187	3	16	435	12	20	63	5	29	83	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	202	0	0	463	0	0	88	0	0	123	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.15			0.35			0.13			0.18	
Control Delay		13.2			15.0			8.8			8.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.2			15.0			8.8			8.9	

Lanes, Volumes, Timings

13: Herman St & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			B			A			A	
Approach Delay		13.2			15.0			8.8			8.9	
Approach LOS		B			B			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 22.5 (50%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.35

Intersection Signal Delay: 13.1

Intersection LOS: B

Intersection Capacity Utilization 36.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 13: Herman St & Genesee St

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
14: Reed St/Rich St & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	251	0	0	459	13	11	3	10	4	0	4
Future Volume (vph)	2	251	0	0	459	13	11	3	10	4	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.996			0.943			0.932	
Fl _t Protected								0.977			0.976	
Satd. Flow (prot)	0	3539	0	0	3525	0	0	1716	0	0	1694	0
Fl _t Permitted		0.952						0.927			0.936	
Satd. Flow (perm)	0	3369	0	0	3525	0	0	1628	0	0	1625	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7			11			36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		671			961			780			839	
Travel Time (s)		15.3			21.8			17.7			19.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	273	0	0	499	14	12	3	11	4	0	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	275	0	0	513	0	0	26	0	0	8	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			50	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2						8			4		
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0			18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0			7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	
Act Effct Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.20			0.36			0.04			0.01	
Control Delay		7.7			10.3			6.7			0.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		7.7			10.3			6.7			0.4	

Lanes, Volumes, Timings

14: Reed St/Rich St & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			B			A			A	
Approach Delay		7.7			10.3			6.7			0.4	
Approach LOS		A			B			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 22.5 (50%), Referenced to phase 2:EBTL and 6:WBT, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.36

Intersection Signal Delay: 9.2

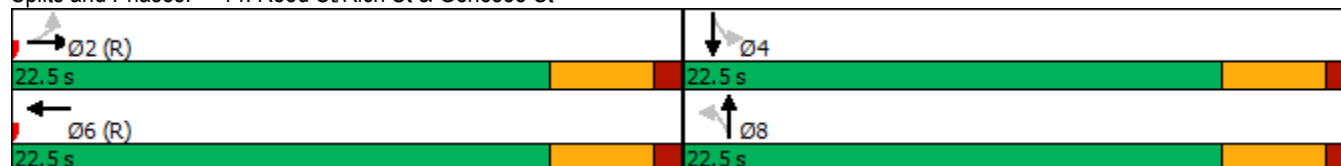
Intersection LOS: A

Intersection Capacity Utilization 24.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Reed St/Rich St & Genesee St



Lanes, Volumes, Timings
15: Fillmore Ave & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	198	36	91	334	4	33	249	51	10	322	41
Future Volume (vph)	34	198	36	91	334	4	33	249	51	10	322	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr t		0.980			0.999			0.979			0.985	
Fl t Protected		0.994			0.989			0.995			0.999	
Satd. Flow (prot)	0	3448	0	0	3497	0	0	1815	0	0	1833	0
Fl t Permitted		0.861			0.813			0.939			0.988	
Satd. Flow (perm)	0	2986	0	0	2875	0	0	1712	0	0	1813	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39			2			24			17	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		961			671			704			490	
Travel Time (s)		21.8			15.3			16.0			11.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	215	39	99	363	4	36	271	55	11	350	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	291	0	0	466	0	0	362	0	0	406	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	

Lanes, Volumes, Timings
15: Fillmore Ave & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		11.6			11.6			18.1			18.1	
Actuated g/C Ratio		0.30			0.30			0.47			0.47	
v/c Ratio		0.32			0.54			0.45			0.48	
Control Delay		9.7			13.6			9.6			10.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.7			13.6			9.6			10.0	
LOS		A			B			A			B	
Approach Delay		9.7			13.6			9.6			10.0	
Approach LOS		A			B			A			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 38.8

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 10.9

Intersection LOS: B

Intersection Capacity Utilization 63.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 15: Fillmore Ave & Genesee St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
16: Fillmore Ave & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	385	179	3	529	20	120	211	9	21	273	50
Future Volume (vph)	46	385	179	3	529	20	120	211	9	21	273	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.995			0.996				0.850
Flt Protected		0.996						0.983			0.996	
Satd. Flow (prot)	0	1781	0	0	1853	0	0	1824	0	0	1855	1583
Flt Permitted		0.936			0.997			0.735			0.961	
Satd. Flow (perm)	0	1674	0	0	1848	0	0	1364	0	0	1790	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		55			5			3				54
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1418			567			490				61
Travel Time (s)		32.2			12.9			11.1				1.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	50	418	195	3	575	22	130	229	10	23	297	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	663	0	0	600	0	0	369	0	0	320	54
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0

Lanes, Volumes, Timings
16: Fillmore Ave & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (s)	27.0	27.0		27.0	27.0		23.0	23.0		23.0	23.0	23.0
Total Split (%)	54.0%	54.0%		54.0%	54.0%		46.0%	46.0%		46.0%	46.0%	46.0%
Maximum Green (s)	22.5	22.5		22.5	22.5		18.5	18.5		18.5	18.5	18.5
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)		4.5			4.5			4.5			4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	0
Act Effect Green (s)		21.3			21.3			19.7			19.7	19.7
Actuated g/C Ratio		0.43			0.43			0.39			0.39	0.39
v/c Ratio		0.89			0.76			0.68			0.45	0.08
Control Delay		29.2			19.5			22.4			4.3	0.3
Queue Delay		53.7			55.3			0.2			0.0	0.0
Total Delay		82.9			74.8			22.6			4.3	0.3
LOS		F			E			C			A	A
Approach Delay		82.9			74.8			22.6			3.7	
Approach LOS		F			E			C			A	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 54.6

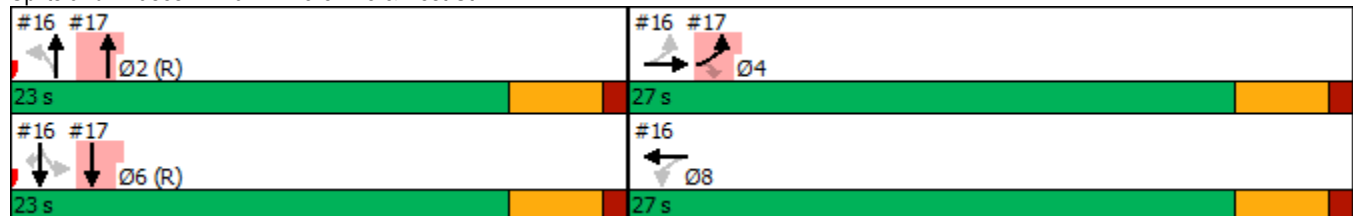
Intersection LOS: D

Intersection Capacity Utilization 110.6%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 16: Fillmore Ave & Best St



Lanes, Volumes, Timings
17: Fillmore Ave & East Park

03/10/2022

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	5	3	0	312	345	0	
Future Volume (vph)	5	3	0	312	345	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	0			100	
Storage Lanes	1	1	0			1	
Taper Length (ft)	25		25				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	
Frt		0.850					
Flt Protected	0.950						
Satd. Flow (prot)	1770	1583	0	1863	3539	0	
Flt Permitted	0.950						
Satd. Flow (perm)	1770	1583	0	1863	3539	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		3					
Link Speed (mph)	30			30	30		
Link Distance (ft)	468			61	755		
Travel Time (s)	10.6			1.4	17.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	5	3	0	339	375	0	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	5	3	0	339	375	0	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	Right	
Median Width(ft)	12			0	0		
Link Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9	15			9	
Number of Detectors	1	1		2	2		
Detector Template	Left	Right		Thru	Thru		
Leading Detector (ft)	20	20		100	100		
Trailing Detector (ft)	0	0		0	0		
Detector 1 Position(ft)	0	0		0	0		
Detector 1 Size(ft)	20	20		6	6		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel							
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		
Detector 2 Position(ft)				94	94		
Detector 2 Size(ft)				6	6		
Detector 2 Type				Cl+Ex	Cl+Ex		
Detector 2 Channel							
Detector 2 Extend (s)				0.0	0.0		
Turn Type	Prot	Perm		NA	NA		
Protected Phases	4			2	6		8
Permitted Phases		4					

Lanes, Volumes, Timings

17: Fillmore Ave & East Park

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Detector Phase	4	4		2	6		
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5
Total Split (s)	27.0	27.0		23.0	23.0		27.0
Total Split (%)	54.0%	54.0%		46.0%	46.0%		54%
Maximum Green (s)	22.5	22.5		18.5	18.5		22.5
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		
Total Lost Time (s)	4.5	4.5		4.5	4.5		
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0
Recall Mode	None	None		C-Max	C-Max		None
Walk Time (s)	7.0	7.0		7.0	7.0		7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0
Pedestrian Calls (#/hr)	0	0		0	0		0
Act Effect Green (s)	21.3	21.3		19.7	19.7		
Actuated g/C Ratio	0.43	0.43		0.39	0.39		
v/c Ratio	0.01	0.00		0.46	0.27		
Control Delay	7.6	5.7		7.6	11.4		
Queue Delay	0.0	0.0		0.0	0.0		
Total Delay	7.6	5.7		7.6	11.5		
LOS	A	A		A	B		
Approach Delay	6.9			7.6	11.5		
Approach LOS	A			A	B		

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 9.6

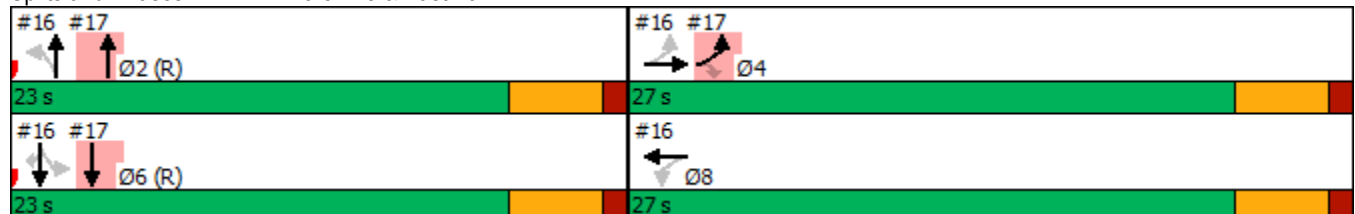
Intersection LOS: A

Intersection Capacity Utilization 28.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Fillmore Ave & East Park



Lanes, Volumes, Timings
18: Fillmore Ave & MLK Park

03/10/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	12	22	0	249	316	0
Future Volume (vph)	12	22	0	249	316	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr't	0.850					
Flt Protected	0.950					
Satd. Flow (prot)	1770	1583	0	1863	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1583	0	1863	1863	0
Right Turn on Red	Yes					
Satd. Flow (RTOR)	24					
Link Speed (mph)	30			30	30	
Link Distance (ft)	526			755	579	
Travel Time (s)	12.0			17.2	13.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	24	0	271	343	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	13	24	0	271	343	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	Prot	Perm		NA	NA	
Protected Phases	4			2	6	
Permitted Phases	4					
Minimum Split (s)	22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	
Act Effect Green (s)	18.0	18.0		18.0	18.0	
Actuated g/C Ratio	0.40	0.40		0.40	0.40	
v/c Ratio	0.02	0.04		0.36	0.46	
Control Delay	8.3	4.5		11.3	12.5	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	8.3	4.5		11.3	12.5	

Lanes, Volumes, Timings

18: Fillmore Ave & MLK Park

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
LOS	A	A		B	B	
Approach Delay	5.8			11.3	12.5	
Approach LOS	A			B	B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 11.6

Intersection LOS: B

Intersection Capacity Utilization 28.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Fillmore Ave & MLK Park

Ø2 (R) 22.5 s	Ø4 22.5 s
Ø6 (R) 22.5 s	

Lanes, Volumes, Timings
19: Fillmore Ave & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	57	10	13	35	10	11	208	25	47	473	84
Future Volume (vph)	16	57	10	13	35	10	11	208	25	47	473	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.983			0.976			0.986			0.981	
Flt Protected		0.991			0.989			0.998			0.996	
Satd. Flow (prot)	0	1815	0	0	1798	0	0	1833	0	0	1820	0
Flt Permitted		0.918			0.939			0.974			0.962	
Satd. Flow (perm)	0	1681	0	0	1707	0	0	1789	0	0	1758	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			11			15			21	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1089			291			579			735	
Travel Time (s)		24.8			6.6			13.2			16.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	62	11	14	38	11	12	226	27	51	514	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	90	0	0	63	0	0	265	0	0	656	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	0		1	0		1	0	
Detector Template	Left			Left			Left	Thru		Left		
Leading Detector (ft)	20	10		20	0		20	0		20	0	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	10		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.6	22.6		22.6	22.6		37.4	37.4		37.4	37.4	
Total Split (%)	37.7%	37.7%		37.7%	37.7%		62.3%	62.3%		62.3%	62.3%	
Maximum Green (s)	18.1	18.1		18.1	18.1		32.9	32.9		32.9	32.9	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	

Lanes, Volumes, Timings
19: Fillmore Ave & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		7.8			7.7			41.6			41.6	
Actuated g/C Ratio		0.15			0.15			0.79			0.79	
v/c Ratio		0.35			0.24			0.19			0.47	
Control Delay		21.1			18.5			3.3			5.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		21.1			18.5			3.3			5.2	
LOS		C			B			A			A	
Approach Delay		21.1			18.5			3.3			5.2	
Approach LOS		C			B			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 52.4

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 6.9

Intersection LOS: A

Intersection Capacity Utilization 60.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 19: Fillmore Ave & Northhampton St

 Ø2	 Ø4
37.4 s	22.6 s
 Ø6	 Ø8
37.4 s	22.6 s

Lanes, Volumes, Timings
21: Fillmore Ave & Riley St/Urban St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	0	2	2	0	10	3	346	3	22	619	0
Future Volume (vph)	5	0	2	2	0	10	3	346	3	22	619	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.961			0.873			0.999				
Flt Protected		0.966			0.992						0.998	
Satd. Flow (prot)	0	1729	0	0	3065	0	0	1861	0	0	1859	0
Flt Permitted					0.955			0.997			0.984	
Satd. Flow (perm)	0	1790	0	0	2951	0	0	1855	0	0	1833	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			452			1				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			639			735			422	
Travel Time (s)		24.6			14.5			16.7			9.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	0	2	2	0	11	3	376	3	24	673	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	7	0	0	13	0	0	382	0	0	697	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			50			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	0		1	0	
Detector Template	Left	Thru		Left	Thru		Left			Left		
Leading Detector (ft)	20	100		20	100		20	0		20	0	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	

Lanes, Volumes, Timings
21: Fillmore Ave & Riley St/Urban St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		37.5	37.5		37.5	37.5	
Total Split (%)	37.5%	37.5%		37.5%	37.5%		62.5%	62.5%		62.5%	62.5%	
Maximum Green (s)	18.0	18.0		18.0	18.0		33.0	33.0		33.0	33.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		5.6			5.6			51.9			51.9	
Actuated g/C Ratio		0.10			0.10			0.95			0.95	
v/c Ratio		0.03			0.02			0.22			0.40	
Control Delay		3.0			0.1			1.0			1.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		3.0			0.1			1.0			1.7	
LOS		A			A			A			A	
Approach Delay		3.0			0.1			1.0			1.7	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 54.5

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.40

Intersection Signal Delay: 1.5

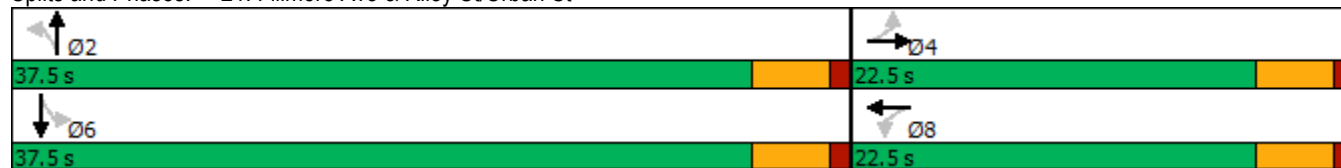
Intersection LOS: A

Intersection Capacity Utilization 59.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 21: Fillmore Ave & Riley St/Urban St



Lanes, Volumes, Timings
22: Fillmore Ave & French St

03/10/2022

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	19	54	346	5	62	462
Future Volume (vph)	19	54	346	5	62	462
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.900		0.998			
Flt Protected	0.987					0.994
Satd. Flow (prot)	1655	0	1859	0	0	1852
Flt Permitted	0.987					0.919
Satd. Flow (perm)	1655	0	1859	0	0	1712
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	59		2			
Link Speed (mph)	30		30			30
Link Distance (ft)	600		422			182
Travel Time (s)	13.6		9.6			4.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	21	59	376	5	67	502
Shared Lane Traffic (%)						
Lane Group Flow (vph)	80	0	381	0	0	569
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		32.5		32.5	32.5
Total Split (%)	40.9%		59.1%		59.1%	59.1%
Maximum Green (s)	18.0		28.0		28.0	28.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0		7.0		7.0	7.0
Flash Dont Walk (s)	11.0		11.0		11.0	11.0
Pedestrian Calls (#/hr)	0		0		0	0
Act Effct Green (s)	18.0		28.0			28.0
Actuated g/C Ratio	0.33		0.51			0.51
v/c Ratio	0.14		0.40			0.65
Control Delay	6.7		9.9			14.4
Queue Delay	0.0		0.0			53.7
Total Delay	6.7		9.9			68.1

Lanes, Volumes, Timings

22: Fillmore Ave & French St

03/10/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
LOS	A		A			E
Approach Delay	6.7		9.9			68.1
Approach LOS	A		A			E

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 55

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Pretimed

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 41.8

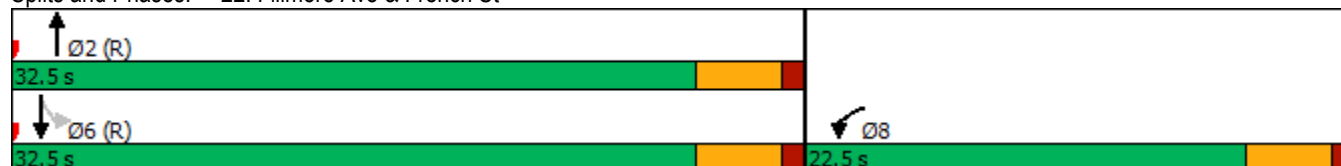
Intersection LOS: D

Intersection Capacity Utilization 61.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 22: Fillmore Ave & French St



Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	43	66	55	260	594	142
Future Volume (vph)	43	66	55	260	594	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.918				0.974	
Flt Protected	0.981			0.991		
Satd. Flow (prot)	1678	0	0	1846	1814	0
Flt Permitted	0.981			0.640		
Satd. Flow (perm)	1678	0	0	1192	1814	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	72				32	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1076			182	1350	
Travel Time (s)	24.5			4.1	30.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	47	72	60	283	646	154
Shared Lane Traffic (%)						
Lane Group Flow (vph)	119	0	0	343	800	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		37.5	37.5	37.5	
Total Split (%)	37.5%		62.5%	62.5%	62.5%	
Maximum Green (s)	18.0		33.0	33.0	33.0	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0		7.0	7.0	7.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Act Effect Green (s)	18.0			33.0	33.0	
Actuated g/C Ratio	0.30			0.55	0.55	
v/c Ratio	0.22			0.52	0.79	
Control Delay	8.8			12.2	17.9	
Queue Delay	0.0			9.5	0.0	
Total Delay	8.8			21.7	17.9	

Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
LOS	A			C	B	
Approach Delay	8.8			21.7	17.9	
Approach LOS	A			C	B	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 18.1

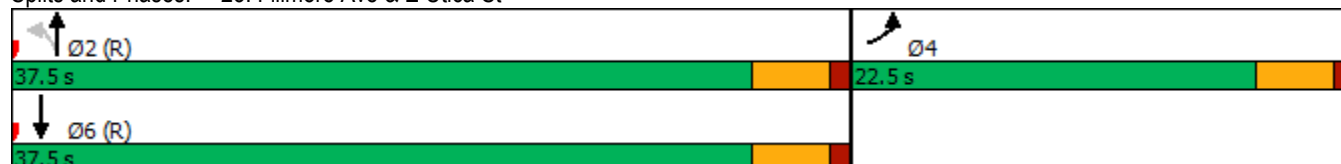
Intersection LOS: B

Intersection Capacity Utilization 74.3%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 23: Fillmore Ave & E Utica St



Lanes, Volumes, Timings
24: Fillmore Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	259	71	29	193	47	45	367	77	44	369	83
Future Volume (vph)	62	259	71	29	193	47	45	367	77	44	369	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.973			0.974			0.976			0.975	
Flt Protected		0.992			0.995			0.995			0.996	
Satd. Flow (prot)	0	3416	0	0	3430	0	0	3437	0	0	3437	0
Flt Permitted		0.851			0.875			0.879			0.883	
Satd. Flow (perm)	0	2931	0	0	3016	0	0	3036	0	0	3047	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		70			51			57			62	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1081			797			1350			1620	
Travel Time (s)		24.6			18.1			30.7			36.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	67	282	77	32	210	51	49	399	84	48	401	90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	426	0	0	293	0	0	532	0	0	539	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		

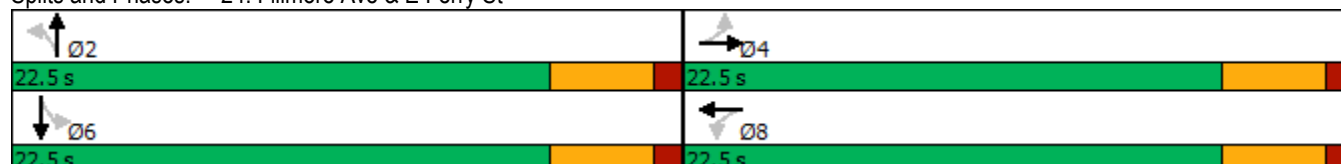
Lanes, Volumes, Timings

24: Fillmore Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		10.1			10.1			18.1			18.1	
Actuated g/C Ratio		0.27			0.27			0.49			0.49	
v/c Ratio		0.50			0.34			0.35			0.36	
Control Delay		11.4			9.8			6.7			6.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.4			9.8			6.7			6.7	
LOS		B			A			A			A	
Approach Delay		11.4			9.8			6.7			6.7	
Approach LOS		B			A			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 45												
Actuated Cycle Length: 37.3												
Natural Cycle: 45												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.50												
Intersection Signal Delay: 8.3							Intersection LOS: A					
Intersection Capacity Utilization 61.9%							ICU Level of Service B					
Analysis Period (min) 15												

Splits and Phases: 24: Fillmore Ave & E Ferry St



Lanes, Volumes, Timings
25: Fillmore Ave & Northland Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	42	15	21	41	7	4	316	48	51	439	12
Future Volume (vph)	5	42	15	21	41	7	4	316	48	51	439	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.968			0.986			0.982			0.997	
Flt Protected		0.996			0.985			0.999			0.995	
Satd. Flow (prot)	0	1796	0	0	1809	0	0	1827	0	0	1848	0
Flt Permitted		0.986			0.925			0.995			0.930	
Satd. Flow (perm)	0	1778	0	0	1699	0	0	1820	0	0	1727	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			8			20			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1020			890			1620			1011	
Travel Time (s)		23.2			20.2			36.8			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	46	16	23	45	8	4	343	52	55	477	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	67	0	0	76	0	0	399	0	0	545	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		27.5	27.5		27.5	27.5	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		55.0%	55.0%		55.0%	55.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		23.0	23.0		23.0	23.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			23.0			23.0	
Actuated g/C Ratio		0.36			0.36			0.46			0.46	
v/c Ratio		0.10			0.12			0.47			0.68	
Control Delay		9.2			10.5			11.1			16.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.2			10.5			11.1			16.1	

Lanes, Volumes, Timings

25: Fillmore Ave & Northland Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			B			B			B	
Approach Delay		9.2			10.5			11.1			16.1	
Approach LOS		A			B			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Pretimed

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 13.4

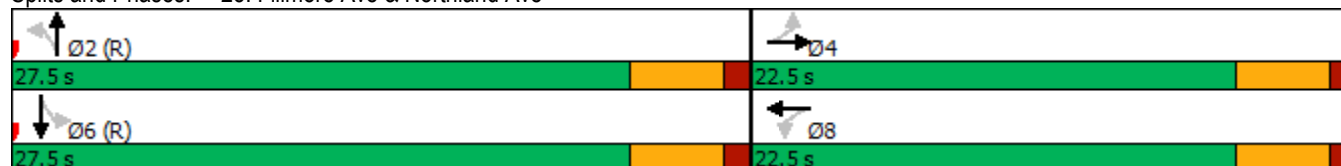
Intersection LOS: B

Intersection Capacity Utilization 66.8%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 25: Fillmore Ave & Northland Ave



Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	140	17	30	160	32	25	260	35	81	414	85
Future Volume (vph)	70	140	17	30	160	32	25	260	35	81	414	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.980			0.985			0.980	
Flt Protected		0.985			0.993			0.996			0.993	
Satd. Flow (prot)	0	1816	0	0	1813	0	0	1827	0	0	1813	0
Flt Permitted		0.841			0.933			0.940			0.904	
Satd. Flow (perm)	0	1551	0	0	1703	0	0	1725	0	0	1650	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			15			16			23	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		928			735			1011			742	
Travel Time (s)		21.1			16.7			23.0			16.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	152	18	33	174	35	27	283	38	88	450	92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	246	0	0	242	0	0	348	0	0	630	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.6	22.6		22.6	22.6		37.4	37.4		37.4	37.4	
Total Split (%)	37.7%	37.7%		37.7%	37.7%		62.3%	62.3%		62.3%	62.3%	
Maximum Green (s)	18.1	18.1		18.1	18.1		32.9	32.9		32.9	32.9	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.1			18.1			32.9			32.9	
Actuated g/C Ratio		0.30			0.30			0.55			0.55	
v/c Ratio		0.52			0.46			0.37			0.69	
Control Delay		21.6			19.4			8.6			14.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		21.6			19.4			8.6			14.4	

Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		C			B			A			B	
Approach Delay		21.6			19.4			8.6			14.4	
Approach LOS		C			B			A			B	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 15.0

Intersection LOS: B

Intersection Capacity Utilization 81.1%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 26: Fillmore Ave & E Delavan Ave

 Ø2 (R)	 Ø4
37.4 s	22.6 s
 Ø6 (R)	 Ø8
37.4 s	22.6 s

Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	299	176	0	0	258	21	18	61	29	0	0	0
Future Volume (vph)	299	176	0	0	258	21	18	61	29	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	0		150	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.989				0.850			
Flt Protected		0.969						0.989				
Satd. Flow (prot)	0	3429	0	0	3500	0	0	1842	1583	0	0	0
Flt Permitted		0.668						0.989				
Satd. Flow (perm)	0	2364	0	0	3500	0	0	1842	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					23				36			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		310			928			1019			213	
Travel Time (s)		7.0			21.1			23.2			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	325	191	0	0	280	23	20	66	32	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	516	0	0	303	0	0	86	32	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Maximum Green (s)	18.0	18.0			18.0		18.0	18.0	18.0			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)		0.0			0.0			0.0	0.0			
Total Lost Time (s)		4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0			7.0		7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0	11.0			
Pedestrian Calls (#/hr)	0	0			0		0	0	0			
Act Effct Green (s)		18.0			18.0			18.0	18.0			
Actuated g/C Ratio		0.40			0.40			0.40	0.40			
v/c Ratio		0.55			0.21			0.12	0.05			

Lanes, Volumes, Timings

27: Humboldt Parkway NB & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		13.1			8.7			9.1	3.8			
Queue Delay		0.0			0.0			0.0	0.0			
Total Delay		13.1			8.7			9.1	3.8			
LOS		B			A			A	A			
Approach Delay		13.1			8.7			7.7				
Approach LOS		B			A			A				

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 11.0

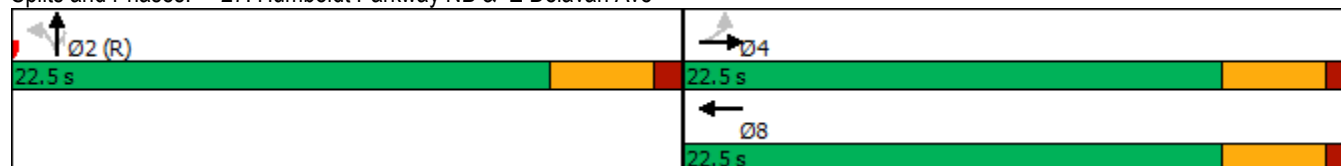
Intersection LOS: B

Intersection Capacity Utilization 39.8%

ICU Level of Service A

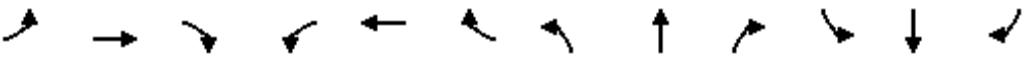
Analysis Period (min) 15

Splits and Phases: 27: Humboldt Parkway NB & E Delavan Ave



Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			↱↱						↱	↱
Traffic Volume (vph)	0	450	30	93	181	0	0	0	0	44	47	19
Future Volume (vph)	0	450	30	93	181	0	0	0	0	44	47	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991										0.850
Flt Protected					0.983						0.976	
Satd. Flow (prot)	0	1846	0	0	3479	0	0	0	0	0	1818	1583
Flt Permitted					0.676						0.976	
Satd. Flow (perm)	0	1846	0	0	2393	0	0	0	0	0	1818	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9										33
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2669			310			684			864	
Travel Time (s)		60.7			7.0			15.5			19.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	489	33	101	197	0	0	0	0	48	51	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	522	0	0	298	0	0	0	0	0	99	21
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		27.0		27.0	27.0					23.0	23.0	23.0
Total Split (%)		54.0%		54.0%	54.0%					46.0%	46.0%	46.0%
Maximum Green (s)		22.5		22.5	22.5					18.5	18.5	18.5
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0						0.0	0.0
Total Lost Time (s)		4.5			4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)		7.0		7.0	7.0					7.0	7.0	7.0
Flash Dont Walk (s)		11.0		11.0	11.0					11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0					0	0	0
Act Effect Green (s)		22.5			22.5						18.5	18.5
Actuated g/C Ratio		0.45			0.45						0.37	0.37
v/c Ratio		0.63			0.28						0.15	0.03

Lanes, Volumes, Timings

28: Humboldt Parkway SB & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		14.4			9.5						11.3	3.6
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		14.4			9.5						11.3	3.6
LOS		B			A						B	A
Approach Delay		14.4			9.5						9.9	
Approach LOS		B			A						A	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 0 (0%), Referenced to phase 2: and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Pretimed

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 12.3

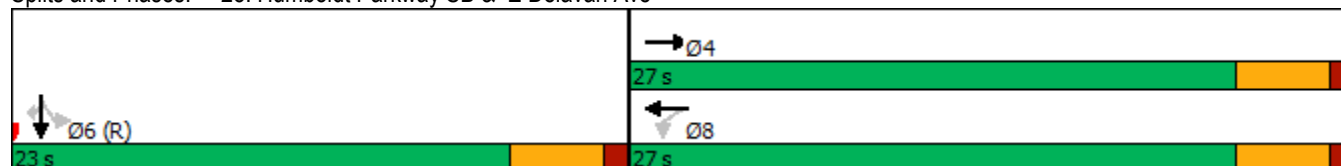
Intersection LOS: B

Intersection Capacity Utilization 49.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 28: Humboldt Parkway SB & E Delavan Ave



Lanes, Volumes, Timings
29: Jefferson Ave & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	365	32	22	116	13	36	117	65	6	97	107
Future Volume (vph)	41	365	32	22	116	13	36	117	65	6	97	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.988			0.960			0.931	
Flt Protected		0.995			0.993			0.992			0.998	
Satd. Flow (prot)	0	1835	0	0	1828	0	0	1774	0	0	1731	0
Flt Permitted		0.960			0.910			0.926			0.990	
Satd. Flow (perm)	0	1770	0	0	1675	0	0	1656	0	0	1717	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			12			57			116	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		592			2669			1017			352	
Travel Time (s)		13.5			60.7			23.1			8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	397	35	24	126	14	39	127	71	7	105	116
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	477	0	0	164	0	0	237	0	0	228	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.67			0.24			0.34			0.30	
Control Delay		16.6			9.5			16.9			6.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		16.6			9.5			16.9			6.1	

Lanes, Volumes, Timings

29: Jefferson Ave & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			A			B			A	
Approach Delay		16.6			9.5			16.9			6.1	
Approach LOS		B			A			B			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 13.4

Intersection LOS: B

Intersection Capacity Utilization 63.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 29: Jefferson Ave & E Delavan Ave

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
30: Jefferson Ave & Northland Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	21	10	20	7	20	13	165	10	14	163	17
Future Volume (vph)	14	21	10	20	7	20	13	165	10	14	163	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970			0.943			0.993			0.988	
Flt Protected		0.985			0.979			0.997			0.996	
Satd. Flow (prot)	0	1780	0	0	1720	0	0	1844	0	0	1833	0
Flt Permitted		0.938			0.909			0.977			0.976	
Satd. Flow (perm)	0	1695	0	0	1597	0	0	1807	0	0	1796	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			22			8			12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		806			2743			848			1017	
Travel Time (s)		18.3			62.3			19.3			23.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	23	11	22	8	22	14	179	11	15	177	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	0	52	0	0	204	0	0	210	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.07			0.08			0.28			0.29	
Control Delay		7.4			6.3			21.3			10.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		7.4			6.3			21.3			10.4	

Lanes, Volumes, Timings

30: Jefferson Ave & Northland Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			A			C			B	
Approach Delay		7.4			6.3			21.3			10.4	
Approach LOS		A			A			C			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.29

Intersection Signal Delay: 14.0

Intersection LOS: B

Intersection Capacity Utilization 25.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 30: Jefferson Ave & Northland Ave

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
31: Jefferson Ave & Brunswick Blvd

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	27	21	174	28	12	177
Future Volume (vph)	27	21	174	28	12	177
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.940		0.982			
Flt Protected	0.973					0.997
Satd. Flow (prot)	1704	0	1829	0	0	1857
Flt Permitted	0.973					0.978
Satd. Flow (perm)	1704	0	1829	0	0	1822
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	23		21			
Link Speed (mph)	30		30			30
Link Distance (ft)	2734		751			848
Travel Time (s)	62.1		17.1			19.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	23	189	30	13	192
Shared Lane Traffic (%)						
Lane Group Flow (vph)	52	0	219	0	0	205
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%	50.0%
Maximum Green (s)	18.0		18.0		18.0	18.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0		7.0		7.0	7.0
Flash Dont Walk (s)	11.0		11.0		11.0	11.0
Pedestrian Calls (#/hr)	0		0		0	0
Act Effct Green (s)	18.0		18.0			18.0
Actuated g/C Ratio	0.40		0.40			0.40
v/c Ratio	0.07		0.29			0.28
Control Delay	6.2		9.6			21.5
Queue Delay	0.0		0.0			0.0
Total Delay	6.2		9.6			21.5

Lanes, Volumes, Timings

31: Jefferson Ave & Brunswick Blvd

03/10/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
LOS	A		A			C
Approach Delay	6.2		9.6			21.5
Approach LOS	A		A			C

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.29

Intersection Signal Delay: 14.3

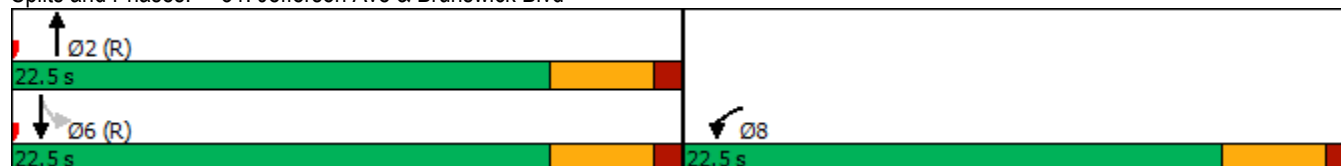
Intersection LOS: B

Intersection Capacity Utilization 30.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 31: Jefferson Ave & Brunswick Blvd



Lanes, Volumes, Timings
32: Jefferson Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	258	55	55	546	47	52	157	33	28	177	32
Future Volume (vph)	34	258	55	55	546	47	52	157	33	28	177	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.990			0.982			0.982	
Flt Protected		0.995			0.996			0.989			0.994	
Satd. Flow (prot)	0	1815	0	0	1837	0	0	1809	0	0	1818	0
Flt Permitted		0.908			0.942			0.896			0.942	
Satd. Flow (perm)	0	1656	0	0	1737	0	0	1639	0	0	1723	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			10			14			14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			194			1406			751	
Travel Time (s)		7.5			4.4			32.0			17.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	280	60	60	593	51	57	171	36	30	192	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	377	0	0	704	0	0	264	0	0	257	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	37.0	37.0		37.0	37.0		23.0	23.0		23.0	23.0	
Total Split (%)	61.7%	61.7%		61.7%	61.7%		38.3%	38.3%		38.3%	38.3%	
Maximum Green (s)	32.5	32.5		32.5	32.5		18.5	18.5		18.5	18.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		32.5			32.5			18.5			18.5	
Actuated g/C Ratio		0.54			0.54			0.31			0.31	
v/c Ratio		0.42			0.74			0.51			0.48	
Control Delay		9.3			16.7			20.3			19.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.3			16.7			20.3			19.4	

Lanes, Volumes, Timings 32: Jefferson Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			B			C			B	
Approach Delay		9.3			16.7			20.3			19.4	
Approach LOS		A			B			C			B	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 16.0

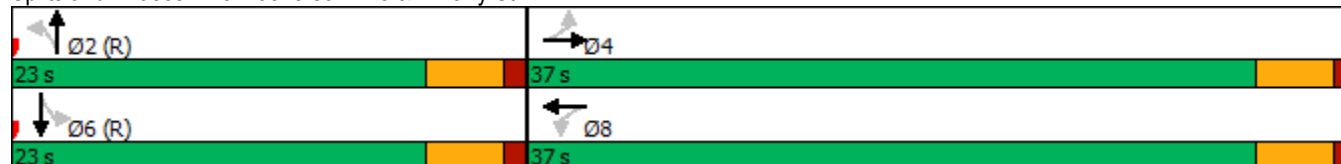
Intersection LOS: B

Intersection Capacity Utilization 73.6%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 32: Jefferson Ave & E Ferry St



Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	118	44	28	122	15	41	266	18	14	279	30
Future Volume (vph)	12	118	44	28	122	15	41	266	18	14	279	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.988			0.992			0.987	
Flt Protected		0.997			0.992			0.994			0.998	
Satd. Flow (prot)	0	1794	0	0	1826	0	0	1837	0	0	1835	0
Flt Permitted		0.979			0.937			0.922			0.979	
Satd. Flow (perm)	0	1762	0	0	1724	0	0	1704	0	0	1800	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		45			13			8			14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1023			1295			630			1406	
Travel Time (s)		23.3			29.4			14.3			32.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	128	48	30	133	16	45	289	20	15	303	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	189	0	0	179	0	0	354	0	0	351	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.26			0.26			0.52			0.48	
Control Delay		8.1			9.6			17.9			12.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.1			9.6			17.9			12.4	

Lanes, Volumes, Timings

33: Jefferson Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			A			B			B	
Approach Delay		8.1			9.6			17.9			12.4	
Approach LOS		A			A			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 13.0

Intersection LOS: B

Intersection Capacity Utilization 54.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 33: Jefferson Ave & E Utica St

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
34: Jefferson Ave & Riley St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	26	15	9	16	5	17	312	13	2	349	15
Future Volume (vph)	9	26	15	9	16	5	17	312	13	2	349	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.979			0.995			0.995	
Flt Protected		0.991			0.985			0.998				
Satd. Flow (prot)	0	1772	0	0	1796	0	0	1850	0	0	1853	0
Flt Permitted		0.967			0.943			0.973			0.998	
Satd. Flow (perm)	0	1729	0	0	1720	0	0	1803	0	0	1850	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			5			5			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		870			1108			418			630	
Travel Time (s)		19.8			25.2			9.5			14.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	28	16	10	17	5	18	339	14	2	379	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	54	0	0	32	0	0	371	0	0	397	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.08			0.05			0.51			0.53	
Control Delay		6.9			7.7			13.2			16.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		6.9			7.7			13.2			16.2	

Lanes, Volumes, Timings

34: Jefferson Ave & Riley St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			A			B			B	
Approach Delay		6.9			7.7			13.2			16.2	
Approach LOS		A			A			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.53

Intersection Signal Delay: 14.0

Intersection LOS: B

Intersection Capacity Utilization 40.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 34: Jefferson Ave & Riley St

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
35: Jefferson Ave & Northampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	53	11	15	65	11	21	254	6	15	429	26
Future Volume (vph)	11	53	11	15	65	11	21	254	6	15	429	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.984			0.997			0.993	
Flt Protected		0.993			0.992			0.996			0.998	
Satd. Flow (prot)	0	1813	0	0	1818	0	0	1850	0	0	1846	0
Flt Permitted		0.965			0.960			0.951			0.987	
Satd. Flow (perm)	0	1762	0	0	1760	0	0	1766	0	0	1826	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			12			3			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1340			1290			1156			278	
Travel Time (s)		30.5			29.3			26.3			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	58	12	16	71	12	23	276	7	16	466	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	82	0	0	99	0	0	306	0	0	510	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		27.5	27.5		27.5	27.5	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		55.0%	55.0%		55.0%	55.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		23.0	23.0		23.0	23.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			23.0			23.0	
Actuated g/C Ratio		0.36			0.36			0.46			0.46	
v/c Ratio		0.13			0.15			0.38			0.60	
Control Delay		10.2			10.6			10.4			6.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.2			10.6			10.4			6.4	

Lanes, Volumes, Timings

35: Jefferson Ave & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			B			B			A	
Approach Delay		10.2			10.6			10.4			6.4	
Approach LOS		B			B			B			A	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Pretimed

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 8.4

Intersection LOS: A

Intersection Capacity Utilization 42.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 35: Jefferson Ave & Northhampton St

 Ø2 (R)	 Ø4
27.5 s	22.5 s
 Ø6 (R)	 Ø8
27.5 s	22.5 s

Lanes, Volumes, Timings
36: Jefferson Ave & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	337	37	46	404	57	27	194	59	70	296	39
Future Volume (vph)	19	337	37	46	404	57	27	194	59	70	296	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.986			0.983			0.968			0.986	
Flt Protected		0.998			0.995			0.995			0.991	
Satd. Flow (prot)	0	3483	0	0	3462	0	0	3409	0	0	3458	0
Flt Permitted		0.919			0.887			0.896			0.849	
Satd. Flow (perm)	0	3207	0	0	3086	0	0	3070	0	0	2963	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29			36			64			29	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		169			169			156			165	
Travel Time (s)		3.8			3.8			3.5			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	21	366	40	50	439	62	29	211	64	76	322	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	427	0	0	551	0	0	304	0	0	440	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.33			0.44			0.24			0.37	
Control Delay		9.5			10.5			7.6			9.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.5			10.5			7.6			9.9	

Lanes, Volumes, Timings 36: Jefferson Ave & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			B			A			A	
Approach Delay		9.5			10.5			7.6			9.9	
Approach LOS		A			B			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.44

Intersection Signal Delay: 9.6

Intersection LOS: A

Intersection Capacity Utilization 59.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 36: Jefferson Ave & Best St

			
Ø2 (R)			Ø4
22.5 s			22.5 s
			
Ø6 (R)			Ø8
22.5 s			22.5 s

Lanes, Volumes, Timings
37: Jefferson Ave & E North St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	63	80	164	157	338	89
Future Volume (vph)	63	80	164	157	338	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.924				0.972	
Flt Protected	0.979			0.975		
Satd. Flow (prot)	1685	0	0	1816	1811	0
Flt Permitted	0.979			0.571		
Satd. Flow (perm)	1685	0	0	1064	1811	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	87				35	
Link Speed (mph)	30			30	30	
Link Distance (ft)	879			684	486	
Travel Time (s)	20.0			15.5	11.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	68	87	178	171	367	97
Shared Lane Traffic (%)						
Lane Group Flow (vph)	155	0	0	349	464	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		37.5	37.5	37.5	
Total Split (%)	37.5%		62.5%	62.5%	62.5%	
Maximum Green (s)	18.0		33.0	33.0	33.0	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0		7.0	7.0	7.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Act Effect Green (s)	18.0			33.0	33.0	
Actuated g/C Ratio	0.30			0.55	0.55	
v/c Ratio	0.27			0.60	0.46	
Control Delay	9.4			14.4	9.3	
Queue Delay	0.0			0.0	0.0	
Total Delay	9.4			14.4	9.3	

Lanes, Volumes, Timings

37: Jefferson Ave & E North St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
LOS	A			B	A	
Approach Delay	9.4			14.4	9.3	
Approach LOS	A			B	A	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 11.1

Intersection LOS: B

Intersection Capacity Utilization 60.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 37: Jefferson Ave & E North St

 Ø2 (R) 37.5 s	 Ø4 22.5 s
 Ø6 (R) 37.5 s	

Lanes, Volumes, Timings
38: Jefferson Ave & High St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	30	70	20	73	34	149	270	29	11	301	18
Future Volume (vph)	2	30	70	20	73	34	149	270	29	11	301	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.908			0.964			0.991			0.992	
Flt Protected		0.999			0.992			0.984			0.998	
Satd. Flow (prot)	0	1690	0	0	1781	0	0	1816	0	0	1844	0
Flt Permitted		0.996			0.952			0.781			0.983	
Satd. Flow (perm)	0	1685	0	0	1709	0	0	1442	0	0	1816	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		76			36			9			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		840			1233			880			684	
Travel Time (s)		19.1			28.0			20.0			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	33	76	22	79	37	162	293	32	12	327	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	111	0	0	138	0	0	487	0	0	359	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.6	22.6		22.6	22.6		32.4	32.4		32.4	32.4	
Total Split (%)	41.1%	41.1%		41.1%	41.1%		58.9%	58.9%		58.9%	58.9%	
Maximum Green (s)	18.1	18.1		18.1	18.1		27.9	27.9		27.9	27.9	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.1			18.1			27.9			27.9	
Actuated g/C Ratio		0.33			0.33			0.51			0.51	
v/c Ratio		0.18			0.24			0.66			0.39	
Control Delay		6.9			11.5			15.3			9.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		6.9			11.5			15.3			9.7	

Lanes, Volumes, Timings
38: Jefferson Ave & High St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			B			B			A	
Approach Delay		6.9			11.5			15.3			9.7	
Approach LOS		A			B			B			A	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 55

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Pretimed

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 12.1

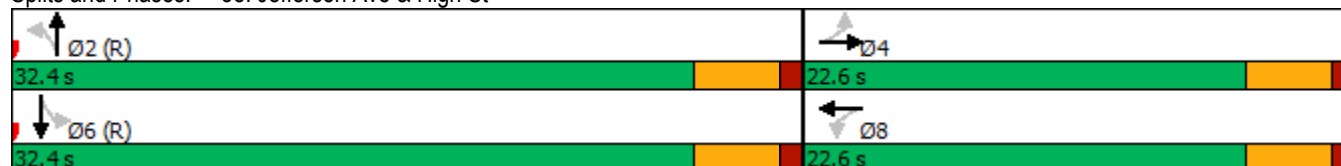
Intersection LOS: B

Intersection Capacity Utilization 66.7%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 38: Jefferson Ave & High St



Lanes, Volumes, Timings
39: Wohlers Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	428	5	41	767	87	16	47	83	0	0	0
Future Volume (vph)	33	428	5	41	767	87	16	47	83	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.987			0.923				
Flt Protected		0.996			0.998			0.995				
Satd. Flow (prot)	0	1853	0	0	1835	0	0	1711	0	0	1863	0
Flt Permitted		0.905			0.963			0.977				
Satd. Flow (perm)	0	1684	0	0	1771	0	0	1680	0	0	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			14			90				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		280			1165			1336			278	
Travel Time (s)		6.4			26.5			30.4			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	36	465	5	45	834	95	17	51	90	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	506	0	0	974	0	0	158	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	47.0	47.0		47.0	47.0		23.0	23.0		23.0	23.0	
Total Split (%)	67.1%	67.1%		67.1%	67.1%		32.9%	32.9%		32.9%	32.9%	
Maximum Green (s)	42.5	42.5		42.5	42.5		18.5	18.5		18.5	18.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		42.5			42.5			18.5				
Actuated g/C Ratio		0.61			0.61			0.26				
v/c Ratio		0.50			0.90			0.31				
Control Delay		9.8			25.8			11.7				
Queue Delay		0.0			0.0			0.0				
Total Delay		9.8			25.8			11.7				

Lanes, Volumes, Timings

39: Wohlers Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			C			B				
Approach Delay		9.8			25.8			11.7				
Approach LOS		A			C			B				

Intersection Summary

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 70

Control Type: Pretimed

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 19.5

Intersection LOS: B

Intersection Capacity Utilization 72.8%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 39: Wohlers Ave & E Ferry St



Lanes, Volumes, Timings
40: Wohlers Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	131	11	4	127	16	6	87	51	3	34	13
Future Volume (vph)	16	131	11	4	127	16	6	87	51	3	34	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991			0.986			0.953			0.965	
Flt Protected		0.995			0.999			0.998			0.997	
Satd. Flow (prot)	0	1837	0	0	1835	0	0	1772	0	0	1792	0
Flt Permitted		0.969			0.994			0.992			0.988	
Satd. Flow (perm)	0	1789	0	0	1826	0	0	1761	0	0	1776	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			16			55			14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		274			1162			1331			1336	
Travel Time (s)		6.2			26.4			30.3			30.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	142	12	4	138	17	7	95	55	3	37	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	171	0	0	159	0	0	157	0	0	54	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.24			0.21			0.21			0.08	
Control Delay		9.5			8.9			7.0			7.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.5			8.9			7.0			7.2	

Lanes, Volumes, Timings

40: Wohlers Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			A			A			A	
Approach Delay		9.5			8.9			7.0			7.2	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.24

Intersection Signal Delay: 8.4

Intersection LOS: A

Intersection Capacity Utilization 32.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 40: Wohlers Ave & E Utica St

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
41: Humboldt Parkway SB & Woodlawn Ave

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	521	43
Future Volume (vph)	0	0	0	0	521	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.990	
Flt Protected						
Satd. Flow (prot)	0	0	0	0	1844	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	0	1844	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	780			561	321	
Travel Time (s)	17.7			12.8	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	566	47
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	613	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 37.5%				ICU Level of Service A		
Analysis Period (min) 15						

Lanes, Volumes, Timings
42: Humboldt Parkway SB & Glenwood Ave

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↗	
Traffic Volume (vph)	0	31	0	0	522	0
Future Volume (vph)	0	31	0	0	522	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1863	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	750			457	561	
Travel Time (s)	17.0			10.4	12.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	34	0	0	567	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	34	0	0	567	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9		
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 37.5%				ICU Level of Service A		
Analysis Period (min) 15						

HCM 6th TWSC
42: Humboldt Parkway SB & Glenwood Ave

03/10/2022

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↖	
Traffic Vol, veh/h	0	31	0	0	522	0
Future Vol, veh/h	0	31	0	0	522	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	34	0	0	567	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	567	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	523	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	523	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	12.4		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	523	-				
HCM Lane V/C Ratio	0.064	-				
HCM Control Delay (s)	12.4	-				
HCM Lane LOS	B	-				
HCM 95th %tile Q(veh)	0.2	-				

Lanes, Volumes, Timings
43: Humboldt Parkway SB & Riley St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	15	0	0	792	158
Future Volume (vph)	0	15	0	0	792	158
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.978	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1822	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1822	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	873			418	635	
Travel Time (s)	19.8			9.5	14.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	16	0	0	861	172
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	16	0	0	1033	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	61.3%			ICU Level of Service B		
Analysis Period (min)	15					

HCM 6th TWSC
43: Humboldt Parkway SB & Riley St

03/10/2022

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	15	0	0	792	158
Future Vol, veh/h	0	15	0	0	792	158
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	16	0	0	861	172
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	947	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	317	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	317	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	17		0			
HCM LOS	C					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	317	-	-			
HCM Lane V/C Ratio	0.051	-	-			
HCM Control Delay (s)	17	-	-			
HCM Lane LOS	C	-	-			
HCM 95th %tile Q(veh)	0.2	-	-			

Lanes, Volumes, Timings
44: Humboldt Parkway SB & Kinglsey St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	14	0	0	923	74
Future Volume (vph)	0	14	0	0	923	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.990	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1844	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1844	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	662			296	418	
Travel Time (s)	15.0			6.7	9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	15	0	0	1003	80
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	15	0	0	1083	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	63.1%			ICU Level of Service B		
Analysis Period (min)	15					

HCM 6th TWSC
44: Humboldt Parkway SB & Kinglsey St

03/10/2022

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	14	0	0	923	74
Future Vol, veh/h	0	14	0	0	923	74
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	15	0	0	1003	80

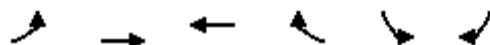
Major/Minor	Minor2	Major2
Conflicting Flow All	- 1043	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 279	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 279	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	18.6	0
HCM LOS	C	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	279	-	-
HCM Lane V/C Ratio	0.055	-	-
HCM Control Delay (s)	18.6	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	0.2	-	-

Lanes, Volumes, Timings
45: W Parade Ave

03/10/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↔	
Traffic Volume (vph)	0	102	63	0	54	33
Future Volume (vph)	0	102	63	0	54	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.949	
Flt Protected					0.970	
Satd. Flow (prot)	0	1863	1863	0	1715	0
Flt Permitted					0.970	
Satd. Flow (perm)	0	1863	1863	0	1715	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		199	98		717	
Travel Time (s)		4.5	2.2		16.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	111	68	0	59	36
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	111	68	0	95	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 17.0%				ICU Level of Service A		
Analysis Period (min) 15						

Intersection

Int Delay, s/veh 3.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↓	↓
Traffic Vol, veh/h	0	102	63	0	54	33
Future Vol, veh/h	0	102	63	0	54	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	111	68	0	59	36

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	0 179 68
Stage 1	-	-	- 68 -
Stage 2	-	-	- 111 -
Critical Hdwy	-	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	-	-	- 3.518 3.318
Pot Cap-1 Maneuver	0	-	0 811 995
Stage 1	0	-	0 955 -
Stage 2	0	-	0 914 -
Platoon blocked, %	-	-	
Mov Cap-1 Maneuver	-	-	- 811 995
Mov Cap-2 Maneuver	-	-	- 811 -
Stage 1	-	-	- 955 -
Stage 2	-	-	- 914 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	872
HCM Lane V/C Ratio	-	-	0.108
HCM Control Delay (s)	-	-	9.6
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0.4

Lanes, Volumes, Timings
46: Linden Park & Dodge St/W Parade Ave

03/10/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	101	1	5	93	1	1
Future Volume (vph)	101	1	5	93	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999				0.932	
Flt Protected				0.998	0.976	
Satd. Flow (prot)	1861	0	0	1859	1694	0
Flt Permitted				0.998	0.976	
Satd. Flow (perm)	1861	0	0	1859	1694	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	489			199	335	
Travel Time (s)	11.1			4.5	7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	110	1	5	101	1	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	111	0	0	106	2	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	19.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
46: Linden Park & Dodge St/W Parade Ave

03/10/2022

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	101	1	5	93	1	1
Future Vol, veh/h	101	1	5	93	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	110	1	5	101	1	1
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	111	0	222	111
Stage 1	-	-	-	-	111	-
Stage 2	-	-	-	-	111	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1479	-	766	942
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	914	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1479	-	763	942
Mov Cap-2 Maneuver	-	-	-	-	763	-
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	910	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0.4		9.3		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	843	-	-	1479	-	
HCM Lane V/C Ratio	0.003	-	-	0.004	-	
HCM Control Delay (s)	9.3	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Lanes, Volumes, Timings
47: Humboldt Parkway NB & Riley St

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	9	169	12	0	0
Future Volume (vph)	0	9	169	12	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.991			
Flt Protected						
Satd. Flow (prot)	0	1611	1846	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1846	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	1082		722			613
Travel Time (s)	24.6		16.4			13.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	10	184	13	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	10	197	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	19.6%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
47: Humboldt Parkway NB & Riley St

03/10/2022

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	9	169	12	0	0
Future Vol, veh/h	0	9	169	12	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	10	184	13	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	191	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	851	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	851	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	9.3		0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		851			
HCM Lane V/C Ratio	-		0.011			
HCM Control Delay (s)	-		9.3			
HCM Lane LOS	-		A			
HCM 95th %tile Q(veh)	-		0			

Lanes, Volumes, Timings
48: Humboldt Parkway NB & Woepfel St

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	4	325	6	0	0
Future Volume (vph)	0	4	325	6	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.997			
Flt Protected						
Satd. Flow (prot)	0	1611	1857	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1857	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	744		291			730
Travel Time (s)	16.9		6.6			16.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	4	353	7	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	4	360	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 27.5%	ICU Level of Service A					
Analysis Period (min) 15						

HCM 6th TWSC
48: Humboldt Parkway NB & Woepfel St

03/10/2022

Intersection

Int Delay, s/veh 0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	325	6	0	0
Future Vol, veh/h	0	4	325	6	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	353	7	0	0

Major/Minor	Minor1	Major1
Conflicting Flow All	- 357	0 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 687	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 687	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	WB	NB
HCM Control Delay, s	10.3	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBT	NBRWBLn1
Capacity (veh/h)	- -	687
HCM Lane V/C Ratio	- -	0.006
HCM Control Delay (s)	- -	10.3
HCM Lane LOS	- -	B
HCM 95th %tile Q(veh)	- -	0

Lanes, Volumes, Timings
49: Humboldt Parkway NB & Woodlawn Ave

03/10/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	13	319	11	0	0
Future Volume (vph)	0	13	319	11	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.995			
Flt Protected						
Satd. Flow (prot)	0	1611	1853	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1853	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	729		730			317
Travel Time (s)	16.6		16.6			7.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	14	347	12	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	14	359	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	27.5%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
49: Humboldt Parkway NB & Woodlawn Ave

03/10/2022

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	13	319	11	0	0
Future Vol, veh/h	0	13	319	11	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	14	347	12	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	353	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	691	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	691	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	10.3		0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		-		691	
HCM Lane V/C Ratio	-		-		0.02	
HCM Control Delay (s)	-		-		10.3	
HCM Lane LOS	-		-		B	
HCM 95th %tile Q(veh)	-		-		0.1	

Lanes, Volumes, Timings
50: Humboldt Parkway SB & Florida St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↰			↱	
Traffic Volume (vph)	0	25	0	0	257	15
Future Volume (vph)	0	25	0	0	257	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.993	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1850	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1850	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	935			344	684	
Travel Time (s)	21.3			7.8	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	27	0	0	279	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	27	0	0	295	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	24.4%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
50: Humboldt Parkway SB & Florida St

03/10/2022

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	25	0	0	257	15
Future Vol, veh/h	0	25	0	0	257	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	27	0	0	279	16
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	287	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	752	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	752	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	10		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	752	-	-			
HCM Lane V/C Ratio	0.036	-	-			
HCM Control Delay (s)	10	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
51: Humboldt Parkway SB & Northland Ave

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	54	0	0	286	36
Future Volume (vph)	0	54	0	0	286	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.985	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1835	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1835	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2743			805	344	
Travel Time (s)	62.3			18.3	7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	59	0	0	311	39
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	59	0	0	350	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	27.2%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
51: Humboldt Parkway SB & Northland Ave

03/10/2022

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	54	0	0	286	36
Future Vol, veh/h	0	54	0	0	286	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	59	0	0	311	39
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	331	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	711	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	711	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	10.5		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	711	-	-			
HCM Lane V/C Ratio	0.083	-	-			
HCM Control Delay (s)	10.5	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q(veh)	0.3	-	-			

Lanes, Volumes, Timings
52: Humboldt Parkway SB & Brunswick Blvd

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	65	0	0	10	1
Future Volume (vph)	0	65	0	0	10	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.989	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1842	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1842	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2734			252	805	
Travel Time (s)	62.1			5.7	18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	71	0	0	11	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	71	0	0	12	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	14.0%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection	
Intersection Delay, s/veh	6.7
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	65	0	0	10	1
Future Vol, veh/h	0	65	0	0	10	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	71	0	0	11	1
Number of Lanes	0	1	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	1
HCM Control Delay	6.6	7.1
HCM LOS	A	A

Lane	EBLn1	SBLn1
Vol Left, %	0%	0%
Vol Thru, %	0%	91%
Vol Right, %	100%	9%
Sign Control	Stop	Stop
Traffic Vol by Lane	65	11
LT Vol	0	0
Through Vol	0	10
RT Vol	65	1
Lane Flow Rate	71	12
Geometry Grp	1	1
Degree of Util (X)	0.066	0.013
Departure Headway (Hd)	3.356	4.003
Convergence, Y/N	Yes	Yes
Cap	1072	898
Service Time	1.359	2.009
HCM Lane V/C Ratio	0.066	0.013
HCM Control Delay	6.6	7.1
HCM Lane LOS	A	A
HCM 95th-tile Q	0.2	0

Lanes, Volumes, Timings
53: Humboldt Parkway SB & Goulding Ave

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↰			↱	
Traffic Volume (vph)	0	48	0	0	932	0
Future Volume (vph)	0	48	0	0	932	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1863	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1067			268	306	
Travel Time (s)	24.3			6.1	7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	52	0	0	1013	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	52	0	0	1013	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	30.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
53: Humboldt Parkway SB & Goulding Ave

03/10/2022

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↖	
Traffic Vol, veh/h	0	48	0	0	932	0
Future Vol, veh/h	0	48	0	0	932	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	52	0	0	1013	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	1013	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	290	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	290	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	20.1		0			
HCM LOS	C					
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	290	-				
HCM Lane V/C Ratio	0.18	-				
HCM Control Delay (s)	20.1	-				
HCM Lane LOS	C	-				
HCM 95th %tile Q(veh)	0.6	-				

Lanes, Volumes, Timings
54: Humboldt Parkway NB & Sydney St

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	41	589	0	0	0
Future Volume (vph)	0	41	589	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	0
Link Speed (mph)	30	30		30		
Link Distance (ft)	913	602		1024		
Travel Time (s)	20.8	13.7		23.3		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	45	640	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	45	640	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0	0		0		
Link Offset(ft)	0	0		0		
Crosswalk Width(ft)	16	16		16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	41.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
54: Humboldt Parkway NB & Sydney St

03/10/2022

Intersection

Int Delay, s/veh 0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	41	589	0	0	0
Future Vol, veh/h	0	41	589	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	45	640	0	0	0

Major/Minor	Minor1	Major1
Conflicting Flow All	- 640	0 -
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 475	- 0
Stage 1	0 -	- 0
Stage 2	0 -	- 0
Platoon blocked, %		-
Mov Cap-1 Maneuver	- 475	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	WB	NB
HCM Control Delay, s	13.4	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBTWBLn1
Capacity (veh/h)	- 475
HCM Lane V/C Ratio	- 0.094
HCM Control Delay (s)	- 13.4
HCM Lane LOS	- B
HCM 95th %tile Q(veh)	- 0.3

Lanes, Volumes, Timings

55: Humboldt Parkway NB & Northland Ave & EB On Ramp

03/10/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations								
Traffic Volume (vph)	0	63	118	16	0	0	0	0
Future Volume (vph)	0	63	118	16	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.984					
Flt Protected								
Satd. Flow (prot)	0	1611	1833	0	0	0	0	0
Flt Permitted								
Satd. Flow (perm)	0	1611	1833	0	0	0	0	0
Link Speed (mph)	30		30			30	30	
Link Distance (ft)	1020		1024			304	1019	
Travel Time (s)	23.2		23.3			6.9	23.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	68	128	17	0	0	0	0
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	68	145	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left	Left	Right
Median Width(ft)	0		0			0	0	
Link Offset(ft)	0		0			0	0	
Crosswalk Width(ft)	16		16			16	16	
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15		15	9
Sign Control	Stop		Stop			Stop	Stop	
Intersection Summary								
Area Type:	Other							
Control Type:	Unsignalized							
Intersection Capacity Utilization 17.7%				ICU Level of Service A				
Analysis Period (min) 15								

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations								
Traffic Vol, veh/h	0	63	118	16	0	0	0	0
Future Vol, veh/h	0	63	118	16	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2
Mvmt Flow	0	68	128	17	0	0	0	0
Number of Lanes	0	1	1	0	0	0	0	0

Approach	WB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	NB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		WB
Conflicting Lanes Right	0	1
HCM Control Delay	6.9	7.8
HCM LOS	A	A

Lane	NBLn1	WBLn1
Vol Left, %	0%	0%
Vol Thru, %	88%	0%
Vol Right, %	12%	100%
Sign Control	Stop	Stop
Traffic Vol by Lane	134	63
LT Vol	0	0
Through Vol	118	0
RT Vol	16	63
Lane Flow Rate	146	68
Geometry Grp	1	1
Degree of Util (X)	0.161	0.068
Departure Headway (Hd)	3.982	3.586
Convergence, Y/N	Yes	Yes
Cap	903	987
Service Time	1.996	1.649
HCM Lane V/C Ratio	0.162	0.069
HCM Control Delay	7.8	6.9
HCM Lane LOS	A	A
HCM 95th-tile Q	0.6	0.2

Lanes, Volumes, Timings
56: Roehrer Ave & E Ferry St

03/10/2022

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↱	↘↙	
Traffic Volume (vph)	445	13	19	635	2	21
Future Volume (vph)	445	13	19	635	2	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.876	
Flt Protected				0.999	0.996	
Satd. Flow (prot)	1855	0	0	1861	1625	0
Flt Permitted				0.999	0.996	
Satd. Flow (perm)	1855	0	0	1861	1625	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1109			280	1331	
Travel Time (s)	25.2			6.4	30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	484	14	21	690	2	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	498	0	0	711	25	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	58.7%			ICU Level of Service B		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	445	13	19	635	2	21
Future Vol, veh/h	445	13	19	635	2	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	484	14	21	690	2	23
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	498	0	1223	491
Stage 1	-	-	-	-	491	-
Stage 2	-	-	-	-	732	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1066	-	198	578
Stage 1	-	-	-	-	615	-
Stage 2	-	-	-	-	476	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1066	-	192	578
Mov Cap-2 Maneuver	-	-	-	-	192	-
Stage 1	-	-	-	-	615	-
Stage 2	-	-	-	-	461	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		12.7	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	492	-	-	1066	-	
HCM Lane V/C Ratio	0.051	-	-	0.019	-	
HCM Control Delay (s)	12.7	-	-	8.4	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-	

Lanes, Volumes, Timings
57: Roehrer Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	147	0	2	156	9	3	11	4	2	13	4
Future Volume (vph)	5	147	0	2	156	9	3	11	4	2	13	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.993			0.972			0.973	
Flt Protected		0.998			0.999			0.992			0.995	
Satd. Flow (prot)	0	1859	0	0	1848	0	0	1796	0	0	1803	0
Flt Permitted		0.998			0.999			0.992			0.995	
Satd. Flow (perm)	0	1859	0	0	1848	0	0	1796	0	0	1803	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1295			274			1342			1331	
Travel Time (s)		29.4			6.2			30.5			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	160	0	2	170	10	3	12	4	2	14	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	165	0	0	182	0	0	19	0	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 20.7%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	147	0	2	156	9	3	11	4	2	13	4
Future Vol, veh/h	5	147	0	2	156	9	3	11	4	2	13	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	160	0	2	170	10	3	12	4	2	14	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.2	8.3	7.7	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	3%	1%	11%
Vol Thru, %	61%	97%	93%	68%
Vol Right, %	22%	0%	5%	21%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	18	152	167	19
LT Vol	3	5	2	2
Through Vol	11	147	156	13
RT Vol	4	0	9	4
Lane Flow Rate	20	165	182	21
Geometry Grp	1	1	1	1
Degree of Util (X)	0.025	0.19	0.207	0.026
Departure Headway (Hd)	4.611	4.146	4.097	4.604
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	781	856	868	782
Service Time	2.612	2.217	2.166	2.605
HCM Lane V/C Ratio	0.026	0.193	0.21	0.027
HCM Control Delay	7.7	8.2	8.3	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.7	0.8	0.1

Lanes, Volumes, Timings
58: Wohlers Ave & Northampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	66	3	2	61	7	32	96	18	44	48	20
Future Volume (vph)	9	66	3	2	61	7	32	96	18	44	48	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.986			0.983			0.976	
Flt Protected		0.994			0.999			0.989			0.981	
Satd. Flow (prot)	0	1842	0	0	1835	0	0	1811	0	0	1783	0
Flt Permitted		0.994			0.999			0.989			0.981	
Satd. Flow (perm)	0	1842	0	0	1835	0	0	1811	0	0	1783	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		276			1032			1317			1331	
Travel Time (s)		6.3			23.5			29.9			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	72	3	2	66	8	35	104	20	48	52	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	85	0	0	76	0	0	159	0	0	122	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	25.4%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	9	66	3	2	61	7	32	96	18	44	48	20
Future Vol, veh/h	9	66	3	2	61	7	32	96	18	44	48	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	72	3	2	66	8	35	104	20	48	52	22
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.3	8.2	8.5	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	22%	12%	3%	39%
Vol Thru, %	66%	85%	87%	43%
Vol Right, %	12%	4%	10%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	146	78	70	112
LT Vol	32	9	2	44
Through Vol	96	66	61	48
RT Vol	18	3	7	20
Lane Flow Rate	159	85	76	122
Geometry Grp	1	1	1	1
Degree of Util (X)	0.195	0.11	0.098	0.151
Departure Headway (Hd)	4.423	4.666	4.623	4.464
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	813	769	775	803
Service Time	2.445	2.691	2.649	2.488
HCM Lane V/C Ratio	0.196	0.111	0.098	0.152
HCM Control Delay	8.5	8.3	8.2	8.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.4	0.3	0.5

Lanes, Volumes, Timings
59: Roehrer Ave & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	69	2	3	84	4	4	15	2	4	15	0
Future Volume (vph)	0	69	2	3	84	4	4	15	2	4	15	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.994			0.988				
Flt Protected					0.998			0.991			0.990	
Satd. Flow (prot)	0	1855	0	0	1848	0	0	1824	0	0	1844	0
Flt Permitted					0.998			0.991			0.990	
Satd. Flow (perm)	0	1855	0	0	1848	0	0	1824	0	0	1844	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1290			276			1313			1342	
Travel Time (s)		29.3			6.3			29.8			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	75	2	3	91	4	4	16	2	4	16	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	77	0	0	98	0	0	22	0	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	17.1%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection												
Intersection Delay, s/veh	7.5											
Intersection LOS	A											

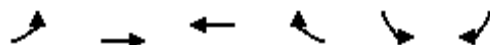
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	69	2	3	84	4	4	15	2	4	15	0
Future Vol, veh/h	0	69	2	3	84	4	4	15	2	4	15	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	75	2	3	91	4	4	16	2	4	16	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.6	7.4	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	0%	3%	21%
Vol Thru, %	71%	97%	92%	79%
Vol Right, %	10%	3%	4%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	71	91	19
LT Vol	4	0	3	4
Through Vol	15	69	84	15
RT Vol	2	2	4	0
Lane Flow Rate	23	77	99	21
Geometry Grp	1	1	1	1
Degree of Util (X)	0.027	0.087	0.111	0.025
Departure Headway (Hd)	4.235	4.066	4.047	4.298
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	834	876	881	822
Service Time	2.32	2.114	2.09	2.383
HCM Lane V/C Ratio	0.028	0.088	0.112	0.026
HCM Control Delay	7.4	7.5	7.6	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.3	0.4	0.1

Lanes, Volumes, Timings
60: Best St & Wohlers Ave

03/10/2022

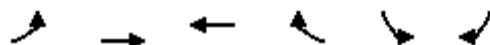


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	2	290	514	21	55	13
Future Volume (vph)	2	290	514	21	55	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995		0.974	
Flt Protected					0.961	
Satd. Flow (prot)	0	1863	1853	0	1744	0
Flt Permitted					0.961	
Satd. Flow (perm)	0	1863	1853	0	1744	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		280	473		1317	
Travel Time (s)		6.4	10.8		29.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	315	559	23	60	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	317	582	0	74	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 38.8%				ICU Level of Service A		
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	290	514	21	55	13
Future Vol, veh/h	2	290	514	21	55	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	315	559	23	60	14
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	582	0	-	0	890	571
Stage 1	-	-	-	-	571	-
Stage 2	-	-	-	-	319	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	992	-	-	-	313	520
Stage 1	-	-	-	-	565	-
Stage 2	-	-	-	-	737	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	992	-	-	-	312	520
Mov Cap-2 Maneuver	-	-	-	-	312	-
Stage 1	-	-	-	-	564	-
Stage 2	-	-	-	-	737	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		18.6		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	992	-	-	-	338	
HCM Lane V/C Ratio	0.002	-	-	-	0.219	
HCM Control Delay (s)	8.6	0	-	-	18.6	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.8	

Lanes, Volumes, Timings
61: Best St & Roehrer Ave

03/10/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	437	505	18	15	7
Future Volume (vph)	4	437	505	18	15	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995		0.955	
Flt Protected					0.968	
Satd. Flow (prot)	0	1863	1853	0	1722	0
Flt Permitted					0.968	
Satd. Flow (perm)	0	1863	1853	0	1722	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1123	280		1313	
Travel Time (s)		25.5	6.4		29.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	475	549	20	16	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	479	569	0	24	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 37.7%				ICU Level of Service A		
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	437	505	18	15	7
Future Vol, veh/h	4	437	505	18	15	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	475	549	20	16	8
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	569	0	-	0	1042	559
Stage 1	-	-	-	-	559	-
Stage 2	-	-	-	-	483	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1003	-	-	-	254	529
Stage 1	-	-	-	-	572	-
Stage 2	-	-	-	-	620	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1003	-	-	-	253	529
Mov Cap-2 Maneuver	-	-	-	-	253	-
Stage 1	-	-	-	-	569	-
Stage 2	-	-	-	-	620	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		17.9		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1003	-	-	-	303	
HCM Lane V/C Ratio	0.004	-	-	-	0.079	
HCM Control Delay (s)	8.6	0	-	-	17.9	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.3	

Lanes, Volumes, Timings

62: Jefferson Ave & Eaton St/Kingsley st

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	9	3	3	14	1	6	309	2	11	457	9
Future Volume (vph)	2	9	3	3	14	1	6	309	2	11	457	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.993			0.999			0.997	
Flt Protected		0.993			0.992			0.999			0.999	
Satd. Flow (prot)	0	1800	0	0	1835	0	0	1859	0	0	1855	0
Flt Permitted		0.983			0.979			0.990			0.990	
Satd. Flow (perm)	0	1782	0	0	1811	0	0	1842	0	0	1839	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			1			1			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		911			1129			278			418	
Travel Time (s)		20.7			25.7			6.3			9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	10	3	3	15	1	7	336	2	12	497	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	0	19	0	0	345	0	0	519	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		-50			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		27.5	27.5		27.5	27.5	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		55.0%	55.0%		55.0%	55.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		23.0	23.0		23.0	23.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			23.0			23.0	
Actuated g/C Ratio		0.36			0.36			0.46			0.46	
v/c Ratio		0.02			0.03			0.41			0.61	
Control Delay		9.6			10.4			5.9			14.0	
Queue Delay		0.0			0.0			0.2			0.0	
Total Delay		9.6			10.4			6.1			14.0	

Lanes, Volumes, Timings

62: Jefferson Ave & Eaton St/Kingsley st

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			B			A			B	
Approach Delay		9.6			10.4			6.1			14.0	
Approach LOS		A			B			A			B	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Pretimed

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 10.8

Intersection LOS: B

Intersection Capacity Utilization 42.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 62: Jefferson Ave & Eaton St/Kingsley st

 Ø2 (R)	 Ø4
27.5 s	22.5 s
 Ø6 (R)	 Ø8
27.5 s	22.5 s

Lanes, Volumes, Timings
65: Route 33 & W Parade Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	153	2	1	20	329	16	767	7	27	2598	27
Future Volume (vph)	2	153	2	1	20	329	16	767	7	27	2598	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		0	150		325
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.998			0.873				0.850			0.850
Flt Protected		0.999					0.950			0.950		
Satd. Flow (prot)	0	1857	0	0	1626	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.987			0.999		0.950			0.950		
Satd. Flow (perm)	0	1835	0	0	1625	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					289				44			44
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		98			623			486			778	
Travel Time (s)		2.2			14.2			11.0			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	166	2	1	22	358	17	834	8	29	2824	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	170	0	0	381	0	17	834	8	29	2824	29
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		3			7		5	2		1	6	
Permitted Phases	3			7					2			6
Minimum Split (s)	22.5	22.5		22.5	22.5		9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	22.8	22.8		22.8	22.8		9.5	116.0	116.0	11.2	117.7	117.7
Total Split (%)	15.2%	15.2%		15.2%	15.2%		6.3%	77.3%	77.3%	7.5%	78.5%	78.5%
Maximum Green (s)	18.3	18.3		18.3	18.3		5.0	111.5	111.5	6.7	113.2	113.2
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5			4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)		18.3			18.3		5.0	111.5	111.5	6.7	113.2	113.2
Actuated g/C Ratio		0.12			0.12		0.03	0.74	0.74	0.04	0.75	0.75
v/c Ratio		0.76			0.84		0.29	0.32	0.01	0.37	1.06	0.02

Lanes, Volumes, Timings
65: Route 33 & W Parade Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		85.5			33.8		83.2	6.8	0.0	99.3	61.9	0.0
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	19.0	0.0
Total Delay		85.5			33.8		83.2	6.8	0.0	99.3	80.9	0.0
LOS		F			C		F	A	A	F	F	A
Approach Delay		85.5			33.8			8.3			80.3	
Approach LOS		F			C			A			F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBT, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 1.06

Intersection Signal Delay: 62.0

Intersection LOS: E

Intersection Capacity Utilization 101.4%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 65: Route 33 & W Parade Ave

 Ø1	 Ø2 (R)	 Ø3
11.2 s	116 s	22.8 s
 Ø5	 Ø6	 Ø7
9.5 s	117.7 s	22.8 s

Lanes, Volumes, Timings
66: Route 33 & Northampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	504	13	3	100	27	54	1016	28	66	2650	137
Future Volume (vph)	16	504	13	3	100	27	54	1016	28	66	2650	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	125		125	125		125
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.997			0.972				0.850			0.850
Flt Protected		0.999			0.999		0.950			0.950		
Satd. Flow (prot)	0	1855	0	0	1809	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.990			0.989		0.950			0.950		
Satd. Flow (perm)	0	1839	0	0	1791	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			8				109			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		100			196			778			726	
Travel Time (s)		2.3			4.5			17.7			16.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	548	14	3	109	29	59	1104	30	72	2880	149
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	579	0	0	141	0	59	1104	30	72	2880	149
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		7 9			7 10		1	2		1	2	
Permitted Phases	7 9			7 10					2			2
Minimum Split (s)							9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)							10.0	57.0	57.0	10.0	57.0	57.0
Total Split (%)							6.7%	38.0%	38.0%	6.7%	38.0%	38.0%
Maximum Green (s)							5.5	52.5	52.5	5.5	52.5	52.5
Yellow Time (s)							3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)							1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)							0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)							4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)								7.0	7.0		7.0	7.0
Flash Dont Walk (s)								11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)								0	0		0	0
Act Effct Green (s)		56.0			36.0		5.5	52.5	52.5	5.5	52.5	52.5
Actuated g/C Ratio		0.37			0.24		0.04	0.35	0.35	0.04	0.35	0.35
v/c Ratio		0.84			0.32		0.92	0.89	0.05	1.12	2.33	0.24

Lane Group	Ø3	Ø5	Ø7	Ø9	Ø10
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	3	5	7	9	10
Permitted Phases					
Minimum Split (s)	22.5	9.5	22.5	9.5	22.5
Total Split (s)	22.5	67.0	22.5	38.0	22.5
Total Split (%)	15%	45%	15%	25%	15%
Maximum Green (s)	18.0	62.5	18.0	33.5	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag				Lead	Lag
Lead-Lag Optimize?				Yes	Yes
Walk Time (s)	7.0		7.0		7.0
Flash Dont Walk (s)	11.0		11.0		11.0
Pedestrian Calls (#/hr)	0		0		0
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					

Lanes, Volumes, Timings

66: Route 33 & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		28.9			5.6		159.4	50.1	0.1	139.0	623.3	27.8
Queue Delay		0.0			0.8		0.0	0.0	0.0	3.7	0.6	0.0
Total Delay		28.9			6.4		159.4	50.1	0.1	142.7	623.9	27.8
LOS		C			A		F	D	A	F	F	C
Approach Delay		28.9			6.4			54.2			584.1	
Approach LOS		C			A			D			F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 2.87

Intersection Signal Delay: 377.7

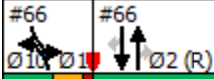
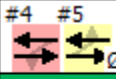
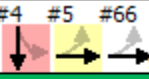
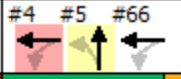
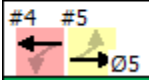
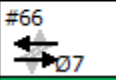
Intersection LOS: F

Intersection Capacity Utilization 115.8%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 66: Route 33 & Northhampton St

							
10 s		22.5 s		38 s		22.5 s	
							
67 s		22.5 s					

Lane Group	Ø3	Ø5	Ø7	Ø9	Ø10
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
67: Route 33 & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	141	37	58	153	16	106	926	27	79	2757	315
Future Volume (vph)	20	141	37	58	153	16	106	926	27	79	2757	315
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		150
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.972			0.990				0.850			0.850
Flt Protected		0.995			0.987		0.950			0.950		
Satd. Flow (prot)	0	3423	0	0	3458	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.901			0.803		0.950			0.950		
Satd. Flow (perm)	0	3100	0	0	2814	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			5				109			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		94			77			620			1337	
Travel Time (s)		2.1			1.8			14.1			30.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	153	40	63	166	17	115	1007	29	86	2997	342
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	215	0	0	246	0	115	1007	29	86	2997	342
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		7 9			7 10		1	2		1	2	
Permitted Phases	7 9			7 10					2			2
Minimum Split (s)							9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)							11.0	70.5	70.5	11.0	70.5	70.5
Total Split (%)							7.3%	47.0%	47.0%	7.3%	47.0%	47.0%
Maximum Green (s)							6.5	66.0	66.0	6.5	66.0	66.0
Yellow Time (s)							3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)							1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)							0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)							4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)								7.0	7.0		7.0	7.0
Flash Dont Walk (s)								11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)								0	0		0	0
Act Effct Green (s)		35.0			42.5		6.5	66.0	66.0	6.5	66.0	66.0
Actuated g/C Ratio		0.23			0.28		0.04	0.44	0.44	0.04	0.44	0.44
v/c Ratio		0.29			0.31		1.51	0.65	0.04	1.13	1.92	0.45

Lane Group	Ø3	Ø5	Ø7	Ø9	Ø10
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	3	5	7	9	10
Permitted Phases					
Minimum Split (s)	22.5	9.5	22.5	9.5	22.5
Total Split (s)	22.5	81.5	22.5	17.0	29.0
Total Split (%)	15%	54%	15%	11%	19%
Maximum Green (s)	18.0	77.0	18.0	12.5	24.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag				Lead	Lag
Lead-Lag Optimize?				Yes	Yes
Walk Time (s)	7.0		7.0		7.0
Flash Dont Walk (s)	11.0		11.0		11.0
Pedestrian Calls (#/hr)	0		0		0
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					

Lanes, Volumes, Timings
67: Route 33 & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		2.8			2.6		309.7	22.3	0.8	143.2	443.0	16.7
Queue Delay		0.0			0.0		2.8	0.0	0.0	0.4	0.0	0.0
Total Delay		2.8			2.6		312.5	22.3	0.8	143.5	443.0	16.7
LOS		A			A		F	C	A	F	F	B
Approach Delay		2.8			2.6			50.8			392.9	
Approach LOS		A			A			D			F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 2.05

Intersection Signal Delay: 279.0

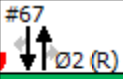
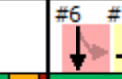
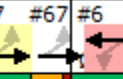
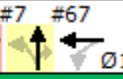
Intersection LOS: F

Intersection Capacity Utilization 109.2%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 67: Route 33 & E Utica St

 #67 Ø1		 #67 Ø2 (R)		 #6 #7 Ø3		 #6 #7 #67 Ø4		 #6 #7 #67 Ø5		 #6 #7 #67 Ø6		 #6 #7 #67 Ø7		 #6 #7 #67 Ø8		 #6 #7 #67 Ø9		 #6 #7 #67 Ø10	
11 s		70.5 s		22.5 s		17 s		29 s											
 #6 #7 Ø5				 #67 Ø7															
81.5 s				22.5 s															

Lane Group	Ø3	Ø5	Ø7	Ø9	Ø10
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
68: Route 33 & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	204	525	84	117	149	57	192	746	25	95	2981	761
Future Volume (vph)	204	525	84	117	149	57	192	746	25	95	2981	761
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.985			0.974				0.850			0.850
Flt Protected		0.988			0.982		0.950			0.950		
Satd. Flow (prot)	0	3444	0	0	3385	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.700			0.526		0.950			0.950		
Satd. Flow (perm)	0	2440	0	0	1813	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			17				109			193
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		84			78			1337			636	
Travel Time (s)		1.9			1.8			30.4			14.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	222	571	91	127	162	62	209	811	27	103	3240	827
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	884	0	0	351	0	209	811	27	103	3240	827
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		7 9			7 10		1	2		1	2	
Permitted Phases	7 9			7 10					2			2
Minimum Split (s)							9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)							12.0	55.0	55.0	12.0	55.0	55.0
Total Split (%)							8.0%	36.7%	36.7%	8.0%	36.7%	36.7%
Maximum Green (s)							7.5	50.5	50.5	7.5	50.5	50.5
Yellow Time (s)							3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)							1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)							0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)							4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)								7.0	7.0		7.0	7.0
Flash Dont Walk (s)								11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)								0	0		0	0
Act Effct Green (s)		54.5			45.0		7.5	50.5	50.5	7.5	50.5	50.5
Actuated g/C Ratio		0.36			0.30		0.05	0.34	0.34	0.05	0.34	0.34
v/c Ratio		0.99			1.67dl		2.38	0.68	0.04	1.17	2.72	1.25

Lane Group	Ø3	Ø5	Ø7	Ø9	Ø10
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	3	5	7	9	10
Permitted Phases					
Minimum Split (s)	22.5	9.5	22.5	9.5	22.5
Total Split (s)	30.0	67.0	30.0	29.0	24.0
Total Split (%)	20%	45%	20%	19%	16%
Maximum Green (s)	25.5	62.5	25.5	24.5	19.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag				Lead	Lag
Lead-Lag Optimize?				Yes	Yes
Walk Time (s)	7.0		7.0		7.0
Flash Dont Walk (s)	11.0		11.0		11.0
Pedestrian Calls (#/hr)	0		0		0
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					

Lanes, Volumes, Timings

68: Route 33 & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		17.9			4.8		672.6	62.8	2.3	207.1	797.2	158.1
Queue Delay		0.5			0.0		7.5	0.0	0.0	0.0	0.0	0.2
Total Delay		18.4			4.8		680.1	62.8	2.3	207.1	797.2	158.3
LOS		B			A		F	E	A	F	F	F
Approach Delay		18.4			4.8			184.5			655.9	
Approach LOS		B			A			F			F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green, Master Intersection

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 3.54

Intersection Signal Delay: 456.7

Intersection LOS: F

Intersection Capacity Utilization 140.5%

ICU Level of Service H

Analysis Period (min) 15

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 68: Route 33 & E Ferry St

#68  Ø1	#68  Ø2 (R)	#8 #9  Ø3	#8 #9 #68  Ø9	#8 #9 #68  Ø10
12 s	55 s	30 s	29 s	24 s
#8 #9  Ø5	#68  Ø7			
67 s	30 s			

Lane Group	Ø3	Ø5	Ø7	Ø9	Ø10
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
118: Humboldt Parkway SB

03/10/2022

						
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	306			252	236	
Travel Time (s)	7.0			5.7	5.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Free	Yield	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 18.3%				ICU Level of Service A		
Analysis Period (min) 15						

Lanes, Volumes, Timings
1: EB Off Ramp & Best St

03/10/2022

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘↗	
Traffic Volume (vph)	238	0	0	153	57	369
Future Volume (vph)	238	0	0	153	57	369
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Fr _t					0.883	
Fl _t Protected					0.993	
Satd. Flow (prot)	3539	0	0	3539	1633	0
Fl _t Permitted					0.993	
Satd. Flow (perm)	3539	0	0	3539	1633	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)					401	
Link Speed (mph)	30			30	30	
Link Distance (ft)	249			205	354	
Travel Time (s)	5.7			4.7	8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	259	0	0	166	62	401
Shared Lane Traffic (%)						
Lane Group Flow (vph)	259	0	0	166	463	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA			NA	Prot	
Protected Phases	4			8	2	
Permitted Phases						
Minimum Split (s)	22.5			22.5	22.5	
Total Split (s)	22.5			22.5	22.5	
Total Split (%)	50.0%			50.0%	50.0%	
Maximum Green (s)	18.0			18.0	18.0	
Yellow Time (s)	3.5			3.5	3.5	
All-Red Time (s)	1.0			1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0			7.0	7.0	
Flash Dont Walk (s)	11.0			11.0	11.0	
Pedestrian Calls (#/hr)	0			0	0	
Act Effect Green (s)	18.0			18.0	18.0	
Actuated g/C Ratio	0.40			0.40	0.40	
v/c Ratio	0.18			0.12	0.52	
Control Delay	9.2			8.8	4.5	
Queue Delay	0.0			0.0	0.0	
Total Delay	9.2			8.8	4.5	

Lanes, Volumes, Timings

1: EB Off Ramp & Best St

03/10/2022



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
LOS	A			A	A	
Approach Delay	9.2			8.8	4.5	
Approach LOS	A			A	A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBL and 6:, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 6.7

Intersection LOS: A

Intersection Capacity Utilization 40.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: EB Off Ramp & Best St

Ø2 (R) 22.5 s	Ø4 22.5 s
	Ø8 22.5 s

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	662	45	190	504	0	0	0	0	58	0	36
Future Volume (vph)	0	662	45	190	504	0	0	0	0	58	0	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990									0.948	
Flt Protected					0.986						0.970	
Satd. Flow (prot)	0	3504	0	0	3490	0	0	0	0	0	1713	0
Flt Permitted					0.604						0.970	
Satd. Flow (perm)	0	3504	0	0	2138	0	0	0	0	0	1713	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18									39	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		473			249			324			329	
Travel Time (s)		10.8			5.7			7.4			7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	720	49	207	548	0	0	0	0	63	0	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	769	0	0	755	0	0	0	0	0	102	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases	4			8						6		
Minimum Split (s)	22.5	22.5		22.5	22.5					22.5	22.5	
Total Split (s)	27.0	27.0		27.0	27.0					23.0	23.0	
Total Split (%)	54.0%	54.0%		54.0%	54.0%					46.0%	46.0%	
Maximum Green (s)	22.5	22.5		22.5	22.5					18.5	18.5	
Yellow Time (s)	3.5	3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0					1.0	1.0	
Lost Time Adjust (s)		0.0			0.0						0.0	
Total Lost Time (s)		4.5			4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0					7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0					11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0					0	0	
Act Effect Green (s)		22.5			22.5						18.5	
Actuated g/C Ratio		0.45			0.45						0.37	
v/c Ratio		0.48			0.78						0.16	

Lanes, Volumes, Timings

2: WB On Ramp/WB Off Ramp & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		10.7			19.6						8.0	
Queue Delay		0.0			0.9						0.0	
Total Delay		10.7			20.6						8.0	
LOS		B			C						A	
Approach Delay		10.7			20.6						8.0	
Approach LOS		B			C						A	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 0 (0%), Referenced to phase 2: and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Pretimed

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 15.1

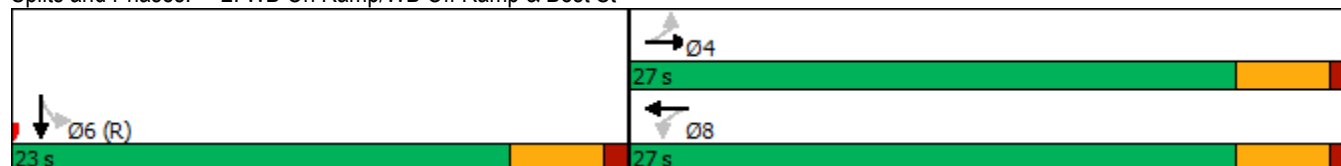
Intersection LOS: B

Intersection Capacity Utilization 55.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 2: WB On Ramp/WB Off Ramp & Best St



Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/10/2022

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	276	14	437	111	2	639	286	14	60	23	6	1
Future Volume (vph)	276	14	437	111	2	639	286	14	60	23	6	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr t			0.980			0.957				0.989		
Fl t Protected			0.983							0.968		
Satd. Flow (prot)	0	0	3409	0	0	1783	0	0	0	1783	0	0
Fl t Permitted			0.536			0.999				0.677		
Satd. Flow (perm)	0	0	1859	0	0	1781	0	0	0	1247	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			44			2				1		
Link Speed (mph)			30			30				30		
Link Distance (ft)			205			1418				1329		
Travel Time (s)			4.7			32.2				30.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	300	15	475	121	2	695	311	15	65	25	7	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	911	0	0	1023	0	0	0	98	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Right	Right
Median Width(ft)			0			0				0		
Link Offset(ft)			0			0				0		
Crosswalk Width(ft)			16			16				16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15		9	15		9	9	15		9	9
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		
Protected Phases			4			8				2		
Permitted Phases	4	4			8				2			
Minimum Split (s)	22.5	22.5	22.5		22.5	22.5			22.5	22.5		
Total Split (s)	52.0	52.0	52.0		52.0	52.0			23.0	23.0		
Total Split (%)	69.3%	69.3%	69.3%		69.3%	69.3%			30.7%	30.7%		
Maximum Green (s)	47.5	47.5	47.5		47.5	47.5			18.5	18.5		
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5			3.5	3.5		
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0			1.0	1.0		
Lost Time Adjust (s)			0.0			0.0				0.0		
Total Lost Time (s)			4.5			4.5				4.5		
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0	7.0		7.0	7.0			7.0	7.0		
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	11.0			11.0	11.0		
Pedestrian Calls (#/hr)	0	0	0		0	0			0	0		
Act Effect Green (s)			47.5			47.5				18.5		
Actuated g/C Ratio			0.63			0.63				0.25		
v/c Ratio			0.99dl			0.91				0.32		
Control Delay			14.6			25.8				26.3		
Queue Delay			28.4			1.3				0.0		
Total Delay			43.1			27.1				26.3		

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/10/2022



Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	107	48	85
Future Volume (vph)	107	48	85
Ideal Flow (vphpl)	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00
Fr't		0.952	
Flt Protected		0.978	
Satd. Flow (prot)	0	1734	0
Flt Permitted		0.831	
Satd. Flow (perm)	0	1474	0
Right Turn on Red			Yes
Satd. Flow (RTOR)		35	
Link Speed (mph)		30	
Link Distance (ft)		623	
Travel Time (s)		14.2	
Peak Hour Factor	0.92	0.92	0.92
Adj. Flow (vph)	116	52	92
Shared Lane Traffic (%)			
Lane Group Flow (vph)	0	260	0
Enter Blocked Intersection	No	No	No
Lane Alignment	Left	Left	Right
Median Width(ft)		0	
Link Offset(ft)		0	
Crosswalk Width(ft)		16	
Two way Left Turn Lane			
Headway Factor	1.00	1.00	1.00
Turning Speed (mph)	15		9
Turn Type	Perm	NA	
Protected Phases		6	
Permitted Phases	6		
Minimum Split (s)	22.5	22.5	
Total Split (s)	23.0	23.0	
Total Split (%)	30.7%	30.7%	
Maximum Green (s)	18.5	18.5	
Yellow Time (s)	3.5	3.5	
All-Red Time (s)	1.0	1.0	
Lost Time Adjust (s)		0.0	
Total Lost Time (s)		4.5	
Lead/Lag			
Lead-Lag Optimize?			
Walk Time (s)	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0	
Pedestrian Calls (#/hr)	0	0	
Act Effct Green (s)		18.5	
Actuated g/C Ratio		0.25	
v/c Ratio		0.67	
Control Delay		40.1	
Queue Delay		0.0	
Total Delay		40.1	

Lanes, Volumes, Timings

3: Herman St/W Parade Ave & Best St

03/10/2022



Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
LOS			D			C				C		
Approach Delay			43.1			27.1				26.3		
Approach LOS			D			C				C		

Intersection Summary

Area Type: Other

Cycle Length: 75

Actuated Cycle Length: 75

Offset: 35 (47%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Pretimed

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 34.9

Intersection LOS: C

Intersection Capacity Utilization 101.7%

ICU Level of Service G

Analysis Period (min) 15

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 3: Herman St/W Parade Ave & Best St



Lanes, Volumes, Timings
3: Herman St/W Parade Ave & Best St

03/10/2022



Lane Group	SBL	SBT	SBR
LOS		D	
Approach Delay		40.1	
Approach LOS		D	
Intersection Summary			

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	105	3	1	382	0	0	0	0	567	632	152
Future Volume (vph)	0	105	3	1	382	0	0	0	0	567	632	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997									0.985	
Flt Protected											0.979	
Satd. Flow (prot)	0	1857	0	0	1863	0	0	0	0	0	1796	0
Flt Permitted											0.979	
Satd. Flow (perm)	0	1857	0	0	1863	0	0	0	0	0	1796	0
Right Turn on Red			Yes			Yes				Yes		Yes
Satd. Flow (RTOR)		1									4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1032			100			717			296	
Travel Time (s)		23.5			2.3			16.3			6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	114	3	1	415	0	0	0	0	616	687	165
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	117	0	0	416	0	0	0	0	0	1468	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		3			3 5 10						9	
Permitted Phases				3 5 10						9		
Minimum Split (s)		22.5								9.5	9.5	
Total Split (s)		22.5								40.0	40.0	
Total Split (%)		15.0%								26.7%	26.7%	
Maximum Green (s)		18.0								35.5	35.5	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.0								1.0	1.0	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		4.5									4.5	
Lead/Lag										Lag	Lag	
Lead-Lag Optimize?										Yes	Yes	
Walk Time (s)		7.0										
Flash Dont Walk (s)		11.0										
Pedestrian Calls (#/hr)		0										
Act Effect Green (s)		18.0			105.5						35.5	
Actuated g/C Ratio		0.12			0.70						0.24	
v/c Ratio		0.52			0.32						3.43	
Control Delay		70.7			3.7						1116.9	
Queue Delay		0.0			0.0						4.7	
Total Delay		70.7			3.7						1121.6	

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/10/2022

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø10
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	1	2	5	7	10
Permitted Phases					
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5
Total Split (s)	11.0	54.0	65.0	22.5	22.5
Total Split (%)	7%	36%	43%	15%	15%
Maximum Green (s)	6.5	49.5	60.5	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lag	Lead		Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	
Walk Time (s)		7.0		7.0	7.0
Flash Dont Walk (s)		11.0		11.0	11.0
Pedestrian Calls (#/hr)		0		0	0
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					

Lanes, Volumes, Timings

4: Humboldt Parkway SB & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		E			A						F	
Approach Delay		70.7			3.7						1121.6	
Approach LOS		E			A						F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 3 (2%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 3.43

Intersection Signal Delay: 827.7

Intersection LOS: F

Intersection Capacity Utilization 102.3%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 4: Humboldt Parkway SB & Northhampton St

#66  Ø2 (R)	#66  Ø1	#4 #5  Ø3	#4 #5 #66  Ø10	#4 #5 #66  Ø9
54 s	11 s	22.5 s	22.5 s	40 s
#4 #5  Ø5	#66  Ø7			
65 s	22.5 s			

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø10
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
5: Humboldt Parkway NB & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	727	0	0	166	4	2	13	6	0	0	0
Future Volume (vph)	4	727	0	0	166	4	2	13	6	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.997			0.959				
Fl _t Protected								0.996				
Satd. Flow (prot)	0	1863	0	0	1857	0	0	1779	0	0	0	0
Fl _t Permitted		0.999						0.996				
Satd. Flow (perm)	0	1861	0	0	1857	0	0	1779	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1			7				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		196			1089			152				722
Travel Time (s)		4.5			24.8			3.5				16.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	790	0	0	180	4	2	14	7	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	794	0	0	184	0	0	23	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		3 5 9			3			10				
Permitted Phases	3 5 9						10					
Minimum Split (s)					22.5		22.5	22.5				
Total Split (s)					22.5		22.5	22.5				
Total Split (%)					15.0%		15.0%	15.0%				
Maximum Green (s)					18.0		18.0	18.0				
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.0		1.0	1.0				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					4.5			4.5				
Lead/Lag							Lead	Lead				
Lead-Lag Optimize?							Yes	Yes				
Walk Time (s)					7.0		7.0	7.0				
Flash Dont Walk (s)					11.0		11.0	11.0				
Pedestrian Calls (#/hr)					0		0	0				
Act Effct Green (s)		123.0			18.0			18.0				
Actuated g/C Ratio		0.82			0.12			0.12				
v/c Ratio		0.52			0.83			0.11				
Control Delay		5.0			92.1			46.6				
Queue Delay		14.3			0.0			0.0				
Total Delay		19.3			92.1			46.6				

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

03/10/2022

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø9
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	1	2	5	7	9
Permitted Phases					
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5
Total Split (s)	11.0	54.0	65.0	22.5	40.0
Total Split (%)	7%	36%	43%	15%	27%
Maximum Green (s)	6.5	49.5	60.5	18.0	35.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lag	Lead			Lag
Lead-Lag Optimize?	Yes	Yes			Yes
Walk Time (s)		7.0		7.0	
Flash Dont Walk (s)		11.0		11.0	
Pedestrian Calls (#/hr)		0		0	
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					

Lanes, Volumes, Timings

5: Humboldt Parkway NB & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			F			D				
Approach Delay		19.3			92.1			46.6				
Approach LOS		B			F			D				

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 3 (2%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 3.43

Intersection Signal Delay: 33.3

Intersection LOS: C

Intersection Capacity Utilization 53.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Humboldt Parkway NB & Northhampton St

#66  Ø2 (R)	#66  Ø1	#4 #5  Ø3	#4 #5 #66  Ø10	#4 #5 #66  Ø9
54 s	11 s	22.5 s	22.5 s	40 s
#4 #5  Ø5	#66  Ø7			
65 s	22.5 s			

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø9
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
6: Humboldt Parkway SB & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	264	4	4	695	0	0	0	0	90	371	67
Future Volume (vph)	0	264	4	4	695	0	0	0	0	90	371	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		50
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.998									0.981	
Flt Protected				0.950							0.992	
Satd. Flow (prot)	0	1859	0	1770	1863	0	0	0	0	0	3444	0
Flt Permitted				0.582							0.992	
Satd. Flow (perm)	0	1859	0	1084	1863	0	0	0	0	0	3444	0
Right Turn on Red			Yes			Yes				Yes		Yes
Satd. Flow (RTOR)											8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1162			94			635			457	
Travel Time (s)		26.4			2.1			14.4			10.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	287	4	4	755	0	0	0	0	98	403	73
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	291	0	4	755	0	0	0	0	0	574	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15			9	15	9
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		3			3 5 10						9	
Permitted Phases				3 5 10						9		
Minimum Split (s)		22.5								9.5	9.5	
Total Split (s)		24.0								16.0	16.0	
Total Split (%)		16.0%								10.7%	10.7%	
Maximum Green (s)		19.5								11.5	11.5	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.0								1.0	1.0	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		4.5									4.5	
Lead/Lag										Lead	Lead	
Lead-Lag Optimize?										Yes	Yes	
Walk Time (s)		7.0										
Flash Dont Walk (s)		11.0										
Pedestrian Calls (#/hr)		0										
Act Effect Green (s)		19.5		129.5	129.5						11.5	
Actuated g/C Ratio		0.13		0.86	0.86						0.08	
v/c Ratio		1.21		0.00	0.47						2.12	

Lanes, Volumes, Timings
6: Humboldt Parkway SB & E Utica St

03/10/2022

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø10
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	1	2	5	7	10
Permitted Phases					
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5
Total Split (s)	18.0	62.0	80.0	24.0	30.0
Total Split (%)	12%	41%	53%	16%	20%
Maximum Green (s)	13.5	57.5	75.5	19.5	25.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lag	Lead			Lag
Lead-Lag Optimize?	Yes	Yes			Yes
Walk Time (s)		7.0		7.0	7.0
Flash Dont Walk (s)		11.0		11.0	11.0
Pedestrian Calls (#/hr)		0		0	0
Act Effect Green (s)					
Actuated g/C Ratio					
v/c Ratio					

Lanes, Volumes, Timings

6: Humboldt Parkway SB & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		178.5		0.2	4.3						526.8	
Queue Delay		0.0		0.0	0.0						0.0	
Total Delay		178.5		0.2	4.3						526.8	
LOS		F		A	A						F	
Approach Delay		178.5			4.3						526.8	
Approach LOS		F			A						F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 43 (29%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 2.12

Intersection Signal Delay: 220.2

Intersection LOS: F

Intersection Capacity Utilization 59.1%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 6: Humboldt Parkway SB & E Utica St

#67  Ø2 (R)	#67  Ø1	#6 #7  Ø3	#6 #7 #67 #6 #7 #67  Ø10
62 s	18 s	24 s	16 s 30 s
#6 #7  Ø5	#67  Ø7		
80 s	24 s		

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø10
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
7: Humboldt Parkway NB & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	389	0	0	146	3	118	321	100	0	0	0
Future Volume (vph)	5	389	0	0	146	3	118	321	100	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.997				0.850			
Flt Protected	0.950							0.987				
Satd. Flow (prot)	1770	1863	0	0	1857	0	0	1839	1583	0	0	0
Flt Permitted	0.154							0.987				
Satd. Flow (perm)	287	1863	0	0	1857	0	0	1839	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1				109			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		77			1076			613			291	
Travel Time (s)		1.8			24.5			13.9			6.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	423	0	0	159	3	128	349	109	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	423	0	0	162	0	0	477	109	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		3 5 9			3			10				
Permitted Phases	3 5 9						10		10			
Minimum Split (s)					22.5		22.5	22.5	22.5			
Total Split (s)					24.0		30.0	30.0	30.0			
Total Split (%)					16.0%		20.0%	20.0%	20.0%			
Maximum Green (s)					19.5		25.5	25.5	25.5			
Yellow Time (s)					3.5		3.5	3.5	3.5			
All-Red Time (s)					1.0		1.0	1.0	1.0			
Lost Time Adjust (s)					0.0			0.0	0.0			
Total Lost Time (s)					4.5			4.5	4.5			
Lead/Lag							Lag	Lag	Lag			
Lead-Lag Optimize?							Yes	Yes	Yes			
Walk Time (s)					7.0		7.0	7.0	7.0			
Flash Dont Walk (s)					11.0		11.0	11.0	11.0			
Pedestrian Calls (#/hr)					0		0	0	0			
Act Effct Green (s)	115.5	115.5			19.5			25.5	25.5			
Actuated g/C Ratio	0.77	0.77			0.13			0.17	0.17			
v/c Ratio	0.02	0.29			0.67			1.53	0.30			
Control Delay	1.2	1.7			76.3			293.8	11.4			
Queue Delay	0.0	0.0			0.0			0.0	0.0			
Total Delay	1.2	1.7			76.3			293.8	11.4			

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

03/10/2022

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø9
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	1	2	5	7	9
Permitted Phases					
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5
Total Split (s)	18.0	62.0	80.0	24.0	16.0
Total Split (%)	12%	41%	53%	16%	11%
Maximum Green (s)	13.5	57.5	75.5	19.5	11.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lag	Lead		Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	
Walk Time (s)		7.0		7.0	
Flash Dont Walk (s)		11.0		11.0	
Pedestrian Calls (#/hr)		0		0	
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					

Lanes, Volumes, Timings

7: Humboldt Parkway NB & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	A	A			E			F	B			
Approach Delay		1.7			76.3			241.3				
Approach LOS		A			E			F				

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 43 (29%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 2.12

Intersection Signal Delay: 131.4

Intersection LOS: F

Intersection Capacity Utilization 51.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 7: Humboldt Parkway NB & E Utica St

#67  Ø2 (R)	#67  Ø1	#6 #7  Ø3	#6 #7 #67 #6 #7 #67  Ø10
62 s	18 s	24 s	16 s 30 s
#6 #7  Ø5	#67  Ø7		
80 s	24 s		

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø9
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	909	14	15	1299	0	0	0	0	248	343	321
Future Volume (vph)	0	909	14	15	1299	0	0	0	0	248	343	321
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.998										0.953	
Fl _t Protected				0.950							0.987	
Satd. Flow (prot)	0	1859	0	1770	1863	0	0	0	0	0	1752	0
Fl _t Permitted				0.066							0.987	
Satd. Flow (perm)	0	1859	0	123	1863	0	0	0	0	0	1752	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)											15	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1165			84			321			268	
Travel Time (s)		26.5			1.9			7.3			6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	988	15	16	1412	0	0	0	0	270	373	349
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1003	0	16	1412	0	0	0	0	0	992	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		3			3 5 10						9	
Permitted Phases				3 5 10						9		
Minimum Split (s)		22.5								9.5	9.5	
Total Split (s)		36.0								27.0	27.0	
Total Split (%)		24.0%								18.0%	18.0%	
Maximum Green (s)		31.5								22.5	22.5	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.0								1.0	1.0	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		4.5									4.5	
Lead/Lag										Lag	Lag	
Lead-Lag Optimize?										Yes	Yes	
Walk Time (s)		7.0										
Flash Dont Walk (s)		11.0										
Pedestrian Calls (#/hr)		0										
Act Effect Green (s)		31.5		118.5	118.5						22.5	
Actuated g/C Ratio		0.21		0.79	0.79						0.15	
v/c Ratio		2.57		0.16	0.96						3.61	
Control Delay		738.0		1.5	21.9						1198.9	
Queue Delay		6.5		0.0	0.0						1.0	
Total Delay		744.4		1.5	21.9						1199.9	

Lanes, Volumes, Timings
8: Humboldt Parkway SB & E Ferry St

03/10/2022

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø10
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	1	2	5	7	10
Permitted Phases					
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5
Total Split (s)	19.0	42.0	61.0	36.0	26.0
Total Split (%)	13%	28%	41%	24%	17%
Maximum Green (s)	14.5	37.5	56.5	31.5	21.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead	Lag		Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	
Walk Time (s)		7.0		7.0	7.0
Flash Dont Walk (s)		11.0		11.0	11.0
Pedestrian Calls (#/hr)		0		0	0
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					

Lanes, Volumes, Timings

8: Humboldt Parkway SB & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		F		A	C						F	
Approach Delay		744.4			21.7						1199.9	
Approach LOS		F			C						F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green, Master Intersection

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 3.61

Intersection Signal Delay: 574.9

Intersection LOS: F

Intersection Capacity Utilization 127.2%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 8: Humboldt Parkway SB & E Ferry St

#68  Ø1 19 s	#68  Ø2 (R) 42 s	#8 #9  Ø3 36 s	#8 #9 #68  Ø10 26 s	#8 #9 #68  Ø9 27 s
#8 #9  Ø5 61 s	#68  Ø7 36 s			

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø10
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
9: Humboldt Parkway NB & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	804	0	0	411	9	89	309	74	0	0	0
Future Volume (vph)	35	804	0	0	411	9	89	309	74	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	75		0	0		0
Storage Lanes	1		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.997				0.850			
Flt Protected	0.950							0.989				
Satd. Flow (prot)	1770	1863	0	0	1857	0	0	1842	1583	0	0	0
Flt Permitted	0.500							0.989				
Satd. Flow (perm)	931	1863	0	0	1857	0	0	1842	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1				109			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		78			1081			317			602	
Travel Time (s)		1.8			24.6			7.2			13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	38	874	0	0	447	10	97	336	80	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	874	0	0	457	0	0	433	80	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		3 5 9			3			10				
Permitted Phases	3 5 9						10		10			
Minimum Split (s)					22.5		22.5	22.5	22.5			
Total Split (s)					36.0		26.0	26.0	26.0			
Total Split (%)					24.0%		17.3%	17.3%	17.3%			
Maximum Green (s)					31.5		21.5	21.5	21.5			
Yellow Time (s)					3.5		3.5	3.5	3.5			
All-Red Time (s)					1.0		1.0	1.0	1.0			
Lost Time Adjust (s)					0.0			0.0	0.0			
Total Lost Time (s)					4.5			4.5	4.5			
Lead/Lag							Lead	Lead	Lead			
Lead-Lag Optimize?							Yes	Yes	Yes			
Walk Time (s)					7.0		7.0	7.0	7.0			
Flash Dont Walk (s)					11.0		11.0	11.0	11.0			
Pedestrian Calls (#/hr)					0		0	0	0			
Act Effct Green (s)	119.5	119.5			31.5			21.5	21.5			
Actuated g/C Ratio	0.80	0.80			0.21			0.14	0.14			
v/c Ratio	0.05	0.59			1.17			1.64	0.25			

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

03/10/2022

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø9
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	1	2	5	7	9
Permitted Phases					
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5
Total Split (s)	19.0	42.0	61.0	36.0	27.0
Total Split (%)	13%	28%	41%	24%	18%
Maximum Green (s)	14.5	37.5	56.5	31.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead	Lag			Lag
Lead-Lag Optimize?	Yes	Yes			Yes
Walk Time (s)		7.0		7.0	
Flash Dont Walk (s)		11.0		11.0	
Pedestrian Calls (#/hr)		0		0	
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					

Lanes, Volumes, Timings

9: Humboldt Parkway NB & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	1.2	7.9			151.6			323.5	11.8			
Queue Delay	0.0	0.0			1.1			0.0	0.0			
Total Delay	1.2	7.9			152.7			323.5	11.8			
LOS	A	A			F			F	B			
Approach Delay		7.6			152.7			274.9				
Approach LOS		A			F			F				

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green, Master Intersection

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 3.61

Intersection Signal Delay: 115.7

Intersection LOS: F

Intersection Capacity Utilization 71.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 9: Humboldt Parkway NB & E Ferry St

#68  Ø1	#68  Ø2 (R)	#8 #9  Ø3	#8 #9 #68  Ø10	#8 #9 #68  Ø9
19 s	42 s	36 s	26 s	27 s
#8 #9  Ø5	#68  Ø7			
61 s	36 s			

Lane Group	Ø1	Ø2	Ø5	Ø7	Ø9
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
10: Jefferson Ave & Cherry St & EB On Ramp

03/10/2022

										
Lane Group	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Traffic Volume (vph)	13	1	0	327	290	243	521	0	0	0
Future Volume (vph)	13	1	0	327	290	243	521	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00
Fr't	0.991			0.929						
Flt Protected	0.955						0.984			
Satd. Flow (prot)	1763	0	0	3288	0	0	3483	0	0	0
Flt Permitted	0.955						0.621			
Satd. Flow (perm)	1763	0	0	3288	0	0	2198	0	0	0
Right Turn on Red		Yes			Yes			Yes		
Satd. Flow (RTOR)	27			315						
Link Speed (mph)	30			30			30		30	
Link Distance (ft)	537			328			271		387	
Travel Time (s)	12.2			7.5			6.2		8.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	1	0	355	315	264	566	0	0	0
Shared Lane Traffic (%)										
Lane Group Flow (vph)	15	0	0	670	0	0	830	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right
Median Width(ft)	12			0			0		0	
Link Offset(ft)	0			0			0		0	
Crosswalk Width(ft)	16			16			16		16	
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15		9	15		9	15	9
Turn Type	Prot			NA		Perm	NA			
Protected Phases	4			2			6			
Permitted Phases						6				
Minimum Split (s)	22.5			22.5		22.5	22.5			
Total Split (s)	22.5			37.5		37.5	37.5			
Total Split (%)	37.5%			62.5%		62.5%	62.5%			
Maximum Green (s)	18.0			33.0		33.0	33.0			
Yellow Time (s)	3.5			3.5		3.5	3.5			
All-Red Time (s)	1.0			1.0		1.0	1.0			
Lost Time Adjust (s)	0.0			0.0			0.0			
Total Lost Time (s)	4.5			4.5			4.5			
Lead/Lag										
Lead-Lag Optimize?										
Walk Time (s)	7.0			7.0		7.0	7.0			
Flash Dont Walk (s)	11.0			11.0		11.0	11.0			
Pedestrian Calls (#/hr)	0			0		0	0			
Act Effect Green (s)	18.0			33.0			33.0			
Actuated g/C Ratio	0.30			0.55			0.55			
v/c Ratio	0.03			0.34			0.69			
Control Delay	4.6			4.3			13.5			
Queue Delay	0.0			0.0			1.7			
Total Delay	4.6			4.3			15.2			

Lanes, Volumes, Timings

10: Jefferson Ave & Cherry St & EB On Ramp

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
LOS	A			A			B			
Approach Delay	4.6			4.3			15.2			
Approach LOS	A			A			B			

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 10.2

Intersection LOS: B

Intersection Capacity Utilization 55.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 10: Jefferson Ave & Cherry St & EB On Ramp

Ø2 (R) 37.5 s	Ø4 22.5 s
Ø6 (R) 37.5 s	

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	132	6	55	51	377	0	0	729	18
Future Volume (vph)	0	0	0	132	6	55	51	377	0	0	729	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt					0.961						0.996	
Flt Protected					0.967			0.994				
Satd. Flow (prot)	0	0	0	0	1731	0	0	3518	0	0	3525	0
Flt Permitted					0.967			0.811				
Satd. Flow (perm)	0	0	0	0	1731	0	0	2870	0	0	3525	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					53						7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			384			271			880	
Travel Time (s)		12.9			8.7			6.2			20.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	143	7	60	55	410	0	0	792	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	210	0	0	465	0	0	812	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8			2					
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (%)				50.0%	50.0%		50.0%	50.0%			50.0%	
Maximum Green (s)				18.0	18.0		18.0	18.0			18.0	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)				7.0	7.0		7.0	7.0			7.0	
Flash Dont Walk (s)				11.0	11.0		11.0	11.0			11.0	
Pedestrian Calls (#/hr)				0	0		0	0			0	
Act Effect Green (s)					18.0			18.0			18.0	
Actuated g/C Ratio					0.40			0.40			0.40	
v/c Ratio					0.29			0.41			0.57	

Lanes, Volumes, Timings

11: Jefferson Ave & BFNC Dr/WB Off Ramp

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay					8.2			11.0			12.4	
Queue Delay					0.0			0.0			0.0	
Total Delay					8.2			11.0			12.4	
LOS					A			B			B	
Approach Delay					8.2			11.0			12.4	
Approach LOS					A			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 11.4

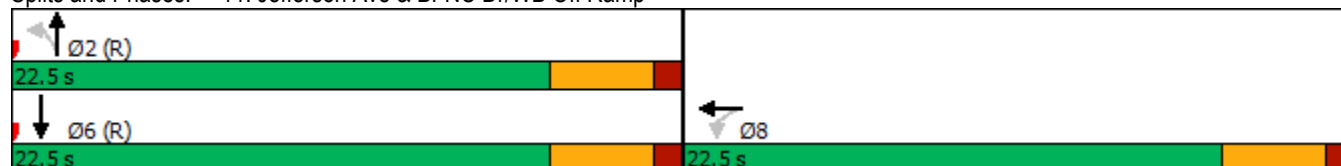
Intersection LOS: B

Intersection Capacity Utilization 54.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 11: Jefferson Ave & BFNC Dr/WB Off Ramp



Lanes, Volumes, Timings
12: Jefferson Ave & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	131	33	53	138	79	11	504	44	46	480	107
Future Volume (vph)	43	131	33	53	138	79	11	504	44	46	480	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.976			0.956			0.988			0.975	
Flt Protected		0.990			0.990			0.999			0.996	
Satd. Flow (prot)	0	3420	0	0	3350	0	0	3493	0	0	3437	0
Flt Permitted		0.855			0.864			0.939			0.879	
Satd. Flow (perm)	0	2953	0	0	2923	0	0	3283	0	0	3033	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			86			24			63	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		737			2886			735			328	
Travel Time (s)		16.8			65.6			16.7			7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	47	142	36	58	150	86	12	548	48	50	522	116
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	225	0	0	294	0	0	608	0	0	688	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.19			0.24			0.46			0.55	
Control Delay		7.8			1.3			10.9			11.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		7.8			1.3			10.9			11.4	

Lanes, Volumes, Timings 12: Jefferson Ave & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			A			B			B	
Approach Delay		7.8			1.3			10.9			11.4	
Approach LOS		A			A			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 27 (60%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 9.1

Intersection LOS: A

Intersection Capacity Utilization 62.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 12: Jefferson Ave & Genesee St

					
Ø2 (R)			Ø4		
22.5 s			22.5 s		
					
Ø6 (R)			Ø8		
22.5 s			22.5 s		

Lanes, Volumes, Timings
13: Herman St & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	332	27	23	359	27	21	102	22	43	169	23
Future Volume (vph)	12	332	27	23	359	27	21	102	22	43	169	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989			0.990			0.979			0.987	
Flt Protected		0.998			0.997			0.993			0.991	
Satd. Flow (prot)	0	3493	0	0	3493	0	0	1811	0	0	1822	0
Flt Permitted		0.938			0.922			0.940			0.927	
Satd. Flow (perm)	0	3283	0	0	3231	0	0	1714	0	0	1704	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			19			24			14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2886			671			575			1329	
Travel Time (s)		65.6			15.3			13.1			30.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	361	29	25	390	29	23	111	24	47	184	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	403	0	0	444	0	0	158	0	0	256	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.30			0.34			0.23			0.37	
Control Delay		9.2			5.2			8.7			10.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.2			5.2			8.7			10.9	

Lanes, Volumes, Timings

13: Herman St & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			A			A			B	
Approach Delay		9.2			5.2			8.7			10.9	
Approach LOS		A			A			A			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 37 (82%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.37

Intersection Signal Delay: 8.1

Intersection LOS: A

Intersection Capacity Utilization 51.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 13: Herman St & Genesee St

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
14: Reed St/Rich St & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	473	0	0	431	17	18	14	27	12	0	14
Future Volume (vph)	4	473	0	0	431	17	18	14	27	12	0	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.994			0.939			0.928	
Fl _t Protected								0.985			0.977	
Satd. Flow (prot)	0	3539	0	0	3518	0	0	1723	0	0	1689	0
Fl _t Permitted		0.952						0.936			0.912	
Satd. Flow (perm)	0	3369	0	0	3518	0	0	1637	0	0	1577	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10			29			36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		671			961			780			839	
Travel Time (s)		15.3			21.8			17.7			19.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	514	0	0	468	18	20	15	29	13	0	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	518	0	0	486	0	0	64	0	0	28	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			50	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2						8			4		
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5			22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0			18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0			7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	
Act Effct Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.38			0.34			0.10			0.04	
Control Delay		8.9			10.1			6.1			3.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.9			10.1			6.1			3.5	

Lanes, Volumes, Timings 14: Reed St/Rich St & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			B			A			A	
Approach Delay		8.9			10.1			6.1			3.5	
Approach LOS		A			B			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 16 (36%), Referenced to phase 2:EBTL and 6:WBT, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 9.1

Intersection LOS: A

Intersection Capacity Utilization 27.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Reed St/Rich St & Genesee St

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
15: Fillmore Ave & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	447	79	89	380	34	41	372	79	49	320	16
Future Volume (vph)	43	447	79	89	380	34	41	372	79	49	320	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.990			0.978			0.995	
Flt Protected		0.996			0.991			0.996			0.994	
Satd. Flow (prot)	0	3451	0	0	3472	0	0	1814	0	0	1842	0
Flt Permitted		0.881			0.743			0.942			0.903	
Satd. Flow (perm)	0	3053	0	0	2603	0	0	1716	0	0	1674	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		48			20			26			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		961			671			704			490	
Travel Time (s)		21.8			15.3			16.0			11.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	47	486	86	97	413	37	45	404	86	53	348	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	619	0	0	547	0	0	535	0	0	418	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	

Lanes, Volumes, Timings
15: Fillmore Ave & Genesee St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		13.5			13.5			18.1			18.1	
Actuated g/C Ratio		0.33			0.33			0.44			0.44	
v/c Ratio		0.59			0.62			0.69			0.56	
Control Delay		12.7			14.2			16.6			12.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.7			14.2			16.6			12.9	
LOS		B			B			B			B	
Approach Delay		12.7			14.2			16.6			12.9	
Approach LOS		B			B			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 40.7

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 14.1

Intersection LOS: B

Intersection Capacity Utilization 73.6%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 15: Fillmore Ave & Genesee St

 Ø2	 Ø4
22.5 s	22.5 s
 Ø6	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
16: Fillmore Ave & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	648	198	1	643	48	170	265	6	53	280	54
Future Volume (vph)	52	648	198	1	643	48	170	265	6	53	280	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970			0.991			0.998				0.850
Flt Protected		0.997						0.981			0.992	
Satd. Flow (prot)	0	1801	0	0	1846	0	0	1824	0	0	1848	1583
Flt Permitted		0.920			0.999			0.556			0.877	
Satd. Flow (perm)	0	1662	0	0	1844	0	0	1034	0	0	1634	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			6			1				59
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1418			567			490			61	
Travel Time (s)		32.2			12.9			11.1			1.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	57	704	215	1	699	52	185	288	7	58	304	59
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	976	0	0	752	0	0	480	0	0	362	59
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0

Lanes, Volumes, Timings
16: Fillmore Ave & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (s)	43.0	43.0		43.0	43.0		37.0	37.0		37.0	37.0	37.0
Total Split (%)	53.8%	53.8%		53.8%	53.8%		46.3%	46.3%		46.3%	46.3%	46.3%
Maximum Green (s)	38.5	38.5		38.5	38.5		32.5	32.5		32.5	32.5	32.5
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)		4.5			4.5			4.5			4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	0
Act Effct Green (s)		38.5			38.5			32.5			32.5	32.5
Actuated g/C Ratio		0.48			0.48			0.41			0.41	0.41
v/c Ratio		1.20			0.84			1.14			0.55	0.09
Control Delay		125.3			29.1			115.1			6.9	0.3
Queue Delay		19.7			67.2			0.1			0.0	0.0
Total Delay		145.0			96.2			115.2			6.9	0.3
LOS		F			F			F			A	A
Approach Delay		145.0			96.2			115.2			6.0	
Approach LOS		F			F			F			A	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.20

Intersection Signal Delay: 103.4

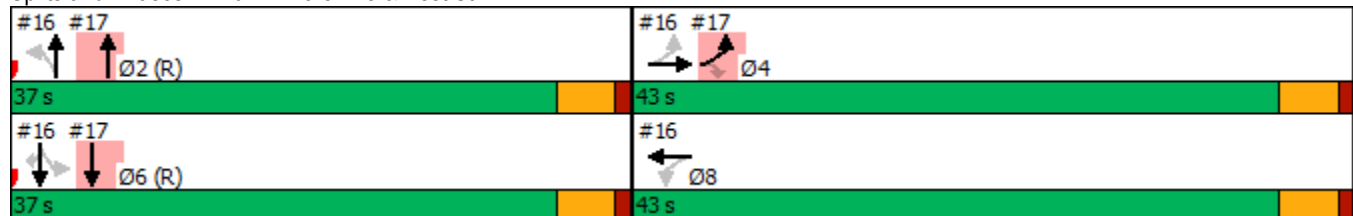
Intersection LOS: F

Intersection Capacity Utilization 141.0%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 16: Fillmore Ave & Best St



Lanes, Volumes, Timings
17: Fillmore Ave & East Park

03/10/2022

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	11	10	0	419	376	0	
Future Volume (vph)	11	10	0	419	376	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	0			100	
Storage Lanes	1	1	0			1	
Taper Length (ft)	25		25				
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	
Frt		0.850					
Flt Protected	0.950						
Satd. Flow (prot)	1770	1583	0	1863	3539	0	
Flt Permitted	0.950						
Satd. Flow (perm)	1770	1583	0	1863	3539	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		11					
Link Speed (mph)	30			30	30		
Link Distance (ft)	468			61	755		
Travel Time (s)	10.6			1.4	17.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	12	11	0	455	409	0	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	12	11	0	455	409	0	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	Right	
Median Width(ft)	12			0	0		
Link Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9	15			9	
Number of Detectors	1	1		2	2		
Detector Template	Left	Right		Thru	Thru		
Leading Detector (ft)	20	20		100	100		
Trailing Detector (ft)	0	0		0	0		
Detector 1 Position(ft)	0	0		0	0		
Detector 1 Size(ft)	20	20		6	6		
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel							
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		
Detector 2 Position(ft)				94	94		
Detector 2 Size(ft)				6	6		
Detector 2 Type				Cl+Ex	Cl+Ex		
Detector 2 Channel							
Detector 2 Extend (s)				0.0	0.0		
Turn Type	Prot	Perm		NA	NA		
Protected Phases	4			2	6		8
Permitted Phases		4					

Lanes, Volumes, Timings

17: Fillmore Ave & East Park

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Detector Phase	4	4		2	6		
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5
Total Split (s)	43.0	43.0		37.0	37.0		43.0
Total Split (%)	53.8%	53.8%		46.3%	46.3%		54%
Maximum Green (s)	38.5	38.5		32.5	32.5		38.5
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		
Total Lost Time (s)	4.5	4.5		4.5	4.5		
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0
Recall Mode	None	None		C-Max	C-Max		None
Walk Time (s)	7.0	7.0		7.0	7.0		7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0
Pedestrian Calls (#/hr)	0	0		0	0		0
Act Effect Green (s)	38.5	38.5		32.5	32.5		
Actuated g/C Ratio	0.48	0.48		0.41	0.41		
v/c Ratio	0.01	0.01		0.60	0.28		
Control Delay	11.0	6.1		11.5	16.6		
Queue Delay	0.0	0.0		0.0	0.0		
Total Delay	11.0	6.1		11.5	16.7		
LOS	B	A		B	B		
Approach Delay	8.7			11.5	16.7		
Approach LOS	A			B	B		

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.20

Intersection Signal Delay: 13.8

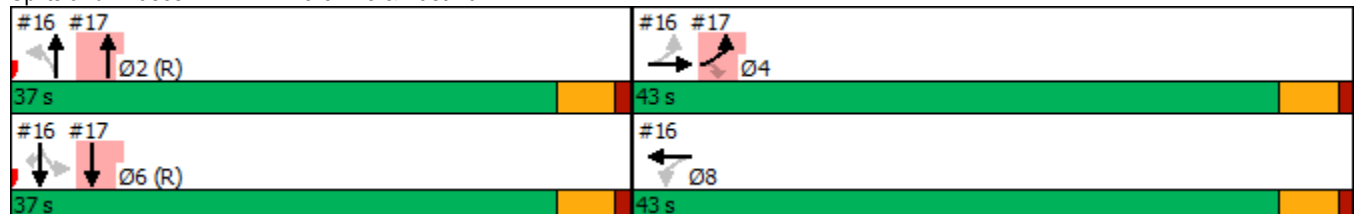
Intersection LOS: B

Intersection Capacity Utilization 33.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Fillmore Ave & East Park



Lanes, Volumes, Timings
18: Fillmore Ave & MLK Park

03/10/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	4	14	0	445	354	0
Future Volume (vph)	4	14	0	445	354	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr't	0.850					
Flt Protected	0.950					
Satd. Flow (prot)	1770	1583	0	1863	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	1583	0	1863	1863	0
Right Turn on Red	Yes					
Satd. Flow (RTOR)	15					
Link Speed (mph)	30			30	30	
Link Distance (ft)	526			755	579	
Travel Time (s)	12.0			17.2	13.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	15	0	484	385	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	15	0	484	385	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	Prot	Perm		NA	NA	
Protected Phases	4			2	6	
Permitted Phases	4					
Minimum Split (s)	22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	
Act Effect Green (s)	18.0	18.0		18.0	18.0	
Actuated g/C Ratio	0.40	0.40		0.40	0.40	
v/c Ratio	0.01	0.02		0.65	0.52	
Control Delay	8.2	4.9		16.0	13.3	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	8.2	4.9		16.0	13.3	

Lanes, Volumes, Timings

18: Fillmore Ave & MLK Park

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
LOS	A	A		B	B	
Approach Delay	5.6			16.0	13.3	
Approach LOS	A			B	B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 14.6

Intersection LOS: B

Intersection Capacity Utilization 35.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Fillmore Ave & MLK Park

Ø2 (R) 22.5 s	Ø4 22.5 s
Ø6 (R) 22.5 s	

Lanes, Volumes, Timings
19: Fillmore Ave & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	85	21	16	38	17	26	433	12	12	538	82
Future Volume (vph)	19	85	21	16	38	17	26	433	12	12	538	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.977			0.968			0.997			0.983	
Flt Protected		0.992			0.989			0.997			0.999	
Satd. Flow (prot)	0	1805	0	0	1783	0	0	1852	0	0	1829	0
Flt Permitted		0.935			0.929			0.955			0.991	
Satd. Flow (perm)	0	1702	0	0	1675	0	0	1774	0	0	1815	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			18			3			20	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1089			291			579			735	
Travel Time (s)		24.8			6.6			13.2			16.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	21	92	23	17	41	18	28	471	13	13	585	89
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	136	0	0	76	0	0	512	0	0	687	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	0		1	0		1	0	
Detector Template	Left			Left			Left	Thru		Left		
Leading Detector (ft)	20	10		20	0		20	0		20	0	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	10		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		37.5	37.5		37.5	37.5	
Total Split (%)	37.5%	37.5%		37.5%	37.5%		62.5%	62.5%		62.5%	62.5%	
Maximum Green (s)	18.0	18.0		18.0	18.0		33.0	33.0		33.0	33.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	

Lanes, Volumes, Timings
19: Fillmore Ave & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		8.9			8.9			38.4			38.4	
Actuated g/C Ratio		0.17			0.17			0.72			0.72	
v/c Ratio		0.46			0.26			0.40			0.52	
Control Delay		21.9			16.9			5.7			6.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		21.9			16.9			5.7			6.9	
LOS		C			B			A			A	
Approach Delay		21.9			16.9			5.7			6.9	
Approach LOS		C			B			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 53.4

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 8.5

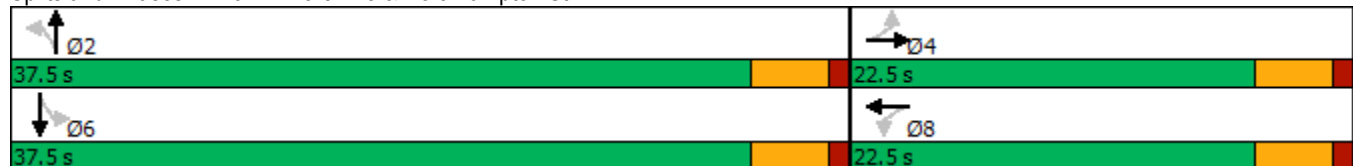
Intersection LOS: A

Intersection Capacity Utilization 53.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 19: Fillmore Ave & Northhampton St



Lanes, Volumes, Timings
21: Fillmore Ave & Riley St/Urban St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	0	7	10	0	29	6	776	9	31	609	17
Future Volume (vph)	4	0	7	10	0	29	6	776	9	31	609	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.910			0.888			0.998			0.997	
Flt Protected		0.984			0.987						0.998	
Satd. Flow (prot)	0	1668	0	0	3102	0	0	1859	0	0	1853	0
Flt Permitted					0.955			0.996			0.947	
Satd. Flow (perm)	0	1695	0	0	3001	0	0	1852	0	0	1759	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			32			2			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1082			639			735			422	
Travel Time (s)		24.6			14.5			16.7			9.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	0	8	11	0	32	7	843	10	34	662	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	43	0	0	860	0	0	714	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			50			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	0		1	0	
Detector Template	Left	Thru		Left	Thru		Left			Left		
Leading Detector (ft)	20	100		20	100		20	0		20	0	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	

Lanes, Volumes, Timings
21: Fillmore Ave & Riley St/Urban St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		37.5	37.5		37.5	37.5	
Total Split (%)	37.5%	37.5%		37.5%	37.5%		62.5%	62.5%		62.5%	62.5%	
Maximum Green (s)	18.0	18.0		18.0	18.0		33.0	33.0		33.0	33.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		5.9			5.9			47.7			47.7	
Actuated g/C Ratio		0.11			0.11			0.89			0.89	
v/c Ratio		0.06			0.12			0.52			0.46	
Control Delay		5.5			12.2			3.9			3.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		5.5			12.2			3.9			3.4	
LOS		A			B			A			A	
Approach Delay		5.5			12.2			3.9			3.4	
Approach LOS		A			B			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 53.7

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 3.9

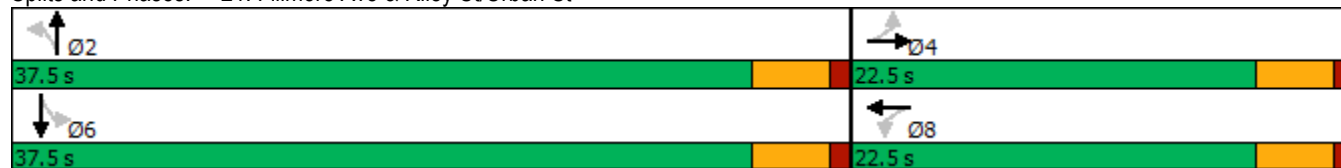
Intersection LOS: A

Intersection Capacity Utilization 65.7%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 21: Fillmore Ave & Riley St/Urban St



Lanes, Volumes, Timings
22: Fillmore Ave & French St

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	18	93	768	26	99	445
Future Volume (vph)	18	93	768	26	99	445
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.887		0.996			
Flt Protected	0.992					0.991
Satd. Flow (prot)	1639	0	1855	0	0	1846
Flt Permitted	0.992					0.552
Satd. Flow (perm)	1639	0	1855	0	0	1028
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	101		4			
Link Speed (mph)	30		30			30
Link Distance (ft)	600		422			182
Travel Time (s)	13.6		9.6			4.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	101	835	28	108	484
Shared Lane Traffic (%)						
Lane Group Flow (vph)	121	0	863	0	0	592
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		52.5		52.5	52.5
Total Split (%)	30.0%		70.0%		70.0%	70.0%
Maximum Green (s)	18.0		48.0		48.0	48.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0		7.0		7.0	7.0
Flash Dont Walk (s)	11.0		11.0		11.0	11.0
Pedestrian Calls (#/hr)	0		0		0	0
Act Effct Green (s)	18.0		48.0			48.0
Actuated g/C Ratio	0.24		0.64			0.64
v/c Ratio	0.26		0.73			0.90
Control Delay	8.9		13.6			32.2
Queue Delay	0.0		6.6			48.4
Total Delay	8.9		20.2			80.6

Lanes, Volumes, Timings
22: Fillmore Ave & French St

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
LOS	A		C			F
Approach Delay	8.9		20.2			80.6
Approach LOS	A		C			F

Intersection Summary

Area Type: Other

Cycle Length: 75

Actuated Cycle Length: 75

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Pretimed

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 42.0

Intersection LOS: D

Intersection Capacity Utilization 88.9%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 22: Fillmore Ave & French St



Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

03/10/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	109	139	112	563	616	128
Future Volume (vph)	109	139	112	563	616	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.924				0.977	
Flt Protected	0.979			0.992		
Satd. Flow (prot)	1685	0	0	1848	1820	0
Flt Permitted	0.979			0.639		
Satd. Flow (perm)	1685	0	0	1190	1820	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	64				28	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1076			182	1350	
Travel Time (s)	24.5			4.1	30.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	118	151	122	612	670	139
Shared Lane Traffic (%)						
Lane Group Flow (vph)	269	0	0	734	809	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		67.5	67.5	67.5	
Total Split (%)	25.0%		75.0%	75.0%	75.0%	
Maximum Green (s)	18.0		63.0	63.0	63.0	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0		7.0	7.0	7.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Act Effct Green (s)	18.0			63.0	63.0	
Actuated g/C Ratio	0.20			0.70	0.70	
v/c Ratio	0.69			0.88	0.63	
Control Delay	35.9			25.6	9.7	
Queue Delay	0.0			48.7	0.0	
Total Delay	35.9			74.3	9.7	

Lanes, Volumes, Timings
23: Fillmore Ave & E Utica St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
LOS	D			E	A	
Approach Delay	35.9			74.3	9.7	
Approach LOS	D			E	A	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 90

Control Type: Pretimed

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 39.7

Intersection LOS: D

Intersection Capacity Utilization 101.8%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 23: Fillmore Ave & E Utica St



Lanes, Volumes, Timings
24: Fillmore Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	283	87	50	238	46	101	715	150	53	378	97
Future Volume (vph)	38	283	87	50	238	46	101	715	150	53	378	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.968			0.979			0.977			0.973	
Flt Protected		0.995			0.993			0.995			0.995	
Satd. Flow (prot)	0	3409	0	0	3441	0	0	3441	0	0	3426	0
Flt Permitted		0.887			0.830			0.829			0.801	
Satd. Flow (perm)	0	3039	0	0	2876	0	0	2867	0	0	2758	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		66			35			56			71	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1081			797			1350			1620	
Travel Time (s)		24.6			18.1			30.7			36.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	41	308	95	54	259	50	110	777	163	58	411	105
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	444	0	0	363	0	0	1050	0	0	574	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		

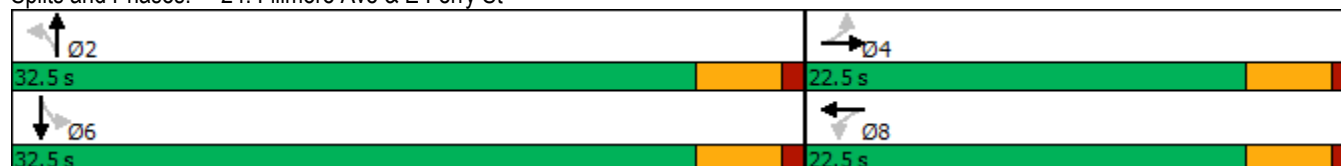
Lanes, Volumes, Timings

24: Fillmore Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		32.5	32.5		32.5	32.5	
Total Split (%)	40.9%	40.9%		40.9%	40.9%		59.1%	59.1%		59.1%	59.1%	
Maximum Green (s)	18.0	18.0		18.0	18.0		28.0	28.0		28.0	28.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		11.8			11.8			28.1			28.1	
Actuated g/C Ratio		0.24			0.24			0.57			0.57	
v/c Ratio		0.57			0.51			0.63			0.36	
Control Delay		16.6			16.8			9.4			6.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		16.6			16.8			9.4			6.2	
LOS		B			B			A			A	
Approach Delay		16.6			16.8			9.4			6.2	
Approach LOS		B			B			A			A	
Intersection Summary												
Area Type:	Other											
Cycle Length: 55												
Actuated Cycle Length: 48.9												
Natural Cycle: 55												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.63												
Intersection Signal Delay: 11.0												
Intersection LOS: B												
Intersection Capacity Utilization 78.8%												
ICU Level of Service D												
Analysis Period (min) 15												

Splits and Phases: 24: Fillmore Ave & E Ferry St



Lanes, Volumes, Timings
25: Fillmore Ave & Northland Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	30	22	50	60	20	19	521	50	37	470	28
Future Volume (vph)	4	30	22	50	60	20	19	521	50	37	470	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.947			0.979			0.989			0.993	
Flt Protected		0.997			0.981			0.998			0.997	
Satd. Flow (prot)	0	1759	0	0	1789	0	0	1839	0	0	1844	0
Flt Permitted		0.985			0.881			0.977			0.936	
Satd. Flow (perm)	0	1738	0	0	1607	0	0	1800	0	0	1731	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			18			12			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1020			890			1620			1011	
Travel Time (s)		23.2			20.2			36.8			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	33	24	54	65	22	21	566	54	40	511	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	0	0	141	0	0	641	0	0	581	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		32.5	32.5		32.5	32.5	
Total Split (%)	40.9%	40.9%		40.9%	40.9%		59.1%	59.1%		59.1%	59.1%	
Maximum Green (s)	18.0	18.0		18.0	18.0		28.0	28.0		28.0	28.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			28.0			28.0	
Actuated g/C Ratio		0.33			0.33			0.51			0.51	
v/c Ratio		0.10			0.26			0.70			0.66	
Control Delay		9.6			13.4			15.1			11.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.6			13.4			15.1			11.5	

Lanes, Volumes, Timings

25: Fillmore Ave & Northland Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			B			B			B	
Approach Delay		9.6			13.4			15.1			11.5	
Approach LOS		A			B			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 55

Offset: 31 (56%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Pretimed

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 13.2

Intersection LOS: B

Intersection Capacity Utilization 63.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 25: Fillmore Ave & Northland Ave

					
Ø2 (R)					Ø4
32.5 s					22.5 s
					
Ø6 (R)					Ø8
32.5 s					22.5 s

Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	102	225	51	37	195	48	54	458	47	71	387	86
Future Volume (vph)	102	225	51	37	195	48	54	458	47	71	387	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.982			0.977			0.989			0.979	
Flt Protected		0.987			0.993			0.995			0.994	
Satd. Flow (prot)	0	1805	0	0	1807	0	0	1833	0	0	1813	0
Flt Permitted		0.819			0.924			0.915			0.880	
Satd. Flow (perm)	0	1498	0	0	1682	0	0	1686	0	0	1605	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			21			12			24	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		928			735			1011			742	
Travel Time (s)		21.1			16.7			23.0			16.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	111	245	55	40	212	52	59	498	51	77	421	93
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	411	0	0	304	0	0	608	0	0	591	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	24.0	24.0		24.0	24.0		31.0	31.0		31.0	31.0	
Total Split (%)	43.6%	43.6%		43.6%	43.6%		56.4%	56.4%		56.4%	56.4%	
Maximum Green (s)	19.5	19.5		19.5	19.5		26.5	26.5		26.5	26.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		19.5			19.5			26.5			26.5	
Actuated g/C Ratio		0.35			0.35			0.48			0.48	
v/c Ratio		0.76			0.50			0.74			0.75	
Control Delay		26.8			16.4			7.8			19.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		26.8			16.4			7.8			19.2	

Lanes, Volumes, Timings
26: Fillmore Ave & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		C			B			A			B	
Approach Delay		26.8			16.4			7.8			19.2	
Approach LOS		C			B			A			B	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 55

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Pretimed

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 16.8

Intersection LOS: B

Intersection Capacity Utilization 87.5%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 26: Fillmore Ave & E Delavan Ave

 Ø2 (R)	 Ø4
31 s	24 s
 Ø6 (R)	 Ø8
31 s	24 s

Lanes, Volumes, Timings
27: Humboldt Parkway NB & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	274	311	0	0	347	38	6	21	14	0	0	0
Future Volume (vph)	274	311	0	0	347	38	6	21	14	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	0		150	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.985				0.850			
Flt Protected		0.977						0.988				
Satd. Flow (prot)	0	3458	0	0	3486	0	0	1840	1583	0	0	0
Flt Permitted		0.670						0.988				
Satd. Flow (perm)	0	2371	0	0	3486	0	0	1840	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					31				36			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		310			928			1019			213	
Travel Time (s)		7.0			21.1			23.2			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	298	338	0	0	377	41	7	23	15	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	636	0	0	418	0	0	30	15	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Maximum Green (s)	18.0	18.0			18.0		18.0	18.0	18.0			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)		0.0			0.0			0.0	0.0			
Total Lost Time (s)		4.5			4.5			4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0			7.0		7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0	11.0			
Pedestrian Calls (#/hr)	0	0			0		0	0	0			
Act Effct Green (s)		18.0			18.0			18.0	18.0			
Actuated g/C Ratio		0.40			0.40			0.40	0.40			
v/c Ratio		0.67			0.30			0.04	0.02			

Lanes, Volumes, Timings

27: Humboldt Parkway NB & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		15.4			9.2			8.5	1.9			
Queue Delay		0.0			0.0			0.0	0.0			
Total Delay		15.4			9.2			8.5	1.9			
LOS		B			A			A	A			
Approach Delay		15.4			9.2			6.3				
Approach LOS		B			A			A				

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 12.6

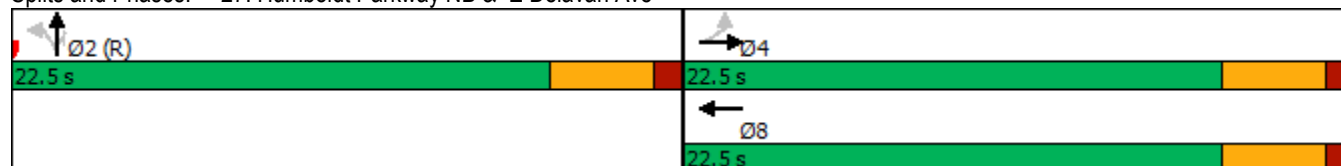
Intersection LOS: B

Intersection Capacity Utilization 42.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 27: Humboldt Parkway NB & E Delavan Ave



Lanes, Volumes, Timings
28: Humboldt Parkway SB & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					 							
Traffic Volume (vph)	0	558	59	99	236	0	0	0	0	45	66	28
Future Volume (vph)	0	558	59	99	236	0	0	0	0	45	66	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987										0.850
Flt Protected					0.985						0.980	
Satd. Flow (prot)	0	1839	0	0	3486	0	0	0	0	0	1825	1583
Flt Permitted					0.641						0.980	
Satd. Flow (perm)	0	1839	0	0	2269	0	0	0	0	0	1825	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14										30
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2669			310			684			864	
Travel Time (s)		60.7			7.0			15.5			19.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	607	64	108	257	0	0	0	0	49	72	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	671	0	0	365	0	0	0	0	0	121	30
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		37.0		37.0	37.0					23.0	23.0	23.0
Total Split (%)		61.7%		61.7%	61.7%					38.3%	38.3%	38.3%
Maximum Green (s)		32.5		32.5	32.5					18.5	18.5	18.5
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0						0.0	0.0
Total Lost Time (s)		4.5			4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)		7.0		7.0	7.0					7.0	7.0	7.0
Flash Dont Walk (s)		11.0		11.0	11.0					11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0					0	0	0
Act Effect Green (s)		32.5			32.5						18.5	18.5
Actuated g/C Ratio		0.54			0.54						0.31	0.31
v/c Ratio		0.67			0.30						0.22	0.06

Lanes, Volumes, Timings

28: Humboldt Parkway SB & E Delavan Ave

03/10/2022

	↖	→	↘	↙	←	↖	↙	↑	↘	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		13.8			8.3						16.7	6.7
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		13.8			8.3						16.7	6.7
LOS		B			A						B	A
Approach Delay		13.8			8.3						14.7	
Approach LOS		B			A						B	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2: and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 12.2

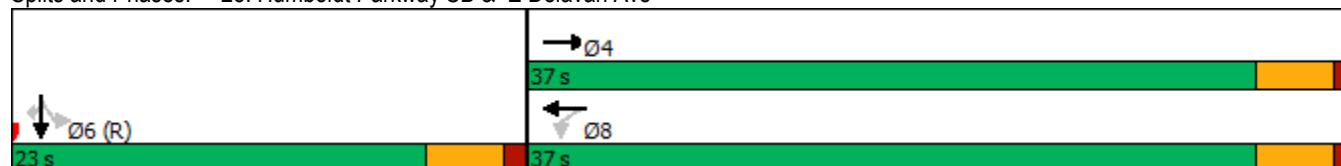
Intersection LOS: B

Intersection Capacity Utilization 59.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 28: Humboldt Parkway SB & E Delavan Ave



Lanes, Volumes, Timings
29: Jefferson Ave & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	96	364	59	48	125	20	61	189	91	15	133	53
Future Volume (vph)	96	364	59	48	125	20	61	189	91	15	133	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.985			0.986			0.964			0.964	
Flt Protected		0.991			0.988			0.991			0.996	
Satd. Flow (prot)	0	1818	0	0	1815	0	0	1780	0	0	1789	0
Flt Permitted		0.900			0.831			0.908			0.964	
Satd. Flow (perm)	0	1651	0	0	1526	0	0	1630	0	0	1731	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			14			38			38	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		592			2669			1017			352	
Travel Time (s)		13.5			60.7			23.1			8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	104	396	64	52	136	22	66	205	99	16	145	58
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	564	0	0	210	0	0	370	0	0	219	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	30.0	30.0		30.0	30.0		25.0	25.0		25.0	25.0	
Total Split (%)	54.5%	54.5%		54.5%	54.5%		45.5%	45.5%		45.5%	45.5%	
Maximum Green (s)	25.5	25.5		25.5	25.5		20.5	20.5		20.5	20.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		25.5			25.5			20.5			20.5	
Actuated g/C Ratio		0.46			0.46			0.37			0.37	
v/c Ratio		0.73			0.29			0.59			0.33	
Control Delay		18.8			9.9			16.9			11.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		18.8			9.9			16.9			11.8	

Lanes, Volumes, Timings

29: Jefferson Ave & E Delavan Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			A			B			B	
Approach Delay		18.8			9.9			16.9			11.8	
Approach LOS		B			A			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 55

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Pretimed

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 15.8

Intersection LOS: B

Intersection Capacity Utilization 75.5%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 29: Jefferson Ave & E Delavan Ave

 Ø2 (R)	 Ø4
25 s	30 s
 Ø6 (R)	 Ø8
25 s	30 s

Lanes, Volumes, Timings
30: Jefferson Ave & Northland Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	30	19	18	26	28	31	262	37	25	222	16
Future Volume (vph)	30	30	19	18	26	28	31	262	37	25	222	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.967			0.948			0.985			0.992	
Flt Protected		0.981			0.987			0.995			0.995	
Satd. Flow (prot)	0	1767	0	0	1743	0	0	1826	0	0	1839	0
Flt Permitted		0.899			0.936			0.952			0.948	
Satd. Flow (perm)	0	1619	0	0	1653	0	0	1747	0	0	1752	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			30			17			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		806			2743			848			1017	
Travel Time (s)		18.3			62.3			19.3			23.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	33	21	20	28	30	34	285	40	27	241	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	87	0	0	78	0	0	359	0	0	285	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.13			0.11			0.51			0.40	
Control Delay		7.6			6.5			3.6			11.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		7.6			6.5			3.6			11.5	

Lanes, Volumes, Timings

30: Jefferson Ave & Northland Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			A			A			B	
Approach Delay		7.6			6.5			3.6			11.5	
Approach LOS		A			A			A			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 19 (42%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 7.1

Intersection LOS: A

Intersection Capacity Utilization 37.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 30: Jefferson Ave & Northland Ave

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
31: Jefferson Ave & Brunswick Blvd

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	28	28	318	54	11	228
Future Volume (vph)	28	28	318	54	11	228
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932		0.980			
Flt Protected	0.976					0.998
Satd. Flow (prot)	1694	0	1825	0	0	1859
Flt Permitted	0.976					0.977
Satd. Flow (perm)	1694	0	1825	0	0	1820
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	30		23			
Link Speed (mph)	30		30			30
Link Distance (ft)	2734		751			848
Travel Time (s)	62.1		17.1			19.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	30	346	59	12	248
Shared Lane Traffic (%)						
Lane Group Flow (vph)	60	0	405	0	0	260
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Minimum Split (s)	22.5		22.5		22.5	22.5
Total Split (s)	22.5		22.5		22.5	22.5
Total Split (%)	50.0%		50.0%		50.0%	50.0%
Maximum Green (s)	18.0		18.0		18.0	18.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.5		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0		7.0		7.0	7.0
Flash Dont Walk (s)	11.0		11.0		11.0	11.0
Pedestrian Calls (#/hr)	0		0		0	0
Act Effct Green (s)	18.0		18.0			18.0
Actuated g/C Ratio	0.40		0.40			0.40
v/c Ratio	0.09		0.55			0.36
Control Delay	5.8		13.1			7.2
Queue Delay	0.0		0.0			0.0
Total Delay	5.8		13.1			7.2

Lanes, Volumes, Timings

31: Jefferson Ave & Brunswick Blvd

03/10/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
LOS	A		B			A
Approach Delay	5.8		13.1			7.2
Approach LOS	A		B			A

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 10.4

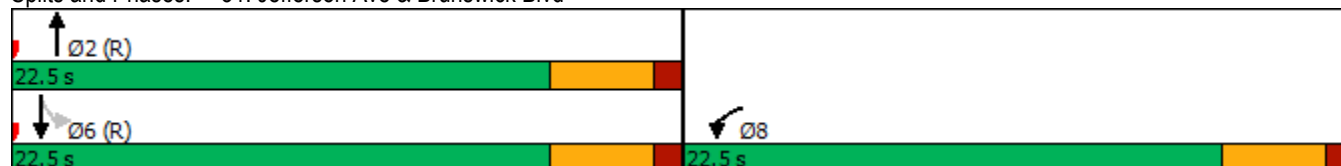
Intersection LOS: B

Intersection Capacity Utilization 32.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 31: Jefferson Ave & Brunswick Blvd



Lanes, Volumes, Timings
32: Jefferson Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	270	62	71	473	77	101	321	112	68	276	38
Future Volume (vph)	28	270	62	71	473	77	101	321	112	68	276	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.977			0.983			0.972			0.987	
Flt Protected		0.996			0.994			0.991			0.991	
Satd. Flow (prot)	0	1813	0	0	1820	0	0	1794	0	0	1822	0
Flt Permitted		0.938			0.920			0.838			0.826	
Satd. Flow (perm)	0	1707	0	0	1685	0	0	1517	0	0	1519	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			14			26			11	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			194			1406			751	
Travel Time (s)		7.5			4.4			32.0			17.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	293	67	77	514	84	110	349	122	74	300	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	390	0	0	675	0	0	581	0	0	415	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	33.0	33.0		33.0	33.0		32.0	32.0		32.0	32.0	
Total Split (%)	50.8%	50.8%		50.8%	50.8%		49.2%	49.2%		49.2%	49.2%	
Maximum Green (s)	28.5	28.5		28.5	28.5		27.5	27.5		27.5	27.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		28.5			28.5			27.5			27.5	
Actuated g/C Ratio		0.44			0.44			0.42			0.42	
v/c Ratio		0.51			0.90			0.89			0.64	
Control Delay		15.5			35.7			35.2			19.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.5			35.7			35.2			19.9	

Lanes, Volumes, Timings
32: Jefferson Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			D			D			B	
Approach Delay		15.5			35.7			35.2			19.9	
Approach LOS		B			D			D			B	

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Pretimed

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 28.6

Intersection LOS: C

Intersection Capacity Utilization 96.8%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 32: Jefferson Ave & E Ferry St

 Ø2 (R)	 Ø4
32 s	33 s
 Ø6 (R)	 Ø8
32 s	33 s

Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	115	46	61	125	43	75	574	73	27	454	33
Future Volume (vph)	15	115	46	61	125	43	75	574	73	27	454	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.965			0.975			0.986			0.991	
Flt Protected		0.996			0.987			0.995			0.997	
Satd. Flow (prot)	0	1790	0	0	1793	0	0	1827	0	0	1840	0
Flt Permitted		0.965			0.886			0.898			0.947	
Satd. Flow (perm)	0	1735	0	0	1609	0	0	1649	0	0	1748	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30			20			15			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1023			1295			630			1406	
Travel Time (s)		23.3			29.4			14.3			32.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	125	50	66	136	47	82	624	79	29	493	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	191	0	0	249	0	0	785	0	0	558	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		37.5	37.5		37.5	37.5	
Total Split (%)	37.5%	37.5%		37.5%	37.5%		62.5%	62.5%		62.5%	62.5%	
Maximum Green (s)	18.0	18.0		18.0	18.0		33.0	33.0		33.0	33.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			33.0			33.0	
Actuated g/C Ratio		0.30			0.30			0.55			0.55	
v/c Ratio		0.35			0.50			0.86			0.58	
Control Delay		16.0			20.1			15.9			11.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		16.0			20.1			15.9			11.8	

Lanes, Volumes, Timings
33: Jefferson Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			C			B			B	
Approach Delay		16.0			20.1			15.9			11.8	
Approach LOS		B			C			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 11 (18%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 15.2

Intersection LOS: B

Intersection Capacity Utilization 94.4%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 33: Jefferson Ave & E Utica St

					
Ø2 (R)			Ø4		
37.5 s			22.5 s		
					
Ø6 (R)			Ø8		
37.5 s			22.5 s		

Lanes, Volumes, Timings
34: Jefferson Ave & Riley St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	31	12	18	22	19	14	624	79	22	649	39
Future Volume (vph)	13	31	12	18	22	19	14	624	79	22	649	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.971			0.956			0.985			0.993	
Flt Protected		0.989			0.985			0.999			0.998	
Satd. Flow (prot)	0	1789	0	0	1754	0	0	1833	0	0	1846	0
Flt Permitted		0.947			0.924			0.984			0.969	
Satd. Flow (perm)	0	1713	0	0	1645	0	0	1805	0	0	1792	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			21			17			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		870			1108			418			630	
Travel Time (s)		19.8			25.2			9.5			14.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	34	13	20	24	21	15	678	86	24	705	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	0	0	65	0	0	779	0	0	771	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		37.5	37.5		37.5	37.5	
Total Split (%)	37.5%	37.5%		37.5%	37.5%		62.5%	62.5%		62.5%	62.5%	
Maximum Green (s)	18.0	18.0		18.0	18.0		33.0	33.0		33.0	33.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			33.0			33.0	
Actuated g/C Ratio		0.30			0.30			0.55			0.55	
v/c Ratio		0.12			0.13			0.78			0.78	
Control Delay		13.5			12.2			5.5			15.9	
Queue Delay		0.0			0.0			0.1			0.0	
Total Delay		13.5			12.2			5.6			15.9	

Lanes, Volumes, Timings
34: Jefferson Ave & Riley St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			B			A			B	
Approach Delay		13.5			12.2			5.6			15.9	
Approach LOS		B			B			A			B	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 5 (8%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 10.9

Intersection LOS: B

Intersection Capacity Utilization 60.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 34: Jefferson Ave & Riley St

					
Ø2 (R)			Ø4		
37.5 s			22.5 s		
					
Ø6 (R)			Ø8		
37.5 s			22.5 s		

Lanes, Volumes, Timings
35: Jefferson Ave & Northampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	61	33	13	47	21	36	543	22	54	563	60
Future Volume (vph)	27	61	33	13	47	21	36	543	22	54	563	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.963			0.965			0.995			0.988	
Flt Protected		0.989			0.992			0.997			0.996	
Satd. Flow (prot)	0	1774	0	0	1783	0	0	1848	0	0	1833	0
Flt Permitted		0.932			0.954			0.937			0.916	
Satd. Flow (perm)	0	1672	0	0	1715	0	0	1737	0	0	1686	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32			23			5			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1340			1290			1156			278	
Travel Time (s)		30.5			29.3			26.3			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	66	36	14	51	23	39	590	24	59	612	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	131	0	0	88	0	0	653	0	0	736	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		37.5	37.5		37.5	37.5	
Total Split (%)	37.5%	37.5%		37.5%	37.5%		62.5%	62.5%		62.5%	62.5%	
Maximum Green (s)	18.0	18.0		18.0	18.0		33.0	33.0		33.0	33.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			33.0			33.0	
Actuated g/C Ratio		0.30			0.30			0.55			0.55	
v/c Ratio		0.25			0.17			0.68			0.79	
Control Delay		13.8			13.2			14.2			8.4	
Queue Delay		0.0			0.0			0.2			0.0	
Total Delay		13.8			13.2			14.4			8.4	

Lanes, Volumes, Timings

35: Jefferson Ave & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			B			B			A	
Approach Delay		13.8			13.2			14.4			8.4	
Approach LOS		B			B			B			A	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 11.5

Intersection LOS: B

Intersection Capacity Utilization 68.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 35: Jefferson Ave & Northhampton St

 Ø2 (R)	 Ø4
37.5 s	22.5 s
 Ø6 (R)	 Ø8
37.5 s	22.5 s

Lanes, Volumes, Timings
36: Jefferson Ave & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	444	44	42	345	70	33	330	101	99	331	33
Future Volume (vph)	15	444	44	42	345	70	33	330	101	99	331	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.987			0.977			0.967			0.989	
Flt Protected		0.999			0.995			0.996			0.989	
Satd. Flow (prot)	0	3490	0	0	3441	0	0	3409	0	0	3462	0
Flt Permitted		0.937			0.874			0.899			0.765	
Satd. Flow (perm)	0	3273	0	0	3022	0	0	3077	0	0	2678	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			54			94			21	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		169			169			156			165	
Travel Time (s)		3.8			3.8			3.5			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	483	48	46	375	76	36	359	110	108	360	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	547	0	0	497	0	0	505	0	0	504	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.41			0.40			0.39			0.47	
Control Delay		10.4			9.7			5.4			11.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.4			9.7			5.4			11.3	

Lanes, Volumes, Timings

36: Jefferson Ave & Best St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			A			A			B	
Approach Delay		10.4			9.7			5.4			11.3	
Approach LOS		B			A			A			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 20 (44%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 9.2

Intersection LOS: A

Intersection Capacity Utilization 68.5%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 36: Jefferson Ave & Best St

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
37: Jefferson Ave & E North St

03/10/2022

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	87	154	46	297	403	29
Future Volume (vph)	87	154	46	297	403	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.914				0.991	
Flt Protected	0.982			0.993		
Satd. Flow (prot)	1672	0	0	1850	1846	0
Flt Permitted	0.982			0.895		
Satd. Flow (perm)	1672	0	0	1667	1846	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	167				10	
Link Speed (mph)	30			30	30	
Link Distance (ft)	879			684	486	
Travel Time (s)	20.0			15.5	11.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	95	167	50	323	438	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	262	0	0	373	470	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	Prot		Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases			2			
Minimum Split (s)	22.5		22.5	22.5	22.5	
Total Split (s)	22.5		22.5	22.5	22.5	
Total Split (%)	50.0%		50.0%	50.0%	50.0%	
Maximum Green (s)	18.0		18.0	18.0	18.0	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0		7.0	7.0	7.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Act Effect Green (s)	18.0			18.0	18.0	
Actuated g/C Ratio	0.40			0.40	0.40	
v/c Ratio	0.34			0.56	0.63	
Control Delay	5.3			14.5	13.4	
Queue Delay	0.0			0.0	0.0	
Total Delay	5.3			14.5	13.4	

Lanes, Volumes, Timings

37: Jefferson Ave & E North St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
LOS	A			B	B	
Approach Delay	5.3			14.5	13.4	
Approach LOS	A			B	B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 44 (98%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 11.8

Intersection LOS: B

Intersection Capacity Utilization 66.7%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 37: Jefferson Ave & E North St

 02 (R) 22.5 s	 04 22.5 s
 06 (R) 22.5 s	

Lanes, Volumes, Timings
38: Jefferson Ave & High St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	53	104	32	58	32	48	288	20	25	451	10
Future Volume (vph)	12	53	104	32	58	32	48	288	20	25	451	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.917			0.964			0.992			0.997	
Flt Protected		0.996			0.987			0.993			0.997	
Satd. Flow (prot)	0	1701	0	0	1772	0	0	1835	0	0	1852	0
Flt Permitted		0.980			0.899			0.896			0.971	
Satd. Flow (perm)	0	1674	0	0	1614	0	0	1656	0	0	1803	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		113			35			8			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		840			1233			880			684	
Travel Time (s)		19.1			28.0			20.0			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	58	113	35	63	35	52	313	22	27	490	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	184	0	0	133	0	0	387	0	0	528	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		27.5	27.5		27.5	27.5	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		55.0%	55.0%		55.0%	55.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		23.0	23.0		23.0	23.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			23.0			23.0	
Actuated g/C Ratio		0.36			0.36			0.46			0.46	
v/c Ratio		0.27			0.22			0.51			0.64	
Control Delay		6.4			9.7			12.2			14.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		6.4			9.7			12.2			14.6	

Lanes, Volumes, Timings

38: Jefferson Ave & High St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			A			B			B	
Approach Delay		6.4			9.7			12.2			14.6	
Approach LOS		A			A			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Pretimed

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 12.1

Intersection LOS: B

Intersection Capacity Utilization 57.1%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 38: Jefferson Ave & High St

 Ø2 (R)	 Ø4
27.5 s	22.5 s
 Ø6 (R)	 Ø8
27.5 s	22.5 s

Lanes, Volumes, Timings
39: Wohlers Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	75	495	22	23	728	139	20	122	120	0	0	0
Future Volume (vph)	75	495	22	23	728	139	20	122	120	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.979			0.938				
Flt Protected		0.994			0.999			0.996				
Satd. Flow (prot)	0	1842	0	0	1822	0	0	1740	0	0	1863	0
Flt Permitted		0.816			0.978			0.982				
Satd. Flow (perm)	0	1512	0	0	1784	0	0	1716	0	0	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			24			59				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		280			1165			1336				278
Travel Time (s)		6.4			26.5			30.4				6.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	82	538	24	25	791	151	22	133	130	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	644	0	0	967	0	0	285	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	47.0	47.0		47.0	47.0		23.0	23.0		23.0	23.0	
Total Split (%)	67.1%	67.1%		67.1%	67.1%		32.9%	32.9%		32.9%	32.9%	
Maximum Green (s)	42.5	42.5		42.5	42.5		18.5	18.5		18.5	18.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		42.5			42.5			18.5				
Actuated g/C Ratio		0.61			0.61			0.26				
v/c Ratio		0.70			0.89			0.57				
Control Delay		14.5			23.8			22.9				
Queue Delay		0.0			0.0			0.0				
Total Delay		14.5			23.8			22.9				

Lanes, Volumes, Timings

39: Wohlers Ave & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			C			C				
Approach Delay		14.5			23.8			22.9				
Approach LOS		B			C			C				

Intersection Summary

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 70

Control Type: Pretimed

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 20.5

Intersection LOS: C

Intersection Capacity Utilization 87.5%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 39: Wohlers Ave & E Ferry St



Lanes, Volumes, Timings
40: Wohlers Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	209	9	12	137	29	61	148	78	17	49	21
Future Volume (vph)	16	209	9	12	137	29	61	148	78	17	49	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.978			0.963			0.967	
Flt Protected		0.997			0.997			0.990			0.991	
Satd. Flow (prot)	0	1848	0	0	1816	0	0	1776	0	0	1785	0
Flt Permitted		0.977			0.975			0.922			0.921	
Satd. Flow (perm)	0	1811	0	0	1776	0	0	1654	0	0	1659	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			26			50			23	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		274			1162			1331			1336	
Travel Time (s)		6.2			26.4			30.3			30.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	227	10	13	149	32	66	161	85	18	53	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	254	0	0	194	0	0	312	0	0	94	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.35			0.27			0.45			0.14	
Control Delay		11.0			9.0			10.8			7.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.0			9.0			10.8			7.6	

Lanes, Volumes, Timings

40: Wohlers Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			A			B			A	
Approach Delay		11.0			9.0			10.8			7.6	
Approach LOS		B			A			B			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 10.1

Intersection LOS: B

Intersection Capacity Utilization 45.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 40: Wohlers Ave & E Utica St

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

Lanes, Volumes, Timings
41: Humboldt Parkway SB & Woodlawn Ave

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	502	48
Future Volume (vph)	0	0	0	0	502	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.988	
Fl _t Protected						
Satd. Flow (prot)	0	0	0	0	1840	0
Fl _t Permitted						
Satd. Flow (perm)	0	0	0	0	1840	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	780			561	321	
Travel Time (s)	17.7			12.8	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	546	52
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	598	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	36.2%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings
42: Humboldt Parkway SB & Glenwood Ave

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↰			↱	
Traffic Volume (vph)	0	42	0	0	498	0
Future Volume (vph)	0	42	0	0	498	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.865					
Fl _t Protected						
Satd. Flow (prot)	0	1611	0	0	1863	0
Fl _t Permitted						
Satd. Flow (perm)	0	1611	0	0	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	750			457	561	
Travel Time (s)	17.0			10.4	12.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	46	0	0	541	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	46	0	0	541	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	36.2%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
42: Humboldt Parkway SB & Glenwood Ave

03/10/2022

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↖	
Traffic Vol, veh/h	0	42	0	0	498	0
Future Vol, veh/h	0	42	0	0	498	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	46	0	0	541	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	541	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	541	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	541	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	12.3		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	541	-				
HCM Lane V/C Ratio	0.084	-				
HCM Control Delay (s)	12.3	-				
HCM Lane LOS	B	-				
HCM 95th %tile Q(veh)	0.3	-				

Lanes, Volumes, Timings
43: Humboldt Parkway SB & Riley St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↰			↱	
Traffic Volume (vph)	0	34	0	0	965	166
Future Volume (vph)	0	34	0	0	965	166
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.980	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1825	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1825	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	873			418	635	
Travel Time (s)	19.8			9.5	14.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	37	0	0	1049	180
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	37	0	0	1229	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	70.9%			ICU Level of Service C		
Analysis Period (min)	15					

HCM 6th TWSC
43: Humboldt Parkway SB & Riley St

03/10/2022

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	34	0	0	965	166
Future Vol, veh/h	0	34	0	0	965	166
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	37	0	0	1049	180
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	1139	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	245	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	245	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	22.3		0			
HCM LOS	C					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	245	-	-			
HCM Lane V/C Ratio	0.151	-	-			
HCM Control Delay (s)	22.3	-	-			
HCM Lane LOS	C	-	-			
HCM 95th %tile Q(veh)	0.5	-	-			

Lanes, Volumes, Timings
44: Humboldt Parkway SB & Kinglsey St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	14	0	0	510	10
Future Volume (vph)	0	14	0	0	510	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.997	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1857	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1857	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	662			296	418	
Travel Time (s)	15.0			6.7	9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	15	0	0	554	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	15	0	0	565	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	37.4%			ICU Level of Service A		
Analysis Period (min)	15					

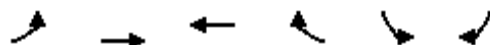
HCM 6th TWSC
44: Humboldt Parkway SB & Kinglsey St

03/10/2022

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	14	0	0	510	10
Future Vol, veh/h	0	14	0	0	510	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	15	0	0	554	11
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	560	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	528	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	528	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	12		0			
HCM LOS	B					
Minor Lane/Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	528	-	-			
HCM Lane V/C Ratio	0.029	-	-			
HCM Control Delay (s)	12	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

Lanes, Volumes, Timings
45: W Parade Ave

03/10/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↔	
Traffic Volume (vph)	0	171	189	0	102	48
Future Volume (vph)	0	171	189	0	102	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.957	
Fl _t Protected					0.967	
Satd. Flow (prot)	0	1863	1863	0	1724	0
Fl _t Permitted					0.967	
Satd. Flow (perm)	0	1863	1863	0	1724	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		199	98		717	
Travel Time (s)		4.5	2.2		16.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	186	205	0	111	52
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	186	205	0	163	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 25.2%				ICU Level of Service A		
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	3.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↓	↓
Traffic Vol, veh/h	0	171	189	0	102	48
Future Vol, veh/h	0	171	189	0	102	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	186	205	0	111	52
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	391	205
Stage 1	-	-	-	-	205	-
Stage 2	-	-	-	-	186	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	0	-	-	0	613	836
Stage 1	0	-	-	0	829	-
Stage 2	0	-	-	0	846	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	613	836
Mov Cap-2 Maneuver	-	-	-	-	613	-
Stage 1	-	-	-	-	829	-
Stage 2	-	-	-	-	846	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		12.1		
HCM LOS	B					
Minor Lane/Major Mvmt	EBT	WBT	SBLn1			
Capacity (veh/h)	-	-	670			
HCM Lane V/C Ratio	-	-	0.243			
HCM Control Delay (s)	-	-	12.1			
HCM Lane LOS	-	-	B			
HCM 95th %tile Q(veh)	-	-	1			

Lanes, Volumes, Timings
46: Linden Park & Dodge St/W Parade Ave

03/10/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	169	7	6	138	0	2
Future Volume (vph)	169	7	6	138	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.994				0.865	
Flt Protected				0.998		
Satd. Flow (prot)	1852	0	0	1859	1611	0
Flt Permitted				0.998		
Satd. Flow (perm)	1852	0	0	1859	1611	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	489			199	335	
Travel Time (s)	11.1			4.5	7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	184	8	7	150	0	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	192	0	0	157	2	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	22.1%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
46: Linden Park & Dodge St/W Parade Ave

03/10/2022

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	169	7	6	138	0	2
Future Vol, veh/h	169	7	6	138	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	184	8	7	150	0	2
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	192	0	352	188
Stage 1	-	-	-	-	188	-
Stage 2	-	-	-	-	164	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1381	-	646	854
Stage 1	-	-	-	-	844	-
Stage 2	-	-	-	-	865	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1381	-	642	854
Mov Cap-2 Maneuver	-	-	-	-	642	-
Stage 1	-	-	-	-	844	-
Stage 2	-	-	-	-	860	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0.3		9.2		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	854	-	-	1381	-	
HCM Lane V/C Ratio	0.003	-	-	0.005	-	
HCM Control Delay (s)	9.2	-	-	7.6	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Lanes, Volumes, Timings
47: Humboldt Parkway NB & Riley St

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	11	130	13	0	0
Future Volume (vph)	0	11	130	13	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.988			
Flt Protected						
Satd. Flow (prot)	0	1611	1840	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1840	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	1082		722			613
Travel Time (s)	24.6		16.4			13.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	12	141	14	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	12	155	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	17.6%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
47: Humboldt Parkway NB & Riley St

03/10/2022

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	11	130	13	0	0
Future Vol, veh/h	0	11	130	13	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	12	141	14	0	0
Major/Minor	Minor1		Major1			
Conflicting Flow All	-	148	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	899	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	899	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB		NB			
HCM Control Delay, s	9.1		0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT		NBRWBLn1			
Capacity (veh/h)	-		-		899	
HCM Lane V/C Ratio	-		-		0.013	
HCM Control Delay (s)	-		-		9.1	
HCM Lane LOS	-		-		A	
HCM 95th %tile Q(veh)	-		-		0	

Lanes, Volumes, Timings

48: Humboldt Parkway NB & Woepfel St

03/10/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	7	423	15	0	0
Future Volume (vph)	0	7	423	15	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.995			
Flt Protected						
Satd. Flow (prot)	0	1611	1853	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1853	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	744		291			730
Travel Time (s)	16.9		6.6			16.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	8	460	16	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	8	476	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	33.2%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
48: Humboldt Parkway NB & Woepfel St

03/10/2022

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	7	423	15	0	0
Future Vol, veh/h	0	7	423	15	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	460	16	0	0
Major/Minor	Minor1	Major1				
Conflicting Flow All	-	468	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	595	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	595	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB	NB				
HCM Control Delay, s	11.1	0				
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1				
Capacity (veh/h)	-	-	595			
HCM Lane V/C Ratio	-	-	0.013			
HCM Control Delay (s)	-	-	11.1			
HCM Lane LOS	-	-	B			
HCM 95th %tile Q(veh)	-	-	0			

Lanes, Volumes, Timings
49: Humboldt Parkway NB & Woodlawn Ave

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	22	418	3	0	0
Future Volume (vph)	0	22	418	3	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.999			
Flt Protected						
Satd. Flow (prot)	0	1611	1861	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1861	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	729		730			317
Travel Time (s)	16.6		16.6			7.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	24	454	3	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	24	457	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	32.2%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
49: Humboldt Parkway NB & Woodlawn Ave

03/10/2022

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	22	418	3	0	0
Future Vol, veh/h	0	22	418	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	24	454	3	0	0
Major/Minor	Minor1	Major1				
Conflicting Flow All	-	456	0	0		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Critical Hdwy	-	6.22	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-		
Follow-up Hdwy	-	3.318	-	-		
Pot Cap-1 Maneuver	0	604	-	-		
Stage 1	0	-	-	-		
Stage 2	0	-	-	-		
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	604	-	-		
Mov Cap-2 Maneuver	-	-	-	-		
Stage 1	-	-	-	-		
Stage 2	-	-	-	-		
Approach	WB	NB				
HCM Control Delay, s	11.2	0				
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1				
Capacity (veh/h)	-	-	604			
HCM Lane V/C Ratio	-	-	0.04			
HCM Control Delay (s)	-	-	11.2			
HCM Lane LOS	-	-	B			
HCM 95th %tile Q(veh)	-	-	0.1			

Lanes, Volumes, Timings
50: Humboldt Parkway SB & Florida St

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	42	0	0	288	23
Future Volume (vph)	0	42	0	0	288	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.990	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1844	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1844	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	935			344	684	
Travel Time (s)	21.3			7.8	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	46	0	0	313	25
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	46	0	0	338	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	26.6%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
50: Humboldt Parkway SB & Florida St

03/10/2022

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	42	0	0	288	23
Future Vol, veh/h	0	42	0	0	288	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	46	0	0	313	25

Major/Minor	Minor2	Major2
Conflicting Flow All	- 326	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 715	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 715	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	10.4	0
HCM LOS	B	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	715	-	-
HCM Lane V/C Ratio	0.064	-	-
HCM Control Delay (s)	10.4	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-

Lanes, Volumes, Timings
51: Humboldt Parkway SB & Northland Ave

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	26	0	0	312	44
Future Volume (vph)	0	26	0	0	312	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.983	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1831	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1831	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2743			805	344	
Travel Time (s)	62.3			18.3	7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	28	0	0	339	48
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	28	0	0	387	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	29.1%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
51: Humboldt Parkway SB & Northland Ave

03/10/2022

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	26	0	0	312	44
Future Vol, veh/h	0	26	0	0	312	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	28	0	0	339	48

Major/Minor	Minor2	Major2
Conflicting Flow All	- 363	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 682	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 682	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	10.5	0
HCM LOS	B	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	682	-	-
HCM Lane V/C Ratio	0.041	-	-
HCM Control Delay (s)	10.5	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Lanes, Volumes, Timings
52: Humboldt Parkway SB & Brunswick Blvd

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	75	0	0	154	16
Future Volume (vph)	0	75	0	0	154	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.988	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1840	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1840	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	2734			252	805	
Travel Time (s)	62.1			5.7	18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	82	0	0	167	17
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	82	0	0	184	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	20.4%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	75	0	0	154	16
Future Vol, veh/h	0	75	0	0	154	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	82	0	0	167	17
Number of Lanes	0	1	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	1
HCM Control Delay	7.1	8.1
HCM LOS	A	A

Lane	EBLn1	SBLn1
Vol Left, %	0%	0%
Vol Thru, %	0%	91%
Vol Right, %	100%	9%
Sign Control	Stop	Stop
Traffic Vol by Lane	75	170
LT Vol	0	0
Through Vol	0	154
RT Vol	75	16
Lane Flow Rate	82	185
Geometry Grp	1	1
Degree of Util (X)	0.083	0.206
Departure Headway (Hd)	3.655	4.019
Convergence, Y/N	Yes	Yes
Cap	964	894
Service Time	1.737	2.041
HCM Lane V/C Ratio	0.085	0.207
HCM Control Delay	7.1	8.1
HCM Lane LOS	A	A
HCM 95th-tile Q	0.3	0.8

Lanes, Volumes, Timings
53: Humboldt Parkway SB & Goulding Ave

03/10/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↗	
Traffic Volume (vph)	0	69	0	0	814	0
Future Volume (vph)	0	69	0	0	814	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	1863	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1067			268	306	
Travel Time (s)	24.3			6.1	7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	75	0	0	885	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	75	0	0	885	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	30.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
53: Humboldt Parkway SB & Goulding Ave

03/10/2022

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↖	
Traffic Vol, veh/h	0	69	0	0	814	0
Future Vol, veh/h	0	69	0	0	814	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	75	0	0	885	0
Major/Minor	Minor2		Major2			
Conflicting Flow All	-	885	-	-	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	344	-	-	-	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	344	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	18.4		0			
HCM LOS	C					
Minor Lane/Major Mvmt	EBLn1	SBT				
Capacity (veh/h)	344	-				
HCM Lane V/C Ratio	0.218	-				
HCM Control Delay (s)	18.4	-				
HCM Lane LOS	C	-				
HCM 95th %tile Q(veh)	0.8	-				

Lanes, Volumes, Timings
54: Humboldt Parkway NB & Sydney St

03/10/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	50	721	0	0	0
Future Volume (vph)	0	50	721	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	913		602			1024
Travel Time (s)	20.8		13.7			23.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	54	784	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	54	784	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	47.9%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
54: Humboldt Parkway NB & Sydney St

03/10/2022

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	50	721	0	0	0
Future Vol, veh/h	0	50	721	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	54	784	0	0	0
Major/Minor	Minor1	Major1				
Conflicting Flow All	-	784	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	393	-	0	-	-
Stage 1	0	-	-	0	-	-
Stage 2	0	-	-	0	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	393	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB				
HCM Control Delay, s	15.6	0				
HCM LOS	C					
Minor Lane/Major Mvmt	NBTWBLn1					
Capacity (veh/h)	- 393					
HCM Lane V/C Ratio	- 0.138					
HCM Control Delay (s)	- 15.6					
HCM Lane LOS	- C					
HCM 95th %tile Q(veh)	- 0.5					

Lanes, Volumes, Timings

55: Humboldt Parkway NB & Northland Ave & EB On Ramp

03/10/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations								
Traffic Volume (vph)	0	67	78	10	0	0	0	0
Future Volume (vph)	0	67	78	10	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.985					
Flt Protected								
Satd. Flow (prot)	0	1611	1835	0	0	0	0	0
Flt Permitted								
Satd. Flow (perm)	0	1611	1835	0	0	0	0	0
Link Speed (mph)	30		30			30	30	
Link Distance (ft)	1020		1024			304	1019	
Travel Time (s)	23.2		23.3			6.9	23.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	73	85	11	0	0	0	0
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	73	96	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left	Left	Right
Median Width(ft)	0		0			0	0	
Link Offset(ft)	0		0			0	0	
Crosswalk Width(ft)	16		16			16	16	
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15		15	9
Sign Control	Stop		Stop			Stop	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 15.5% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations								
Traffic Vol, veh/h	0	67	78	10	0	0	0	0
Future Vol, veh/h	0	67	78	10	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2
Mvmt Flow	0	73	85	11	0	0	0	0
Number of Lanes	0	1	1	0	0	0	0	0

Approach	WB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	NB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		WB
Conflicting Lanes Right	0	1
HCM Control Delay	6.8	7.5
HCM LOS	A	A

Lane	NBLn1	WBLn1
Vol Left, %	0%	0%
Vol Thru, %	89%	0%
Vol Right, %	11%	100%
Sign Control	Stop	Stop
Traffic Vol by Lane	88	67
LT Vol	0	0
Through Vol	78	0
RT Vol	10	67
Lane Flow Rate	96	73
Geometry Grp	1	1
Degree of Util (X)	0.106	0.071
Departure Headway (Hd)	3.994	3.5
Convergence, Y/N	Yes	Yes
Cap	900	1018
Service Time	2.005	1.541
HCM Lane V/C Ratio	0.107	0.072
HCM Control Delay	7.5	6.8
HCM Lane LOS	A	A
HCM 95th-tile Q	0.4	0.2

Lanes, Volumes, Timings
56: Roehrer Ave & E Ferry St

03/10/2022

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	541	19	34	589	18	44
Future Volume (vph)	541	19	34	589	18	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995				0.905	
Flt Protected				0.997	0.986	
Satd. Flow (prot)	1853	0	0	1857	1662	0
Flt Permitted				0.997	0.986	
Satd. Flow (perm)	1853	0	0	1857	1662	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1109			280	1331	
Travel Time (s)	25.2			6.4	30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	588	21	37	640	20	48
Shared Lane Traffic (%)						
Lane Group Flow (vph)	609	0	0	677	68	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	69.2%			ICU Level of Service C		
Analysis Period (min)	15					

Intersection

Int Delay, s/veh 1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	541	19	34	589	18	44
Future Vol, veh/h	541	19	34	589	18	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	588	21	37	640	20	48

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	609
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	970
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	970
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	19.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	315	-	-	970	-
HCM Lane V/C Ratio	0.214	-	-	0.038	-
HCM Control Delay (s)	19.5	-	-	8.9	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-

Lanes, Volumes, Timings
57: Roehrer Ave & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	202	0	9	189	20	17	28	18	11	31	9
Future Volume (vph)	14	202	0	9	189	20	17	28	18	11	31	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.987			0.960			0.976	
Flt Protected		0.997			0.998			0.987			0.989	
Satd. Flow (prot)	0	1857	0	0	1835	0	0	1765	0	0	1798	0
Flt Permitted		0.997			0.998			0.987			0.989	
Satd. Flow (perm)	0	1857	0	0	1835	0	0	1765	0	0	1798	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1295			274			1342			1331	
Travel Time (s)		29.4			6.2			30.5			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	220	0	10	205	22	18	30	20	12	34	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	235	0	0	237	0	0	68	0	0	56	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 27.7%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	14	202	0	9	189	20	17	28	18	11	31	9
Future Vol, veh/h	14	202	0	9	189	20	17	28	18	11	31	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	220	0	10	205	22	18	30	20	12	34	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.4	9.3	8.5	8.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	6%	4%	22%
Vol Thru, %	44%	94%	87%	61%
Vol Right, %	29%	0%	9%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	63	216	218	51
LT Vol	17	14	9	11
Through Vol	28	202	189	31
RT Vol	18	0	20	9
Lane Flow Rate	68	235	237	55
Geometry Grp	1	1	1	1
Degree of Util (X)	0.094	0.295	0.293	0.077
Departure Headway (Hd)	4.954	4.517	4.458	5.028
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	721	796	806	710
Service Time	2.999	2.545	2.487	3.074
HCM Lane V/C Ratio	0.094	0.295	0.294	0.077
HCM Control Delay	8.5	9.4	9.3	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	1.2	1.2	0.2

Lanes, Volumes, Timings
58: Wohlers Ave & Northampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	116	12	5	77	15	46	296	46	37	67	17
Future Volume (vph)	9	116	12	5	77	15	46	296	46	37	67	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988			0.979			0.984			0.981	
Flt Protected		0.997			0.998			0.994			0.985	
Satd. Flow (prot)	0	1835	0	0	1820	0	0	1822	0	0	1800	0
Flt Permitted		0.997			0.998			0.994			0.985	
Satd. Flow (perm)	0	1835	0	0	1820	0	0	1822	0	0	1800	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		276			1032			1317			1331	
Travel Time (s)		6.3			23.5			29.9			30.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	126	13	5	84	16	50	322	50	40	73	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	149	0	0	105	0	0	422	0	0	131	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	39.3%						ICU Level of Service A					
Analysis Period (min)	15											

Intersection	
Intersection Delay, s/veh	11.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	9	116	12	5	77	15	46	296	46	37	67	17
Future Vol, veh/h	9	116	12	5	77	15	46	296	46	37	67	17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	126	13	5	84	16	50	322	50	40	73	18
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.1	9.6	13.6	9.4
HCM LOS	B	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	7%	5%	31%
Vol Thru, %	76%	85%	79%	55%
Vol Right, %	12%	9%	15%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	388	137	97	121
LT Vol	46	9	5	37
Through Vol	296	116	77	67
RT Vol	46	12	15	17
Lane Flow Rate	422	149	105	132
Geometry Grp	1	1	1	1
Degree of Util (X)	0.553	0.226	0.161	0.19
Departure Headway (Hd)	4.722	5.47	5.507	5.202
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	755	660	654	692
Service Time	2.817	3.481	3.519	3.218
HCM Lane V/C Ratio	0.559	0.226	0.161	0.191
HCM Control Delay	13.6	10.1	9.6	9.4
HCM Lane LOS	B	B	A	A
HCM 95th-tile Q	3.4	0.9	0.6	0.7

Lanes, Volumes, Timings
59: Roehrer Ave & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	113	7	7	104	16	6	27	1	10	39	2
Future Volume (vph)	7	113	7	7	104	16	6	27	1	10	39	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.983			0.996			0.995	
Flt Protected		0.997			0.997			0.991			0.990	
Satd. Flow (prot)	0	1842	0	0	1826	0	0	1839	0	0	1835	0
Flt Permitted		0.997			0.997			0.991			0.990	
Satd. Flow (perm)	0	1842	0	0	1826	0	0	1839	0	0	1835	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1290			276			1313			1342	
Travel Time (s)		29.3			6.3			29.8			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	123	8	8	113	17	7	29	1	11	42	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	139	0	0	138	0	0	37	0	0	55	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	19.2%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

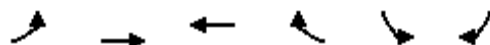
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	7	113	7	7	104	16	6	27	1	10	39	2
Future Vol, veh/h	7	113	7	7	104	16	6	27	1	10	39	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	123	8	8	113	17	7	29	1	11	42	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.1	8.1	7.9	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	6%	6%	20%
Vol Thru, %	79%	89%	82%	76%
Vol Right, %	3%	6%	13%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	127	127	51
LT Vol	6	7	7	10
Through Vol	27	113	104	39
RT Vol	1	7	16	2
Lane Flow Rate	37	138	138	55
Geometry Grp	1	1	1	1
Degree of Util (X)	0.048	0.164	0.163	0.071
Departure Headway (Hd)	4.628	4.284	4.242	4.603
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	776	842	850	780
Service Time	2.645	2.288	2.246	2.62
HCM Lane V/C Ratio	0.048	0.164	0.162	0.071
HCM Control Delay	7.9	8.1	8.1	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.6	0.6	0.2

Lanes, Volumes, Timings
60: Best St & Wohlers Ave

03/10/2022

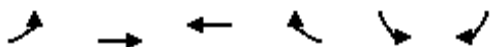


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	11	463	460	37	33	20
Future Volume (vph)	11	463	460	37	33	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.990		0.949	
Flt Protected		0.999			0.970	
Satd. Flow (prot)	0	1861	1844	0	1715	0
Flt Permitted		0.999			0.970	
Satd. Flow (perm)	0	1861	1844	0	1715	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		280	473		1317	
Travel Time (s)		6.4	10.8		29.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	503	500	40	36	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	515	540	0	58	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 43.2%				ICU Level of Service A		
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	463	460	37	33	20
Future Vol, veh/h	11	463	460	37	33	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	503	500	40	36	22
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	540	0	-	0	1047	520
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	527	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1028	-	-	-	253	556
Stage 1	-	-	-	-	597	-
Stage 2	-	-	-	-	592	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1028	-	-	-	249	556
Mov Cap-2 Maneuver	-	-	-	-	249	-
Stage 1	-	-	-	-	587	-
Stage 2	-	-	-	-	592	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		19		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1028	-	-	-	315	
HCM Lane V/C Ratio	0.012	-	-	-	0.183	
HCM Control Delay (s)	8.5	0	-	-	19	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.7	

Lanes, Volumes, Timings
61: Best St & Roehrer Ave

03/10/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	12	601	434	15	25	14
Future Volume (vph)	12	601	434	15	25	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.996		0.952	
Flt Protected		0.999			0.969	
Satd. Flow (prot)	0	1861	1855	0	1718	0
Flt Permitted		0.999			0.969	
Satd. Flow (perm)	0	1861	1855	0	1718	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1123	280		1313	
Travel Time (s)		25.5	6.4		29.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	653	472	16	27	15
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	666	488	0	42	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	51.3%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection

Int Delay, s/veh 0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	601	434	15	25	14
Future Vol, veh/h	12	601	434	15	25	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	653	472	16	27	15

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	488	0	0 1159 480
Stage 1	-	-	- 480 -
Stage 2	-	-	- 679 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1075	-	- 216 586
Stage 1	-	-	- 622 -
Stage 2	-	-	- 504 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1075	-	- 212 586
Mov Cap-2 Maneuver	-	-	- 212 -
Stage 1	-	-	- 610 -
Stage 2	-	-	- 504 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	20.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1075	-	-	-	275
HCM Lane V/C Ratio	0.012	-	-	-	0.154
HCM Control Delay (s)	8.4	0	-	-	20.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.5

Lanes, Volumes, Timings

62: Jefferson Ave & Eaton St/Kingsley st

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	13	19	9	12	14	13	714	4	19	625	17
Future Volume (vph)	17	13	19	9	12	14	13	714	4	19	625	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.947			0.947			0.999			0.997	
Flt Protected		0.983			0.987			0.999			0.999	
Satd. Flow (prot)	0	1734	0	0	1741	0	0	1859	0	0	1855	0
Flt Permitted		0.926			0.947			0.987			0.972	
Satd. Flow (perm)	0	1633	0	0	1671	0	0	1837	0	0	1805	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			15			1			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		911			1129			278			418	
Travel Time (s)		20.7			25.7			6.3			9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	14	21	10	13	15	14	776	4	21	679	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	53	0	0	38	0	0	794	0	0	718	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		-50			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		37.5	37.5		37.5	37.5	
Total Split (%)	37.5%	37.5%		37.5%	37.5%		62.5%	62.5%		62.5%	62.5%	
Maximum Green (s)	18.0	18.0		18.0	18.0		33.0	33.0		33.0	33.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			33.0			33.0	
Actuated g/C Ratio		0.30			0.30			0.55			0.55	
v/c Ratio		0.11			0.07			0.79			0.72	
Control Delay		11.3			11.4			12.6			15.0	
Queue Delay		0.0			0.0			0.4			0.2	
Total Delay		11.3			11.4			13.1			15.1	

Lanes, Volumes, Timings

62: Jefferson Ave & Eaton St/Kingsley st

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			B			B			B	
Approach Delay		11.3			11.4			13.1			15.1	
Approach LOS		B			B			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 56 (93%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 13.9

Intersection LOS: B

Intersection Capacity Utilization 55.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 62: Jefferson Ave & Eaton St/Kingsley st

 Ø2 (R)	 Ø4
37.5 s	22.5 s
 Ø6 (R)	 Ø8
37.5 s	22.5 s

Lanes, Volumes, Timings
65: Route 33 & W Parade Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	262	5	5	99	481	52	2556	27	19	1818	37
Future Volume (vph)	5	262	5	5	99	481	52	2556	27	19	1818	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		0	150		325
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.998			0.889				0.850			0.850
Flt Protected		0.999					0.950			0.950		
Satd. Flow (prot)	0	1857	0	0	1656	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.969			0.997		0.950			0.950		
Satd. Flow (perm)	0	1801	0	0	1651	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			61				44			44
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		98			623			486			778	
Travel Time (s)		2.2			14.2			11.0			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	285	5	5	108	523	57	2778	29	21	1976	40
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	295	0	0	636	0	57	2778	29	21	1976	40
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		3			7		5	2		1	6	
Permitted Phases	3			7					2			6
Minimum Split (s)	22.5	22.5		22.5	22.5		9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	45.0	45.0		45.0	45.0		10.4	95.5	95.5	9.5	94.6	94.6
Total Split (%)	30.0%	30.0%		30.0%	30.0%		6.9%	63.7%	63.7%	6.3%	63.1%	63.1%
Maximum Green (s)	40.5	40.5		40.5	40.5		5.9	91.0	91.0	5.0	90.1	90.1
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5			4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effect Green (s)		40.5			40.5		5.9	91.0	91.0	5.0	90.1	90.1
Actuated g/C Ratio		0.27			0.27		0.04	0.61	0.61	0.03	0.60	0.60
v/c Ratio		0.61			1.30		0.83	1.29	0.03	0.36	0.93	0.04

Lanes, Volumes, Timings
65: Route 33 & W Parade Ave

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		53.8			176.4		136.7	164.2	1.6	24.7	40.4	0.0
Queue Delay		0.0			0.1		0.0	0.0	0.0	0.0	0.7	0.0
Total Delay		53.8			176.4		136.7	164.2	1.6	24.7	41.0	0.0
LOS		D			F		F	F	A	C	D	A
Approach Delay		53.8			176.4			162.0			40.1	
Approach LOS		D			F			F			D	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 120 (80%), Referenced to phase 2:NBT, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 1.30

Intersection Signal Delay: 115.5

Intersection LOS: F

Intersection Capacity Utilization 115.9%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 65: Route 33 & W Parade Ave



Lanes, Volumes, Timings
66: Route 33 & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	605	33	4	131	39	153	2814	76	50	1837	99
Future Volume (vph)	33	605	33	4	131	39	153	2814	76	50	1837	99
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	125		125	125		125
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.993			0.970				0.850			0.850
Flt Protected		0.998			0.999		0.950			0.950		
Satd. Flow (prot)	0	1846	0	0	1805	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.976			0.976		0.950			0.950		
Satd. Flow (perm)	0	1805	0	0	1763	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			9				109			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		100			196			778			726	
Travel Time (s)		2.3			4.5			17.7			16.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	36	658	36	4	142	42	166	3059	83	54	1997	108
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	730	0	0	188	0	166	3059	83	54	1997	108
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		7 9			7 10		1	2		1	2	
Permitted Phases	7 9			7 10					2			2
Minimum Split (s)							9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)							11.0	54.0	54.0	11.0	54.0	54.0
Total Split (%)							7.3%	36.0%	36.0%	7.3%	36.0%	36.0%
Maximum Green (s)							6.5	49.5	49.5	6.5	49.5	49.5
Yellow Time (s)							3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)							1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)							0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)							4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)								7.0	7.0		7.0	7.0
Flash Dont Walk (s)								11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)								0	0		0	0
Act Effct Green (s)		53.5			40.5		6.5	49.5	49.5	6.5	49.5	49.5
Actuated g/C Ratio		0.36			0.27		0.04	0.33	0.33	0.04	0.33	0.33
v/c Ratio		1.13			0.39		2.18	2.62	0.14	0.71	1.71	0.18

Lane Group	Ø3	Ø5	Ø7	Ø9	Ø10
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	3	5	7	9	10
Permitted Phases					
Minimum Split (s)	22.5	9.5	22.5	9.5	22.5
Total Split (s)	22.5	65.0	22.5	40.0	22.5
Total Split (%)	15%	43%	15%	27%	15%
Maximum Green (s)	18.0	60.5	18.0	35.5	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag				Lag	Lead
Lead-Lag Optimize?				Yes	Yes
Walk Time (s)	7.0		7.0		7.0
Flash Dont Walk (s)	11.0		11.0		11.0
Pedestrian Calls (#/hr)	0		0		0
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					

Lanes, Volumes, Timings

66: Route 33 & Northhampton St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		83.9			2.3		564.1	750.0	1.7	106.6	360.1	29.8
Queue Delay		0.3			3.5		18.6	0.0	0.0	0.0	0.0	0.0
Total Delay		84.2			5.8		582.6	750.0	1.7	106.6	360.1	29.8
LOS		F			A		F	F	A	F	F	C
Approach Delay		84.2			5.8			722.8			337.2	
Approach LOS		F			A			F			F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 3 (2%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 3.43

Intersection Signal Delay: 498.3

Intersection LOS: F

Intersection Capacity Utilization 142.1%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 66: Route 33 & Northhampton St

#66  Ø2 (R)	#66  Ø1	#4 #5  Ø3	#4 #5 #66  Ø10	#4 #5 #66  Ø9
54 s	11 s	22.5 s	22.5 s	40 s
#4 #5  Ø5	#66  Ø7			
65 s	22.5 s			

Lane Group	Ø3	Ø5	Ø7	Ø9	Ø10
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
67: Route 33 & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	268	35	42	191	32	289	2525	73	54	1910	219
Future Volume (vph)	50	268	35	42	191	32	289	2525	73	54	1910	219
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		150
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.985			0.982				0.850			0.850
Flt Protected		0.993			0.992		0.950			0.950		
Satd. Flow (prot)	0	3462	0	0	3448	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.819			0.795		0.950			0.950		
Satd. Flow (perm)	0	2855	0	0	2763	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			10				109			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		94			77			620			1337	
Travel Time (s)		2.1			1.8			14.1			30.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	291	38	46	208	35	314	2745	79	59	2076	238
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	383	0	0	289	0	314	2745	79	59	2076	238
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		7 9			7 10		1	2		1	2	
Permitted Phases	7 9			7 10					2			2
Minimum Split (s)							9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)							18.0	62.0	62.0	18.0	62.0	62.0
Total Split (%)							12.0%	41.3%	41.3%	12.0%	41.3%	41.3%
Maximum Green (s)							13.5	57.5	57.5	13.5	57.5	57.5
Yellow Time (s)							3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)							1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)							0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)							4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)								7.0	7.0		7.0	7.0
Flash Dont Walk (s)								11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)								0	0		0	0
Act Effct Green (s)		35.5			45.0		13.5	57.5	57.5	13.5	57.5	57.5
Actuated g/C Ratio		0.24			0.30		0.09	0.38	0.38	0.09	0.38	0.38
v/c Ratio		0.56			0.35		1.97	2.02	0.12	0.37	1.53	0.35

Lane Group	Ø3	Ø5	Ø7	Ø9	Ø10
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	3	5	7	9	10
Permitted Phases					
Minimum Split (s)	22.5	9.5	22.5	9.5	22.5
Total Split (s)	24.0	80.0	24.0	16.0	30.0
Total Split (%)	16%	53%	16%	11%	20%
Maximum Green (s)	19.5	75.5	19.5	11.5	25.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag				Lead	Lag
Lead-Lag Optimize?				Yes	Yes
Walk Time (s)	7.0		7.0		7.0
Flash Dont Walk (s)	11.0		11.0		11.0
Pedestrian Calls (#/hr)	0		0		0
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					

Lanes, Volumes, Timings

67: Route 33 & E Utica St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		4.9			2.4		469.4	479.9	0.6	58.4	263.0	4.1
Queue Delay		0.0			0.0		4.5	0.0	0.0	0.0	0.0	0.0
Total Delay		4.9			2.5		473.8	479.9	0.6	58.4	263.0	4.1
LOS		A			A		F	F	A	E	F	A
Approach Delay		4.9			2.5			467.3			231.9	
Approach LOS		A			A			F			F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 43 (29%), Referenced to phase 2:NBSB and 6:, Start of Green

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 2.12

Intersection Signal Delay: 326.6

Intersection LOS: F

Intersection Capacity Utilization 106.5%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 67: Route 33 & E Utica St

#67  Ø2 (R)	#67  Ø1	#6 #7  Ø3	#6 #7 #67 #6 #7 #67  Ø10
62 s	18 s	24 s	16 s 30 s
#6 #7  Ø5	#67  Ø7		
80 s	24 s		

Lane Group	Ø3	Ø5	Ø7	Ø9	Ø10
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
68: Route 33 & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	321	712	124	129	293	77	522	2020	65	62	1930	498
Future Volume (vph)	321	712	124	129	293	77	522	2020	65	62	1930	498
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.984			0.977				0.850			0.850
Flt Protected		0.986			0.987		0.950			0.950		
Satd. Flow (prot)	0	3434	0	0	3413	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.610			0.524		0.950			0.950		
Satd. Flow (perm)	0	2124	0	0	1812	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			16				109			172
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		84			78			1337			636	
Travel Time (s)		1.9			1.8			30.4			14.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	349	774	135	140	318	84	567	2196	71	67	2098	541
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1258	0	0	542	0	567	2196	71	67	2098	541
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases		7 9			7 10		1	2		1	2	
Permitted Phases	7 9			7 10					2			2
Minimum Split (s)							9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)							19.0	42.0	42.0	19.0	42.0	42.0
Total Split (%)							12.7%	28.0%	28.0%	12.7%	28.0%	28.0%
Maximum Green (s)							14.5	37.5	37.5	14.5	37.5	37.5
Yellow Time (s)							3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)							1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)							0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)							4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)								7.0	7.0		7.0	7.0
Flash Dont Walk (s)								11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)								0	0		0	0
Act Effct Green (s)		54.0			57.5		14.5	37.5	37.5	14.5	37.5	37.5
Actuated g/C Ratio		0.36			0.38		0.10	0.25	0.25	0.10	0.25	0.25
v/c Ratio		1.63			2.37dl		3.32	2.48	0.15	0.39	2.37	1.03

Lane Group	Ø3	Ø5	Ø7	Ø9	Ø10
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Turn Type					
Protected Phases	3	5	7	9	10
Permitted Phases					
Minimum Split (s)	22.5	9.5	22.5	9.5	22.5
Total Split (s)	36.0	61.0	36.0	27.0	26.0
Total Split (%)	24%	41%	24%	18%	17%
Maximum Green (s)	31.5	56.5	31.5	22.5	21.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag				Lag	Lead
Lead-Lag Optimize?				Yes	Yes
Walk Time (s)	7.0		7.0		7.0
Flash Dont Walk (s)	11.0		11.0		11.0
Pedestrian Calls (#/hr)	0		0		0
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					

Lanes, Volumes, Timings

68: Route 33 & E Ferry St

03/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		304.8			4.8		1059.6	693.2	21.1	70.9	646.1	84.6
Queue Delay		0.2			0.0		0.0	0.0	0.0	0.0	0.0	7.4
Total Delay		305.0			4.8		1059.6	693.2	21.1	70.9	646.1	92.1
LOS		F			A		F	F	C	E	F	F
Approach Delay		305.0			4.8			749.7			521.1	
Approach LOS		F			A			F			F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green, Master Intersection

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 3.61

Intersection Signal Delay: 534.2

Intersection LOS: F

Intersection Capacity Utilization 144.5%

ICU Level of Service H

Analysis Period (min) 15

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 68: Route 33 & E Ferry St

#68  Ø1	#68  Ø2 (R)	#8 #9  Ø3	#8 #9 #68  Ø10	#8 #9 #68  Ø9
19 s	42 s	36 s	26 s	27 s
#8 #9  Ø5	#68  Ø7			
61 s	36 s			

Lane Group	Ø3	Ø5	Ø7	Ø9	Ø10
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Intersection Summary					

Lanes, Volumes, Timings
118: Humboldt Parkway SB

03/10/2022

						
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	306			252	236	
Travel Time (s)	7.0			5.7	5.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Free	Yield	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 18.3%				ICU Level of Service A		
Analysis Period (min) 15						

