
August 31, 2021

Mr. Joe Vaccaro
V20 Group
48 Rings End Road
Darien, CT 06820

**RE: Traffic Evaluation
419 West Avenue Redevelopment
Stamford, Connecticut
SLR #141.20297.00001**

Dear Mr. Vaccaro:

At your request, we have undertaken this study to evaluate the traffic-related implications associated with the proposed redevelopment of 419 West Avenue in Stamford, Connecticut. **Figure 1** displays the site location map. The project site currently has one vacant office building and one vacant warehouse building. The project proposes to replace the former office building with a new approximately 74,891-square-foot industrial warehouse building. The existing vacant warehouse building on the west side of the site will remain along with the occupied warehouse building on the south side of the site at 650 West Avenue. The work comprising the study consisted of several tasks including data collection, review of roadway and traffic conditions, estimation of site-generated traffic volumes, and assessment of future traffic operations. For this study, the intersection of West Avenue at Selleck Street was evaluated.

EXISTING CONDITIONS

The existing information involving the vehicle volumes, pedestrian volumes, transit, and accident history was collected to determine the existing conditions of the area around the proposed redevelopment.

Site Environs

West Avenue is a north/south minor arterial with one travel lane in each direction, and additional turn lanes at its signalized intersection with Selleck Street. The arterial extends north from the project site underneath Interstate 95 (I-95) to Stillwater Avenue. South of I-95, West Avenue is largely abutted by industrial and commercial uses. North of I-95, West Avenue is largely abutted by residential land uses. There are sidewalks on both sides of West Avenue and sharrows (bicycle shared lane) markings north of Selleck Street. The speed limit on West Avenue is 25 miles per hour (mph).

Crash Data Summary

Information on traffic accident statistics for the study intersections was obtained from the Connecticut Crash Data Repository for the 3-year period of July 1, 2018, to June 30, 2021. The accident data collected for this period is shown in **Table 1**, summarized by location.

A total of 27 crashes were reported at the intersection of West Avenue and Selleck Street for the 3-year period. More than 80% of the total crashes resulted in property damage only. No serious injuries or fatalities were reported. The most common collision type was rear-end collisions, comprising 48% of reported crashes, followed by angle and sideswipe (same direction) collisions, both at 19%. There do not appear to be any unusual trends in the crash data for this intersection. There was one angle collision reported in front of the project site and another unknown type of collision reported on the project site for the 3-year period. Both crashes resulted in property damage only.

TABLE 1
Crash Data Summary

WEST AVENUE AT SELLECK STREET	
<i>Crash Severity</i>	<i>Number Of Collisions</i>
Suspected Minor Injury	1
Possible Injury	4
Property Damage Only	22
<i>Total</i>	<i>27</i>
<i>Type Of Collision</i>	<i>Number Of Collisions</i>
Angle	5
Head On	2
Rear End	13
Sideswipe (Same Direction)	5
Other	2
<i>Total</i>	<i>27</i>

Source: University of Connecticut Crash Data Repository from July 1, 2018, to June 30, 2021

Existing Transit Routes

CTtransit is Connecticut Department of Transportation's (CTDOT) bus service. CTtransit Stamford operates 15 local bus routes. Buses connect with Norwalk transit, with the New Haven Line in several locations, the Harlem Line on Metro-North Railroad, and with Bee-Line buses in Westchester County, New York. CTtransit Stamford also operates the I-Bus, an express service between downtown Stamford and White Plains, New York. CTtransit Stamford bus route 321 has stops at the intersection of West Avenue at Selleck Street and along West Avenue near the project site. Route 321 (West Avenue) operates between the Stamford Transportation Center and Stamford's West End. All buses travel via Stillwater, West, Baxter Place,

Fairfield, and Richmond Hill Avenue. The route operates from approximately 5:30 a.m. to midnight (12:00 a.m.) on weekdays and 6:40 a.m. to 11:00 p.m. on weekends.

Existing Traffic Volumes

Traffic monitoring data from December 2017 and August 2020 (collected during the COVID-19 epoch) for West Avenue north of Orlando Avenue was also obtained from CTDOT. The annualized average daily traffic (AADT) at this location was 17,700 vehicles in 2017 and 15,100 vehicles in 2020 during the COVID-19 epoch.

To supplement the state traffic monitoring data, multi-modal traffic counts were conducted, including vehicle turning movement and pedestrian crossing counts, at the intersection of West Avenue and Selleck Street. The counts were conducted on Thursday, July 1, 2021, from 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m. to capture peak roadway activity. For analysis, the highest single peak-hour volume for each time period was extracted from the count data. The peak hours were found to be from 7:00 a.m. to 8:00 a.m. (a.m. peak hour) and from 5:00 p.m. to 6:00 p.m. (p.m. peak hour). The baseline peak-hour traffic volumes are shown in **Figure 2**. It is important to note that the existing office building on the project site was unoccupied at the time the traffic counts were conducted. The counts are included in the Appendix.

Due to the COVID-19 pandemic and its overall effect on reducing current travel and traffic patterns, the recently conducted intersection turning movement traffic counts are likely not indicative of normal (pre-COVID) traffic operations, as shown in the AADT data. **Table 2** displays a comparison summary of the percent differences between the December 2017 (pre-COVID) state traffic monitoring data, the August 2020 (COVID) state traffic monitoring data, and the July 2021 (current) traffic volumes.

TABLE 2
Hourly Volume Comparison Summary

DATE	COMBINED PEAK-HOUR VOLUME	PERCENT CHANGE
<i>A.M. Peak Hour (7:00-8:00)</i>		
12/05/2017 (Pre COVID)	1,456	
08/27/2020 (COVID)	1,160	-26%
7/1/2021 (Current Conditions)	1,107	-32%
<i>P.M. Peak Hour (5:00-6:00)</i>		
12/05/2017 (Pre COVID)	1,233	
08/27/2020 (COVID)	1,146	-8%
7/1/2021 (Current Conditions)	972	-27%

As shown in the table, the August 2020 (COVID) and July 2021 (current) peak-hour traffic volumes are considerably lower than the December 2017 (pre-COVID) traffic volumes. In particular, the July 2021 a.m. and p.m. peak-hour traffic volumes are approximately 32 and 27 percent lower than the December 2017 peak-hour traffic volumes, respectively. It is important to note that in December 2017, FUJIFILM Medical Systems USA headquarters was located at the project site. FUJIFILM moved out of Stamford in April 2019. Some of the difference in volume between the July 2021 and December 2017 traffic volumes could also be attributed to the departure of FUJIFILM. The peak-hour percent differences between the July 2021 and December 2017 traffic volumes were applied to the July 2021 peak-hour traffic volumes (shown in Figure 2) to reflect normal (non-COVID) traffic operations. **Figure 3** displays the resulting Existing Conditions peak-hour traffic volumes.

PROPOSED REDEVELOPMENT

As stated previously, the project proposes to replace the former 2-floor approximately 70,000-square-foot office building with a new approximately 74,891-square-foot industrial warehouse building. The existing approximately 19,700-square-foot warehouse building on the west side of the site will remain. It is important to note that the existing warehouse building on the south side of the site at 650 West Avenue was occupied by a tenant with a multiple year lease in place at the time the traffic counts were conducted and will remain as is with the proposed project. As such, the existing warehouse building on the south side of the site was not included in the project site trip generation estimates.

Project Site Trip Generation

The project site-generated peak-hour trips were estimated using statistical data published by the Institute of Transportation Engineers (ITE).¹ **Table 3** summarizes the site-generated traffic estimates for the existing site (if occupied) and the proposed redevelopment during the study peak hours.

While the office and warehouse buildings on the project site are currently vacant, it is important to compare the site-generated trips that would be traveling to and from the project site if the office buildings were occupied and the proposed redevelopment site-generated trips. As shown in Table 3, the proposed redevelopment is estimated to generate significantly less trips than the existing office building. The proposed redevelopment is estimated to generate 16 total vehicle trips (12 vehicles entering and 4 vehicles exiting) during the morning peak hour and 18 total vehicle trips (5 vehicles entering and 13 vehicles exiting) during the afternoon peak hour.

¹ *Trip Generation, 10th Edition*, Institute of Transportation Engineers, 2017

TABLE 3
Proposed Redevelopment New Site Traffic Estimates

LAND USE	UNITS	A.M. PEAK HOUR				P.M. PEAK HOUR			
		TRIP RATE	IN	OUT	TOTAL	TRIP RATE	IN	OUT	TOTAL
Existing									
710 – General Office Building	70 KSF	1.16/KSF	70	11	81	1.15/KSF	13	68	81
150 – Warehousing	20 KSF	0.17/KSF	3	0	3	0.19/KSF	1	3	4
Existing Total	90 KSF		73	11	84		14	71	85
Proposed Redevelopment									
150 – Warehousing	95 KSF	0.17/KSF	12	4	16	0.19/KSF	5	13	18
Proposed - Existing			-61	-7	-68		-9	-58	-67

Notes:

1. Trip Generation, 10th Edition, Institute of Transportation Engineers
2. KSF = Thousand Square Feet

Proposed Redevelopment Trip Distribution

The geographic distribution of the proposed redevelopment site-generated traffic was estimated based on review of the roadway traffic patterns in the vicinity of the site. It is estimated that 60 percent of the site traffic will be using West Avenue (to and from the north) and 40 percent of the site traffic will be using Selleck Street (to and from the east).

Based on the proposed redevelopment trip generation and trip distribution, the proposed new site-generated trips were assigned to the study intersection. **Figure 4** displays the resulting proposed redevelopment trip assignment.

FUTURE (2023) CONDITIONS

The proposed redevelopment is anticipated to be completed by 2023. Future (2023) Conditions were evaluated with the existing approximately 53,398-square-foot office buildings occupied and with the proposed redevelopment completed to determine possible traffic impacts.

Background with Office Traffic Volumes

The Background with Office scenario is reflective of Future (2023) Conditions if the proposed redevelopment was not built and instead the office and warehouse buildings were occupied. Background (2023) with Office Conditions also includes traffic associated with other nearby expected upcoming redevelopments as well as general traffic growth.

Based on correspondence with the City of Stamford and CTDOT, there are no proposed developments on file that would add significant traffic to the study intersection. Based on correspondence with CTDOT, the existing traffic volumes were projected to Future (2023) Conditions using a growth rate of 0.5 percent per year. Background (2023) with Office Conditions peak-hour traffic volumes were estimated by applying the growth rate to the Existing Conditions peak-hour traffic volumes and adding the office trip assignment. The resultant Background (2023) with Office Conditions peak-hour traffic volumes are shown in **Figure 5**. The office and warehouse trip assignment is included in the Appendix.

Combined Traffic Volumes

The combined traffic scenario is reflective of Future (2023) Conditions once the proposed redevelopment is completed. Combined (2023) Conditions peak-hour traffic volumes were estimated by adding the estimated proposed redevelopment trip assignment (shown in Figure 4) to the Background (2023) with Office Conditions peak-hour traffic volumes (shown in Figure 5) and subtracting the office traffic volumes. The resultant Combined (2023) Conditions peak-hour traffic volumes are shown in **Figure 6**.

INTERSECTION CAPACITY ANALYSIS

Intersection capacity analysis was performed at the study intersection under Background (2023) with Office Conditions and Combined (2023) Conditions to evaluate the intersection's ability to process traffic volumes. These evaluations were used to determine possible traffic impacts caused by the proposed redevelopment, based on the comparison of background and combined traffic operations.

Intersection operation results are expressed as a level of service (LOS). LOS is used to provide a qualitative evaluation of the efficiency of operations of an intersection in terms of delay and inconvenience based on certain quantitative calculations. A description of the various LOS designations, A through F, is given in the Appendix. LOS A describes operations with very low average control delay per vehicle while LOS F describes operations with long average delays. The study intersections were evaluated using *Synchro 11 (Trafficware)* traffic analysis software package. **Table 4** summarizes the capacity analysis findings under Background and Combined (2023) Conditions. The *Synchro* analysis worksheets are included in the Appendix.

It is important to note LOS A to LOS D are generally considered acceptable conditions. However, in urban areas, like our study area, LOS E during peak hours is often deemed acceptable and can indicate an efficient tradeoff between traffic flow and the amount of land devoted to the movement of motor vehicles.

As shown in Table 4, the intersection of West Avenue and Selleck Street is expected to operate at acceptable overall LOS (LOS B - C) under Background with Office and Combined Conditions during both peak periods. The proposed redevelopment is not expected to change the overall LOS at the study intersection. Furthermore, the proposed redevelopment will generate significantly less trips than the existing office building and may improve the LOS at the southbound and northbound movements.

TABLE 4
Capacity Analysis Summary
Future (2023) Conditions

INTERSECTION/LANE GROUP	LEVEL OF SERVICE			
	A.M. PEAK HOUR		P.M. PEAK HOUR	
	BACKGROUND	COMBINED	BACKGROUND	COMBINED
Signalized				
1. West Avenue at Selleck Street				
Eastbound Left	E	E	E	E
Eastbound Through/Right	C	C	D	D
Westbound Left/Through	D	D	E	E
Westbound Right	A	A	A	A
Northbound Left/Through/Right	C	C	C	B
Southbound Left	B	A	A	A
Southbound Through/Right	A	A	A	A
Overall	B	B	C	C

Notes: LOS calculations were performed using Synchro 11.

SUMMARY

This study was conducted to assess the transportation implications of the proposed redevelopment plans to replace the former office building at 419 West Avenue with a new industrial warehouse building. To determine a profile of existing conditions, data assembly efforts were undertaken. Estimates of traffic that will be generated by the proposed redevelopment were developed based on statistical data published by ITE and intersection capacity analysis was performed at the intersection of West Avenue and Selleck Street under Background with Office and Combined (2023) Conditions.

With the construction of the proposed redevelopment, the intersection of West Avenue and Selleck Street is expected to operate at acceptable overall LOS (LOS B - C). Importantly, the proposed redevelopment at 419 West Avenue is anticipated to generate at most only 18 vehicle trips in total during any given single peak hour, generating significantly less traffic than the existing office and warehouse buildings would if they were occupied in the future. As such, no impacts to LOS associated with this proposed redevelopment are anticipated.

We hope this report is useful to you. If you have any questions or need anything further, please do not hesitate to contact either of the undersigned.

Sincerely,

SLR International Corporation



Neil C. Olinski, MS, PTP
Senior Transportation Planner



Emily A. Foster, PE
Associate Transportation Engineer

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Figures

- Figure 1 – Site Location Map
- Figure 2 – Baseline Peak Hour Traffic Volumes
- Figure 3 – Existing Conditions Peak Hour Traffic Volumes
- Figure 4 – Proposed Redevelopment Peak Hour Trip Assignment
- Figure 5 – Background (2023) with Office Conditions Peak Hour Traffic Volumes
- Figure 6 – Combined (2023) Conditions Peak Hour Traffic Volumes

Appendix

- Multi-modal Traffic Counts
- LOS Designation Descriptions
- Existing Office and Warehouse Trip Assignment
- *Synchro* Analysis Worksheets



Figure 1 - Site Location Map

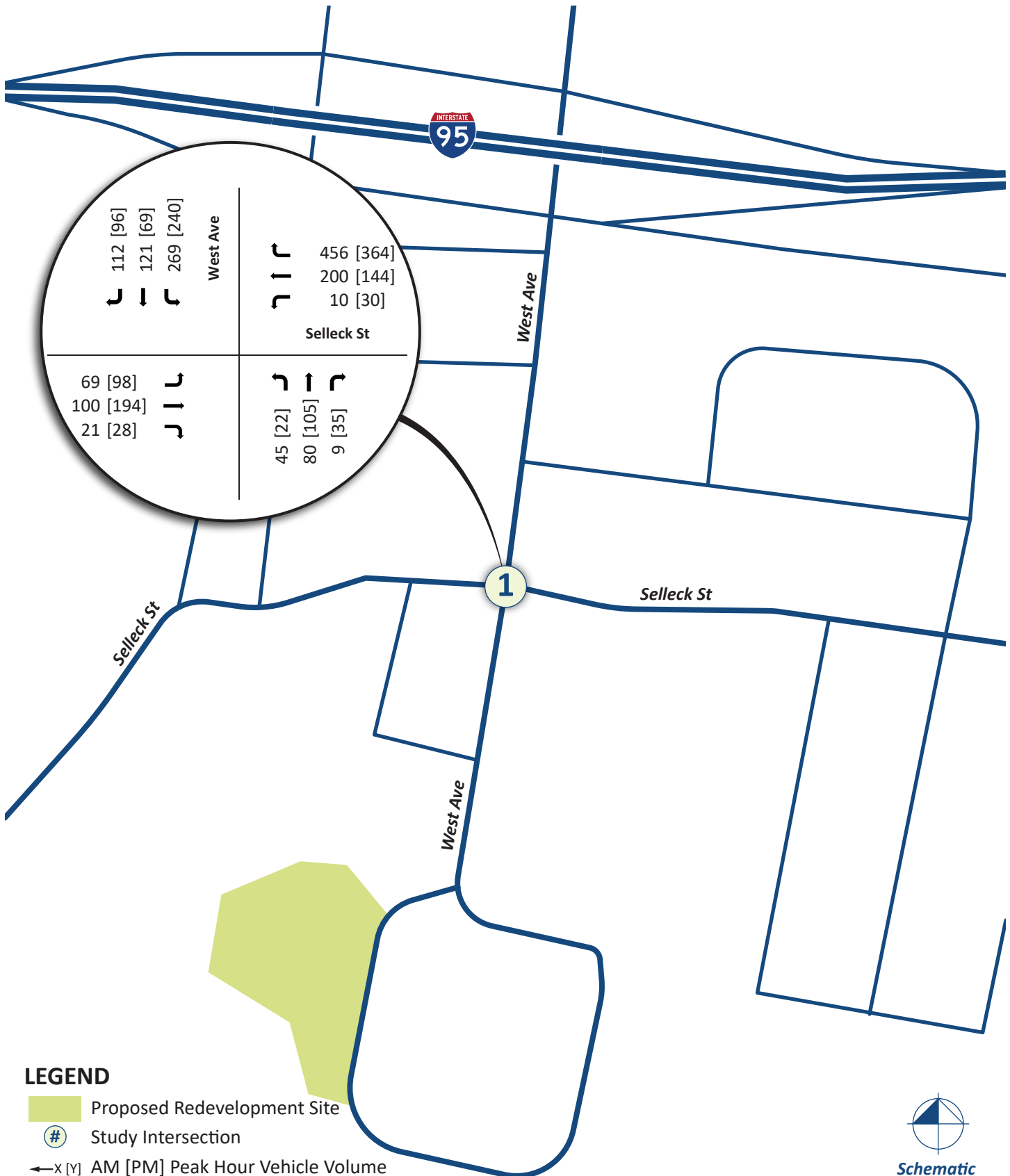


Figure 2 - Baseline Peak Hour Traffic Volumes

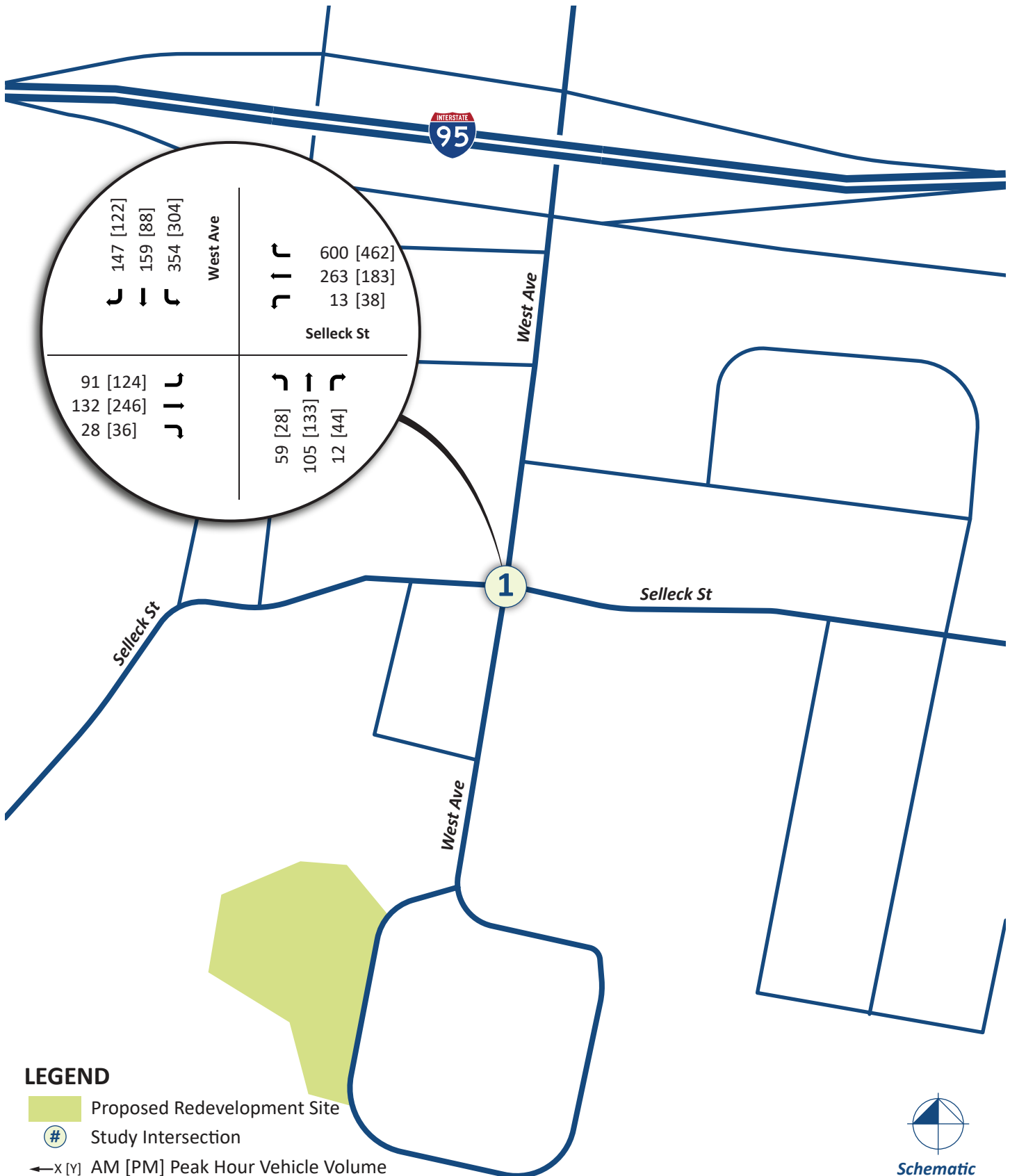


Figure 3 - Existing Conditions Peak Hour Traffic Volumes

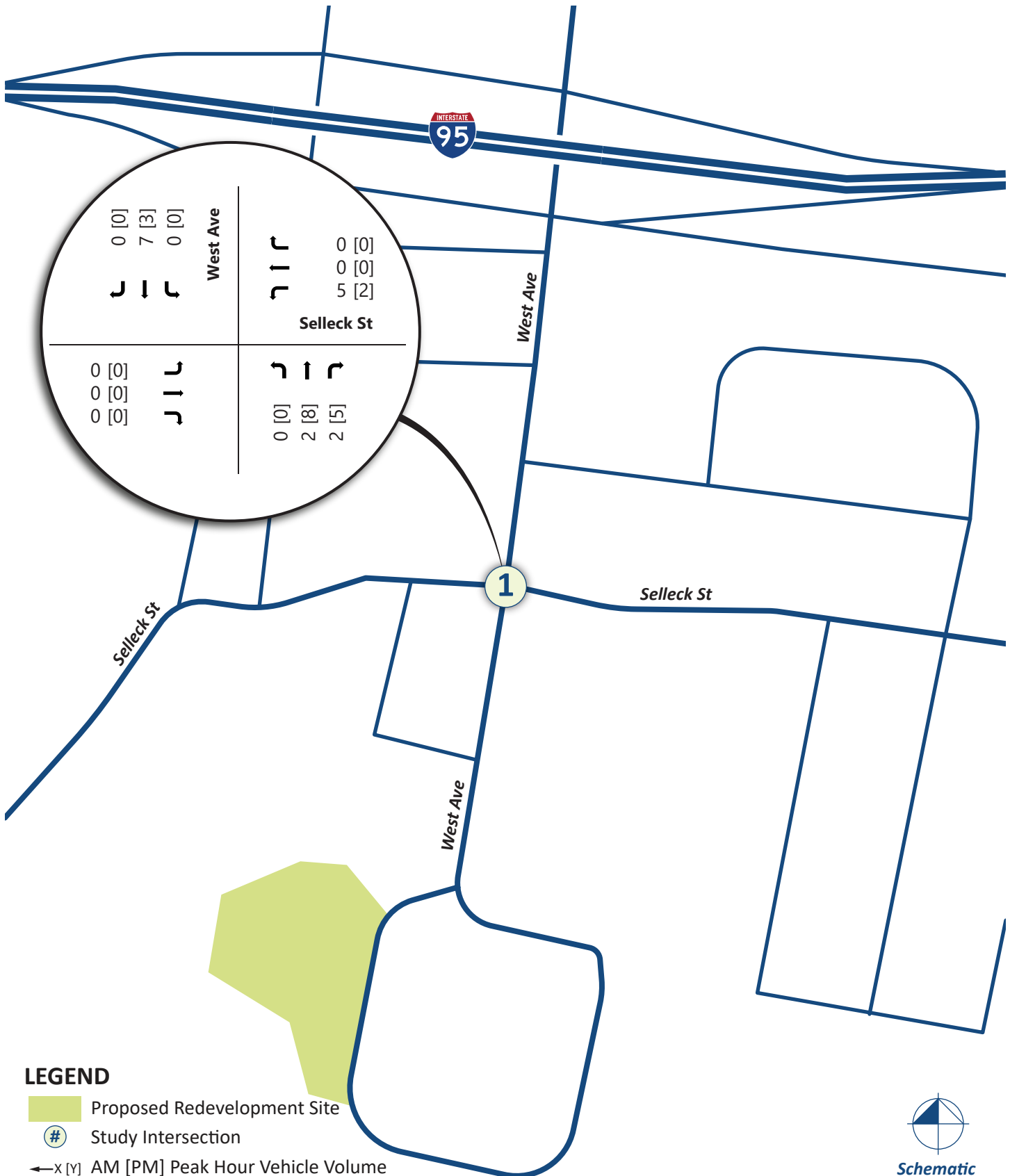


Figure 4 - Proposed Redevelopment Peak Hour Trip Assignment

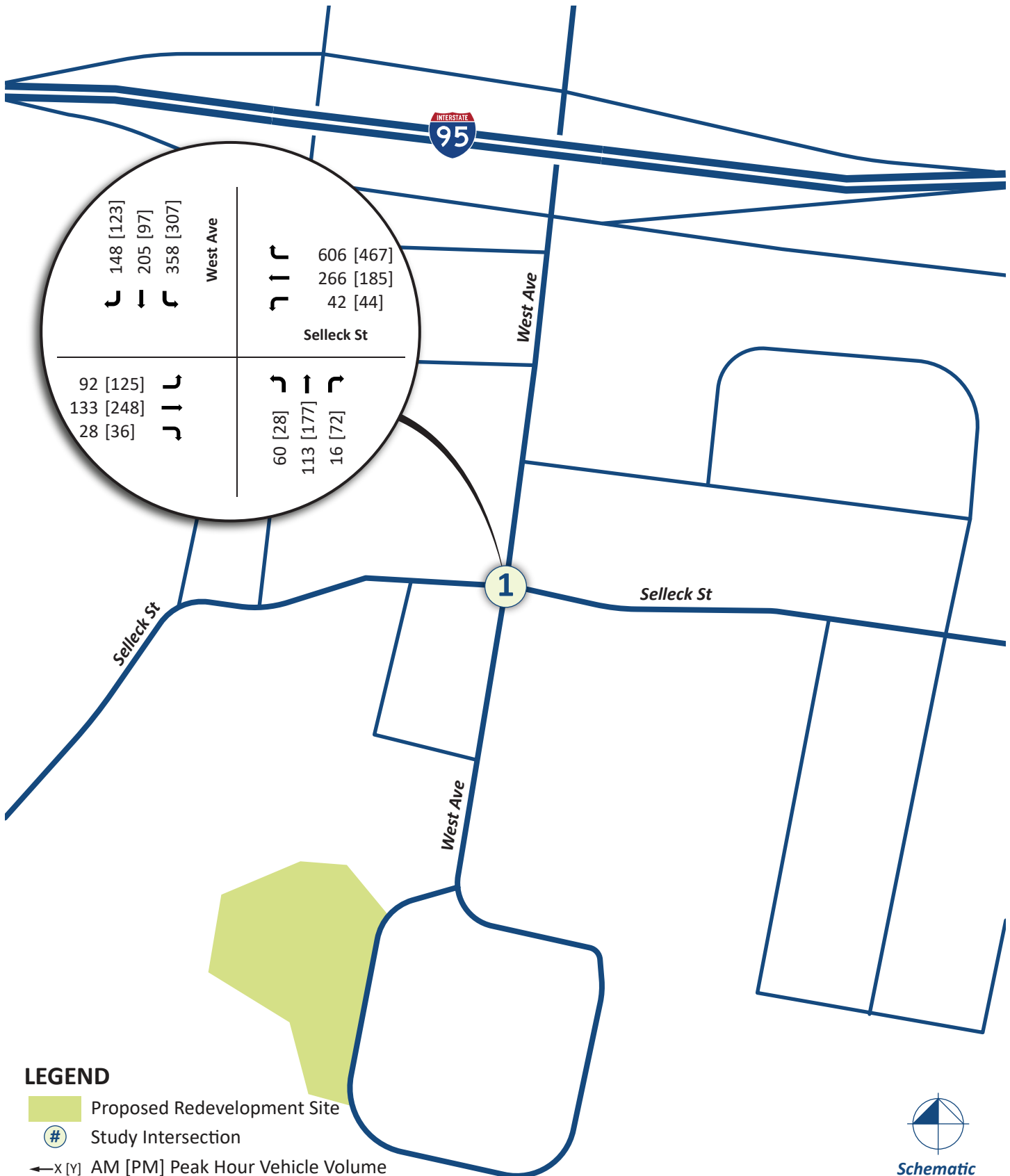


Figure 5 - Background (2023) with Office Conditions Peak Hour Traffic Volumes

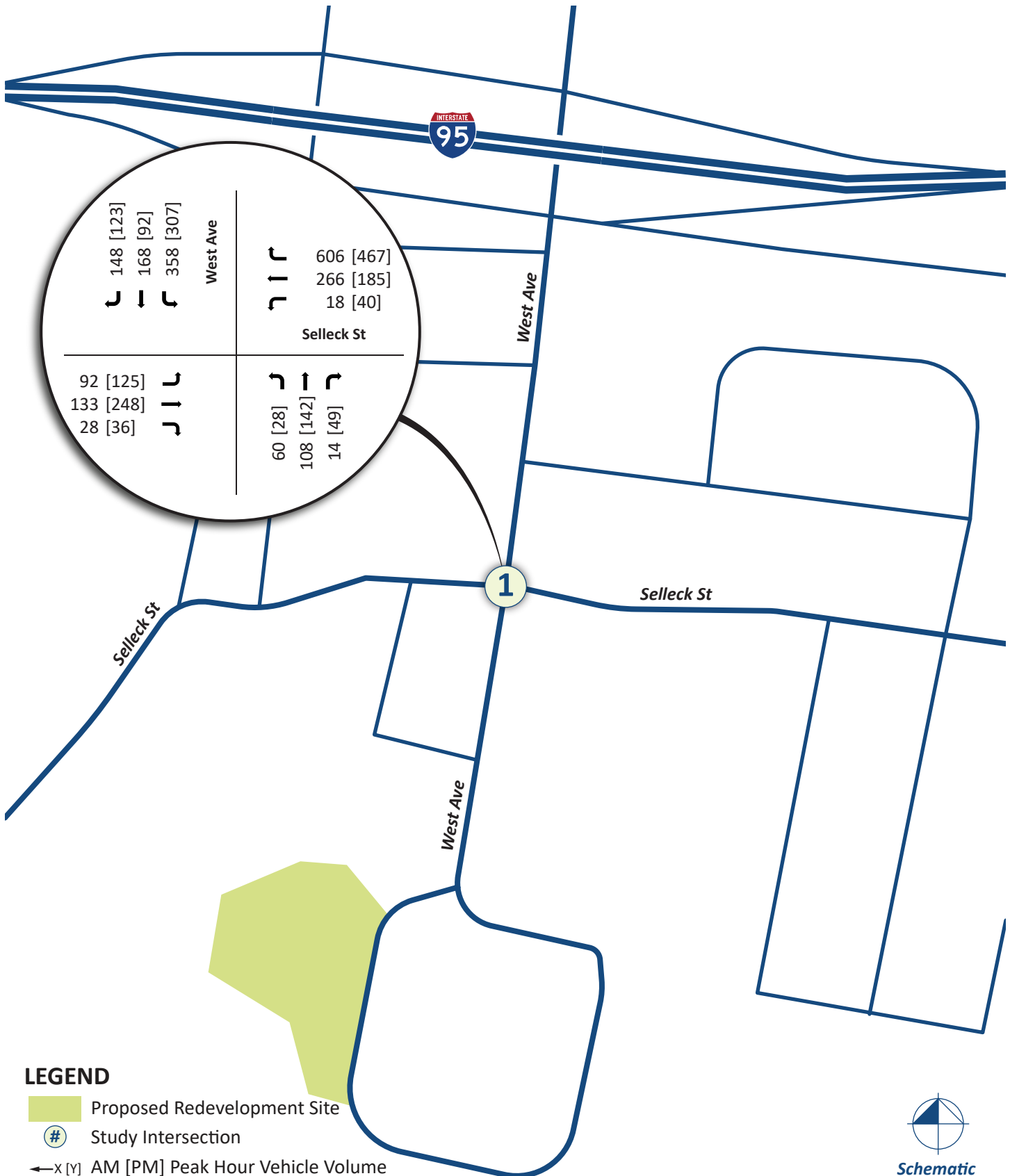


Figure 6 - Combined (2023) Conditions Peak Hour Traffic Volumes

APPENDIX

File Name: g:\rtc all counts 2016\jan 2018\1313-1th.ppd

Start Date: 7/1/2021

Start Time: 7:00:00 AM

Site Code: 00000001

Comment 1: TRAFFIC COUNTS - CARS

Comment 2: PEAK HOUR

Comment 3: 4:30 TO 5:30 P.M.

Comment 4:

Start Time	WEST AVE. SOUTHBOUND				SELLECK ST. WESTBOUND				WEST AVE. NORTHBOUND				SELLECK ST. EASTBOUND			
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	101	24	19	3	0	28	102	1	13	11	2	2	13	19	2	1
07:15 AM	73	27	22	0	4	50	115	2	14	18	2	1	20	29	4	0
07:30 AM	38	38	33	1	0	63	96	0	11	34	5	0	18	29	5	0
07:45 AM	48	30	37	1	6	55	118	5	6	11	0	1	16	20	10	2
08:00 AM	51	22	33	0	2	45	100	1	9	11	2	1	19	23	7	1
08:15 AM	55	18	37	0	1	51	98	2	6	15	3	0	23	30	4	0
08:30 AM	53	17	46	2	2	48	108	2	5	9	3	0	20	25	4	2
08:45 AM	60	19	41	0	3	35	98	0	2	9	2	0	21	33	2	0
04:00 PM	44	11	25	0	6	37	93	1	1	15	6	0	21	33	2	0
04:15 PM	49	16	22	0	5	26	83	0	4	14	2	0	27	40	5	0
04:30 PM	66	19	23	0	5	40	99	0	12	43	7	0	18	39	5	1
04:45 PM	61	16	20	2	3	30	84	0	7	31	3	3	19	37	8	3
05:00 PM	54	16	28	2	11	38	98	0	9	22	13	1	21	43	7	0
05:15 PM	57	14	14	1	3	37	82	1	4	28	8	3	27	48	9	1
05:30 PM	55	16	22	0	8	34	94	1	4	29	9	5	26	52	6	2
05:45 PM	62	19	32	0	8	34	87	1	4	22	4	1	24	50	6	3

File Name: g:\rtc all counts 2016\jan 2018\1313-1th.ppd

Start Date: 7/1/2021

Start Time: 7:00:00 AM

Site Code: 00000001

Comment 1: TRAFFIC COUNTS - BUSES

Comment 2: PEAK HOUR

Comment 3: 4:30 TO 5:30 P.M.

Comment 4:

Start Time	WEST AVE. SOUTHBOUND				SELLECK ST. WESTBOUND				WEST AVE. NORTHBOUND				SELLECK ST. EASTBOUND			
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	7	0	0	1	0	0	1	0	0	0
07:15 AM	1	1	0	0	0	1	7	0	0	1	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
07:45 AM	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
08:00 AM	2	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:15 AM	5	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0
08:30 AM	0	1	0	0	0	1	1	0	0	1	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
04:30 PM	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:45 PM	4	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0
05:00 PM	5	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:15 PM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	2	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0
05:45 PM	3	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0

LEVEL OF SERVICE FOR SIGNALIZED INTERSECTIONS (MOTORIZED VEHICLE MODE)

Level of service for signalized intersections is defined in terms of control delay, which is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, geometrics, traffic, and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions: in the absence of traffic control, geometric delay, any incidents, and any other vehicles. Specifically, LOS criteria for traffic signals are stated in terms of the average control delay per vehicle, typically for a 15-min analysis period. Delay is a complex measure and depends on a number of variables, including the quality of progression, the cycle length, the green ratio, and the v/c ratio for the lane group. The criteria are given below.

LEVEL-OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS MOTORIZED VEHICLE MODE		
LOS By Volume-to-Capacity Ratio ¹		CONTROL DELAY (s/veh)
v/c ≤ 1.0	v/c > 1.0	
A	F	≤ 10
B	F	> 10 AND ≤ 20
C	F	> 20 AND ≤ 35
D	F	> 35 AND ≤ 55
E	F	> 55 AND ≤ 80
F	F	> 80

¹ For approach-based and intersection-wide assessments, LOS is defined solely by control delay.

Specific descriptions of each LOS for signalized intersections are provided below:

Level of Service A describes operations with a control delay of 10 s/veh and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If LOS A is the result of favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

Level of Service B describes operations with control delay between 10 and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

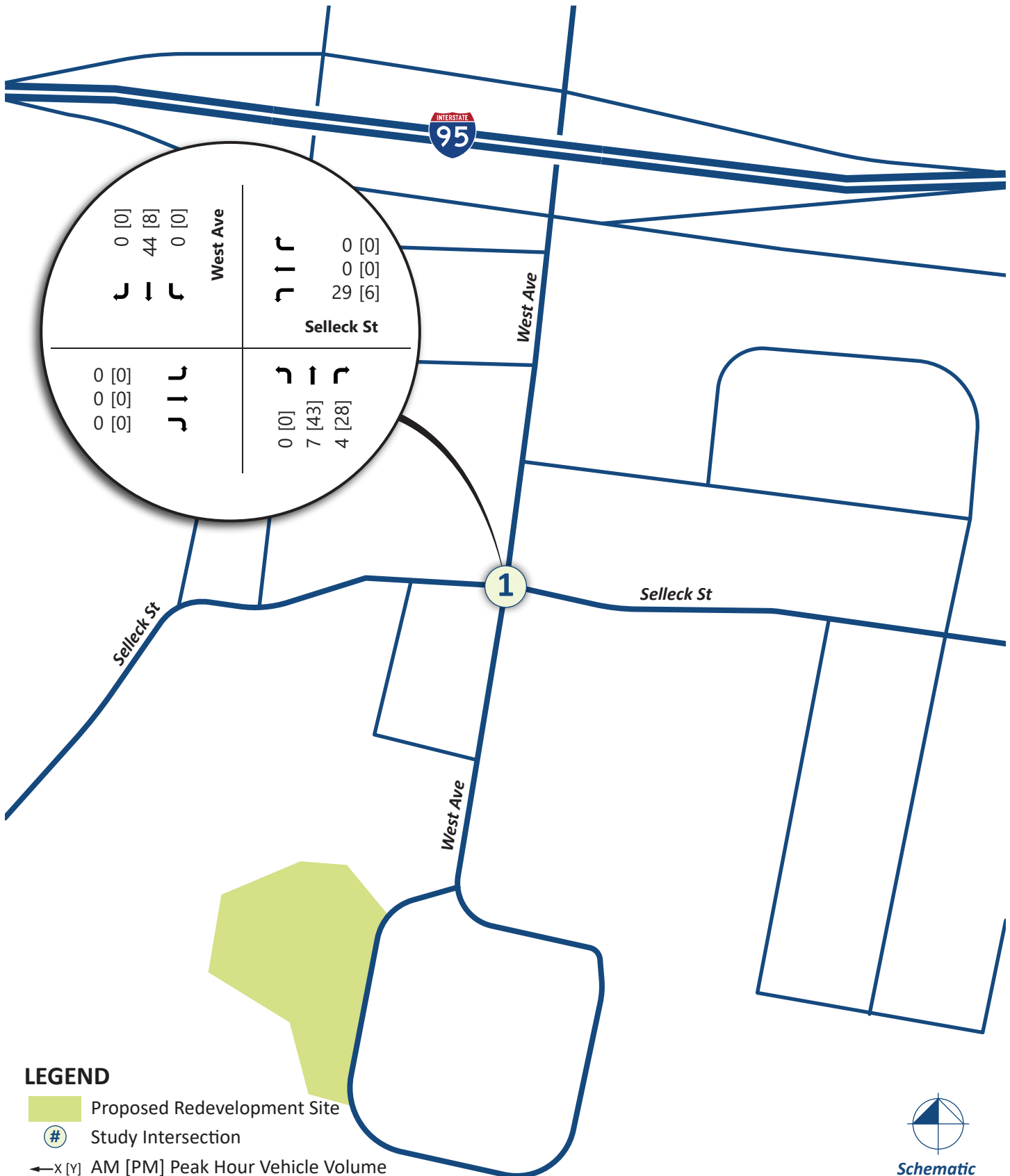
Level of Service C describes operations with control delay between 20 and 35 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate. Individual *cycle failures* (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.

Level of Service D describes operations with control delay between 35 and 55 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.

Level of Service E describes operations with control delay between 55 and 80 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.

Level of Service F describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.




















Reference: Highway Capacity Manual 6, Transportation Research Board, 2016.



419 West Ave
1: West Ave & Selleck St

2023 Background with Office Conditions


AM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	92	133	28	42	266	606	60	113	16	358	205	148
Future Volume (vph)	92	133	28	42	266	606	60	113	16	358	205	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	0		170	0		0	170		0
Storage Lanes	1		0	0		1	0		0	1		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
Ped Bike Factor	0.99	1.00			1.00	0.97		1.00		0.99	0.99	
Frt		0.974				0.850		0.989			0.937	
Flt Protected	0.950				0.993			0.984		0.950		
Satd. Flow (prot)	1656	1842	0	0	1887	1599	0	1552	0	1752	1735	0
Flt Permitted	0.306				0.932			0.794		0.633		
Satd. Flow (perm)	530	1842	0	0	1769	1549	0	1251	0	1153	1735	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12				622		5			70	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		266			313			335			350	
Travel Time (s)		7.3			8.5			9.1			9.5	
Confl. Peds. (#/hr)	7		5	5		7	4		11	11		4
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	9%	0%	0%	0%	0%	1%	56%	0%	11%	3%	2%	1%
Adj. Flow (vph)	98	141	30	45	283	645	64	120	17	381	218	157
Shared Lane Traffic (%)												
Lane Group Flow (vph)	98	171	0	0	328	645	0	201	0	381	375	0
Number of Detectors	1	1		1	1	1	1	1		1	1	
Detector Template				Left		Right	Left			Left		
Leading Detector (ft)	50	50		20	50	50	20	50		50	50	
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)	50	50		20	50	50	20	50		50	50	
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	
Turn Type	Perm	NA		Perm	NA	pm+ov	Perm	NA		D.P+P	NA	
Protected Phases		4			4	1		2		1	1 2	
Permitted Phases	4			4		4	2			2		
Detector Phase	4	4		4	4	4	2	2		1	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	5.0	10.0	10.0		5.0		
Minimum Split (s)	33.0	33.0		33.0	33.0	9.0	31.8	31.8		9.0		
Total Split (s)	33.0	33.0		33.0	33.0	22.0	35.0	35.0		22.0		
Total Split (%)	36.7%	36.7%		36.7%	36.7%	24.4%	38.9%	38.9%		24.4%		
Maximum Green (s)	28.0	28.0		28.0	28.0	18.0	29.2	29.2		18.0		
Yellow Time (s)	3.3	3.3		3.3	3.3	3.0	3.3	3.3		3.0		
All-Red Time (s)	1.7	1.7		1.7	1.7	1.0	2.5	2.5		1.0		
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0		0.0		

419 West Ave
1: West Ave & Selleck St

2023 Background with Office Conditions

AM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)	5.0	5.0			5.0	4.0		5.8		4.0		
Lead/Lag						Lead	Lag	Lag		Lead		
Lead-Lag Optimize?						Yes	Yes	Yes		Yes		
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0		
Recall Mode	None	None		None	None	None	C-Min	C-Min		None		
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	21.0	21.0		21.0	21.0		19.0	19.0				
Pedestrian Calls (#/hr)	15	15		15	15		15	15				
Act Effect Green (s)	22.2	22.2			22.2	37.5		38.7		54.8	58.8	
Actuated g/C Ratio	0.25	0.25			0.25	0.42		0.43		0.61	0.65	
v/c Ratio	0.75	0.37			0.75	0.63		0.37		0.48	0.32	
Control Delay	64.0	27.1			42.1	4.3		22.5		10.3	7.2	
Queue Delay	0.0	0.0			0.0	0.0		0.0		0.0	0.0	
Total Delay	64.0	27.1			42.1	4.3		22.5		10.3	7.2	
LOS	E	C			D	A		C		B	A	
Approach Delay		40.5			17.0			22.5			8.7	
Approach LOS		D			B			C			A	
Queue Length 50th (ft)	51	74			172	7		75		87	66	
Queue Length 95th (ft)	#118	120			245	51		157		162	134	
Internal Link Dist (ft)		186			233			255			270	
Turn Bay Length (ft)	90					170				170		
Base Capacity (vph)	164	581			550	1046		540		853	1158	
Starvation Cap Reductn	0	0			0	0		0		0	0	
Spillback Cap Reductn	0	0			0	0		0		0	0	
Storage Cap Reductn	0	0			0	0		0		0	0	
Reduced v/c Ratio	0.60	0.29			0.60	0.62		0.37		0.45	0.32	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 50 (56%), Referenced to phase 2:NBSB, Start of Yellow

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 17.5

Intersection LOS: B

Intersection Capacity Utilization 87.0%

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: 1: West Ave & Selleck St



419 West Ave
1: West Ave & Selleck St

2023 Background with Office Conditions


PM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	248	36	44	185	467	28	177	72	307	97	123
Future Volume (vph)	125	248	36	44	185	467	28	177	72	307	97	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	0		170	0		0	170		0
Storage Lanes	1		0	0		1	0		0	1		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
Ped Bike Factor	1.00	0.99			1.00	0.97		0.99		1.00	0.98	
Frt		0.981				0.850		0.965			0.916	
Flt Protected	0.950				0.990			0.995		0.950		
Satd. Flow (prot)	1736	1838	0	0	1881	1615	0	1772	0	1719	1669	0
Flt Permitted	0.424				0.610			0.954		0.550		
Satd. Flow (perm)	771	1838	0	0	1156	1571	0	1697	0	991	1669	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8				467		18			99	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		266			313			335			350	
Travel Time (s)		7.3			8.5			9.1			9.5	
Confl. Peds. (#/hr)	4		13	13		4	8		4	4		8
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	4%	1%	0%	0%	0%	0%	14%	0%	3%	5%	6%	0%
Adj. Flow (vph)	130	258	38	46	193	486	29	184	75	320	101	128
Shared Lane Traffic (%)												
Lane Group Flow (vph)	130	296	0	0	239	486	0	288	0	320	229	0
Number of Detectors	1	1		1	1	1	1	1		1	1	
Detector Template				Left		Right	Left			Left		
Leading Detector (ft)	50	50		20	50	50	20	50		50	50	
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)	50	50		20	50	50	20	50		50	50	
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	
Turn Type	Perm	NA		Perm	NA	pm+ov	Perm	NA		D.P+P	NA	
Protected Phases		4			4	1		2		1	1 2	
Permitted Phases	4			4		4	2			2		
Detector Phase	4	4		4	4	4	2	2		1	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	5.0	10.0	10.0		5.0		
Minimum Split (s)	33.0	33.0		33.0	33.0	9.0	31.8	31.8		9.0		
Total Split (s)	42.0	42.0		42.0	42.0	23.0	35.0	35.0		23.0		
Total Split (%)	42.0%	42.0%		42.0%	42.0%	23.0%	35.0%	35.0%		23.0%		
Maximum Green (s)	37.0	37.0		37.0	37.0	19.0	29.2	29.2		19.0		
Yellow Time (s)	3.3	3.3		3.3	3.3	3.0	3.3	3.3		3.0		
All-Red Time (s)	1.7	1.7		1.7	1.7	1.0	2.5	2.5		1.0		
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0		0.0		

419 West Ave
1: West Ave & Selleck St

2023 Background with Office Conditions

PM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)	5.0	5.0			5.0	4.0		5.8		4.0		
Lead/Lag						Lead	Lag	Lag		Lead		
Lead-Lag Optimize?						Yes	Yes	Yes		Yes		
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0		
Recall Mode	None	None		None	None	None	C-Min	C-Min		None		
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	21.0	21.0		21.0	21.0		19.0	19.0				
Pedestrian Calls (#/hr)	15	15		15	15		15	15				
Act Effect Green (s)	22.5	22.5			22.5	39.6		46.6		64.5	68.5	
Actuated g/C Ratio	0.22	0.22			0.22	0.40		0.47		0.64	0.68	
v/c Ratio	0.75	0.70			0.92	0.53		0.36		0.42	0.20	
Control Delay	60.2	43.0			75.1	3.8		20.3		9.3	4.5	
Queue Delay	0.0	0.0			0.0	0.0		0.0		0.0	0.0	
Total Delay	60.2	43.0			75.1	3.8		20.3		9.3	4.5	
LOS	E	D			E	A		C		A	A	
Approach Delay		48.3			27.3			20.3			7.3	
Approach LOS		D			C			C			A	
Queue Length 50th (ft)	78	171			150	7		108		69	25	
Queue Length 95th (ft)	133	231			222	50		211		144	67	
Internal Link Dist (ft)		186			233			255			270	
Turn Bay Length (ft)	90					170				170		
Base Capacity (vph)	285	685			427	977		800		796	1173	
Starvation Cap Reductn	0	0			0	0		0		0	0	
Spillback Cap Reductn	0	0			0	0		0		0	0	
Storage Cap Reductn	0	0			0	0		0		0	0	
Reduced v/c Ratio	0.46	0.43			0.56	0.50		0.36		0.40	0.20	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 46 (46%), Referenced to phase 2:NBSB, Start of Yellow

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 25.3

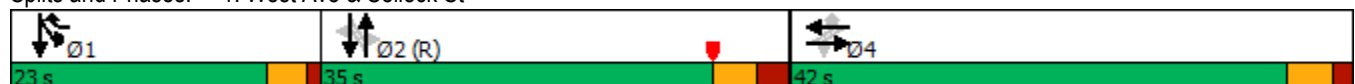
Intersection LOS: C

Intersection Capacity Utilization 86.9%

ICU Level of Service E

Analysis Period (min) 15




















Splits and Phases: 1: West Ave & Selleck St



419 West Ave
1: West Ave & Selleck St

2023 Combined Conditions

AM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	92	133	28	18	266	606	60	108	14	358	168	148
Future Volume (vph)	92	133	28	18	266	606	60	108	14	358	168	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	0		170	0		0	170		0
Storage Lanes	1		0	0		1	0		0	1		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
Ped Bike Factor	0.99	1.00			1.00	0.97		1.00		0.99	0.99	
Fr _t		0.974				0.850		0.990			0.930	
Fl _t Protected	0.950				0.997			0.984		0.950		
Satd. Flow (prot)	1656	1842	0	0	1894	1599	0	1547	0	1752	1721	0
Fl _t Permitted	0.323				0.974			0.802		0.643		
Satd. Flow (perm)	559	1842	0	0	1850	1549	0	1259	0	1171	1721	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12				635		5			85	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		266			313			335			350	
Travel Time (s)		7.3			8.5			9.1			9.5	
Confl. Peds. (#/hr)	7		5	5		7	4		11	11		4
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	9%	0%	0%	0%	0%	1%	56%	0%	11%	3%	2%	1%
Adj. Flow (vph)	98	141	30	19	283	645	64	115	15	381	179	157
Shared Lane Traffic (%)												
Lane Group Flow (vph)	98	171	0	0	302	645	0	194	0	381	336	0
Number of Detectors	1	1		1	1	1	1	1		1	1	
Detector Template				Left		Right	Left			Left		
Leading Detector (ft)	50	50		20	50	50	20	50		50	50	
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)	50	50		20	50	50	20	50		50	50	
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	
Turn Type	Perm	NA		Perm	NA	pm+ov	Perm	NA		D.P+P	NA	
Protected Phases		4			4	1		2		1	1 2	
Permitted Phases	4			4		4	2			2		
Detector Phase	4	4		4	4	4	2	2		1	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	5.0	10.0	10.0		5.0		
Minimum Split (s)	33.0	33.0		33.0	33.0	9.0	31.8	31.8		9.0		
Total Split (s)	33.0	33.0		33.0	33.0	22.0	35.0	35.0		22.0		
Total Split (%)	36.7%	36.7%		36.7%	36.7%	24.4%	38.9%	38.9%		24.4%		
Maximum Green (s)	28.0	28.0		28.0	28.0	18.0	29.2	29.2		18.0		
Yellow Time (s)	3.3	3.3		3.3	3.3	3.0	3.3	3.3		3.0		
All-Red Time (s)	1.7	1.7		1.7	1.7	1.0	2.5	2.5		1.0		
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0		0.0		

419 West Ave
1: West Ave & Selleck St

2023 Combined Conditions
AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)	5.0	5.0			5.0	4.0		5.8		4.0		
Lead/Lag						Lead	Lag	Lag		Lead		
Lead-Lag Optimize?						Yes	Yes	Yes		Yes		
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0		
Recall Mode	None	None		None	None	None	C-Min	C-Min		None		
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	21.0	21.0		21.0	21.0		19.0	19.0				
Pedestrian Calls (#/hr)	15	15		15	15		15	15				
Act Effect Green (s)	20.5	20.5			20.5	36.0		40.2		56.5	60.5	
Actuated g/C Ratio	0.23	0.23			0.23	0.40		0.45		0.63	0.67	
v/c Ratio	0.78	0.40			0.72	0.64		0.34		0.46	0.28	
Control Delay	68.3	28.7			41.3	4.3		21.0		9.4	5.9	
Queue Delay	0.0	0.0			0.0	0.0		0.0		0.0	0.0	
Total Delay	68.3	28.7			41.3	4.3		21.0		9.4	5.9	
LOS	E	C			D	A		C		A	A	
Approach Delay		43.1			16.1			21.0			7.7	
Approach LOS		D			B			C			A	
Queue Length 50th (ft)	52	77			159	3		70		80	48	
Queue Length 95th (ft)	#112	120			221	48		151		162	111	
Internal Link Dist (ft)		186			233			255			270	
Turn Bay Length (ft)	90					170				170		
Base Capacity (vph)	173	581			575	1047		564		882	1185	
Starvation Cap Reductn	0	0			0	0		0		0	0	
Spillback Cap Reductn	0	0			0	0		0		0	0	
Storage Cap Reductn	0	0			0	0		0		0	0	
Reduced v/c Ratio	0.57	0.29			0.53	0.62		0.34		0.43	0.28	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 50 (56%), Referenced to phase 2:NBSB, Start of Yellow

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 17.1

Intersection LOS: B

Intersection Capacity Utilization 85.8%

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: 1: West Ave & Selleck St



419 West Ave
1: West Ave & Selleck St













2023 Combined Conditions

PM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	248	36	40	185	467	28	142	49	307	92	123
Future Volume (vph)	125	248	36	40	185	467	28	142	49	307	92	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	0		170	0		0	170		0
Storage Lanes	1		0	0		1	0		0	1		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
Ped Bike Factor	1.00	0.99			1.00	0.97		0.99		1.00	0.98	
Frt		0.981				0.850		0.970			0.914	
Flt Protected	0.950				0.991			0.994		0.950		
Satd. Flow (prot)	1736	1838	0	0	1883	1615	0	1777	0	1719	1666	0
Flt Permitted	0.432				0.636			0.944		0.604		
Satd. Flow (perm)	785	1838	0	0	1206	1571	0	1685	0	1088	1666	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8				486		15			104	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		266			313			335			350	
Travel Time (s)		7.3			8.5			9.1			9.5	
Confl. Peds. (#/hr)	4		13	13		4	8		4	4		8
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	4%	1%	0%	0%	0%	0%	14%	0%	3%	5%	6%	0%
Adj. Flow (vph)	130	258	38	42	193	486	29	148	51	320	96	128
Shared Lane Traffic (%)												
Lane Group Flow (vph)	130	296	0	0	235	486	0	228	0	320	224	0
Number of Detectors	1	1		1	1	1	1	1		1	1	
Detector Template				Left		Right	Left			Left		
Leading Detector (ft)	50	50		20	50	50	20	50		50	50	
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)	50	50		20	50	50	20	50		50	50	
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	
Turn Type	Perm	NA		Perm	NA	pm+ov	Perm	NA		D.P+P	NA	
Protected Phases		4			4	1		2		1	1 2	
Permitted Phases	4			4		4	2			2		
Detector Phase	4	4		4	4	4	2	2		1	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	5.0	10.0	10.0		5.0		
Minimum Split (s)	33.0	33.0		33.0	33.0	9.0	31.8	31.8		9.0		
Total Split (s)	42.0	42.0		42.0	42.0	23.0	35.0	35.0		23.0		
Total Split (%)	42.0%	42.0%		42.0%	42.0%	23.0%	35.0%	35.0%		23.0%		
Maximum Green (s)	37.0	37.0		37.0	37.0	19.0	29.2	29.2		19.0		
Yellow Time (s)	3.3	3.3		3.3	3.3	3.0	3.3	3.3		3.0		
All-Red Time (s)	1.7	1.7		1.7	1.7	1.0	2.5	2.5		1.0		
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0		0.0		

419 West Ave
1: West Ave & Selleck St

2023 Combined Conditions
PM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)	5.0	5.0			5.0	4.0		5.8		4.0		
Lead/Lag						Lead	Lag	Lag		Lead		
Lead-Lag Optimize?						Yes	Yes	Yes		Yes		
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0		
Recall Mode	None	None		None	None	None	C-Min	C-Min		None		
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	21.0	21.0		21.0	21.0		19.0	19.0				
Pedestrian Calls (#/hr)	15	15		15	15		15	15				
Act Effect Green (s)	22.5	22.5			22.5	39.2		47.0		64.5	68.5	
Actuated g/C Ratio	0.22	0.22			0.22	0.39		0.47		0.64	0.68	
v/c Ratio	0.74	0.70			0.87	0.53		0.29		0.40	0.19	
Control Delay	58.5	43.0			65.2	3.4		19.3		9.1	4.3	
Queue Delay	0.0	0.0			0.0	0.0		0.0		0.0	0.0	
Total Delay	58.5	43.0			65.2	3.4		19.3		9.1	4.3	
LOS	E	D			E	A		B		A	A	
Approach Delay		47.7			23.5			19.3			7.1	
Approach LOS		D			C			B			A	
Queue Length 50th (ft)	78	171			146	0		82		69	23	
Queue Length 95th (ft)	132	231			212	44		166		144	64	
Internal Link Dist (ft)		186			233			255			270	
Turn Bay Length (ft)	90					170				170		
Base Capacity (vph)	290	685			446	987		799		841	1173	
Starvation Cap Reductn	0	0			0	0		0		0	0	
Spillback Cap Reductn	0	0			0	0		0		0	0	
Storage Cap Reductn	0	0			0	0		0		0	0	
Reduced v/c Ratio	0.45	0.43			0.53	0.49		0.29		0.38	0.19	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 46 (46%), Referenced to phase 2:NBSB, Start of Yellow

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 23.7

Intersection LOS: C

Intersection Capacity Utilization 86.7%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 1: West Ave & Selleck St

