TRAFFIC IMPACT ANALYSIS

FREEMAN LOGISTICS

JURISDICTION: CITY OF PUYALLUP & CITY OF FIFE

Prepared for:
Vector Development Company
11411 NE 124th Street, Suite 190
Kirkland, WA 98034

Prepared by:
Kimley»Horn

July 2025
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Prepared by:
Kimley-Horn and Associates, Inc.
2828 Colby Avenue
Suite 200
Everett, Washington 98201
(425) 708-8275

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1. INTRODUCTION

Kimley-Horn and Associates, Inc. has been retained to provide an updated Traffic Impact Analysis (TIA) for the Freeman Road Logistics Development (Development) that addresses changes in square footage of the buildings and previous comments from the cities. The proposed Development is located on the east side of Freeman Road E, north of 19th Avenue NW in the City of Fife. Because the site is located in the City of Puyallup, but abuts Fife streets, Fife and Puyallup (Cities) have assumed Co-Lead Agency status for purposes of the State Environmental Policy Act (SEPA) review.

The Development is proposed to consist of two buildings, Building A with 238,525 square feet (SF) and Building B with 266,911 SF, designed to accommodate a High-Cube Transload and Short-Term Warehouse, as defined in Institute for Traffic Engineers (ITE) Land Use Code (LUC) 154. However, because a tenant has not yet been identified, the Cities requested that the TIA evaluate a range of higher trip-generating uses in addition to LUC 154, LUC 150 (Warehousing); LUC 130 (Industrial Park); and LUC 140 (Manufacturing), to identify the impacts and mitigation associated with each use. The site is comprised of 14 existing residential units. A site vicinity map is included in **Figure 1**. Brad Lincoln, responsible for this report, is a licensed professional engineer (Civil) in the State of Washington and a member of the Washington State section of ITE.

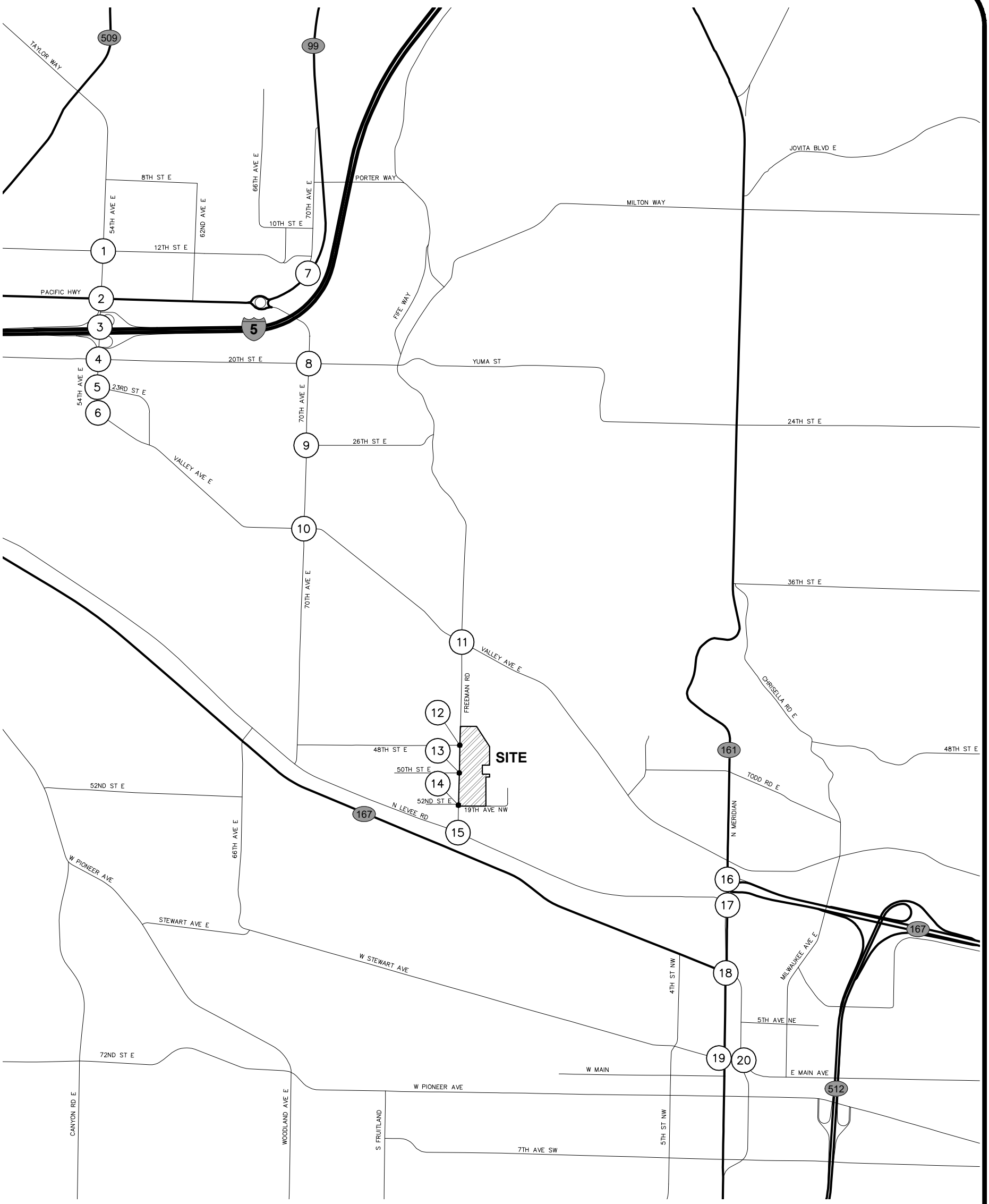
2. SCOPING AND METHODOLOGY

The scope of the analysis for this report is based on guidelines of the Cities and scoping comments received from representatives of the Cities.

2.1 Intersection Analysis

The Cities identified 20 intersections required to be analyzed in this TIA. This is a large number of intersections at a considerable distance from the Development site. For instance, the intersection of 54th Avenue E at 12th Street E in Fife is located 3.2 miles from the Development site. This level of analysis is not required by code; the Cities are requesting this extensive analysis pursuant to SEPA authority. The year 2028 was selected for the future analysis year based on the anticipated opening and full occupancy year. The following off-site intersections are included in the analysis:

1. 54th Avenue E at 12th Street E
2. 54th Avenue E at Pacific Highway E
3. 54th Avenue E at I-5 Southbound Ramps
4. 54th Avenue E at 20th Street E
5. 54th Avenue E at 23rd Street E
6. 54th Avenue E at Valley Avenue E
7. 70th Avenue E at Pacific Highway E
8. 70th Avenue E at 20th Street E
9. 70th Avenue E at 26th Street E
10. 70th Avenue E at Valley Avenue E
11. Freeman Road E at Valley Avenue E
12. Freeman Road E at 48th Street E
13. Freeman Road E at 50th Street E
14. Freeman Road E at 52nd Street E
15. Freeman Road E at N Levee Road
16. Meridian Avenue N at SR 167 Ramps
17. Meridian Avenue N at N Levee Road
18. Meridian Avenue N at River Road
19. Meridian Avenue N at W Stewart Avenue
20. 2nd Street NE at E Stewart Avenue



NORTH

FREEMAN ROAD LOGISTICS

CITY OF PUYALLUP

LEGEND

DEVELOPMENT SITE

(XX) STUDY INTERSECTION

FIGURE 1
VICINITY MAP

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Date: August 03, 2023 - 6:06pm / User: Joey.miller
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Congestion is generally measured in terms of level of service (LOS). The *Highway Capacity Manual* (HCM), 7th Edition, by the Transportation Research Board rates road facilities and intersections between LOS A and LOS F, with LOS A being free flow and LOS F being forced flow or over-capacity conditions. A summary of the LOS criteria is included in **Table 1**. The LOS at signalized and all-way stop-controlled intersections is based on the average delay of all approaches. The LOS for two-way stop-controlled intersections is based on the average delay for the critical stopped approach. Geometric characteristics and conflicting traffic movements are taken into consideration when determining LOS values. The LOS analysis for this report has been performed using *Synchro 12.2, Build 1* software for signalized and unsignalized intersections.

Table 1: LOS Criteria for Intersections

Level of Service [1]	Expected Delay	Intersection Control Delay (Seconds per Vehicle)	
		Unsignalized Intersections	Signalized Intersections
A	Little/No Delay	≤10	≤10
B	Short Delays	>10 and ≤15	>10 and ≤20
C	Average Delays	>15 and ≤25	>20 and ≤35
D	Long Delays	>25 and ≤35	>35 and ≤55
E	Very Long Delays	>35 and ≤50	>55 and ≤80
F	Extreme Delays[2]	>50	>80

Freeman Road and the off-site intersections are in City of Fife right-of-way. The City of Fife has a LOS standard of LOS D for intersections; however, if an intersection is already forecasted to operate worse than LOS D before development trips are added then a development is allowed to proceed unless it degrades the LOS further with just the development trips (Fife Municipal Code (FMC) 17.08.030 (B)). The City of Puyallup has adopted LOS D as the standard except for the Meridian Avenue corridor where LOS E is acceptable (Puyallup Comprehensive Plan T-3.2). State Route (SR)-99 has a LOS standard of LOS D.

---

[1] **Source:** *Highway Capacity Manual,* 7th Edition.

LOS A: Free-flow traffic conditions, with minimal delay to stopped vehicles (no vehicle is delayed longer than one cycle at signalized intersection).
LOS B: Generally stable traffic flow conditions.
LOS C: Occasional back-ups may develop, but delay to vehicles is short term and still tolerable.
LOS D: During short periods of the peak hour, delays to approaching vehicles may be substantial but are tolerable during times of less demand (i.e., vehicles delayed one cycle or less at signal).
LOS E: Intersections operate at or near capacity, with long queues developing on all approaches and long delays.
LOS F: Jammed conditions on all approaches with excessively long delays and vehicles unable to move at times.

[2] When demand volume exceeds the capacity of the lane, delays will be encountered with queuing which may cause congestion affecting other traffic movements in the intersection.

3. SURROUNDING STREET SYSTEM

Freeman Road E is classified as a collector roadway located within the City of Fife with one lane of travel in each direction in the site vicinity. Valley Avenue E is classified as a major arterial roadway within the City of Puyallup and a principal arterial roadway within the City of Fife with two lanes of travel in each direction in the site vicinity. N Levee Road E is classified as a minor arterial roadway within the City of Puyallup and the City of Fife with one lane in each direction in the site vicinity. Freeman Road is being built as a 3-lane section with one travel lane in each direction and a two-way left-turn lane along the site frontage. The northern section of Freeman Road will be completed by Washington State Department of Transportation (WSDOT) as part of the WSDOT SR-167 Completion Project.

4. TRIP DISTRIBUTION

Trip distribution and traffic assignments for the Development are based on anticipated truck routes and employee travel patterns for the site. The trip distributions have been reviewed by the Cities and changes have been made based on their comments. As trucks along Freeman Road E are restricted to local travel only and are directed to travel to and from the south, a separate distribution was created for car trips and truck trips. The anticipated passenger trip distribution is:

- 50% to and from the north on Freeman Road E
  - 25% along Valley Avenue E
  - 15% along 70th Avenue E
  - 10% along Freeman Road, north of Valley Avenue E
- 40% to and from the east on N Levee Road E
  - 25% along SR-167
  - 15% along N Meridian Avenue
- 10% to and from the west
  - 5% along 48th Street E
  - 5% along N Levee Road E

As truck movement along Freeman Road E is restricted to local travel only, and trucks are required to travel to and from the south, all the truck trips will travel to and from the south along Freeman Road E to N Levee Road E until the SR-167 Completion Project with the associated Freeman Road improvements are completed by WSDOT. The anticipated truck trip distribution for the interim (before SR-167 improvements are completed) is:

- 50% to and from the West
  - 35% along 70th Avenue E
  - 15% along N Levee Road
- 50% to and from the East
  - 30% along SR-167
  - 20% to and from the north and south along N Meridian Avenue

5. INTERSECTION ANALYSIS

The scope of analysis for off-site intersections was directed by the Cities. Analysis was conducted for the AM (7-9am) and PM (4-6pm) peak hours using True Demand volumes which include queued vehicles that did not make it through the intersections during the peak hour counts. The 20 off-site intersections evaluated for existing, baseline, and future LOS operations are listed below:

1. 54th Avenue E at 12th Street E
2. 54th Avenue E at Pacific Highway E
3. 54th Avenue E at I-5 Southbound Ramps
4. 54th Avenue E at 20th Street E
5. 54th Avenue E at 23rd Street E
6. 54th Avenue E at Valley Avenue E
7. 70th Avenue E at Pacific Highway E
8. 70th Avenue E at 20th Street E
9. 70th Avenue E at 26th Street E
10. 70th Avenue E at Valley Avenue E
11. Freeman Road E at Valley Avenue E
12. Freeman Road E at 48th Street E
13. Freeman Road E at 50th Street E
14. Freeman Road E at 52nd Street E
15. Freeman Road E at N Levee Road
16. Meridian Avenue N at SR 167 Ramps
17. Meridian Avenue N at N Levee Road
18. Meridian Avenue N at River Road
19. Meridian Avenue N at W Stewart Avenue
20. 2nd Street NE at E Stewart Avenue

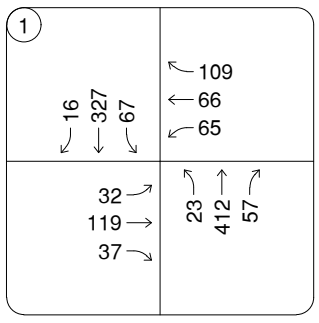
5.1 2023 Existing Conditions

Existing true demand turning movement count data was collected by the independent data collection firm IDAX in June 2023. Existing peak hour factors and heavy vehicle percentages were used in the analysis. Signal timings were received from the Cities' and WSDOT staff and analysis was matched to documents received. Turning movements for the 2023 existing conditions are shown in **Figure 2** and **Figure 3** for the AM and PM peak hours, respectively. The AM and PM peak hour counts collected at the study intersections have been provided in **Appendix A**.

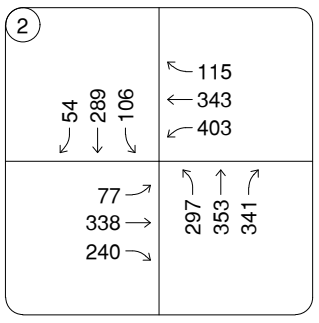
5.2 2028 Baseline Conditions

The 2028 baseline intersection turning movement counts were calculated by applying a 3.0% annually compounding growth rate to all of the existing turning movement volumes out to 2028. Turning movements for the 2028 baseline conditions are shown in **Figure 4** and **Figure 5** for the AM and PM peak hours, respectively.

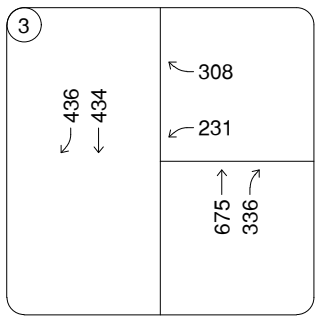
54TH AVENUE E @
12TH STREET E



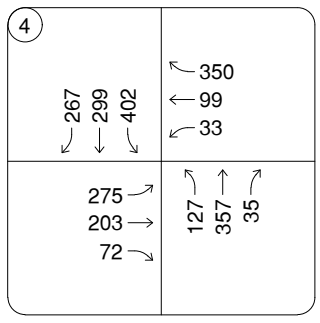
54TH AVENUE E @
PACIFIC HIGHWAY E (SR-99)



54TH AVENUE E @
I-5 SOUTHBOUND RAMPS



54TH AVENUE E @
20TH STREET E



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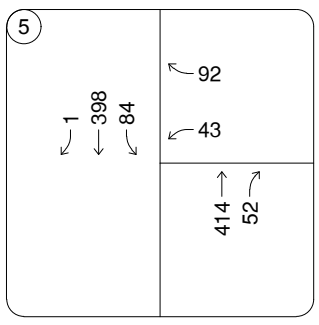
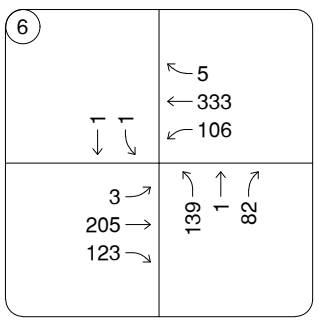
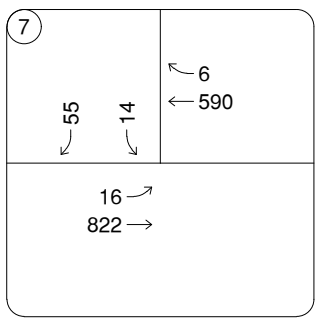
23RD STREET E



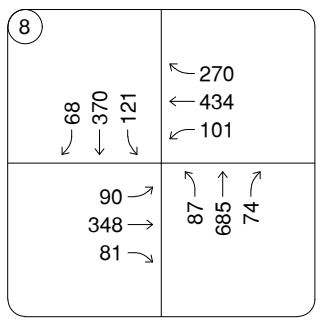
54TH AVENUE E @
VALLEY AVENUE E



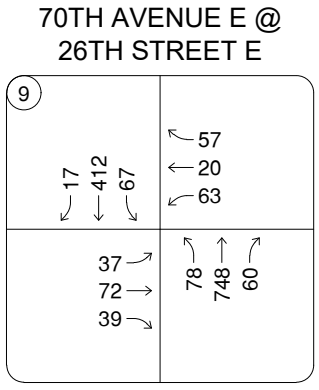
70TH AVENUE E @
PACIFIC HIGHWAY E (SR-99)



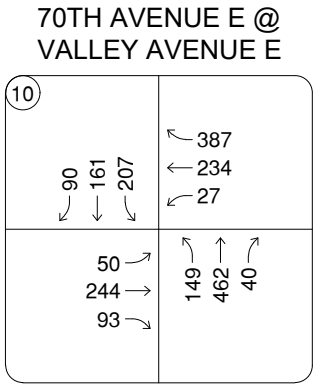
70TH AVENUE E @
20TH STREET E



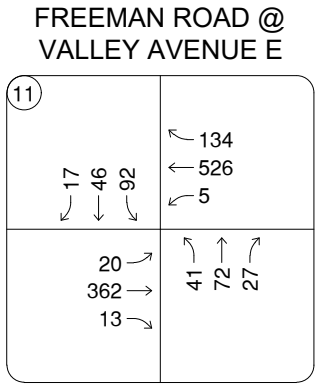
70TH AVENUE E @
26TH STREET E



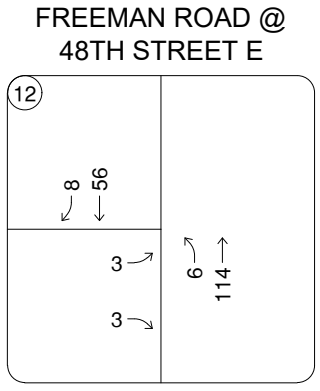
70TH AVENUE E @
VALLEY AVENUE E



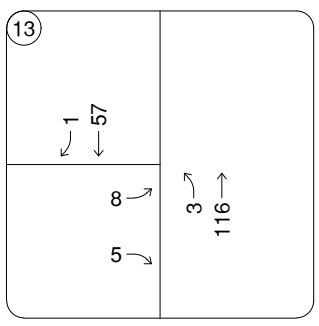
FREEMAN ROAD @
VALLEY AVENUE E



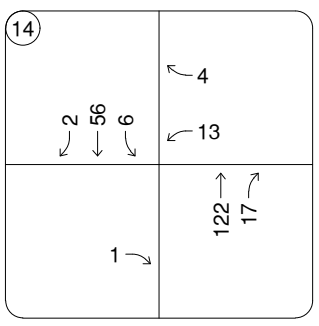
FREEMAN ROAD @
48TH STREET E



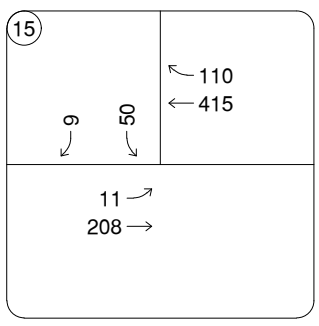
FREEMAN ROAD @
50TH STREET E



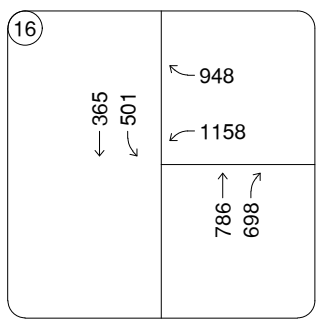
FREEMAN ROAD @
52ND STREET E



FREEMAN ROAD @
N LEVEE ROAD E



N MERIDIAN (SR-161) @
SR-167



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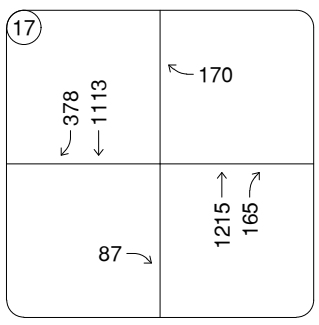
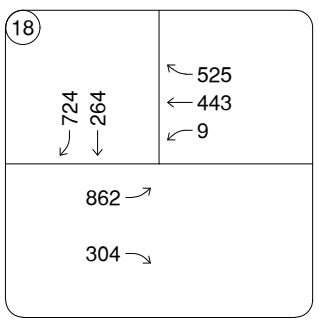
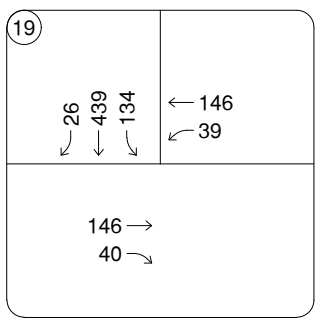
N LEVEE ROAD



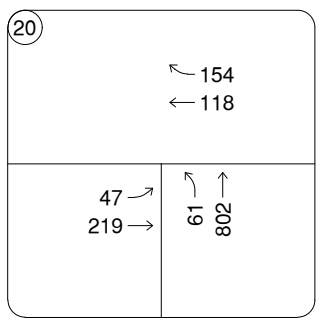
N MERIDIAN (SR-161) @
RIVER ROAD / 2ND STREET NE



N MERIDIAN (SR-161) @
W STEWART AVENUE



2ND STREET NE @
W STEWART AVENUE



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FREEMAN ROAD
LOGISTICS

CITY OF PUYALLUP

LEGEND

xx → AM PEAK-HOUR TURNING MOVEMENT VOLUMES

FIGURE 2

2023 EXISTING
TURNING MOVEMENTS
AM PEAK-HOUR

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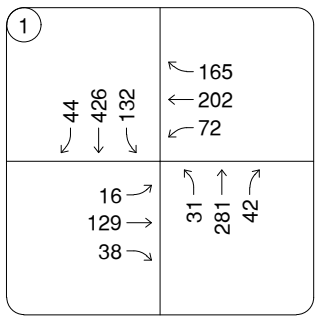
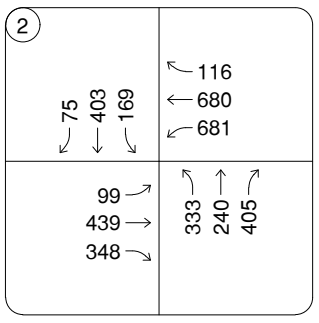
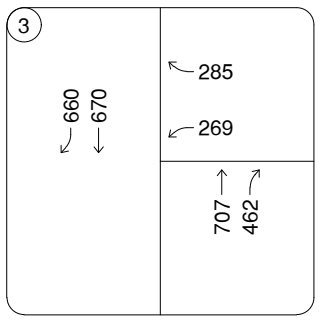
54TH AVENUE E @
12TH STREET E



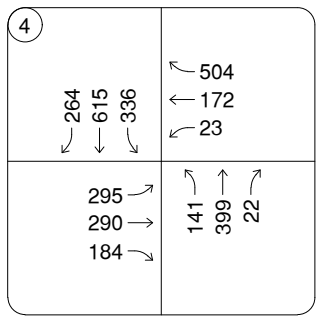
54TH AVENUE E @
PACIFIC HIGHWAY E (SR-99)



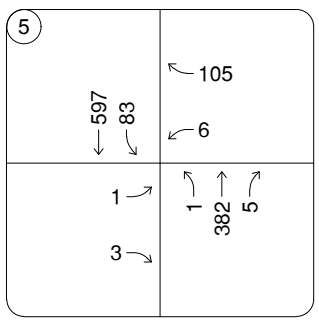
54TH AVENUE E @
I-5 SOUTHBOUND RAMPS



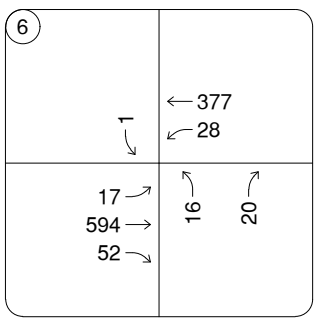
54TH AVENUE E @
20TH STREET E



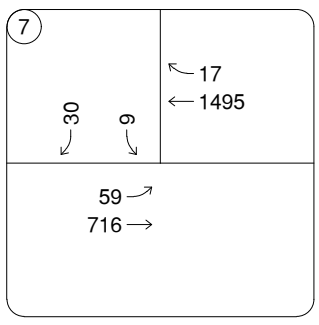
54TH AVENUE E @
23RD STREET E



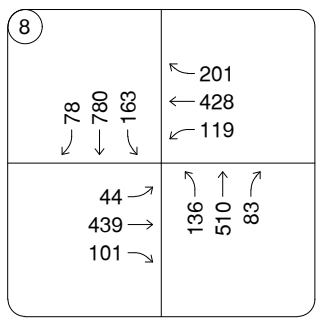
54TH AVENUE E @
VALLEY AVENUE E



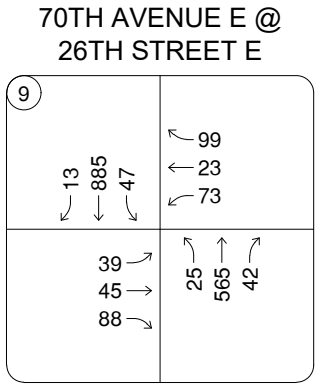
70TH AVENUE E @
PACIFIC HIGHWAY E (SR-99)



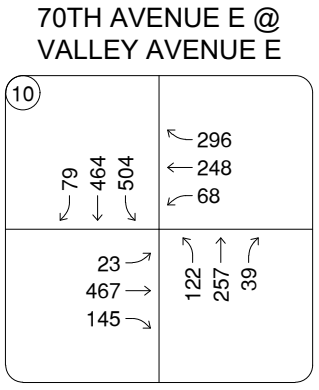
70TH AVENUE E @
20TH STREET E



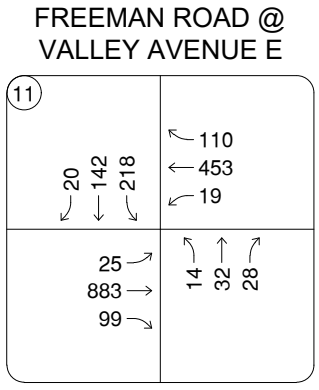
70TH AVENUE E @
26TH STREET E



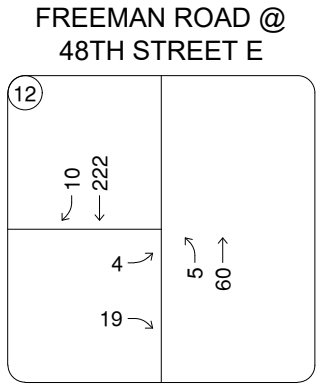
70TH AVENUE E @
VALLEY AVENUE E



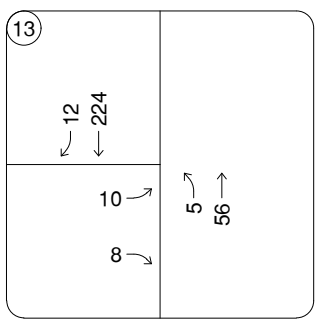
FREEMAN ROAD @
VALLEY AVENUE E



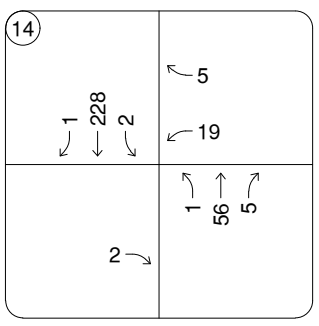
FREEMAN ROAD @
48TH STREET E



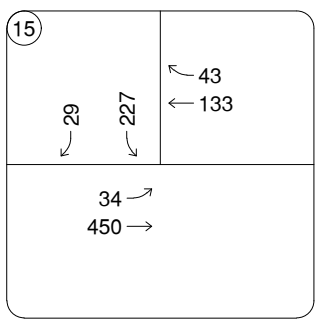
FREEMAN ROAD @
50TH STREET E



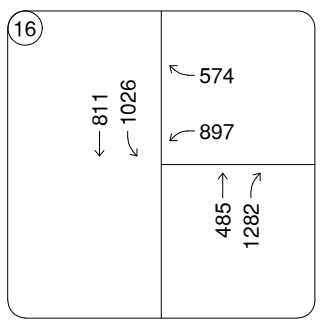
FREEMAN ROAD @
52ND STREET E



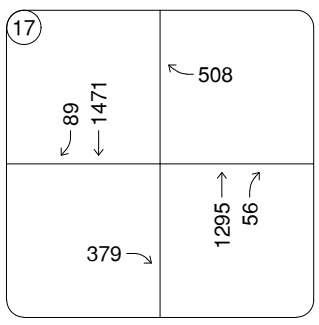
FREEMAN ROAD @
N LEVEE ROAD E



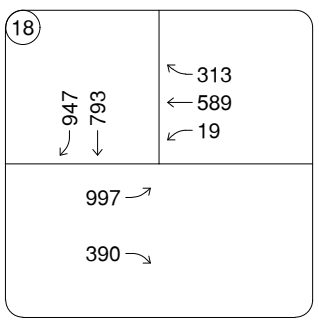
N MERIDIAN (SR-161) @
SR-167



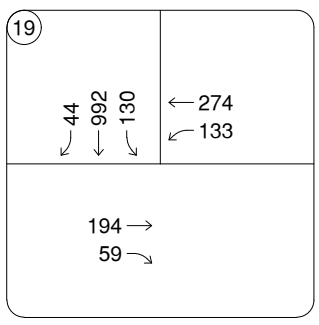
N MERIDIAN (SR-161) @
N LEVEE ROAD



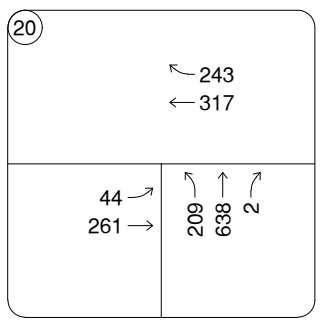
N MERIDIAN (SR-161) @
RIVER ROAD / 2ND STREET NE



N MERIDIAN (SR-161) @
W STEWART AVENUE



2ND STREET NE @
W STEWART AVENUE



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FREEMAN ROAD
LOGISTICS

CITY OF PUYALLUP

LEGEND

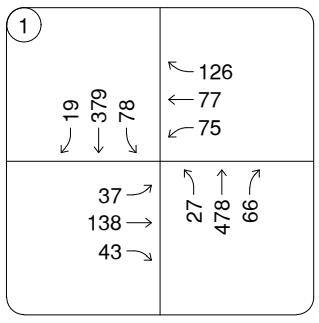
xx → PM PEAK-HOUR TURNING MOVEMENT VOLUMES

FIGURE 3

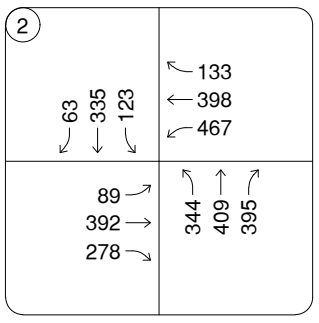
2023 EXISTING
TURNING MOVEMENTS
PM PEAK-HOUR

Kimley»Horn

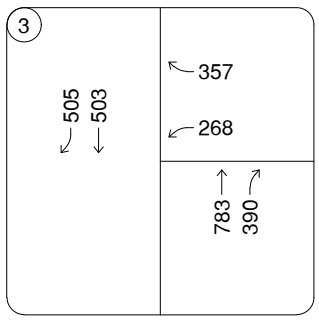
54TH AVENUE E @
12TH STREET E



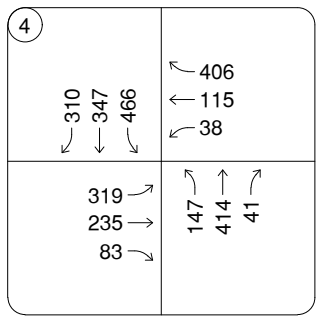
54TH AVENUE E @
PACIFIC HIGHWAY E (SR-99)



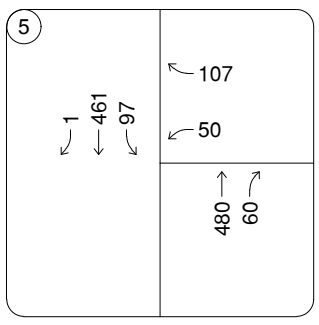
54TH AVENUE E @
I-5 SOUTHBOUND RAMPS



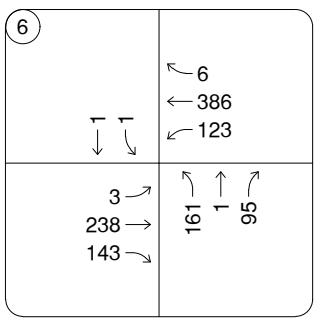
54TH AVENUE E @
20TH STREET E



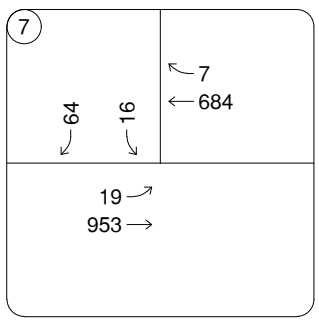
54TH AVENUE E @
23RD STREET E



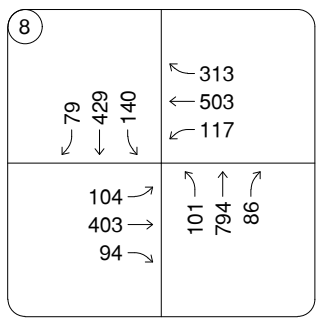
54TH AVENUE E @
VALLEY AVENUE E



70TH AVENUE E @
PACIFIC HIGHWAY E (SR-99)



70TH AVENUE E @
20TH STREET E



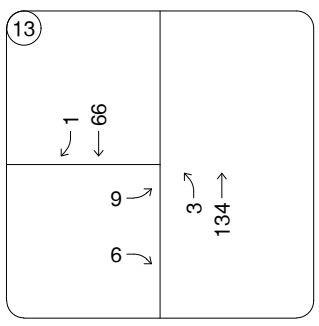
70TH AVENUE E @
26TH STREET E

70TH AVENUE E @
VALLEY AVENUE E

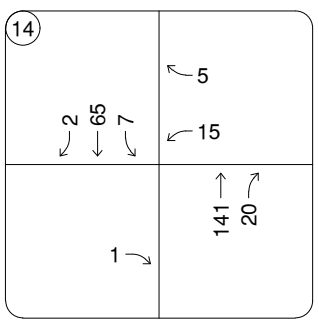
FREEMAN ROAD @
VALLEY AVENUE E

FREEMAN ROAD @
48TH STREET E

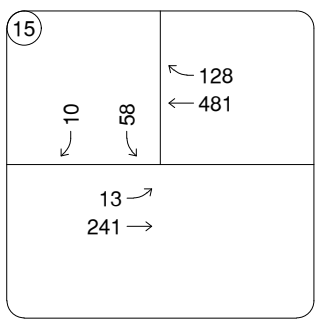
FREEMAN ROAD @
50TH STREET E



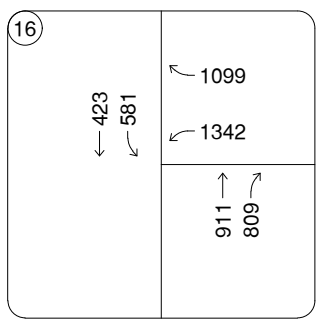
FREEMAN ROAD @
52ND STREET E



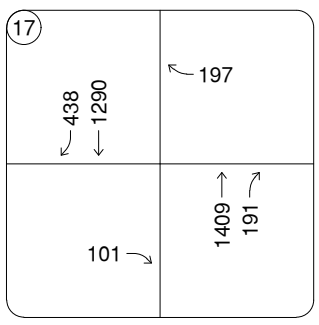
FREEMAN ROAD @
N LEVEE ROAD E



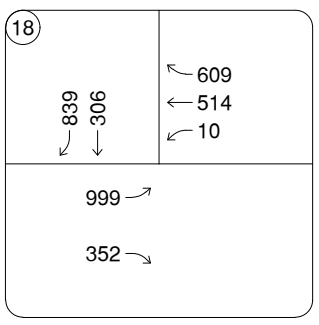
N MERIDIAN (SR-161) @
SR-167



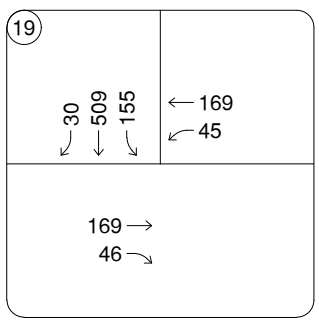
N MERIDIAN (SR-161) @
N LEVEE ROAD



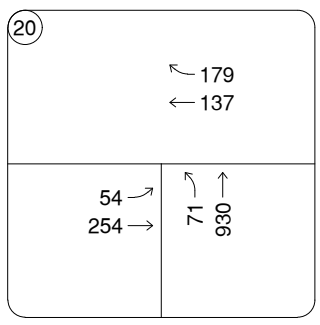
N MERIDIAN (SR-161) @
RIVER ROAD / 2ND STREET NE



N MERIDIAN (SR-161) @
W STEWART AVENUE



2ND STREET NE @
W STEWART AVENUE



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FREEMAN ROAD
LOGISTICS

CITY OF PUYALLUP

LEGEND

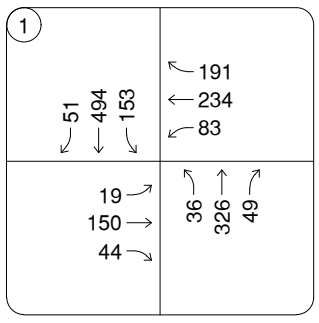
xx → AM PEAK-HOUR TURNING MOVEMENT VOLUMES

FIGURE 4

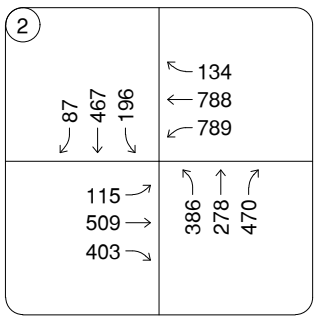
2028 BASELINE
TURNING MOVEMENTS
AM PEAK-HOUR

Kimley»Horn

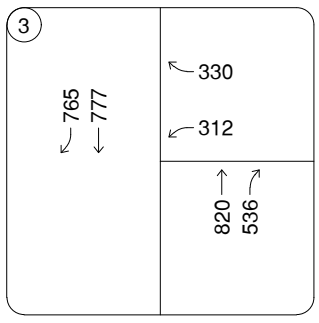
54TH AVENUE E @
12TH STREET E



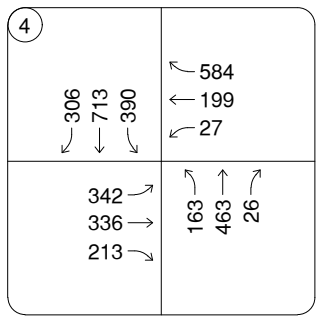
54TH AVENUE E @
PACIFIC HIGHWAY E (SR-99)



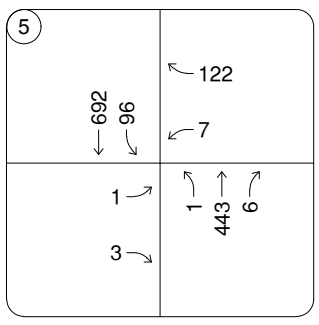
54TH AVENUE E @
I-5 SOUTHBOUND RAMPS



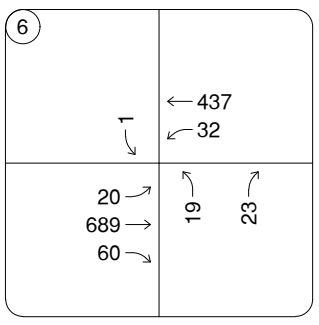
54TH AVENUE E @
20TH STREET E



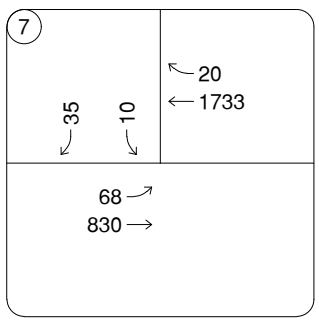
54TH AVENUE E @
23RD STREET E



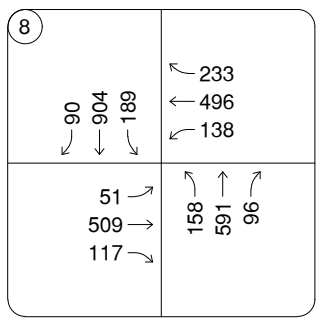
54TH AVENUE E @
VALLEY AVENUE E



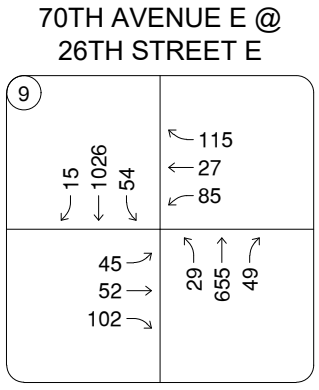
70TH AVENUE E @
PACIFIC HIGHWAY E (SR-99)



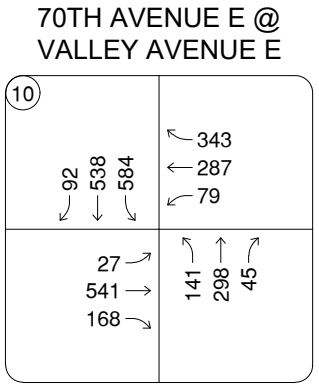
70TH AVENUE E @
20TH STREET E



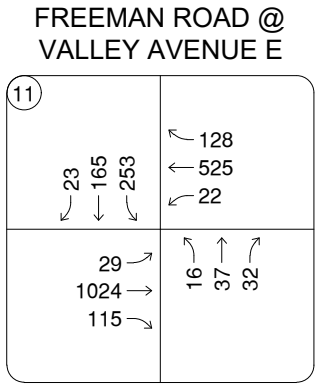
70TH AVENUE E @
26TH STREET E



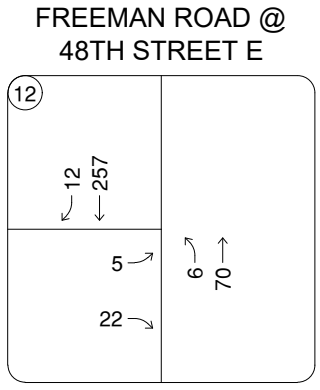
70TH AVENUE E @
VALLEY AVENUE E



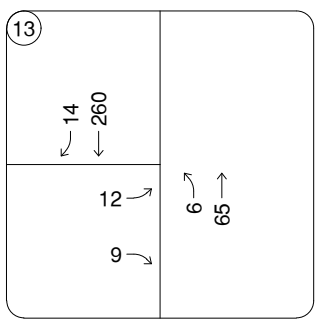
FREEMAN ROAD @
VALLEY AVENUE E



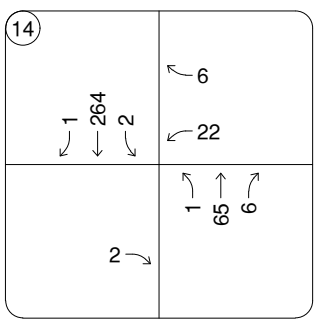
FREEMAN ROAD @
48TH STREET E



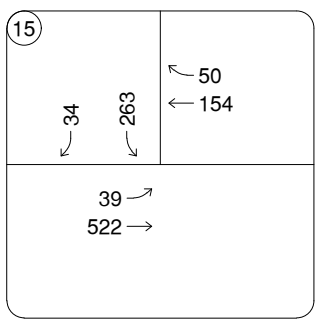
FREEMAN ROAD @
50TH STREET E



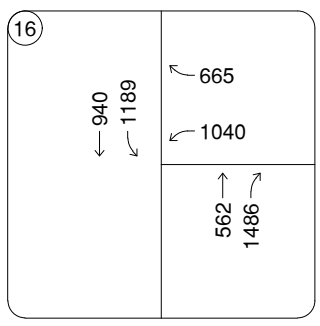
FREEMAN ROAD @
52ND STREET E



FREEMAN ROAD @
N LEVEE ROAD E



N MERIDIAN (SR-161) @
SR-167



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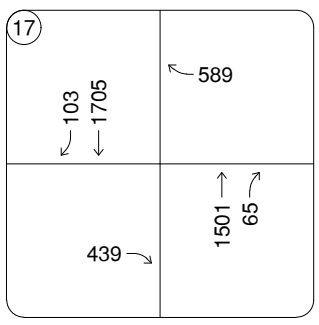
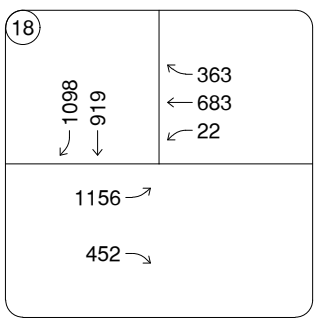
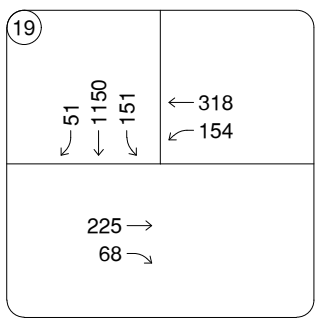
N LEVEE ROAD



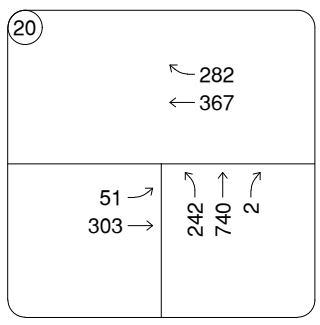
N MERIDIAN (SR-161) @
RIVER ROAD / 2ND STREET NE



N MERIDIAN (SR-161) @
W STEWART AVENUE



2ND STREET NE @
W STEWART AVENUE



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FREEMAN ROAD
LOGISTICS

CITY OF PUYALLUP

LEGEND

xx → PM PEAK-HOUR TURNING MOVEMENT VOLUMES

FIGURE 5

2028 BASELINE
TURNING MOVEMENTS
PM PEAK-HOUR

Kimley»Horn

5.3 LOS Analysis

Intersection LOS was analyzed for each of the study intersections for the 2023 existing and 2028 baseline scenarios. The standard for both Cities' intersections is LOS D, with LOS E for WSDOT roadways and intersections along Meridian Avenue. There is currently one signalized intersection that falls below acceptable LOS, and four intersections anticipated to fail in the 2028 baseline AM peak hour scenario. There are currently four intersections that fall below acceptable LOS, and four intersections anticipated to fail in the 2028 baseline PM peak hour scenario.

Future improvements to the intersection of 54th Avenue and 20th Street E are noted in the City of Fife *Six Year Transportation Improvement Program* (TIP) *2024 to 2029* to expand 20th Street E to a 5-lane roadway from 50th Avenue to 56th Avenue. This improvement was not included in the analysis as it is currently not funded. Future improvement alternatives will be mentioned later in this report. The existing and baseline LOS at the study intersections is summarized in **Table 2** and **Table 3** for the AM and PM peak hours, respectively. The complete LOS for the AM and PM peak hours during the existing and baseline conditions have been provided in **Appendix B** and **Appendix C**, respectively.

The SR-167 Completion Project will extend SR-167 from N Meridian Avenue to Interstate-5 (I-5) and will construct new half interchanges at N Meridian Avenue, Valley Avenue, and I-5. The project is fully funded by four funding sources including toll contributions and is expected to be completed by 2029. This is within the six-year concurrency window for Washington Administrative Code (WAC) 365-196-840 – Section 6(a)(ii) and therefore these improvements can be considered, including accounting for the shift away from local roadways in the analysis. Additionally, the SR-167 Completion Project is expected to divert the majority of the Development's trips from the I-5 and 54th Avenue E interchange area. With the completion of this project, the trips generated by the Development are expected to have impacts less than 20 peak hour trips and is not expected to have an adverse impact to the intersections along the 54th Avenue E and I-5 interchange area. Additionally, most of the east/west roads in the study area are expected to see a significant reduction in east/west traffic volumes with the new SR-167 Completion Project. Based on WSDOT's forecasts for 2045 and extrapolated 2030 estimates, the overlapping study intersections would all operate at acceptable LOS D or better with the SR-167 Completion Project.

Table 2: Weekday AM Peak Hour LOS Summary

Intersection		Control Type	2023 Existing Conditions			2028 Baseline Conditions		
			LOS	Delay	v/c	LOS	Delay	v/c
1.	54th Ave E at 12th St E	Signal	B	15.0 sec	0.59	B	16.5 sec	0.64
2.	54th Ave E at Pacific Hwy E (SR-99)	Signal	**E**	**68.5 sec**	**1.29**	**F**	**83.7 sec**	**1.50**
3.	54th Ave E at I-5 Southbound Ramps	Signal	B	14.2 sec	0.85	B	18.0 sec	0.90
4.	54th Ave E at 20th St E	Signal	D	50.0 sec	0.84	**E**	**58.0 sec**	**0.91**
5.	54th Ave E at 23rd St E	Signal	A	7.5 sec	0.51	A	8.7 sec	0.59
6.	54th Ave E at Valley Ave E	Signal	B	13.6 sec	0.81	B	16.8 sec	0.89
7.	70th Ave E at Pacific Hwy E (SR-99)	Signal	B	13.7 sec	0.47	B	14.7 sec	0.55
8.	70th Ave E at 20th St E	Signal	D	40.8 sec	0.87	D	49.8 sec	0.94
9.	70th Ave E at 26th St E	Signal	C	24.1 sec	0.57	C	26.8 sec	0.63
10.	70th Ave E at Valley Ave E	Signal	C	27.1 sec	0.61	C	30.8 sec	0.69
11.	Freeman Rd at Valley Ave E	Signal	B	20.0 sec	0.47	C	23.2 sec	0.64
12.	Freeman Rd at 48th St E	Minor-Leg Stop-Control	A	9.3 sec	---	A	9.4 sec	---
13.	Freeman Rd at 50th St E	Minor-Leg Stop-Control	A	9.4 sec	---	A	9.5 sec	---
14.	Freeman Rd at 52nd St E	Minor-Leg Stop-Control	B	10.1 sec	---	B	10.4 sec	---
15.	Freeman Rd at N Levee Rd E	Minor-Leg Stop-Control	C	17.1 sec	---	C	20.7 sec	---
16.	N Meridian Ave (SR-161) at SR-167	Signal	D	42.6 sec	1.13	**E**	**65.5 sec**	**1.31**
17.	N Meridian Ave (SR-161) at N Levee Rd	Minor-Leg Stop-Control	C	20.9 sec	---	D	30.3 sec	---
18.	N Meridian Ave (SR-161) at River Rd/2nd St NE	Signal	D	35.4 sec	0.98	**E**	**62.0 sec**	**1.15**
19.	N Meridian Ave (SR-161) at W Stewart Ave	Signal	C	25.6 sec	1.04	C	30.5 sec	1.14
20.	2nd St NE at W Stewart Ave	Signal	B	17.8 sec	0.66	B	18.8 sec	0.69

Table 3: Weekday PM Peak Hour LOS Summary

	Intersection	Control Type	2023 Existing Conditions			2028 Baseline Conditions		
			LOS	Delay	v/c	LOS	Delay	v/c
1.	54th Ave E at 12th St E	Signal	C	22.0 sec	0.89	C	30.2 sec	1.03
2.	54th Ave E at Pacific Hwy E (SR-99)	Signal	**E**	**71.4 sec**	**1.15**	**F**	**94.6 sec**	**1.37**
3.	54th Ave E at I-5 Southbound Ramps	Signal	B	13.7 sec	0.88	B	18.7 sec	0.95
4.	54th Ave E at 20th St E	Signal	**E**	**57.7 sec**	**0.95**	**E**	**75.7 sec**	**1.09**
5.	54th Ave E at 23rd St E	Signal	A	7.5 sec	0.46	A	8.7 sec	0.53
6.	54th Ave E at Valley Ave E	Signal	A	3.1 sec	0.43	A	3.7 sec	0.50
7.	70th Ave E at Pacific Hwy E (SR-99)	Signal	C	23.9 sec	0.86	D	36.7 sec	1.00
8.	70th Ave E at 20th St E	Signal	D	43.6 sec	0.87	D	54.7 sec	1.04
9.	70th Ave E at 26th St E	Signal	C	20.0 sec	0.56	C	23.4 sec	0.74
10.	70th Ave E at Valley Ave E	Signal	D	38.7 sec	0.79	D	46.2 sec	0.87
11.	Freeman Rd at Valley Ave E	Signal	C	25.7 sec	0.70	C	30.5 sec	0.83
12.	Freeman Rd at 48th St E	Minor-Leg Stop-Control	B	10.0 sec	---	B	10.4 sec	---
13.	Freeman Rd at 50th St E	Minor-Leg Stop-Control	B	10.4 sec	---	B	10.8 sec	---
14.	Freeman Rd at 52nd St E	Minor-Leg Stop-Control	B	10.8 sec	---	B	11.4 sec	---
15.	Freeman Rd at N Levee Rd E	Minor-Leg Stop-Control	C	20.0 sec	---	D	28.0 sec	---
16.	N Meridian Ave (SR-161) at SR-167	Signal	**F**	**109.5 sec**	**1.66**	**F**	**150.5 sec**	**1.93**
17.	N Meridian Ave (SR-161) at N Levee Rd	Minor-Leg Stop-Control	**F**	**197.8 sec**	**---**	**F**	**>300 sec**	**---**
18.	N Meridian Ave (SR-161) at River Rd/2nd St NE	Signal	D	50.5 sec	1.08	**F**	**82.5 sec**	**1.27**
19.	N Meridian Ave (SR-161) at W Stewart Ave	Signal	C	21.6 sec	0.76	C	24.2 sec	0.79
20.	2nd St NE at W Stewart Ave	Signal	C	24.8 sec	0.82	C	27.6 sec	0.88

6. LUC 154 – High-Cube Transload and Short-Term Storage Warehouse

6.1 Trip Generation

Trip generation calculations for the Development are based on national statistics contained in the ITE (2021) *Trip Generation,* 11th Edition. The average trip generation rates for LUC 154, High-Cube Transload and Short-Term Storage Warehouse, and LUC 210, Single-Family Detached Housing, have been used for the trip generation calculations of the Development for this scenario. Per the ITE, a Warehousing use stores products on-site, typically for more than a month. There is limited truck parking and loading docks on one or two sides. The Development is proposed to consist of two buildings, Building A with 238,525 SF and Building B with 266,911 SF, both of which have been analyzed together under the three separate land uses. There are currently 14 existing residential uses on-site. The trip generation calculations are summarized in in **Table 4**.

Table 4: Total Vehicle Trip Generation Summary

Land Use	Size	Average Daily Trips (ADTs)	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
High-Cube Short-Term Warehouse (Building A) LUC 154	238,525 SF	333.94	14.69	4.39	19.08	6.68	17.17	23.85
High-Cube Short-Term Warehouse (Building B) LUC 154	266,911 SF	373.68	16.44	4.91	21.35	7.47	19.22	26.69
Single-Family Detached LUC 210	-14 units	-132.02	-2.55	-7.25	-9.80	-8.29	-4.87	-13.16
TOTAL		**575.60**	**28.58**	**2.05**	**30.63**	**5.86**	**31.52**	**37.38**

Under the High-Cube Transload and Short-Term Warehouse land use, the Development is anticipated to generate approximately 576 new ADTs with 31 new AM peak hour trips and 37 new PM peak hour trips.

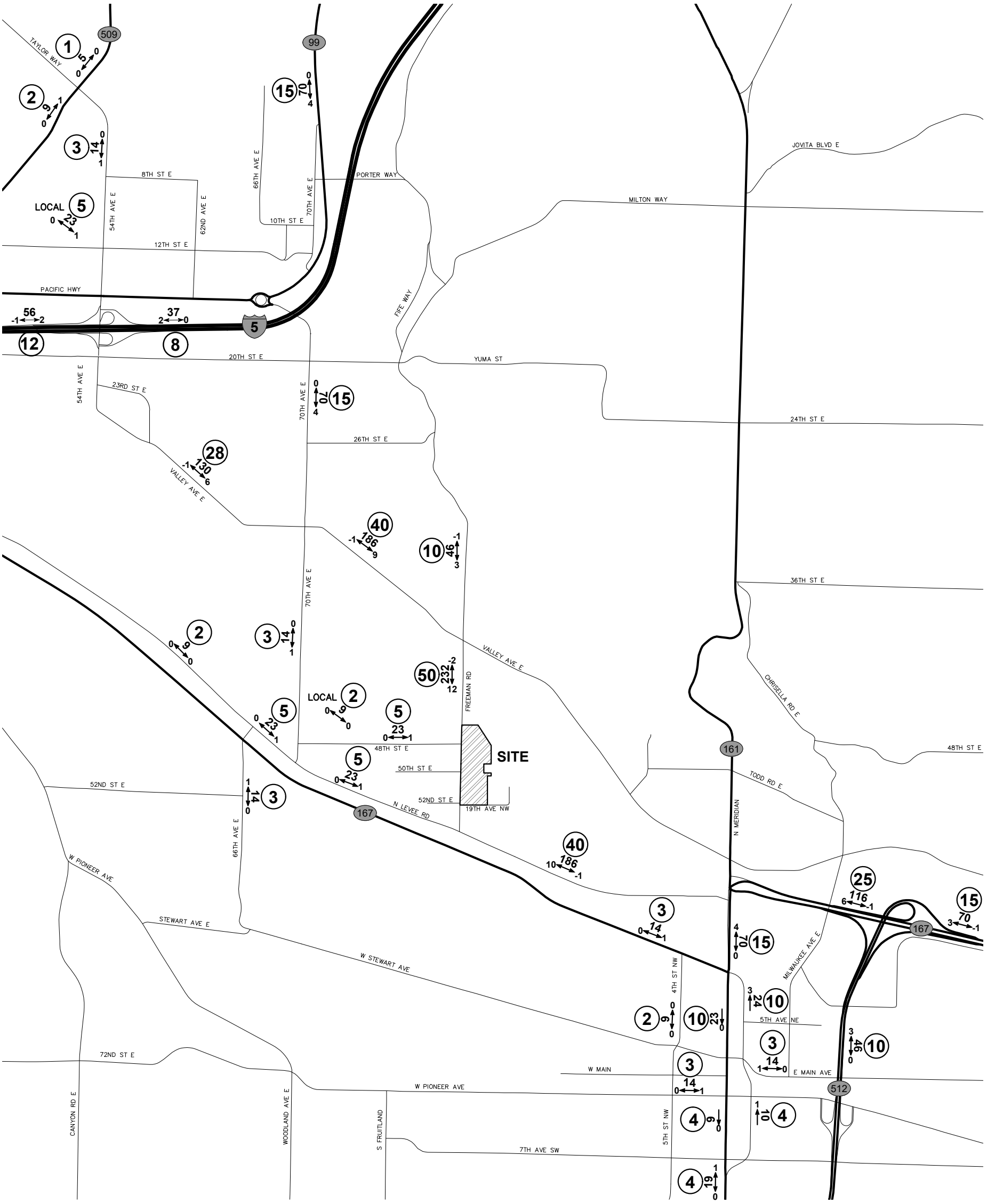
The ITE provides specific trip generation rates for heavy trucks for the specified land uses. The Development's expected truck trip generation are summarized in **Table 5**.

Table 5: Truck Trip Generation Summary

505,436 SF High-Cube Short-Term Warehouse LUC 154	ADTs			AM Peak Hour Trips			PM Peak Hour Trips		
	In	Out	Total	In	Out	Total	In	Out	Total
Generation Rate	0.22 trips per 1,000 SF			0.02 trips per 1,000 SF			0.01 trips per 1,000 SF		
Splits	50%	50%	100%	49%	51%	100%	47%	53%	100%
Trips	55.60	55.60	111.20	4.96	5.15	10.11	2.37	2.69	5.06

The High-Cube Transload and Short-Term Storage Warehouse proposed Development is anticipated to generate approximately 111 new average daily truck trips with 10 new AM peak hour truck trips and five new PM peak hour truck trips. The trip generation calculations — including truck trip generation rates — are included in **Appendix D**.

The car trip distribution under High-Cube Transload and Short-Term Storage Warehouse conditions for the AM and PM peak hours is included in **Figure 6** and **Figure 7**. The truck trip distribution under warehousing conditions for the AM and PM peak hours is included in **Figure 8** and **Figure 9**. A summary of the total site traffic under warehousing conditions during the AM and PM peak hours is included in **Figure 10** and **Figure 11**, respectively.



NORTH

FREEMAN ROAD LOGISTICS (HIGH-CUBE SHORT-TERM WAREHOUSE) ITE LUC 154

CITY OF PUYALLUP

LEGEND

AWDT
AM ↔ PEAK
NEW DAILY TRAFFIC
NEW PEAK-HOUR TRIPS

XX
TRIP DISTRIBUTION

FIGURE 6

DEVELOPMENT TRIP DISTRIBUTION AM PEAK-HOUR CAR TRIPS

Kimley»Horn

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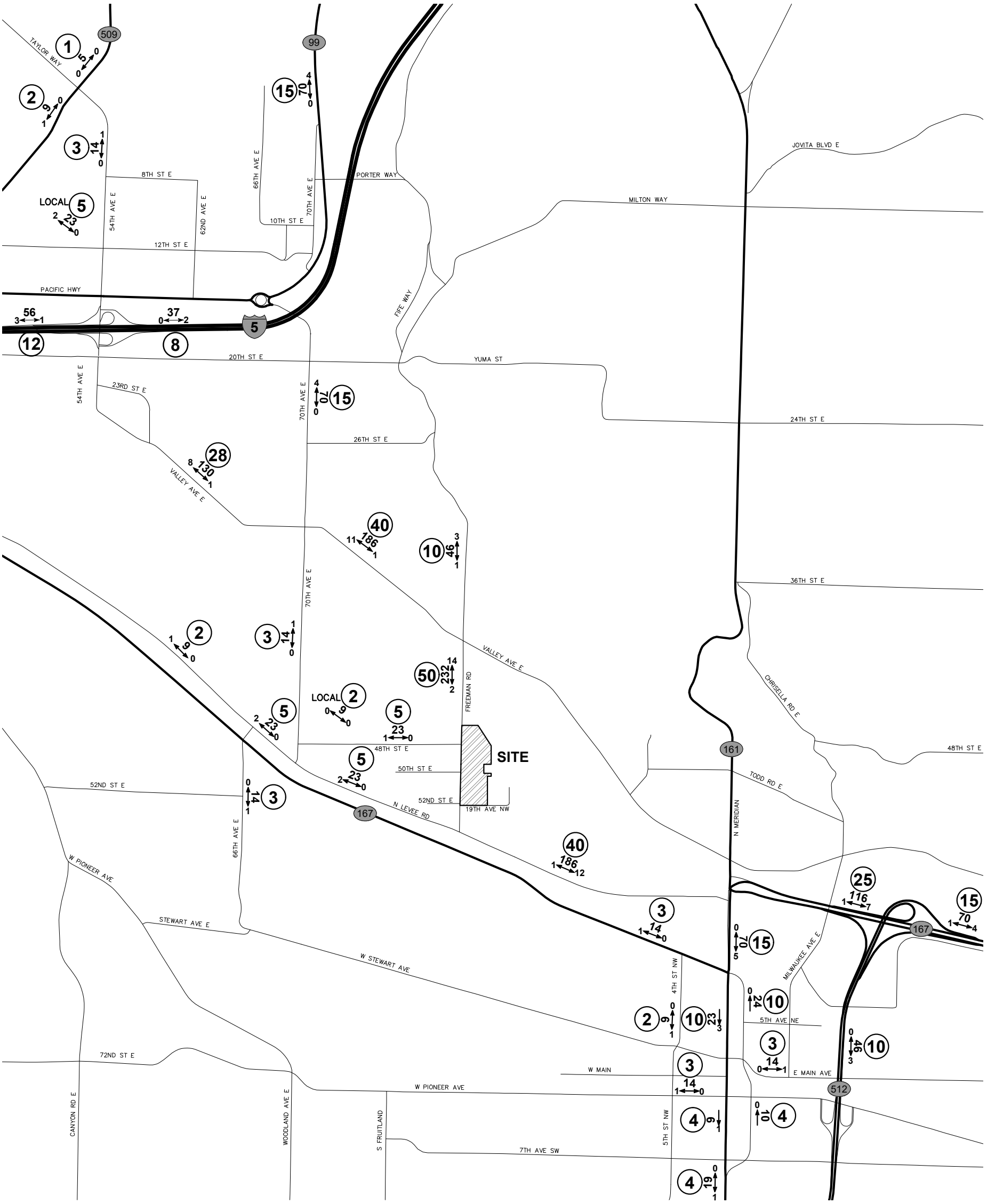

NORTH

FREEMAN ROAD LOGISTICS (HIGH-CUBE SHORT-TERM WAREHOUSE) ITE LUC 154

CITY OF PUYALLUP

LEGEND

AWDT
PM ↔ PEAK — NEW DAILY TRAFFIC / NEW PEAK-HOUR TRIPS

(XX) — TRIP DISTRIBUTION

FIGURE 7

DEVELOPMENT TRIP DISTRIBUTION PM PEAK-HOUR CAR TRIPS

Kimley»Horn

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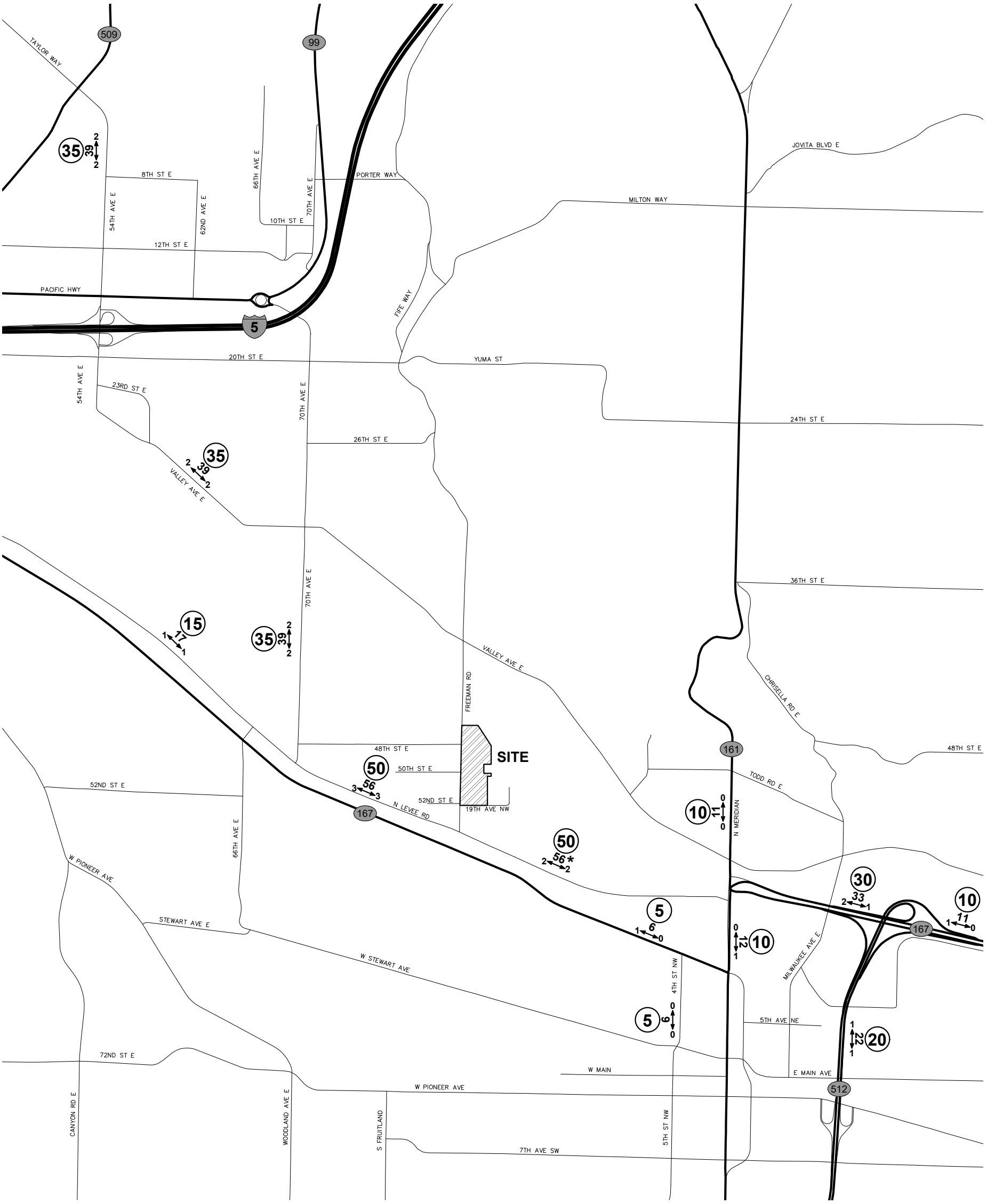

NORTH

FREEMAN ROAD LOGISTICS (HIGH-CUBE SHORT-TERM WAREHOUSE) ITE LUC 154

CITY OF PUYALLUP

LEGEND

AWDT / AM ↔ PEAK	NEW DAILY TRAFFIC NEW PEAK-HOUR TRIPS
(XX)	TRIP DISTRIBUTION
*	ONE (1) ADDITIONAL AWDT

FIGURE 8

DEVELOPMENT TRIP DISTRIBUTION AM PEAK-HOUR TRUCK TRIPS

Kimley»Horn

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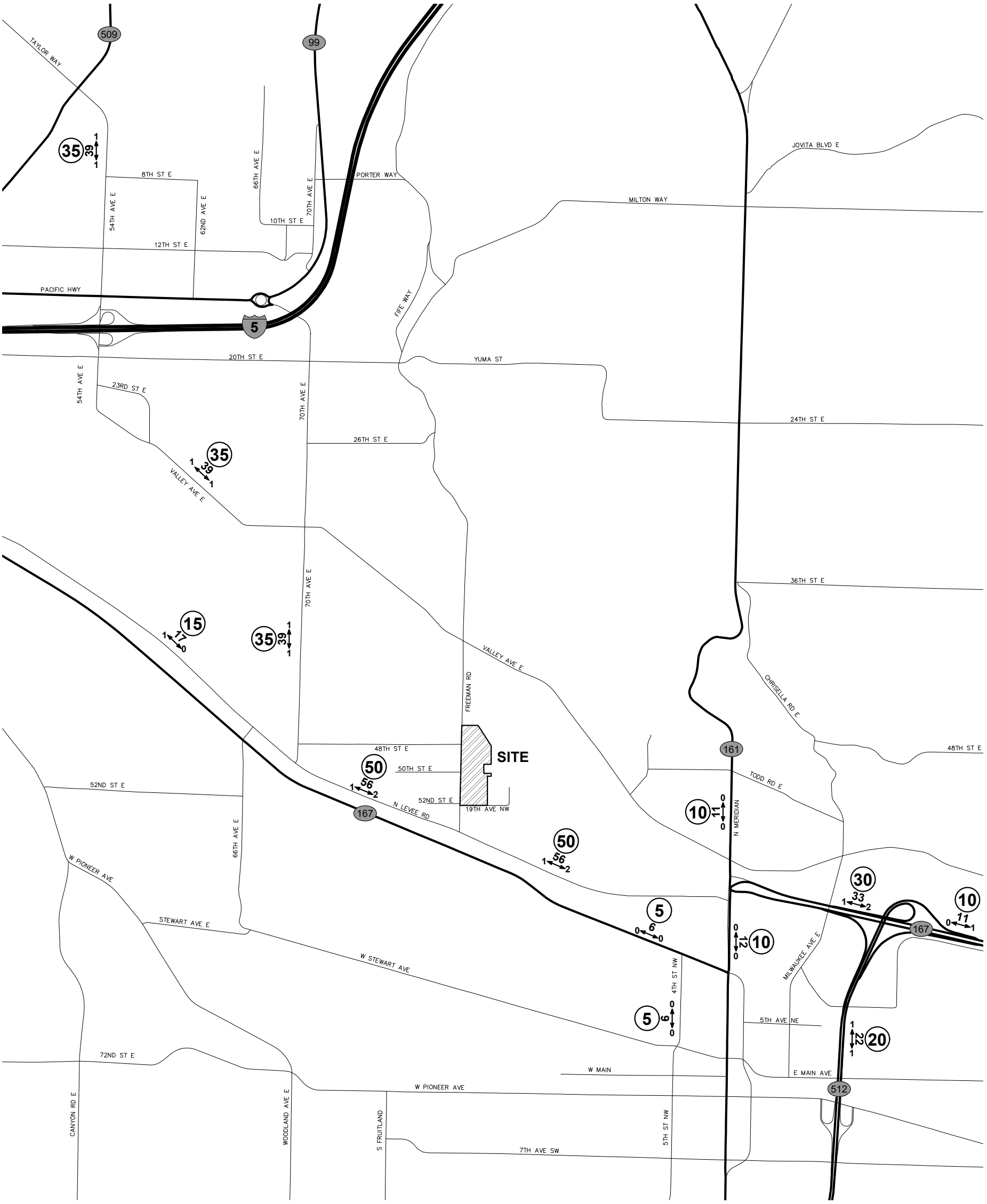

NORTH

FREEMAN ROAD LOGISTICS (HIGH-CUBE SHORT-TERM WAREHOUSE) ITE LUC 154

CITY OF PUYALLUP

LEGEND

AWDT
PM ←→ PEAK — NEW DAILY TRAFFIC / NEW PEAK-HOUR TRIPS

(XX) — TRIP DISTRIBUTION

FIGURE 9

DEVELOPMENT TRIP DISTRIBUTION PM PEAK-HOUR TRUCK TRIPS

Kimley»Horn

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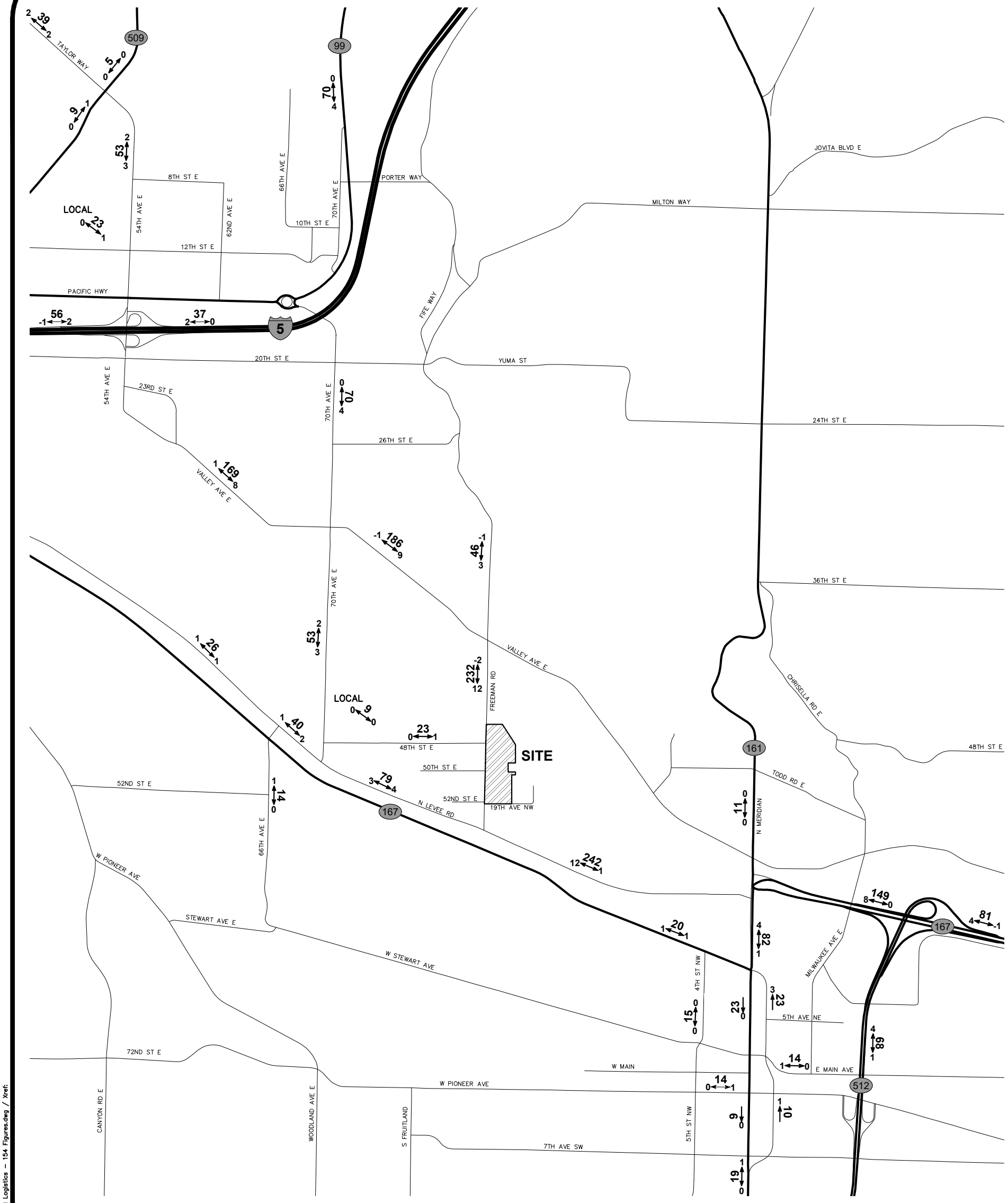

NORTH

FREEMAN ROAD LOGISTICS (HIGH-CUBE SHORT-TERM WAREHOUSE) ITE LUC 154

CITY OF PUYALLUP

LEGEND

AWDT
AM ↔ PEAK — NEW DAILY TRAFFIC / NEW PEAK-HOUR TRIPS

(XX) — TRIP DISTRIBUTION

FIGURE 10

TOTAL DEVELOPMENT
TRIP DISTRIBUTION
AM PEAK-HOUR
CARS AND TRUCKS

Kimley»Horn

Date: June 23, 2024 - 5:10pm / User: Joey.miller
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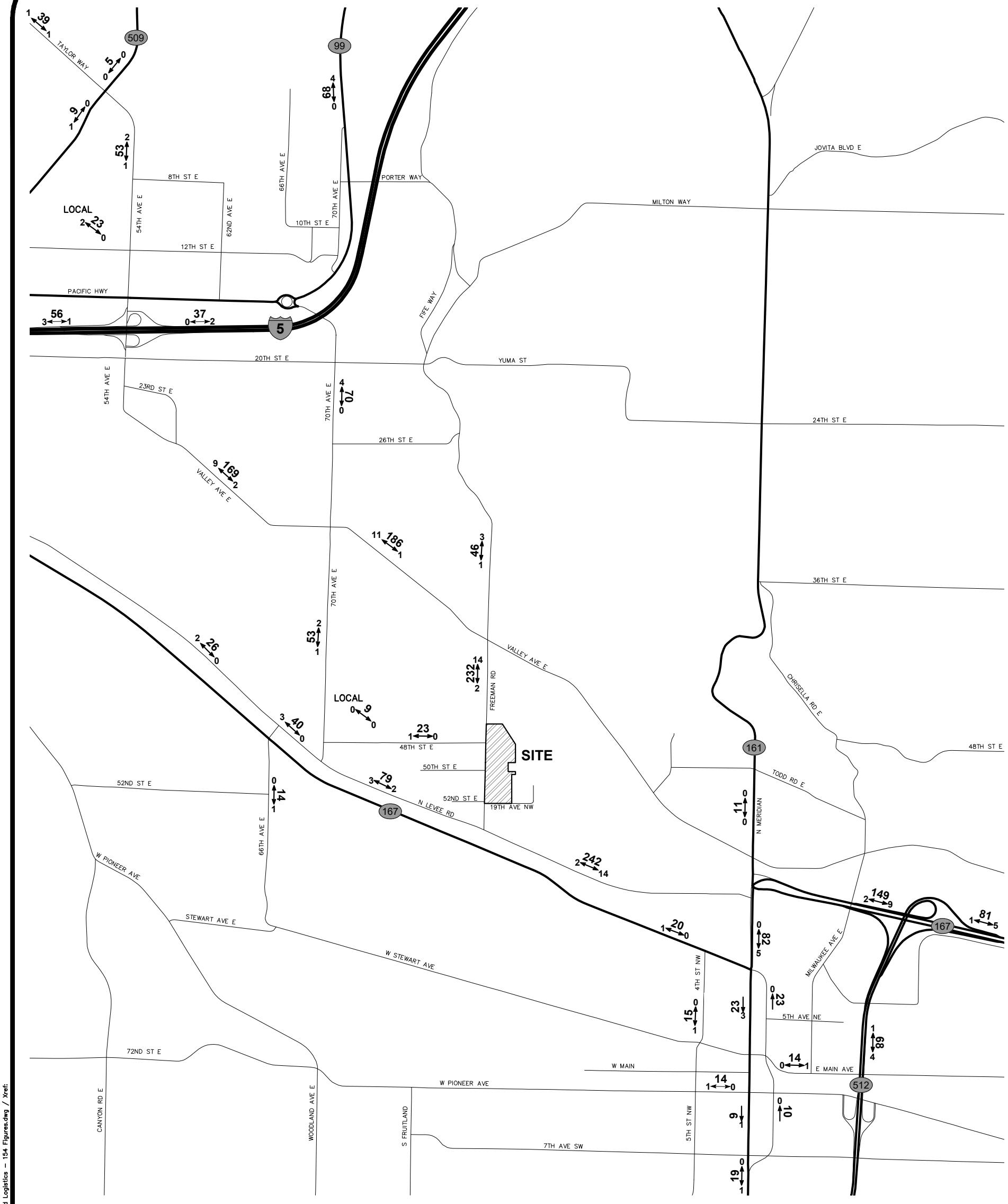

NORTH

FREEMAN ROAD LOGISTICS (HIGH-CUBE SHORT-TERM WAREHOUSE) ITE LUC 154

CITY OF PUYALLUP

LEGEND

AWDT
PM ↔ PEAK — NEW DAILY TRAFFIC / NEW PEAK-HOUR TRIPS

(XX) — TRIP DISTRIBUTION

FIGURE 11

TOTAL DEVELOPMENT
TRIP DISTRIBUTION
PM PEAK-HOUR
CARS AND TRUCKS

Kimley»Horn

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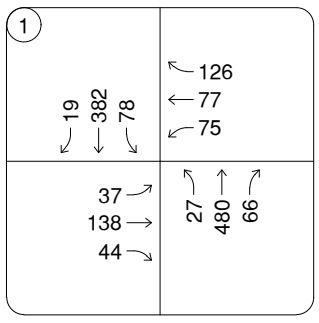
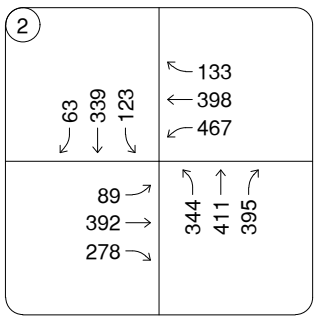
6.2 2028 Future with Development

The 2028 future with development turning movements at the study intersections were calculated by adding the trips generated by the Development to the 2028 baseline turning movements. The trips generated by the Development are based on the AM and PM peak hour trip distributions under the High-Cube Transload and Short-Term Warehouse scenario. Turning movements for the 2028 future with development conditions are shown in **Figure 12** and **Figure 13** for the AM and PM peak hours, respectively. The turning movement calculations have been provided in **Appendix D**.

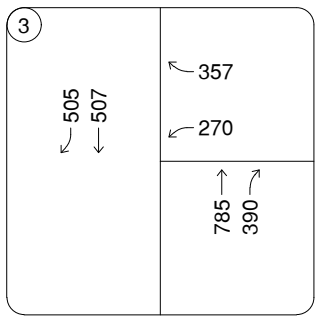
54TH AVENUE E @
12TH STREET E



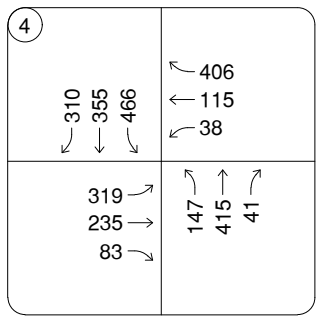
54TH AVENUE E @
PACIFIC HIGHWAY E (SR-99)



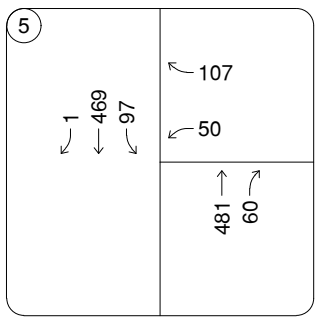
54TH AVENUE E @
I-5 SOUTHBOUND RAMPS



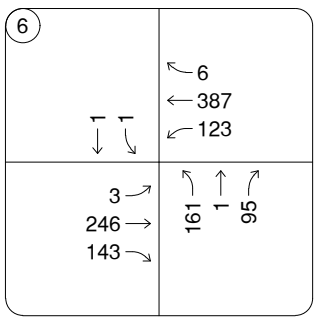
54TH AVENUE E @
20TH STREET E



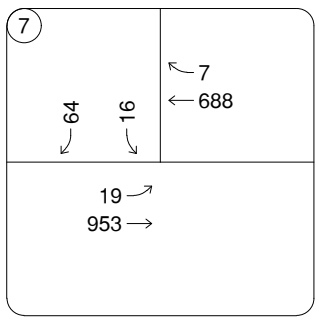
54TH AVENUE E @
23RD STREET E



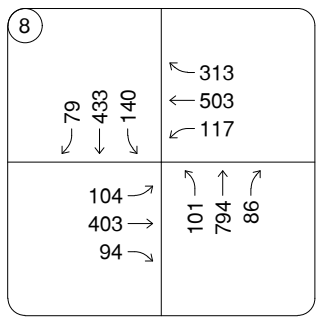
54TH AVENUE E @
VALLEY AVENUE E



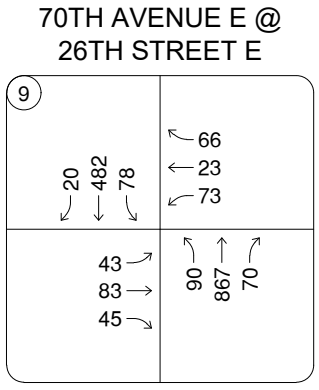
70TH AVENUE E @
PACIFIC HIGHWAY E (SR-99)



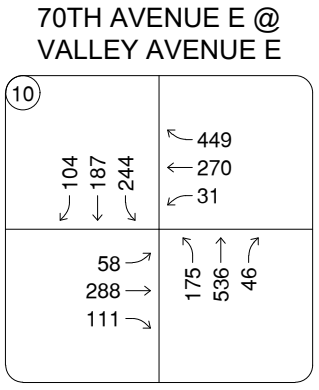
70TH AVENUE E @
20TH STREET E



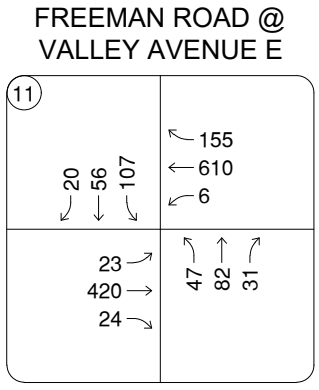
70TH AVENUE E @
26TH STREET E



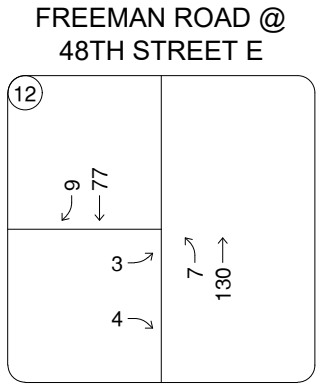
70TH AVENUE E @
VALLEY AVENUE E



FREEMAN ROAD @
VALLEY AVENUE E



FREEMAN ROAD @
48TH STREET E



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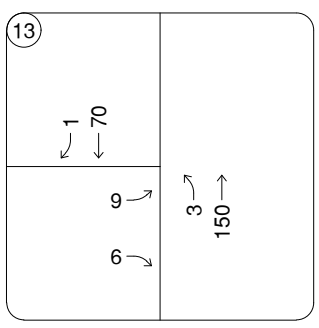

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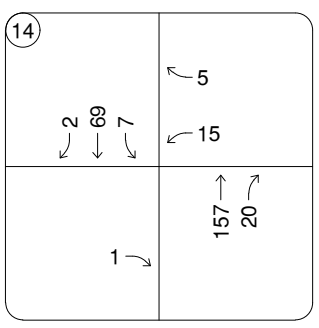
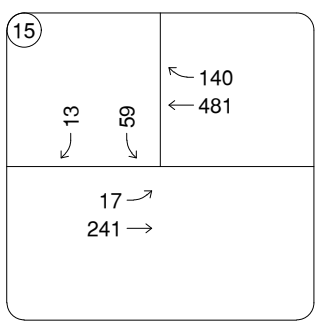
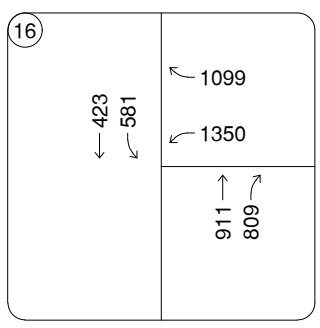
52ND STREET E



FREEMAN ROAD @
N LEVEE ROAD E



N MERIDIAN (SR-161) @
SR-167



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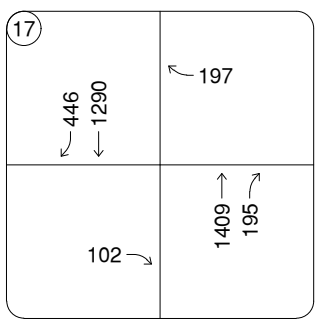
N LEVEE ROAD



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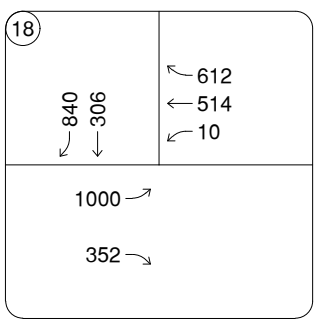
RIVER ROAD / 2ND STREET NE



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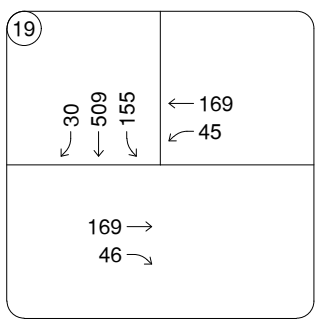
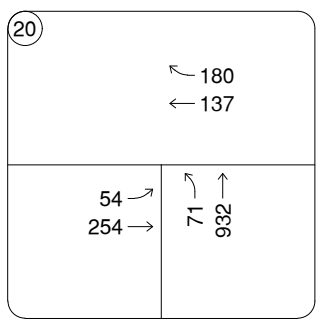
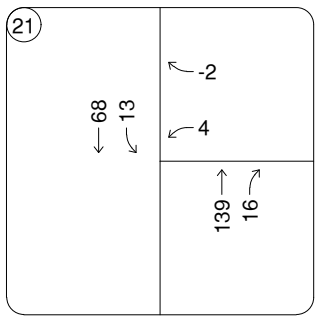
W STEWART AVENUE



2ND STREET NE @
W STEWART AVENUE



FREEMAN ROAD @
SITE ACCESS



FREEMAN ROAD LOGISTICS
(HIGH-CUBE SHORT-TERM WAREHOUSE)
ITE LUC 154

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xx → AM PEAK–HOUR TURNING MOVEMENT VOLUMES

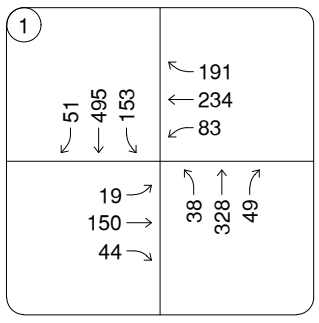
FIGURE 12

2028 FUTURE WITH DEVELOPMENT TURNING MOVEMENTS AM PEAK–HOUR

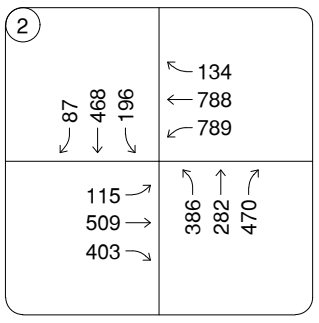
Kimley»Horn

Date: June 20, 2025 - 2:56pm / User: JoeyMiller
Path: K:\SNO_TPTO\2022\22-083 Freeman Rd Logistics_Update 2024 September\Figures\01_154\Freeman Rd Logistics - 154 Figures.dwg / Xref:

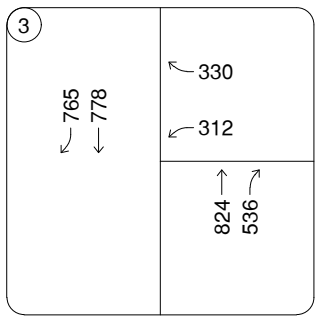
54TH AVENUE E @
12TH STREET E



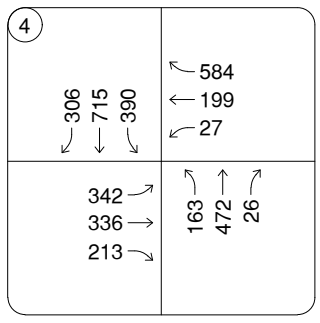
54TH AVENUE E @
PACIFIC HIGHWAY E (SR-99)



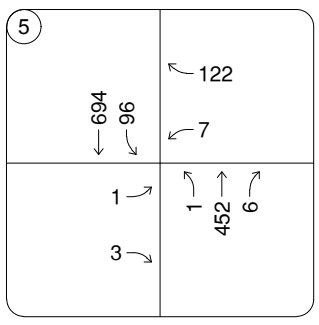
54TH AVENUE E @
I-5 SOUTHBOUND RAMPS



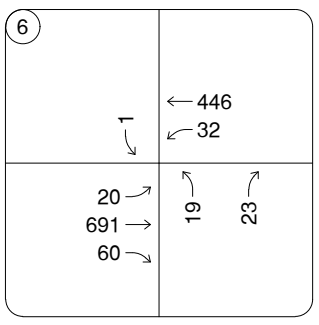
54TH AVENUE E @
20TH STREET E



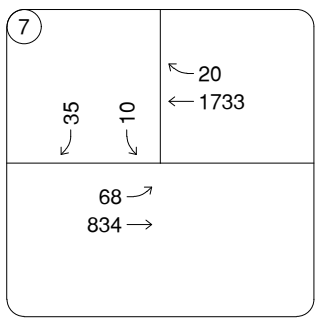
54TH AVENUE E @
23RD STREET E



54TH AVENUE E @
VALLEY AVENUE E



70TH AVENUE E @
PACIFIC HIGHWAY E (SR-99)



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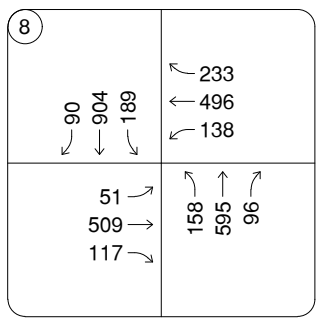
20TH STREET E



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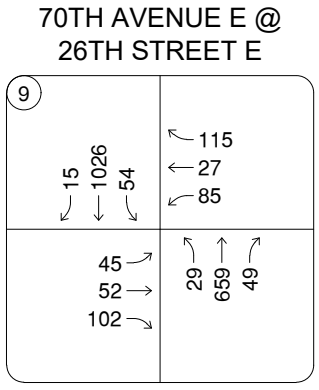
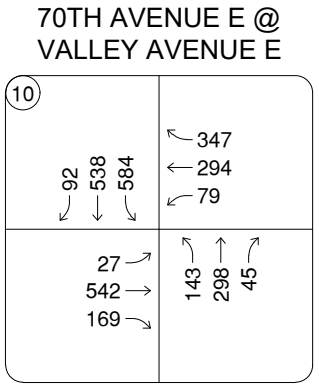
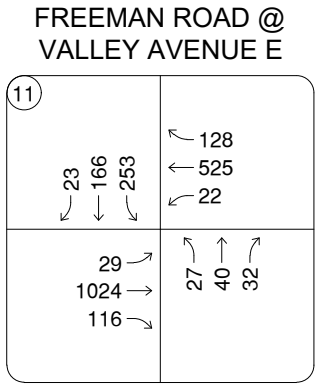
26TH STREET E



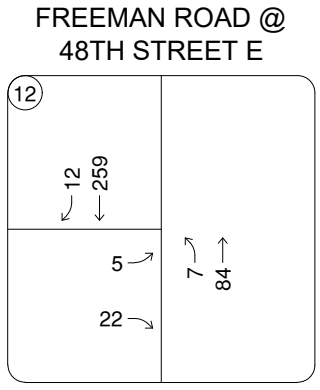
70TH AVENUE E @
VALLEY AVENUE E



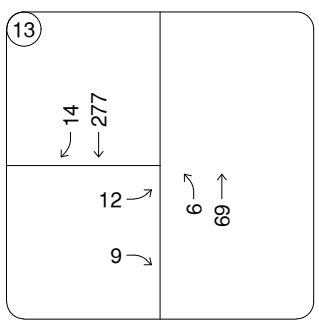
FREEMAN ROAD @
VALLEY AVENUE E



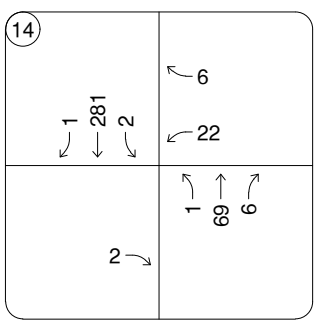
FREEMAN ROAD @
48TH STREET E



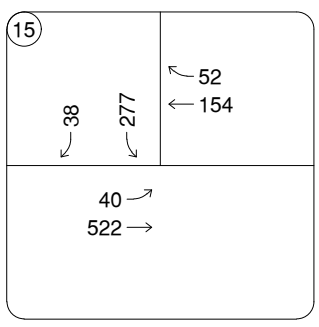
FREEMAN ROAD @
50TH STREET E



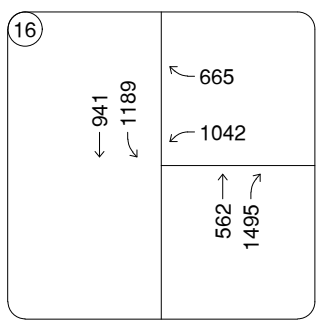
FREEMAN ROAD @
52ND STREET E



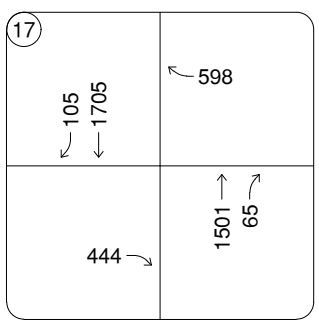
FREEMAN ROAD @
N LEVEE ROAD E



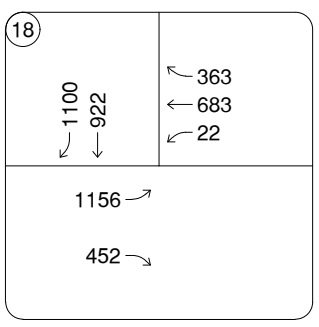
N MERIDIAN (SR-161) @
SR-167



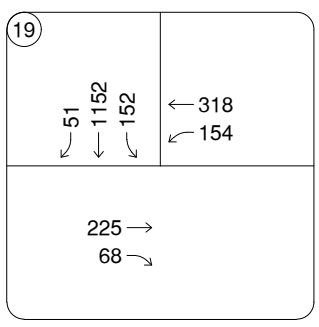
N MERIDIAN (SR-161) @
N LEVEE ROAD



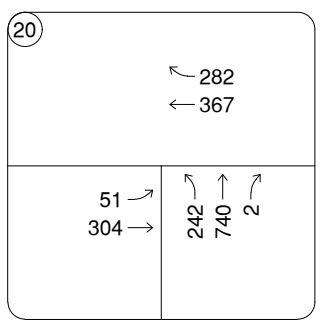
N MERIDIAN (SR-161) @
RIVER ROAD / 2ND STREET NE



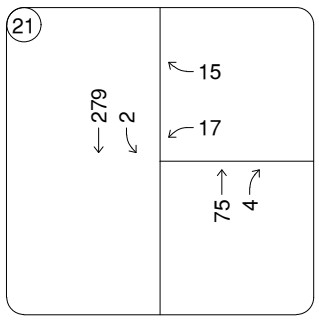
N MERIDIAN (SR-161) @
W STEWART AVENUE



2ND STREET NE @
W STEWART AVENUE



FREEMAN ROAD @
SITE ACCESS



FREEMAN ROAD LOGISTICS (HIGH-CUBE SHORT-TERM WAREHOUSE) ITE LUC 154

CITY OF PUYALLUP

LEGEND

xx → PM PEAK–HOUR TURNING MOVEMENT VOLUMES

FIGURE 13

2028 FUTURE WITH DEVELOPMENT TURNING MOVEMENTS PM PEAK–HOUR

Kimley»Horn

Date: June 20, 2025 - 2:56pm / User: JoeyMiller
Path: K:\SNO_TPTO\2022\22-083 Freeman Rd Logistics_Update 2024 September\Figures\01_154\Freeman Rd Logistics - 154 Figures.dwg / Xref:

6.3 LOS Analysis – High-Cube Transload Short-Term Storage Warehouse

Intersection LOS was analyzed for each of the study intersections for the 2028 future with development scenario. The City of Fife has a LOS standard of LOS D for intersections; however, if an intersection is already forecasted to operate worse than LOS D before development trips are added, then a development is allowed to proceed unless it degrades the LOS further with just the development trips (Fife Municipal Code 17.08.030). The City of Puyallup has adopted LOS D as the standard except for the Meridian Avenue corridor where LOS E is acceptable (Transportation Element T-3.2). SR-99 has a LOS standard of LOS D.

There are a number of intersections that, with baseline growth, would not meet jurisdictional standards. However, many of those intersections are parallel to the newly funded SR-167 Completion Project that would draw traffic (approximately 900 to 2,000 peak hour trips from study intersections) and result in improved operations. The WSDOT phase 1 environmental documentation identified that all the same Development study intersections along N Meridian and 54th Avenue intersections would operate at LOS D or better in the year 2045 for the critical PM peak hour with just the Phase I SR-167 Completion Project. Study intersection #2 (54th Avenue E at Pacific Highway E (SR-99)) of this report is study intersection #15 in the Puget Sound Gateway Program (PSGP) Phase 1 NEPA/SEPA environmental reevaluation study. Similarly, study intersections #4, (54th Avenue E at 20th Street E), #16 (N Meridian Avenue (SR-161) at SR-167), #17 (N Meridian Avenue (SR-161) at N Levee Road), and #18 (N Meridian Avenue (SR-161) at River Road/2nd Street NE) in this report are study intersections #12, #36, #34, and #32, respectively, in the WSDOT study. The WSDOT forecasts are documented in Puget Sound Gateway Program – Phase 1 report. Specific volume change and LOS results are documented in **Appendix H** of this study.

The intersection of Freeman Road at N Levee Road E operates at acceptable LOS C or better with or without the Development for the High-Cube Transload Short-term Storage Warehouse condition. It operates at LOS C with the SR-167 Completion Project. An improvement identified for improved operations at this off-site intersection has been additional channelization consisting of a dedicated southbound right-turn lane on Freeman Road and left-turn refuge lanes on N Levee Road E, which would provide additional capacity at this intersection. Based on the future with project volumes of the high-cube transload short-term storage warehouse analysis, the Development accounts for 21 trips or 1.92% of the total entering 2028 PM peak-hour volumes for this off-site intersection. The channelization improvement would reduce the delay by 9.4 seconds and operate at LOS C even before the SR-167 Completion Project.

The future LOS at the study intersections is summarized in **Table 6** and *** Total** *number of Development trips to impact intersection*

Table 7 for the AM and PM peak hours, respectively. The complete LOS for the AM and PM peak hours have been provided in **Appendix D**.

Table 6: Weekday AM Peak Hour LOS Summary - High-Cube Short-Term Warehouse

Intersection		Control Type	2028 Baseline Conditions			2028 Future w/ Conditions			
			LOS	Delay	v/c	LOS	Delay	v/c	Trips*
1.	54th Ave E at 12th St E	Signal	B	16.5 sec	0.64	B	16.6 sec	0.64	6
2.	54th Ave E at Pacific Hwy E (SR-99)	Signal	**F**	**83.7 sec**	**1.50**	**F**	**83.8 sec**	**1.50**	6
	- With Improvement	Optimized Splits	---	---	---	**E**	**67.6 sec**	**1.13**	
	- SR-167 in 2045	WSDOT FEIS	**E**	**---**	**---**	**E**	**---**	**---**	
	- Extrapolated FEIS in 2030	---	---	---	---	D	49.9 sec	0.82	
3.	54th Ave E at I-5 Southbound Ramps	Signal	B	18.0 sec	0.90	B	18.2 sec	0.90	8
4.	54th Ave E at 20th St E	Signal	**E**	**58.0 sec**	**0.91**	**E**	**58.3 sec**	**0.91**	9
	- With Improvement	Optimized Splits	---	---	---	**E**	**59.4 sec**	**0.95**	
	- SR-167 in 2045	WSDOT FEIS	**E**	**---**	**---**	D	---	---	
5.	54th Ave E at 23rd St E	Signal	A	8.7 sec	0.59	A	8.8 sec	0.59	9
6.	54th Ave E at Valley Ave E	Signal	B	16.8 sec	0.89	B	16.9 sec	0.89	9
7.	70th Ave E at Pacific Hwy E (SR-99)	Signal	B	14.7 sec	0.55	B	14.7 sec	0.55	4
8.	70th Ave E at 20th St E	Signal	D	49.8 sec	0.94	D	49.8 sec	0.94	4
9.	70th Ave E at 26th St E	Signal	C	26.8 sec	0.63	C	26.8 sec	0.63	4
10.	70th Ave E at Valley Ave E	Signal	C	30.8 sec	0.69	C	30.9 sec	0.68	13
11.	Freeman Rd at Valley Ave E	Signal	C	23.2 sec	0.64	C	23.1 sec	0.64	10
	- With Improvement	SR-167 Reroute	---	---	---	B	19.2 sec	0.48	
12.	Freeman Rd at 48th St E	Minor-Leg Stop-Control	A	9.4 sec	---	A	9.4 sec	---	11
13.	Freeman Rd at 50th St E	Minor-Leg Stop-Control	A	9.5 sec	---	A	9.6 sec	---	20
14.	Freeman Rd at 52nd St E	Minor-Leg Stop-Control	B	10.4 sec	---	B	10.6 sec	---	20
15.	Freeman Rd at N Levee Rd E	Minor-Leg Stop-Control	C	20.7 sec	---	C	21.3 sec	---	20
	- With Improvement	Channelization	---	---	---	B	14.1 sec	---	
	- With Improvement	SR-167 Reroute	---	---	---	C	17.0 sec	---	
	- With Improvement	SR-167 Reroute + Channelization	---	---	---	B	12.7 sec	---	
16.	N Meridian Ave (SR-161) at SR-167	Signal	**E**	**65.5 sec**	**1.31**	**E**	**65.9 sec**	**1.31**	8
	- With Improvement	Optimized Splits	---	---	---	**E**	**56.1 sec**	**1.09**	
	- SR-167 in 2045	WSDOT FEIS	**E**	**---**	**---**	D	---	---	
17.	N Meridian Ave (SR-161) at N Levee Rd	Minor-Leg Stop-Control	D	30.3 sec	---	D	30.3 sec	---	13
18.	N Meridian Ave (SR-161) at River Rd/2nd St NE	Signal	**E**	**62.0 sec**	**1.15**	**E**	**62.3 sec**	**1.15**	5
	- With Improvement	Optimized Cycle	---	---	---	D	46.1 sec	1.00	
19.	N Meridian Ave (SR-161) at W Stewart Ave	Signal	C	30.5 sec	1.14	C	30.5 sec	1.14	0
20.	2nd St NE at W Stewart Ave	Signal	B	18.8 sec	0.69	B	18.8 sec	0.69	3
21.	Freeman Rd at Site Access	Minor-Leg Stop-Control	---	---	---	B	10.0 sec	---	31

** Total number of Development trips to impact intersection*

Table 7: Weekday PM Peak Hour LOS Summary - High-Cube Short-Term Warehouse

Intersection		Control Type	2028 Baseline Conditions			2028 Future w/ Conditions			
			LOS	Delay	v/c	LOS	Delay	v/c	Trips*
1.	54th Ave E at 12th St E	Signal	C	30.2 sec	1.03	C	30.1 sec	1.03	5
2.	54th Ave E at Pacific Hwy E (SR-99)	Signal	**F**	**94.6 sec**	**1.37**	**F**	**95.1 sec**	**1.37**	5
	- With Improvement	Optimized Splits	---	---	---	**F**	**80.9 sec**	**1.20**	
	- SR-167 in 2045	WSDOT FEIS	**E**	**---**	**---**	D	---	---	
3.	54th Ave E at I-5 Southbound Ramps	Signal	B	18.7 sec	0.95	B	18.8 sec	0.95	5
4.	54th Ave E at 20th St E	Signal	**E**	**75.7 sec**	**1.09**	**E**	**76.4 sec**	**1.09**	11
	- With Improvement	Optimized Splits	---	---	---	**E**	**76.0 sec**	**1.03**	
	- SR-167 in 2045	WSDOT FEIS	**E**	**---**	**---**	D	---	---	
5.	54th Ave E at 23rd St E	Signal	A	8.7 sec	0.53	A	8.7 sec	0.53	11
6.	54th Ave E at Valley Ave E	Signal	A	3.7 sec	0.50	A	3.7 sec	0.50	11
7.	70th Ave E at Pacific Hwy E (SR-99)	Signal	D	36.7 sec	1.00	D	36.6 sec	1.00	4
8.	70th Ave E at 20th St E	Signal	D	54.7 sec	1.04	D	54.7 sec	1.04	4
9.	70th Ave E at 26th St E	Signal	C	23.4 sec	0.74	C	23.4 sec	0.74	4
10.	70th Ave E at Valley Ave E	Signal	D	46.2 sec	0.87	D	46.2 sec	0.87	15
11.	Freeman Rd at Valley Ave E	Signal	C	30.5 sec	0.83	C	30.9 sec	0.83	16
	- With Improvement	SR-167 Reroute	---	---	---	C	25.8 sec	0.71	
12.	Freeman Rd at 48th St E	Minor-Leg Stop-Control	B	10.4 sec	---	B	10.5 sec	---	17
13.	Freeman Rd at 50th St E	Minor-Leg Stop-Control	B	10.8 sec	---	B	11.0 sec	---	21
14.	Freeman Rd at 52nd St E	Minor-Leg Stop-Control	B	11.4 sec	---	B	11.6 sec	---	21
15.	Freeman Rd at N Levee Rd E	Minor-Leg Stop-Control	D	28.0 sec	---	D	30.7 sec	---	21
	- With Improvement	Channelization	---	---	---	C	21.3 sec	---	
	- With Improvement	SR-167 Reroute	---	---	---	C	17.9 sec	---	
	- With Improvement	SR-167 Reroute + Channelization	---	---	---	B	14.6 sec	---	
16.	N Meridian Ave (SR-161) at SR-167	Signal	**F**	**150.5 sec**	**1.93**	**F**	**152.4 sec**	**1.94**	12
	- SR-167 in 2045	WSDOT FEIS	D	---	---	D	---	---	
17.	N Meridian Ave (SR-161) at N Levee Rd	Minor-Leg Stop-Control	**F**	**>300 sec**	**---**	**F**	**>300 sec**	**---**	16
	- SR-167 in 2045	WSDOT FEIS	B	---	---	A	---	---	
18.	N Meridian (SR-161) at River Rd/2nd St NE	Signal	**F**	**82.5 sec**	**1.27**	**F**	**82.9 sec**	**1.27**	5
	- With Improvement	Optimized Cycle	---	---	---	**F**	**81.6 sec**	**1.15**	
	- SR-167 in 2045	WSDOT FEIS	**F**	**---**	**---**	C	---	---	
19.	N Meridian Ave (SR-161) at W Stewart Ave	Signal	C	24.2 sec	0.79	C	24.2 sec	0.79	3
20.	2nd St NE at W Stewart Ave	Signal	C	27.6 sec	0.88	C	27.6 sec	0.88	1
21.	Freeman Rd at Site Access	Minor-Leg Stop-Control	---	---	---	B	10.1 sec	---	38

** Total number of Development trips to impact intersection*

7. LUC 150 – WAREHOUSING

7.1 Trip Generation

Trip generation calculations for the Development are based on national statistics contained in the ITE (2021) *Trip Generation,* 11th Edition. The average trip generation rates for LUC 150, Warehousing, and LUC 210, Single-Family Detached Housing, have been used for the trip generation calculations of the Development for this scenario. Per the ITE, a Warehousing use stores products on-site, typically for more than a month. There is limited truck parking and loading docks on one or two sides. There are currently 14 existing residential uses on-site. The trip generation calculations are summarized in **Table 8**.

Table 8: Total Vehicle Trip Generation Summary

Land Use	Size	ADTs	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
Warehousing (Building A) LUC 150	238,525 SF	407.88	32.85	7.70	40.55	16.74	26.19	42.93
Warehousing (Building B) LUC 150	266,911 SF	456.42	36.75	8.62	45.37	18.74	29.30	48.04
Single-Family Detached LUC 210	-14 units	-132.02	-2.55	-7.25	-9.80	-8.29	-4.87	-13.16
TOTAL		**732.28**	**67.05**	**9.07**	**76.12**	**27.19**	**50.62**	**77.81**

Under the Warehousing land use, the Development is anticipated to generate approximately 732 new ADTs with 76 new AM peak hour trips and 78 new PM peak hour trips.

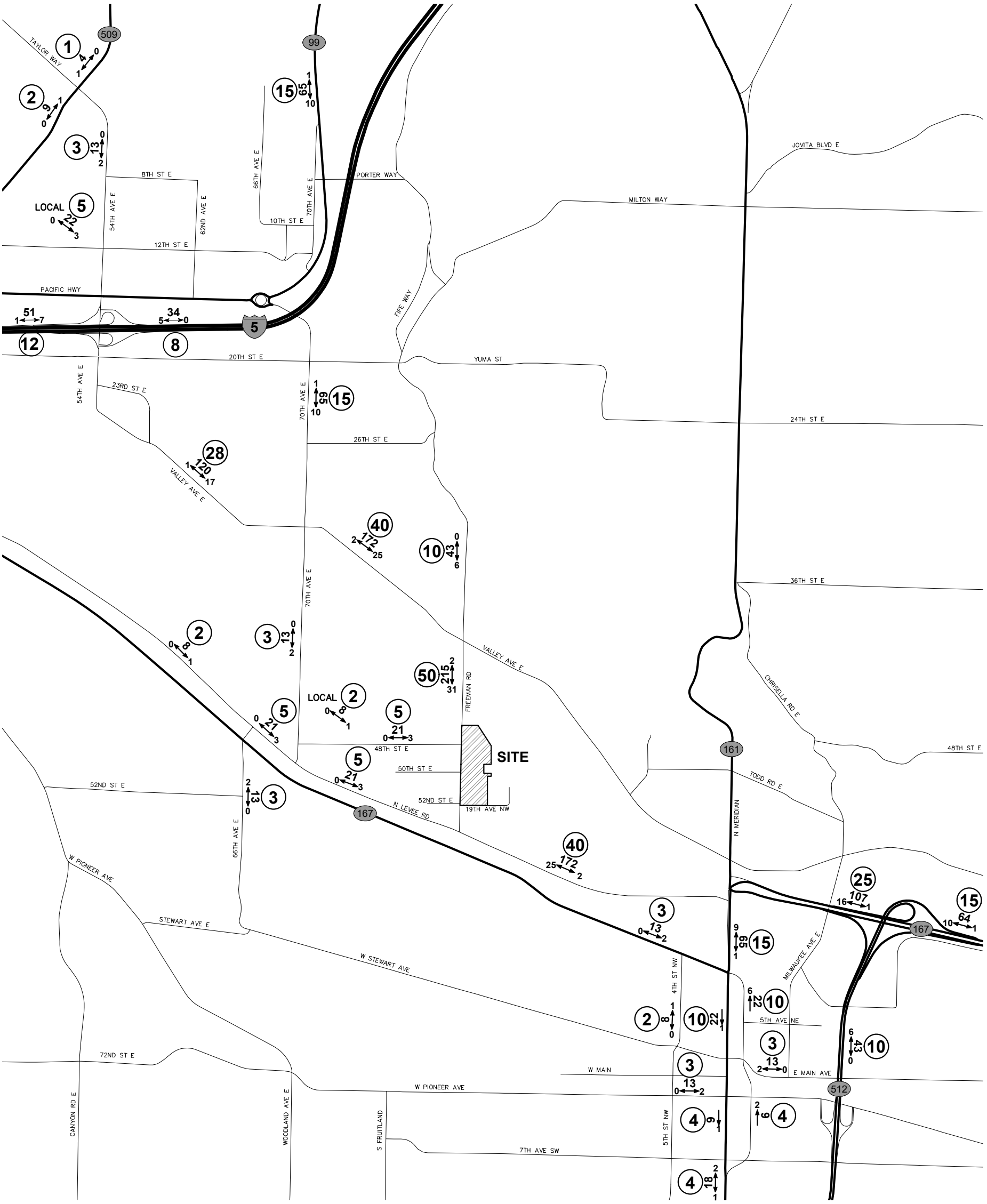
The ITE provides specific trip generation rates for heavy trucks for the specified land uses. The Development's expected truck trip generation are summarized in **Table 9**.

Table 9: Truck Trip Generation Summary

505,436 SF Warehousing LUC 150	ADTs			AM Peak Hour Trips			PM Peak Hour Trips		
	In	Out	Total	In	Out	Total	In	Out	Total
Generation Rate	0.60 trips per 1,000 SF			0.02 trips per 1,000 SF			0.03 trips per 1,000 SF		
Splits	50%	50%	100%	52%	48%	100%	52%	48%	100%
Trips	151.64	151.63	303.27	5.26	4.85	10.11	7.89	7.28	15.17

The Development is anticipated to generate approximately 303 new average daily truck trips with 10 new AM peak hour truck trips and 15 new PM peak hour truck trips. The trip generation calculations — including truck trip generation rates — are included in **Appendix E**.

The car trip distribution under warehousing conditions for the AM and PM peak hours is included in **Figure 14** and **Figure 15**. The truck trip distribution under warehousing conditions for the AM and PM peak hours is included in **Figure 16** and **Figure 17**. A summary of the total site traffic under warehousing conditions during the AM and PM peak hours is included in **Figure 18** and **Figure 19**, respectively.



NORTH

FREEMAN ROAD LOGISTICS (WAREHOUSING) ITE LUC 150

CITY OF PUYALLUP

LEGEND

AWDT
AM ↔ PEAK
NEW DAILY TRAFFIC
NEW PEAK-HOUR TRIPS

(XX) TRIP DISTRIBUTION

FIGURE 14

DEVELOPMENT TRIP DISTRIBUTION AM PEAK-HOUR CAR TRIPS

Kimley»Horn

Date: June 23, 2024 - 5:40pm / User: Joey.miller
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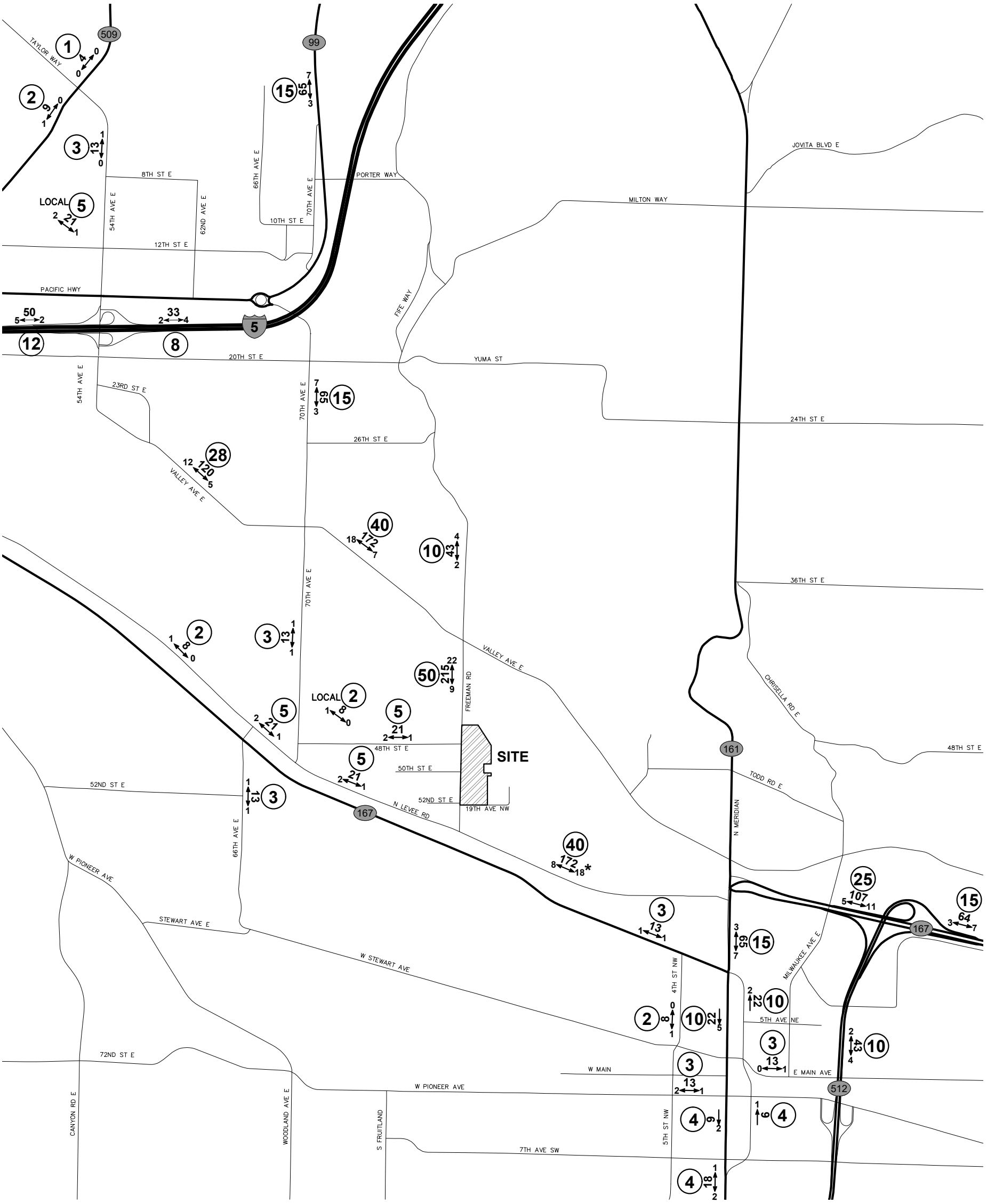

NORTH

FREEMAN ROAD LOGISTICS (WAREHOUSING) ITE LUC 150

CITY OF PUYALLUP

LEGEND

AWDT PM ↔ PEAK	NEW DAILY TRAFFIC NEW PEAK-HOUR TRIPS
(XX)	TRIP DISTRIBUTION
*	ONE (1) ADDITIONAL OUTBOUND TRIP

FIGURE 15

DEVELOPMENT TRIP DISTRIBUTION PM PEAK-HOUR CAR TRIPS

Kimley»Horn

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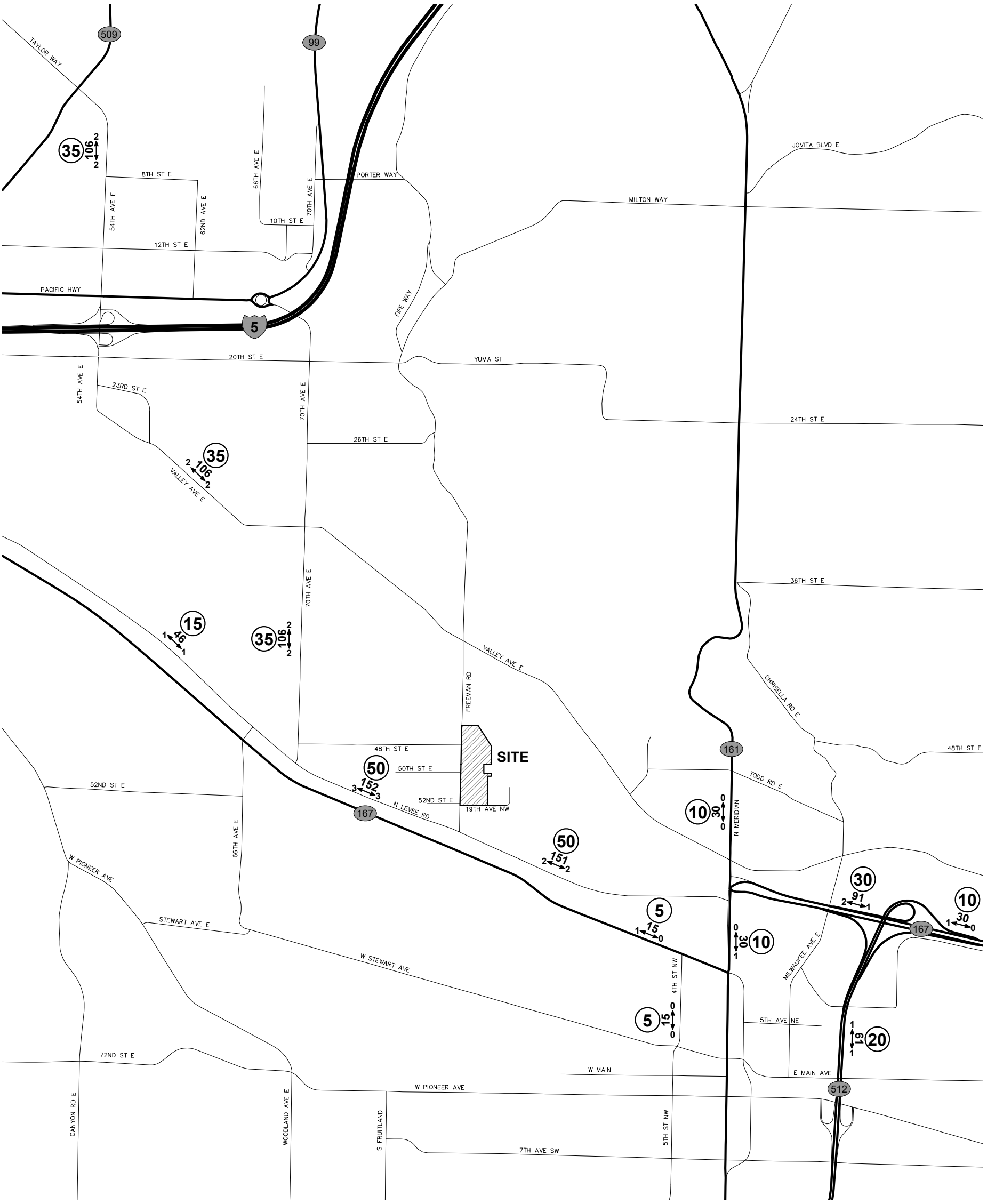

FREEMAN ROAD LOGISTICS (WAREHOUSING) ITE LUC 150

CITY OF PUYALLUP

LEGEND

AWDT
AM ↔ PEAK — NEW DAILY TRAFFIC / NEW PEAK-HOUR TRIPS

XX — TRIP DISTRIBUTION

FIGURE 16

DEVELOPMENT TRIP DISTRIBUTION AM PEAK-HOUR TRUCK TRIPS

Kimley»Horn

Date: June 23, 2024 - 5:40pm / User: Joey.miller
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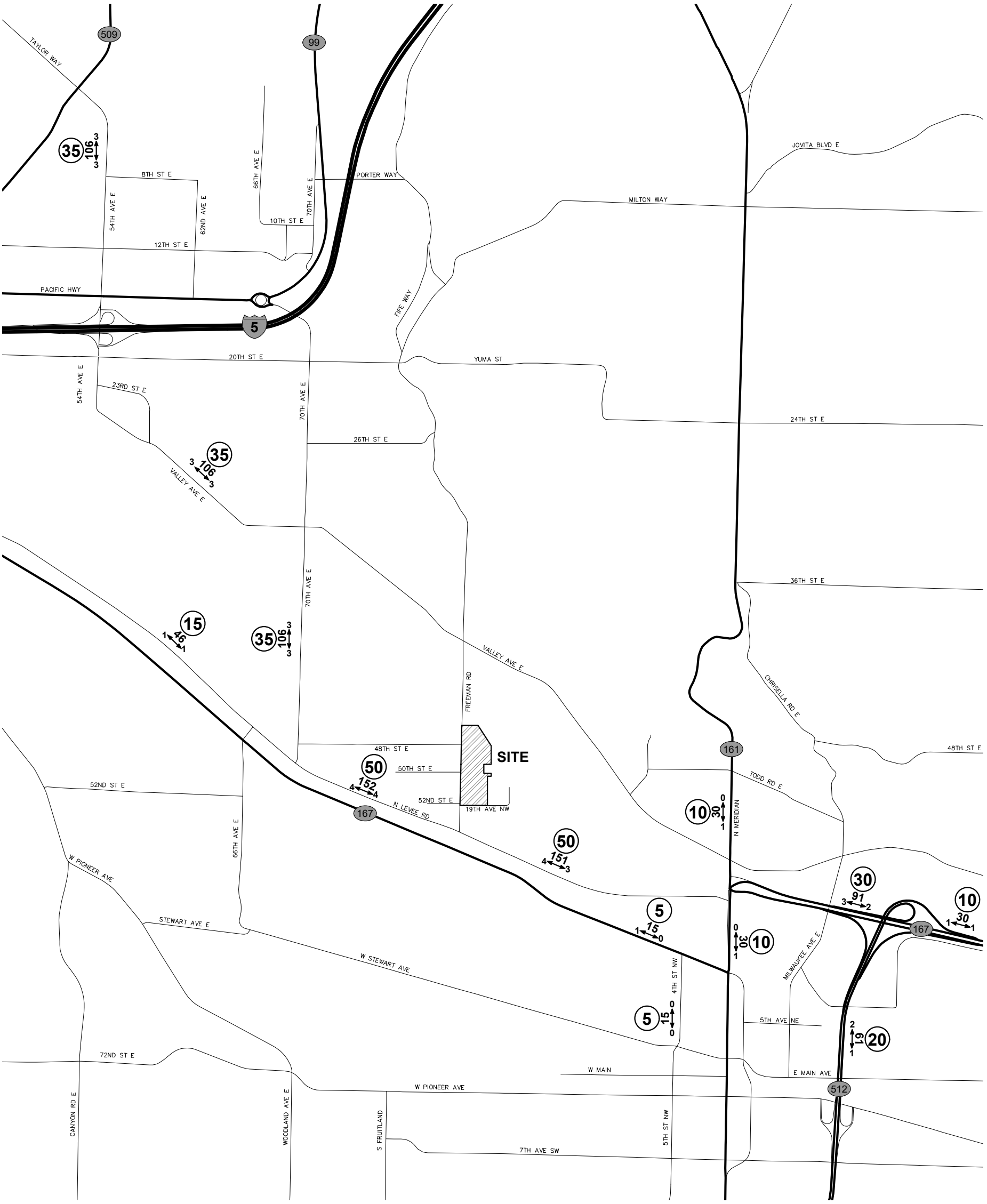

NORTH

FREEMAN ROAD LOGISTICS (WAREHOUSING) ITE LUC 150

CITY OF PUYALLUP

LEGEND

AWDT
PM ↔ PEAK — NEW DAILY TRAFFIC / NEW PEAK-HOUR TRIPS

(XX) — TRIP DISTRIBUTION

FIGURE 17

DEVELOPMENT
TRIP DISTRIBUTION
PM PEAK-HOUR
TRUCK TRIPS

Kimley»Horn

Date: June 23, 2024 - 5:40pm / User: Joey.miller
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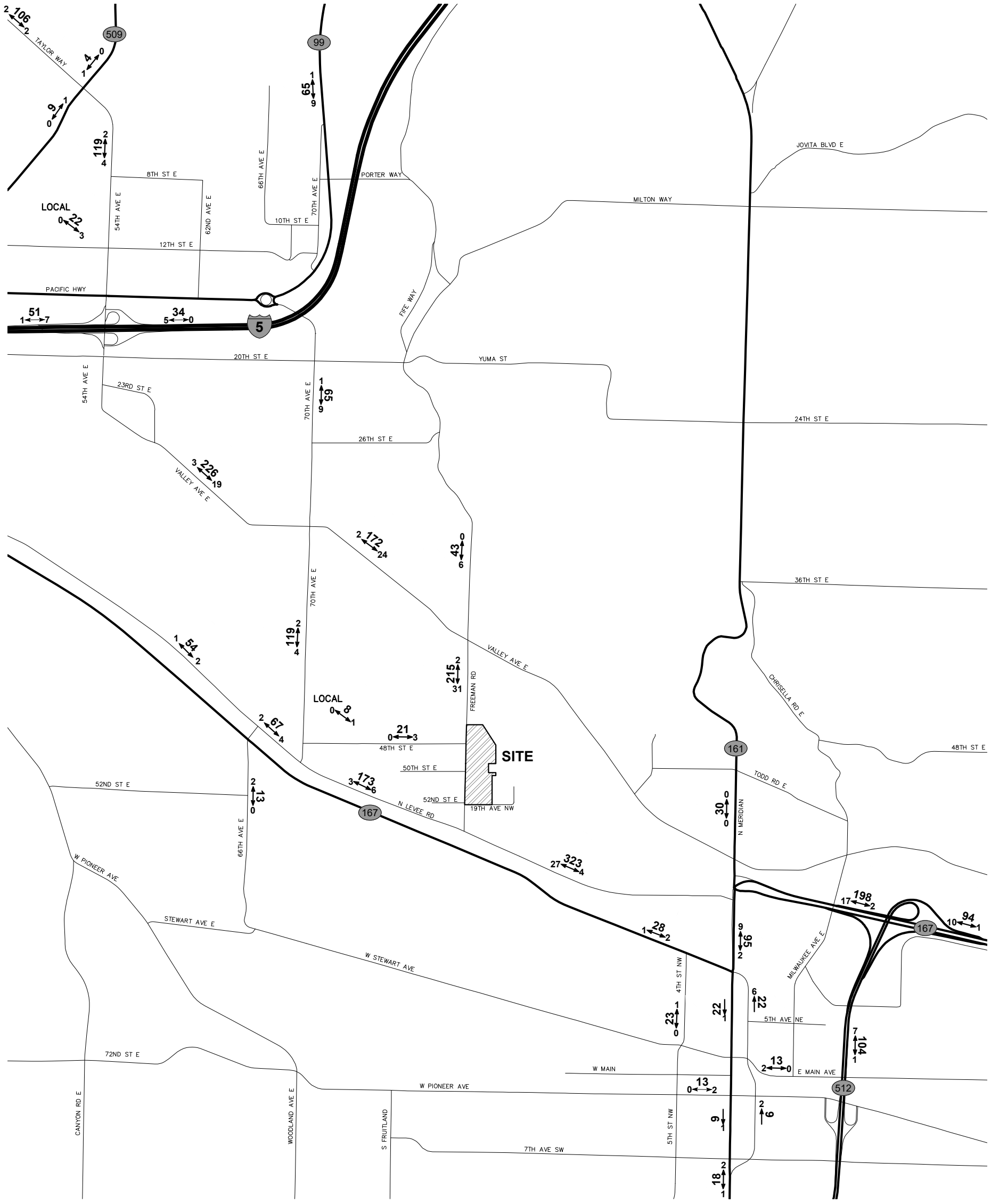

NORTH

FREEMAN ROAD LOGISTICS (WAREHOUSING) ITE LUC 150

CITY OF PUYALLUP

LEGEND

AWDT
AM ↔ PEAK — NEW DAILY TRAFFIC / NEW PEAK-HOUR TRIPS

XX — TRIP DISTRIBUTION

FIGURE 18

TOTAL DEVELOPMENT
TRIP DISTRIBUTION
AM PEAK-HOUR
CARS AND TRUCKS

Kimley»Horn

Date: June 23, 2024 - 5:40pm / User: Joey.miller
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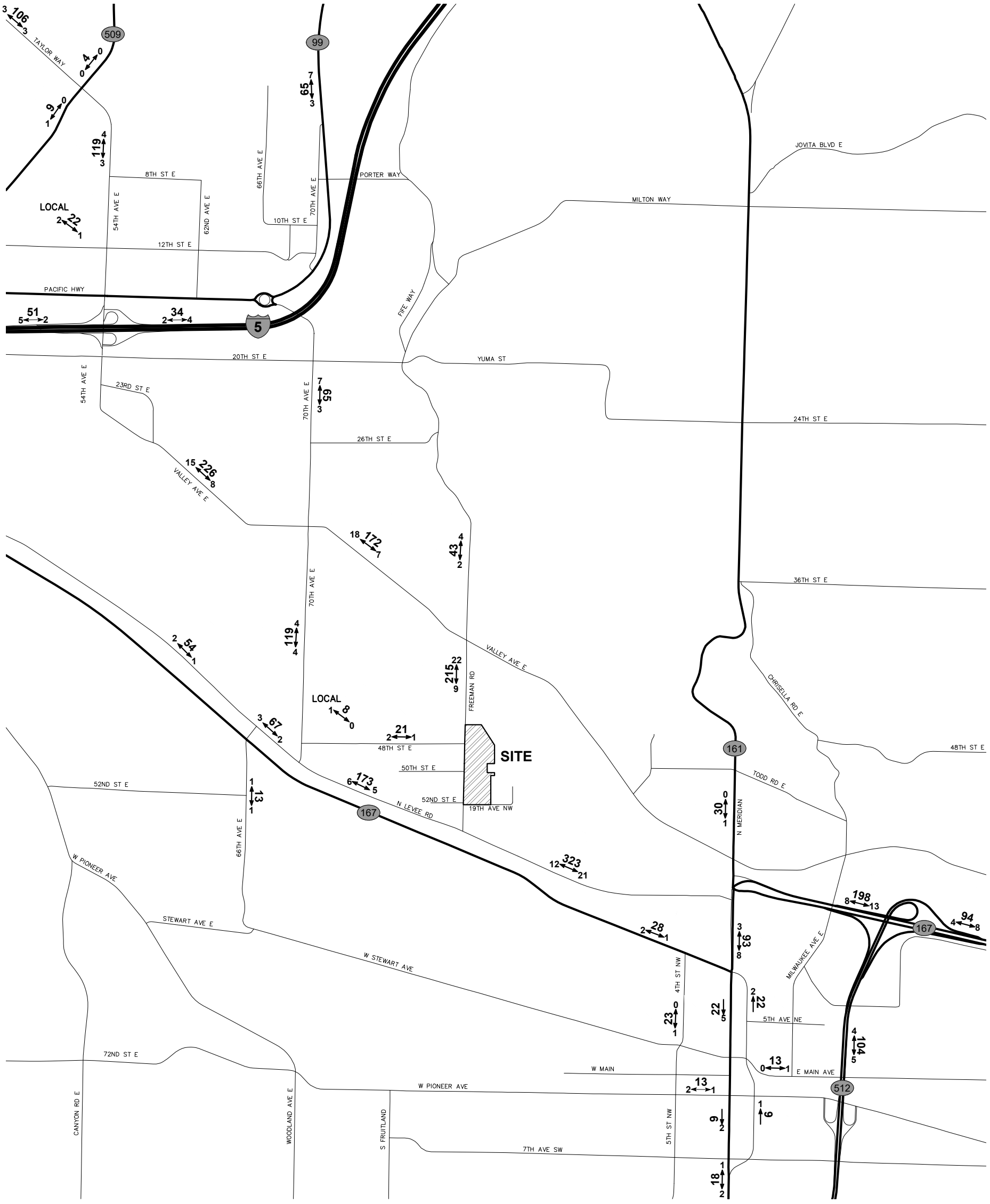


NORTH

FREEMAN ROAD LOGISTICS (WAREHOUSING) ITE LUC 150

CITY OF PUYALLUP

LEGEND

AWDT
PM ↔ PEAK — NEW DAILY TRAFFIC / NEW PEAK-HOUR TRIPS

XX — TRIP DISTRIBUTION

FIGURE 19

TOTAL DEVELOPMENT
TRIP DISTRIBUTION
PM PEAK-HOUR
CARS AND TRUCKS

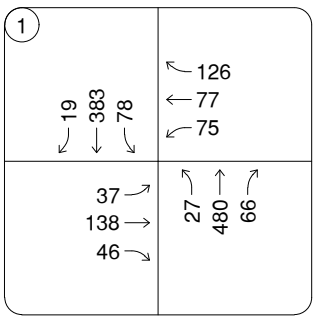
Kimley»Horn

Date: June 23, 2024 - 5:39pm / User: Joey.miller
Path: K:\SNO_TPTO\2022\22-083 Freeman Rd Logistics\Update 2024 June\Figures\02_150\Freeman Rd Logistics - 150 Figures.dwg / Xref:

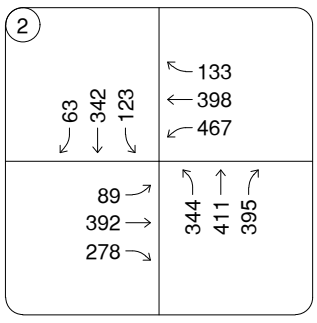
7.2 2028 Future with Development

The 2028 future with development turning movements at the study intersections were calculated by adding the trips generated by the Development to the 2028 baseline turning movements. The trips generated by the Development are based on the AM and PM peak hour trip distributions under the warehousing scenario. Turning movements for the 2028 future with development conditions are shown in **Figure 20** and **Figure 21** for the AM and PM peak hours, respectively. The turning movement calculations have been provided in **Appendix E**.

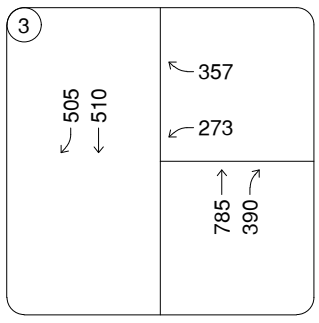
54TH AVENUE E @
12TH STREET E



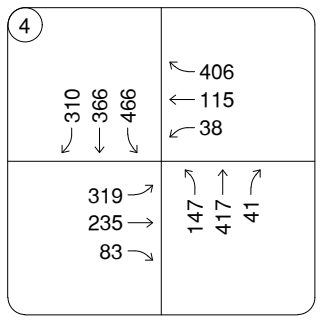
54TH AVENUE E @
PACIFIC HIGHWAY E (SR-99)



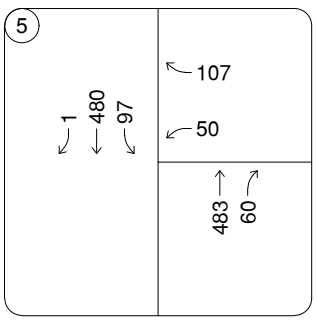
54TH AVENUE E @
I-5 SOUTHBOUND RAMPS



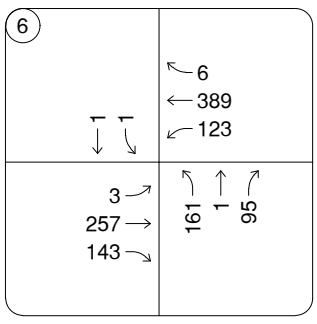
54TH AVENUE E @
20TH STREET E



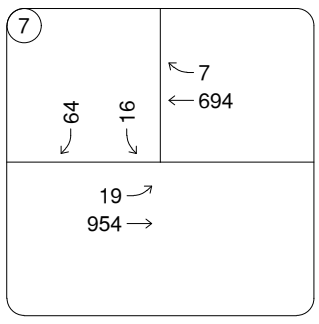
54TH AVENUE E @
23RD STREET E



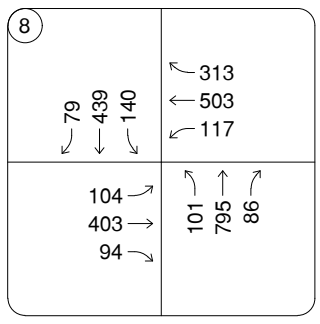
54TH AVENUE E @
VALLEY AVENUE E



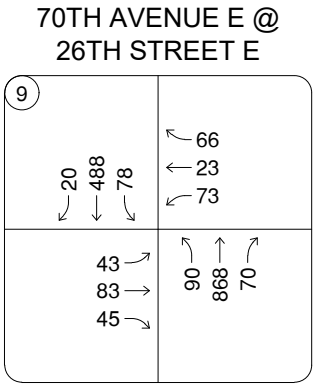
70TH AVENUE E @
PACIFIC HIGHWAY E (SR-99)



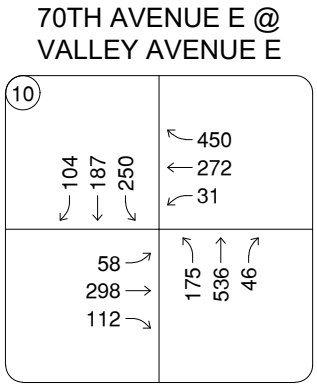
70TH AVENUE E @
20TH STREET E



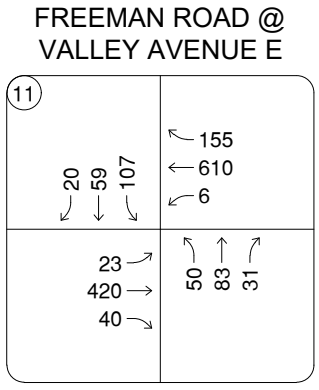
70TH AVENUE E @
26TH STREET E



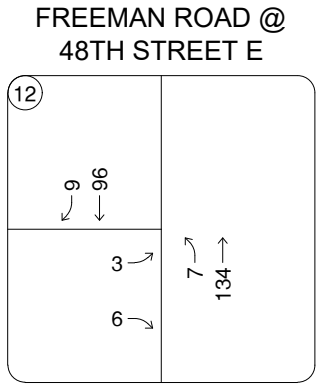
70TH AVENUE E @
VALLEY AVENUE E



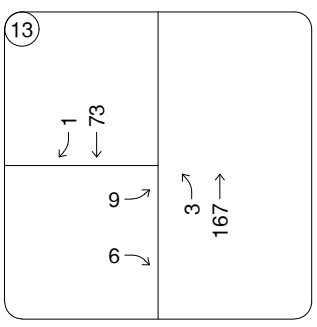
FREEMAN ROAD @
VALLEY AVENUE E



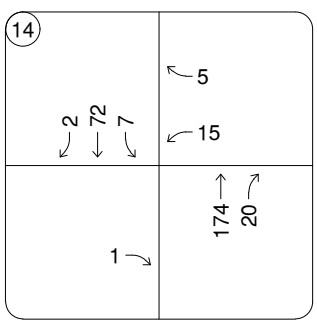
FREEMAN ROAD @
48TH STREET E



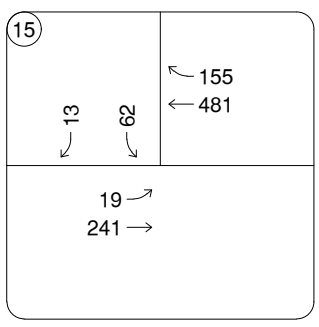
FREEMAN ROAD @
50TH STREET E



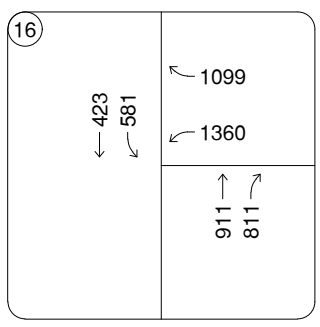
FREEMAN ROAD @
52ND STREET E



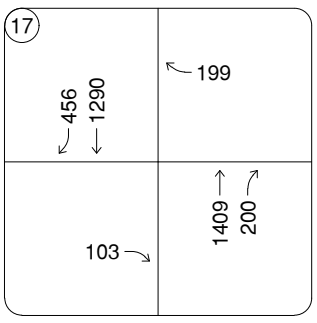
FREEMAN ROAD @
N LEVEE ROAD E



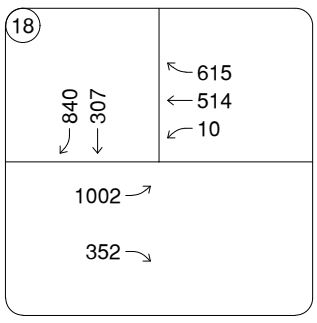
N MERIDIAN (SR-161) @
SR-167



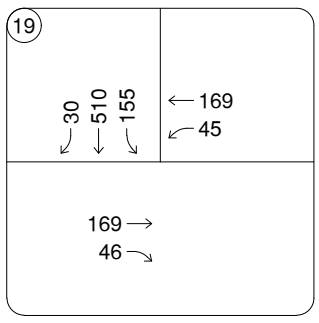
N MERIDIAN (SR-161) @
N LEVEE ROAD



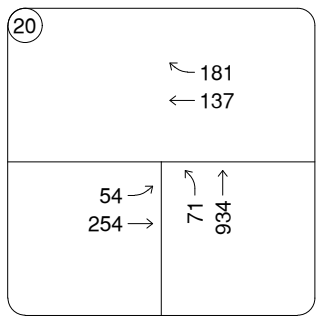
N MERIDIAN (SR-161) @
RIVER ROAD / 2ND STREET NE



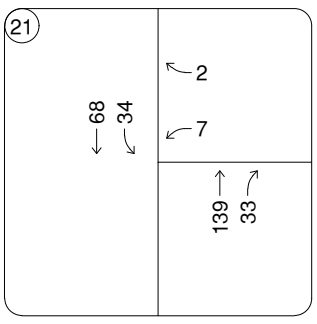
N MERIDIAN (SR-161) @
W STEWART AVENUE



2ND STREET NE @
W STEWART AVENUE



FREEMAN ROAD @
SITE ACCESS



FREEMAN ROAD LOGISTICS
(WAREHOUSING)
ITE LUC 150

CITY OF PUYALLUP

LEGEND

xx → AM PEAK–HOUR TURNING MOVEMENT VOLUMES

FIGURE 20

2028 FUTURE WITH DEVELOPMENT TURNING MOVEMENTS AM PEAK–HOUR

Kimley»Horn

Date: June 20, 2025 - 2:54pm / User: JoeyMiller
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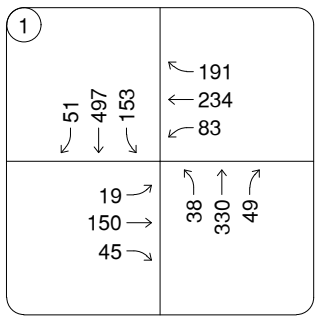
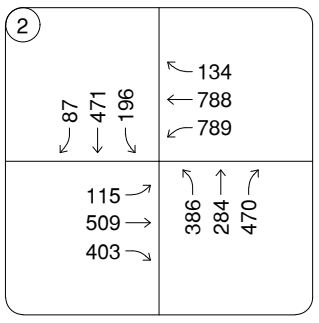
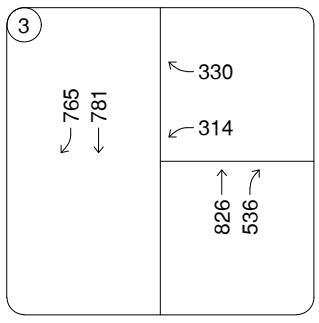
54TH AVENUE E @
12TH STREET E



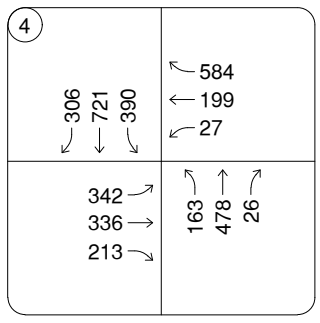
54TH AVENUE E @
PACIFIC HIGHWAY E (SR-99)



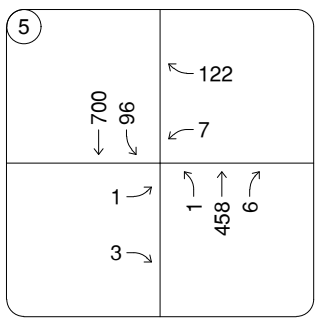
54TH AVENUE E @
I-5 SOUTHBOUND RAMPS



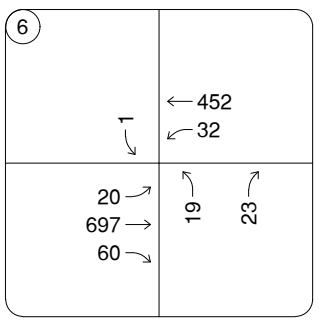
54TH AVENUE E @
20TH STREET E



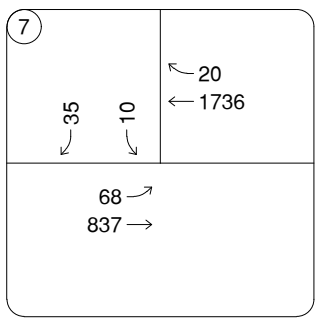
54TH AVENUE E @
23RD STREET E



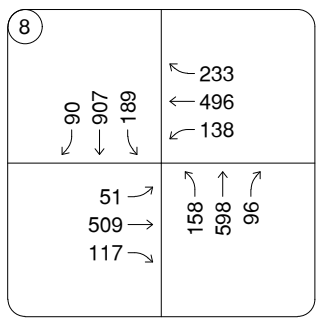
54TH AVENUE E @
VALLEY AVENUE E



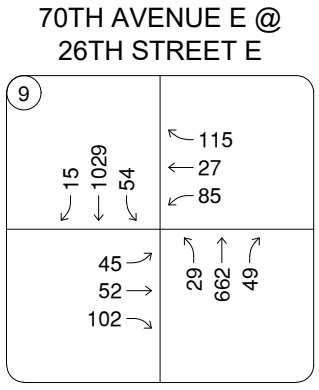
70TH AVENUE E @
PACIFIC HIGHWAY E (SR-99)



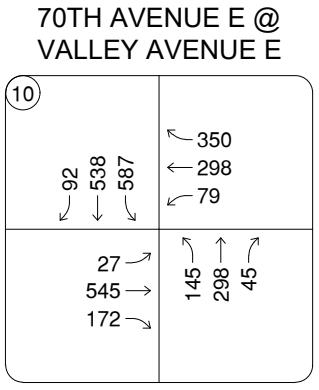
70TH AVENUE E @
20TH STREET E



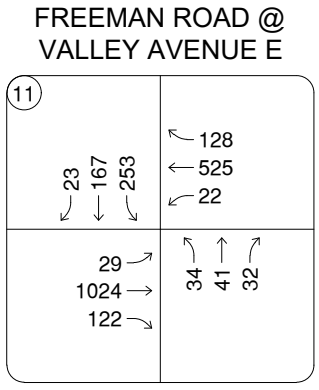
70TH AVENUE E @
26TH STREET E



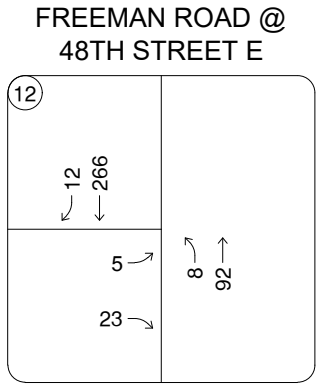
70TH AVENUE E @
VALLEY AVENUE E



FREEMAN ROAD @
VALLEY AVENUE E



FREEMAN ROAD @
48TH STREET E



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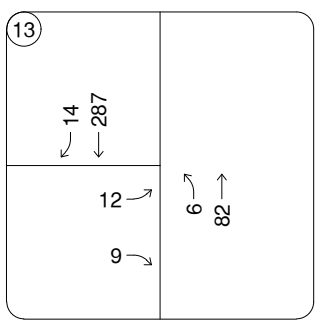
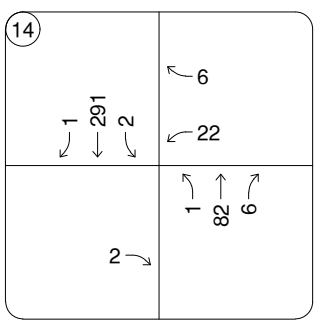
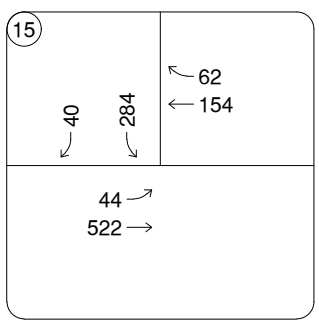
50TH STREET E



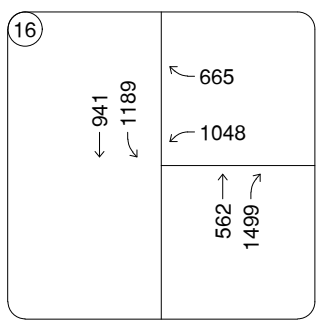
FREEMAN ROAD @
52ND STREET E



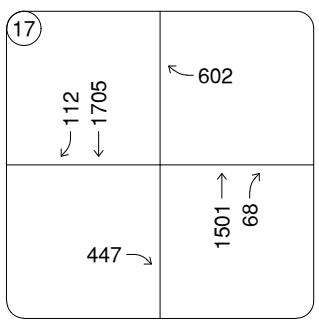
FREEMAN ROAD @
N LEVEE ROAD E



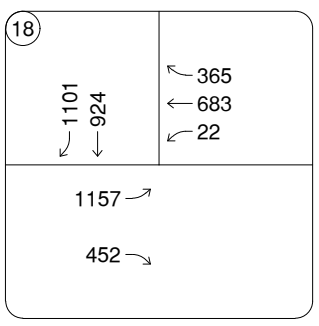
N MERIDIAN (SR-161) @
SR-167



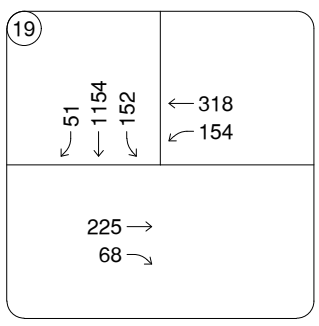
N MERIDIAN (SR-161) @
N LEVEE ROAD



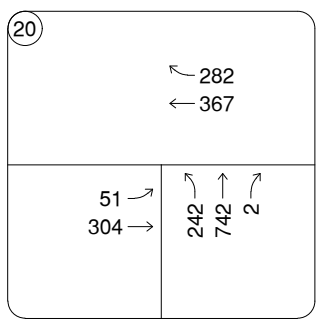
N MERIDIAN (SR-161) @
RIVER ROAD / 2ND STREET NE



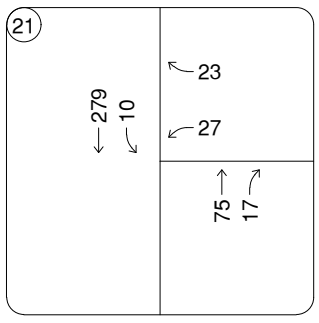
N MERIDIAN (SR-161) @
W STEWART AVENUE



2ND STREET NE @
W STEWART AVENUE



FREEMAN ROAD @
SITE ACCESS



FREEMAN ROAD LOGISTICS
(WAREHOUSING)
ITE LUC 150

CITY OF PUYALLUP

LEGEND

xx → PM PEAK–HOUR TURNING MOVEMENT VOLUMES

FIGURE 21

2028 FUTURE WITH DEVELOPMENT TURNING MOVEMENTS PM PEAK–HOUR

Kimley»Horn

Date: June 20, 2025 - 2:54pm / User: JoeyMiller
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7.3 LOS Analysis - Warehousing

Intersection LOS was analyzed for each of the study intersections for the 2028 future with development scenario. The City of Fife has a LOS standard of LOS D for intersections; however, if an intersection is already forecasted to operate worse than LOS D before development trips are added, then a development is allowed to proceed unless it degrades the LOS further with just the development trips (Fife Municipal Code 17.08.030). The City of Puyallup has adopted LOS D as the standard except for the Meridian Avenue corridor where LOS E is acceptable (Transportation Element T-3.2). SR-99 has a LOS standard of LOS D.

There are a number of intersections that, with baseline growth, would not meet jurisdictional standards. However, many of those intersections are parallel to the newly funded SR-167 Completion Project that would draw traffic (approximately 900 to 2,000 peak hour trips from study intersections) and result in improved operations. The WSDOT phase 1 environmental documentation identified that all the same Development study intersections along N Meridian and 54th Avenue intersections would operate at LOS D or better in the year 2045 for the critical PM peak hour with just the Phase I SR-167 Completion Project. Study intersection #2 (54th Avenue E at Pacific Highway E (SR-99)) of this report is study intersection #15 in the Puget Sound Gateway Program (PSGP) Phase 1 NEPA/SEPA environmental reevaluation study. Similarly, study intersections #4, (54th Avenue E at 20th Street E), #16 (N Meridian Avenue (SR-161) at SR-167), #17 (N Meridian Avenue (SR-161) at N Levee Road), and #18 (N Meridian Avenue (SR-161) at River Road/2nd Street NE) in this report are study intersections #12, #36, #34, and #32, respectively, in the WSDOT study. The WSDOT forecasts are documented in Puget Sound Gateway Program – Phase 1 report. Specific volume change and LOS results are documented in **Appendix H** of this study.

The intersection of Freeman Road at N Levee Road E operates at acceptable LOS C or better with or without the Development for the Warehousing condition. It operates at LOS C with the SR-167 Completion Project. An improvement identified for improved operations at this off-site intersection has been additional channelization consisting of a dedicated southbound right-turn lane on Freeman Road and left-turn refuge lanes on N Levee Road E which would provide additional capacity at this intersection. Based on the future with project volumes of the high-cube transload short-term storage warehouse analysis, the Development accounts for 44 trips or 3.98% of the total entering 2028 PM peak-hour volumes for this off-site intersection. The channelization improvement would reduce the delay by 10.9 seconds and operate at LOS C even before the SR-167 Completion Project.

The future LOS at the study intersections is summarized in **Table 10** and *** Total** *number of Development trips to impact intersection*

Table 11 for the AM and PM peak hours, respectively. The complete LOS for the AM and PM peak hours have been provided in **Appendix E**.

Table 10: Weekday AM Peak Hour LOS Summary - Warehousing

Intersection		Control Type	2028 Baseline Conditions			2028 Future w/ Conditions			
			LOS	Delay	v/c	LOS	Delay	v/c	Trips*
1.	54th Ave E at 12th St E	Signal	B	16.5 sec	0.64	B	16.6 sec	0.65	9
2.	54th Ave E at Pacific Hwy E (SR-99)	Signal	**F**	**83.7 sec**	**1.50**	**F**	**83.8 sec**	**1.50**	9
	- With Improvement	Optimized Splits	---	---	---	**E**	**67.7 sec**	**1.13**	
	- SR-167 in 2045	WSDOT FEIS	**E**	**---**	**---**	**E**	**---**	**---**	
	- Extrapolated FEIS in 2030	---	---	---	---	D	49.9 sec	0.82	
3.	54th Ave E at I-5 Southbound Ramps	Signal	B	18.0 sec	0.90	B	18.4 sec	0.91	14
4.	54th Ave E at 20th St E	Signal	**E**	**58.0 sec**	**0.91**	**E**	**58.9 sec**	**0.92**	22
	- With Improvement	Optimized Splits	---	---	---	**E**	**59.7 sec**	**0.95**	
	- SR-167 in 2045	WSDOT FEIS	**E**	**---**	**---**	D	---	---	
5.	54th Ave E at 23rd St E	Signal	A	8.7 sec	0.59	A	8.8 sec	0.59	22
6.	54th Ave E at Valley Ave E	Signal	B	16.8 sec	0.89	B	17.0 sec	0.89	22
7.	70th Ave E at Pacific Hwy E (SR-99)	Signal	B	14.7 sec	0.55	B	14.7 sec	0.55	11
8.	70th Ave E at 20th St E	Signal	D	49.8 sec	0.94	D	49.8 sec	0.94	11
9.	70th Ave E at 26th St E	Signal	C	26.8 sec	0.63	C	26.8 sec	0.63	11
10.	70th Ave E at Valley Ave E	Signal	C	30.8 sec	0.69	C	31.2 sec	0.69	33
11.	Freeman Rd at Valley Ave E	Signal	C	23.2 sec	0.64	C	23.2 sec	0.64	33
	- With Improvement	SR-167 Reroute	---	---	---	B	19.3 sec	0.48	
12.	Freeman Rd at 48th St E	Minor-Leg Stop-Control	A	9.4 sec	---	A	9.5 sec	---	36
13.	Freeman Rd at 50th St E	Minor-Leg Stop-Control	A	9.5 sec	---	A	9.7 sec	---	40
14.	Freeman Rd at 52nd St E	Minor-Leg Stop-Control	B	10.4 sec	---	B	10.8 sec	---	40
15.	Freeman Rd at N Levee Rd E	Minor-Leg Stop-Control	C	20.7 sec	---	C	22.1 sec	---	40
	- With Improvement	Channelization	---	---	---	B	14.3 sec	---	
	- With Improvement	SR-167 Reroute	---	---	---	C	17.5 sec	---	
	- With Improvement	SR-167 Reroute + Channelization	---	---	---	B	12.9 sec	---	
16.	N Meridian Ave (SR-161) at SR-167	Signal	**E**	**65.5 sec**	**1.31**	**E**	**66.6 sec**	**1.31**	20
	- With Improvement	Optimized Splits	---	---	---	**E**	**56.9 sec**	**1.09**	
	- SR-167 in 2045	WSDOT FEIS	**E**	**---**	**---**	D	---	---	
17.	N Meridian Ave (SR-161) at N Levee Rd	Minor-Leg Stop-Control	D	30.3 sec	---	D	30.6 sec	---	31
18.	N Meridian Ave (SR-161) at River Rd/2nd St NE	Signal	**E**	**62.0 sec**	**1.15**	**E**	**62.5 sec**	**1.15**	11
	- With Improvement	Optimized Cycle	---	---	---	D	46.3 sec	1.01	
19.	N Meridian Ave (SR-161) at W Stewart Ave	Signal	C	30.5 sec	1.14	C	30.5 sec	1.14	1
20.	2nd St NE at W Stewart Ave	Signal	B	18.8 sec	0.69	B	18.9 sec	0.70	6
21.	Freeman Rd at Site Access	Minor-Leg Stop-Control	---	---	---	B	10.2 sec	---	76

** Total number of Development trips to impact intersection*

Table 11: Weekday PM Peak Hour LOS Summary - Warehousing

Intersection		Control Type	2028 Baseline Conditions			2028 Future w/ Conditions			
			LOS	Delay	v/c	LOS	Delay	v/c	Trips*
1.	54th Ave E at 12th St E	Signal	C	30.2 sec	1.03	C	30.1 sec	1.03	10
2.	54th Ave E at Pacific Hwy E (SR-99)	Signal	**F**	**94.6 sec**	**1.37**	**F**	**95.3 sec**	**1.37**	10
	- With Improvement	Optimized Splits	---	---	---	**F**	**81.2 sec**	**1.20**	
	- SR-167 in 2045	WSDOT FEIS	**E**	**---**	**---**	D	---	---	
3.	54th Ave E at I-5 Southbound Ramps	Signal	B	18.7 sec	0.95	B	19.1 sec	0.96	12
4.	54th Ave E at 20th St E	Signal	**E**	**75.7 sec**	**1.09**	**E**	**77.4 sec**	**1.09**	23
	- With Improvement	Optimized Splits	---	---	---	**E**	**76.8 sec**	**1.03**	
	- SR-167 in 2045	WSDOT FEIS	**E**	**---**	**---**	D	---	---	
5.	54th Ave E at 23rd St E	Signal	A	8.7 sec	0.53	A	8.8 sec	0.54	23
6.	54th Ave E at Valley Ave E	Signal	A	3.7 sec	0.50	A	3.7 sec	0.51	23
7.	70th Ave E at Pacific Hwy E (SR-99)	Signal	D	36.7 sec	1.00	D	36.9 sec	1.00	10
8.	70th Ave E at 20th St E	Signal	D	54.7 sec	1.04	D	54.8 sec	1.04	10
9.	70th Ave E at 26th St E	Signal	C	23.4 sec	0.74	C	23.4 sec	0.74	10
10.	70th Ave E at Valley Ave E	Signal	D	46.2 sec	0.87	D	46.3 sec	0.88	33
11.	Freeman Rd at Valley Ave E	Signal	C	30.5 sec	0.83	C	31.1 sec	0.84	31
	- With Improvement	SR-167 Reroute	---	---	---	C	26.0 sec	0.72	
12.	Freeman Rd at 48th St E	Minor-Leg Stop-Control	B	10.4 sec	---	B	10.5 sec	---	34
13.	Freeman Rd at 50th St E	Minor-Leg Stop-Control	B	10.8 sec	---	B	11.2 sec	---	33
14.	Freeman Rd at 52nd St E	Minor-Leg Stop-Control	B	11.4 sec	---	B	11.9 sec	---	44
15.	Freeman Rd at N Levee Rd E	Minor-Leg Stop-Control	D	28.0 sec	---	D	33.2 sec	---	44
	- With Improvement	Channelization	---	---	---	C	22.3 sec	---	
	- With Improvement	SR-167 Reroute	---	---	---	C	18.6 sec	---	
	- With Improvement	SR-167 Reroute + Channelization	---	---	---	C	15.0 sec	---	
16.	N Meridian Ave (SR-161) at SR-167	Signal	**F**	**150.5 sec**	**1.93**	**F**	**153.2 sec**	**1.94**	22
	- SR-167 in 2045	WSDOT FEIS	D	---	---	D	---	---	
17.	N Meridian Ave (SR-161) at N Levee Rd	Minor-Leg Stop-Control	**F**	**>300 sec**	**---**	**F**	**>300 sec**	**---**	33
	- SR-167 in 2045	WSDOT FEIS	B	---	---	A	---	---	
18.	N Meridian Ave (SR-161) at River Rd/2nd St NE	Signal	**F**	**82.5 sec**	**1.27**	**F**	**83.3 sec**	**1.27**	11
	- With Improvement	Optimized Cycle	---	---	---	**F**	**81.7 sec**	**1.15**	
	- SR-167 in 2045	WSDOT FEIS	**F**	**---**	**---**	C	---	---	
19.	N Meridian Ave (SR-161) at W Stewart Ave	Signal	C	24.2 sec	0.79	C	24.2 sec	0.79	5
20.	2nd St NE at W Stewart Ave	Signal	C	27.6 sec	0.88	C	27.6 sec	0.88	3
21.	Freeman Rd at Site Access	Minor-Leg Stop-Control	---	---	---	B	10.4 sec	---	78

** Total number of Development trips to impact intersection*

8. LUC 130 – INDUSTRIAL PARK

8.1 Trip Generation

Trip generation calculations for the Development are based on national statistics contained in the ITE (2021) *Trip Generation,* 11th Edition. An industrial park contains three or more individual industrial or related facilities and is characterized by a mix of manufacturing, service, and warehouse facilities with a wide variation in the proportion of each type of use from one location to another. The average trip generation rates for LUC 130, Industrial Park, and LUC 210, Single-Family Detached Housing, have been used for the trip generation calculations of the Development for this scenario. The trip generation calculations are summarized in **Table 12**.

Table 12: Total Vehicle Trip Generation Summary

Land Use	Size	ADTs	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
Industrial Park (Building A) LUC 130	238,525 SF	803.83	65.69	14.51	81.10	17.84	63.26	81.10
Industrial Park (Building B) LUC 130	266,911 SF	899.49	73.51	17.24	90.75	19.97	70.78	90.75
Single-Family Detached LUC 210	-14 units	-132.02	-2.55	-7.25	-9.80	-8.29	-4.87	-13.16
TOTAL		**1,571.30**	**136.65**	**25.40**	**162.05**	**29.52**	**129.17**	**158.69**

Under the Industrial Park use, the Development is anticipated to generate approximately 1,571 new daily trips with 162 new AM peak hour trips and 159 new PM peak hour trips.

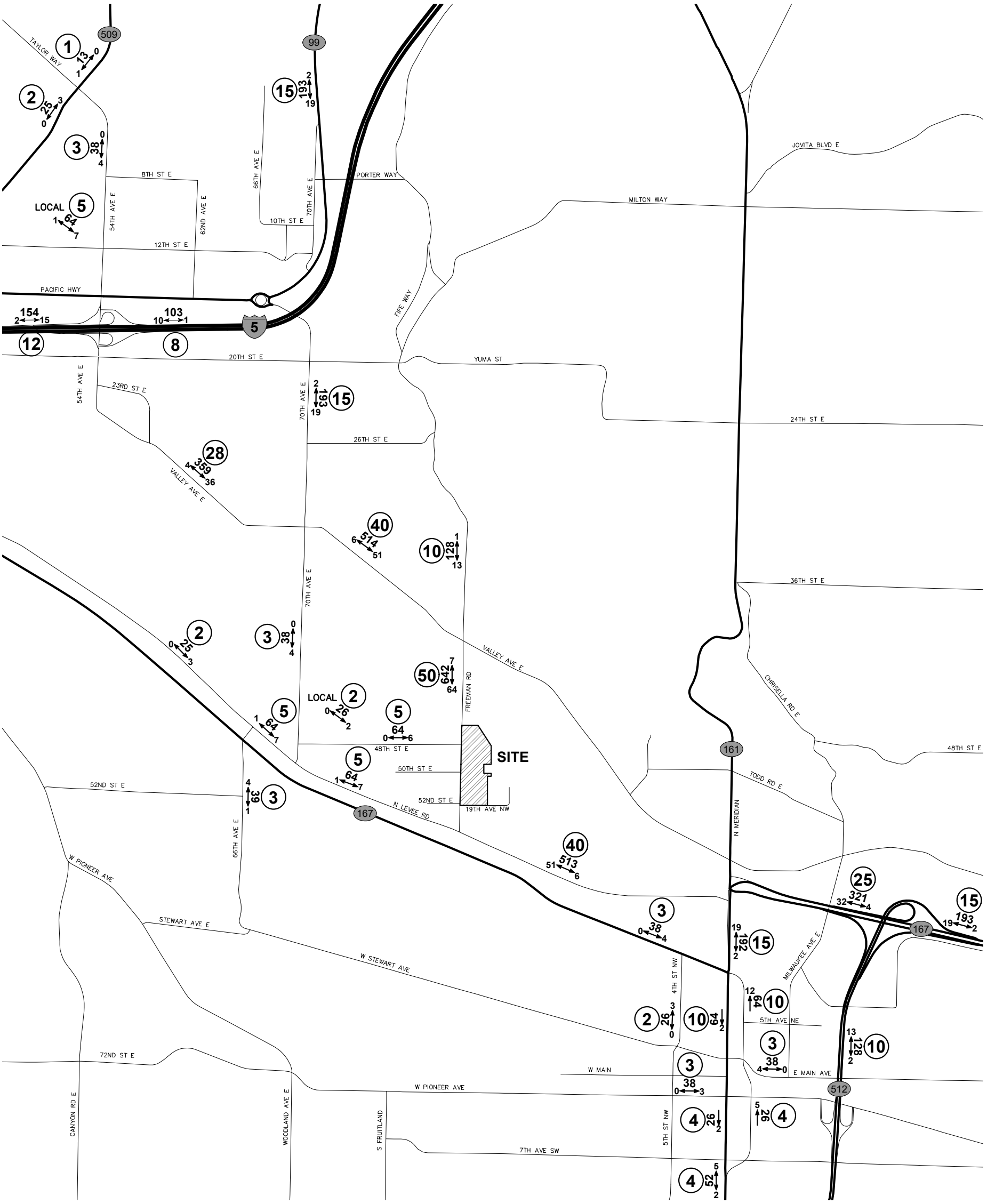
The ITE provides specific trip generation rates for heavy trucks for the specified land uses. The Development's expected truck trip generation are summarized in **Table 13**.

Table 13: Truck Trip Generation Summary

505,436 SF Industrial Park LUC 130	ADTs			AM Peak Hour Trips			PM Peak Hour Trips		
	In	Out	Total	In	Out	Total	In	Out	Total
Generation Rate	0.57 trips per 1,000 SF			0.04 trips per 1,000 SF			0.04 trips per 1,000 SF		
Splits	50%	50%	100%	45%	55%	100%	38%	62%	100%
Trips	144.05	144.05	288.10	9.10	11.12	20.22	7.69	12.53	20.22

Under the Industrial Park land use, the Development is anticipated to generate approximately 288 new average daily truck trips with 20 new AM peak hour truck trips and 20 new PM peak hour truck trips. The trip generation calculations — including truck trip generation rates — are included in **Appendix F**.

The car trip distribution under industrial park conditions for the AM and PM peak hours is included in **Figure 22** and **Figure 23**. The truck trip distribution under warehousing conditions for the AM and PM peak hours is included in **Figure 24** and **Figure 25**. A summary of the total site traffic under warehousing conditions during the AM and PM peak hours is included in **Figure 26** and **Figure 27**, respectively.



FREEMAN ROAD LOGISTICS
(INDUSTRIAL PARK)
ITE LUC 130

CITY OF PUYALLUP

LEGEND

AWDT
AM ↔ PEAK — NEW DAILY TRAFFIC / NEW PEAK-HOUR TRIPS

(XX) — TRIP DISTRIBUTION

FIGURE 22
DEVELOPMENT
TRIP DISTRIBUTION
AM PEAK-HOUR
CAR TRIPS

Kimley»Horn

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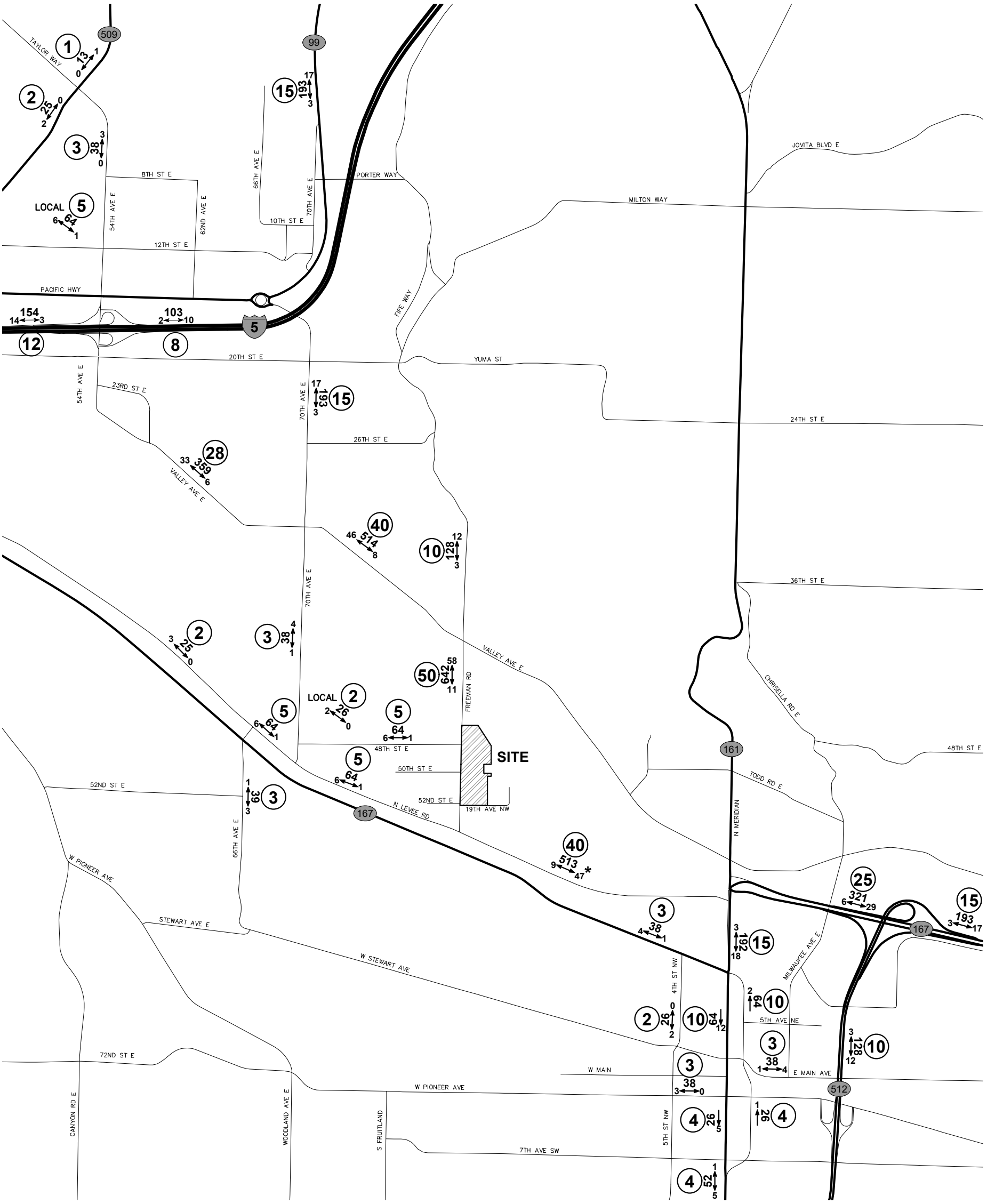

FREEMAN ROAD LOGISTICS (INDUSTRIAL PARK) ITE LUC 130

CITY OF PUYALLUP

LEGEND

AWDT PM ↔ PEAK	NEW DAILY TRAFFIC NEW PEAK-HOUR TRIPS
(XX)	TRIP DISTRIBUTION
*	ONE (1) ADDITIONAL OUTBOUND TRIP

FIGURE 23

DEVELOPMENT TRIP DISTRIBUTION PM PEAK-HOUR CAR TRIPS

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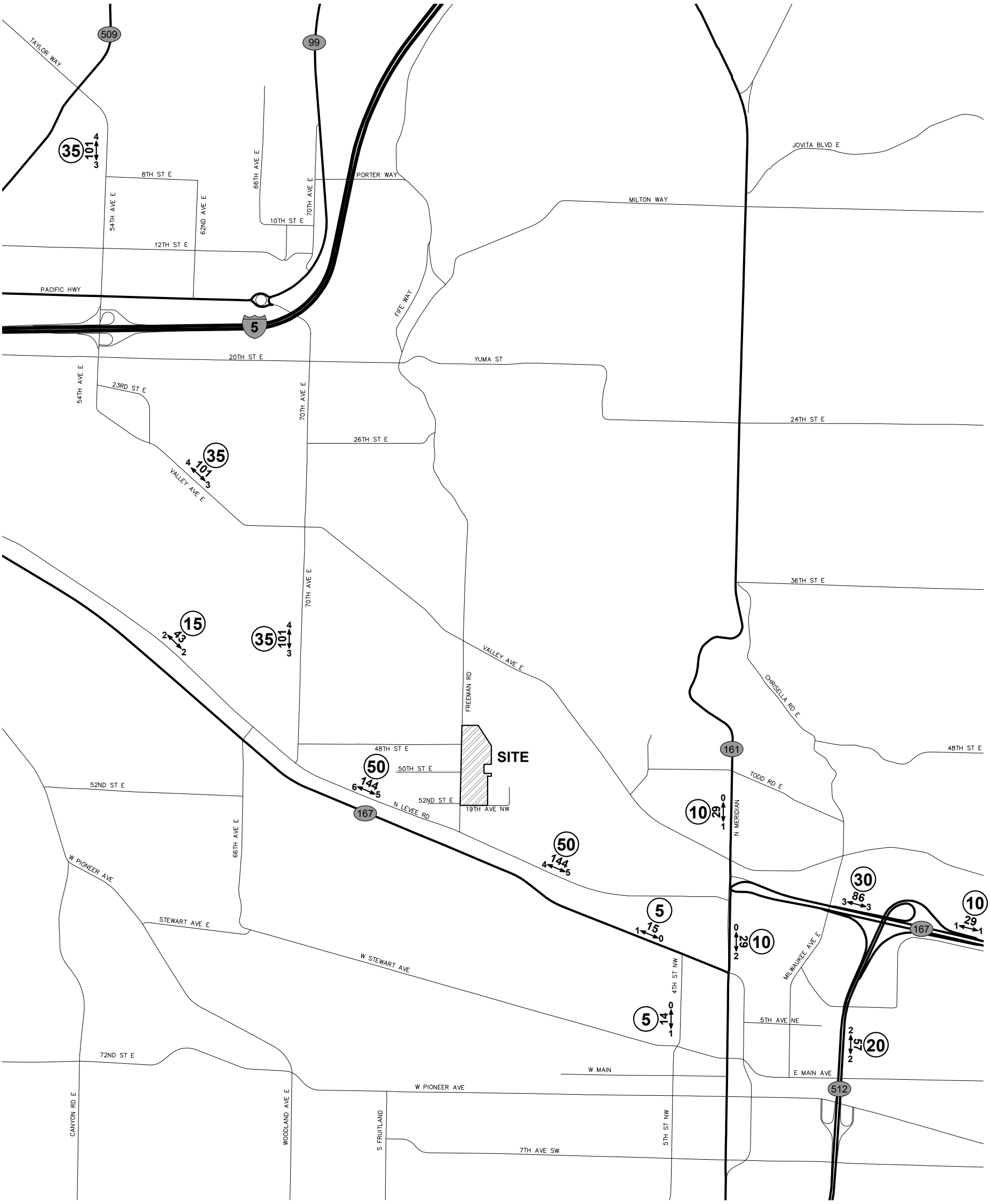

NORTH

FREEMAN ROAD LOGISTICS (INDUSTRIAL PARK) ITE LUC 130

CITY OF PUYALLUP

LEGEND

AWDT
AM ↔ PEAK — NEW DAILY TRAFFIC / NEW PEAK-HOUR TRIPS

XX — TRIP DISTRIBUTION

FIGURE 24

DEVELOPMENT
TRIP DISTRIBUTION
AM PEAK-HOUR
TRUCK TRIPS

Kimley»Horn

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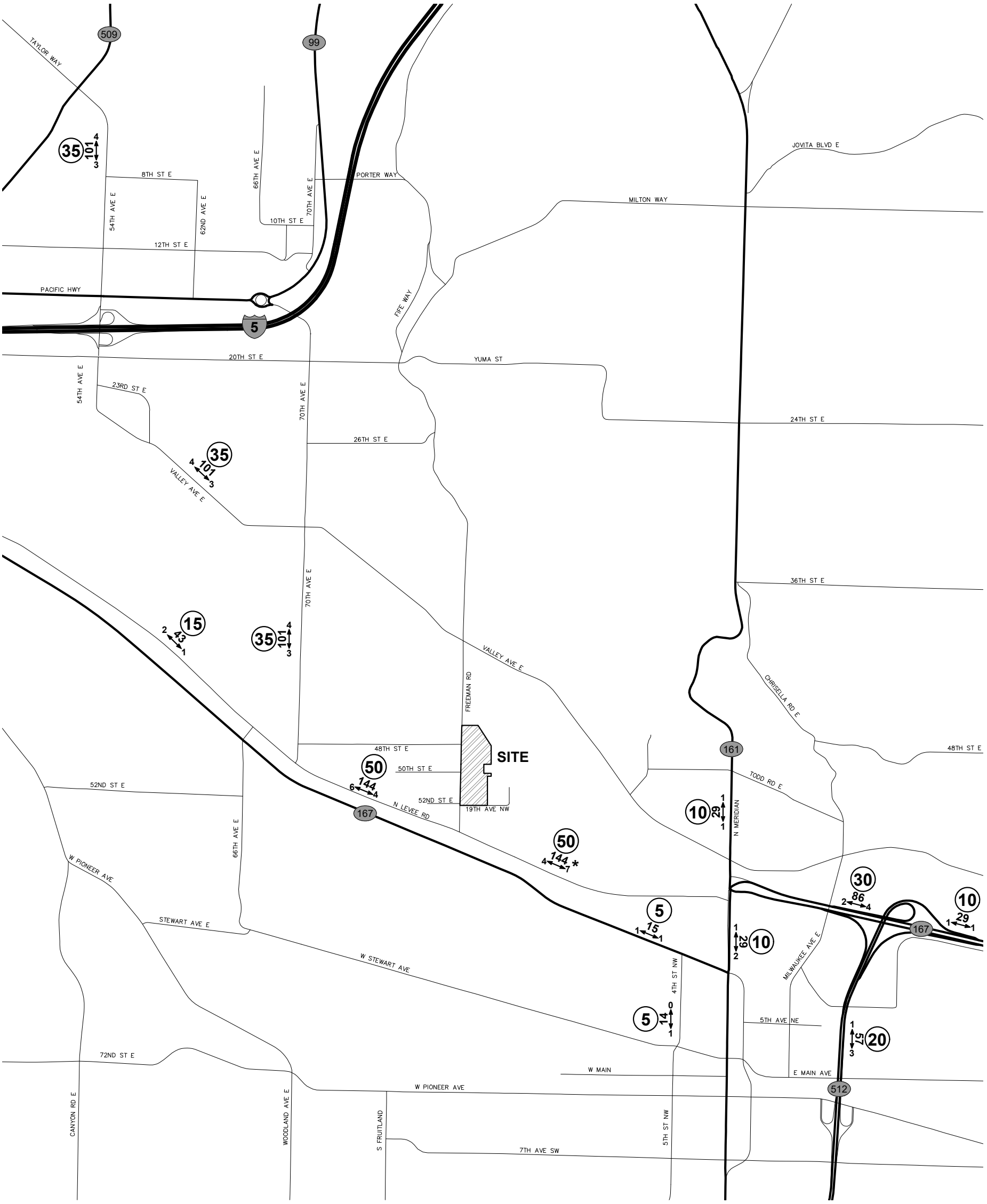

NORTH

FREEMAN ROAD LOGISTICS (INDUSTRIAL PARK) ITE LUC 130

CITY OF PUYALLUP

LEGEND

AWDT PM ←→ PEAK	NEW DAILY TRAFFIC NEW PEAK–HOUR TRIPS
(XX)	TRIP DISTRIBUTION
*	ONE (1) ADDITIONAL OUTBOUND TRIP

FIGURE 25

DEVELOPMENT
TRIP DISTRIBUTION
PM PEAK–HOUR
TRUCK TRIPS

Kimley»Horn

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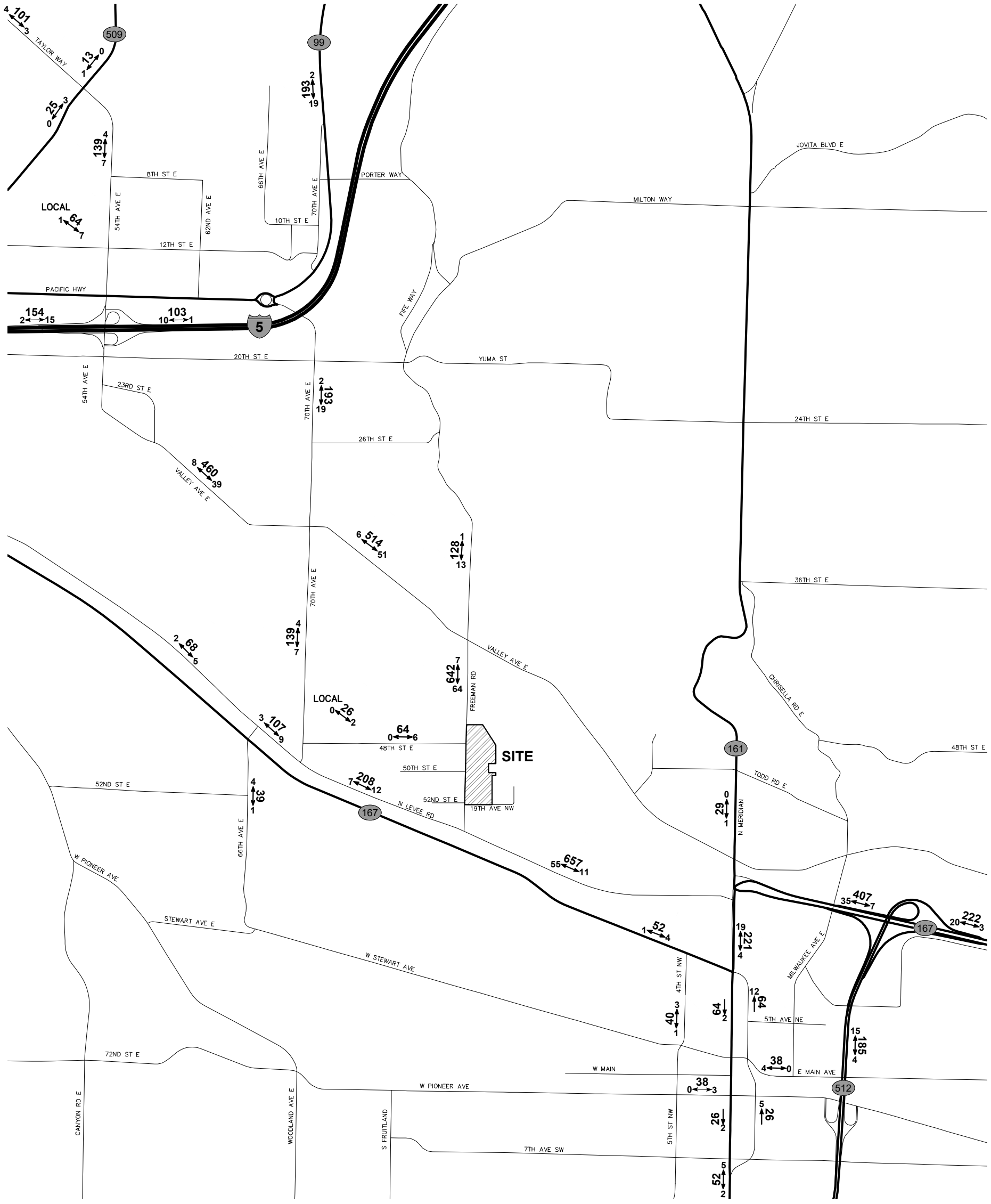

FREEMAN ROAD LOGISTICS (INDUSTRIAL PARK) ITE LUC 130

CITY OF PUYALLUP

LEGEND

AWDT
AM ↔ PEAK — NEW DAILY TRAFFIC / NEW PEAK-HOUR TRIPS

XX — TRIP DISTRIBUTION

FIGURE 26

TOTAL DEVELOPMENT
TRIP DISTRIBUTION
AM PEAK-HOUR
CARS AND TRUCKS

Kimley»Horn

Date: June 23, 2024 - 6:00pm / User: Joey.miller
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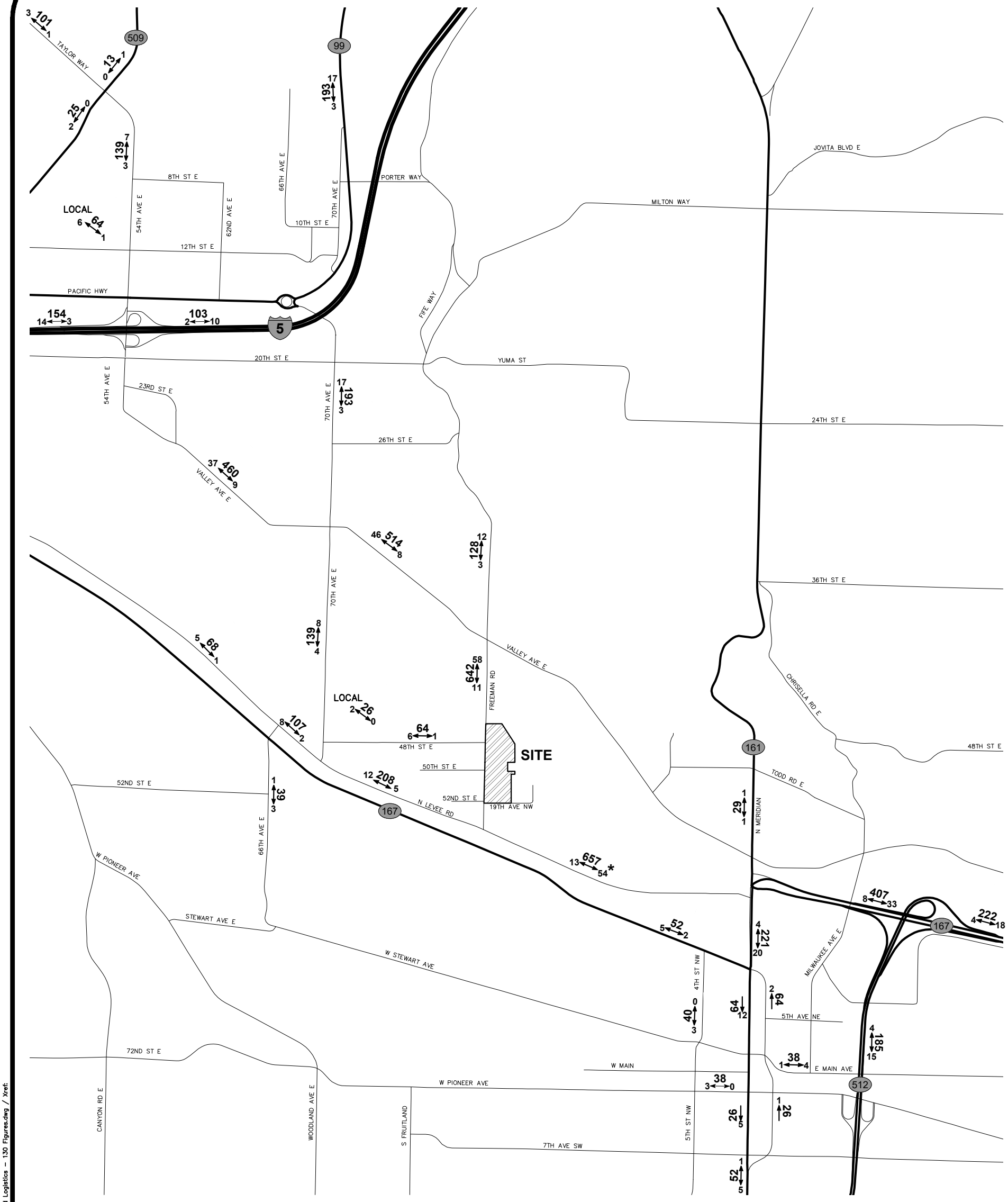

NORTH

FREEMAN ROAD LOGISTICS (INDUSTRIAL PARK) ITE LUC 130

CITY OF PUYALLUP

LEGEND

AWDT / PM ↔ PEAK	NEW DAILY TRAFFIC NEW PEAK-HOUR TRIPS
XX	TRIP DISTRIBUTION
*	ONE (1) ADDITIONAL OUTBOUND TRIP

FIGURE 27

TOTAL DEVELOPMENT
TRIP DISTRIBUTION
PM PEAK-HOUR
CARS AND TRUCKS

Kimley»Horn

Date: June 23, 2024 - 6:00pm / User: Joey.miller
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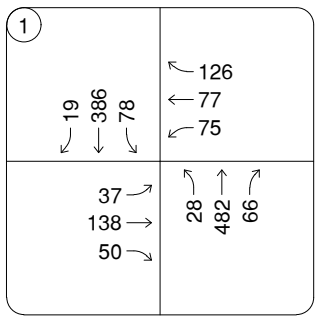
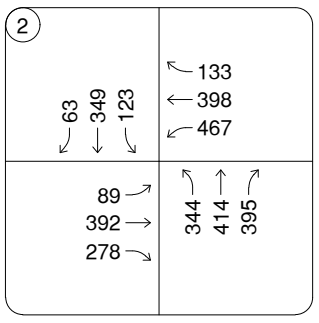
8.2 2028 Future with Development

The 2028 future with development turning movements at the study intersections were calculated by adding the trips generated by the Development to the 2028 baseline turning movements. The trips generated by the Development are based on the AM and PM peak hour trip distributions under the industrial park scenario. Turning movements for the 2028 future with development conditions are shown in **Figure 28** and **Figure 29** for the AM and PM peak hours, respectively. The turning movement calculations have been provided in **Appendix F**.

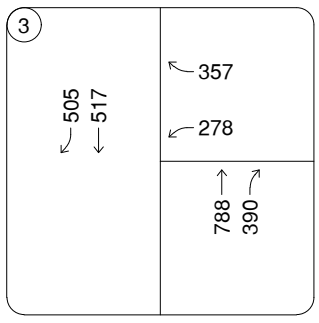
54TH AVENUE E @
12TH STREET E



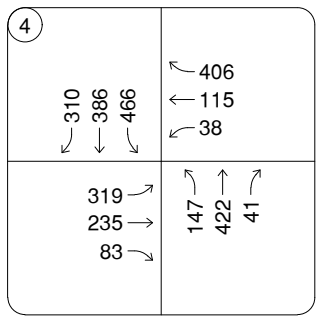
54TH AVENUE E @
PACIFIC HIGHWAY E (SR-99)



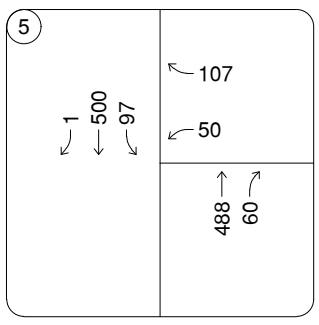
54TH AVENUE E @
I-5 SOUTHBOUND RAMPS



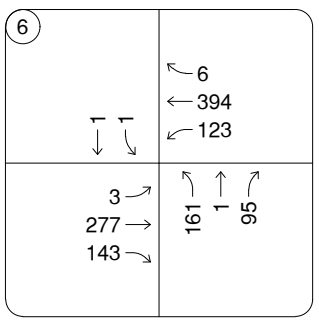
54TH AVENUE E @
20TH STREET E



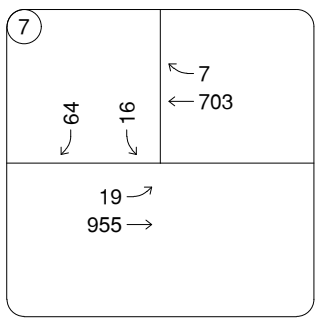
54TH AVENUE E @
23RD STREET E



54TH AVENUE E @
VALLEY AVENUE E



70TH AVENUE E @
PACIFIC HIGHWAY E (SR-99)



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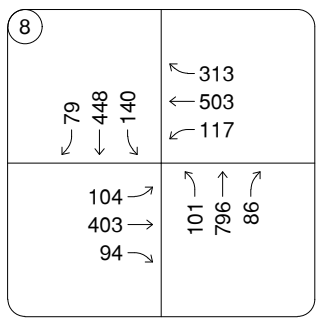

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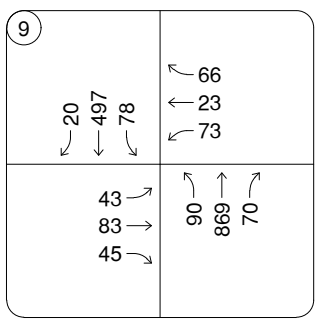

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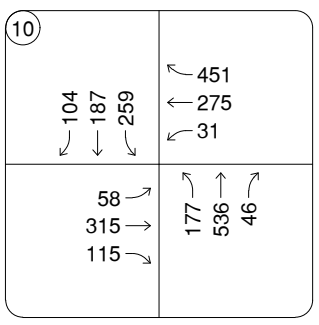
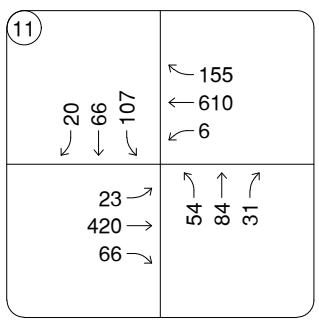
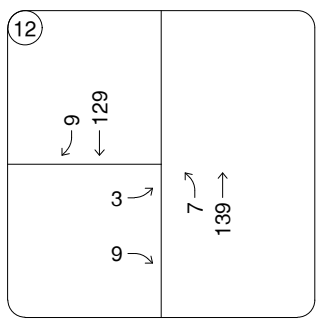
VALLEY AVENUE E



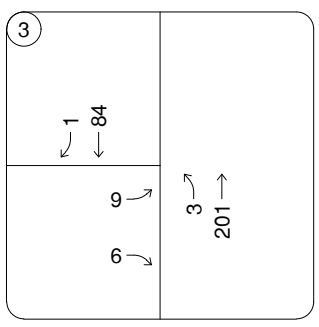
FREEMAN ROAD @
VALLEY AVENUE E



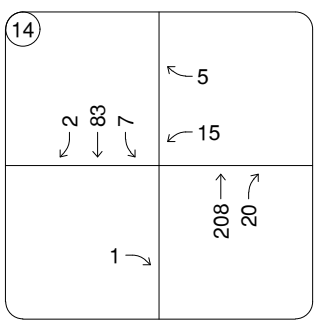
FREEMAN ROAD @
48TH STREET E



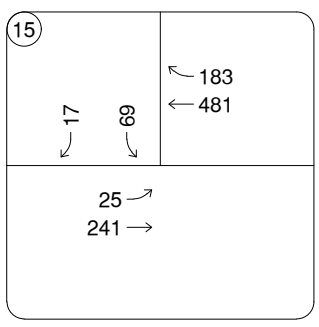
FREEMAN ROAD @
50TH STREET E



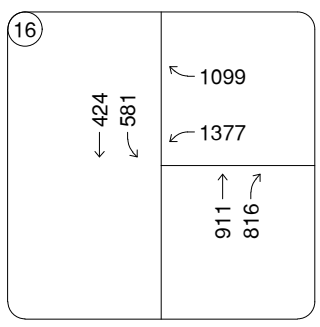
FREEMAN ROAD @
52ND STREET E



FREEMAN ROAD @
N LEVEE ROAD E



N MERIDIAN (SR-161) @
SR-167



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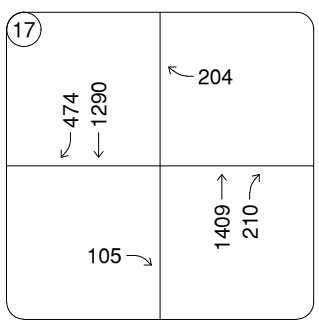
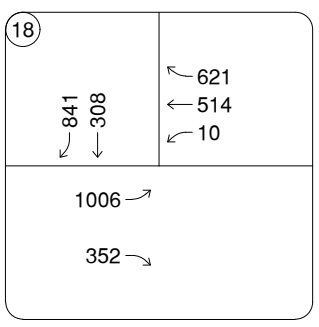
N LEVEE ROAD



N MERIDIAN (SR-161) @
RIVER ROAD / 2ND STREET NE



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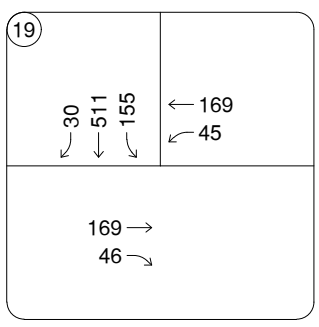
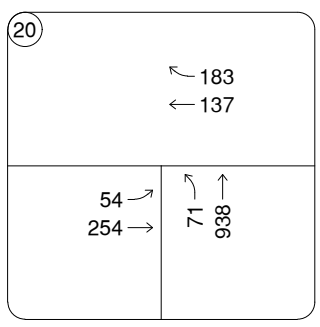
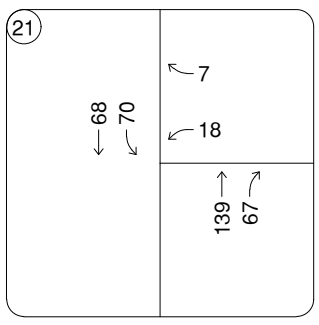
W STEWART AVENUE



2ND STREET NE @
W STEWART AVENUE



FREEMAN ROAD @
SITE ACCESS



FREEMAN ROAD LOGISTICS
(INDUSTRIAL PARK)
ITE LUC 130

CITY OF PUYALLUP

LEGEND

xx → AM PEAK–HOUR TURNING MOVEMENT VOLUMES

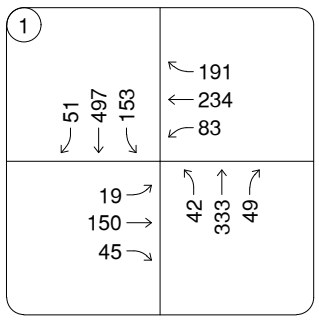
FIGURE 28

2028 FUTURE WITH DEVELOPMENT TURNING MOVEMENTS AM PEAK–HOUR

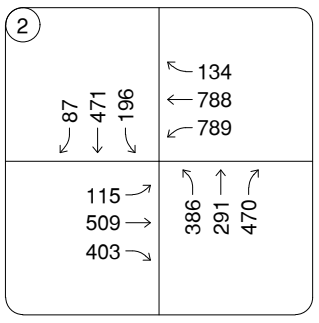
Kimley»Horn

Date: June 20, 2025 - 2:53pm / User: JoeyMiller
Path: K:\SNO_TPTO\2022\22-083 Freeman Rd Logistics_Update 2024 September\Figures\03_130\Freeman Rd Logistics - 130 Figures.dwg / Xref:

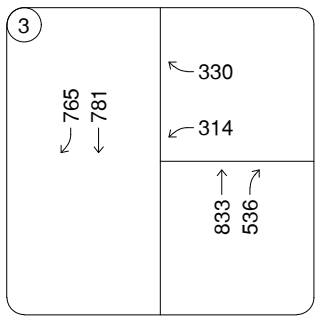
54TH AVENUE E @
12TH STREET E



54TH AVENUE E @
PACIFIC HIGHWAY E (SR-99)



54TH AVENUE E @
I-5 SOUTHBOUND RAMPS



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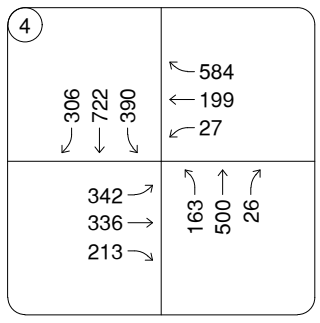
20TH STREET E



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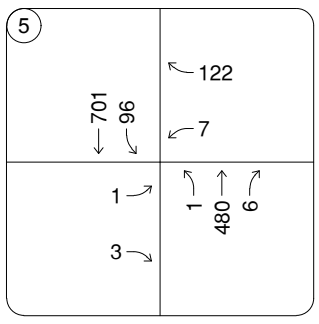
23RD STREET E



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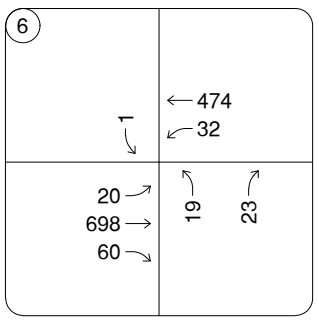
VALLEY AVENUE E



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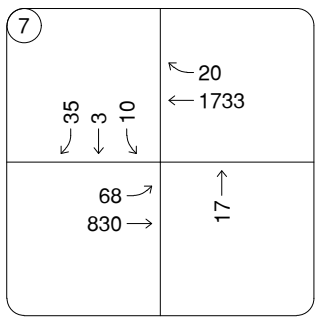
PACIFIC HIGHWAY E (SR-99)



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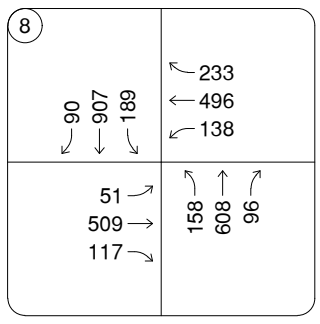

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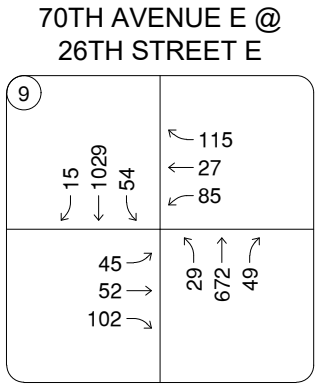
26TH STREET E



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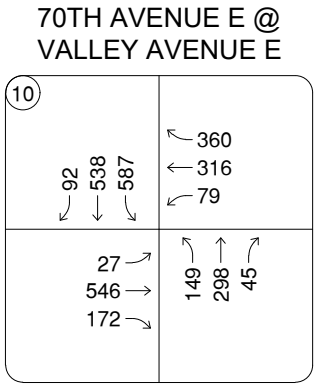
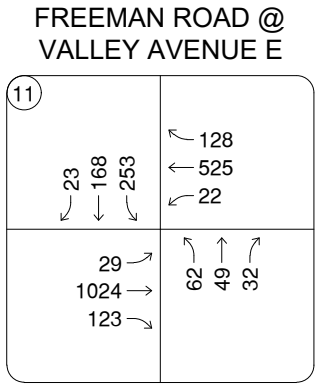


FREEMAN ROAD @
VALLEY AVENUE E



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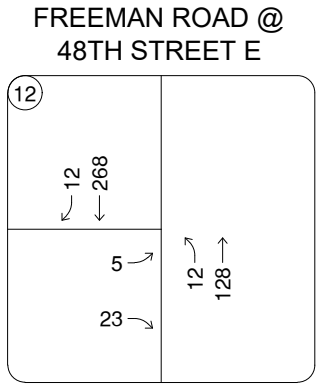
48TH STREET E



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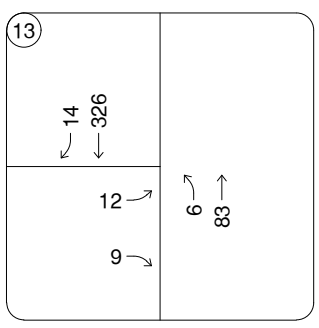
50TH STREET E



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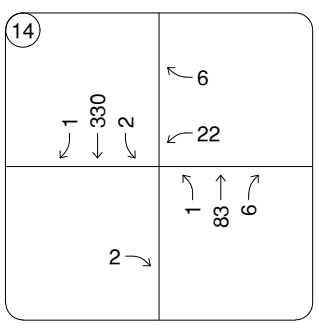
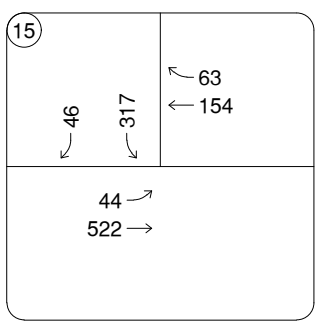
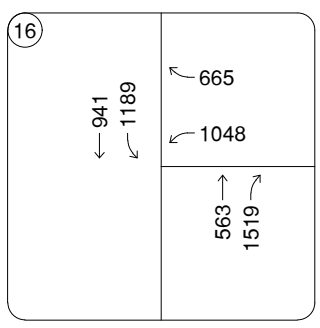


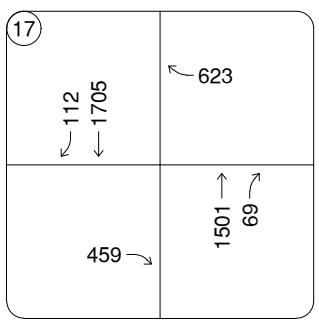
FREEMAN ROAD @
N LEVEE ROAD E



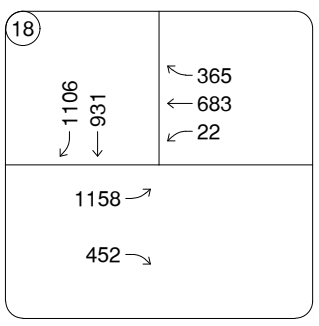
N MERIDIAN (SR-161) @
SR-167



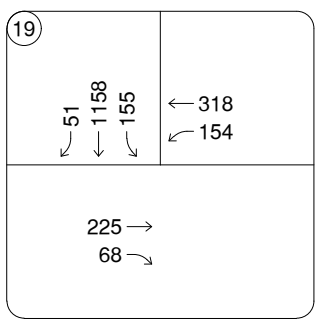
N MERIDIAN (SR-161) @
N LEVEE ROAD



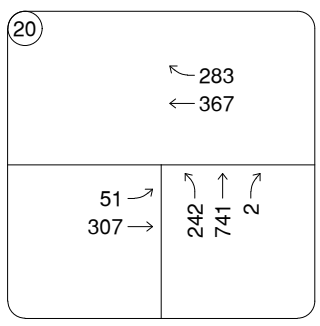
N MERIDIAN (SR-161) @
RIVER ROAD / 2ND STREET NE



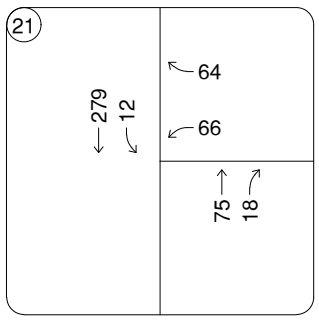
N MERIDIAN (SR-161) @
W STEWART AVENUE



2ND STREET NE @
W STEWART AVENUE



FREEMAN ROAD @
SITE ACCESS



FREEMAN ROAD LOGISTICS
(INDUSTRIAL PARK)
ITE LUC 130

CITY OF PUYALLUP

LEGEND

xx → PM PEAK–HOUR TURNING MOVEMENT VOLUMES

FIGURE 29

2028 FUTURE WITH DEVELOPMENT TURNING MOVEMENTS PM PEAK–HOUR

Kimley»Horn

Date: June 20, 2025 - 2:53pm / User: JoeyMiller
Path: K:\SNO_TPTO\2022\22-083 Freeman Rd Logistics_Update 2024 September\Figures\03_130\Freeman Rd Logistics - 130 Figures.dwg / Xref:

8.3 LOS Analysis – Industrial Park

Intersection LOS was analyzed for each of the study intersections for the 2028 future with development scenario. The City of Fife has a LOS standard of LOS D for intersections; however, if an intersection is already forecasted to operate worse than LOS D before development trips are added, then a development is allowed to proceed unless it degrades the LOS further with just the development trips (Fife Municipal Code 17.08.030). The City of Puyallup has adopted LOS D as the standard except for the Meridian Avenue corridor where LOS E is acceptable (Transportation Element T-3.2). SR-99 has a LOS standard of LOS D.

There are a number of intersections that, with baseline growth, would not meet jurisdictional standards. However, many of those intersections are parallel to the newly funded SR-167 Completion Project that would draw traffic (approximately 900 to 2,000 peak hour trips from study intersections) and result in improved operations. The WSDOT phase 1 environmental documentation identified that all the same Development study intersections along N Meridian and 54th Avenue intersections would operate at LOS D or better in the year 2045 for the critical PM peak hour with just the Phase I SR-167 Completion Project. Study intersection #2 (54th Avenue E at Pacific Highway E (SR-99)) of this report is study intersection #15 in the Puget Sound Gateway Program (PSGP) Phase 1 NEPA/SEPA environmental reevaluation study. Similarly, study intersections #4, (54th Avenue E at 20th Street E), #16 (N Meridian Avenue (SR-161) at SR-167), #17 (N Meridian Avenue (SR-161) at N Levee Road), and #18 (N Meridian Avenue (SR-161) at River Road/2nd Street NE) in this report are study intersections #12, #36, #34, and #32, respectively, in the WSDOT study. The WSDOT forecasts are documented in Puget Sound Gateway Program – Phase 1 report. Specific volume change and LOS results are documented in **Appendix H** of this study.

The intersection of Freeman Road at N Levee Road E operates at acceptable LOS C or better with or without the Development for the Industrial Park condition. It operates at LOS C with the SR-167 Completion Project. An improvement identified for improved operations at this off-site intersection has been additional channelization consisting of a dedicated southbound right-turn lane on Freeman Road and left-turn refuge lanes on N Levee Road E which would provide additional capacity at this intersection. Based on the future with project volumes of the high-cube transload short-term storage warehouse analysis, the Development accounts for 84 trips or 7.33% of the total entering 2028 PM peak-hour volumes for this off-site intersection. The channelization improvement would reduce the delay by 16.9 seconds and operate at LOS D even before the SR-167 Completion Project.

The future LOS at the study intersections is summarized in **Table 14** and **Table 15** for the AM and PM peak hours, respectively. The complete LOS for the AM and PM peak hours have been provided in **Appendix F**.

Table 14: Weekday AM Peak Hour LOS Summary - Industrial Park

Intersection		Control Type	2028 Baseline Conditions			2028 Future w/ Conditions			
			LOS	Delay	v/c	LOS	Delay	v/c	Trips*
1.	54th Ave E at 12th St E	Signal	B	16.5 sec	0.64	B	16.7 sec	0.66	19
2.	54th Ave E at Pacific Hwy E (SR-99)	Signal	**F**	**83.7 sec**	**1.50**	**F**	**84.3 sec**	**1.50**	19
	- With Improvement	Optimized Splits	---	---	---	**E**	**68.5 sec**	**1.13**	
	- SR-167 in 2045	WSDOT FEIS	**E**	**---**	**---**	**E**	**---**	**---**	
	- Extrapolated FEIS in 2030	---	---	---	---	D	50.0 sec	0.82	
3.	54th Ave E at I-5 Southbound Ramps	Signal	B	18.0 sec	0.90	B	18.7 sec	0.92	29
4.	54th Ave E at 20th St E	Signal	**E**	**58.0 sec**	**0.91**	**E**	**59.9 sec**	**0.94**	47
	- With Improvement	Optimized Splits	---	---	---	**E**	**60.4 sec**	**0.96**	
	- SR-167 in 2045	WSDOT FEIS	**E**	**---**	**---**	D	---	---	
5.	54th Ave E at 23rd St E	Signal	A	8.7 sec	0.59	A	8.8 sec	0.60	47
6.	54th Ave E at Valley Ave E	Signal	B	16.8 sec	0.89	B	17.2 sec	0.89	47
7.	70th Ave E at Pacific Hwy E (SR-99)	Signal	B	14.7 sec	0.55	B	14.8 sec	0.55	21
8.	70th Ave E at 20th St E	Signal	D	49.8 sec	0.94	D	49.8 sec	0.94	21
9.	70th Ave E at 26th St E	Signal	C	26.8 sec	0.63	C	26.8 sec	0.63	21
10.	70th Ave E at Valley Ave E	Signal	C	30.8 sec	0.69	C	31.7 sec	0.69	68
11.	Freeman Rd at Valley Ave E	Signal	C	23.2 sec	0.64	C	24.1 sec	0.68	71
	- With Improvement	SR-167 Reroute	---	---	---	B	19.5 sec	0.48	
12.	Freeman Rd at 48th St E	Minor-Leg Stop-Control	A	9.4 sec	---	A	9.6 sec	---	77
13.	Freeman Rd at 50th St E	Minor-Leg Stop-Control	A	9.5 sec	---	A	9.9 sec	---	85
14.	Freeman Rd at 52nd St E	Minor-Leg Stop-Control	B	10.4 sec	---	B	11.2 sec	---	85
15.	Freeman Rd at N Levee Rd E	Minor-Leg Stop-Control	C	20.7 sec	---	C	24.1 sec	---	85
	- With Improvement	Channelization	---	---	---	B	14.7 sec	---	
	- With Improvement	SR-167 Reroute	---	---	---	C	18.6 sec	---	
	- With Improvement	SR-167 Reroute + Channelization	---	---	---	B	13.2 sec	---	
16.	N Meridian Ave (SR-161) at SR-167	Signal	**E**	**65.5 sec**	**1.31**	**E**	**67.6 sec**	**1.31**	43
	- With Improvement	Optimized Splits	---	---	---	**E**	**60.2 sec**	**1.14**	
	- SR-167 in 2045	WSDOT FEIS	**E**	**---**	**---**	D	---	---	
17.	N Meridian Ave (SR-161) at N Levee Rd	Minor-Leg Stop-Control	D	30.3 sec	---	D	31.5 sec	---	66
18.	N Meridian Ave (SR-161) at River Rd/2nd St NE	Signal	**E**	**62.0 sec**	**1.15**	**E**	**63.2 sec**	**1.15**	23
	- With Improvement	Optimized Cycle	---	---	---	D	46.8 sec	1.01	
19.	N Meridian Ave (SR-161) at W Stewart Ave	Signal	C	30.5 sec	1.14	C	30.5 sec	1.14	2
20.	2nd St NE at W Stewart Ave	Signal	B	18.8 sec	0.69	B	18.9 sec	0.70	12
21.	Freeman Rd at Site Access	Minor-Leg Stop-Control	---	---	---	B	11.1 sec	---	162

** Total number of Development trips to impact intersection*

Table 15: Weekday PM Peak Hour LOS Summary - Industrial Park

Intersection		Control Type	2028 Baseline Conditions			2028 Future w/ Conditions			
			LOS	Delay	v/c	LOS	Delay	v/c	Trips*
1.	54th Ave E at 12th St E	Signal	C	30.2 sec	1.03	C	30.0 sec	1.03	17
2.	54th Ave E at Pacific Hwy E (SR-99)	Signal	**F**	**94.6 sec**	**1.37**	**F**	**96.5 sec**	**1.37**	17
	- With Improvement	Optimized Splits	---	---	---	**E**	**82.4 sec**	**1.20**	
	- SR-167 in 2045	WSDOT FEIS	**E**	**---**	**---**	D	---	---	
3.	54th Ave E at I-5 Southbound Ramps	Signal	B	18.7 sec	0.95	B	19.2 sec	0.96	19
4.	54th Ave E at 20th St E	Signal	**E**	**75.7 sec**	**1.09**	**E**	**79.1 sec**	**1.09**	46
	- With Improvement	Optimized Splits	---	---	---	**E**	**77.5 sec**	**1.06**	
	- SR-167 in 2045	WSDOT FEIS	**E**	**---**	**---**	D	---	---	
5.	54th Ave E at 23rd St E	Signal	A	8.7 sec	0.53	A	9.0 sec	0.54	46
6.	54th Ave E at Valley Ave E	Signal	A	3.7 sec	0.50	A	3.7 sec	0.51	46
7.	70th Ave E at Pacific Hwy E (SR-99)	Signal	D	36.7 sec	1.00	D	36.7 sec	1.00	20
8.	70th Ave E at 20th St E	Signal	D	54.7 sec	1.04	D	54.8 sec	1.04	20
9.	70th Ave E at 26th St E	Signal	C	23.4 sec	0.74	C	23.4 sec	0.74	20
10.	70th Ave E at Valley Ave E	Signal	D	46.2 sec	0.87	D	46.3 sec	0.88	66
11.	Freeman Rd at Valley Ave E	Signal	C	30.5 sec	0.83	C	33.9 sec	0.88	69
	- With Improvement	SR-167 Reroute	---	---	---	C	28.0 sec	0.73	
12.	Freeman Rd at 48th St E	Minor-Leg Stop-Control	B	10.4 sec	---	B	10.7 sec	---	76
13.	Freeman Rd at 50th St E	Minor-Leg Stop-Control	B	10.8 sec	---	B	11.6 sec	---	84
14.	Freeman Rd at 52nd St E	Minor-Leg Stop-Control	B	11.4 sec	---	B	12.4 sec	---	84
15.	Freeman Rd at N Levee Rd E	Minor-Leg Stop-Control	D	28.0 sec	---	**E**	**42.4 sec**	**---**	84
	- With Improvement	Channelization	---	---	---	D	25.5 sec	---	
	- With Improvement	SR-167 Reroute	---	---	---	C	20.9 sec	---	
	- With Improvement	SR-167 Reroute + Channelization	---	---	---	C	16.0 sec	---	
16.	N Meridian Ave (SR-161) at SR-167	Signal	**F**	**150.5 sec**	**1.93**	**F**	**157.1 sec**	**1.97**	43
	- SR-167 in 2045	WSDOT FEIS	D	---	---	D	---	---	
17.	N Meridian Ave (SR-161) at N Levee Rd	Minor-Leg Stop-Control	**F**	**>300 sec**	**---**	**F**	**>300 sec**	**---**	67
	- SR-167 in 2045	WSDOT FEIS	B	---	---	A	---	---	
18.	N Meridian Ave (SR-161) at River Rd/2nd St NE	Signal	**F**	**82.5 sec**	**1.27**	**F**	**84.4 sec**	**1.27**	24
	- With Improvement	Optimized Cycle	---	---	---	**F**	**82.3 sec**	**1.16**	
	- SR-167 in 2045	WSDOT FEIS	**F**	**---**	**---**	C	---	---	
19.	N Meridian Ave (SR-161) at W Stewart Ave	Signal	C	24.2 sec	0.79	C	24.2 sec	0.79	12
20.	2nd St NE at W Stewart Ave	Signal	C	27.6 sec	0.88	C	27.6 sec	0.88	6
21.	Freeman Rd at Site Access	Minor-Leg Stop-Control	---	---	---	B	11.2 sec	---	160

** Total number of Development trips to impact intersection*

9. LUC 140 – MANUFACTURING

9.1 Trip Generation

Trip generation calculations for the Development are based on national statistics contained in the ITE (2021) *Trip Generation,* 11th Edition. The average trip generation rates for LUC 140, Manufacturing, and LUC 210, Single-Family Detached Housing, have been used for the trip generation calculations of the Development for this scenario. The trip generation calculations are summarized in **Table 16**.

Table 16: Total Vehicle Trip Generation Summary

Land Use	Size	ADTs	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
Manufacturing (Building A) LUC 140	238,525 SF	1,132.99	123.27	38.93	162.20	54.72	121.79	176.51
Manufacturing (Building B) LUC 140	266,911 SF	1,1267.83	137.94	43.56	181.50	61.23	132.28	197.51
Single-Family Detached LUC 210	-14 units	-132.02	-2.55	-7.25	-9.80	-8.29	-4.87	-13.16
TOTAL		**2,268.80**	**258.66**	**75.24**	**333.90**	**107.66**	**253.20**	**360.86**

Under the Manufacturing use, the Development is anticipated to generate approximately 2,269 new daily trips with 334 new AM peak hour trips and 361 new PM peak hour trips.

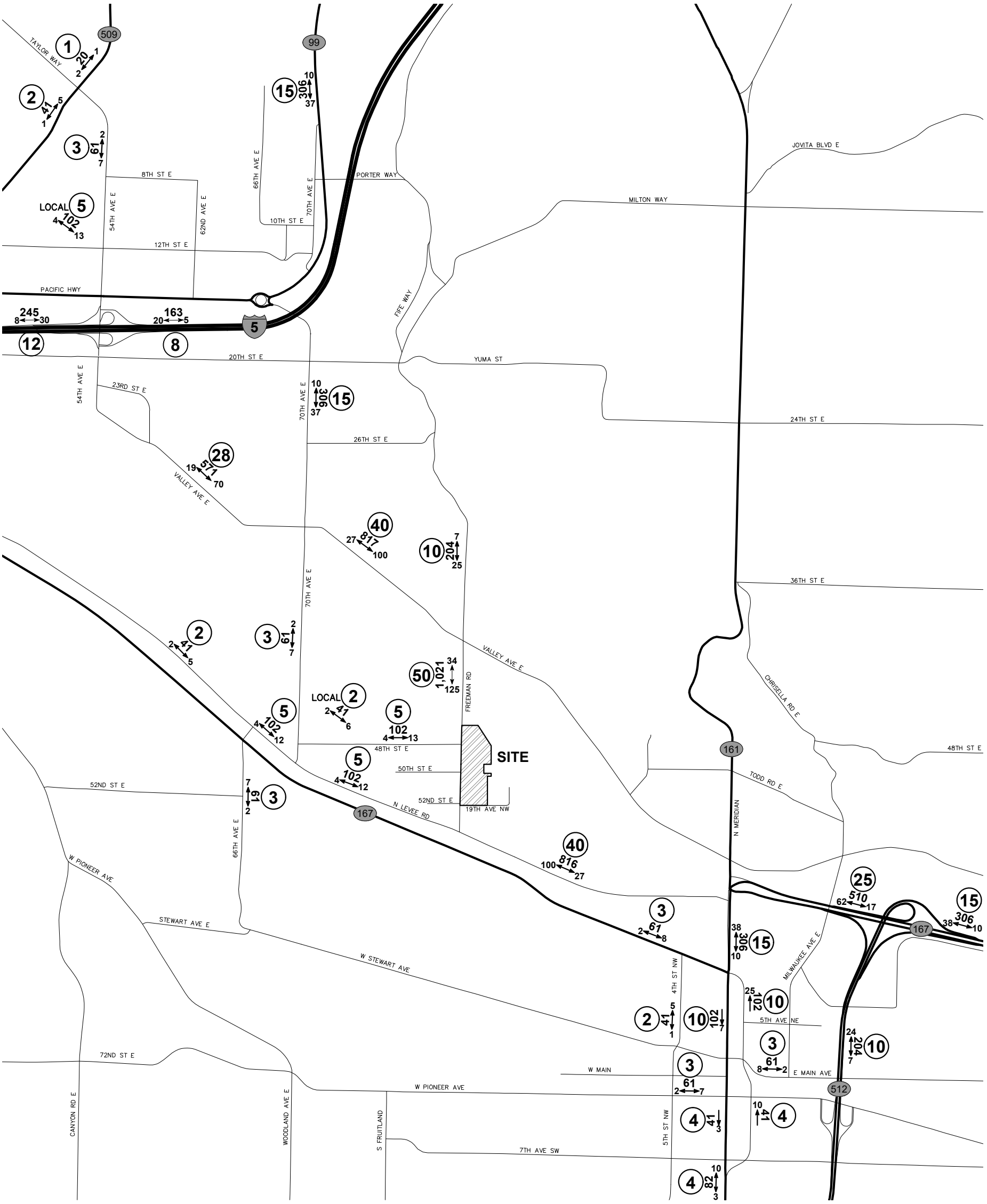
The ITE provides specific trip generation rates for heavy trucks for the specified land uses. The Development's expected truck trip generation are summarized in **Table 17**.

Table 17: Truck Trip Generation Summary

505,436 SF Manufacturing LUC 140	ADTs			AM Peak Hour Trips			PM Peak Hour Trips		
	In	Out	Total	In	Out	Total	In	Out	Total
Generation Rate	0.45 trips per 1,000 SF			0.03 trips per 1,000 SF			0.03 trips per 1,000 SF		
Splits	50%	50%	100%	56%	44%	100%	41%	59%	100%
Trips	113.73	113.72	227.45	8.50	6.67	15.17	6.22	8.95	15.17

Under the Manufacturing land use, the Development is anticipated to generate approximately 227 new average daily truck trips with 15 new AM peak hour truck trips and 15 new PM peak hour truck trips. The trip generation calculations — including truck trip generation rates — are included in **Appendix G**.

The car trip distribution under manufacturing conditions for the AM and PM peak hours is included in **Figure 30** and **Figure 31**. The truck trip distribution under warehousing conditions for the AM and PM peak hours is included in **Figure 32** and **Figure 33**. A summary of the total site traffic under warehousing conditions during the AM and PM peak hours is included in **Figure 34** and **Figure 35**, respectively.



NORTH

FREEMAN ROAD LOGISTICS (MANUFACTURING) ITE LUC 140

CITY OF PUYALLUP

LEGEND

AWDT
AM ↔ PEAK — NEW DAILY TRAFFIC / NEW PEAK-HOUR TRIPS

(XX) — TRIP DISTRIBUTION

FIGURE 30

DEVELOPMENT TRIP DISTRIBUTION AM PEAK-HOUR CAR TRIPS

Kimley»Horn

Date: June 23, 2024 - 6:42pm / User: Joey.miller
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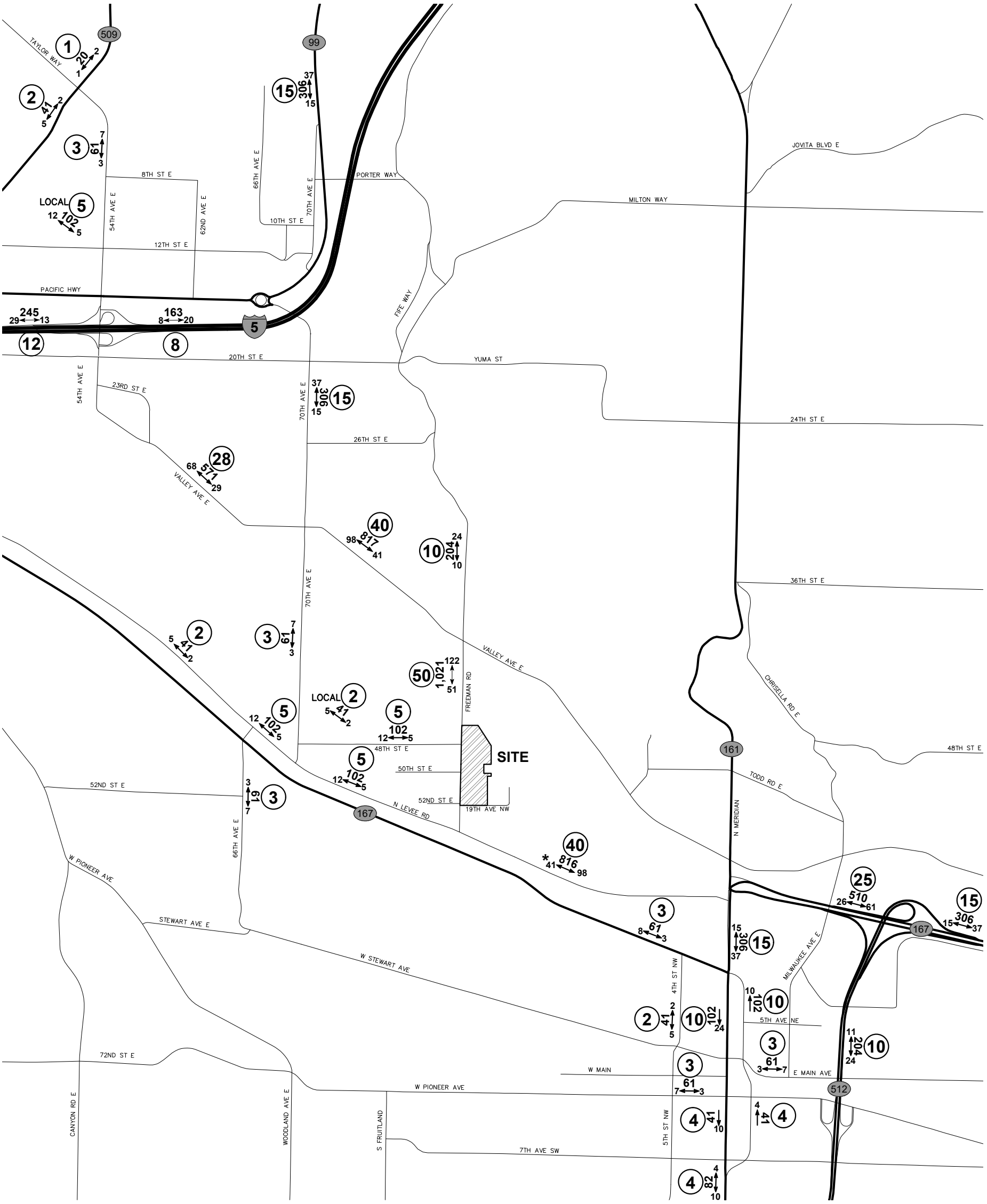

NORTH

FREEMAN ROAD LOGISTICS (MANUFACTURING) ITE LUC 140

CITY OF PUYALLUP

LEGEND

AWDT PM ↔ PEAK	NEW DAILY TRAFFIC NEW PEAK-HOUR TRIPS
(XX)	TRIP DISTRIBUTION
*	ONE (1) ADDITIONAL INBOUND TRIP

FIGURE 31

DEVELOPMENT TRIP DISTRIBUTION PM PEAK-HOUR CAR TRIPS

Kimley»Horn

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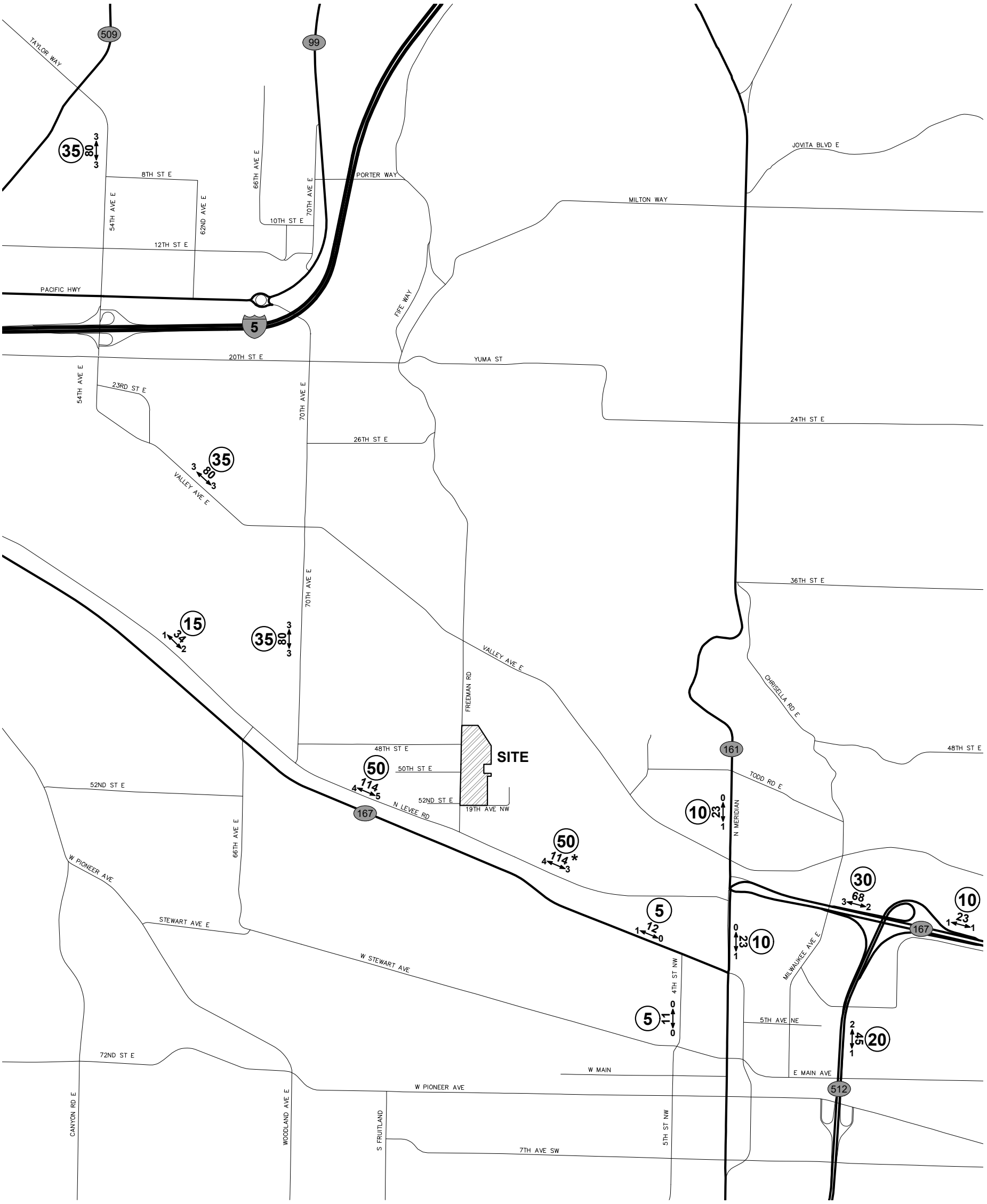

FREEMAN ROAD LOGISTICS (MANUFACTURING) ITE LUC 140

CITY OF PUYALLUP

LEGEND

AWDT AM ↔ PEAK	NEW DAILY TRAFFIC NEW PEAK–HOUR TRIPS
(XX)	TRIP DISTRIBUTION
*	ONE (1) ADDITIONAL AWDT

FIGURE 32

DEVELOPMENT
TRIP DISTRIBUTION
AM PEAK–HOUR
TRUCK TRIPS

Kimley»Horn

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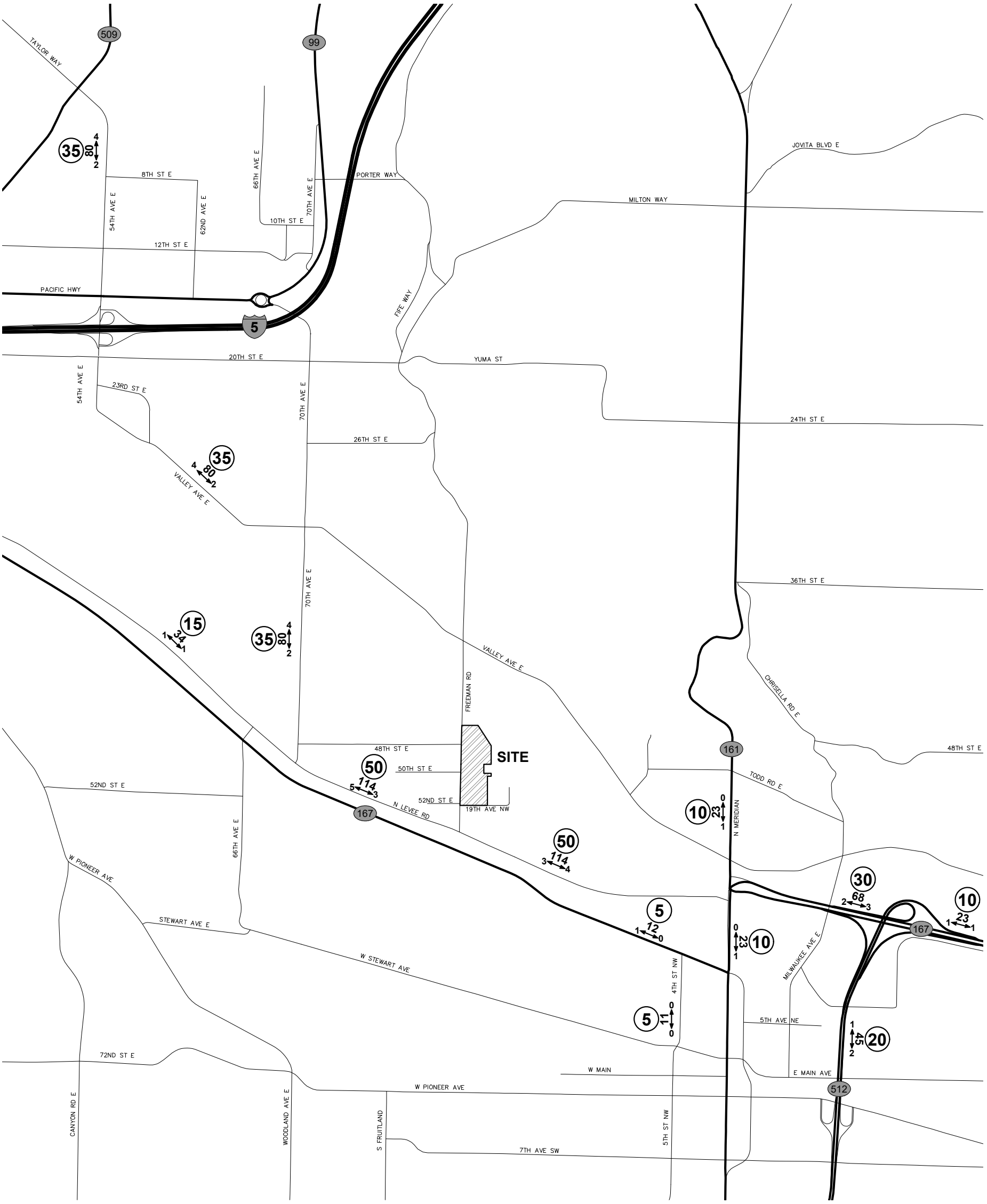

FREEMAN ROAD LOGISTICS (MANUFACTURING) ITE LUC 140

CITY OF PUYALLUP

LEGEND

AWDT
PM ↔ PEAK — NEW DAILY TRAFFIC / NEW PEAK-HOUR TRIPS

XX — TRIP DISTRIBUTION

FIGURE 33

DEVELOPMENT
TRIP DISTRIBUTION
PM PEAK-HOUR
TRUCK TRIPS

Kimley»Horn

Date: June 23, 2024 - 6:41pm / User: Joey.miller
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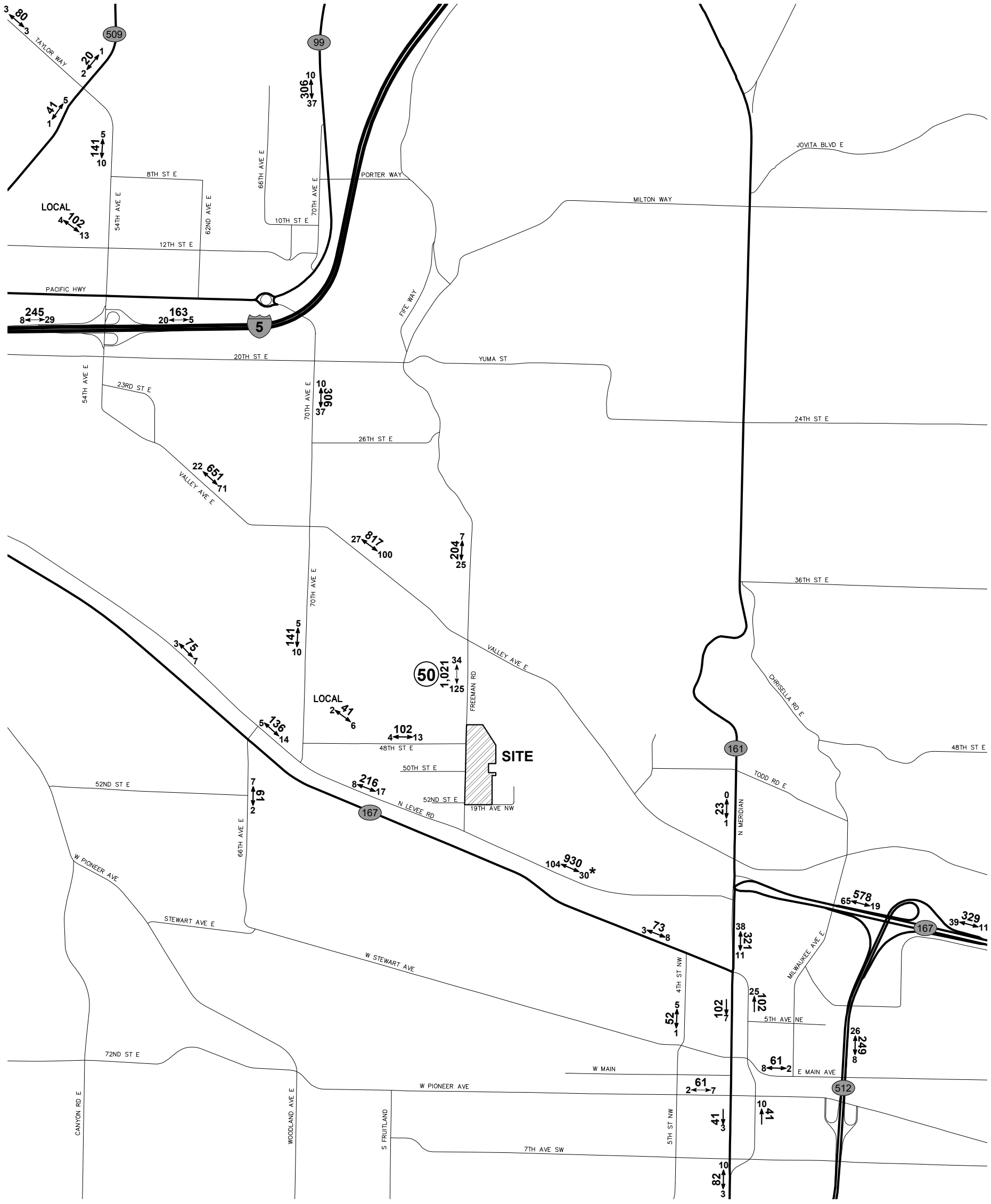

NORTH

FREEMAN ROAD LOGISTICS (MANUFACTURING) ITE LUC 140

CITY OF PUYALLUP

LEGEND

AWDT / AM ↔ PEAK	NEW DAILY TRAFFIC NEW PEAK–HOUR TRIPS
XX	TRIP DISTRIBUTION
*	ONE (1) ADDITIONAL OUTBOUND TRIP

FIGURE 34

TOTAL DEVELOPMENT
TRIP DISTRIBUTION
AM PEAK–HOUR
CARS AND TRUCKS

Kimley»Horn

Date: June 23, 2024 - 6:41pm / User: Joey.miller
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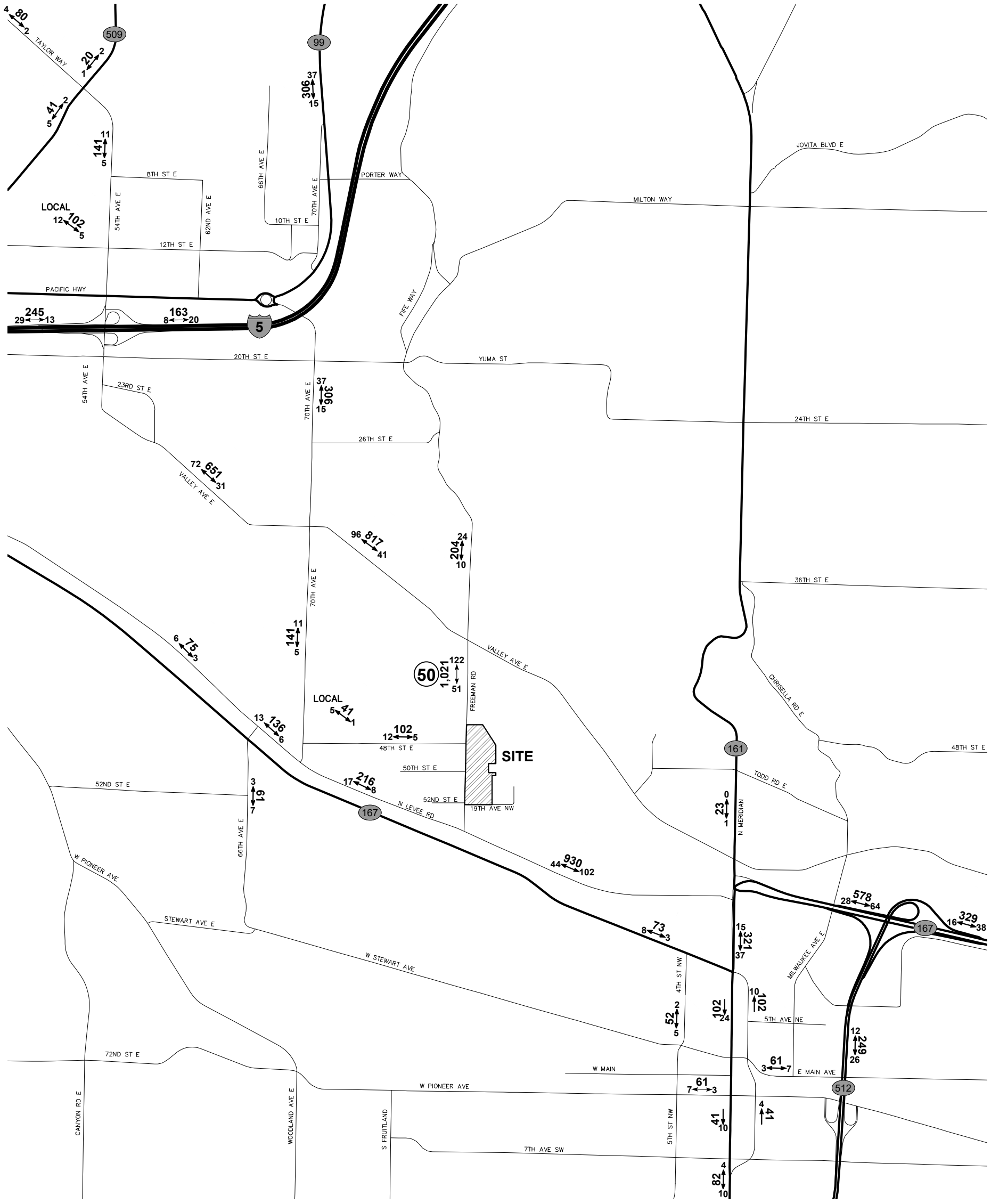

NORTH

FREEMAN ROAD LOGISTICS (MANUFACTURING) ITE LUC 140

CITY OF PUYALLUP

LEGEND

AWDT
PM ↔ PEAK — NEW DAILY TRAFFIC / NEW PEAK-HOUR TRIPS

(XX) — TRIP DISTRIBUTION

FIGURE 35

TOTAL DEVELOPMENT
TRIP DISTRIBUTION
PM PEAK-HOUR
CARS AND TRUCKS

Kimley»Horn

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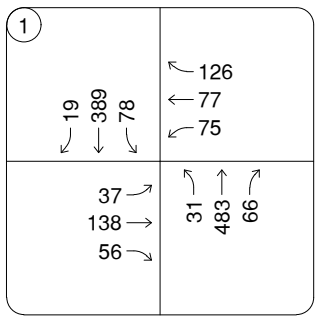
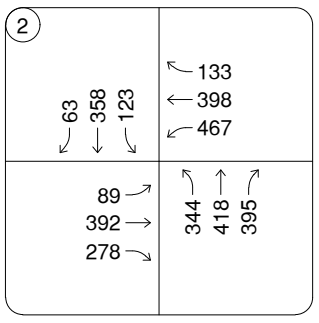
9.2 2028 Future with Development

The 2028 future with development turning movements at the study intersections were calculated by adding the trips generated by the Development to the 2028 baseline turning movements. The trips generated by the Development are based on the AM and PM peak hour trip distributions under the Manufacturing scenario. Turning movements for the 2028 future with development conditions are shown in **Figure 36** and **Figure 37** for the AM and PM peak hours, respectively. The turning movement calculations have been provided in **Appendix G**.

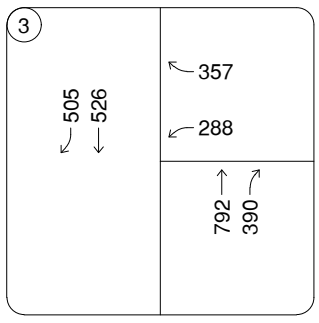
54TH AVENUE E @
12TH STREET E



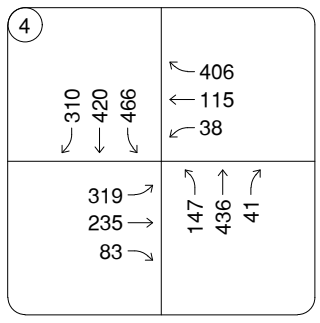
54TH AVENUE E @
PACIFIC HIGHWAY E (SR-99)



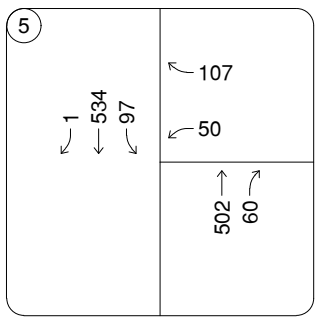
54TH AVENUE E @
I-5 SOUTHBOUND RAMPS



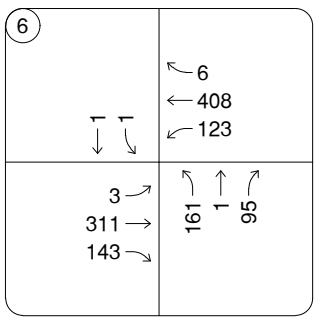
54TH AVENUE E @
20TH STREET E



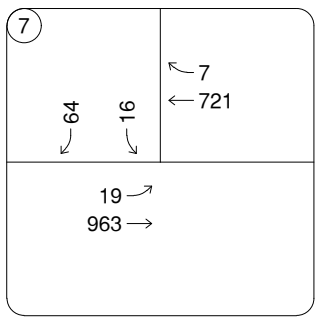
54TH AVENUE E @
23RD STREET E



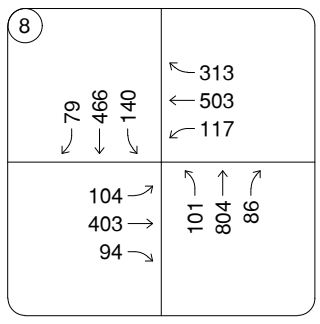
54TH AVENUE E @
VALLEY AVENUE E



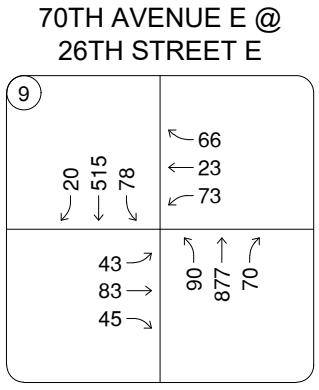
70TH AVENUE E @
PACIFIC HIGHWAY E (SR-99)



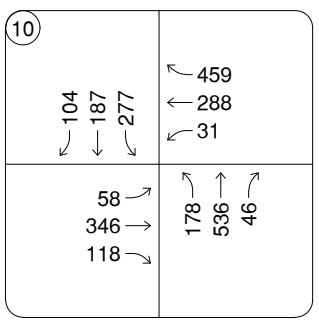
70TH AVENUE E @
20TH STREET E



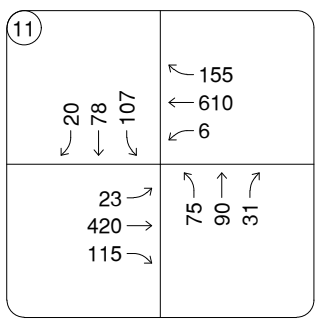
70TH AVENUE E @
26TH STREET E



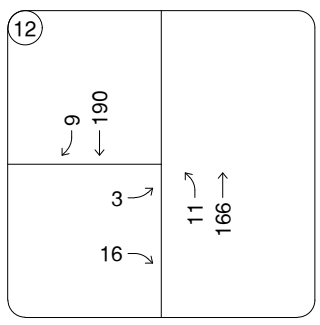
70TH AVENUE E @
VALLEY AVENUE E



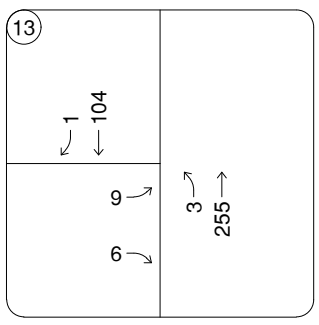
FREEMAN ROAD @
VALLEY AVENUE E



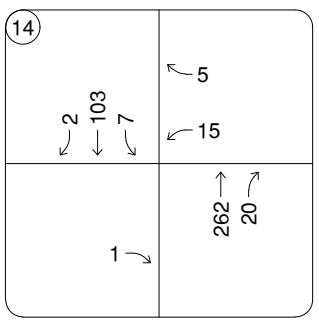
FREEMAN ROAD @
48TH STREET E



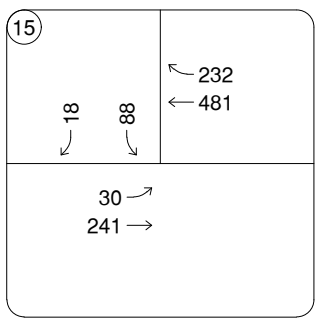
FREEMAN ROAD @
50TH STREET E



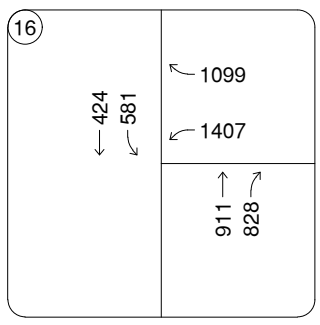
FREEMAN ROAD @
52ND STREET E



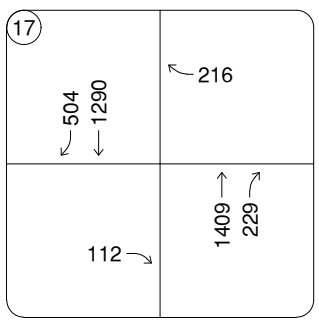
FREEMAN ROAD @
N LEVEE ROAD E



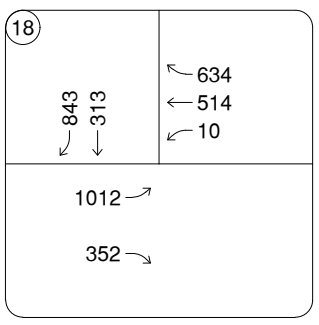
N MERIDIAN (SR-161) @
SR-167



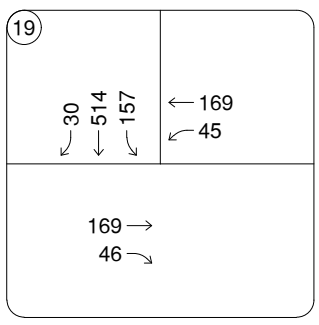
N MERIDIAN (SR-161) @
N LEVEE ROAD



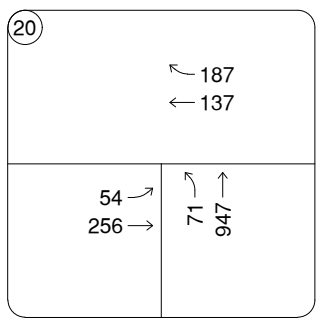
N MERIDIAN (SR-161) @
RIVER ROAD / 2ND STREET NE



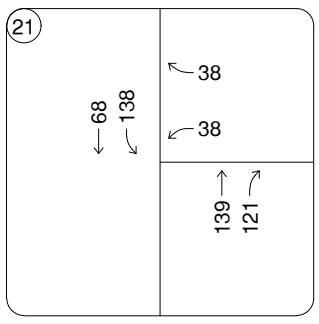
N MERIDIAN (SR-161) @
W STEWART AVENUE



2ND STREET NE @
W STEWART AVENUE



FREEMAN ROAD @
SITE ACCESS



FREEMAN ROAD LOGISTICS
(MANUFACTURING)
ITE LUC 140

CITY OF PUYALLUP

LEGEND

xx → AM PEAK–HOUR TURNING MOVEMENT VOLUMES

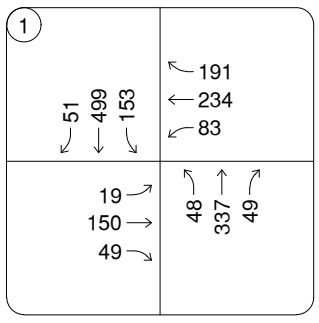
FIGURE 36

2028 FUTURE WITH DEVELOPMENT TURNING MOVEMENTS AM PEAK–HOUR

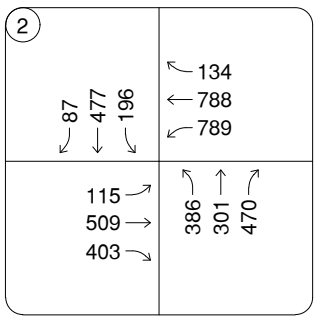
Kimley»Horn

Date: June 20, 2025 - 2:52pm / User: JoeyMiller
Path: K:\SNO_TPTO\2022\22-083 Freeman Rd Logistics_Update 2024 September\Figures\04_140\Freeman Rd Logistics - 140 Figures.dwg / Xref:

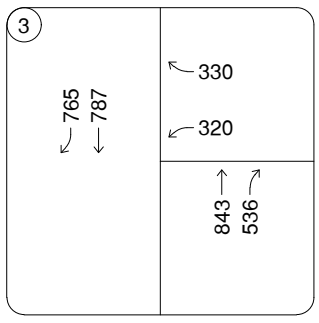
54TH AVENUE E @
12TH STREET E



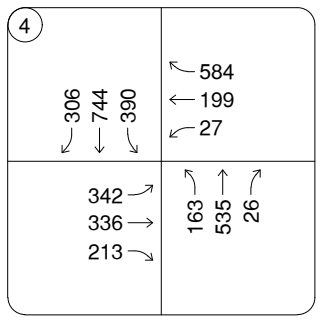
54TH AVENUE E @
PACIFIC HIGHWAY E (SR-99)



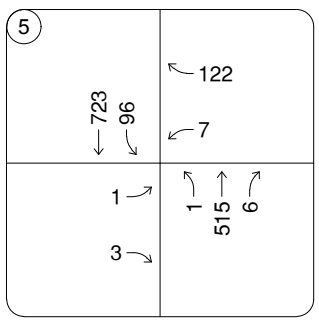
54TH AVENUE E @
I-5 SOUTHBOUND RAMPS



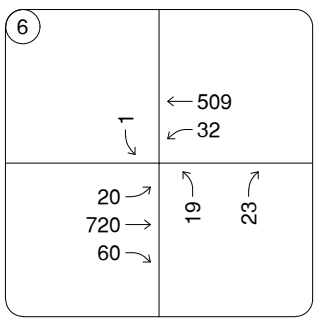
54TH AVENUE E @
20TH STREET E



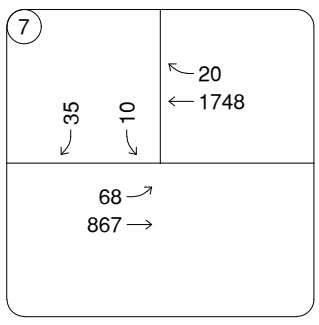
54TH AVENUE E @
23RD STREET E



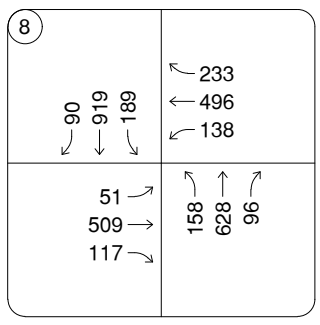
54TH AVENUE E @
VALLEY AVENUE E



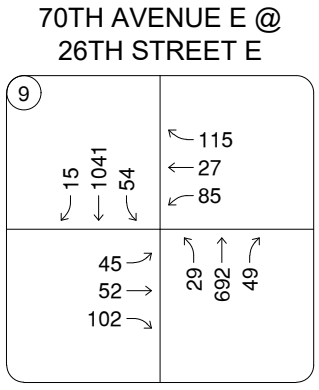
70TH AVENUE E @
PACIFIC HIGHWAY E (SR-99)



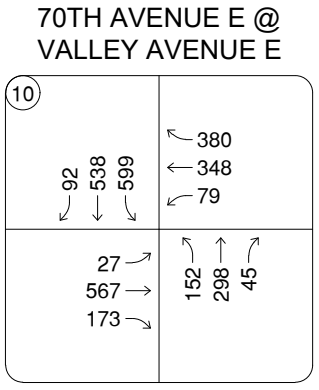
70TH AVENUE E @
20TH STREET E



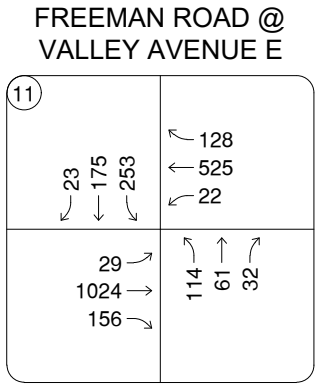
70TH AVENUE E @
26TH STREET E



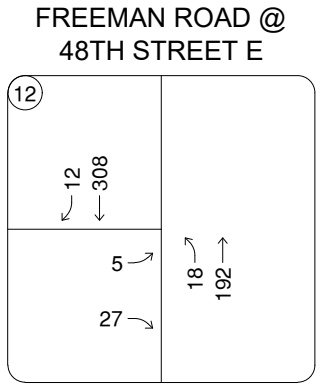
70TH AVENUE E @
VALLEY AVENUE E



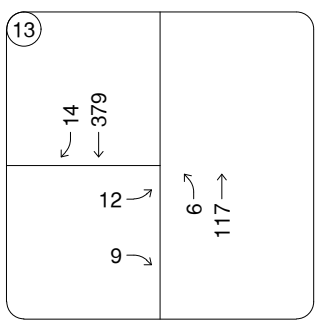
FREEMAN ROAD @
VALLEY AVENUE E



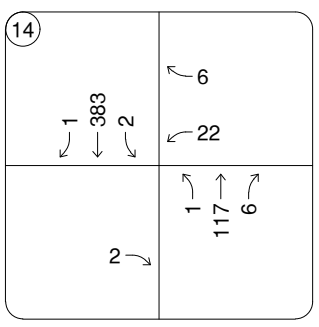
FREEMAN ROAD @
48TH STREET E



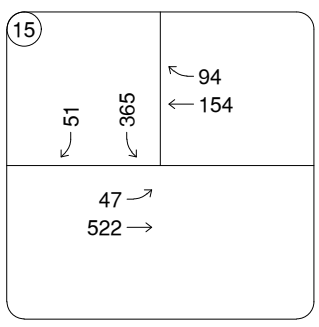
FREEMAN ROAD @
50TH STREET E



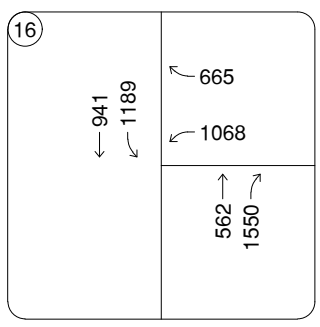
FREEMAN ROAD @
52ND STREET E



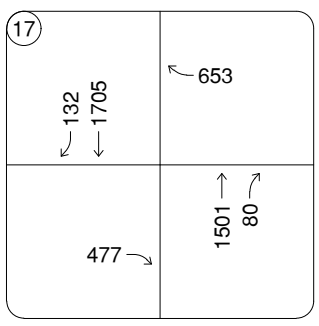
FREEMAN ROAD @
N LEVEE ROAD E



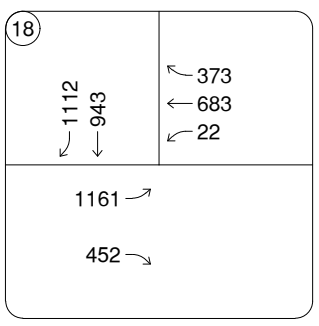
N MERIDIAN (SR-161) @
SR-167



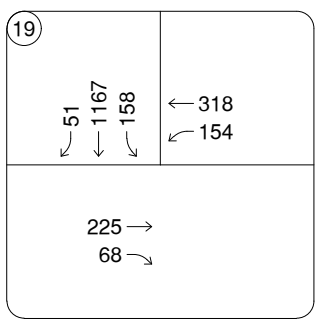
N MERIDIAN (SR-161) @
N LEVEE ROAD



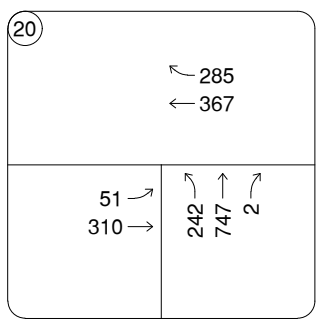
N MERIDIAN (SR-161) @
RIVER ROAD / 2ND STREET NE



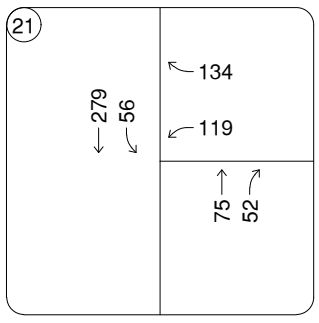
N MERIDIAN (SR-161) @
W STEWART AVENUE



2ND STREET NE @
W STEWART AVENUE



FREEMAN ROAD @
SITE ACCESS



FREEMAN ROAD LOGISTICS
(MANUFACTURING)
ITE LUC 140

CITY OF PUYALLUP

LEGEND

xx → PM PEAK–HOUR TURNING MOVEMENT VOLUMES

FIGURE 37

2028 FUTURE WITH DEVELOPMENT TURNING MOVEMENTS PM PEAK–HOUR

Kimley»Horn

Date: June 20, 2025 - 2:52pm / User: JoeyMiller
Path: K:\SNO_TPTO\2022\22-083 Freeman Rd Logistics_Update 2024 September\Figures\04_140\Freeman Rd Logistics - 140 Figures.dwg / Xref:

9.3 LOS Analysis – Manufacturing

Intersection LOS was analyzed for each of the study intersections for the 2028 future with development scenario. The City of Fife has a LOS standard of LOS D for intersections; however, if an intersection is already forecasted to operate worse than LOS D before development trips are added, then a development is allowed to proceed unless it degrades the LOS further with just the development trips (Fife Municipal Code 17.08.030). The City of Puyallup has adopted LOS D as the standard except for the Meridian Avenue corridor where LOS E is acceptable (Transportation Element T-3.2). SR-99 has a LOS standard of LOS D.

There are a number of intersections that, with baseline growth, would not meet jurisdictional standards. However, many of those intersections are parallel to the newly funded SR-167 Completion Project that would draw traffic (approximately 900 to 2,000 peak hour trips from study intersections) and result in improved operations. The WSDOT phase 1 environmental documentation identified that all the same Development study intersections along N Meridian and 54th Avenue intersections would operate at LOS D or better in the year 2045 for the critical PM peak hour with just the Phase I SR-167 Completion Project. Study intersection #2 (54th Avenue E at Pacific Highway E (SR-99)) of this report is study intersection #15 in the Puget Sound Gateway Program (PSGP) Phase 1 NEPA/SEPA environmental reevaluation study. Similarly, study intersections #4, (54th Avenue E at 20th Street E), #16 (N Meridian Avenue (SR-161) at SR-167), #17 (N Meridian Avenue (SR-161) at N Levee Road), and #18 (N Meridian Avenue (SR-161) at River Road/2nd Street NE) in this report are study intersections #12, #36, #34, and #32, respectively, in the WSDOT study. The WSDOT forecasts are documented in Puget Sound Gateway Program – Phase 1 report. Specific volume change and LOS results are documented in **Appendix H** of this study.

The intersection of Freeman Road at N Levee Road E operates at acceptable LOS C or better with or without the Development for the Manufacturing condition. It operates at LOS C with the SR-167 Completion Project. An improvement identified for improved operations at this off-site intersection has been additional channelization consisting of a dedicated southbound right-turn lane on Freeman Road and left-turn refuge lanes on N Levee Road E which would provide additional capacity at this intersection. Based on the future with project volumes of the high-cube transload short-term storage warehouse analysis, the Development accounts for 171 or 13.87% of the total entering 2028 PM peak-hour volumes for this off-site intersection. The channelization improvement would reduce the delay by 34.7 seconds and operate at LOS D even before the SR-167 Completion Project.

The future LOS at the study intersections is summarized in **Table 18** and **Table 19** for the AM and PM peak hours, respectively. The complete LOS for the AM and PM peak hours have been provided in **Appendix G**.

Table 18: Weekday AM Peak Hour LOS Summary - Manufacturing

Intersection		Control Type	2028 Baseline Conditions			2028 Future w/ Conditions			
			LOS	Delay	v/c	LOS	Delay	v/c	Trips*
1.	54th Ave E at 12th St E	Signal	B	16.5 sec	0.64	B	16.8 sec	0.67	32
2.	54th Ave E at Pacific Hwy E (SR-99)	Signal	**F**	**83.7 sec**	**1.50**	**F**	**84.9 sec**	**1.50**	32
	- With Improvement	Optimized Splits	---	---	---	**E**	**69.6 sec**	**1.13**	
	- SR-167 in 2045	WSDOT FEIS	**E**	**---**	**---**	**E**	**---**	**---**	
	- Extrapolated FEIS in 2030	---	---	---	---	D	50.2 sec	0.82	
3.	54th Ave E at I-5 Southbound Ramps	Signal	B	18.0 sec	0.90	B	19.4 sec	0.94	52
4.	54th Ave E at 20th St E	Signal	**E**	**58.0 sec**	**0.91**	**E**	**62.5 sec**	**0.98**	95
	- With Improvement	Optimized Splits	---	---	---	**E**	**62.1 sec**	**0.97**	
	- SR-167 in 2045	WSDOT FEIS	**E**	**---**	**---**	D	---	---	
5.	54th Ave E at 23rd St E	Signal	A	8.7 sec	0.59	A	9.1 sec	0.61	95
6.	54th Ave E at Valley Ave E	Signal	B	16.8 sec	0.89	B	17.6 sec	0.89	95
7.	70th Ave E at Pacific Hwy E (SR-99)	Signal	B	14.7 sec	0.55	B	14.9 sec	0.56	47
8.	70th Ave E at 20th St E	Signal	D	49.8 sec	0.94	D	50.1 sec	0.95	47
9.	70th Ave E at 26th St E	Signal	C	26.8 sec	0.63	C	26.8 sec	0.63	47
10.	70th Ave E at Valley Ave E	Signal	C	30.8 sec	0.69	C	33.0 sec	0.69	142
11.	Freeman Rd at Valley Ave E	Signal	C	23.2 sec	0.64	C	24.6 sec	0.68	159
	- With Improvement	SR-167 Reroute	---	---	---	B	20.0 sec	0.48	
12.	Freeman Rd at 48th St E	Minor-Leg Stop-Control	A	9.4 sec	---	B	10.0 sec	---	176
13.	Freeman Rd at 50th St E	Minor-Leg Stop-Control	A	9.5 sec	---	B	10.4 sec	---	159
14.	Freeman Rd at 52nd St E	Minor-Leg Stop-Control	B	10.4 sec	---	B	12.1 sec	---	159
15.	Freeman Rd at N Levee Rd E	Minor-Leg Stop-Control	C	20.7 sec	---	D	29.5 sec	---	159
	- With Improvement	Channelization	---	---	---	C	15.8 sec	---	
	- With Improvement	SR-167 Reroute	---	---	---	C	21.7 sec	---	
	- With Improvement	SR-167 Reroute + Channelization	---	---	---	B	14.0 sec	---	
16.	N Meridian Ave (SR-161) at SR-167	Signal	**E**	**65.5 sec**	**1.31**	**E**	**69.8 sec**	**1.31**	85
	- With Improvement	Optimized Splits	---	---	---	**E**	**62.6 sec**	**1.14**	
	- SR-167 in 2045	WSDOT FEIS	**E**	**---**	**---**	D	---	---	
17.	N Meridian Ave (SR-161) at N Levee Rd	Minor-Leg Stop-Control	D	30.3 sec	---	D	33.9 sec	---	134
18.	N Meridian Ave (SR-161) at River Rd/2nd St NE	Signal	**E**	**62.0 sec**	**1.15**	**E**	**64.3 sec**	**1.16**	49
	- SR-167 in 2045	WSDOT FEIS	**E**	**---**	**---**	D	---	---	
19.	N Meridian Ave (SR-161) at W Stewart Ave	Signal	C	30.5 sec	1.14	C	30.4 sec	1.14	7
20.	2nd St NE at W Stewart Ave	Signal	B	18.8 sec	0.69	B	19.0 sec	0.71	27
21.	Freeman Rd at Site Access	Minor-Leg Stop-Control	---	---	---	B	12.7 sec	---	335

** Total number of Development trips to impact intersection*

Table 19: Weekday PM Peak Hour LOS Summary - Manufacturing

Intersection		Control Type	2028 Baseline Conditions			2028 Future w/ Conditions			
			LOS	Delay	v/c	LOS	Delay	v/c	Trips*
1.	54th Ave E at 12th St E	Signal	C	30.2 sec	1.03	C	30.0 sec	1.03	33
2.	54th Ave E at Pacific Hwy E (SR-99)	Signal	**F**	**94.6 sec**	**1.37**	**F**	**98.1 sec**	**1.37**	33
	- With Improvement	Optimized Splits	---	---	---	**F**	**84.5 sec**	**1.20**	
	- SR-167 in 2045	WSDOT FEIS	**E**	**---**	**---**	D	---	---	
3.	54th Ave E at I-5 Southbound Ramps	Signal	B	18.7 sec	0.95	B	19.7 sec	0.97	41
4.	54th Ave E at 20th St E	Signal	**E**	**75.7 sec**	**1.09**	**F**	**83.5 sec**	**1.10**	103
	- With Improvement	Optimized Splits	---	---	---	**F**	**81.7 sec**	**1.08**	
	- SR-167 in 2045	WSDOT FEIS	**E**	**---**	**---**	D	---	---	
5.	54th Ave E at 23rd St E	Signal	A	8.7 sec	0.53	A	9.4 sec	0.56	103
6.	54th Ave E at Valley Ave E	Signal	A	3.7 sec	0.50	A	3.8 sec	0.52	103
7.	70th Ave E at Pacific Hwy E (SR-99)	Signal	D	36.7 sec	1.00	D	37.8 sec	1.01	52
8.	70th Ave E at 20th St E	Signal	D	54.7 sec	1.04	**E**	**55.3 sec**	**1.05**	52
	- With Improvement	Optimized Splits	---	---	---	D	54.8 sec	0.98	
9.	70th Ave E at 26th St E	Signal	C	23.4 sec	0.74	C	23.6 sec	0.75	52
10.	70th Ave E at Valley Ave E	Signal	D	46.2 sec	0.87	D	47.2 sec	0.92	155
11.	Freeman Rd at Valley Ave E	Signal	C	30.5 sec	0.83	D	39.5 sec	0.94	173
	- With Improvement	SR-167 Reroute	---	---	---	C	33.0 sec	0.82	
12.	Freeman Rd at 48th St E	Minor-Leg Stop-Control	B	10.4 sec	---	B	11.2 sec	---	190
13.	Freeman Rd at 50th St E	Minor-Leg Stop-Control	B	10.8 sec	---	B	12.5 sec	---	171
14.	Freeman Rd at 52nd St E	Minor-Leg Stop-Control	B	11.4 sec	---	B	13.7 sec	---	171
15.	Freeman Rd at N Levee Rd E	Minor-Leg Stop-Control	D	28.0 sec	---	**F**	**68.7 sec**	**---**	171
	- With Improvement	Channelization	---	---	---	D	34.0 sec	---	
	- With Improvement	SR-167 Reroute	---	---	---	D	27.1 sec	---	
	- With Improvement	SR-167 Reroute + Channelization	---	---	---	C	18.6 sec	---	
16.	N Meridian Ave (SR-161) at SR-167	Signal	**F**	**150.5 sec**	**1.93**	**F**	**163.7 sec**	**2.01**	93
	- SR-167 in 2045	WSDOT FEIS	D	---	---	D	---	---	
17.	N Meridian Ave (SR-161) at N Levee Rd	Minor-Leg Stop-Control	**F**	**>300 sec**	**---**	**F**	**>300 sec**	**---**	146
	- SR-167 in 2045	WSDOT FEIS	B	---	---	A	---	---	
18.	N Meridian Ave (SR-161) at River Rd/2nd St NE	Signal	**F**	**82.5 sec**	**1.27**	**F**	**86.0 sec**	**1.28**	53
	- SR-167 in 2045	WSDOT FEIS	**F**	**---**	**---**	C	---	---	
19.	N Meridian Ave (SR-161) at W Stewart Ave	Signal	C	24.2 sec	0.79	C	24.2 sec	0.79	24
20.	2nd St NE at W Stewart Ave	Signal	C	27.6 sec	0.88	C	27.7 sec	0.88	17
21.	Freeman Rd at Site Access	Minor-Leg Stop-Control	---	---	---	B	14.5 sec	---	361

** Total number of Development trips to impact intersection*

10. FUTURE IMPROVEMENT ALTERNATIVES

The LOS analysis shows several intersections would operate at an acceptable LOS D or better with the exception Freeman Road at N Levee Road E and study intersections along N Meridian (SR-161) and 54th Avenue. However, those intersections are parallel to the new funded SR-167 Completion Project that would draw a lot of east/west traffic, thus improving those intersections forecasted delay with and without Development traffic. Per city review only the two intersections of Freeman Road at N Levee Road E and at Valley Avenue E were required to be analyzed with more detailed SR-167 shifted volumes.

Improvements in the analysis include an eastbound left-turn lane, separate southbound left and right turn channelization, and eastbound receiving/acceleration lane for southbound left turns at the intersection of Freeman Road at N Levee Road E as part of the Development operating as a minor-leg stop-controlled (MLSC) intersection. The length of required southbound channelization varies based on the anticipated use. A concept plan of the proposed channelization improvements has been provided in **Appendix I**. The LOS and delays are detailed under all the LOS conditions. For all the conditions, the intersection would operate at acceptable LOS D or better with just the reroute or with the channelization improvements. With both, it would operate at LOS C or better for all conditions. The Development only accounts for 1.92% of the future 2028 PM peak hour traffic at this intersection under the high-cube transload short-term storage warehouse condition, 3.98% under the warehousing condition, 7.33% under the industrial park condition, and 13.87% under manufacturing condition.

Additional improvements proposed at intersections that are anticipated to operate below an acceptable LOS were optimized split timings and cycle lengths. This improvement raised one intersection (54th Avenue E at 20th Street E) to an acceptable level in the AM peak-hour only. The remaining intersections are shown to remain below acceptable levels of service. The City of Fife has a LOS standard of LOS D for intersections; however, if an intersection is already forecasted to operate worse than LOS D before development trips are added then a development is allowed to proceed unless it degrades the LOS further with just the development trips. This condition affects two of the failing intersections within the City of Fife.

Future improvements and extension of SR-167 have been detailed in the Puget Sound Gateway Construction and Implementation Plan provided by WSDOT in September 2018. These improvements are anticipated to reduce the total volume of vehicles travelling along Freeman Road within the Development's frontage. These proposed reductions of 31% north/south and 15% east/west at Valley Avenue E and 29% north/south and 18% east/west at N Levee Road E have been applied to the intersections on either end of Freeman Road to display the LOS anticipated when improvements to SR-167 have been completed. The projected 2030 no-build and build traffic forecast average daily traffic volumes from the SR 167 – Puyallup to SR 509 Tier II Final Environmental Impact Statement (FEIS) are provided in **Appendix J**. Additional adjustments to the anticipated truck volumes have been made based on discussions with Psomas staff. These adjustments represent truck volumes that are likely to travel along Freeman Road to and from the north with the SR-167 Completion Project fully constructed in addition to 70th Avenue E.

Therefore, approximately 50% of the truck volumes displayed in the AM and PM peak-hour truck trip figures have been relocated to the intersection of Freeman Road and Valley Avenue E to account for this anticipated diversion of truck trips.

11. UNION PACIFIC RAILROAD CROSSING

Queuing results from the intersection analysis show 2028 northbound 95th percentile queues at the signal are expected to be contained within the existing striped storage during the critical AM peak hour. Due to the net change in trip generation between the existing residential uses and the proposed industrial uses, the Development is not expected to add significant length to northbound queues during the AM peak hour. There is a marked stop bar on the south side of the rail crossing to indicate where vehicles should stop when the top 5% of northbound queues do extend past the rail crossing. Queues would also be reduced after the SR-167 Completion Project is complete and commuter cut-through traffic begins using the new freeway extension. In the event WSDOT constructs Freeman Road prior to completion of the Development, WSDOT will install the interconnect. If the Development will need a condition of occupancy before WSDOT starts construction of Freeman Road, then the Development will install the interconnect.

12. COLLISION ANALYSIS

Collision data was obtained from WSDOT for the time period between January 1, 2018 through December 31, 2022. This is the most recent full five-year collision data available from WSDOT. The data shows a total of 539 collisions at the 20 study intersections. The number of collisions and types of collisions at the study intersections are summarized in **Table 20**.

Table 20: Collision Type Summary

Intersection		Collision Type						Total Collisions
		Rear-End	Sideswipe	At-Angle	Opp. Dir	Same Dir	Other/ Fixed Object	
1.	54th Ave E at 12th St E	1	2	17	10	0	0	30
2.	54th Ave E at Pacific Hwy E (SR-99)	16	12	14	6	3	5	56
3.	54th Ave E at I-5 Southbound Ramps	9	5	22	1	1	2	40
4.	54th Ave E at 20th St E	5	14	13	2	8	1	43
5.	54th Ave E at 23rd St E	2	0	0	1	0	0	3
6.	54th Ave E at Valley Ave E	4	0	0	0	0	0	4
7.	70th Ave E at Pacific Hwy E (SR-99)	2	0	13	19	2	2	38
8.	70th Ave E at 20th St E	4	2	3	1	1	1	12
9.	70th Ave E at 26th St E	1	0	0	0	0	1	2
10.	70th Ave E at Valley Ave E	5	1	4	1	1	1	14
11.	Freeman Rd at Valley Ave E	7	0	5	0	0	0	12
12.	Freeman Rd at 48th St E	1	0	0	0	0	0	1
13.	Freeman Rd at 50th St E	0	0	0	0	0	0	0
14.	Freeman Rd at 52nd St E	0	0	0	0	0	0	0
15.	Freeman Rd at N Levee Rd E	3	0	2	0	0	2	7
16.	N Meridian Ave (SR-161) at SR-167	14	16	12	2	6	5	55
17.	N Meridian Ave (SR-161) at N Levee Rd	15	2	4	0	3	3	27
18.	N Meridian Ave (SR-161) at River Rd/2nd St NE	12	5	13	1	3	2	36
19.	N Meridian Ave (SR-161) at W Stewart Ave	3	1	6	1	1	4	16
20.	2nd St NE at W Stewart Ave	1	0	4	0	7	5	17

Rear-end and at-angle collisions are the most common collisions at the study intersections. There was one fatality reported during the five-year period at the study intersections. This occurred at the intersection of N Meridian Avenue at River Road/2nd Street NE. The cause of the collision was deemed an at-angle incident with the driving circumstance being not granting right-of-way to the vehicle.

The collision rates at the study intersections have also been evaluated. The collisions per million entering vehicles (MEV) is the standard rate for intersections. The daily trips at the study intersection have been estimated using a rate of ten daily trips to one PM peak hour trip. The collision rates at the study intersections are summarized in **Table 21**.

Table 21: Collision Rate Summary

Intersection		Total Collisions	Collisions per Year		Collision Rate (per MEV)[3]		
			Years	Rate	ADT	Years	Rate
1.	54th Ave E at 12th St E	30	5	6.0	15,780	5	1.04
2.	54th Ave E at Pacific Hwy E (SR-99)	56	5	11.2	39,880	5	0.77
3.	54th Ave E at I-5 Southbound Ramps	40	5	8.0	30,530	5	0.72
4.	54th Ave E at 20th St E	43	5	8.6	32,450	5	0.73
5.	54th Ave E at 23rd St E	3	5	0.6	11,830	5	0.14
6.	54th Ave E at Valley Ave E	4	5	0.8	11,050	5	0.20
7.	70th Ave E at Pacific Hwy E (SR-99)	38	5	7.6	23,260	5	0.90
8.	70th Ave E at 20th St E	12	5	2.4	30,820	5	0.21
9.	70th Ave E at 26th St E	2	5	0.4	19,440	5	0.06
10.	70th Ave E at Valley Ave E	14	5	2.8	27,120	5	0.28
11.	Freeman Rd at Valley Ave E	12	5	2.4	20,430	5	0.32
12.	Freeman Rd at 48th St E	1	5	0.2	3,200	5	0.17
13.	Freeman Rd at 50th St E	0	5	0.0	3,150	5	0.00
14.	Freeman Rd at 52nd St E	0	5	0.0	3,190	5	0.00
15.	Freeman Rd at N Levee Rd E	7	5	1.4	9,160	5	0.42
16.	N Meridian Ave (SR-161) at SR-167	55	5	11.0	50,750	5	0.60
17.	N Meridian Ave (SR-161) at N Levee Rd	27	5	5.4	37,980	5	0.39
18.	N Meridian Ave (SR-161) at River Rd	36	5	7.2	40,480	5	0.49
19.	N Meridian Ave (SR-161) at W Stewart Ave	16	5	3.2	18,260	5	0.48
20.	2nd St NE at W Stewart Ave	17	5	3.4	17,140	5	0.54

[3] The collision rate is based on Million Entering Vehicles.

Typical collision rate thresholds for intersections are five collision per year for unsignalized intersections, 10 collisions per year for signalized intersections, and a collision rate of more than 1.0 collisions per MEV. These thresholds would typically identify when a more detailed collision review may be needed.

The collision rates show that two of the study intersections in the vicinity of the Development have a rate more than 10 collisions per year and one intersection has a rate greater than 1.0 collisions per MEV. Future improvements to bring these intersections to acceptable levels of service are likely to improve safety at these locations. The intersection of 54th Avenue at 12th Street E has a collision rate of 1.04 per MEV, but a collision rate of less than 10 collisions per year. The predominant collision type is At Angle and Opposite Direction accounting for 27 of the 30 collisions. A potential safety strategy would be to install protected left turn signal phasing and increase the yellow clearance times. The collision data has been provided in **Appendix K**.

13. ACCESS ANALYSIS

The Development is proposing three access points onto Freeman Road, one located approximately 415 feet north of 48th Street E, one via the existing 22nd Avenue NW, and the third being an emergency fire access only just north of 19th Avenue NW. Freeman Road is posted 25 miles per hour (mph) along the site vicinity. To prevent trucks from traveling to and from the north on Freeman Road signage will be placed at the access points in addition to installing C-curbing along the left-turn centerline along Freeman Road to discourage trucks from turning right out of the site.

13.1 Sight Distance

For the proposed access to Freeman Road, AASHTO standards require a minimum of 155 feet of stopping sight distance and 280 feet of intersection sight distance for a 25-mph posted speed limit. The proposed access points have over 600 feet of safe stopping sight distance. Standard frontage improvements will be made based on City of Fife standards and code.

14. MITIGATION

14.1 City of Puyallup

The Development will be subject to street impact fees. The City of Puyallup Municipal Code (PMC) Chapter 21.20.130 has a street impact fee of $4,500 per PM peak hour trip. Based on the uses studied in this TIA, ranging from Warehouse to Manufacturing, the Development is expected to generate between 37.38 and 360.86 PM peak hour trips. Therefore, the Development would have a proportional street impact fee ranging from $168,210.00 for High-Cube Transload and Short-Term Warehouse to $1,623,870.00 for Manufacturing.

14.2 City of Fife

The Development is not located in the City of Fife and is not subject to City of Fife mitigation fees without an interlocal agreement (ILA) between City of Puyallup and City of Fife. However, Freeman Road is located within the City of Fife and will have half-street frontage improvements constructed by the applicant conforming to City of Fife standards. Portions of Freeman Road to be improved by the applicant will be done consistent with the ultimate build-out of the roadway as identified in Project #33 of the City of Fife Six-Year TIP 2023 to 2028. Typically, the cost of improvements to roadways on a city's TIP are eligible for credit against standard traffic impact fees. Because no credit is available here, the Developer will be over-mitigating for Development impacts by paying impact fees and constructing improvements that are not eligible for credit. To address this issue, the Cities should execute an ILA that would allow City of Puyallup to share impact fees with City of Fife for impacts on City of Fife streets, with a mechanism for credits to the Developer for construction of improvements.

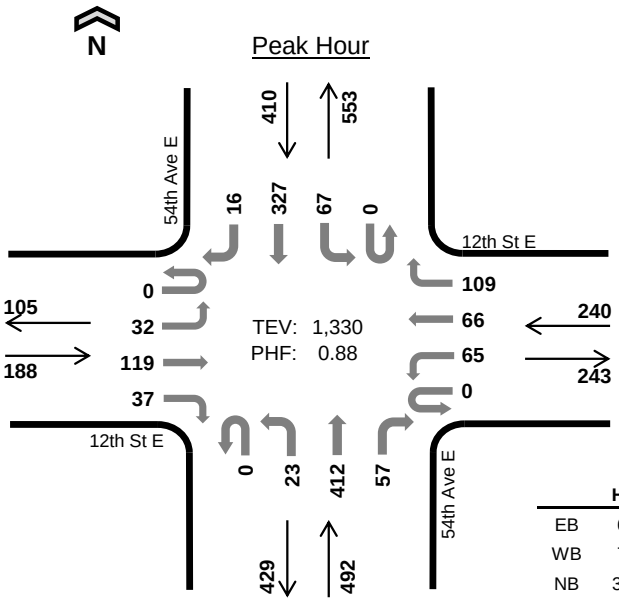
15. CONCLUSION

The Development is proposed to consist of 505,436 SF of High-Cube Transload and Short-Term Warehouse use. No tenants have been identified for the site, so the Cities have required this TIA to evaluate three additional potential uses ranging from Warehousing to Manufacturing. The mitigation for each of these uses is identified in this TIA. There are currently 14 residential units on site that will be removed with the proposed Development and have been credited towards the Development's net new trip generation calculations. The Development is anticipated to generate between 37.38 and 360.86 new PM peak hour trips depending on the tenant. The study intersections analyzed based on scoping discussions with the Cities' staff are expected to operate at an acceptable LOS D or better in the 2028 future with the development or have minor increases (1 to 2.7 seconds) in signal delay with the anticipated High-Cube Transload and Short-Term Warehouse use. The completion of the fully funded SR-167 Completion Project and improvements to the intersection of Freeman Road at N Levee Road E will further improve the LOS by removing volumes from the local roadways. The WSDOT Phase 1 environmental documentation and extrapolation identified that all the analyzed Development study intersections along N Meridian and 54th Avenue would operate at LOS D or better for AM and PM peak hours with the Phase I SR-167 Completion Project finished. Based on the current *Development Engineering Fee Schedule*, commercial/industrial developments have a base rate of $4,500.00 per PM peak hour trip. The Development should have a traffic impact fee ranging from $168,210.00 for High-Cube Transload and Short-Term Warehouse to $1,623,870.00 for Manufacturing payable to the City of Puyallup after credit for the removal of the 14 existing residential units is taken. The only mitigation to the City of Fife, beyond truck turning restrictions and improvements to Freeman Road to City of Fife standards, should be the improvement of an eastbound left-turn lane, separate southbound left and right turn channelization, and eastbound receiving/acceleration lane for southbound left turns at the intersection of Freeman Road at N Levee Road E.

APPENDIX A

AM AND PM COUNT DATA

54th Ave E
12th St E



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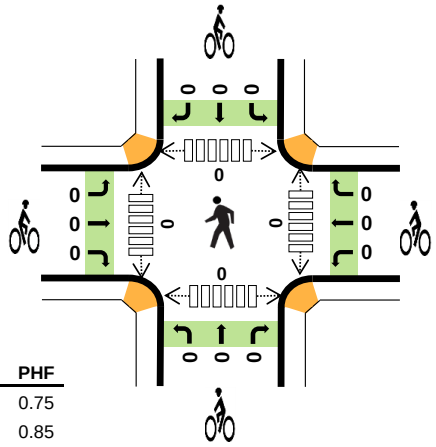
Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	6.9%	0.75
WB	7.9%	0.85
NB	34.1%	0.97
SB	25.9%	0.86
TOTAL	23.0%	0.88

Two-Hour Count Summaries

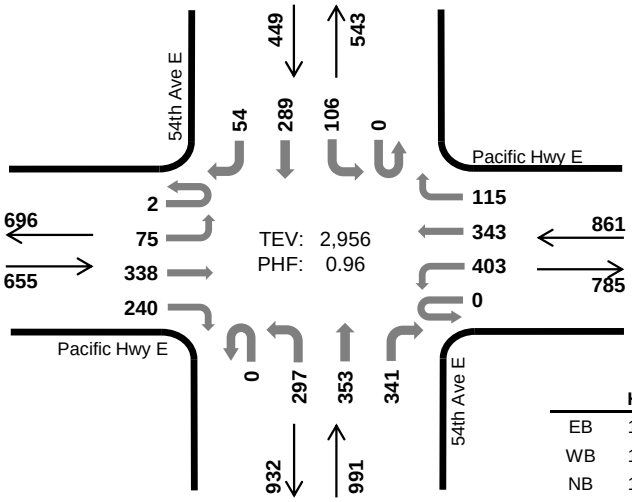
Interval Start	12th St E Eastbound				12th St E Westbound				54th Ave E Northbound				54th Ave E Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	**0**	**6**	**30**	**4**	**0**	**17**	**16**	**19**	**0**	**5**	**102**	**14**	**0**	**16**	**80**	**1**	**310**	0
7:15 AM	**0**	**7**	**28**	**4**	**0**	**19**	**20**	**27**	**0**	**10**	**106**	**11**	**0**	**9**	**81**	**4**	**326**	0
7:30 AM	**0**	**7**	**25**	**14**	**0**	**12**	**13**	**26**	**0**	**3**	**98**	**20**	**0**	**23**	**72**	**5**	**318**	0
7:45 AM	**0**	**12**	**36**	**15**	**0**	**17**	**17**	**37**	**0**	**5**	**106**	**12**	**0**	**19**	**94**	**6**	**376**	**1,330**
8:00 AM	0	4	20	7	0	16	14	18	0	4	101	14	0	12	76	4	290	1,310
8:15 AM	0	3	32	9	0	12	30	15	0	10	84	7	0	19	77	6	304	1,288
8:30 AM	0	9	20	13	0	21	29	21	0	9	82	17	0	22	76	6	325	1,295
8:45 AM	0	12	26	14	0	9	21	24	0	6	99	15	0	16	68	11	321	1,240
Count Total	0	60	217	80	0	123	160	187	0	52	778	110	0	136	624	43	2,570	0
Peak Hour All	**0**	**32**	**119**	**37**	**0**	**65**	**66**	**109**	**0**	**23**	**412**	**57**	**0**	**67**	**327**	**16**	**1,330**	**0**
Peak Hour HV	**0**	**0**	**2**	**11**	**0**	**3**	**2**	**14**	**0**	**1**	**163**	**4**	**0**	**5**	**101**	**0**	**306**	**0**
Peak Hour HV%	**-**	**0%**	**2%**	**30%**	**-**	**5%**	**3%**	**13%**	**-**	**4%**	**40%**	**7%**	**-**	**7%**	**31%**	**0%**	**23%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**0**	**3**	**54**	**22**	***79***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**0**	**4**	**35**	**31**	***70***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**10**	**6**	**38**	**18**	***72***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**3**	**6**	**41**	**35**	***85***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	1	2	57	30	*90*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	1	1	40	42	*84*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	7	9	41	38	*95*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	6	8	49	26	*89*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	28	39	355	242	*664*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**13**	**19**	**168**	**106**	***306***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

54th Ave E
Pacific Hwy E

Peak Hour



Date: 06/15/2023
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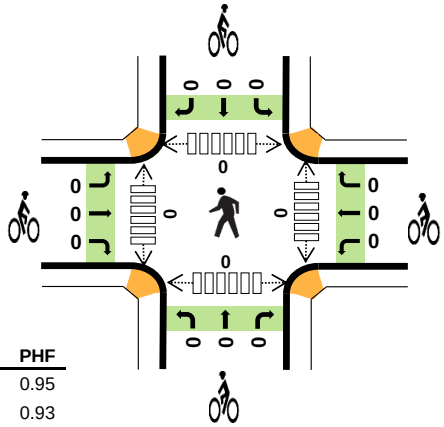
Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	13.7%	0.95
WB	16.6%	0.93
NB	19.5%	0.90
SB	32.5%	0.94
TOTAL	19.4%	0.96

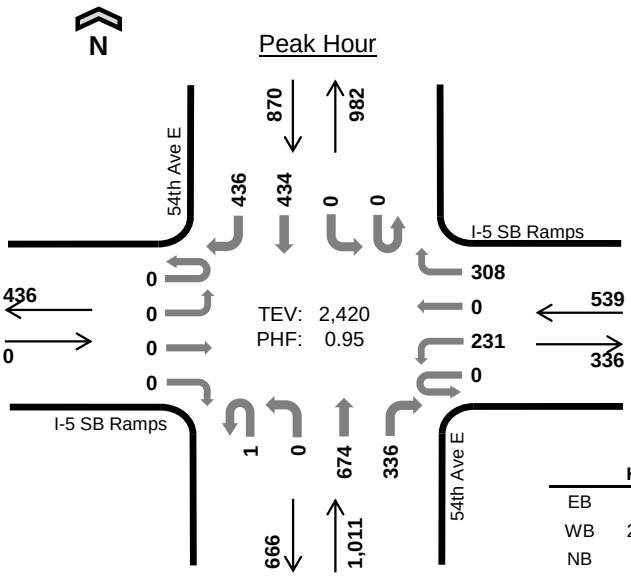
Two-Hour Count Summaries

Interval Start		Pacific Hwy E Eastbound				Pacific Hwy E Westbound				54th Ave E Northbound				54th Ave E Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		**0**	**13**	**82**	**55**	**0**	**85**	**87**	**32**	**0**	**54**	**92**	**105**	**0**	**28**	**69**	**16**	**718**	0
7:15 AM		**0**	**17**	**91**	**59**	**0**	**106**	**76**	**29**	**0**	**81**	**83**	**73**	**0**	**28**	**78**	**13**	**734**	0
7:30 AM		**1**	**21**	**86**	**57**	**0**	**99**	**86**	**30**	**0**	**91**	**88**	**97**	**0**	**30**	**78**	**7**	**771**	0
7:45 AM		**1**	**24**	**79**	**69**	**0**	**113**	**94**	**24**	**0**	**71**	**90**	**66**	**0**	**20**	**64**	**18**	**733**	**2,956**
8:00 AM		0	12	85	50	0	111	81	34	0	60	84	79	0	31	53	16	696	2,934
8:15 AM		0	14	73	48	0	97	102	34	0	62	79	61	0	36	76	11	693	2,893
8:30 AM		1	12	81	71	0	114	93	32	0	63	66	60	0	30	74	12	709	2,831
8:45 AM		0	20	82	70	0	122	83	31	0	59	68	75	0	30	72	13	725	2,823
Count Total		3	133	659	479	0	847	702	246	0	541	650	616	0	233	564	106	5,779	0
Peak Hour	**All**	**2**	**75**	**338**	**240**	**0**	**403**	**343**	**115**	**0**	**297**	**353**	**341**	**0**	**106**	**289**	**54**	**2,956**	**0**
	HV	**0**	**16**	**52**	**22**	**0**	**60**	**32**	**51**	**0**	**11**	**124**	**58**	**0**	**53**	**84**	**9**	**572**	**0**
	HV%	**0%**	**21%**	**15%**	**9%**	**-**	**15%**	**9%**	**44%**	**-**	**4%**	**35%**	**17%**	**-**	**50%**	**29%**	**17%**	**19%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**15**	**48**	**51**	**40**	***154***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**22**	**29**	**39**	**37**	***127***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**25**	**33**	**54**	**44**	***156***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**28**	**33**	**49**	**25**	***135***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	22	46	52	34	*154*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	34	46	47	49	*176*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	28	38	41	48	*155*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	38	58	39	39	*174*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	212	331	372	316	*1,231*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**90**	**143**	**193**	**146**	***572***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

54th Ave E
I-5 SB Ramps



Date: 06/15/2023
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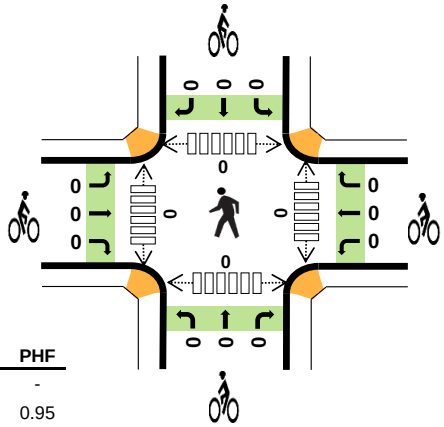
Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	-	-
WB	26.3%	0.95
NB	9.8%	0.90
SB	18.2%	0.94
TOTAL	16.5%	0.95

Two-Hour Count Summaries

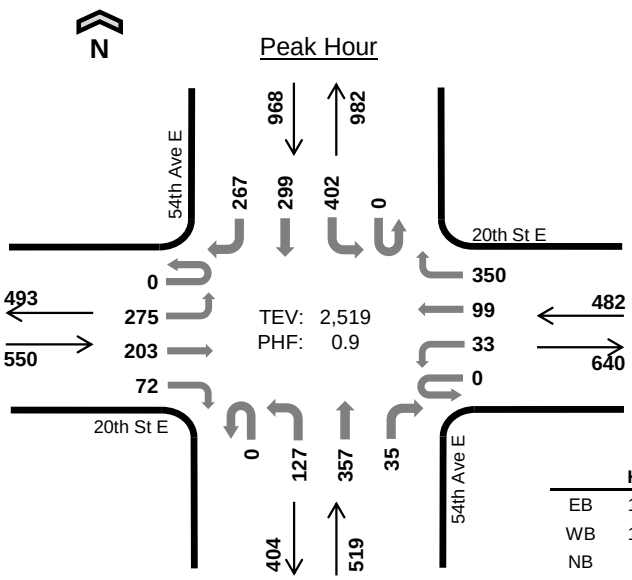
Interval Start	I-5 SB Ramps Eastbound				I-5 SB Ramps Westbound				54th Ave E Northbound				54th Ave E Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	**0**	**0**	**0**	**0**	**0**	**60**	**0**	**80**	**0**	**0**	**168**	**87**	**0**	**0**	**106**	**91**	**592**	0
7:15 AM	**0**	**0**	**0**	**0**	**0**	**62**	**0**	**78**	**0**	**0**	**170**	**97**	**0**	**0**	**115**	**117**	**639**	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**40**	**0**	**77**	**1**	**0**	**186**	**93**	**0**	**0**	**104**	**109**	**610**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**69**	**0**	**73**	**0**	**0**	**150**	**59**	**0**	**0**	**109**	**119**	**579**	**2,420**
8:00 AM	0	0	0	0	0	61	0	71	1	1	139	87	0	0	92	114	566	2,394
8:15 AM	0	0	0	0	0	48	0	71	0	0	121	84	0	0	95	114	533	2,288
8:30 AM	0	0	0	0	0	52	0	66	0	0	149	93	0	0	126	119	605	2,283
8:45 AM	0	0	0	0	0	55	0	87	0	0	164	65	0	0	136	123	630	2,334
Count Total	0	0	0	0	0	447	0	603	2	1	1,247	665	0	0	883	906	4,754	0
Peak Hour All	**0**	**0**	**0**	**0**	**0**	**231**	**0**	**308**	**1**	**0**	**674**	**336**	**0**	**0**	**434**	**436**	**2,420**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**28**	**0**	**114**	**0**	**0**	**73**	**26**	**0**	**0**	**83**	**75**	**399**	**0**
Peak Hour HV%	**-**	**-**	**-**	**-**	**-**	**12%**	**-**	**37%**	**0%**	**-**	**11%**	**8%**	**-**	**-**	**19%**	**17%**	**16%**	**0**

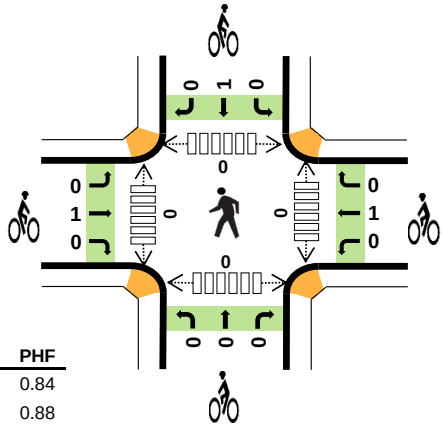
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
7:00 AM	**0**	**34**	**22**	**37**	***93***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**0**	**35**	**22**	**38**	***95***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**0**	**35**	**29**	**40**	***104***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**0**	**38**	**26**	**43**	***107***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	0	38	33	37	*108*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	0	28	22	44	*94*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	0	28	35	51	*114*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	0	28	36	48	*112*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	264	225	338	*827*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**0**	**142**	**99**	**158**	***399***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

54th Ave E
20th St E

Date: 06/15/2023
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM





	HV %:	PHF
EB	12.2%	0.84
WB	11.8%	0.88
NB	7.9%	0.88
SB	6.1%	0.91
TOTAL	8.9%	0.90

Two-Hour Count Summaries

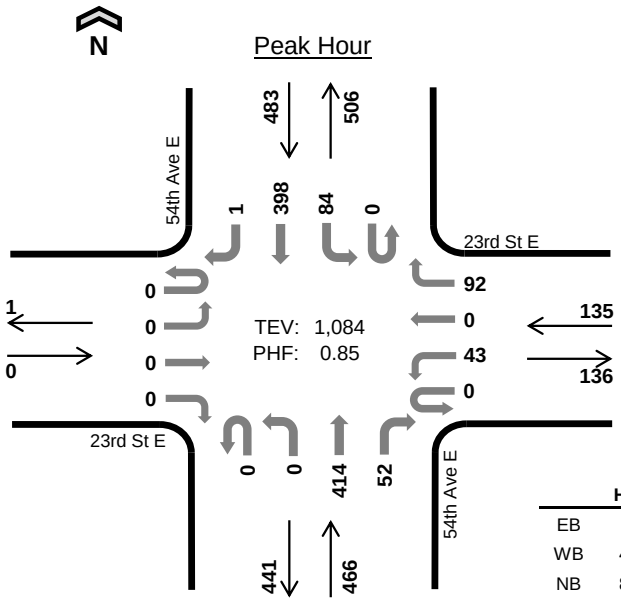
Interval Start		20th St E Eastbound				20th St E Westbound				54th Ave E Northbound				54th Ave E Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		**0**	**53**	**49**	**17**	**0**	**7**	**20**	**83**	**0**	**26**	**77**	**5**	**0**	**79**	**75**	**61**	**552**	0
7:15 AM		**0**	**73**	**57**	**20**	**0**	**17**	**22**	**98**	**0**	**30**	**101**	**16**	**0**	**119**	**88**	**60**	**701**	0
7:30 AM		**0**	**88**	**56**	**20**	**0**	**7**	**32**	**88**	**0**	**27**	**111**	**9**	**0**	**79**	**77**	**63**	**657**	0
7:45 AM		**0**	**61**	**41**	**15**	**0**	**2**	**25**	**81**	**0**	**44**	**68**	**5**	**0**	**125**	**59**	**83**	**609**	**2,519**
8:00 AM		0	62	52	13	0	8	24	84	0	21	58	6	0	85	57	73	543	2,510
8:15 AM		0	54	39	13	0	6	16	91	0	20	66	2	0	89	54	57	507	2,316
8:30 AM		0	63	26	8	0	3	22	102	0	11	78	4	0	82	70	59	528	2,187
8:45 AM		0	72	43	12	0	0	15	73	0	19	70	3	0	86	57	65	515	2,093
Count Total		0	526	363	118	0	50	176	700	0	198	629	50	0	744	537	521	4,612	0
Peak Hour	**All**	**0**	**275**	**203**	**72**	**0**	**33**	**99**	**350**	**0**	**127**	**357**	**35**	**0**	**402**	**299**	**267**	**2,519**	**0**
	HV	**0**	**42**	**18**	**7**	**0**	**4**	**23**	**30**	**0**	**11**	**24**	**6**	**0**	**16**	**15**	**28**	**224**	**0**
	HV%	**-**	**15%**	**9%**	**10%**	**-**	**12%**	**23%**	**9%**	**-**	**9%**	**7%**	**17%**	**-**	**4%**	**5%**	**10%**	**9%**	**0**

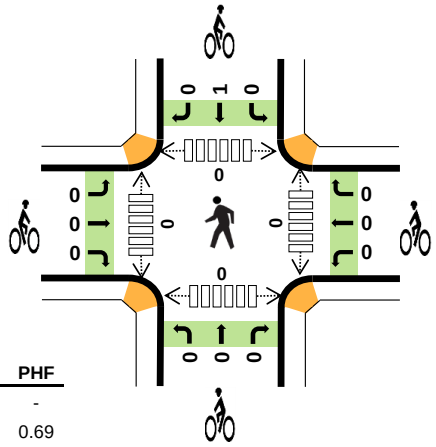
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**10**	**11**	**10**	**6**	***37***	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**15**	**21**	**11**	**17**	***64***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**29**	**12**	**8**	**21**	***70***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**13**	**13**	**12**	**15**	***53***	**0**	**1**	**0**	**1**	***2***	**0**	**0**	**0**	**0**	***0***
8:00 AM	12	14	4	20	*50*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	18	12	6	19	*55*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	10	19	8	17	*54*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	25	15	10	18	*68*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	132	117	69	133	*451*	1	1	0	1	*3*	0	0	0	0	*0*
Peak Hour	**67**	**57**	**41**	**59**	***224***	**1**	**1**	**0**	**1**	***3***	**0**	**0**	**0**	**0**	***0***

54th Ave E
23rd St E

Date: 06/08/2023
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM





	HV %:	PHF
EB	-	-
WB	4.4%	0.69
NB	8.2%	0.85
SB	3.3%	0.86
TOTAL	5.5%	0.85

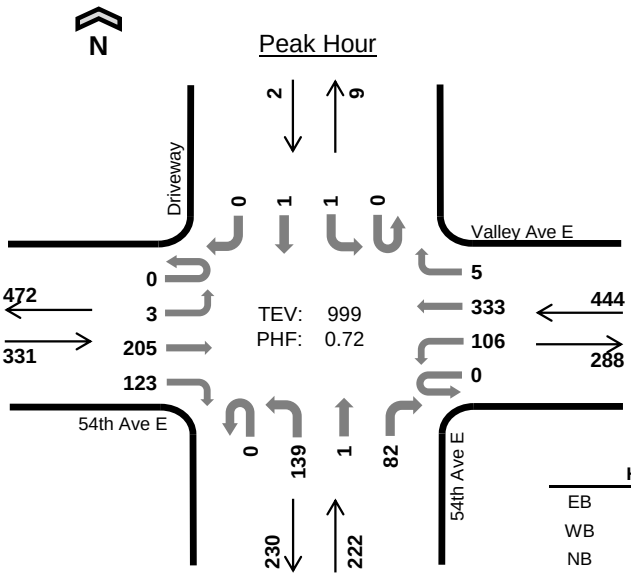
Two-Hour Count Summaries

Interval Start		23rd St E Eastbound				23rd St E Westbound				54th Ave E Northbound				54th Ave E Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		**0**	**0**	**0**	**0**	**0**	**7**	**0**	**16**	**0**	**0**	**67**	**3**	**0**	**15**	**104**	**0**	**212**	0
7:15 AM		**0**	**0**	**0**	**0**	**0**	**20**	**0**	**23**	**0**	**0**	**106**	**27**	**0**	**30**	**110**	**1**	**317**	0
7:30 AM		**0**	**0**	**0**	**0**	**0**	**12**	**0**	**37**	**0**	**0**	**117**	**20**	**0**	**27**	**102**	**0**	**315**	0
7:45 AM		**0**	**0**	**0**	**0**	**0**	**4**	**0**	**16**	**0**	**0**	**124**	**2**	**0**	**12**	**82**	**0**	**240**	**1,084**
8:00 AM		0	1	0	0	0	3	0	11	0	0	79	3	0	6	64	2	169	1,041
8:15 AM		0	0	0	0	0	2	0	17	0	0	72	2	0	10	57	2	162	886
8:30 AM		0	1	0	0	0	1	0	22	0	0	80	5	0	21	58	1	189	760
8:45 AM		0	0	0	0	0	2	0	19	0	0	57	1	0	18	69	0	166	686
Count Total		0	2	0	0	0	51	0	161	0	0	702	63	0	139	646	6	1,770	0
Peak Hour	**All**	**0**	**0**	**0**	**0**	**0**	**43**	**0**	**92**	**0**	**0**	**414**	**52**	**0**	**84**	**398**	**1**	**1,084**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**28**	**10**	**0**	**1**	**15**	**0**	**60**	**0**
	HV%	**-**	**-**	**-**	**-**	**-**	**14%**	**-**	**0%**	**-**	**-**	**7%**	**19%**	**-**	**1%**	**4%**	**0%**	**6%**	**0**

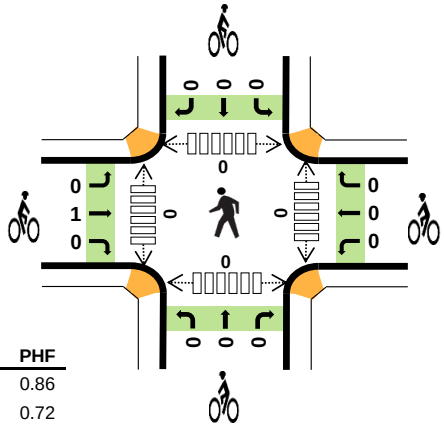
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**0**	**0**	**5**	**4**	***9***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**0**	**5**	**19**	**6**	***30***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**0**	**1**	**11**	**4**	***16***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**0**	**0**	**3**	**2**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	0	1	7	6	*14*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	0	1	5	5	*11*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	0	0	10	4	*14*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	0	0	5	11	*16*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	8	65	42	*115*	0	0	0	1	*1*	0	0	0	0	*0*
Peak Hour	**0**	**6**	**38**	**16**	***60***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	***0***

54th Ave E
Valley Ave E



Date: 06/15/2023
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	8.5%	0.86
WB	9.5%	0.72
NB	2.7%	0.57
SB	0.0%	0.50
TOTAL	7.6%	0.72

Two-Hour Count Summaries

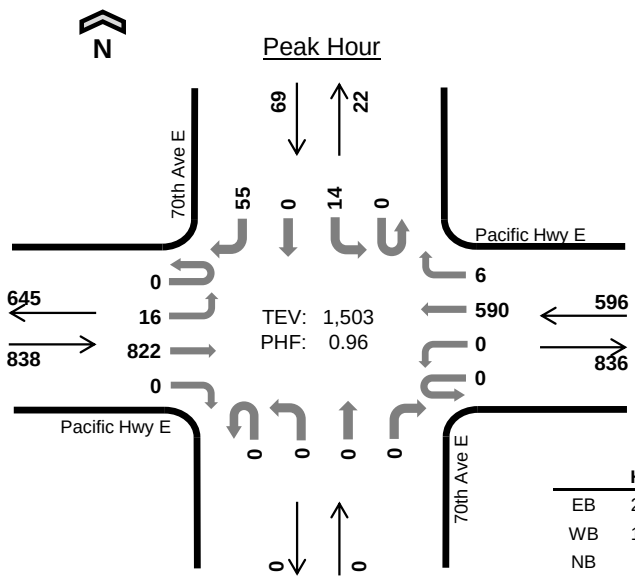
Interval Start		54th Ave E Eastbound				Valley Ave E Westbound				54th Ave E Northbound				Driveway Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		**0**	**0**	**51**	**38**	**0**	**18**	**77**	**2**	**0**	**16**	**0**	**9**	**0**	**0**	**0**	**0**	**211**	0
7:15 AM		**0**	**0**	**49**	**47**	**0**	**53**	**100**	**2**	**0**	**65**	**1**	**31**	**0**	**1**	**0**	**0**	**349**	0
7:30 AM		**0**	**0**	**57**	**33**	**0**	**32**	**78**	**0**	**0**	**45**	**0**	**37**	**0**	**0**	**1**	**0**	**283**	0
7:45 AM		**0**	**3**	**48**	**5**	**0**	**3**	**78**	**1**	**0**	**13**	**0**	**5**	**0**	**0**	**0**	**0**	**156**	**999**
8:00 AM		0	1	45	8	0	5	46	0	0	7	0	4	0	2	0	0	118	906
8:15 AM		0	2	48	5	0	4	57	3	0	9	0	3	0	0	0	0	131	688
8:30 AM		0	2	49	7	0	6	61	0	0	10	0	6	0	0	0	0	141	546
8:45 AM		0	1	46	3	0	2	56	1	0	5	0	3	0	0	0	0	117	507
Count Total		0	9	393	146	0	123	553	9	0	170	1	98	0	3	1	0	1,506	0
Peak Hour	**All**	**0**	**3**	**205**	**123**	**0**	**106**	**333**	**5**	**0**	**139**	**1**	**82**	**0**	**1**	**1**	**0**	**999**	**0**
	HV	**0**	**0**	**23**	**5**	**0**	**1**	**41**	**0**	**0**	**5**	**0**	**1**	**0**	**0**	**0**	**0**	**76**	**0**
	HV%	**-**	**0%**	**11%**	**4%**	**-**	**1%**	**12%**	**0%**	**-**	**4%**	**0%**	**1%**	**-**	**0%**	**0%**	**-**	**8%**	**0**

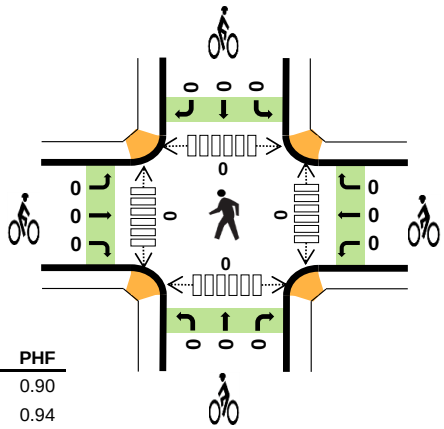
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**6**	**9**	**3**	**0**	***18***	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**10**	**16**	**2**	**0**	***28***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**7**	**9**	**1**	**0**	***17***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**5**	**8**	**0**	**0**	***13***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	3	4	0	0	*7*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	10	4	0	0	*14*	0	0	1	0	*1*	0	0	0	0	*0*
8:30 AM	3	6	3	0	*12*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	5	6	1	0	*12*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	49	62	10	0	*121*	1	0	1	0	*2*	0	0	0	0	*0*
Peak Hour	**28**	**42**	**6**	**0**	***76***	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***

70th Ave E
Pacific Hwy E

Date: 06/15/2023
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM





	HV %:	PHF
EB	23.2%	0.90
WB	13.9%	0.94
NB	-	-
SB	10.1%	0.96
TOTAL	18.9%	0.96

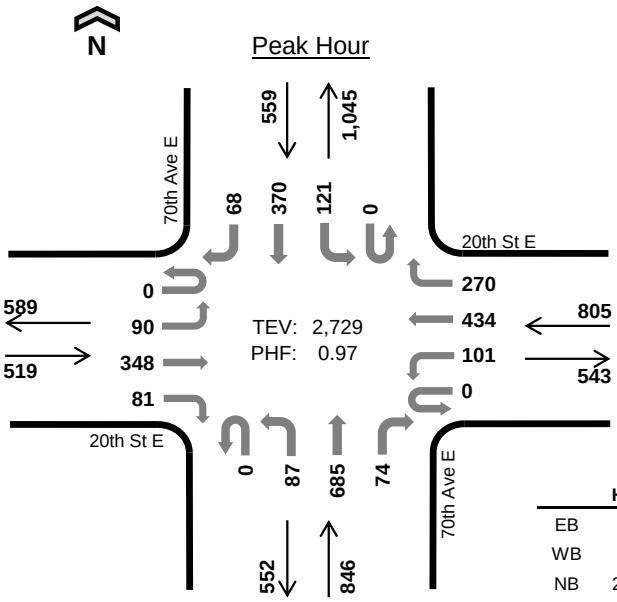
Two-Hour Count Summaries

Interval Start	Pacific Hwy E Eastbound				Pacific Hwy E Westbound				70th Ave E Northbound				70th Ave E Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	3	179	0	0	0	118	0	0	0	0	0	0	4	0	12	316	0
7:15 AM	0	2	200	0	0	0	141	1	0	0	0	0	0	6	0	19	369	0
7:30 AM	**0**	**6**	**226**	**0**	**0**	**0**	**140**	**3**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**17**	**393**	0
7:45 AM	**0**	**4**	**204**	**0**	**0**	**0**	**156**	**3**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**10**	**382**	1,460
8:00 AM	**0**	**1**	**191**	**0**	**0**	**0**	**148**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**15**	**358**	1,502
8:15 AM	**0**	**5**	**201**	**0**	**0**	**0**	**146**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**13**	**370**	**1,503**
8:30 AM	0	5	163	0	0	0	163	1	0	0	0	0	0	0	0	14	346	1,456
8:45 AM	0	13	183	0	0	0	144	1	0	0	0	0	0	2	0	12	355	1,429
Count Total	0	39	1,547	0	0	0	1,156	9	0	0	0	0	0	26	0	112	2,889	0
Peak Hour All	**0**	**16**	**822**	**0**	**0**	**0**	**590**	**6**	**0**	**0**	**0**	**0**	**0**	**14**	**0**	**55**	**1,503**	**0**
Peak Hour HV	**0**	**3**	**191**	**0**	**0**	**0**	**82**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**6**	**284**	**0**
Peak Hour HV%	**-**	**19%**	**23%**	**-**	**-**	**-**	**14%**	**17%**	**-**	**-**	**-**	**-**	**-**	**7%**	**-**	**11%**	**19%**	**0**

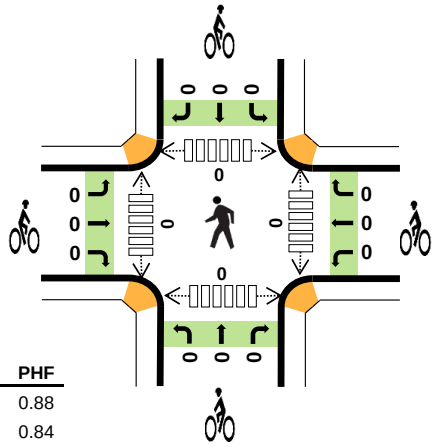
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	41	21	0	2	*64*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	38	17	0	0	*55*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	**51**	**22**	**0**	**0**	***73***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**42**	**21**	**0**	**4**	***67***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**53**	**24**	**0**	**2**	***79***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**48**	**16**	**0**	**1**	***65***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:30 AM	35	20	0	1	*56*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	53	26	0	2	*81*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	361	167	0	12	*540*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**194**	**83**	**0**	**7**	***284***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

70th Ave E
20th St E



Date: 06/08/2023
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:15 AM to 8:15 AM



	HV %:	PHF
EB	8.1%	0.88
WB	8.7%	0.84
NB	23.2%	0.91
SB	21.5%	0.94
TOTAL	15.7%	0.97

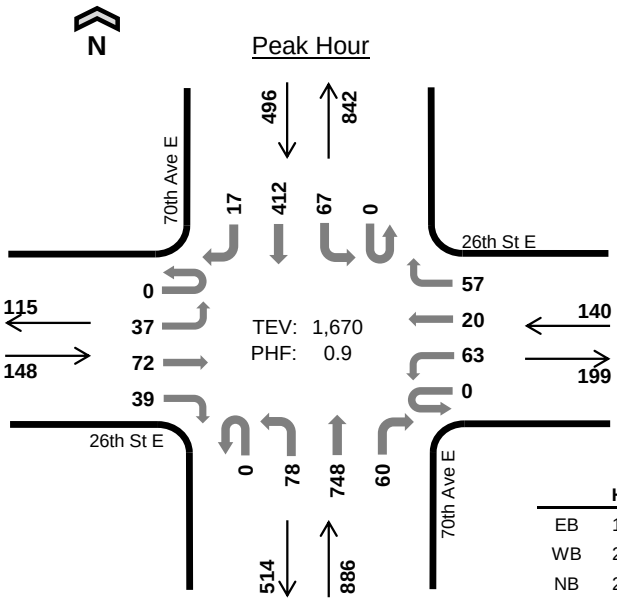
Two-Hour Count Summaries

Interval Start		20th St E Eastbound				20th St E Westbound				70th Ave E Northbound				70th Ave E Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	22	69	22	0	29	112	38	0	21	153	21	0	12	63	11	573	0
7:15 AM		**0**	**17**	**94**	**19**	**0**	**39**	**149**	**53**	**0**	**13**	**173**	**12**	**0**	**27**	**80**	**24**	**700**	0
7:30 AM		**0**	**25**	**105**	**18**	**0**	**19**	**116**	**63**	**0**	**24**	**175**	**25**	**0**	**23**	**87**	**20**	**700**	0
7:45 AM		**0**	**29**	**86**	**21**	**0**	**16**	**95**	**77**	**0**	**18**	**199**	**16**	**0**	**38**	**104**	**7**	**706**	2,679
8:00 AM		**0**	**19**	**63**	**23**	**0**	**27**	**74**	**77**	**0**	**32**	**138**	**21**	**0**	**33**	**99**	**17**	**623**	**2,729**
8:15 AM		0	8	85	20	0	3	91	52	0	23	130	12	0	23	67	10	524	2,553
8:30 AM		0	12	71	25	0	16	88	51	0	27	139	15	0	19	72	15	550	2,403
8:45 AM		0	22	79	14	0	17	65	46	0	34	131	31	0	22	99	19	579	2,276
Count Total		0	154	652	162	0	166	790	457	0	192	1,238	153	0	197	671	123	4,955	0
Peak Hour	**All**	**0**	**90**	**348**	**81**	**0**	**101**	**434**	**270**	**0**	**87**	**685**	**74**	**0**	**121**	**370**	**68**	**2,729**	**0**
	HV	**0**	**11**	**21**	**10**	**0**	**7**	**28**	**35**	**0**	**15**	**176**	**5**	**0**	**39**	**81**	**0**	**428**	**0**
	HV%	**-**	**12%**	**6%**	**12%**	**-**	**7%**	**6%**	**13%**	**-**	**17%**	**26%**	**7%**	**-**	**32%**	**22%**	**0%**	**16%**	**0**

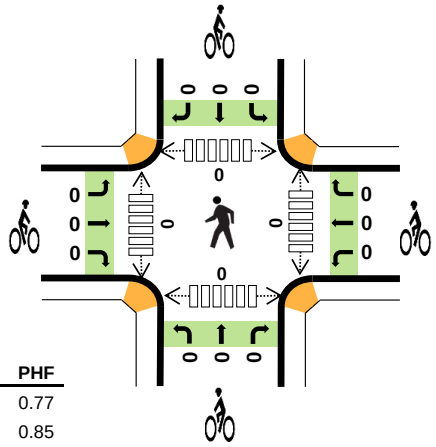
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	14	13	56	20	*103*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	**15**	**10**	**43**	**17**	***85***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**8**	**13**	**51**	**29**	***101***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**8**	**17**	**53**	**39**	***117***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**11**	**30**	**49**	**35**	***125***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:15 AM	12	10	42	28	*92*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	13	9	63	29	*114*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	14	13	65	41	*133*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	95	115	422	238	*870*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**42**	**70**	**196**	**120**	***428***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

70th Ave E
26th St E



Date: 06/08/2023
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	16.9%	0.77
WB	21.4%	0.85
NB	21.9%	0.82
SB	17.9%	0.92
TOTAL	20.2%	0.90

Two-Hour Count Summaries

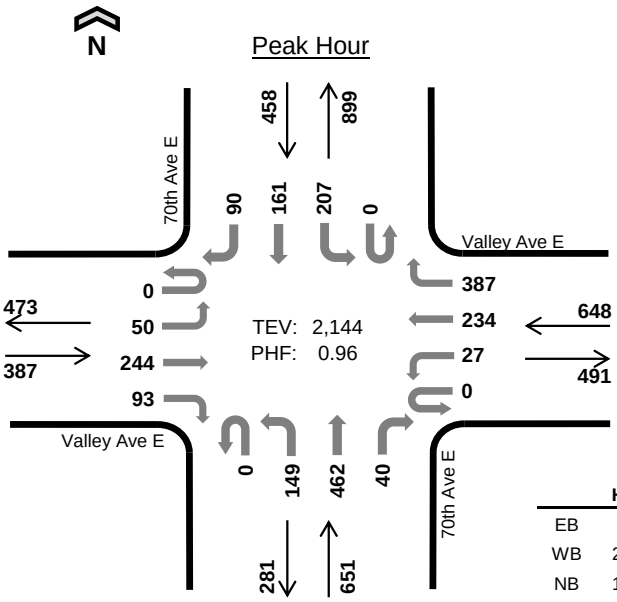
Interval Start	26th St E Eastbound				26th St E Westbound				70th Ave E Northbound				70th Ave E Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	**0**	**11**	**20**	**5**	**0**	**14**	**5**	**9**	**0**	**20**	**190**	**15**	**0**	**14**	**86**	**6**	**395**	0
7:15 AM	**0**	**12**	**19**	**17**	**0**	**21**	**7**	**13**	**0**	**27**	**155**	**12**	**0**	**20**	**100**	**5**	**408**	0
7:30 AM	**0**	**5**	**17**	**7**	**0**	**11**	**4**	**16**	**0**	**20**	**233**	**18**	**0**	**16**	**116**	**3**	**466**	0
7:45 AM	**0**	**9**	**16**	**10**	**0**	**17**	**4**	**19**	**0**	**11**	**170**	**15**	**0**	**17**	**110**	**3**	**401**	**1,670**
8:00 AM	0	8	15	11	0	6	5	29	0	12	140	9	0	19	107	4	365	1,640
8:15 AM	0	3	19	8	0	4	13	27	0	12	143	14	1	10	67	4	325	1,557
8:30 AM	0	6	11	10	0	9	14	29	0	7	155	11	0	10	81	8	351	1,442
8:45 AM	0	7	5	8	0	9	13	33	0	8	172	16	0	6	107	5	389	1,430
Count Total	0	61	122	76	0	91	65	175	0	117	1,358	110	1	112	774	38	3,100	0
Peak Hour All	**0**	**37**	**72**	**39**	**0**	**63**	**20**	**57**	**0**	**78**	**748**	**60**	**0**	**67**	**412**	**17**	**1,670**	**0**
Peak Hour HV	**0**	**13**	**6**	**6**	**0**	**8**	**3**	**19**	**0**	**23**	**164**	**7**	**0**	**8**	**80**	**1**	**338**	**0**
Peak Hour HV%	**-**	**35%**	**8%**	**15%**	**-**	**13%**	**15%**	**33%**	**-**	**29%**	**22%**	**12%**	**-**	**12%**	**19%**	**6%**	**20%**	**0**

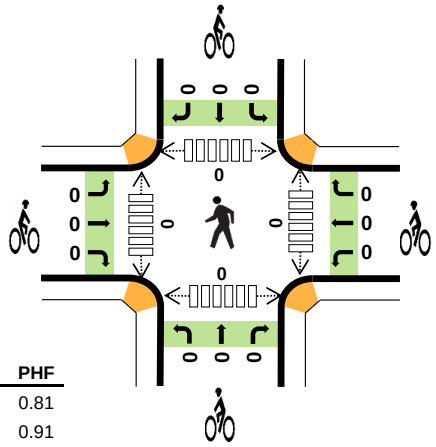
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**6**	**11**	**52**	**25**	***94***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**9**	**7**	**39**	**16**	***71***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**3**	**4**	**58**	**23**	***88***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**7**	**8**	**45**	**25**	***85***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	4	6	39	27	*76*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	5	22	31	21	*79*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	6	34	48	26	*114*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	6	29	38	37	*110*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	46	121	350	200	*717*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**25**	**30**	**194**	**89**	***338***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

70th Ave E
Valley Ave E

Date: 06/08/2023
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM





	HV %:	PHF
EB	7.0%	0.81
WB	21.0%	0.91
NB	10.4%	0.94
SB	21.8%	0.81
TOTAL	15.4%	0.96

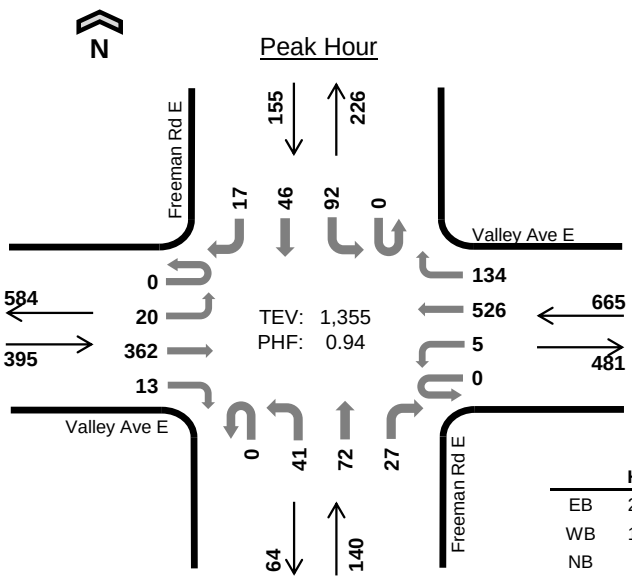
Two-Hour Count Summaries

Interval Start	Valley Ave E Eastbound				Valley Ave E Westbound				70th Ave E Northbound				70th Ave E Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	**0**	**6**	**66**	**22**	**0**	**3**	**69**	**106**	**0**	**27**	**125**	**14**	**0**	**39**	**40**	**8**	**525**	0
7:15 AM	**0**	**13**	**59**	**19**	**0**	**10**	**47**	**93**	**0**	**42**	**117**	**15**	**0**	**43**	**49**	**49**	**556**	0
7:30 AM	**0**	**24**	**68**	**27**	**0**	**7**	**64**	**98**	**0**	**40**	**114**	**5**	**0**	**51**	**31**	**25**	**554**	0
7:45 AM	**0**	**7**	**51**	**25**	**0**	**7**	**54**	**90**	**0**	**40**	**106**	**6**	**0**	**74**	**41**	**8**	**509**	**2,144**
8:00 AM	0	10	40	22	0	11	49	86	0	17	79	7	0	65	52	9	447	2,066
8:15 AM	0	4	39	23	0	7	49	78	0	36	100	14	0	53	29	10	442	1,952
8:30 AM	0	5	28	16	0	10	52	80	0	18	97	15	0	37	36	10	404	1,802
8:45 AM	0	8	60	25	0	7	56	75	0	27	90	8	0	75	43	4	478	1,771
Count Total	0	77	411	179	0	62	440	706	0	247	828	84	0	437	321	123	3,915	0
Peak Hour All	**0**	**50**	**244**	**93**	**0**	**27**	**234**	**387**	**0**	**149**	**462**	**40**	**0**	**207**	**161**	**90**	**2,144**	**0**
Peak Hour HV	**0**	**10**	**14**	**3**	**0**	**5**	**15**	**116**	**0**	**9**	**48**	**11**	**0**	**69**	**24**	**7**	**331**	**0**
Peak Hour HV%	**-**	**20%**	**6%**	**3%**	**-**	**19%**	**6%**	**30%**	**-**	**6%**	**10%**	**28%**	**-**	**33%**	**15%**	**8%**	**15%**	**0**

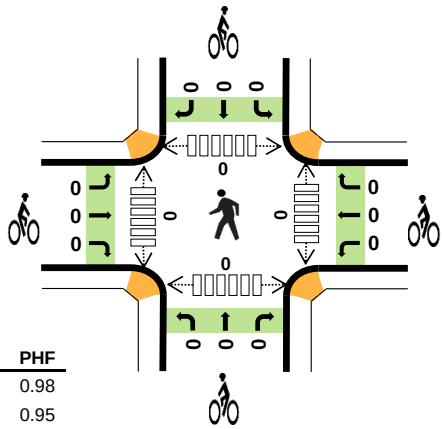
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**7**	**41**	**22**	**23**	***93***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**7**	**27**	**16**	**22**	***72***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**9**	**32**	**17**	**21**	***79***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**4**	**36**	**13**	**34**	***87***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	10	36	12	29	*87*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	6	28	23	17	*74*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	6	33	24	25	*88*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	17	34	16	37	*104*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	66	267	143	208	*684*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**27**	**136**	**68**	**100**	***331***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Freeman Rd E
Valley Ave E



Date: 06/14/2023
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	21.3%	0.98
WB	17.9%	0.95
NB	5.7%	0.83
SB	10.3%	0.69
TOTAL	16.8%	0.94

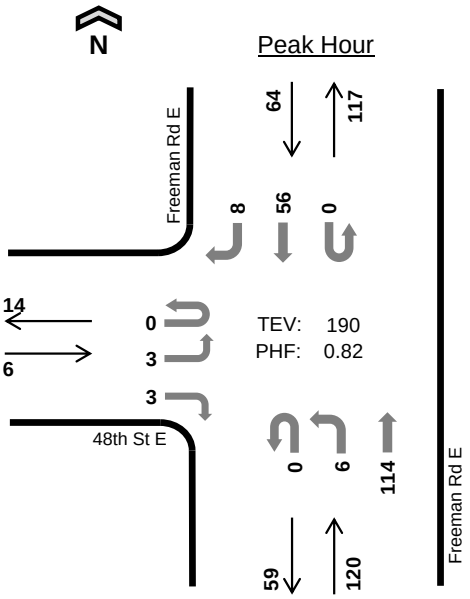
Two-Hour Count Summaries

Interval Start		Valley Ave E Eastbound				Valley Ave E Westbound				Freeman Rd E Northbound				Freeman Rd E Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		**0**	**1**	**90**	**1**	**0**	**2**	**123**	**30**	**0**	**12**	**12**	**5**	**0**	**25**	**4**	**3**	**308**	0
7:15 AM		**0**	**8**	**90**	**3**	**0**	**1**	**142**	**24**	**0**	**5**	**20**	**8**	**0**	**12**	**12**	**5**	**330**	0
7:30 AM		**0**	**4**	**94**	**3**	**0**	**1**	**136**	**38**	**0**	**12**	**24**	**6**	**0**	**24**	**10**	**4**	**356**	0
7:45 AM		**0**	**7**	**88**	**6**	**0**	**1**	**125**	**42**	**0**	**12**	**16**	**8**	**0**	**31**	**20**	**5**	**361**	**1,355**
8:00 AM		0	3	89	3	0	0	112	25	0	7	8	2	0	43	9	3	304	1,351
8:15 AM		0	3	87	1	0	5	123	34	0	5	8	6	0	29	9	1	311	1,332
8:30 AM		0	6	87	2	0	4	92	22	0	3	6	5	0	13	7	9	256	1,232
8:45 AM		0	3	79	5	0	1	108	17	0	4	5	12	0	25	4	3	266	1,137
Count Total		0	35	704	24	0	15	961	232	0	60	99	52	0	202	75	33	2,492	0
Peak Hour	**All**	**0**	**20**	**362**	**13**	**0**	**5**	**526**	**134**	**0**	**41**	**72**	**27**	**0**	**92**	**46**	**17**	**1,355**	**0**
	HV	**0**	**2**	**81**	**1**	**0**	**0**	**110**	**9**	**0**	**0**	**6**	**2**	**0**	**11**	**2**	**3**	**227**	**0**
	HV%	**-**	**10%**	**22%**	**8%**	**-**	**0%**	**21%**	**7%**	**-**	**0%**	**8%**	**7%**	**-**	**12%**	**4%**	**18%**	**17%**	**0**

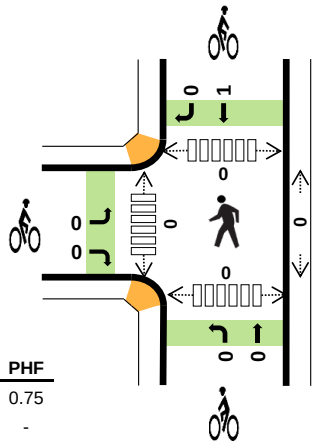
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**20**	**25**	**1**	**4**	***50***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**20**	**40**	**2**	**3**	***65***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**18**	**37**	**3**	**2**	***60***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**26**	**17**	**2**	**7**	***52***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	22	27	1	8	*58*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	26	23	3	8	*60*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	30	22	2	4	*58*	0	0	0	1	*1*	0	0	0	0	*0*
8:45 AM	19	25	4	7	*55*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	181	216	18	43	*458*	0	0	0	1	*1*	0	0	0	0	*0*
Peak Hour	**84**	**119**	**8**	**16**	***227***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Freeman Rd E
48th St E



Date: 06/08/2023
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	0.0%	0.75
WB	-	-
NB	5.0%	0.83
SB	7.8%	0.70
TOTAL	5.8%	0.82

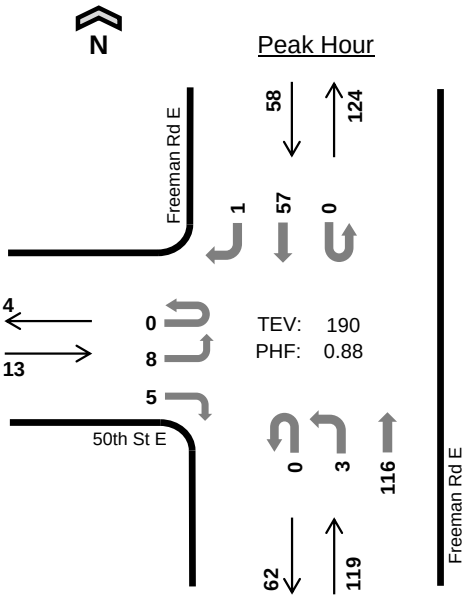
Two-Hour Count Summaries

Interval Start		48th St E Eastbound				0 Westbound				Freeman Rd E Northbound				Freeman Rd E Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	**27**	**0**	**0**	**0**	**8**	**1**	**40**	0
7:15 AM		**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**25**	**0**	**0**	**0**	**21**	**2**	**51**	0
7:30 AM		**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**28**	**0**	**0**	**0**	**10**	**2**	**41**	0
7:45 AM		**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	**34**	**0**	**0**	**0**	**17**	**3**	**58**	**190**
8:00 AM		0	0	0	1	0	0	0	0	0	1	17	0	0	0	11	1	31	181
8:15 AM		0	1	0	0	0	0	0	0	0	0	17	0	0	0	11	2	31	161
8:30 AM		0	1	0	1	0	0	0	0	0	0	17	0	0	0	6	1	26	146
8:45 AM		0	1	0	0	0	0	0	0	0	2	15	0	0	0	13	0	31	119
Count Total		0	6	0	5	0	0	0	0	0	9	180	0	0	0	97	12	309	0
Peak Hour	**All**	**0**	**3**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**6**	**114**	**0**	**0**	**0**	**56**	**8**	**190**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**4**	**1**	**11**	**0**
	HV%	**-**	**0%**	**-**	**0%**	**-**	**-**	**-**	**-**	**-**	**0%**	**5%**	**-**	**-**	**-**	**7%**	**13%**	**6%**	**0**

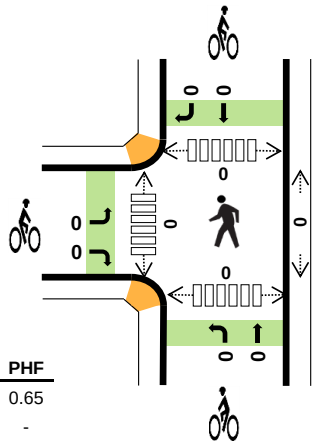
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**0**	**0**	**1**	**2**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**0**	**0**	**2**	**1**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**0**	**0**	**2**	**2**	***4***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	***0***
8:00 AM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	0	0	3	1	*4*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	0	0	2	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	0	0	2	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	0	14	7	*21*	0	0	0	1	*1*	0	0	0	0	*0*
Peak Hr	**0**	**0**	**6**	**5**	***11***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	***0***

Freeman Rd E
50th St E



Date: 06/08/2023
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	7.7%	0.65
WB	-	-
NB	5.9%	0.85
SB	10.3%	0.69
TOTAL	7.4%	0.88

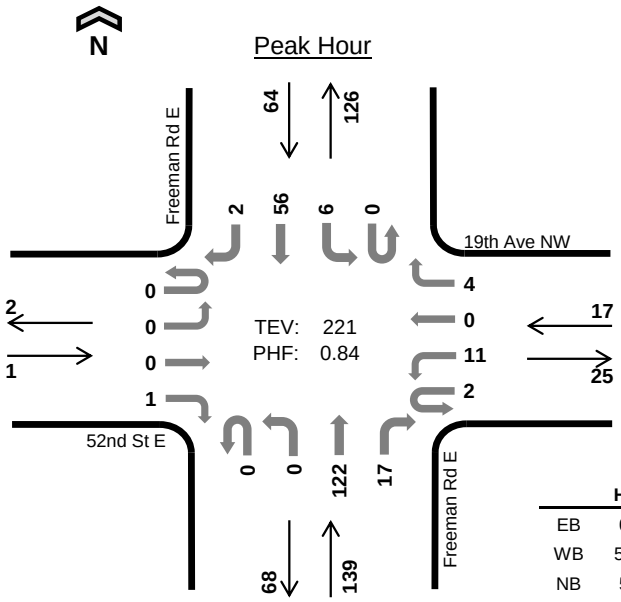
Two-Hour Count Summaries

Interval Start		50th St E Eastbound				0 Westbound				Freeman Rd E Northbound				Freeman Rd E Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		**0**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**24**	**0**	**0**	**0**	**8**	**0**	**36**	0
7:15 AM		**0**	**3**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**28**	**0**	**0**	**0**	**20**	**1**	**54**	0
7:30 AM		**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**30**	**0**	**0**	**0**	**13**	**0**	**46**	0
7:45 AM		**0**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**34**	**0**	**0**	**0**	**16**	**0**	**54**	**190**
8:00 AM		0	1	0	0	0	0	0	0	0	0	18	0	0	0	15	0	34	188
8:15 AM		0	2	0	1	0	0	0	0	0	0	16	0	0	0	11	0	30	164
8:30 AM		0	2	0	2	0	0	0	0	0	2	14	0	0	0	6	1	27	145
8:45 AM		0	1	0	3	0	0	0	0	0	1	14	0	0	0	11	1	31	122
Count Total		0	14	0	11	0	0	0	0	0	6	178	0	0	0	100	3	312	0
Peak Hour	**All**	**0**	**8**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**3**	**116**	**0**	**0**	**0**	**57**	**1**	**190**	**0**
	HV	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**6**	**0**	**0**	**0**	**6**	**0**	**14**	**0**
	HV%	**-**	**0%**	**-**	**20%**	**-**	**-**	**-**	**-**	**-**	**33%**	**5%**	**-**	**-**	**-**	**11%**	**0%**	**7%**	**0**

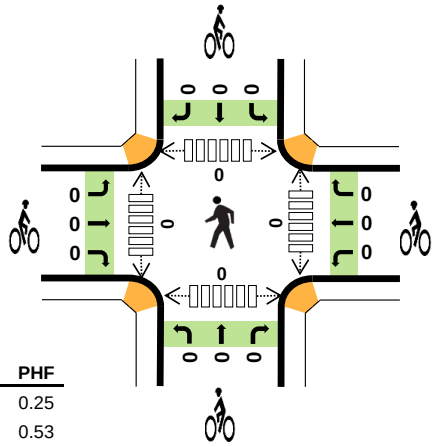
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**1**	**0**	**3**	**0**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**0**	**0**	**1**	**2**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**0**	**0**	**2**	**3**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**0**	**0**	**1**	**1**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	0	0	1	0	*1*	0	0	0	1	*1*	0	0	0	0	*0*
8:15 AM	0	0	4	1	*5*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	0	0	2	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	1	0	14	10	*25*	0	0	0	1	*1*	0	0	0	0	*0*
Peak Hr	**1**	**0**	**7**	**6**	***14***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Freeman Rd E
52nd St E



Date: 06/08/2023
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	0.0%	0.25
WB	58.8%	0.53
NB	5.0%	0.79
SB	9.4%	0.80
TOTAL	10.4%	0.84

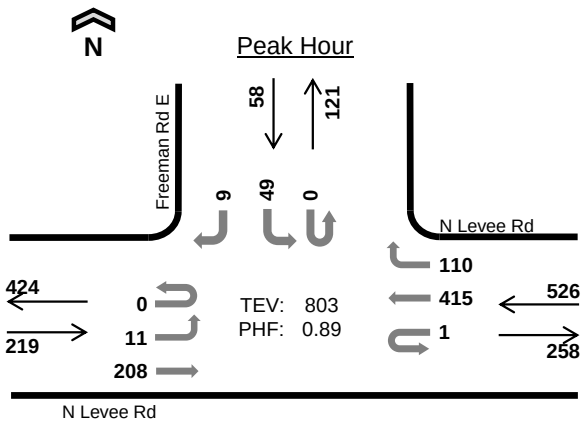
Two-Hour Count Summaries

Interval Start		52nd St E Eastbound				19th Ave NW Westbound				Freeman Rd E Northbound				Freeman Rd E Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		**0**	**0**	**0**	**0**	**0**	**2**	**0**	**1**	**0**	**0**	**24**	**7**	**0**	**2**	**8**	**0**	**44**	0
7:15 AM		**0**	**0**	**0**	**1**	**0**	**6**	**0**	**2**	**0**	**0**	**25**	**5**	**0**	**2**	**16**	**2**	**59**	0
7:30 AM		**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**33**	**1**	**0**	**1**	**15**	**0**	**52**	0
7:45 AM		**0**	**0**	**0**	**0**	**2**	**1**	**0**	**1**	**0**	**0**	**40**	**4**	**0**	**1**	**17**	**0**	**66**	**221**
8:00 AM		0	0	0	0	0	2	0	2	0	0	19	1	0	1	13	0	38	215
8:15 AM		0	0	0	0	0	3	0	3	0	0	13	3	0	2	9	0	33	189
8:30 AM		0	0	0	1	0	2	0	0	0	0	17	2	0	0	8	0	30	167
8:45 AM		0	0	0	0	0	2	0	3	0	0	11	2	0	0	14	0	32	133
Count Total		0	0	0	2	2	20	0	12	0	0	182	25	0	9	100	2	354	0
Peak Hour	**All**	**0**	**0**	**0**	**1**	**2**	**11**	**0**	**4**	**0**	**0**	**122**	**17**	**0**	**6**	**56**	**2**	**221**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**2**	**0**	**0**	**5**	**2**	**0**	**1**	**5**	**0**	**23**	**0**
	HV%	**-**	**-**	**-**	**0%**	**0%**	**73%**	**-**	**50%**	**-**	**-**	**4%**	**12%**	**-**	**17%**	**9%**	**0%**	**10%**	**0**

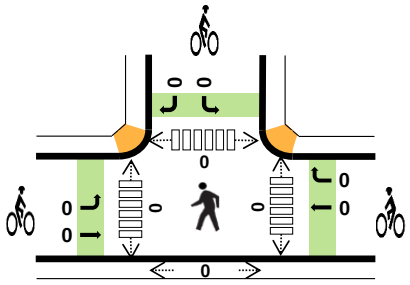
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**0**	**3**	**1**	**1**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**0**	**4**	**1**	**1**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**0**	**1**	**1**	**2**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**0**	**2**	**4**	**2**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	0	3	1	0	*4*	0	0	0	1	*1*	0	0	0	0	*0*
8:15 AM	0	2	2	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	0	0	2	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	0	2	1	2	*5*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	17	13	9	*39*	0	0	0	1	*1*	0	0	0	0	*0*
Peak Hour	**0**	**10**	**7**	**6**	***23***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Freeman Rd E
N Levee Rd



Date: 06/15/2023
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	16.4%	0.86
WB	9.3%	0.91
NB	-	-
SB	10.3%	0.76
TOTAL	11.3%	0.89

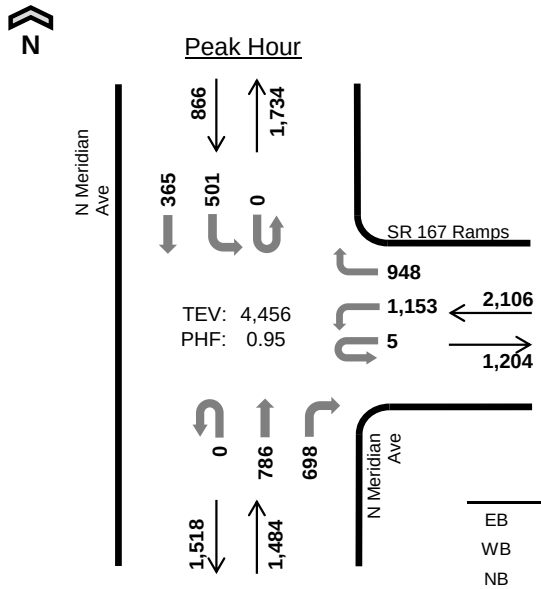
Two-Hour Count Summaries

Interval Start		N Levee Rd Eastbound				N Levee Rd Westbound				0 Northbound				Freeman Rd E Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		**0**	**1**	**52**	**0**	**0**	**0**	**91**	**25**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**175**	0
7:15 AM		**0**	**3**	**48**	**0**	**1**	**0**	**108**	**16**	**0**	**0**	**0**	**0**	**0**	**13**	**0**	**2**	**191**	0
7:30 AM		**0**	**3**	**61**	**0**	**0**	**0**	**101**	**43**	**0**	**0**	**0**	**0**	**0**	**14**	**0**	**4**	**226**	0
7:45 AM		**0**	**4**	**47**	**0**	**0**	**0**	**115**	**26**	**0**	**0**	**0**	**0**	**0**	**16**	**0**	**3**	**211**	**803**
8:00 AM		0	5	44	0	0	0	83	23	0	0	0	0	0	16	0	2	173	801
8:15 AM		0	6	43	0	0	0	78	12	0	0	0	0	0	14	0	3	156	766
8:30 AM		0	3	50	0	0	0	56	13	0	0	0	0	0	10	0	6	138	678
8:45 AM		0	5	53	0	0	0	61	12	0	0	0	0	0	13	0	3	147	614
Count Total		0	30	398	0	1	0	693	170	0	0	0	0	0	102	0	23	1,417	0
Peak Hour	**All**	**0**	**11**	**208**	**0**	**1**	**0**	**415**	**110**	**0**	**0**	**0**	**0**	**0**	**49**	**0**	**9**	**803**	**0**
	HV	**0**	**1**	**35**	**0**	**0**	**0**	**45**	**4**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**91**	**0**
	HV%	**-**	**9%**	**17%**	**-**	**0%**	**-**	**11%**	**4%**	**-**	**-**	**-**	**-**	**-**	**12%**	**-**	**0%**	**11%**	**0**

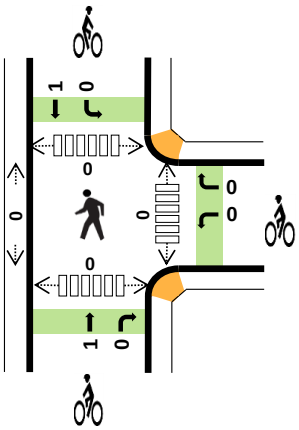
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**6**	**12**	**0**	**1**	***19***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**9**	**12**	**0**	**1**	***22***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**13**	**12**	**0**	**1**	***26***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**8**	**13**	**0**	**3**	***24***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	4	10	0	3	*17*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	7	18	0	0	*25*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	8	9	0	1	*18*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	6	11	0	0	*17*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	61	97	0	10	*168*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hr	**36**	**49**	**0**	**6**	***91***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

N Meridian Ave
SR 167 Ramps



Date: 06/14/2023
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	-	-
WB	10.2%	0.93
NB	9.6%	0.98
SB	16.4%	0.91
TOTAL	11.2%	0.95

Two-Hour Count Summaries

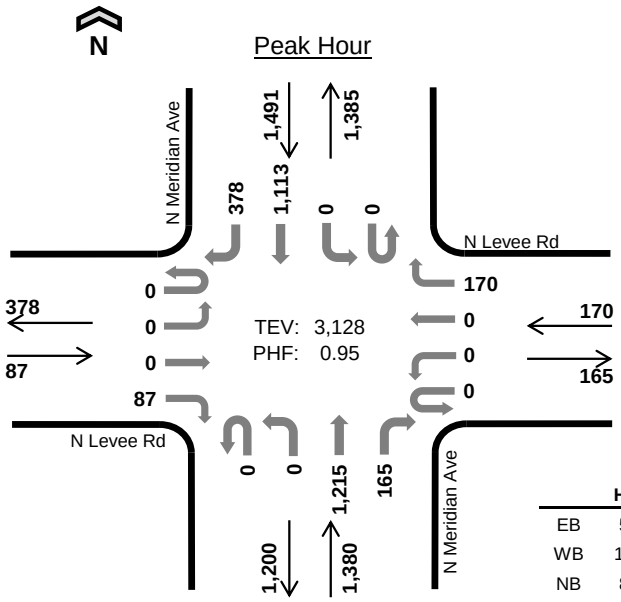
Interval Start		0				SR 167 Ramps				N Meridian Ave				N Meridian Ave				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		**0**	**0**	**0**	**0**	**2**	**235**	**0**	**246**	**0**	**0**	**190**	**172**	**0**	**126**	**73**	**0**	**1,044**	0
7:15 AM		**0**	**0**	**0**	**0**	**0**	**302**	**0**	**207**	**0**	**0**	**205**	**172**	**0**	**122**	**76**	**0**	**1,084**	0
7:30 AM		**0**	**0**	**0**	**0**	**0**	**317**	**0**	**250**	**0**	**0**	**197**	**174**	**0**	**134**	**98**	**0**	**1,170**	0
7:45 AM		**0**	**0**	**0**	**0**	**3**	**299**	**0**	**245**	**0**	**0**	**194**	**180**	**0**	**119**	**118**	**0**	**1,158**	**4,456**
8:00 AM		0	0	0	0	4	232	0	210	0	0	126	177	0	128	131	0	1,008	4,420
8:15 AM		0	0	0	0	1	254	0	216	0	0	118	157	0	116	96	0	958	4,294
8:30 AM		0	0	0	0	2	243	0	241	0	0	125	141	0	144	90	0	986	4,110
8:45 AM		0	0	0	0	2	241	0	214	0	0	99	134	0	128	105	0	923	3,875
Count Total		0	0	0	0	14	2,123	0	1,829	0	0	1,254	1,307	0	1,017	787	0	8,331	0
Peak Hour	**All**	**0**	**0**	**0**	**0**	**5**	**1,153**	**0**	**948**	**0**	**0**	**786**	**698**	**0**	**501**	**365**	**0**	**4,456**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**118**	**0**	**97**	**0**	**0**	**67**	**76**	**0**	**112**	**30**	**0**	**500**	**0**
	HV%	**-**	**-**	**-**	**-**	**0%**	**10%**	**-**	**10%**	**-**	**-**	**9%**	**11%**	**-**	**22%**	**8%**	**-**	**11%**	**0**

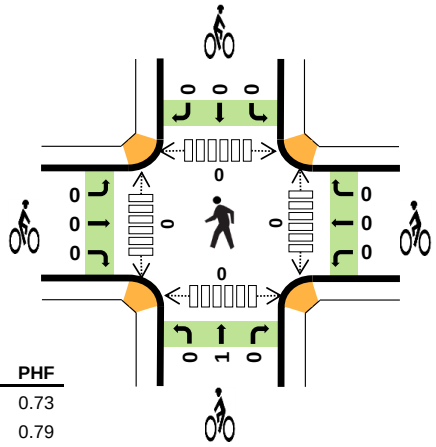
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**0**	**58**	**47**	**35**	***140***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**0**	**54**	**39**	**31**	***124***	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**0**	**55**	**32**	**37**	***124***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**0**	**48**	**25**	**39**	***112***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	0	54	27	52	*133*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	0	47	22	38	*107*	0	0	0	1	*1*	0	0	0	0	*0*
8:30 AM	0	57	25	39	*121*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	0	59	25	46	*130*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	432	242	317	*991*	0	0	1	2	*3*	0	0	0	0	*0*
Peak Hr	**0**	**215**	**143**	**142**	***500***	**0**	**0**	**1**	**1**	***2***	**0**	**0**	**0**	**0**	***0***

N Meridian Ave
N Levee Rd

Date: 06/14/2023
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:15 AM to 8:15 AM





	HV %:	PHF
EB	5.7%	0.73
WB	10.0%	0.79
NB	8.9%	0.91
SB	9.3%	0.94
TOTAL	9.0%	0.95

Two-Hour Count Summaries

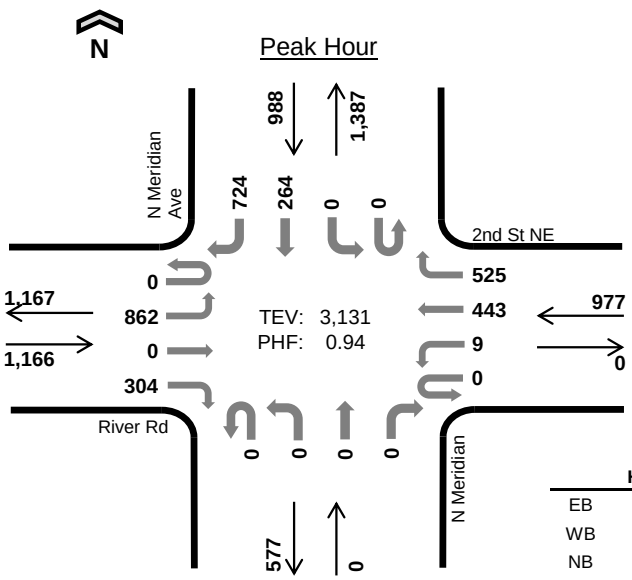
Interval Start	N Levee Rd Eastbound				N Levee Rd Westbound				N Meridian Ave Northbound				N Meridian Ave Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	7	0	0	0	44	0	0	304	35	0	0	198	94	682	0
7:15 AM	**0**	**0**	**0**	**19**	**0**	**0**	**0**	**41**	**0**	**0**	**327**	**34**	**0**	**0**	**264**	**95**	**780**	0
7:30 AM	**0**	**0**	**0**	**12**	**0**	**0**	**0**	**54**	**0**	**0**	**303**	**40**	**0**	**0**	**283**	**115**	**807**	0
7:45 AM	**0**	**0**	**0**	**26**	**0**	**0**	**0**	**36**	**0**	**0**	**333**	**46**	**0**	**0**	**286**	**99**	**826**	3,095
8:00 AM	**0**	**0**	**0**	**30**	**0**	**0**	**0**	**39**	**0**	**0**	**252**	**45**	**0**	**0**	**280**	**69**	**715**	**3,128**
8:15 AM	0	0	0	20	0	0	0	31	0	0	240	42	0	0	257	81	671	3,019
8:30 AM	0	0	0	11	0	0	0	20	0	0	245	51	0	0	259	57	643	2,855
8:45 AM	0	0	0	22	0	0	0	21	0	0	212	54	0	0	272	66	647	2,676
Count Total	0	0	0	147	0	0	0	286	0	0	2,216	347	0	0	2,099	676	5,771	0
Peak Hour All	**0**	**0**	**0**	**87**	**0**	**0**	**0**	**170**	**0**	**0**	**1,215**	**165**	**0**	**0**	**1,113**	**378**	**3,128**	**0**
Peak Hour HV	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**17**	**0**	**0**	**101**	**22**	**0**	**0**	**104**	**34**	**283**	**0**
Peak Hour HV%	**-**	**-**	**-**	**6%**	**-**	**-**	**-**	**10%**	**-**	**-**	**8%**	**13%**	**-**	**-**	**9%**	**9%**	**9%**	**0**

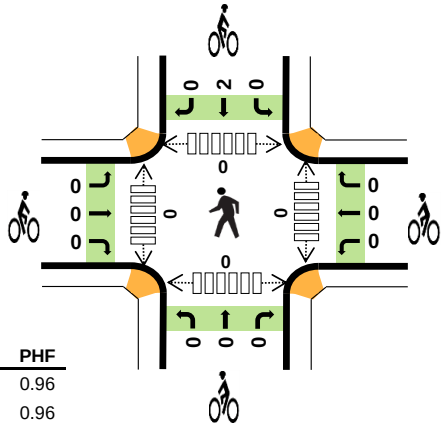
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	8	40	35	*84*	1	0	0	1	*2*	0	0	0	0	*0*
7:15 AM	**0**	**8**	**30**	**29**	***67***	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**0**	**4**	**34**	**37**	***75***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**2**	**3**	**29**	**39**	***73***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**3**	**2**	**30**	**33**	***68***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:15 AM	0	4	26	36	*66*	0	0	0	1	*1*	0	0	0	0	*0*
8:30 AM	2	1	32	28	*63*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	2	2	32	45	*81*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	10	32	253	282	*577*	1	0	1	2	*4*	0	0	0	0	*0*
Peak Hour	**5**	**17**	**123**	**138**	***283***	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	***0***

N Meridian
2nd St NE

Date: 06/14/2023
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM





	HV %:	PHF
EB	7.7%	0.96
WB	4.4%	0.96
NB	-	-
SB	10.0%	0.85
TOTAL	7.4%	0.94

Two-Hour Count Summaries

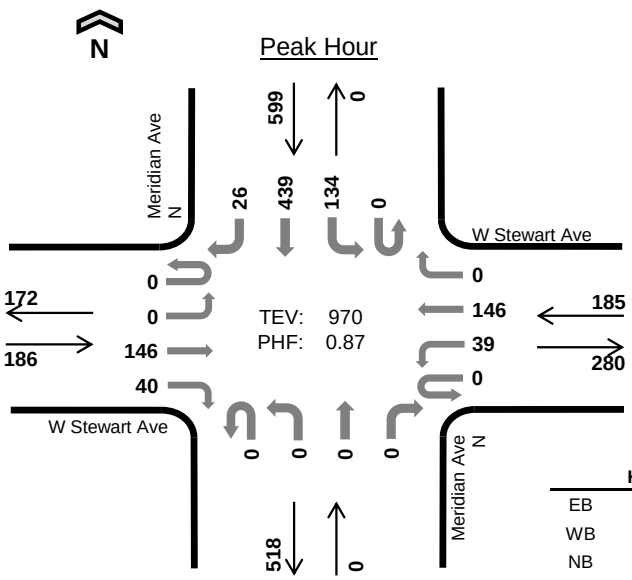
Interval Start		River Rd Eastbound				2nd St NE Westbound				N Meridian Northbound				N Meridian Ave Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		**0**	**237**	**0**	**68**	**0**	**1**	**102**	**141**	**0**	**0**	**0**	**0**	**0**	**0**	**43**	**145**	**737**	0
7:15 AM		**0**	**201**	**0**	**63**	**0**	**2**	**113**	**139**	**0**	**0**	**0**	**0**	**0**	**0**	**62**	**169**	**749**	0
7:30 AM		**0**	**211**	**0**	**82**	**0**	**2**	**111**	**123**	**0**	**0**	**0**	**0**	**0**	**0**	**75**	**204**	**808**	0
7:45 AM		**0**	**213**	**0**	**91**	**0**	**4**	**117**	**122**	**0**	**0**	**0**	**0**	**0**	**0**	**84**	**206**	**837**	**3,131**
8:00 AM		0	174	0	67	0	0	111	95	0	0	0	0	0	0	87	191	725	3,119
8:15 AM		0	155	0	67	0	4	117	81	0	0	0	0	0	0	66	170	660	3,030
8:30 AM		0	161	0	68	0	4	135	84	0	0	0	0	0	0	81	188	721	2,943
8:45 AM		0	156	0	80	0	4	99	61	0	0	0	0	0	0	92	159	651	2,757
Count Total		0	1,508	0	586	0	21	905	846	0	0	0	0	0	0	590	1,432	5,888	0
Peak Hour	**All**	**0**	**862**	**0**	**304**	**0**	**9**	**443**	**525**	**0**	**0**	**0**	**0**	**0**	**0**	**264**	**724**	**3,131**	**0**
	HV	**0**	**79**	**0**	**11**	**0**	**0**	**15**	**28**	**0**	**0**	**0**	**0**	**0**	**0**	**15**	**84**	**232**	**0**
	HV%	**-**	**9%**	**-**	**4%**	**-**	**0%**	**3%**	**5%**	**-**	**-**	**-**	**-**	**-**	**-**	**6%**	**12%**	**7%**	**0**

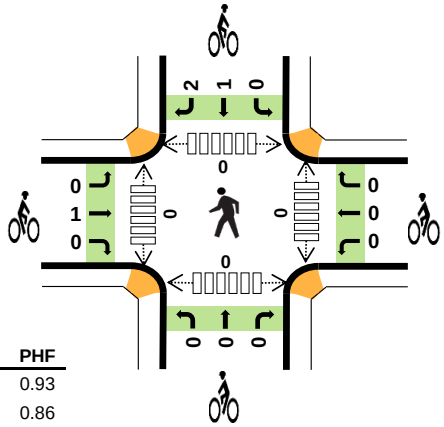
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**20**	**9**	**0**	**18**	***47***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**25**	**12**	**0**	**23**	***60***	**0**	**0**	**0**	**2**	***2***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**25**	**14**	**0**	**28**	***67***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**20**	**8**	**0**	**30**	***58***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	24	14	0	26	*64*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	15	12	0	21	*48*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	20	9	0	26	*55*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	30	5	0	27	*62*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	179	83	0	199	*461*	0	0	0	2	*2*	0	0	0	0	*0*
Peak Hour	**90**	**43**	**0**	**99**	***232***	**0**	**0**	**0**	**2**	***2***	**0**	**0**	**0**	**0**	***0***

Meridian Ave N
W Stewart Ave

Date: 06/14/2023
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM





	HV %:	PHF
EB	6.5%	0.93
WB	5.9%	0.86
NB	-	-
SB	4.2%	0.81
TOTAL	4.9%	0.87

Two-Hour Count Summaries

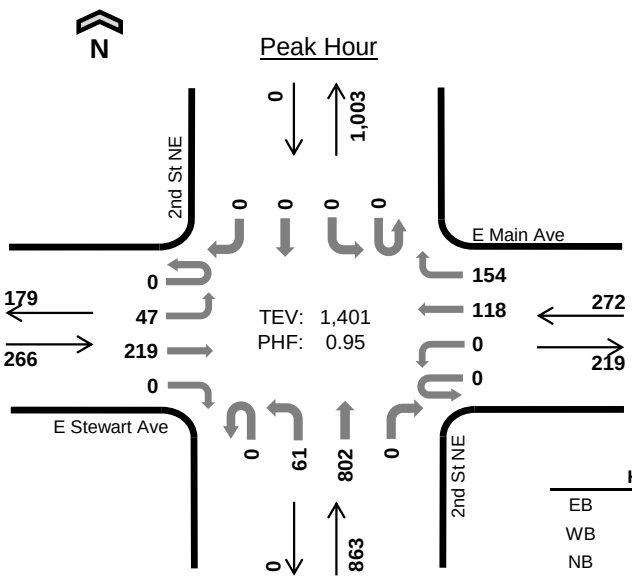
Interval Start	W Stewart Ave Eastbound				W Stewart Ave Westbound				Meridian Ave N Northbound				Meridian Ave N Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	37	3	0	11	23	0	0	0	0	0	0	20	81	4	179	0
7:15 AM	0	0	31	4	0	14	25	0	0	0	0	0	0	17	97	3	191	0
7:30 AM	0	0	22	10	0	7	27	0	0	0	0	0	0	24	110	7	207	0
7:45 AM	**0**	**0**	**29**	**9**	**0**	**13**	**41**	**0**	**0**	**0**	**0**	**0**	**0**	**44**	**133**	**9**	**278**	855
8:00 AM	**0**	**0**	**41**	**9**	**0**	**9**	**41**	**0**	**0**	**0**	**0**	**0**	**0**	**35**	**103**	**4**	**242**	918
8:15 AM	**0**	**0**	**39**	**9**	**0**	**6**	**32**	**0**	**0**	**0**	**0**	**0**	**0**	**28**	**106**	**4**	**224**	951
8:30 AM	**0**	**0**	**37**	**13**	**0**	**11**	**32**	**0**	**0**	**0**	**0**	**0**	**0**	**27**	**97**	**9**	**226**	**970**
8:45 AM	0	0	34	7	0	10	30	0	0	0	0	0	0	32	116	6	235	927
Count Total	0	0	270	64	0	81	251	0	0	0	0	0	0	227	843	46	1,782	0
Peak Hour All	**0**	**0**	**146**	**40**	**0**	**39**	**146**	**0**	**0**	**0**	**0**	**0**	**0**	**134**	**439**	**26**	**970**	**0**
Peak Hour HV	**0**	**0**	**10**	**2**	**0**	**0**	**11**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**17**	**4**	**48**	**0**
Peak Hour HV%	**-**	**-**	**7%**	**5%**	**-**	**0%**	**8%**	**-**	**-**	**-**	**-**	**-**	**-**	**3%**	**4%**	**15%**	**5%**	**0**

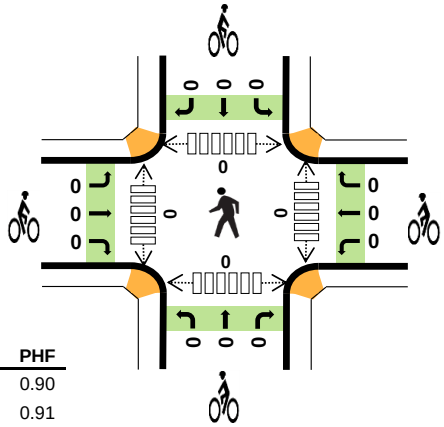
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
7:00 AM	3	1	0	3	*7*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	5	3	0	6	*14*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	3	1	0	6	*10*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	**5**	**1**	**0**	**10**	***16***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**2**	**3**	**0**	**9**	***14***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**3**	**6**	**0**	**2**	***11***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:30 AM	**2**	**1**	**0**	**4**	***7***	**1**	**0**	**0**	**2**	***3***	**0**	**0**	**0**	**0**	***0***
8:45 AM	3	2	0	9	*14*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	26	18	0	49	*93*	1	0	0	3	*4*	0	0	0	0	*0*
Peak Hour	**12**	**11**	**0**	**25**	***48***	**1**	**0**	**0**	**3**	***4***	**0**	**0**	**0**	**0**	***0***

2nd St NE
E Stewart Ave

Date: 06/15/2023
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM





	HV %:	PHF
EB	5.3%	0.90
WB	6.3%	0.91
NB	3.5%	0.97
SB	-	-
TOTAL	4.4%	0.95

Two-Hour Count Summaries

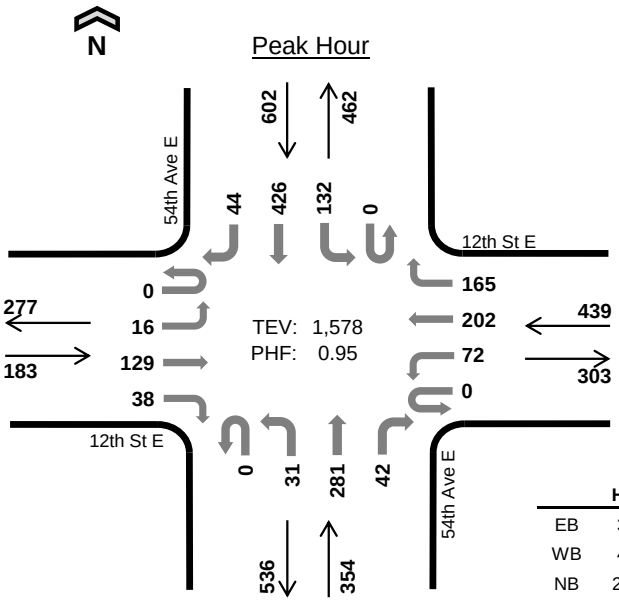
Interval Start		E Stewart Ave Eastbound				E Main Ave Westbound				2nd St NE Northbound				2nd St NE Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		**0**	**10**	**47**	**0**	**0**	**0**	**26**	**35**	**0**	**12**	**201**	**0**	**0**	**0**	**0**	**0**	**331**	0
7:15 AM		**0**	**13**	**61**	**0**	**0**	**0**	**28**	**40**	**0**	**24**	**198**	**0**	**0**	**0**	**0**	**0**	**364**	0
7:30 AM		**0**	**13**	**48**	**0**	**0**	**0**	**31**	**37**	**0**	**10**	**199**	**0**	**0**	**0**	**0**	**0**	**338**	0
7:45 AM		**0**	**11**	**63**	**0**	**0**	**0**	**33**	**42**	**0**	**15**	**204**	**0**	**0**	**0**	**0**	**0**	**368**	**1,401**
8:00 AM		0	15	58	0	0	0	31	36	0	18	132	0	0	0	0	0	290	1,360
8:15 AM		0	7	32	0	0	0	37	37	0	8	145	0	0	0	0	0	266	1,262
8:30 AM		0	12	51	0	0	0	31	42	0	27	161	0	0	0	0	0	324	1,248
8:45 AM		0	17	59	0	0	0	38	32	0	20	141	0	0	0	0	0	307	1,187
Count Total		0	98	419	0	0	0	255	301	0	134	1,381	0	0	0	0	0	2,588	0
Peak Hour	**All**	**0**	**47**	**219**	**0**	**0**	**0**	**118**	**154**	**0**	**61**	**802**	**0**	**0**	**0**	**0**	**0**	**1,401**	**0**
	HV	**0**	**1**	**13**	**0**	**0**	**0**	**5**	**12**	**0**	**6**	**24**	**0**	**0**	**0**	**0**	**0**	**61**	**0**
	HV%	**-**	**2%**	**6%**	**-**	**-**	**-**	**4%**	**8%**	**-**	**10%**	**3%**	**-**	**-**	**-**	**-**	**-**	**4%**	**0**

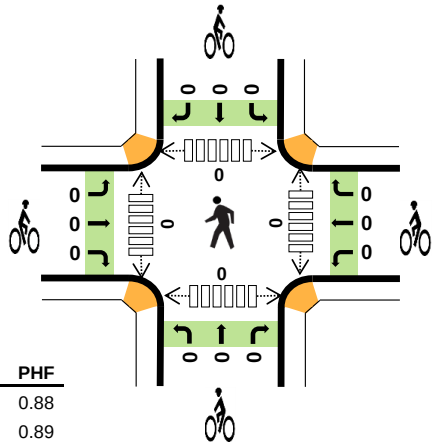
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
7:00 AM	**4**	**5**	**6**	**0**	***15***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**6**	**3**	**7**	**0**	***16***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**1**	**6**	**11**	**0**	***18***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**3**	**3**	**6**	**0**	***12***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	6	11	11	0	*28*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	1	6	13	0	*20*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	4	5	2	0	*11*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	5	5	3	0	*13*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	30	44	59	0	*133*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**14**	**17**	**30**	**0**	***61***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

54th Ave E
12th St E

Date: 06/08/2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM





	HV %:	PHF
EB	3.8%	0.88
WB	4.3%	0.89
NB	24.0%	0.88
SB	20.4%	0.90
TOTAL	14.8%	0.95

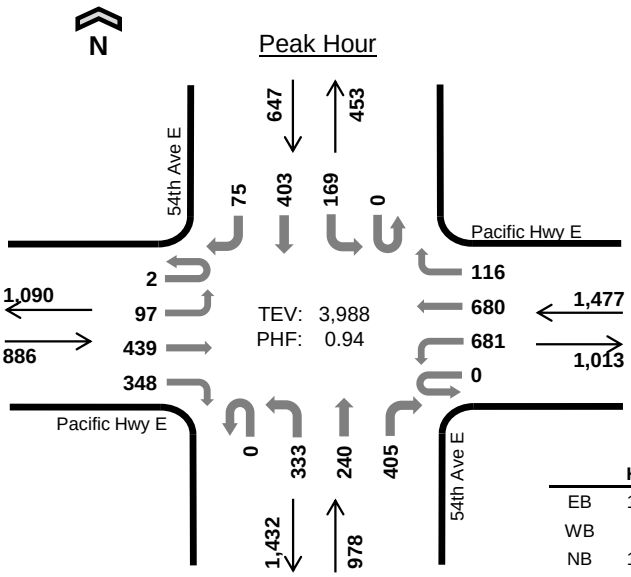
Two-Hour Count Summaries

Interval Start		12th St E Eastbound				12th St E Westbound				54th Ave E Northbound				54th Ave E Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		**0**	**2**	**30**	**8**	**0**	**26**	**54**	**43**	**0**	**9**	**64**	**12**	**0**	**36**	**116**	**15**	**415**	0
4:15 PM		**0**	**4**	**34**	**10**	**0**	**9**	**54**	**46**	**0**	**11**	**78**	**12**	**0**	**38**	**107**	**14**	**417**	0
4:30 PM		**0**	**7**	**29**	**7**	**0**	**20**	**49**	**40**	**0**	**3**	**76**	**8**	**0**	**39**	**106**	**7**	**391**	0
4:45 PM		**0**	**3**	**36**	**13**	**0**	**17**	**45**	**36**	**0**	**8**	**63**	**10**	**0**	**19**	**97**	**8**	**355**	**1,578**
5:00 PM		0	9	32	7	0	14	54	45	0	12	67	16	0	26	94	6	382	1,545
5:15 PM		0	4	29	9	0	26	55	40	0	10	78	11	0	22	102	8	394	1,522
5:30 PM		0	2	35	9	0	19	49	19	0	13	73	9	0	13	75	4	320	1,451
5:45 PM		0	0	14	9	0	15	26	16	0	7	49	7	0	11	48	3	205	1,301
Count Total		0	31	239	72	0	146	386	285	0	73	548	85	0	204	745	65	2,879	0
Peak Hour	**All**	**0**	**16**	**129**	**38**	**0**	**72**	**202**	**165**	**0**	**31**	**281**	**42**	**0**	**132**	**426**	**44**	**1,578**	**0**
	HV	**0**	**0**	**6**	**1**	**0**	**2**	**6**	**11**	**0**	**2**	**79**	**4**	**0**	**11**	**109**	**3**	**234**	**0**
	HV%	**-**	**0%**	**5%**	**3%**	**-**	**3%**	**3%**	**7%**	**-**	**6%**	**28%**	**10%**	**-**	**8%**	**26%**	**7%**	**15%**	**0**

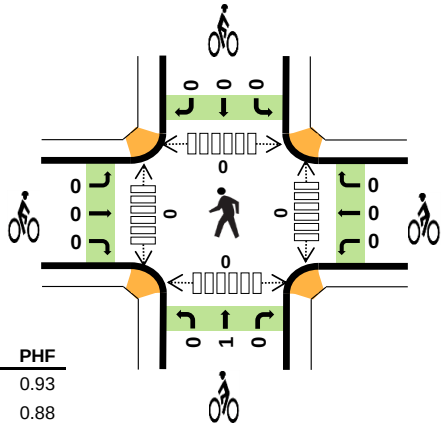
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**2**	**7**	**21**	**29**	***59***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:15 PM	**2**	**3**	**26**	**41**	***72***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**1**	**5**	**22**	**33**	***61***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**2**	**4**	**16**	**20**	***42***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:00 PM	0	8	15	24	*47*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	3	10	19	26	*58*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	4	4	12	20	*40*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	1	2	12	11	*26*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	15	43	143	204	*405*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**7**	**19**	**85**	**123**	***234***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

54th Ave E
Pacific Hwy E



Date: 06/15/2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	10.7%	0.93
WB	7.5%	0.88
NB	11.5%	0.96
SB	19.3%	0.88
TOTAL	11.1%	0.94

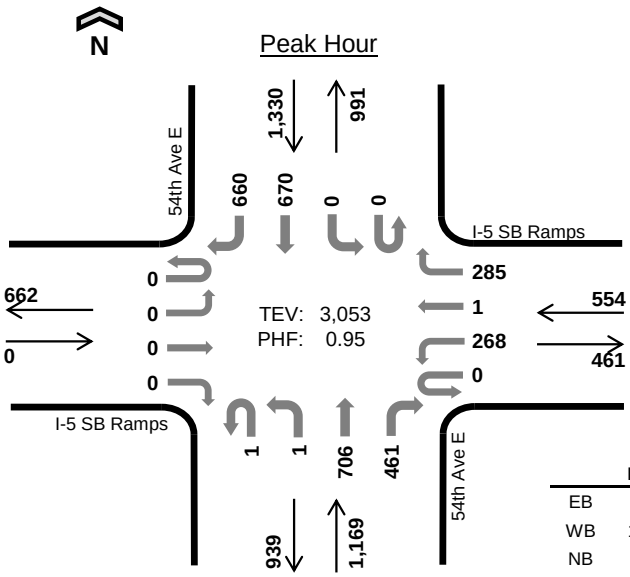
Two-Hour Count Summaries

Interval Start		Pacific Hwy E Eastbound				Pacific Hwy E Westbound				54th Ave E Northbound				54th Ave E Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		**0**	**28**	**102**	**96**	**0**	**165**	**171**	**28**	**0**	**86**	**66**	**95**	**0**	**37**	**127**	**19**	**1,020**	0
4:15 PM		**0**	**20**	**106**	**82**	**0**	**202**	**182**	**34**	**0**	**91**	**52**	**111**	**0**	**45**	**115**	**21**	**1,061**	0
4:30 PM		**1**	**25**	**127**	**85**	**0**	**169**	**153**	**24**	**0**	**86**	**56**	**111**	**0**	**51**	**85**	**17**	**990**	0
4:45 PM		**1**	**24**	**104**	**85**	**0**	**145**	**174**	**30**	**0**	**70**	**66**	**88**	**0**	**36**	**76**	**18**	**917**	**3,988**
5:00 PM		0	27	118	101	0	147	180	23	0	77	56	106	0	25	98	11	969	3,937
5:15 PM		0	25	107	69	0	139	162	29	0	62	62	91	0	31	101	7	885	3,761
5:30 PM		0	17	89	77	0	154	171	38	0	103	70	136	0	21	88	20	984	3,755
5:45 PM		0	15	83	65	0	159	174	24	0	62	40	85	0	25	53	18	803	3,641
Count Total		2	181	836	660	0	1,280	1,367	230	0	637	468	823	0	271	743	131	7,629	0
Peak Hour	**All**	**2**	**97**	**439**	**348**	**0**	**681**	**680**	**116**	**0**	**333**	**240**	**405**	**0**	**169**	**403**	**75**	**3,988**	**0**
	HV	**0**	**2**	**73**	**20**	**0**	**39**	**33**	**39**	**0**	**8**	**46**	**58**	**0**	**72**	**44**	**9**	**443**	**0**
	HV%	**0%**	**2%**	**17%**	**6%**	**-**	**6%**	**5%**	**34%**	**-**	**2%**	**19%**	**14%**	**-**	**43%**	**11%**	**12%**	**11%**	**0**

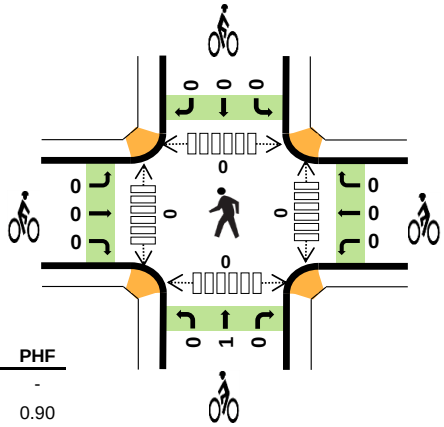
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**27**	**34**	**37**	**32**	***130***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:15 PM	**21**	**29**	**24**	**33**	***107***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**24**	**28**	**34**	**38**	***124***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**23**	**20**	**17**	**22**	***82***	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	***0***
5:00 PM	13	17	16	16	*62*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	10	14	20	13	*57*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	13	21	29	15	*78*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	10	14	15	18	*57*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	141	177	192	187	*697*	0	0	1	0	*1*	0	0	0	0	*0*
Peak Hour	**95**	**111**	**112**	**125**	***443***	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	***0***

54th Ave E
I-5 SB Ramps



Date: 06/15/2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM



	HV %:	PHF
EB	-	-
WB	11.4%	0.90
NB	5.1%	0.93
SB	6.2%	0.88
TOTAL	6.7%	0.95

Two-Hour Count Summaries

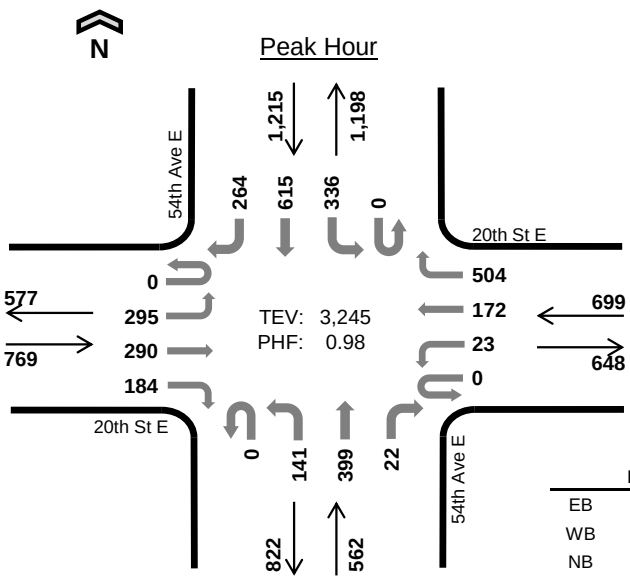
Interval Start		I-5 SB Ramps Eastbound				I-5 SB Ramps Westbound				54th Ave E Northbound				54th Ave E Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	51	0	71	0	1	164	99	0	0	179	135	700	0
4:15 PM		**0**	**0**	**0**	**0**	**0**	**66**	**0**	**71**	**0**	**0**	**175**	**110**	**0**	**0**	**169**	**209**	**800**	0
4:30 PM		**0**	**0**	**0**	**0**	**0**	**67**	**0**	**68**	**0**	**1**	**189**	**125**	**0**	**0**	**164**	**178**	**792**	0
4:45 PM		**0**	**0**	**0**	**0**	**0**	**61**	**1**	**66**	**0**	**0**	**172**	**116**	**0**	**0**	**156**	**133**	**705**	2,997
5:00 PM		**0**	**0**	**0**	**0**	**0**	**74**	**0**	**80**	**1**	**0**	**170**	**110**	**0**	**0**	**181**	**140**	**756**	**3,053**
5:15 PM		0	0	0	0	0	83	0	65	0	0	173	109	0	0	145	168	743	2,996
5:30 PM		0	0	0	0	0	54	0	93	0	0	195	84	0	0	156	169	751	2,955
5:45 PM		0	0	0	0	0	67	0	70	0	0	131	86	0	0	108	154	616	2,866
Count Total		0	0	0	0	0	523	1	584	1	2	1,369	839	0	0	1,258	1,286	5,863	0
Peak Hour	**All**	**0**	**0**	**0**	**0**	**0**	**268**	**1**	**285**	**1**	**1**	**706**	**461**	**0**	**0**	**670**	**660**	**3,053**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**21**	**0**	**42**	**0**	**0**	**52**	**8**	**0**	**0**	**44**	**38**	**205**	**0**
	HV%	**-**	**-**	**-**	**-**	**-**	**8%**	**0%**	**15%**	**0%**	**0%**	**7%**	**2%**	**-**	**-**	**7%**	**6%**	**7%**	**0**

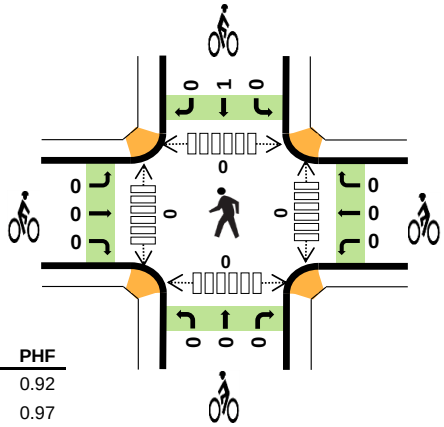
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
4:00 PM	0	21	21	29	*71*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	**0**	**14**	**18**	**23**	***55***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**0**	**21**	**21**	**22**	***64***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**0**	**15**	**10**	**18**	***43***	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**0**	**13**	**11**	**19**	***43***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:15 PM	0	21	14	13	*48*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	0	22	12	17	*51*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	9	8	17	*34*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	136	115	158	*409*	0	0	1	0	*1*	0	0	0	0	*0*
Peak Hour	**0**	**63**	**60**	**82**	***205***	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	***0***

54th Ave E
20th St E

Date: 06/15/2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM





	HV %:	PHF
EB	6.2%	0.92
WB	3.6%	0.97
NB	2.0%	0.95
SB	4.6%	0.98
TOTAL	4.3%	0.98

Two-Hour Count Summaries

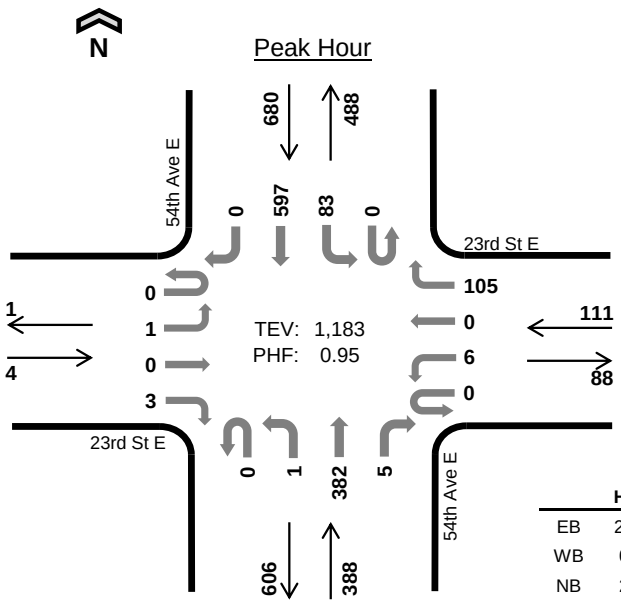
Interval Start		20th St E Eastbound				20th St E Westbound				54th Ave E Northbound				54th Ave E Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	98	67	51	0	3	50	114	0	38	112	7	0	85	129	86	840	0
4:15 PM		0	84	73	47	0	3	42	123	0	33	83	5	0	88	118	78	777	0
4:30 PM		**0**	**73**	**60**	**48**	**0**	**3**	**43**	**130**	**0**	**42**	**96**	**10**	**0**	**78**	**165**	**60**	**808**	0
4:45 PM		**0**	**69**	**76**	**45**	**0**	**7**	**45**	**124**	**0**	**33**	**101**	**2**	**0**	**95**	**146**	**58**	**801**	3,226
5:00 PM		**0**	**79**	**70**	**41**	**0**	**6**	**42**	**132**	**0**	**35**	**103**	**6**	**0**	**85**	**146**	**80**	**825**	3,211
5:15 PM		**0**	**74**	**84**	**50**	**0**	**7**	**42**	**118**	**0**	**31**	**99**	**4**	**0**	**78**	**158**	**66**	**811**	**3,245**
5:30 PM		0	88	74	39	0	12	40	96	0	24	94	6	0	88	143	63	767	3,204
5:45 PM		0	58	36	34	0	4	38	100	0	23	87	6	0	80	114	64	644	3,047
Count Total		0	623	540	355	0	45	342	937	0	259	775	46	0	677	1,119	555	6,273	0
Peak Hour	**All**	**0**	**295**	**290**	**184**	**0**	**23**	**172**	**504**	**0**	**141**	**399**	**22**	**0**	**336**	**615**	**264**	**3,245**	**0**
	HV	**0**	**19**	**24**	**5**	**0**	**1**	**12**	**12**	**0**	**7**	**3**	**1**	**0**	**18**	**17**	**21**	**140**	**0**
	HV%	**-**	**6%**	**8%**	**3%**	**-**	**4%**	**7%**	**2%**	**-**	**5%**	**1%**	**5%**	**-**	**5%**	**3%**	**8%**	**4%**	**0**

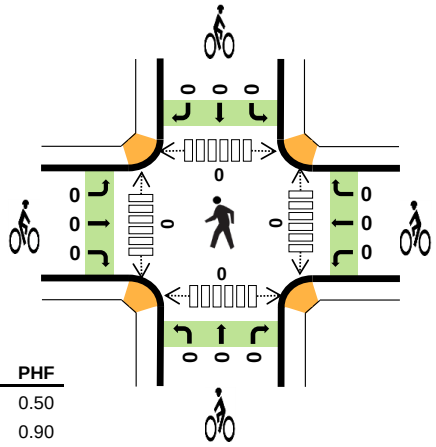
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	11	7	2	16	*36*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	15	7	2	17	*41*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	**12**	**6**	**1**	**21**	***40***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**12**	**10**	**4**	**12**	***38***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**13**	**6**	**3**	**7**	***29***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**11**	**3**	**3**	**16**	***33***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:30 PM	10	1	3	14	*28*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	8	2	4	9	*23*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	92	42	22	112	*268*	0	0	0	1	*1*	0	0	0	0	*0*
Peak Hour	**48**	**25**	**11**	**56**	***140***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	***0***

54th Ave E
23rd St E

Date: 06/08/2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM





	HV %:	PHF
EB	25.0%	0.50
WB	0.0%	0.90
NB	2.6%	0.87
SB	2.8%	0.99
TOTAL	2.5%	0.95

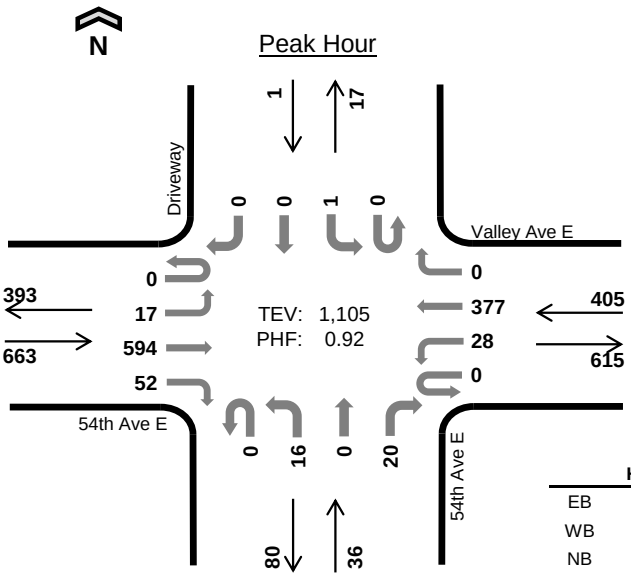
Two-Hour Count Summaries

Interval Start		23rd St E Eastbound				23rd St E Westbound				54th Ave E Northbound				54th Ave E Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	1	0	0	2	0	13	0	0	106	0	0	13	152	1	288	0
4:15 PM		0	0	0	0	0	2	0	17	0	0	62	1	0	18	144	0	244	0
4:30 PM		0	0	0	0	0	3	0	23	0	0	107	3	0	23	151	0	310	0
4:45 PM		**0**	**0**	**0**	**0**	**0**	**1**	**0**	**25**	**0**	**0**	**112**	**0**	**0**	**30**	**141**	**0**	**309**	1,151
5:00 PM		**0**	**0**	**0**	**1**	**0**	**2**	**0**	**28**	**0**	**0**	**87**	**2**	**0**	**19**	**153**	**0**	**292**	1,155
5:15 PM		**0**	**1**	**0**	**0**	**0**	**0**	**0**	**24**	**0**	**0**	**80**	**1**	**0**	**14**	**151**	**0**	**271**	1,182
5:30 PM		**0**	**0**	**0**	**2**	**0**	**3**	**0**	**28**	**0**	**1**	**103**	**2**	**0**	**20**	**152**	**0**	**311**	**1,183**
5:45 PM		0	0	0	0	0	0	0	17	0	0	94	2	0	27	146	1	287	1,161
Count Total		0	1	1	3	0	13	0	175	0	1	751	11	0	164	1,190	2	2,312	0
Peak Hour	**All**	**0**	**1**	**0**	**3**	**0**	**6**	**0**	**105**	**0**	**1**	**382**	**5**	**0**	**83**	**597**	**0**	**1,183**	**0**
	HV	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**19**	**0**	**30**	**0**
	HV%	**-**	**0%**	**-**	**33%**	**-**	**0%**	**-**	**0%**	**-**	**0%**	**3%**	**0%**	**-**	**0%**	**3%**	**-**	**3%**	**0**

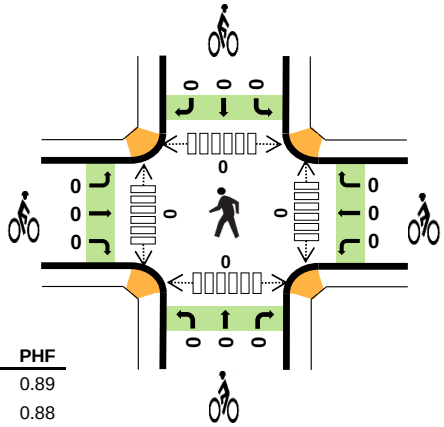
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	4	9	*13*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	0	3	3	*6*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	0	0	2	3	*5*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	**0**	**0**	**3**	**5**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**0**	**0**	**1**	**4**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**0**	**0**	**2**	**7**	***9***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 PM	**1**	**0**	**4**	**3**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:45 PM	0	0	1	6	*7*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	1	0	20	40	*61*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**1**	**0**	**10**	**19**	***30***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

54th Ave E
Valley Ave E



Date: 06/15/2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM



	HV %:	PHF
EB	3.2%	0.89
WB	1.2%	0.88
NB	0.0%	0.90
SB	0.0%	0.25
TOTAL	2.4%	0.92

Two-Hour Count Summaries

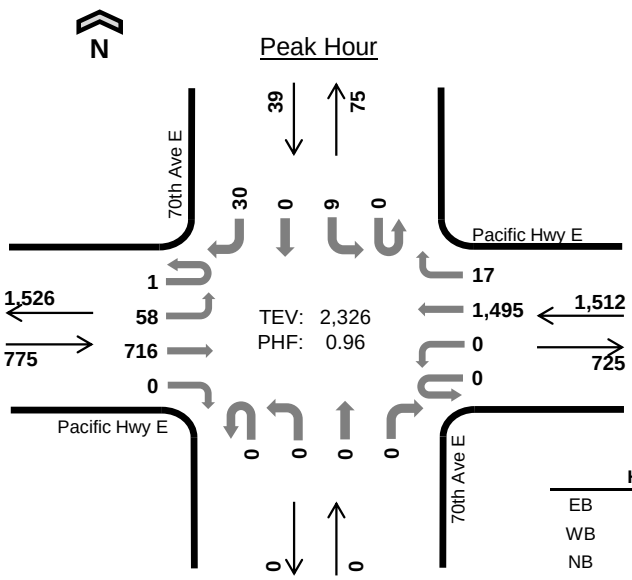
Interval Start		54th Ave E Eastbound				Valley Ave E Westbound				54th Ave E Northbound				Driveway Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	4	138	5	0	1	89	1	0	4	0	2	0	0	0	0	244	0
4:15 PM		0	0	124	4	0	8	89	0	0	6	0	2	0	0	0	0	233	0
4:30 PM		**0**	**8**	**154**	**15**	**0**	**4**	**111**	**0**	**0**	**3**	**0**	**5**	**0**	**0**	**0**	**0**	**300**	0
4:45 PM		**0**	**1**	**132**	**10**	**0**	**7**	**90**	**0**	**0**	**4**	**0**	**5**	**0**	**0**	**0**	**0**	**249**	1,026
5:00 PM		**0**	**2**	**144**	**11**	**0**	**10**	**85**	**0**	**0**	**5**	**0**	**4**	**0**	**1**	**0**	**0**	**262**	1,044
5:15 PM		**0**	**6**	**164**	**16**	**0**	**7**	**91**	**0**	**0**	**4**	**0**	**6**	**0**	**0**	**0**	**0**	**294**	**1,105**
5:30 PM		0	20	119	18	0	7	65	0	0	9	0	8	0	0	0	0	246	1,051
5:45 PM		0	2	122	9	0	12	72	0	0	8	0	6	0	0	0	0	231	1,033
Count Total		0	43	1,097	88	0	56	692	1	0	43	0	38	0	1	0	0	2,059	0
Peak Hour	**All**	**0**	**17**	**594**	**52**	**0**	**28**	**377**	**0**	**0**	**16**	**0**	**20**	**0**	**1**	**0**	**0**	**1,105**	**0**
	HV	**0**	**0**	**21**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**26**	**0**
	HV%	**-**	**0%**	**4%**	**0%**	**-**	**0%**	**1%**	**-**	**-**	**0%**	**-**	**0%**	**-**	**0%**	**-**	**-**	**2%**	**0**

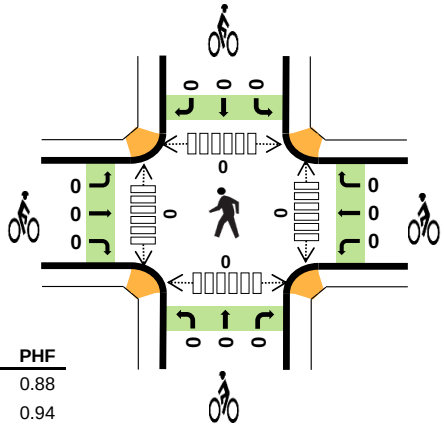
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	4	0	0	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	3	2	0	0	*5*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	**6**	**0**	**0**	**0**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**5**	**3**	**0**	**0**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**3**	**1**	**0**	**0**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**7**	**1**	**0**	**0**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:30 PM	3	0	1	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	7	3	0	0	*10*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	38	10	1	0	*49*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**21**	**5**	**0**	**0**	***26***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

70th Ave E
Pacific Hwy E

Date: 06/15/2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM





	HV %:	PHF
EB	6.6%	0.88
WB	4.2%	0.94
NB	-	-
SB	10.3%	0.75
TOTAL	5.1%	0.96

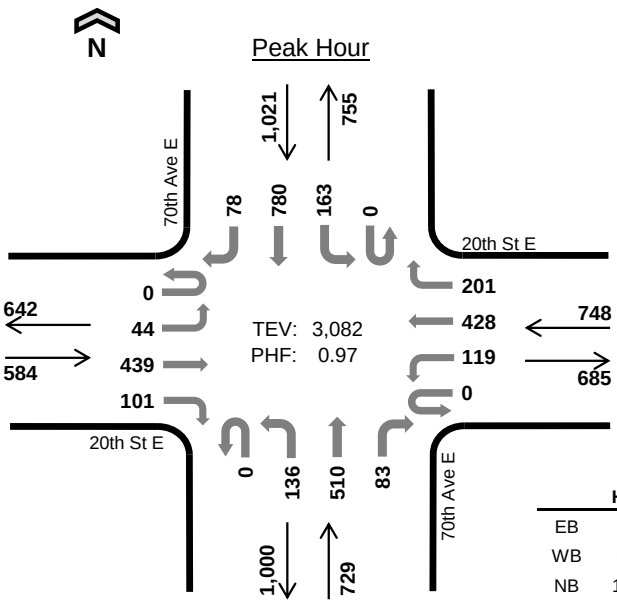
Two-Hour Count Summaries

Interval Start	Pacific Hwy E Eastbound				Pacific Hwy E Westbound				70th Ave E Northbound				70th Ave E Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	11	202	0	0	0	363	4	0	0	0	0	0	8	0	25	613	0
4:15 PM	0	12	203	0	0	0	329	8	0	0	0	0	0	4	0	8	564	0
4:30 PM	0	5	192	0	0	0	342	3	0	0	0	0	0	3	0	6	551	0
4:45 PM	0	10	199	0	0	0	309	2	0	0	0	0	0	1	0	13	534	2,262
5:00 PM	**0**	**17**	**203**	**0**	**0**	**0**	**337**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**12**	**572**	2,221
5:15 PM	**0**	**18**	**173**	**0**	**0**	**0**	**398**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**11**	**604**	2,261
5:30 PM	**0**	**15**	**172**	**0**	**0**	**0**	**393**	**10**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**4**	**597**	2,307
5:45 PM	**1**	**8**	**168**	**0**	**0**	**0**	**367**	**3**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**3**	**553**	**2,326**
Count Total	1	96	1,512	0	0	0	2,838	34	0	0	0	0	0	25	0	82	4,588	0
Peak Hour All	**1**	**58**	**716**	**0**	**0**	**0**	**1,495**	**17**	**0**	**0**	**0**	**0**	**0**	**9**	**0**	**30**	**2,326**	**0**
Peak Hour HV	**0**	**0**	**51**	**0**	**0**	**0**	**64**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**119**	**0**
Peak Hour HV%	**0%**	**0%**	**7%**	**-**	**-**	**-**	**4%**	**0%**	**-**	**-**	**-**	**-**	**-**	**0%**	**-**	**13%**	**5%**	**0**

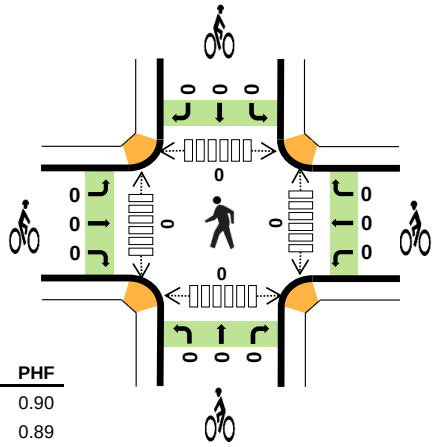
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	29	20	0	2	*51*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	27	33	0	0	*60*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	25	23	0	0	*48*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	21	15	0	0	*36*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	**18**	**15**	**0**	**2**	***35***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**11**	**18**	**0**	**2**	***31***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 PM	**15**	**14**	**0**	**0**	***29***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:45 PM	**7**	**17**	**0**	**0**	***24***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	153	155	0	6	*314*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**51**	**64**	**0**	**4**	***119***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

70th Ave E
20th St E



Date: 06/08/2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	3.3%	0.90
WB	4.3%	0.89
NB	12.1%	0.82
SB	15.9%	0.92
TOTAL	9.8%	0.97

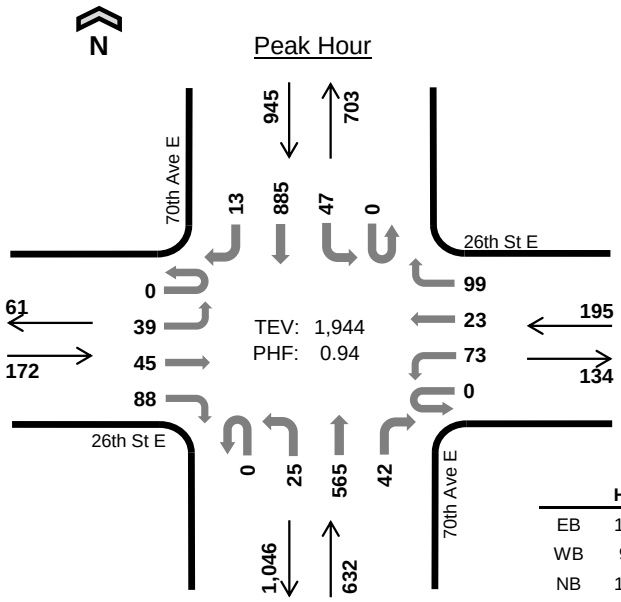
Two-Hour Count Summaries

Interval Start		20th St E Eastbound				20th St E Westbound				70th Ave E Northbound				70th Ave E Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		**0**	**10**	**95**	**17**	**0**	**34**	**96**	**42**	**0**	**27**	**166**	**29**	**0**	**49**	**204**	**22**	**791**	0
4:15 PM		**0**	**16**	**113**	**33**	**0**	**27**	**118**	**64**	**0**	**37**	**99**	**21**	**0**	**44**	**190**	**15**	**777**	0
4:30 PM		**0**	**10**	**125**	**19**	**0**	**34**	**109**	**51**	**0**	**36**	**117**	**19**	**0**	**25**	**182**	**14**	**741**	0
4:45 PM		**0**	**8**	**106**	**32**	**0**	**24**	**105**	**44**	**0**	**36**	**128**	**14**	**0**	**45**	**204**	**27**	**773**	**3,082**
5:00 PM		0	19	108	27	0	29	126	38	0	28	81	15	0	45	150	20	686	2,977
5:15 PM		0	13	124	27	0	28	116	34	0	23	117	23	0	36	196	36	773	2,973
5:30 PM		0	22	109	14	0	26	121	39	0	36	108	23	0	53	196	17	764	2,996
5:45 PM		0	23	87	18	0	24	119	27	0	22	78	14	0	67	141	27	647	2,870
Count Total		0	121	867	187	0	226	910	339	0	245	894	158	0	364	1,463	178	5,952	0
Peak Hour	**All**	**0**	**44**	**439**	**101**	**0**	**119**	**428**	**201**	**0**	**136**	**510**	**83**	**0**	**163**	**780**	**78**	**3,082**	**0**
	HV	**0**	**1**	**6**	**12**	**0**	**1**	**24**	**7**	**0**	**8**	**76**	**4**	**0**	**6**	**151**	**5**	**301**	**0**
	HV%	**-**	**2%**	**1%**	**12%**	**-**	**1%**	**6%**	**3%**	**-**	**6%**	**15%**	**5%**	**-**	**4%**	**19%**	**6%**	**10%**	**0**

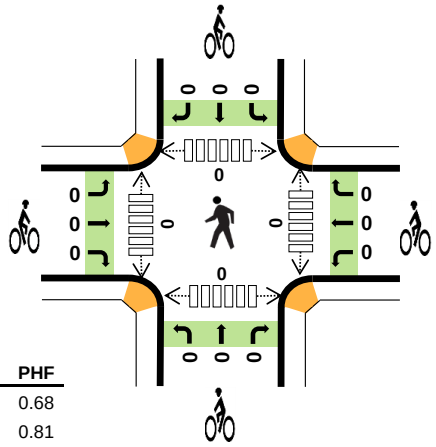
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**6**	**13**	**25**	**42**	***86***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:15 PM	**6**	**13**	**20**	**43**	***82***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**1**	**3**	**20**	**38**	***62***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**6**	**3**	**23**	**39**	***71***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:00 PM	9	5	11	34	*59*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	3	5	21	27	*56*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	2	2	17	29	*50*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	3	1	9	33	*46*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	36	45	146	285	*512*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**19**	**32**	**88**	**162**	***301***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

70th Ave E
26th St E



Date: 06/08/2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	19.2%	0.68
WB	9.2%	0.81
NB	13.0%	0.84
SB	16.7%	0.95
TOTAL	15.0%	0.94

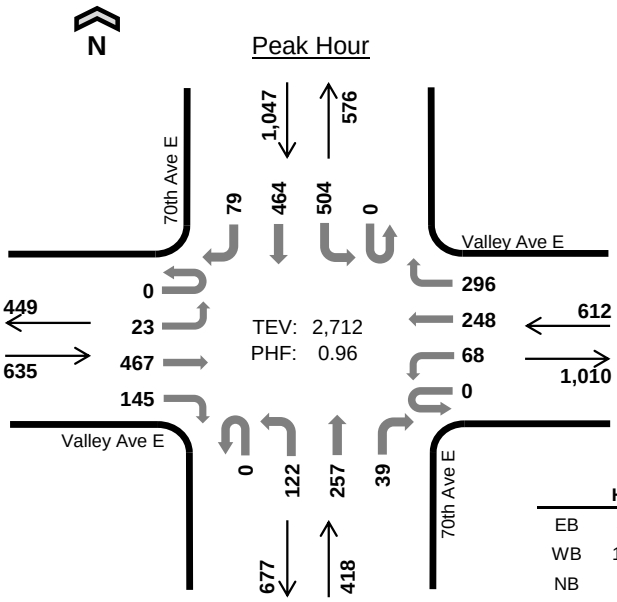
Two-Hour Count Summaries

Interval Start		26th St E Eastbound				26th St E Westbound				70th Ave E Northbound				70th Ave E Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		**0**	**17**	**16**	**30**	**0**	**18**	**9**	**33**	**0**	**12**	**150**	**6**	**0**	**8**	**215**	**3**	**517**	0
4:15 PM		**0**	**11**	**9**	**19**	**0**	**22**	**5**	**21**	**0**	**2**	**107**	**12**	**0**	**12**	**233**	**3**	**456**	0
4:30 PM		**0**	**7**	**11**	**20**	**0**	**19**	**5**	**28**	**0**	**5**	**140**	**11**	**0**	**11**	**228**	**2**	**487**	0
4:45 PM		**0**	**4**	**9**	**19**	**0**	**14**	**4**	**17**	**0**	**6**	**168**	**13**	**0**	**16**	**209**	**5**	**484**	**1,944**
5:00 PM		1	8	9	15	0	16	4	16	0	6	119	17	0	10	183	7	411	1,838
5:15 PM		2	11	13	14	0	22	3	13	0	14	116	15	0	18	208	6	455	1,837
5:30 PM		0	6	8	8	0	15	5	19	0	7	130	9	0	13	197	4	421	1,771
5:45 PM		0	1	12	15	0	13	6	7	0	2	78	6	0	16	144	1	301	1,588
Count Total		3	65	87	140	0	139	41	154	0	54	1,008	89	0	104	1,617	31	3,532	0
Peak Hour	**All**	**0**	**39**	**45**	**88**	**0**	**73**	**23**	**99**	**0**	**25**	**565**	**42**	**0**	**47**	**885**	**13**	**1,944**	**0**
	HV	**0**	**3**	**16**	**14**	**0**	**7**	**4**	**7**	**0**	**3**	**71**	**8**	**0**	**14**	**139**	**5**	**291**	**0**
	HV%	**-**	**8%**	**36%**	**16%**	**-**	**10%**	**17%**	**7%**	**-**	**12%**	**13%**	**19%**	**-**	**30%**	**16%**	**38%**	**15%**	**0**

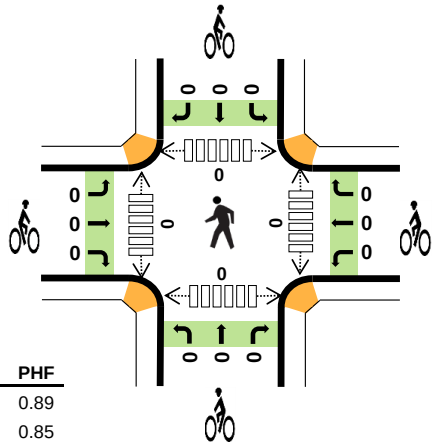
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**7**	**4**	**29**	**35**	***75***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:15 PM	**10**	**4**	**13**	**38**	***65***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**11**	**7**	**22**	**49**	***89***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**5**	**3**	**18**	**36**	***62***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:00 PM	7	2	20	40	*69*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	10	4	12	32	*58*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	7	2	13	26	*48*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	9	0	10	29	*48*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	66	26	137	285	*514*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**33**	**18**	**82**	**158**	***291***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

70th Ave E
Valley Ave E



Date: 06/08/2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	4.9%	0.89
WB	11.3%	0.85
NB	6.9%	0.84
SB	13.5%	0.92
TOTAL	10.0%	0.96

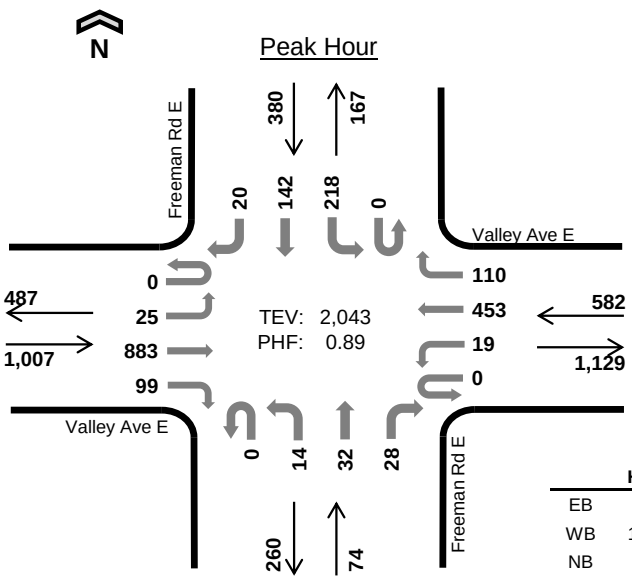
Two-Hour Count Summaries

Interval Start		Valley Ave E Eastbound				Valley Ave E Westbound				70th Ave E Northbound				70th Ave E Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		**0**	**7**	**108**	**34**	**0**	**21**	**72**	**86**	**0**	**25**	**61**	**9**	**0**	**132**	**138**	**13**	**706**	0
4:15 PM		**0**	**6**	**141**	**32**	**0**	**16**	**46**	**58**	**0**	**26**	**59**	**7**	**0**	**124**	**100**	**12**	**627**	0
4:30 PM		**0**	**3**	**112**	**42**	**0**	**19**	**61**	**83**	**0**	**40**	**71**	**13**	**0**	**126**	**108**	**30**	**708**	0
4:45 PM		**0**	**7**	**106**	**37**	**0**	**12**	**69**	**69**	**0**	**31**	**66**	**10**	**0**	**122**	**118**	**24**	**671**	**2,712**
5:00 PM		0	9	129	44	0	8	63	62	0	33	67	4	0	89	83	23	614	2,620
5:15 PM		0	4	125	26	0	7	64	52	0	32	74	6	0	111	133	22	656	2,649
5:30 PM		0	13	88	38	0	11	83	67	0	40	64	8	0	122	118	18	670	2,611
5:45 PM		0	13	114	32	0	14	58	59	0	28	11	44	0	108	41	30	552	2,492
Count Total		0	62	923	285	0	108	516	536	0	255	473	101	0	934	839	172	5,204	0
Peak Hour	**All**	**0**	**23**	**467**	**145**	**0**	**68**	**248**	**296**	**0**	**122**	**257**	**39**	**0**	**504**	**464**	**79**	**2,712**	**0**
	HV	**0**	**4**	**22**	**5**	**0**	**6**	**13**	**50**	**0**	**2**	**25**	**2**	**0**	**87**	**39**	**15**	**270**	**0**
	HV%	**-**	**17%**	**5%**	**3%**	**-**	**9%**	**5%**	**17%**	**-**	**2%**	**10%**	**5%**	**-**	**17%**	**8%**	**19%**	**10%**	**0**

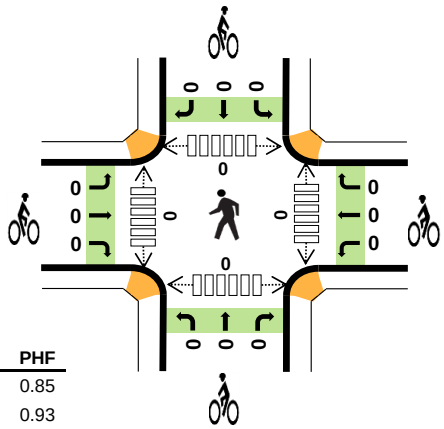
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**13**	**19**	**12**	**29**	***73***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:15 PM	**9**	**15**	**7**	**33**	***64***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**5**	**18**	**5**	**39**	***67***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**4**	**17**	**5**	**40**	***66***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:00 PM	12	14	7	27	*60*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	4	17	3	30	*54*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	6	15	6	31	*58*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	8	16	3	18	*45*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	61	131	48	247	*487*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**31**	**69**	**29**	**141**	***270***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Freeman Rd E
Valley Ave E



Date: 06/14/2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM



	HV %:	PHF
EB	9.4%	0.85
WB	12.4%	0.93
NB	8.1%	0.88
SB	4.2%	0.85
TOTAL	9.3%	0.89

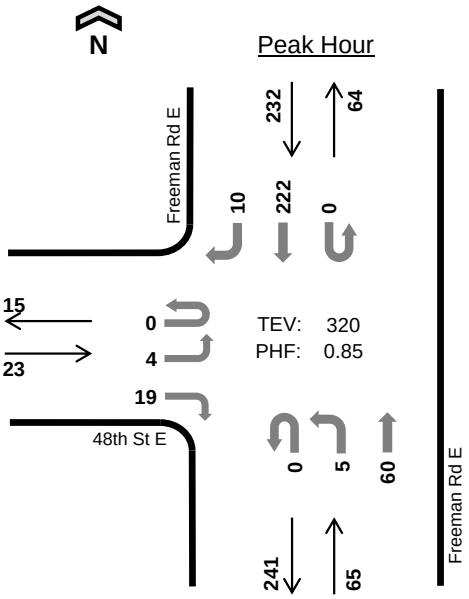
Two-Hour Count Summaries

Interval Start	Valley Ave E Eastbound				Valley Ave E Westbound				Freeman Rd E Northbound				Freeman Rd E Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	3	207	19	0	4	107	18	0	0	5	5	0	50	33	7	458	0
4:15 PM	**0**	**8**	**267**	**22**	**0**	**6**	**118**	**30**	**0**	**2**	**6**	**13**	**0**	**66**	**30**	**3**	**571**	0
4:30 PM	**0**	**7**	**204**	**22**	**0**	**6**	**126**	**25**	**0**	**4**	**11**	**6**	**0**	**60**	**44**	**8**	**523**	0
4:45 PM	**0**	**5**	**213**	**33**	**0**	**3**	**107**	**28**	**0**	**4**	**8**	**6**	**0**	**43**	**25**	**6**	**481**	2,033
5:00 PM	**0**	**5**	**199**	**22**	**0**	**4**	**102**	**27**	**0**	**4**	**7**	**3**	**0**	**49**	**43**	**3**	**468**	**2,043**
5:15 PM	0	5	220	29	0	6	135	22	0	1	8	2	0	42	32	4	506	1,978
5:30 PM	0	9	184	6	0	2	99	14	0	1	6	1	0	34	24	4	384	1,839
5:45 PM	0	6	175	6	0	2	106	12	0	0	9	1	0	36	12	4	369	1,727
Count Total	0	48	1,669	159	0	33	900	176	0	16	60	37	0	380	243	39	3,760	0
Peak Hour All	**0**	**25**	**883**	**99**	**0**	**19**	**453**	**110**	**0**	**14**	**32**	**28**	**0**	**218**	**142**	**20**	**2,043**	**0**
Peak Hour HV	**0**	**3**	**89**	**3**	**0**	**1**	**63**	**8**	**0**	**3**	**3**	**0**	**0**	**15**	**1**	**0**	**189**	**0**
Peak Hour HV%	**-**	**12%**	**10%**	**3%**	**-**	**5%**	**14%**	**7%**	**-**	**21%**	**9%**	**0%**	**-**	**7%**	**1%**	**0%**	**9%**	**0**

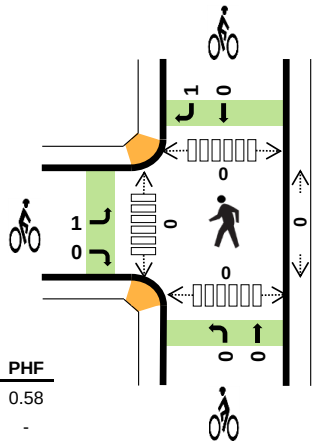
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	23	24	0	2	*49*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	**31**	**22**	**2**	**8**	***63***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**22**	**22**	**1**	**0**	***45***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**22**	**13**	**1**	**4**	***40***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**20**	**15**	**2**	**4**	***41***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:15 PM	22	21	1	4	*48*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	15	18	0	2	*35*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	17	21	0	1	*39*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	172	156	7	25	*360*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**95**	**72**	**6**	**16**	***189***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Freeman Rd E
48th St E



Date: 06/08/2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	0.0%	0.58
WB	-	-
NB	7.7%	0.86
SB	3.9%	0.83
TOTAL	4.4%	0.85

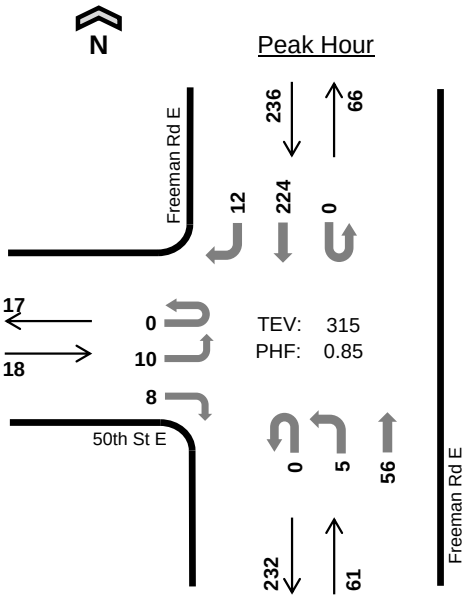
Two-Hour Count Summaries

Interval Start		48th St E Eastbound				0 Westbound				Freeman Rd E Northbound				Freeman Rd E Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		**0**	**2**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**2**	**15**	**0**	**0**	**0**	**68**	**2**	**94**	0
4:15 PM		**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**0**	**57**	**2**	**72**	0
4:30 PM		**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**1**	**18**	**0**	**0**	**0**	**48**	**4**	**75**	0
4:45 PM		**0**	**2**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**2**	**16**	**0**	**0**	**0**	**49**	**2**	**79**	**320**
5:00 PM		0	2	0	5	0	0	0	0	0	1	11	0	0	0	52	1	72	298
5:15 PM		0	0	0	4	0	0	0	0	0	3	9	0	0	0	50	2	68	294
5:30 PM		0	1	0	1	0	0	0	0	0	1	13	0	0	0	47	4	67	286
5:45 PM		0	11	0	1	0	0	0	0	0	1	19	0	0	0	41	8	81	288
Count Total		0	18	0	30	0	0	0	0	0	11	112	0	0	0	412	25	608	0
Peak Hour	**All**	**0**	**4**	**0**	**19**	**0**	**0**	**0**	**0**	**0**	**5**	**60**	**0**	**0**	**0**	**222**	**10**	**320**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**4**	**0**	**0**	**0**	**9**	**0**	**14**	**0**
	HV%	**-**	**0%**	**-**	**0%**	**-**	**-**	**-**	**-**	**-**	**20%**	**7%**	**-**	**-**	**-**	**4%**	**0%**	**4%**	**0**

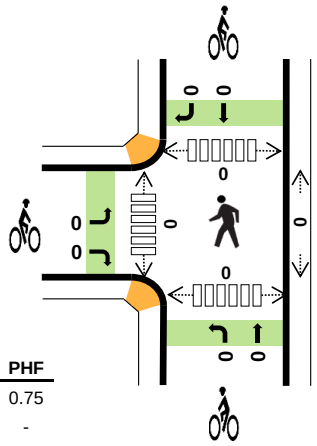
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**0**	**0**	**2**	**3**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:15 PM	**0**	**0**	**1**	**3**	***4***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**0**	**0**	**1**	**2**	***3***	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**0**	**0**	**1**	**1**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:00 PM	0	0	1	1	*2*	1	0	0	0	*1*	0	0	0	0	*0*
5:15 PM	0	0	0	2	*2*	2	0	0	0	*2*	0	0	0	0	*0*
5:30 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	1	0	0	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	1	0	6	15	*22*	4	0	0	1	*5*	0	0	0	0	*0*
Peak Hr	**0**	**0**	**5**	**9**	***14***	**1**	**0**	**0**	**1**	***2***	**0**	**0**	**0**	**0**	***0***

Freeman Rd E
50th St E



Date: 06/08/2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	5.6%	0.75
WB	-	-
NB	6.6%	0.80
SB	4.2%	0.83
TOTAL	4.8%	0.85

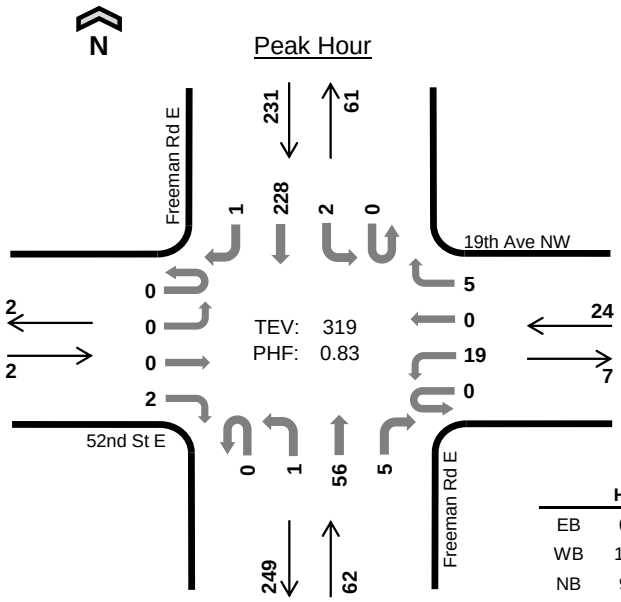
Two-Hour Count Summaries

Interval Start		50th St E Eastbound				0 Westbound				Freeman Rd E Northbound				Freeman Rd E Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		**0**	**3**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	**16**	**0**	**0**	**0**	**68**	**3**	**93**	0
4:15 PM		**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**53**	**3**	**68**	0
4:30 PM		**0**	**4**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**3**	**16**	**0**	**0**	**0**	**48**	**4**	**77**	0
4:45 PM		**0**	**3**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**14**	**0**	**0**	**0**	**55**	**2**	**77**	**315**
5:00 PM		0	0	0	3	0	0	0	0	0	2	11	0	0	0	52	2	70	292
5:15 PM		0	0	0	1	0	0	0	0	0	1	14	0	0	0	50	2	68	292
5:30 PM		0	1	0	0	0	0	0	0	0	5	13	0	0	0	47	2	68	283
5:45 PM		0	0	0	0	0	0	0	0	0	5	21	0	0	0	41	3	70	276
Count Total		0	11	0	12	0	0	0	0	0	18	115	0	0	0	414	21	591	0
Peak Hour	**All**	**0**	**10**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**5**	**56**	**0**	**0**	**0**	**224**	**12**	**315**	**0**
	HV	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**9**	**1**	**15**	**0**
	HV%	**-**	**0%**	**-**	**13%**	**-**	**-**	**-**	**-**	**-**	**0%**	**7%**	**-**	**-**	**-**	**4%**	**8%**	**5%**	**0**

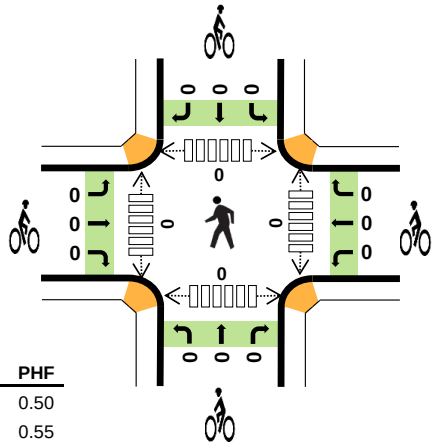
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**0**	**0**	**3**	**3**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:15 PM	**1**	**0**	**1**	**3**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**0**	**0**	**0**	**2**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**0**	**0**	**0**	**2**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	0	0	2	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	0	0	2	*2*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	1	0	6	15	*22*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hr	**1**	**0**	**4**	**10**	***15***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Freeman Rd E
52nd St E



Date: 06/08/2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	0.0%	0.50
WB	16.7%	0.55
NB	9.7%	0.65
SB	4.3%	0.85
TOTAL	6.3%	0.83

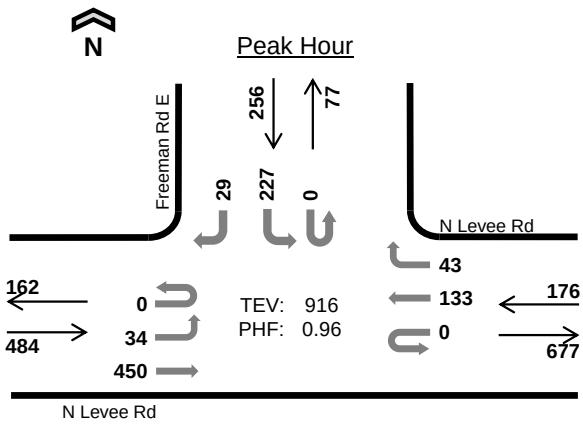
Two-Hour Count Summaries

Interval Start		52nd St E Eastbound				19th Ave NW Westbound				Freeman Rd E Northbound				Freeman Rd E Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		**0**	**0**	**0**	**1**	**0**	**8**	**0**	**3**	**0**	**0**	**15**	**1**	**0**	**0**	**68**	**0**	**96**	0
4:15 PM		**0**	**0**	**0**	**0**	**0**	**3**	**0**	**2**	**0**	**0**	**7**	**1**	**0**	**1**	**56**	**0**	**70**	0
4:30 PM		**0**	**0**	**0**	**1**	**0**	**6**	**0**	**0**	**0**	**1**	**20**	**3**	**0**	**1**	**44**	**0**	**76**	0
4:45 PM		**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**14**	**0**	**0**	**0**	**60**	**1**	**77**	**319**
5:00 PM		0	1	0	0	0	5	0	1	0	0	11	1	0	0	56	0	75	298
5:15 PM		0	0	0	1	0	3	0	1	0	0	18	1	0	1	55	0	80	308
5:30 PM		0	0	0	0	0	5	0	2	0	0	17	1	0	0	44	0	69	301
5:45 PM		0	0	0	0	0	0	0	0	0	0	31	1	0	0	45	0	77	301
Count Total		0	1	0	3	0	32	0	9	0	1	133	9	0	3	428	1	620	0
Peak Hour	**All**	**0**	**0**	**0**	**2**	**0**	**19**	**0**	**5**	**0**	**1**	**56**	**5**	**0**	**2**	**228**	**1**	**319**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**1**	**0**	**0**	**3**	**3**	**0**	**1**	**9**	**0**	**20**	**0**
	HV%	**-**	**-**	**-**	**0%**	**-**	**16%**	**-**	**20%**	**-**	**0%**	**5%**	**60%**	**-**	**50%**	**4%**	**0%**	**6%**	**0**

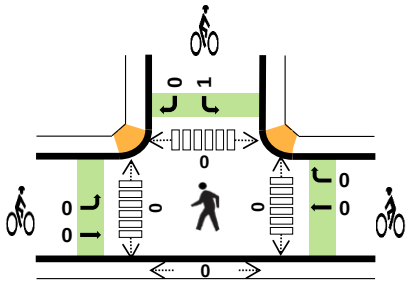
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**0**	**3**	**2**	**3**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:15 PM	**0**	**0**	**1**	**3**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**0**	**1**	**3**	**2**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**0**	**0**	**0**	**2**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	0	0	3	2	*5*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	4	9	14	*27*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**0**	**4**	**6**	**10**	***20***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Freeman Rd E
N Levee Rd



Date: 06/15/2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	2.9%	0.88
WB	9.1%	0.77
NB	-	-
SB	2.0%	0.93
TOTAL	3.8%	0.96

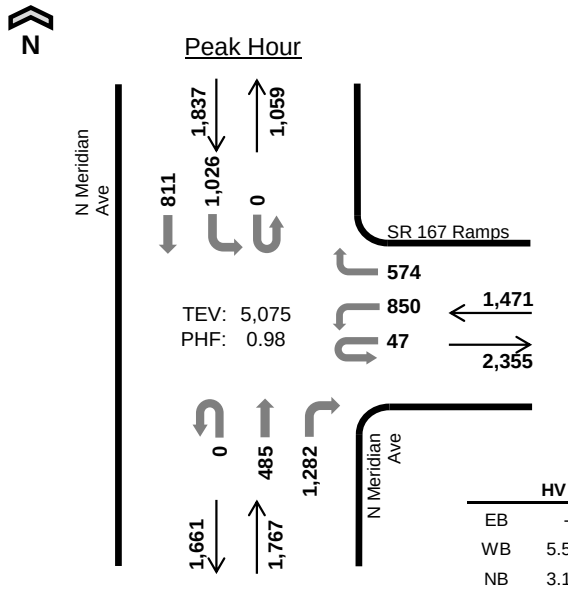
Two-Hour Count Summaries

Interval Start		N Levee Rd Eastbound				N Levee Rd Westbound				0 Northbound				Freeman Rd E Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		**0**	**12**	**126**	**0**	**0**	**0**	**26**	**6**	**0**	**0**	**0**	**0**	**0**	**52**	**0**	**9**	**231**	0
4:15 PM		**0**	**11**	**115**	**0**	**0**	**0**	**33**	**15**	**0**	**0**	**0**	**0**	**0**	**61**	**0**	**3**	**238**	0
4:30 PM		**0**	**5**	**107**	**0**	**0**	**0**	**44**	**13**	**0**	**0**	**0**	**0**	**0**	**59**	**0**	**10**	**238**	0
4:45 PM		**0**	**6**	**102**	**0**	**0**	**0**	**30**	**9**	**0**	**0**	**0**	**0**	**0**	**55**	**0**	**7**	**209**	**916**
5:00 PM		0	7	110	0	0	0	33	5	0	0	0	0	0	50	0	7	212	897
5:15 PM		0	3	105	0	0	0	39	9	0	0	0	0	0	61	0	6	223	882
5:30 PM		0	4	88	0	0	0	28	6	0	0	0	0	0	44	0	2	172	816
5:45 PM		0	3	92	0	0	0	26	9	0	0	0	0	0	20	0	4	154	761
Count Total		0	51	845	0	0	0	259	72	0	0	0	0	0	402	0	48	1,677	0
Peak Hour	**All**	**0**	**34**	**450**	**0**	**0**	**0**	**133**	**43**	**0**	**0**	**0**	**0**	**0**	**227**	**0**	**29**	**916**	**0**
	HV	**0**	**1**	**13**	**0**	**0**	**0**	**13**	**3**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**2**	**35**	**0**
	HV%	**-**	**3%**	**3%**	**-**	**-**	**-**	**10%**	**7%**	**-**	**-**	**-**	**-**	**-**	**1%**	**-**	**7%**	**4%**	**0**

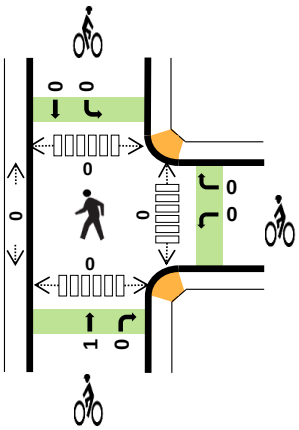
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**7**	**3**	**0**	**3**	***13***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:15 PM	**2**	**3**	**0**	**1**	***6***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**2**	**5**	**0**	**1**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**3**	**5**	**0**	**0**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:00 PM	2	6	0	1	*9*	0	1	0	0	*1*	0	0	0	0	*0*
5:15 PM	0	6	0	4	*10*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	2	3	0	0	*5*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	2	3	0	0	*5*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	20	34	0	10	*64*	0	1	0	1	*2*	0	0	0	0	*0*
Peak Hr	**14**	**16**	**0**	**5**	***35***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	***0***

N Meridian Ave
SR 167 Ramps



Date: 06/14/2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	-	-
WB	5.5%	0.91
NB	3.1%	0.94
SB	4.5%	0.95
TOTAL	4.3%	0.98

Two-Hour Count Summaries

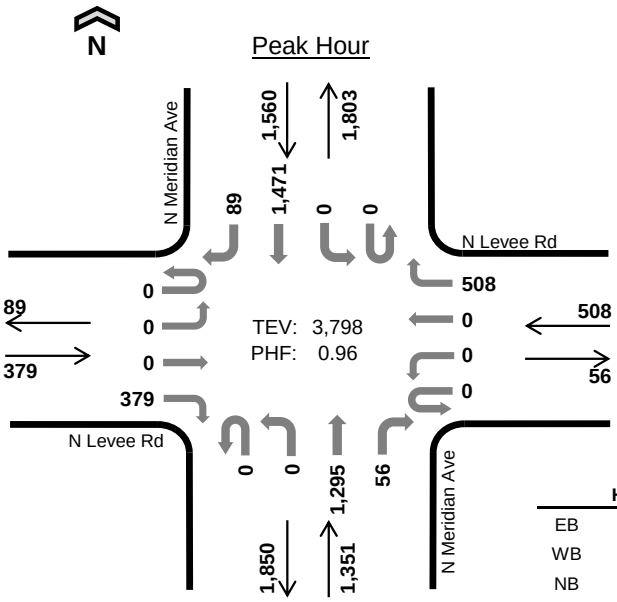
Interval Start	0				SR 167 Ramps				N Meridian Ave				N Meridian Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**20**	**237**	**0**	**147**	**0**	**0**	**122**	**316**	**0**	**234**	**203**	**0**	**1,279**	0
4:15 PM	**0**	**0**	**0**	**0**	**11**	**208**	**0**	**145**	**0**	**0**	**127**	**305**	**0**	**269**	**180**	**0**	**1,245**	0
4:30 PM	**0**	**0**	**0**	**0**	**10**	**203**	**0**	**145**	**0**	**0**	**98**	**329**	**0**	**258**	**210**	**0**	**1,253**	0
4:45 PM	**0**	**0**	**0**	**0**	**6**	**202**	**0**	**137**	**0**	**0**	**138**	**332**	**0**	**265**	**218**	**0**	**1,298**	**5,075**
5:00 PM	0	0	0	0	2	217	0	130	0	0	117	309	0	262	204	0	1,241	5,037
5:15 PM	0	0	0	0	1	210	0	115	0	0	120	310	0	232	229	0	1,217	5,009
5:30 PM	0	0	0	0	3	196	0	134	0	0	116	264	0	231	182	0	1,126	4,882
5:45 PM	0	0	0	0	1	163	0	118	0	0	116	216	0	211	168	0	993	4,577
Count Total	0	0	0	0	54	1,636	0	1,071	0	0	954	2,381	0	1,962	1,594	0	9,652	0
Peak Hour All	**0**	**0**	**0**	**0**	**47**	**850**	**0**	**574**	**0**	**0**	**485**	**1,282**	**0**	**1,026**	**811**	**0**	**5,075**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**4**	**36**	**0**	**41**	**0**	**0**	**7**	**48**	**0**	**67**	**15**	**0**	**218**	**0**
Peak Hour HV%	**-**	**-**	**-**	**-**	**9%**	**4%**	**-**	**7%**	**-**	**-**	**1%**	**4%**	**-**	**7%**	**2%**	**-**	**4%**	**0**

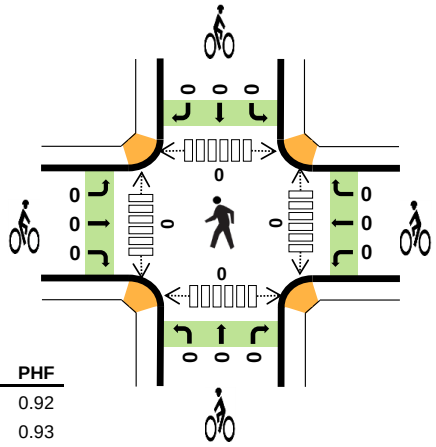
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**0**	**21**	**19**	**21**	***61***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:15 PM	**0**	**23**	**16**	**24**	***63***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**0**	**21**	**10**	**19**	***50***	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**0**	**16**	**10**	**18**	***44***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:00 PM	0	27	11	17	*55*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	0	26	11	20	*57*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	0	26	8	16	*50*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	13	16	14	*43*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	173	101	149	*423*	0	0	1	0	*1*	0	0	0	0	*0*
Peak Hr	**0**	**81**	**55**	**82**	***218***	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	***0***

N Meridian Ave
N Levee Rd

Date: 06/14/2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM





	HV %:	PHF
EB	1.6%	0.92
WB	2.8%	0.93
NB	2.5%	0.94
SB	3.1%	0.98
TOTAL	2.7%	0.96

Two-Hour Count Summaries

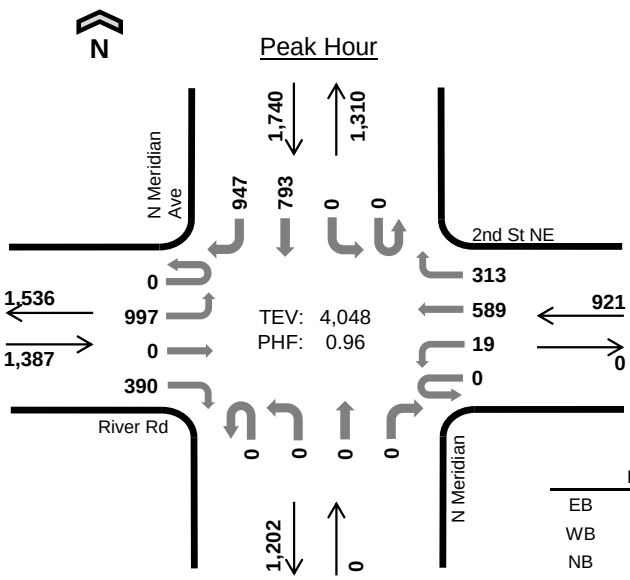
Interval Start		N Levee Rd Eastbound				N Levee Rd Westbound				N Meridian Ave Northbound				N Meridian Ave Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	56	0	0	0	121	0	0	307	16	0	0	391	19	910	0
4:15 PM		**0**	**0**	**0**	**83**	**0**	**0**	**0**	**124**	**0**	**0**	**333**	**15**	**0**	**0**	**358**	**22**	**935**	0
4:30 PM		**0**	**0**	**0**	**103**	**0**	**0**	**0**	**137**	**0**	**0**	**285**	**17**	**0**	**0**	**366**	**29**	**937**	0
4:45 PM		**0**	**0**	**0**	**96**	**0**	**0**	**0**	**130**	**0**	**0**	**344**	**15**	**0**	**0**	**378**	**22**	**985**	3,767
5:00 PM		**0**	**0**	**0**	**97**	**0**	**0**	**0**	**117**	**0**	**0**	**333**	**9**	**0**	**0**	**369**	**16**	**941**	**3,798**
5:15 PM		0	0	0	88	0	0	0	119	0	0	290	12	0	0	376	22	907	3,770
5:30 PM		0	0	0	62	1	0	0	95	0	0	267	17	0	0	348	20	810	3,643
5:45 PM		0	0	0	41	0	0	0	56	0	0	240	14	0	0	302	14	667	3,325
Count Total		0	0	0	626	1	0	0	899	0	0	2,399	115	0	0	2,888	164	7,092	0
Peak Hour	**All**	**0**	**0**	**0**	**379**	**0**	**0**	**0**	**508**	**0**	**0**	**1,295**	**56**	**0**	**0**	**1,471**	**89**	**3,798**	**0**
	HV	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**14**	**0**	**0**	**33**	**1**	**0**	**0**	**41**	**8**	**103**	**0**
	HV%	**-**	**-**	**-**	**2%**	**-**	**-**	**-**	**3%**	**-**	**-**	**3%**	**2%**	**-**	**-**	**3%**	**9%**	**3%**	**0**

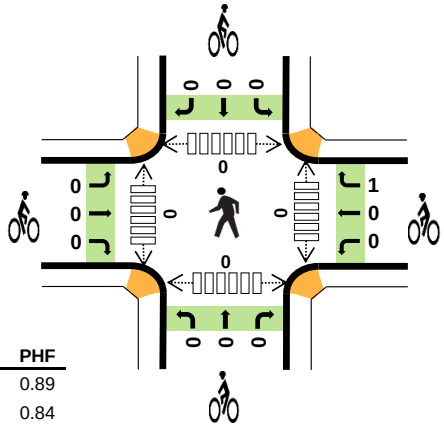
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	2	2	20	16	*40*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	**2**	**2**	**13**	**17**	***34***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**2**	**4**	**4**	**11**	***21***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**1**	**2**	**9**	**6**	***18***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**1**	**6**	**8**	**15**	***30***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:15 PM	2	0	12	16	*30*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	0	3	6	13	*22*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	1	4	11	5	*21*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	11	23	83	99	*216*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**6**	**14**	**34**	**49**	***103***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

N Meridian
2nd St NE

Date: 06/14/2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM





	HV %:	PHF
EB	3.7%	0.89
WB	2.3%	0.84
NB	-	-
SB	3.1%	0.96
TOTAL	3.1%	0.96

Two-Hour Count Summaries

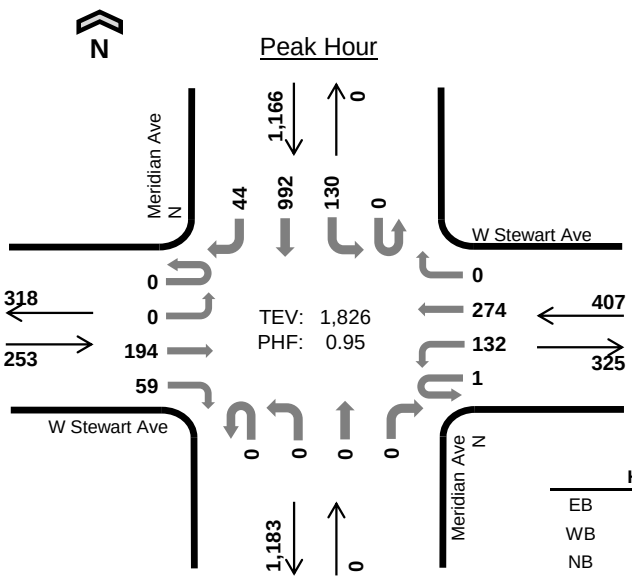
Interval Start		River Rd Eastbound				2nd St NE Westbound				N Meridian Northbound				N Meridian Ave Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		**0**	**266**	**0**	**123**	**0**	**6**	**162**	**83**	**0**	**0**	**0**	**0**	**0**	**0**	**192**	**224**	**1,056**	0
4:15 PM		**0**	**273**	**0**	**91**	**0**	**4**	**146**	**54**	**0**	**0**	**0**	**0**	**0**	**0**	**189**	**233**	**990**	0
4:30 PM		**0**	**234**	**0**	**90**	**0**	**2**	**115**	**75**	**0**	**0**	**0**	**0**	**0**	**0**	**207**	**241**	**964**	0
4:45 PM		**0**	**224**	**0**	**86**	**0**	**7**	**166**	**101**	**0**	**0**	**0**	**0**	**0**	**0**	**205**	**249**	**1,038**	**4,048**
5:00 PM		0	224	0	88	0	6	190	88	0	0	0	0	0	0	178	244	1,018	4,010
5:15 PM		0	193	0	113	0	5	158	77	0	0	0	0	0	0	211	235	992	4,012
5:30 PM		0	197	0	92	0	2	136	72	0	0	0	0	0	0	169	262	930	3,978
5:45 PM		0	171	0	96	0	7	113	80	0	0	0	0	0	0	143	181	791	3,731
Count Total		0	1,782	0	779	0	39	1,186	630	0	0	0	0	0	0	1,494	1,869	7,779	0
Peak Hour	**All**	**0**	**997**	**0**	**390**	**0**	**19**	**589**	**313**	**0**	**0**	**0**	**0**	**0**	**0**	**793**	**947**	**4,048**	**0**
	HV	**0**	**45**	**0**	**6**	**0**	**0**	**17**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**12**	**42**	**126**	**0**
	HV%	**-**	**5%**	**-**	**2%**	**-**	**0%**	**3%**	**1%**	**-**	**-**	**-**	**-**	**-**	**-**	**2%**	**4%**	**3%**	**0**

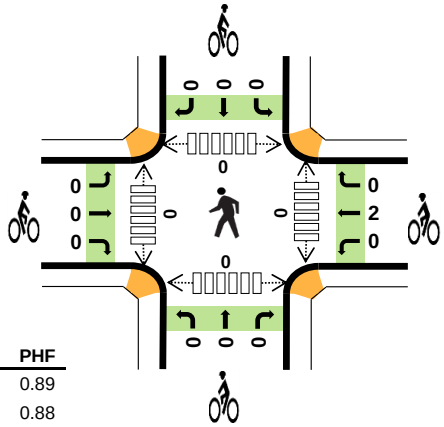
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**19**	**11**	**0**	**14**	***44***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:15 PM	**18**	**4**	**0**	**16**	***38***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**7**	**4**	**0**	**15**	***26***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**7**	**2**	**0**	**9**	***18***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:00 PM	11	7	0	7	*25*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	11	3	0	15	*29*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	9	2	0	10	*21*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	13	2	0	15	*30*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	95	35	0	101	*231*	0	1	0	0	*1*	0	0	0	0	*0*
Peak Hour	**51**	**21**	**0**	**54**	***126***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***

Meridian Ave N
W Stewart Ave

Date: 06/14/2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM





	HV %:	PHF
EB	5.5%	0.89
WB	2.2%	0.88
NB	-	-
SB	1.2%	0.95
TOTAL	2.0%	0.95

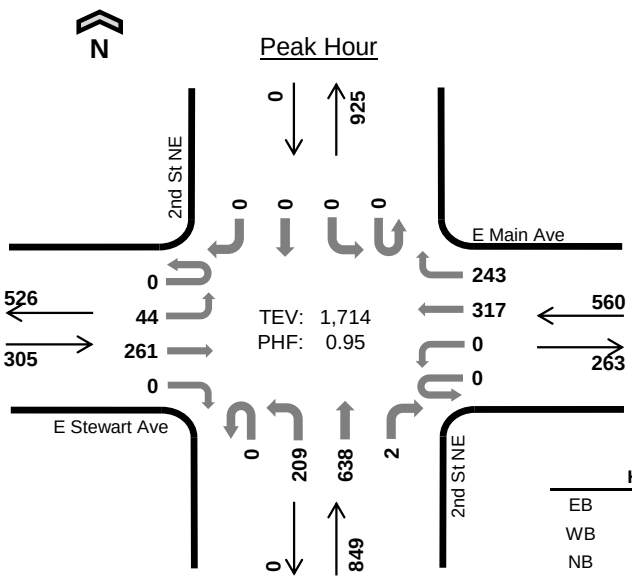
Two-Hour Count Summaries

Interval Start	W Stewart Ave Eastbound				W Stewart Ave Westbound				Meridian Ave N Northbound				Meridian Ave N Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	31	18	0	28	63	0	0	0	0	0	0	45	267	10	462	0
4:15 PM	0	0	51	19	0	24	67	0	0	0	0	0	0	30	193	6	390	0
4:30 PM	0	0	32	14	0	32	74	0	0	0	0	0	0	34	222	10	418	0
4:45 PM	**0**	**0**	**48**	**17**	**0**	**29**	**57**	**0**	**0**	**0**	**0**	**0**	**0**	**30**	**269**	**8**	**458**	1,728
5:00 PM	**0**	**0**	**41**	**14**	**0**	**39**	**76**	**0**	**0**	**0**	**0**	**0**	**0**	**37**	**250**	**6**	**463**	1,729
5:15 PM	**0**	**0**	**57**	**14**	**0**	**32**	**63**	**0**	**0**	**0**	**0**	**0**	**0**	**25**	**215**	**18**	**424**	1,763
5:30 PM	**0**	**0**	**48**	**14**	**1**	**32**	**78**	**0**	**0**	**0**	**0**	**0**	**0**	**38**	**258**	**12**	**481**	**1,826**
5:45 PM	0	0	62	13	0	31	48	0	0	0	0	0	0	37	190	10	391	1,759
Count Total	0	0	370	123	1	247	526	0	0	0	0	0	0	276	1,864	80	3,487	0
Peak Hour All	**0**	**0**	**194**	**59**	**1**	**132**	**274**	**0**	**0**	**0**	**0**	**0**	**0**	**130**	**992**	**44**	**1,826**	**0**
Peak Hour HV	**0**	**0**	**12**	**2**	**0**	**1**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**9**	**2**	**37**	**0**
Peak Hour HV%	**-**	**-**	**6%**	**3%**	**0%**	**1%**	**3%**	**-**	**-**	**-**	**-**	**-**	**-**	**2%**	**1%**	**5%**	**2%**	**0**

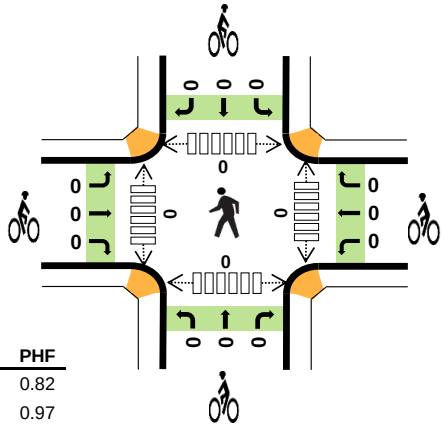
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	3	3	0	9	*15*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	4	6	0	6	*16*	0	1	0	0	*1*	0	0	0	0	*0*
4:30 PM	4	0	0	5	*9*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	**4**	**4**	**0**	**0**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**5**	**2**	**0**	**4**	***11***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**2**	**2**	**0**	**3**	***7***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	*0*
5:30 PM	**3**	**1**	**0**	**7**	***11***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***
5:45 PM	2	1	0	3	*6*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	27	19	0	37	*83*	0	3	0	0	*3*	0	0	0	0	*0*
Peak Hour	**14**	**9**	**0**	**14**	***37***	**0**	**2**	**0**	**0**	***2***	**0**	**0**	**0**	**0**	***0***

2nd St NE
E Stewart Ave



Date: 06/15/2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM



	HV %:	PHF
EB	3.0%	0.82
WB	2.5%	0.97
NB	1.1%	0.93
SB	-	-
TOTAL	1.9%	0.95

Two-Hour Count Summaries

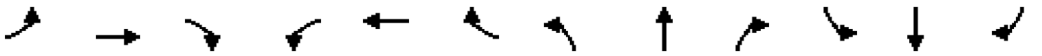
Interval Start		E Stewart Ave Eastbound				E Main Ave Westbound				2nd St NE Northbound				2nd St NE Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	15	68	0	0	0	74	63	0	38	167	1	0	0	0	0	426	0
4:15 PM		0	8	54	0	0	0	83	55	0	47	138	0	0	0	0	0	385	0
4:30 PM		**0**	**8**	**48**	**0**	**0**	**0**	**75**	**63**	**0**	**51**	**175**	**0**	**0**	**0**	**0**	**0**	**420**	0
4:45 PM		**0**	**14**	**79**	**0**	**0**	**0**	**80**	**60**	**0**	**48**	**161**	**0**	**0**	**0**	**0**	**0**	**442**	1,673
5:00 PM		**0**	**10**	**70**	**0**	**0**	**0**	**81**	**63**	**0**	**55**	**173**	**0**	**0**	**0**	**0**	**0**	**452**	1,699
5:15 PM		**0**	**12**	**64**	**0**	**0**	**0**	**81**	**57**	**0**	**55**	**129**	**2**	**0**	**0**	**0**	**0**	**400**	**1,714**
5:30 PM		0	17	48	0	0	0	76	43	0	42	128	1	0	0	0	0	355	1,649
5:45 PM		0	12	87	0	0	0	58	35	0	42	99	0	0	0	0	0	333	1,540
Count Total		0	96	518	0	0	0	608	439	0	378	1,170	4	0	0	0	0	3,213	0
Peak Hour	**All**	**0**	**44**	**261**	**0**	**0**	**0**	**317**	**243**	**0**	**209**	**638**	**2**	**0**	**0**	**0**	**0**	**1,714**	**0**
	HV	**0**	**1**	**8**	**0**	**0**	**0**	**4**	**10**	**0**	**2**	**7**	**0**	**0**	**0**	**0**	**0**	**32**	**0**
	HV%	**-**	**2%**	**3%**	**-**	**-**	**-**	**1%**	**4%**	**-**	**1%**	**1%**	**0%**	**-**	**-**	**-**	**-**	**2%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
4:00 PM	5	6	6	0	*17*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	2	9	3	0	*14*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	**3**	**3**	**4**	**0**	***10***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**2**	**2**	**2**	**0**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**1**	**7**	**0**	**0**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**3**	**2**	**3**	**0**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:30 PM	0	1	1	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	3	6	2	0	*11*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	19	36	21	0	*76*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**9**	**14**	**9**	**0**	***32***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

APPENDIX B

EXISTING LEVEL OF SERVICE

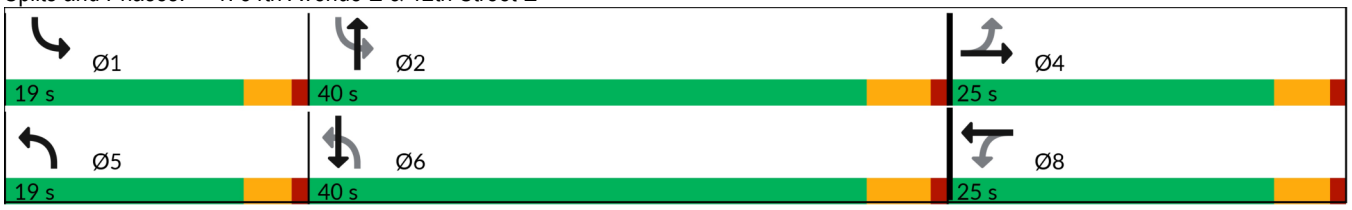


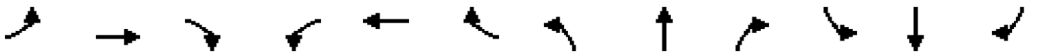
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	119	37	65	66	109	23	412	57	67	327	16
Future Volume (vph)	32	119	37	65	66	109	23	412	57	67	327	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		0	100		0	100		0
Storage Lanes	1		0	1		0	1		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	0.95	0.95	1.00	0.95	0.95
Frt		0.964			0.907			0.982			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	1712	0	1671	1596	0	1347	2646	0	1433	2845	0
Flt Permitted	0.620			0.646			0.521			0.454		
Satd. Flow (perm)	1101	1712	0	1136	1596	0	739	2646	0	685	2845	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			94			22			7	
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		727			778			1175			536	
Travel Time (s)		19.8			15.2			22.9			10.4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	7%	7%	7%	8%	8%	8%	34%	34%	34%	26%	26%	26%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	36	177	0	74	199	0	26	533	0	76	390	0
Turn Type	Perm	NA		Perm	NA		D.P+P	NA		D.P+P	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	24.5	24.5		24.5	24.5		10.0	19.0		10.0	17.0	
Total Split (s)	25.0	25.0		25.0	25.0		19.0	40.0		19.0	40.0	
Total Split (%)	29.8%	29.8%		29.8%	29.8%		22.6%	47.6%		22.6%	47.6%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		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		4.0	5.0		4.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	11.2	11.2		10.8	10.8		25.3	21.1		23.9	25.1	
Actuated g/C Ratio	0.26	0.26		0.25	0.25		0.60	0.50		0.56	0.59	
v/c Ratio	0.12	0.38		0.25	0.41		0.04	0.40		0.14	0.23	
Control Delay (s/veh)	17.5	17.5		18.9	12.7		4.9	12.2		5.6	7.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	17.5	17.5		18.9	12.7		4.9	12.2		5.6	7.6	
LOS	B	B		B	B		A	B		A	A	
Approach Delay (s/veh)		17.6			14.4			11.9			7.3	
Approach LOS		B			B			B			A	
Queue Length 50th (ft)	8	36		16	23		2	56		7	22	
Queue Length 95th (ft)	30	95		52	78		11	112		24	76	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		647			698			1095			456	
Turn Bay Length (ft)	100			200			100			100		
Base Capacity (vph)	612	959		631	928		705	2125		728	2281	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.06	0.18		0.12	0.21		0.04	0.25		0.10	0.17	

Intersection Summary			
Area Type:	Other		
Cycle Length: 84			
Actuated Cycle Length: 42.4			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.42			
Intersection Signal Delay (s/veh): 11.7		Intersection LOS: B	
Intersection Capacity Utilization 48.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: 54th Avenue E & 12th Street E



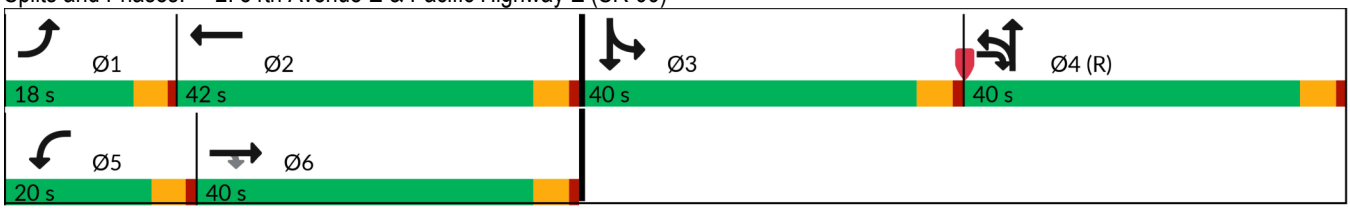


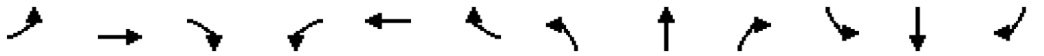
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	338	240	403	343	115	297	353	341	106	289	54
Future Volume (vph)	77	338	240	403	343	115	297	353	341	106	289	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	550		0	150		0	125		0
Storage Lanes	1		1	2		0	2		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.962			0.926			0.976	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	3167	1417	2993	2968	0	2918	2786	0	1357	2649	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1583	3167	1417	2993	2968	0	2918	2786	0	1357	2649	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			167		32			167			15	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1085			1070			320			1175	
Travel Time (s)		21.1			20.8			6.2			22.9	
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 (%)	14%	14%	14%	17%	17%	17%	20%	20%	20%	33%	33%	33%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	80	352	250	420	477	0	309	723	0	110	357	0
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		3	3	
Permitted Phases			6									
Detector Phase	1	6	4	5	2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	10.5	38.7	35.7	10.5	37.7		35.7	35.7		38.7	38.7	
Total Split (s)	18.0	40.0	40.0	20.0	42.0		40.0	40.0		40.0	40.0	
Total Split (%)	12.9%	28.6%	28.6%	14.3%	30.0%		28.6%	28.6%		28.6%	28.6%	
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		3.7	3.7		3.7	3.7	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7	4.7	4.5	4.7		4.7	4.7		4.7	4.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Ped	C-Max	None	Ped		C-Max	C-Max		None	None	
Act Effct Green (s)	11.4	34.0	80.8	15.5	38.1		46.8	46.8		25.1	25.1	
Actuated g/C Ratio	0.08	0.24	0.58	0.11	0.27		0.33	0.33		0.18	0.18	
v/c Ratio	0.62	0.45	0.28	1.26	0.57		0.31	0.69		0.45	0.73	
Control Delay (s/veh)	82.4	47.4	3.7	191.2	44.5		39.6	38.7		56.1	60.6	
Queue Delay	0.0	0.0	0.0	1.2	0.0		0.8	9.7		0.0	0.0	
Total Delay (s/veh)	82.4	47.4	3.7	192.4	44.5		40.4	48.5		56.1	60.6	
LOS	F	D	A	F	D		D	D		E	E	
Approach Delay (s/veh)		35.5			113.8			46.1			59.6	
Approach LOS		D			F			D			E	
Queue Length 50th (ft)	71	144	18	~247	186		119	262		90	156	
Queue Length 95th (ft)	129	195	50	#356	250		172	341		144	201	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1005			990			240			1095	
Turn Bay Length (ft)	225			550			150			125		
Base Capacity (vph)	152	798	888	331	842		974	1041		342	679	
Starvation Cap Reductn	0	0	0	0	0		398	289		0	0	
Spillback Cap Reductn	0	0	80	33	0		0	0		0	1	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.53	0.44	0.31	1.41	0.57		0.54	0.96		0.32	0.53	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 14 (10%), Referenced to phase 4:NBTL, Start of Green			
Natural Cycle: 135			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.27			
Intersection Signal Delay (s/veh): 65.5		Intersection LOS: E	
Intersection Capacity Utilization 62.9%		ICU Level of Service B	
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: 2: 54th Avenue E & Pacific Highway E (SR-99)





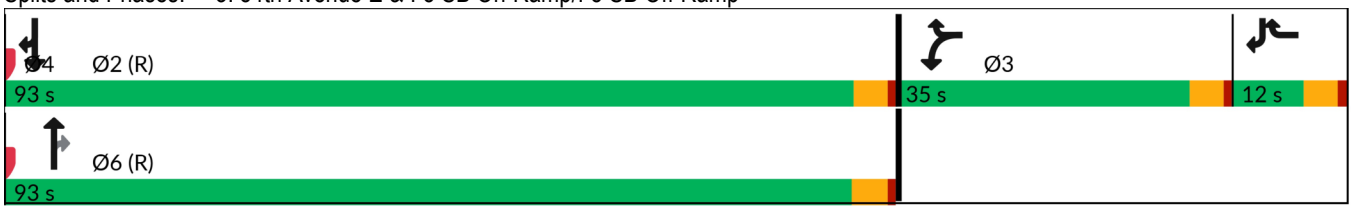
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	231	0	308	0	675	336	0	434	436
Future Volume (vph)	0	0	0	231	0	308	0	675	336	0	434	436
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		50	0		0
Storage Lanes	0		0	1		1	0		1	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	0.95	1.00	1.00	0.95	0.95
Frt						0.850			0.850		0.986	0.850
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	1433	0	1282	0	3282	1468	0	1508	1300
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1433	0	1282	0	3282	1468	0	1508	1300
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						251			198		7	413
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1083			1080			827			320	
Travel Time (s)		21.1			21.0			16.1			6.2	
Peak Hour 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
Heavy Vehicles (%)	0%	0%	0%	26%	26%	26%	10%	10%	10%	18%	18%	18%
Shared Lane Traffic (%)												10%
Lane Group Flow (vph)	0	0	0	243	0	324	0	711	354	0	503	413
Turn Type				Prot		custom		NA	Perm		NA	custom
Protected Phases				3		3 4		6			2	2 4
Permitted Phases									6			Free
Detector Phase				3		3 4		6	6		2	2 4
Switch Phase												
Minimum Initial (s)				5.0				10.0	10.0		10.0	
Minimum Split (s)				9.5				14.7	14.7		14.5	
Total Split (s)				35.0				93.0	93.0		93.0	
Total Split (%)				25.0%				66.4%	66.4%		66.4%	
Yellow Time (s)				3.5				3.7	3.7		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				4.7	4.7		4.5	
Lead/Lag				Lead								
Lead-Lag Optimize?				Yes								
Recall Mode				None				C-Max	C-Max		C-Max	
Act Effct Green (s)				27.2		38.2		92.6	92.6		92.8	140.0
Actuated g/C Ratio				0.19		0.27		0.66	0.66		0.66	1.00
v/c Ratio				0.87		0.60		0.32	0.34		0.50	0.31
Control Delay (s/veh)				83.8		15.2		11.2	5.5		11.9	1.7
Queue Delay				0.0		0.5		0.1	0.0		3.8	0.0
Total Delay (s/veh)				83.8		15.7		11.3	5.5		15.8	1.7
LOS				F		B		B	A		B	A
Approach Delay (s/veh)					45.0			9.4			9.5	
Approach LOS					D			A			A	
Queue Length 50th (ft)				212		50		146	53		290	40
Queue Length 95th (ft)				#340		152		188	109		m304	m53

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	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	7.5
Total Split (s)	12.0
Total Split (%)	9%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
LOS	
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1003			1000			747			240	
Turn Bay Length (ft)									50			
Base Capacity (vph)				312		534		2171	1038		1002	1300
Starvation Cap Reductn				0		0		0	0		402	0
Spillback Cap Reductn				0		42		526	0		0	0
Storage Cap Reductn				0		0		0	0		0	0
Reduced v/c Ratio				0.78		0.66		0.43	0.34		0.84	0.32

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 75 (54%), Referenced to phase 2:SBT and 6:NBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay (s/veh): 17.4		Intersection LOS: B	
Intersection Capacity Utilization 51.6%		ICU Level of Service A	
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: 3: 54th Avenue E & I-5 SB On-Ramp/I-5 SB Off-Ramp



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	

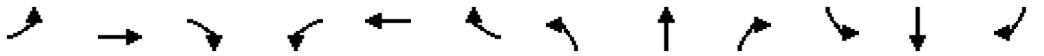
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	275	203	72	33	99	350	127	357	35	402	299	267
Future Volume (vph)	275	203	72	33	99	350	127	357	35	402	299	267
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	300		0	200		0	175		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.95
Frt		0.971				0.850		0.987			0.937	
Flt Protected	0.950	0.988			0.988		0.950			0.950	0.994	
Satd. Flow (prot)	1320	2666	0	0	1508	1298	1504	2969	0	1395	2735	0
Flt Permitted	0.950	0.988			0.988		0.950			0.950	0.994	
Satd. Flow (perm)	1320	2666	0	0	1508	1298	1504	2969	0	1395	2735	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18				112		6			126	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		738			676			783			335	
Travel Time (s)		14.4			13.2			17.8			7.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	12%	12%	12%	12%	12%	12%	8%	8%	8%	6%	6%	6%
Shared Lane Traffic (%)	33%									18%		
Lane Group Flow (vph)	205	407	0	0	147	389	141	436	0	367	709	0
Turn Type	Split	NA		Split	NA	pm+ov	Split	NA		Split	NA	
Protected Phases	1	1		3	3	2	4	4		2	2	
Permitted Phases						3						
Detector Phase	1	1		3	3	2	4	4		2	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	24.5	24.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	34.0	34.0		24.0	24.0	53.0	29.0	29.0		53.0	53.0	
Total Split (%)	24.3%	24.3%		17.1%	17.1%	37.9%	20.7%	20.7%		37.9%	37.9%	
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	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	Lead	Lag	Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	None		None	None	
Act Effct Green (s)	25.2	25.2			16.8	78.2	23.1	23.1		57.0	57.0	
Actuated g/C Ratio	0.18	0.18			0.12	0.56	0.17	0.17		0.41	0.41	
v/c Ratio	0.86	0.82			0.81	0.50	0.57	0.88		0.64	0.59	
Control Delay (s/veh)	86.8	66.6			91.6	16.6	63.2	76.1		42.5	30.4	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	86.8	66.6			91.6	16.6	63.2	76.1		42.5	30.4	
LOS	F	E			F	B	E	E		D	C	
Approach Delay (s/veh)		73.4			37.2			73.0			34.6	
Approach LOS		E			D			E			C	
Queue Length 50th (ft)	198	187			131	156	118	200		310	241	
Queue Length 95th (ft)	#317	247			#223	261	192	#283		468	330	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		658			596			703			255	
Turn Bay Length (ft)	300						200			175		
Base Capacity (vph)	278	575			210	774	264	526		567	1187	
Starvation Cap Reductn	0	0			0	0	0	0		0	0	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.74	0.71			0.70	0.50	0.53	0.83		0.65	0.60	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 0 (0%), Referenced to phase 6:, Start of Green			
Natural Cycle: 95			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay (s/veh): 51.5		Intersection LOS: D	
Intersection Capacity Utilization 67.9%		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: 4: 54th Avenue E & 20th Street E

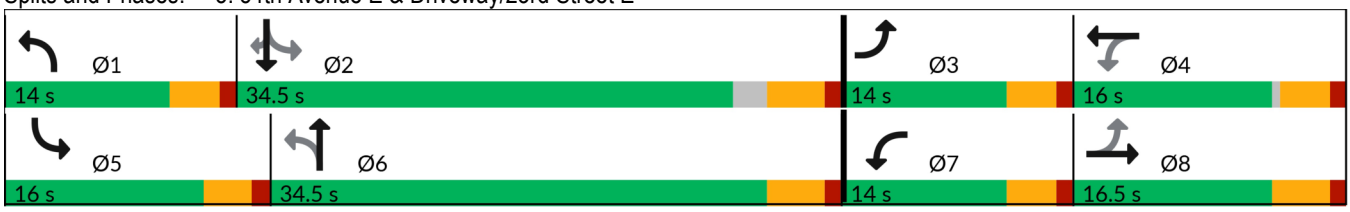


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	43	0	92	0	414	52	84	398	1
Future Volume (vph)	0	0	0	43	0	92	0	414	52	84	398	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	210		0	100		0
Storage Lanes	0		0	1		0	1		0	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	1.00	1.00	1.00	1.00	1.00
Frt					0.850			0.983				0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	1900	0	1736	1553	0	1759	1729	0	1752	1845	1568
Flt Permitted				0.714						0.310		
Satd. Flow (perm)	0	1900	0	1304	1553	0	1759	1729	0	572	1845	1568
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					553			9				128
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		362			838			563			783	
Travel Time (s)		9.9			22.9			12.8			17.8	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	4%	4%	4%	8%	8%	8%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	51	108	0	0	548	0	99	468	1
Turn Type				pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6			2		2
Detector Phase	3	8		7	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	6.0
Minimum Split (s)	8.0	24.5		8.0	24.0		8.0	14.5		8.0	14.5	14.5
Total Split (s)	14.0	16.5		14.0	16.0		14.0	34.5		16.0	34.5	34.5
Total Split (%)	17.3%	20.4%		17.3%	19.8%		17.3%	42.6%		19.8%	42.6%	42.6%
Yellow Time (s)	3.0	3.5		3.0	3.0		3.0	3.5		3.0	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		0.0	0.0	0.0
Total Lost Time (s)		4.5		4.0	4.0		4.0	4.5		4.0	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max		None	Max	Max
Act Effct Green (s)				7.1	7.1			34.6		43.5	44.0	44.0
Actuated g/C Ratio				0.13	0.13			0.61		0.77	0.78	0.78
v/c Ratio				0.23	0.15			0.51		0.16	0.32	0.00
Control Delay (s/veh)				25.7	0.5			11.6		2.9	3.5	0.0
Queue Delay				0.0	0.0			0.0		0.0	0.0	0.0
Total Delay (s/veh)				25.7	0.5			11.6		2.9	3.5	0.0
LOS				C	A			B		A	A	A
Approach Delay (s/veh)					8.6			11.6			3.4	
Approach LOS					A			B			A	
Queue Length 50th (ft)				16	0			115		7	41	0
Queue Length 95th (ft)				41	0			212		17	78	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		282			758			483			703	
Turn Bay Length (ft)				100						100		
Base Capacity (vph)				309	775			1064		693	1438	1251
Starvation Cap Reductn				0	0			0		0	0	0
Spillback Cap Reductn				0	0			0		0	0	0
Storage Cap Reductn				0	0			0		0	0	0
Reduced v/c Ratio				0.17	0.14			0.52		0.14	0.33	0.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 81			
Actuated Cycle Length: 56.4			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay (s/veh): 7.6		Intersection LOS: A	
Intersection Capacity Utilization 45.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 5: 54th Avenue E & Driveway/23rd Street E

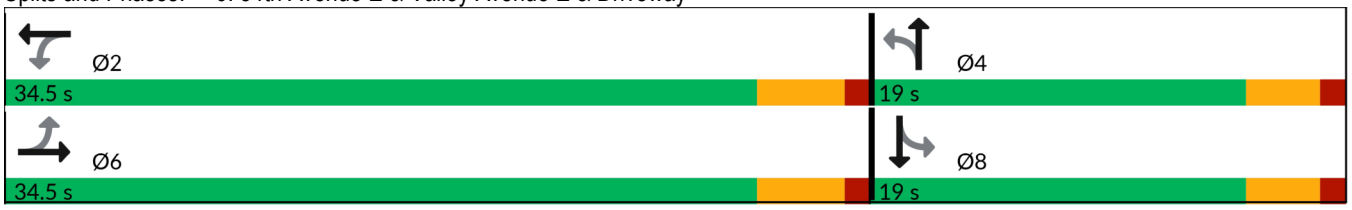


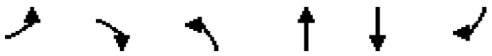
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	205	123	106	333	5	139	1	82	1	1	0
Future Volume (vph)	3	205	123	106	333	5	139	1	82	1	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	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		0.944			0.998			0.950				
Flt Protected	0.950			0.950				0.970			0.976	
Satd. Flow (prot)	1656	1646	0	1641	1724	0	0	1700	0	0	1854	0
Flt Permitted	0.417			0.431				0.809			0.881	
Satd. Flow (perm)	727	1646	0	744	1724	0	0	1418	0	0	1674	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		92			2			55				
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		563			491			578			252	
Travel Time (s)		12.8			11.2			15.8			6.9	
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	9%	9%	9%	10%	10%	10%	3%	3%	3%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	4	456	0	147	470	0	0	308	0	0	2	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	30.5	30.5		22.5	22.5		32.0	32.0		32.0	32.0	
Total Split (s)	34.5	34.5		34.5	34.5		19.0	19.0		19.0	19.0	
Total Split (%)	64.5%	64.5%		64.5%	64.5%		35.5%	35.5%		35.5%	35.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		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			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	17.5	17.5		17.5	17.5			11.9			11.9	
Actuated g/C Ratio	0.46	0.46		0.46	0.46			0.31			0.31	
v/c Ratio	0.01	0.57		0.43	0.59			0.64			0.00	
Control Delay (s/veh)	6.0	9.2		11.9	11.4			19.0			12.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	6.0	9.2		11.9	11.4			19.0			12.0	
LOS	A	A		B	B			B			B	
Approach Delay (s/veh)		9.2			11.6			19.0			12.0	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)	0	49		19	68			42			0	
Queue Length 95th (ft)	3	75		39	99			97			3	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		483			411			498			172	
Turn Bay Length (ft)	200			125								
Base Capacity (vph)	577	1325		590	1368			621			695	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.01	0.34		0.25	0.34			0.50			0.00	

Intersection Summary			
Area Type:	Other		
Cycle Length: 53.5			
Actuated Cycle Length: 38.4			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay (s/veh): 12.5		Intersection LOS: B	
Intersection Capacity Utilization 52.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 6: 54th Avenue E & Valley Avenue E & Driveway



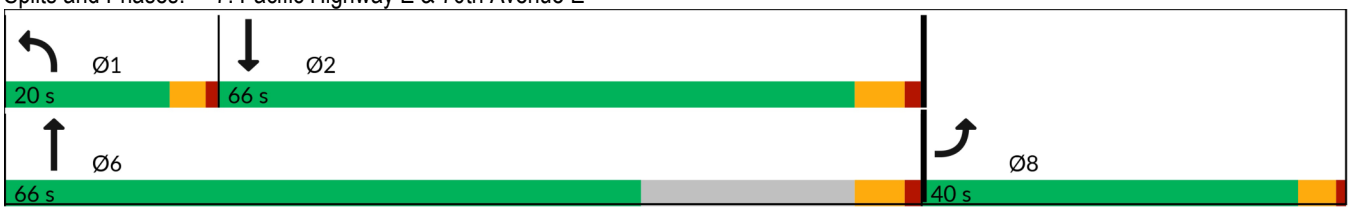


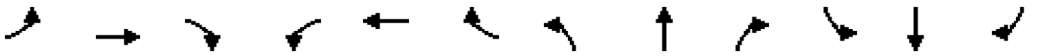
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	16	0	0	0	0	55
Future Volume (vph)	16	0	0	0	0	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	290			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt					0.850	
Flt Protected	0.950					
Satd. Flow (prot)	1641	0	1545	2935	2692	0
Flt Permitted	0.950					
Satd. Flow (perm)	1641	0	1545	2935	2692	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)					1091	
Link Speed (mph)	30			30	30	
Link Distance (ft)	592			513	541	
Travel Time (s)	13.5			11.7	12.3	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	10%	10%	23%	23%	14%	14%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	17	0	0	0	57	0
Turn Type	Prot		Prot		NA	
Protected Phases	8		1	6	2	
Permitted Phases						
Detector Phase	8		1	6	2	
Switch Phase						
Minimum Initial (s)	5.0		6.0	10.0	10.0	
Minimum Split (s)	40.0		10.5	23.7	33.7	
Total Split (s)	40.0		20.0	66.0	66.0	
Total Split (%)	31.7%		15.9%	52.4%	52.4%	
Yellow Time (s)	3.5		3.5	4.7	4.7	
All-Red Time (s)	1.0		1.0	1.5	1.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.5		4.5	6.2	6.2	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	Max		None	Max	None	
Act Effct Green (s)	35.5				59.8	
Actuated g/C Ratio	0.33				0.56	
v/c Ratio	0.03				0.02	
Control Delay (s/veh)	24.0				0.0	
Queue Delay	0.0				0.0	
Total Delay (s/veh)	24.0				0.0	
LOS	C				A	
Approach Delay (s/veh)	24.1					
Approach LOS	C					
Queue Length 50th (ft)	8				0	
Queue Length 95th (ft)	24				0	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Internal Link Dist (ft)	512			433	461	
Turn Bay Length (ft)						
Base Capacity (vph)	549				1994	
Starvation Cap Reductn	0				0	
Spillback Cap Reductn	0				0	
Storage Cap Reductn	0				0	
Reduced v/c Ratio	0.03				0.03	

Intersection Summary			
Area Type:	Other		
Cycle Length: 126			
Actuated Cycle Length: 106			
Natural Cycle: 85			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.03			
Intersection Signal Delay (s/veh): 5.5		Intersection LOS: A	
Intersection Capacity Utilization 21.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 7: Pacific Highway E & 70th Avenue E



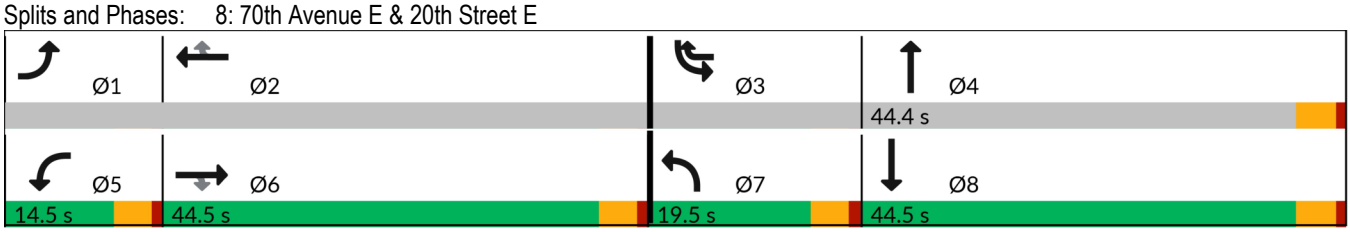


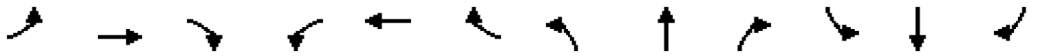
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	348	81	101	434	270	87	685	74	121	370	68
Future Volume (vph)	90	348	81	101	434	270	87	685	74	121	370	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		200	400		400	250		0	225		0
Storage Lanes	1		1	1		1	1		0	2		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	0.95	0.95	0.97	0.95	0.95
Frt			0.850			0.850		0.985			0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1671	1759	1495	1656	1743	1482	1467	2891	0	2870	2891	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1671	1759	1495	1656	1743	1482	1467	2891	0	2870	2891	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			93			96		10			18	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1295			1073			2009			522	
Travel Time (s)		25.2			20.9			39.1			10.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	8%	8%	8%	9%	9%	9%	23%	23%	23%	22%	22%	22%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	93	359	84	104	447	278	90	782	0	125	451	0
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2	3	7	4		3	8	
Permitted Phases			6			2						
Detector Phase	1	6	6	5	2	3	7	4		3	8	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	6.0	6.0	6.0		6.0	6.0	
Minimum Split (s)	10.5	22.5	22.5	14.5	22.5	14.5	14.5	24.5		14.5	24.5	
Total Split (s)	14.5	44.5	44.5	14.5	44.5	19.5	19.5	44.4		19.5	44.5	
Total Split (%)	11.8%	36.2%	36.2%	11.8%	36.2%	15.9%	15.9%	36.1%		15.9%	36.2%	
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		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	Max	Max	None	Max	None	None	None		None	None	
Act Effct Green (s)	9.6	40.2	40.2	9.8	40.4	55.8	12.1	35.7		10.9	37.2	
Actuated g/C Ratio	0.08	0.35	0.35	0.09	0.35	0.49	0.11	0.31		0.10	0.32	
v/c Ratio	0.66	0.58	0.14	0.73	0.72	0.36	0.58	0.86		0.46	0.47	
Control Delay (s/veh)	75.9	36.4	5.4	82.4	42.1	13.7	65.2	47.6		55.7	32.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	75.9	36.4	5.4	82.4	42.1	13.7	65.2	47.6		55.7	32.6	
LOS	E	D	A	F	D	B	E	D		E	C	
Approach Delay (s/veh)		38.5			37.7			49.4			37.7	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	70	226	0	79	302	83	66	282		47	140	
Queue Length 95th (ft)	#152	345	31	#178	#454	150	125	377		79	196	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1215			993			1929			442	
Turn Bay Length (ft)	250		200	400		400	250			225		
Base Capacity (vph)	146	616	584	145	614	821	192	1019		377	1025	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.64	0.58	0.14	0.72	0.73	0.34	0.47	0.77		0.33	0.44	

Intersection Summary			
Area Type:	Other		
Cycle Length: 123			
Actuated Cycle Length: 114.7			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay (s/veh): 41.5		Intersection LOS: D	
Intersection Capacity Utilization 69.1%		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: 8: 70th Avenue E & 20th Street E



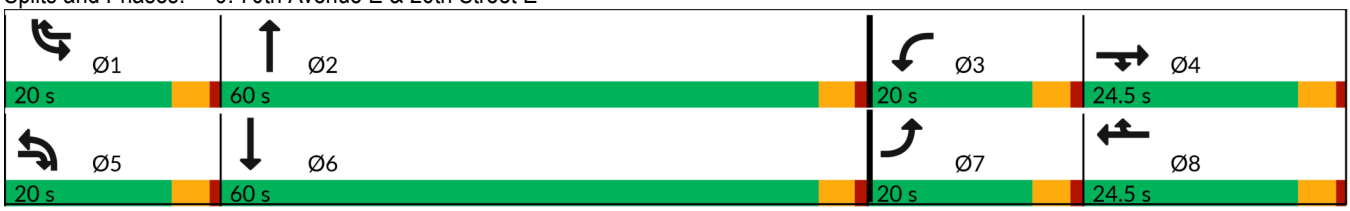


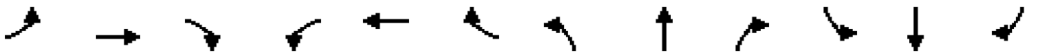
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	72	39	63	20	57	78	748	60	67	412	17
Future Volume (vph)	37	72	39	63	20	57	78	748	60	67	412	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	200		0	225		0
Storage Lanes	1		1	1		1	1		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	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.989			0.994	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1543	1624	1380	1492	1570	1335	1480	2926	0	1530	3041	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1543	1624	1380	1492	1570	1335	1480	2926	0	1530	3041	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			53			63		9			4	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1057			880			2032			2009	
Travel Time (s)		20.6			17.1			39.6			39.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	17%	17%	17%	21%	21%	21%	22%	22%	22%	18%	18%	18%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	80	43	70	22	63	87	898	0	74	477	0
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases	7	4	4 5	3	8	8 1	5	2		1	6	
Permitted Phases												
Detector Phase	7	4	4 5	3	8	8 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	10.0		6.0	10.0	
Minimum Split (s)	10.5	24.5		10.5	24.5		10.5	22.5		10.5	22.5	
Total Split (s)	20.0	24.5		20.0	24.5		20.0	60.0		20.0	60.0	
Total Split (%)	16.1%	19.7%		16.1%	19.7%		16.1%	48.2%		16.1%	48.2%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		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		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Max		None	Max	
Act Effct Green (s)	8.5	10.6	23.5	10.3	14.7	26.9	11.2	63.0		10.5	62.3	
Actuated g/C Ratio	0.08	0.10	0.23	0.10	0.14	0.26	0.11	0.61		0.10	0.61	
v/c Ratio	0.32	0.47	0.12	0.46	0.09	0.15	0.54	0.50		0.47	0.25	
Control Delay (s/veh)	55.6	56.6	7.0	57.6	43.2	8.3	59.4	18.1		57.4	15.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	55.6	56.6	7.0	57.6	43.2	8.3	59.4	18.1		57.4	15.0	
LOS	E	E	A	E	D	A	E	B		E	B	
Approach Delay (s/veh)		43.4			35.5			21.8			20.8	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)	27	52	0	46	14	0	57	203		48	91	
Queue Length 95th (ft)	67	109	22	98	40	32	118	348		102	161	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		977			800			1952			1929	
Turn Bay Length (ft)	150		150	150		150	200			225		
Base Capacity (vph)	238	324	431	231	319	470	229	1796		236	1846	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.17	0.25	0.10	0.30	0.07	0.13	0.38	0.50		0.31	0.26	

Intersection Summary			
Area Type:	Other		
Cycle Length: 124.5			
Actuated Cycle Length: 102.8			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay (s/veh): 24.6		Intersection LOS: C	
Intersection Capacity Utilization 49.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 9: 70th Avenue E & 26th Street E



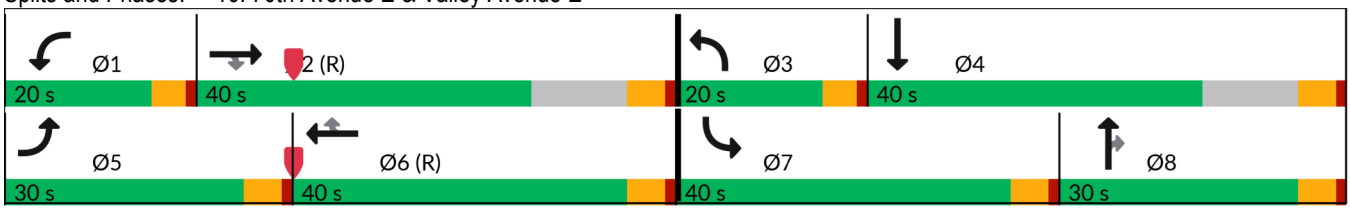


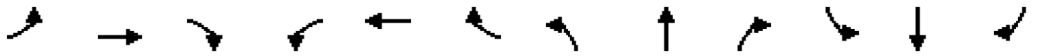
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	244	93	27	234	387	149	462	40	207	161	90
Future Volume (vph)	50	244	93	27	234	387	149	462	40	207	161	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		250	200		0	200		130	350		0
Storage Lanes	1		1	1		1	1		1	2		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	0.95	1.00	0.97	0.95	0.95
Frt			0.850			0.850			0.850		0.946	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	1776	1509	1492	1570	1335	1641	3282	1468	2870	2799	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1687	1776	1509	1492	1570	1335	1641	3282	1468	2870	2799	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			125			403			164		81	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		831			1056			750			2032	
Travel Time (s)		18.9			24.0			14.6			39.6	
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 (%)	7%	7%	7%	21%	21%	21%	10%	10%	10%	22%	22%	22%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	52	254	97	28	244	403	155	481	42	216	262	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0	8.0	6.0	8.0	8.0	6.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	11.0	31.0	31.0	10.5	31.0	31.0	10.5	31.0	31.0	13.0	31.0	
Total Split (s)	30.0	40.0	40.0	20.0	40.0	40.0	20.0	30.0	30.0	40.0	40.0	
Total Split (%)	21.4%	28.6%	28.6%	14.3%	28.6%	28.6%	14.3%	21.4%	21.4%	28.6%	28.6%	
Yellow Time (s)	4.0	4.0	4.0	3.5	4.0	4.0	3.5	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	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	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	4.5	5.0	5.0	4.5	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	
Act Effct Green (s)	11.1	71.8	71.8	8.6	66.8	66.8	15.2	27.7	27.7	16.8	29.8	
Actuated g/C Ratio	0.08	0.51	0.51	0.06	0.48	0.48	0.11	0.20	0.20	0.12	0.21	
v/c Ratio	0.38	0.27	0.11	0.30	0.32	0.47	0.87	0.74	0.09	0.62	0.39	
Control Delay (s/veh)	68.6	23.8	2.3	70.6	27.8	4.7	102.2	59.6	0.4	66.5	32.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	68.6	23.8	2.3	70.6	27.8	4.7	102.2	59.6	0.4	66.5	32.5	
LOS	E	C	A	E	C	A	F	E	A	E	C	
Approach Delay (s/veh)		24.5			15.9			65.7			47.9	
Approach LOS		C			B			E			D	
Queue Length 50th (ft)	46	137	0	25	139	0	141	219	0	97	74	
Queue Length 95th (ft)	89	243	21	58	252	78	#269	266	0	137	105	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		751			976			670			1952	
Turn Bay Length (ft)	150		250	200			200		130	350		
Base Capacity (vph)	301	910	834	165	749	847	181	669	429	717	954	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.17	0.28	0.12	0.17	0.33	0.48	0.86	0.72	0.10	0.30	0.27	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 30 (21%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay (s/veh): 39.4		Intersection LOS: D	
Intersection Capacity Utilization 54.2%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 10: 70th Avenue E & Valley Avenue E



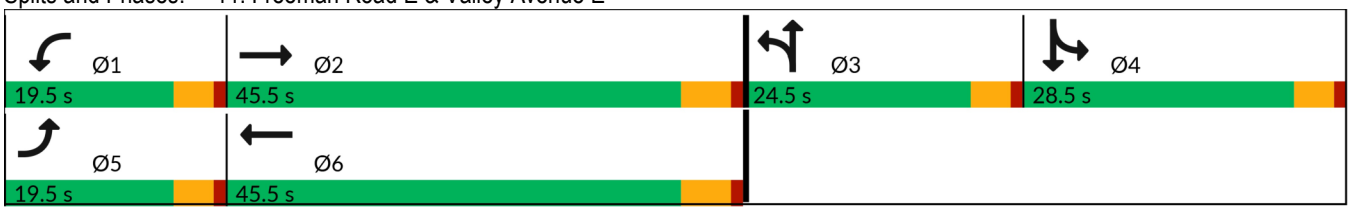


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	362	13	5	526	134	41	72	27	92	46	17
Future Volume (vph)	20	362	13	5	526	134	41	72	27	92	46	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	230		0	50		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.969			0.959			0.960	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1492	2969	0	1530	2964	0	1703	1719	0	1641	1658	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1492	2969	0	1530	2964	0	1703	1719	0	1641	1658	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			29			14			14	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		671			1259			2534			494	
Travel Time (s)		15.3			28.6			69.1			13.5	
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 (%)	21%	21%	21%	18%	18%	18%	6%	6%	6%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	21	399	0	5	703	0	44	106	0	98	67	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	3		4	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0		4.0	8.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	10.5	26.5		9.5	26.5		22.5	22.5		27.5	27.5	
Total Split (s)	19.5	45.5		19.5	45.5		24.5	24.5		28.5	28.5	
Total Split (%)	16.5%	38.6%		16.5%	38.6%		20.8%	20.8%		24.2%	24.2%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		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	5.5		4.5	5.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Max		None	None		None	None		None	None	
Act Effct Green (s)	7.3	43.8		6.4	41.0		10.5	10.5		10.9	10.9	
Actuated g/C Ratio	0.09	0.53		0.08	0.50		0.13	0.13		0.13	0.13	
v/c Ratio	0.15	0.25		0.04	0.46		0.20	0.45		0.44	0.28	
Control Delay (s/veh)	39.7	12.5		39.6	16.7		35.0	35.7		40.0	30.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	39.7	12.5		39.6	16.7		35.0	35.7		40.0	30.3	
LOS	D	B		D	B		C	D		D	C	
Approach Delay (s/veh)		13.9			16.9			35.5			36.1	
Approach LOS		B			B			D			D	
Queue Length 50th (ft)	9	47		2	92		18	40		42	22	
Queue Length 95th (ft)	36	123		14	233		56	103		105	68	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		591			1179			2454			414	
Turn Bay Length (ft)	150			230			50			250		
Base Capacity (vph)	276	1591		283	1576		420	435		486	501	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.08	0.25		0.02	0.45		0.10	0.24		0.20	0.13	

Intersection Summary			
Area Type:	Other		
Cycle Length: 118			
Actuated Cycle Length: 81.9			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.47			
Intersection Signal Delay (s/veh): 20.2		Intersection LOS: C	
Intersection Capacity Utilization 38.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 11: Freeman Road E & Valley Avenue E



Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	3	6	114	56	8
Future Vol, veh/h	3	3	6	114	56	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	5	5	8	8
Mvmt Flow	4	4	7	139	68	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	226	73	78	0	-	0
Stage 1	73	-	-	-	-	-
Stage 2	153	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.15	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.245	-	-	-
Pot Cap-1 Maneuver	767	995	1502	-	-	-
Stage 1	955	-	-	-	-	-
Stage 2	880	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	763	995	1502	-	-	-
Mov Cap-2 Maneuver	763	-	-	-	-	-
Stage 1	950	-	-	-	-	-
Stage 2	880	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.2	0.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1502	-	864	-	-
HCM Lane V/C Ratio	0.005	-	0.008	-	-
HCM Control Delay (s/veh)	7.4	0	9.2	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	5	3	116	57	1
Future Vol, veh/h	8	5	3	116	57	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	8	8	6	6	10	10
Mvmt Flow	9	6	3	132	65	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	204	66	66	0	-	0
Stage 1	66	-	-	-	-	-
Stage 2	138	-	-	-	-	-
Critical Hdwy	6.48	6.28	4.16	-	-	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.572	3.372	2.254	-	-	-
Pot Cap-1 Maneuver	771	981	1511	-	-	-
Stage 1	942	-	-	-	-	-
Stage 2	874	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	769	981	1511	-	-	-
Mov Cap-2 Maneuver	769	-	-	-	-	-
Stage 1	940	-	-	-	-	-
Stage 2	874	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.4	0.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1511	-	839	-	-
HCM Lane V/C Ratio	0.002	-	0.018	-	-
HCM Control Delay (s/veh)	7.4	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	1	13	0	4	0	122	17	6	56	2
Future Vol, veh/h	0	0	1	13	0	4	0	122	17	6	56	2
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	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	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	59	59	59	5	5	5	9	9	9
Mvmt Flow	0	0	1	15	0	5	0	145	20	7	67	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	240	247	68	238	238	155	69	0	0	165	0	0
Stage 1	82	82	-	155	155	-	-	-	-	-	-	-
Stage 2	158	165	-	83	83	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.69	7.09	6.79	4.15	-	-	4.19	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.69	6.09	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.69	6.09	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	4.031	4.531	3.831	2.245	-	-	2.281	-	-
Pot Cap-1 Maneuver	718	659	1001	612	575	761	1513	-	-	1372	-	-
Stage 1	931	831	-	729	673	-	-	-	-	-	-	-
Stage 2	849	766	-	802	727	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	711	656	1001	609	572	761	1513	-	-	1372	-	-
Mov Cap-2 Maneuver	711	656	-	609	572	-	-	-	-	-	-	-
Stage 1	931	827	-	729	673	-	-	-	-	-	-	-
Stage 2	844	766	-	797	723	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	8.6	10.8	0	0.7
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1513	-	-	1001	639	1372	-	-
HCM Lane V/C Ratio	-	-	-	0.001	0.032	0.005	-	-
HCM Control Delay (s/veh)	0	-	-	8.6	10.8	7.6	0	-
HCM Lane LOS	A	-	-	A	B	A	A	-
HCM 95th %tile Q (veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	208	415	110	50	9
Future Vol, veh/h	11	208	415	110	50	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	89	89	89	89	89	89
Heavy Vehicles, %	16	16	9	9	10	10
Mvmt Flow	12	234	466	124	56	10

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	590	0	-	0	786	528
Stage 1	-	-	-	-	528	-
Stage 2	-	-	-	-	258	-
Critical Hdwy	4.26	-	-	-	6.5	6.3
Critical Hdwy Stg 1	-	-	-	-	5.5	-
Critical Hdwy Stg 2	-	-	-	-	5.5	-
Follow-up Hdwy	2.344	-	-	-	3.59	3.39
Pot Cap-1 Maneuver	920	-	-	-	350	535
Stage 1	-	-	-	-	576	-
Stage 2	-	-	-	-	767	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	920	-	-	-	345	535
Mov Cap-2 Maneuver	-	-	-	-	345	-
Stage 1	-	-	-	-	567	-
Stage 2	-	-	-	-	767	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.5	0	17
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	920	-	-	-	365
HCM Lane V/C Ratio	0.013	-	-	-	0.182
HCM Control Delay (s/veh)	9	0	-	-	17
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q (veh)	0	-	-	-	0.7

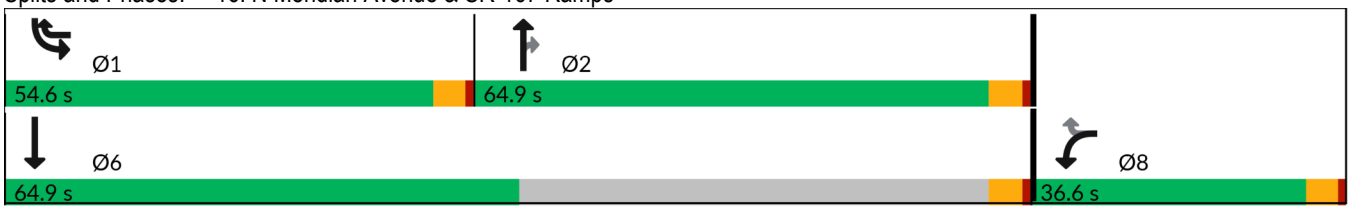
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1158	948	786	698	501	365
Future Volume (vph)	1158	948	786	698	501	365
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	2	2		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	0.88	0.95	1.00	0.97	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3183	2584	3282	1468	3019	3112
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3183	2584	3282	1468	3019	3112
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		108		502		
Link Speed (mph)	35		35			35
Link Distance (ft)	522		278			1175
Travel Time (s)	10.2		5.4			22.9
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	10%	16%	16%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1219	998	827	735	527	384
Turn Type	Prot	pm+ov	NA	Perm	Prot	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	2	1	6
Switch Phase						
Minimum Initial (s)	10.0	6.0	10.0	10.0	6.0	10.0
Minimum Split (s)	36.6	10.6	38.9	38.9	10.6	36.9
Total Split (s)	36.6	54.6	64.9	64.9	54.6	64.9
Total Split (%)	23.4%	35.0%	41.6%	41.6%	35.0%	41.6%
Yellow Time (s)	3.6	3.6	3.9	3.9	3.6	3.9
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)	4.6	4.6	4.9	4.9	4.6	4.9
Lead/Lag		Lead	Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Recall Mode	None	None	Max	Max	None	Max
Act Effct Green (s)	32.1	67.2	60.1	60.1	30.5	95.2
Actuated g/C Ratio	0.23	0.49	0.44	0.44	0.22	0.70
v/c Ratio	1.63	0.75	0.57	0.79	0.78	0.17
Control Delay (s/veh)	325.7	28.8	31.4	17.6	58.7	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	325.7	28.8	31.4	17.6	58.7	7.3
LOS	F	C	C	B	E	A
Approach Delay (s/veh)	192.1		25.0			37.1
Approach LOS	F		C			D
Queue Length 50th (ft)	~807	359	286	188	228	56
Queue Length 95th (ft)	#1021	450	394	432	293	75

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Internal Link Dist (ft)	442		198			1095
Turn Bay Length (ft)					250	
Base Capacity (vph)	745	1678	1442	926	1105	2611
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.64	0.59	0.57	0.79	0.48	0.15

Intersection Summary			
Area Type:	Other		
Cycle Length: 156.1			
Actuated Cycle Length: 136.8			
Natural Cycle: 110			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.64			
Intersection Signal Delay (s/veh): 106.3		Intersection LOS: F	
Intersection Capacity Utilization 80.8%		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.

Splits and Phases: 16: N Meridian Avenue & SR-167 Ramps



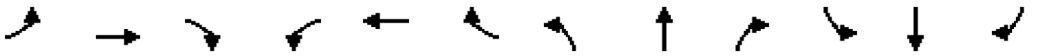
Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	87	0	0	170	0	1215	165	0	1113	378
Future Vol, veh/h	0	0	87	0	0	170	0	1215	165	0	1113	378
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	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Free	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	6	6	6	10	10	10	9	9	9	9	9	9
Mvmt Flow	0	0	92	0	0	179	0	1279	174	0	1172	398

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	785	-	-	640	-	0	-	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.02	-	-	7.1	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.36	-	-	3.4	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	327	0	0	399	0	-	0	0	-	-
Stage 1	0	0	-	0	0	-	0	-	0	0	-	-
Stage 2	0	0	-	0	0	-	0	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	-	-	327	-	-	399	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	20.2	21.2	0	0
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBT	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	327	399	-	-
HCM Lane V/C Ratio	-	0.28	0.448	-	-
HCM Control Delay (s/veh)	-	20.2	21.2	-	-
HCM Lane LOS	-	C	C	-	-
HCM 95th %tile Q (veh)	-	1.1	2.3	-	-

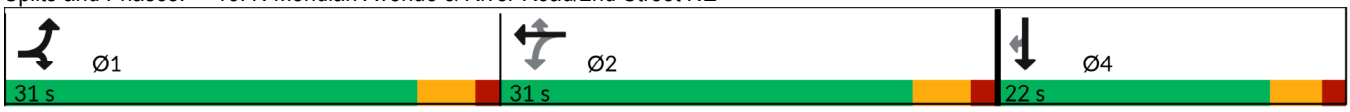


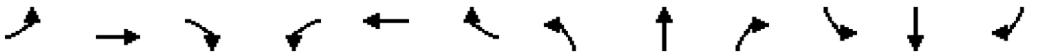
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	862	0	304	9	443	525	0	0	0	0	264	724
Future Volume (vph)	862	0	304	9	443	525	0	0	0	0	264	724
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	125		0	0		0	0		250
Storage Lanes	2		1	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected	0.950			0.950								
Satd. Flow (prot)	3242	0	1495	1736	3471	1553	0	0	0	0	3282	1468
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	3242	0	1495	1736	3471	1553	0	0	0	0	3282	1468
Right Turn on Red			No	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				90		447						618
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		673			590			2133			1751	
Travel Time (s)		13.1			11.5			58.2			47.8	
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 (%)	8%	8%	8%	4%	4%	4%	0%	0%	0%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	917	0	323	10	471	559	0	0	0	0	281	770
Turn Type	Prot		Prot	Perm	NA	Perm					NA	Perm
Protected Phases	1		1		2						4	
Permitted Phases				2		2						4
Detector Phase	1		1	2	2	2					4	4
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0					10.0	10.0
Minimum Split (s)	10.1		10.1	35.1	35.1	35.1					30.8	30.8
Total Split (s)	31.0		31.0	31.0	31.0	31.0					22.0	22.0
Total Split (%)	36.9%		36.9%	36.9%	36.9%	36.9%					26.2%	26.2%
Yellow Time (s)	3.6		3.6	3.6	3.6	3.6					3.3	3.3
All-Red Time (s)	1.5		1.5	1.5	1.5	1.5					1.5	1.5
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Lost Time (s)	5.1		5.1	5.1	5.1	5.1					4.8	4.8
Lead/Lag	Lead		Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes						
Recall Mode	None		None	Max	Max	Max					None	None
Act Effct Green (s)	25.2		25.2	30.0	30.0	30.0					17.2	17.2
Actuated g/C Ratio	0.29		0.29	0.34	0.34	0.34					0.20	0.20
v/c Ratio	0.98		0.75	0.01	0.39	0.67					0.43	0.98
Control Delay (s/veh)	57.7		40.8	0.0	23.1	9.9					33.4	37.3
Queue Delay	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Delay (s/veh)	57.7		40.8	0.0	23.1	9.9					33.4	37.3
LOS	E		D	A	C	A					C	D
Approach Delay (s/veh)		53.3			15.9						36.3	
Approach LOS		D			B						D	
Queue Length 50th (ft)	257		161	0	103	44					72	91
Queue Length 95th (ft)	#382		#282	0	146	156					111	#360

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		593			510			2053			1671	
Turn Bay Length (ft)				125								250
Base Capacity (vph)	961		443	655	1191	826					646	785
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	0.95		0.73	0.02	0.40	0.68					0.43	0.98

Intersection Summary			
Area Type:	Other		
Cycle Length: 84			
Actuated Cycle Length: 87.4			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.98			
Intersection Signal Delay (s/veh): 36.3		Intersection LOS: D	
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: 18: N Meridian Avenue & River Road/2nd Street NE





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	146	40	39	146	0	0	0	0	134	439	26
Future Volume (vph)	0	146	40	39	146	0	0	0	0	134	439	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	125		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	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	0.95	0.95	0.95
Frt			0.850								0.993	
Flt Protected				0.950							0.989	
Satd. Flow (prot)	0	1776	1509	1703	1792	0	0	0	0	0	3409	0
Flt Permitted				0.426							0.989	
Satd. Flow (perm)	0	1776	1509	764	1792	0	0	0	0	0	3409	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91								16	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		393			385			1349			2133	
Travel Time (s)		10.7			10.5			36.8			58.2	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	7%	7%	7%	6%	6%	6%	0%	0%	0%	4%	4%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	168	46	45	168	0	0	0	0	0	689	0
Turn Type		NA	Perm	pm+pt	NA					Perm	NA	
Protected Phases		8		7	4						2	
Permitted Phases			8	4						2		
Detector Phase		8	8	7	4					2	2	
Switch Phase												
Minimum Initial (s)		5.0	5.0	5.0	5.0					10.0	10.0	
Minimum Split (s)		21.0	21.0	9.0	21.0					23.0	23.0	
Total Split (s)		9.0	9.0	7.0	13.0					44.0	44.0	
Total Split (%)		15.0%	15.0%	11.7%	21.7%					73.3%	73.3%	
Yellow Time (s)		3.0	3.0	3.0	3.0					3.0	3.0	
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)		4.0	4.0	4.0	4.0						4.0	
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		None	None	None	None					Max	Max	
Act Effct Green (s)		5.4	5.4	9.7	9.7						42.9	
Actuated g/C Ratio		0.09	0.09	0.16	0.16						0.71	
v/c Ratio		1.05	0.21	0.26	0.58						0.28	
Control Delay (s/veh)		120.7	4.4	24.1	31.2						3.8	
Queue Delay		0.0	0.0	0.0	0.0						0.0	
Total Delay (s/veh)		120.7	4.4	24.1	31.2						3.8	
LOS		F	A	C	C						A	
Approach Delay (s/veh)		95.7			29.7						3.9	
Approach LOS		F			C						A	
Queue Length 50th (ft)		~73	0	14	54						43	
Queue Length 95th (ft)		#168	8	35	101						60	

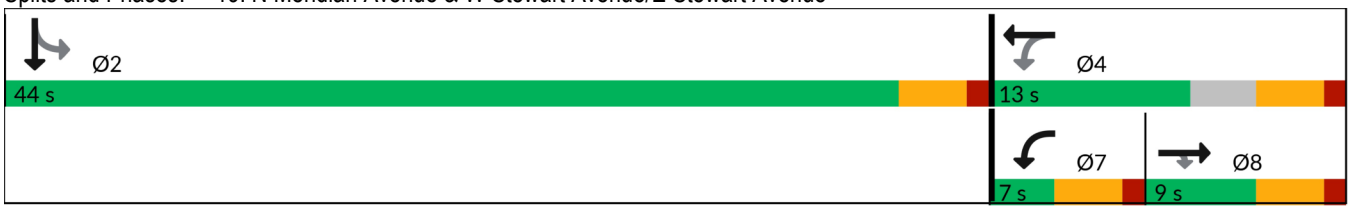
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		313			305			1269			2053	
Turn Bay Length (ft)			50	125								
Base Capacity (vph)		159	218	168	356						2416	
Starvation Cap Reductn		0	0	0	0						0	
Spillback Cap Reductn		0	0	0	0						0	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		1.06	0.21	0.27	0.47						0.29	

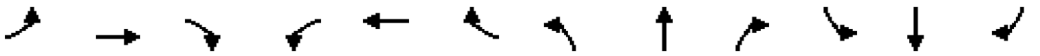
Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60.6			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.06			
Intersection Signal Delay (s/veh): 26.4		Intersection LOS: C	
Intersection Capacity Utilization 47.6%		ICU Level of Service A	
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: 19: N Meridian Avenue & W Stewart Avenue



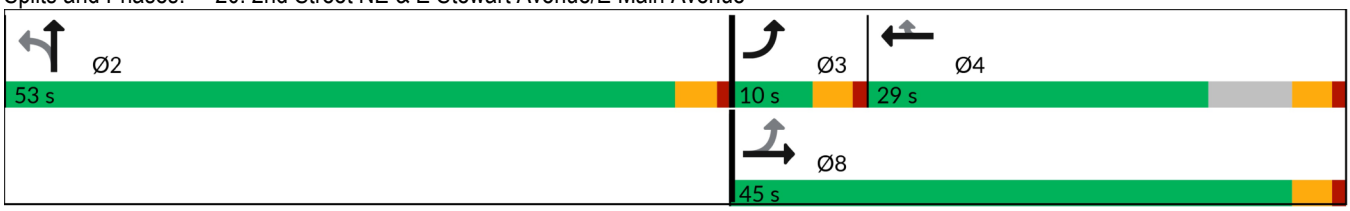


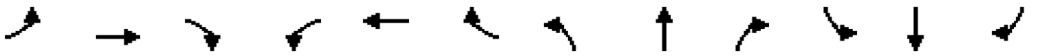
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	219	0	0	118	154	61	802	0	0	0	0
Future Volume (vph)	47	219	0	0	118	154	61	802	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	0		125	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
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	0.95	1.00	1.00	1.00
Frt						0.850						
Flt Protected	0.950							0.996				
Satd. Flow (prot)	1719	1810	0	0	1792	1524	0	3457	0	0	0	0
Flt Permitted	0.475							0.996				
Satd. Flow (perm)	860	1810	0	0	1792	1524	0	3457	0	0	0	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		385			615			394			343	
Travel Time (s)		10.5			16.8			10.7			9.4	
Peak Hour 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
Heavy Vehicles (%)	5%	5%	5%	6%	6%	6%	4%	4%	4%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	49	231	0	0	124	162	0	908	0	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA				
Protected Phases	3	8			4			2				
Permitted Phases	8					4	2					
Detector Phase	3	8			4	4	2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	10.0	10.0				
Minimum Split (s)	9.5	28.0			28.0	28.0	26.0	26.0				
Total Split (s)	10.0	45.0			29.0	29.0	53.0	53.0				
Total Split (%)	10.2%	45.9%			29.6%	29.6%	54.1%	54.1%				
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0				
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)	4.0	4.0			4.0	4.0		4.0				
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	None			None	None	Max	Max				
Act Effct Green (s)	17.3	17.3			12.0	12.0		49.6				
Actuated g/C Ratio	0.23	0.23			0.16	0.16		0.66				
v/c Ratio	0.18	0.55			0.43	0.66		0.39				
Control Delay (s/veh)	22.7	29.6			34.1	44.3		7.7				
Queue Delay	0.0	0.0			0.0	0.0		0.0				
Total Delay (s/veh)	22.7	29.6			34.1	44.3		7.7				
LOS	C	C			C	D		A				
Approach Delay (s/veh)		28.5			39.9			7.8				
Approach LOS		C			D			A				
Queue Length 50th (ft)	18	94			56	76		102				
Queue Length 95th (ft)	42	157			106	138		177				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		305			535			314			263	
Turn Bay Length (ft)	50					125						
Base Capacity (vph)	268	1001			749	637		2284				
Starvation Cap Reductn	0	0			0	0		0				
Spillback Cap Reductn	0	0			0	0		0				
Storage Cap Reductn	0	0			0	0		0				
Reduced v/c Ratio	0.18	0.23			0.17	0.25		0.40				

Intersection Summary			
Area Type:	Other		
Cycle Length: 98			
Actuated Cycle Length: 75			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay (s/veh): 17.9		Intersection LOS: B	
Intersection Capacity Utilization 47.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 20: 2nd Street NE & E Stewart Avenue/E Main Avenue



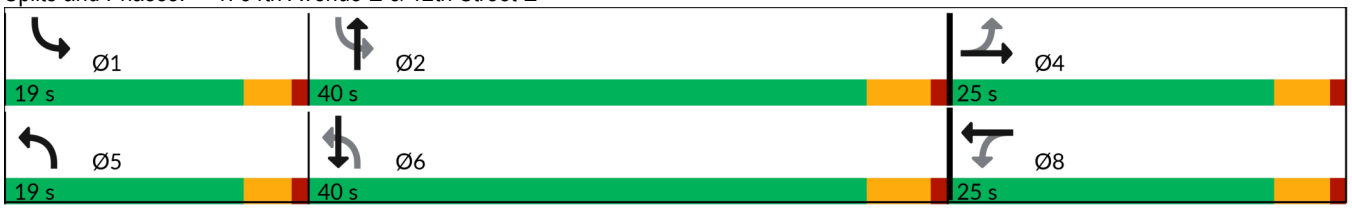


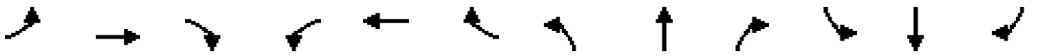
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	129	38	72	202	165	31	281	42	132	426	44
Future Volume (vph)	16	129	38	72	202	165	31	281	42	132	426	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		0	100		0	100		0
Storage Lanes	1		0	1		0	1		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	0.95	0.95	1.00	0.95	0.95
Frt		0.966			0.933			0.981			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	1765	0	1736	1705	0	1456	2856	0	1504	2966	0
Flt Permitted	0.384			0.646			0.456			0.547		
Satd. Flow (perm)	702	1765	0	1180	1705	0	699	2856	0	866	2966	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			46			24			16	
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		727			778			1175			536	
Travel Time (s)		19.8			15.2			22.9			10.4	
Peak Hour 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
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	24%	24%	24%	20%	20%	20%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	17	176	0	76	387	0	33	340	0	139	494	0
Turn Type	Perm	NA		Perm	NA		D.P+P	NA		D.P+P	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	24.5	24.5		24.5	24.5		10.0	19.0		10.0	17.0	
Total Split (s)	25.0	25.0		25.0	25.0		19.0	40.0		19.0	40.0	
Total Split (%)	29.8%	29.8%		29.8%	29.8%		22.6%	47.6%		22.6%	47.6%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		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		4.0	5.0		4.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	17.4	17.4		17.4	17.4		21.8	12.5		20.2	18.4	
Actuated g/C Ratio	0.35	0.35		0.35	0.35		0.44	0.25		0.41	0.37	
v/c Ratio	0.06	0.27		0.18	0.61		0.08	0.46		0.30	0.44	
Control Delay (s/veh)	14.1	13.7		14.7	18.2		7.8	18.4		9.7	14.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	14.1	13.7		14.7	18.2		7.8	18.4		9.7	14.2	
LOS	B	B		B	B		A	B		A	B	
Approach Delay (s/veh)		13.8			17.7			17.5			13.3	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	3	33		16	82		5	44		23	46	
Queue Length 95th (ft)	17	86		48	191		16	84		50	114	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		647			698			1095			456	
Turn Bay Length (ft)	100			200			100			100		
Base Capacity (vph)	309	787		519	777		592	2064		638	2141	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.06	0.22		0.15	0.50		0.06	0.16		0.22	0.23	

Intersection Summary			
Area Type:	Other		
Cycle Length: 84			
Actuated Cycle Length: 49.6			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay (s/veh): 15.5		Intersection LOS: B	
Intersection Capacity Utilization 58.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: 54th Avenue E & 12th Street E



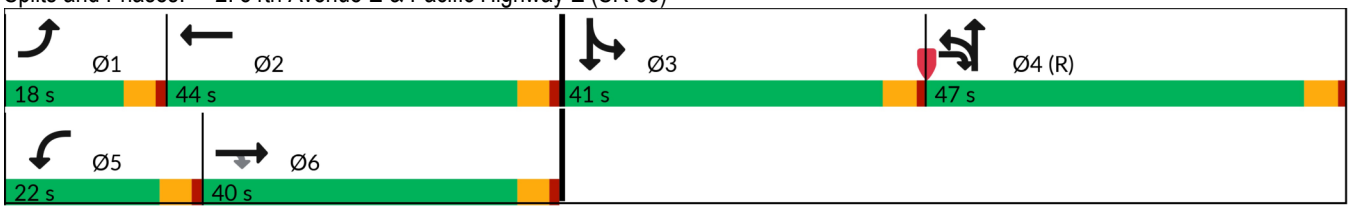


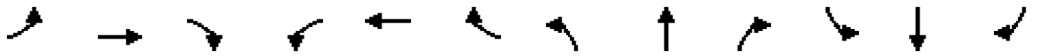
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	99	439	348	681	680	116	333	240	405	169	403	75
Future Volume (vph)	99	439	348	681	680	116	333	240	405	169	403	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	550		0	150		0	125		0
Storage Lanes	1		1	2		0	2		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.978			0.906			0.976	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1626	3252	1455	3242	3269	0	3127	2920	0	1517	2961	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1626	3252	1455	3242	3269	0	3127	2920	0	1517	2961	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			76		12			282			13	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1085			1070			320			1175	
Travel Time (s)		21.1			20.8			6.2			22.9	
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 (%)	11%	11%	11%	8%	8%	8%	12%	12%	12%	19%	19%	19%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	105	467	370	724	846	0	354	686	0	180	509	0
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		3	3	
Permitted Phases			6									
Detector Phase	1	6	4	5	2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	10.5	38.7	35.7	10.5	37.7		35.7	35.7		38.7	38.7	
Total Split (s)	18.0	40.0	47.0	22.0	44.0		47.0	47.0		41.0	41.0	
Total Split (%)	12.0%	26.7%	31.3%	14.7%	29.3%		31.3%	31.3%		27.3%	27.3%	
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		3.7	3.7		3.7	3.7	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7	4.7	4.5	4.7		4.7	4.7		4.7	4.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Ped	C-Max	None	Ped		C-Max	C-Max		None	None	
Act Effct Green (s)	12.7	35.0	81.5	17.5	39.9		46.5	46.5		32.4	32.4	
Actuated g/C Ratio	0.08	0.23	0.54	0.12	0.27		0.31	0.31		0.22	0.22	
v/c Ratio	0.76	0.61	0.44	1.91	0.96		0.36	0.62		0.55	0.78	
Control Delay (s/veh)	99.6	55.4	10.6	454.6	76.0		44.0	32.7		58.4	62.9	
Queue Delay	0.0	0.0	0.1	3.8	0.0		1.2	2.6		0.0	0.0	
Total Delay (s/veh)	99.6	55.4	10.8	458.5	76.0		45.3	35.4		58.4	62.9	
LOS	F	E	B	F	E		D	D		E	E	
Approach Delay (s/veh)		42.9			252.4			38.8			61.8	
Approach LOS		D			F			D			E	
Queue Length 50th (ft)	102	216	98	~559	430		152	220		156	241	
Queue Length 95th (ft)	#194	278	158	#688	#572		204	279		234	303	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1005			990			240			1095	
Turn Bay Length (ft)	225			550			150			125		
Base Capacity (vph)	146	765	825	378	878		968	1099		367	726	
Starvation Cap Reductn	0	0	0	0	0		403	289		0	0	
Spillback Cap Reductn	0	0	64	108	0		0	0		0	1	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.72	0.61	0.49	2.68	0.96		0.63	0.85		0.49	0.70	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 138 (92%), Referenced to phase 4:NBTL, Start of Green			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.92			
Intersection Signal Delay (s/veh): 122.5		Intersection LOS: F	
Intersection Capacity Utilization 76.1%		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.			

Splits and Phases: 2: 54th Avenue E & Pacific Highway E (SR-99)





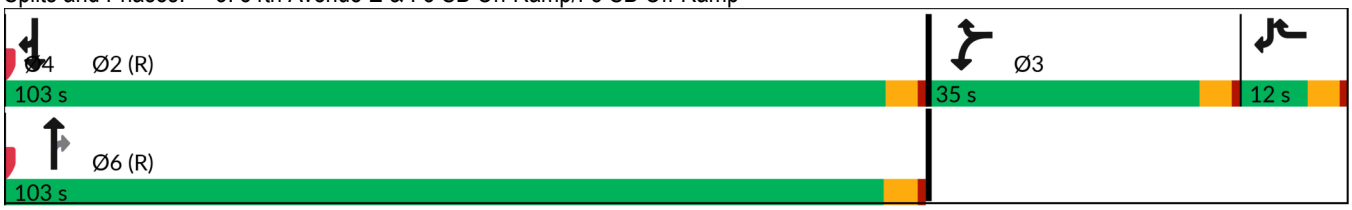
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	269	0	285	0	707	462	0	670	660
Future Volume (vph)	0	0	0	269	0	285	0	707	462	0	670	660
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		100	0		0
Storage Lanes	0		0	1		1	0		1	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	0.95	1.00	1.00	0.95	0.95
Frt						0.850			0.850		0.986	0.850
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	1626	0	1455	0	3438	1538	0	1679	1447
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1626	0	1455	0	3438	1538	0	1679	1447
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						249			432		7	625
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1083			1080			827			320	
Travel Time (s)		24.6			24.5			18.8			7.3	
Peak Hour 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
Heavy Vehicles (%)	0%	0%	0%	11%	11%	11%	5%	5%	5%	6%	6%	6%
Shared Lane Traffic (%)												10%
Lane Group Flow (vph)	0	0	0	283	0	300	0	744	486	0	775	625
Turn Type				Prot		custom		NA	Perm		NA	custom
Protected Phases				3		3 4		6			2	2 4
Permitted Phases						4			6			Free
Detector Phase				3		3 4		6	6		2	2 4
Switch Phase												
Minimum Initial (s)				5.0				10.0	10.0		10.0	
Minimum Split (s)				9.5				14.7	14.7		14.5	
Total Split (s)				35.0				103.0	103.0		103.0	
Total Split (%)				23.3%				68.7%	68.7%		68.7%	
Yellow Time (s)				3.5				3.7	3.7		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				4.7	4.7		4.5	
Lead/Lag				Lead								
Lead-Lag Optimize?				Yes								
Recall Mode				None				C-Max	C-Max		C-Max	
Act Effct Green (s)				28.7		38.3		102.5	102.5		102.7	150.0
Actuated g/C Ratio				0.19		0.26		0.68	0.68		0.68	1.00
v/c Ratio				0.90		0.53		0.31	0.40		0.67	0.43
Control Delay (s/veh)				91.3		12.9		10.3	2.4		17.4	4.1
Queue Delay				0.0		0.0		0.0	0.0		51.0	0.0
Total Delay (s/veh)				91.3		13.0		10.3	2.4		68.4	4.1
LOS				F		B		B	A		E	A
Approach Delay (s/veh)					51.0			7.2			39.7	
Approach LOS					D			A			D	
Queue Length 50th (ft)				270		38		148	17		523	173
Queue Length 95th (ft)				#429		130		187	57		m456	m103

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	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	7.5
Total Split (s)	12.0
Total Split (%)	8%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
LOS	
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1003			1000			747			240	
Turn Bay Length (ft)									100			
Base Capacity (vph)				330		571		2348	1187		1151	1447
Starvation Cap Reductn				0		0		0	0		446	0
Spillback Cap Reductn				0		13		197	0		0	0
Storage Cap Reductn				0		0		0	0		0	0
Reduced v/c Ratio				0.86		0.54		0.35	0.41		1.10	0.43

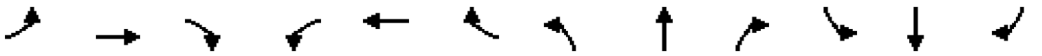
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 60 (40%), Referenced to phase 2:SBT and 6:NBT, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay (s/veh): 29.3		Intersection LOS: C	
Intersection Capacity Utilization 70.6%		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.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 3: 54th Avenue E & I-5 SB On-Ramp/I-5 SB Off-Ramp



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



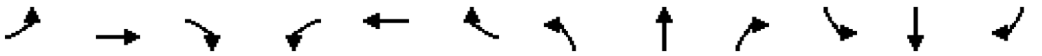
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	295	290	184	23	172	504	141	399	22	336	615	264
Future Volume (vph)	295	290	184	23	172	504	141	399	22	336	615	264
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	300		0	200		0	175		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.95
Frt		0.946				0.850		0.992			0.957	
Flt Protected	0.950	0.997			0.994		0.950			0.950	0.998	
Satd. Flow (prot)	1395	2769	0	0	1634	1398	1593	3160	0	1408	2831	0
Flt Permitted	0.950	0.997			0.994		0.950			0.950	0.998	
Satd. Flow (perm)	1395	2769	0	0	1634	1398	1593	3160	0	1408	2831	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		59				122		3			42	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		738			676			783			335	
Travel Time (s)		14.4			13.2			17.8			7.6	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	6%	6%	6%	4%	4%	4%	2%	2%	2%	5%	5%	5%
Shared Lane Traffic (%)	12%									10%		
Lane Group Flow (vph)	265	520	0	0	199	514	144	429	0	309	931	0
Turn Type	Split	NA		Split	NA	pm+ov	Split	NA		Split	NA	
Protected Phases	1	1		3	3	2	4	4		2	2	
Permitted Phases						3						
Detector Phase	1	1		3	3	2	4	4		2	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	38.0	38.0		26.0	26.0	60.0	26.0	26.0		60.0	60.0	
Total Split (%)	25.3%	25.3%		17.3%	17.3%	40.0%	17.3%	17.3%		40.0%	40.0%	
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	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	Lead	Lag	Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	None		None	None	
Act Effct Green (s)	31.0	31.0			20.3	83.5	21.9	21.9		58.7	58.7	
Actuated g/C Ratio	0.21	0.21			0.14	0.56	0.15	0.15		0.39	0.39	
v/c Ratio	0.92	0.84			0.90	0.61	0.61	0.92		0.56	0.82	
Control Delay (s/veh)	93.5	63.2			102.6	20.8	72.7	88.7		41.6	47.0	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	93.5	63.2			102.6	20.8	72.7	88.7		41.6	47.0	
LOS	F	E			F	C	E	F		D	D	
Approach Delay (s/veh)		73.4			43.7			84.7			45.7	
Approach LOS		E			D			F			D	
Queue Length 50th (ft)	275	237			193	261	135	220		267	446	
Queue Length 95th (ft)	#446	312			#335	388	214	#328		385	547	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		658			596			703			255	
Turn Bay Length (ft)	300						200			175		
Base Capacity (vph)	311	664			234	832	234	467		550	1133	
Starvation Cap Reductn	0	0			0	0	0	0		0	0	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.85	0.78			0.85	0.62	0.62	0.92		0.56	0.82	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 0 (0%), Referenced to phase 6:, Start of Green			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay (s/veh): 58.6		Intersection LOS: E	
Intersection Capacity Utilization 82.2%		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: 4: 54th Avenue E & 20th Street E

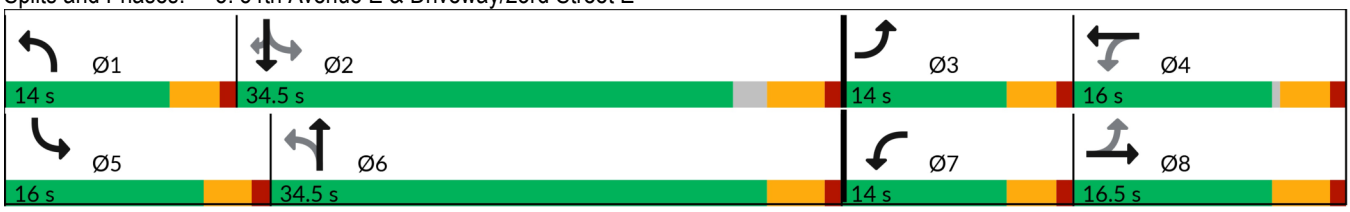


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	3	6	0	105	1	382	5	83	597	0
Future Volume (vph)	1	0	3	6	0	105	1	382	5	83	597	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	210		0	100		0
Storage Lanes	0		0	1		0	1		0	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	1.00	1.00	1.00	1.00	1.00
Frt		0.899			0.850			0.998				
Flt Protected		0.988		0.950			0.950			0.950		
Satd. Flow (prot)	0	1350	0	1805	1615	0	1752	1841	0	1752	1845	1845
Flt Permitted		0.880		0.672			0.391			0.423		
Satd. Flow (perm)	0	1203	0	1277	1615	0	721	1841	0	780	1845	1845
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		74			594			1				
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		362			838			575			783	
Travel Time (s)		9.9			22.9			13.1			17.8	
Peak Hour 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
Heavy Vehicles (%)	25%	25%	25%	0%	0%	0%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	4	0	6	111	0	1	407	0	87	628	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6			2		2
Detector Phase	3	8		7	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	6.0
Minimum Split (s)	8.0	24.5		8.0	24.0		8.0	14.5		8.0	14.5	14.5
Total Split (s)	14.0	16.5		14.0	16.0		14.0	34.5		16.0	34.5	34.5
Total Split (%)	17.3%	20.4%		17.3%	19.8%		17.3%	42.6%		19.8%	42.6%	42.6%
Yellow Time (s)	3.0	3.5		3.0	3.0		3.0	3.5		3.0	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		0.0	0.0	0.0
Total Lost Time (s)		4.5		4.0	4.0		4.0	4.5		4.0	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max		None	Max	Max
Act Effct Green (s)		5.6		7.7	7.7		39.6	35.5		43.8	42.8	
Actuated g/C Ratio		0.10		0.13	0.13		0.69	0.62		0.76	0.74	
v/c Ratio		0.02		0.02	0.15		0.00	0.35		0.12	0.45	
Control Delay (s/veh)		0.2		21.1	0.4		4.0	10.1		3.3	7.5	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)		0.2		21.1	0.4		4.0	10.1		3.3	7.5	
LOS		A		C	A		A	B		A	A	
Approach Delay (s/veh)		0.3			1.5			10.2			7.0	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)		0		2	0		0	72		5	56	
Queue Length 95th (ft)		0		10	0		2	189		25	308	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		282			758			495			703	
Turn Bay Length (ft)				100			210			100		
Base Capacity (vph)		311		340	829		715	1134		800	1372	
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		0.01		0.02	0.13		0.00	0.36		0.11	0.46	

Intersection Summary			
Area Type:	Other		
Cycle Length: 81			
Actuated Cycle Length: 57.6			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.46			
Intersection Signal Delay (s/veh): 7.5		Intersection LOS: A	
Intersection Capacity Utilization 51.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 5: 54th Avenue E & Driveway/23rd Street E

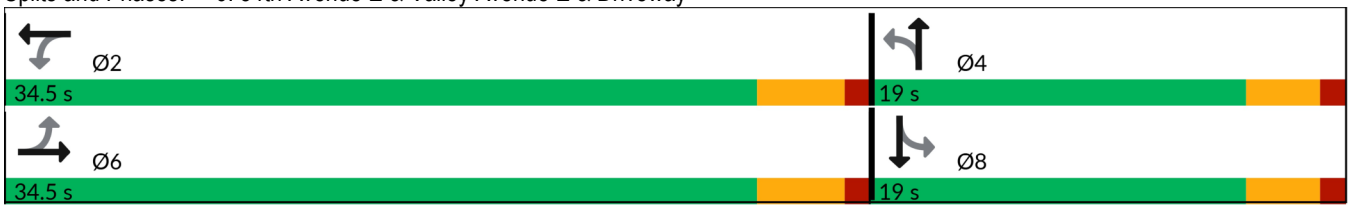


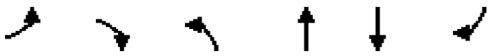
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	594	52	28	377	0	16	0	20	1	0	0
Future Volume (vph)	17	594	52	28	377	0	16	0	20	1	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	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		0.988						0.924				
Flt Protected	0.950			0.950				0.979			0.950	
Satd. Flow (prot)	1752	1823	0	1787	1881	0	0	1719	0	0	1805	0
Flt Permitted	0.522			0.353								
Satd. Flow (perm)	963	1823	0	664	1881	0	0	1756	0	0	1900	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14						31				
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		575			491			578			252	
Travel Time (s)		13.1			11.2			15.8			6.9	
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 (%)	3%	3%	3%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	703	0	30	410	0	0	39	0	0	1	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	30.5	30.5		22.5	22.5		32.0	32.0		32.0	32.0	
Total Split (s)	34.5	34.5		34.5	34.5		19.0	19.0		19.0	19.0	
Total Split (%)	64.5%	64.5%		64.5%	64.5%		35.5%	35.5%		35.5%	35.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		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			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	22.5	22.5		22.5	22.5			7.3			7.2	
Actuated g/C Ratio	0.85	0.85		0.85	0.85			0.28			0.27	
v/c Ratio	0.02	0.45		0.05	0.25			0.07			0.00	
Control Delay (s/veh)	2.5	3.9		2.7	2.7			8.6			15.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	2.5	3.9		2.7	2.7			8.6			15.0	
LOS	A	A		A	A			A			B	
Approach Delay (s/veh)		3.9			2.7			8.6			15.0	
Approach LOS		A			A			A			B	
Queue Length 50th (ft)	0	0		0	0			1			0	
Queue Length 95th (ft)	5	144		8	67			21			3	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		495			411			498			172	
Turn Bay Length (ft)	200			125								
Base Capacity (vph)	855	1619		589	1669			1242			1334	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.02	0.43		0.05	0.25			0.03			0.00	

Intersection Summary			
Area Type:	Other		
Cycle Length: 53.5			
Actuated Cycle Length: 26.4			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.45			
Intersection Signal Delay (s/veh): 3.6		Intersection LOS: A	
Intersection Capacity Utilization 44.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 6: 54th Avenue E & Valley Avenue E & Driveway



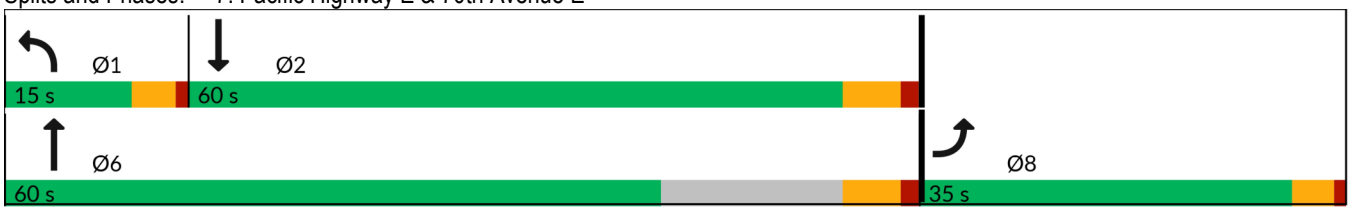


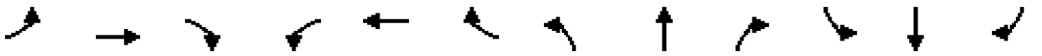
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	59	0	0	0	0	30
Future Volume (vph)	59	0	0	0	0	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	290			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt					0.850	
Flt Protected	0.950					
Satd. Flow (prot)	1641	0	1776	3374	2950	0
Flt Permitted	0.950					
Satd. Flow (perm)	1641	0	1776	3374	2950	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)					1091	
Link Speed (mph)	30			30	30	
Link Distance (ft)	623			659	553	
Travel Time (s)	14.2			15.0	12.6	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	10%	10%	7%	7%	4%	4%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	61	0	0	0	31	0
Turn Type	Prot		Prot		NA	
Protected Phases	8		1	6	2	
Permitted Phases						
Detector Phase	8		1	6	2	
Switch Phase						
Minimum Initial (s)	5.0		6.0	10.0	10.0	
Minimum Split (s)	22.5		10.5	23.7	33.7	
Total Split (s)	35.0		15.0	60.0	60.0	
Total Split (%)	31.8%		13.6%	54.5%	54.5%	
Yellow Time (s)	3.5		3.5	4.7	4.7	
All-Red Time (s)	1.0		1.0	1.5	1.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.5		4.5	6.2	6.2	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	Max		None	Max	None	
Act Effct Green (s)	30.5				53.8	
Actuated g/C Ratio	0.32				0.57	
v/c Ratio	0.11				0.01	
Control Delay (s/veh)	23.6				0.0	
Queue Delay	0.0				0.0	
Total Delay (s/veh)	23.6				0.0	
LOS	C				A	
Approach Delay (s/veh)	23.6					
Approach LOS	C					
Queue Length 50th (ft)	26				0	
Queue Length 95th (ft)	55				0	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Internal Link Dist (ft)	543			579	473	
Turn Bay Length (ft)						
Base Capacity (vph)	526				2143	
Starvation Cap Reductn	0				0	
Spillback Cap Reductn	0				0	
Storage Cap Reductn	0				0	
Reduced v/c Ratio	0.12				0.01	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 95			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.12			
Intersection Signal Delay (s/veh): 15.7		Intersection LOS: B	
Intersection Capacity Utilization 21.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 7: Pacific Highway E & 70th Avenue E



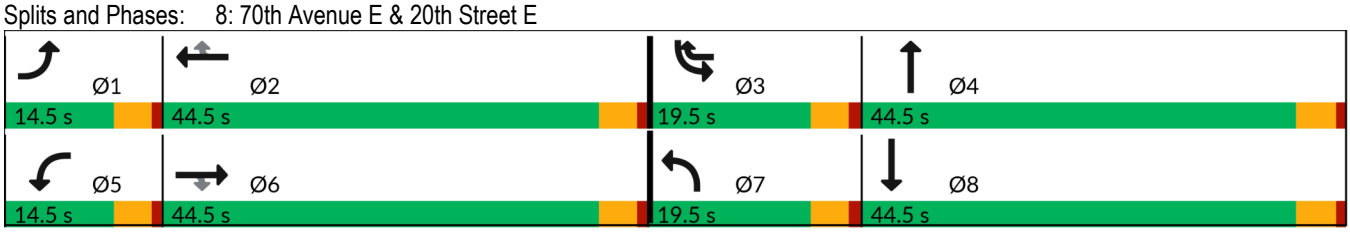


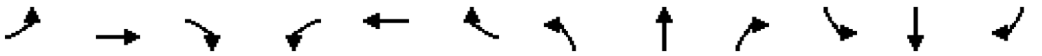
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	439	101	119	428	201	136	510	83	163	780	78
Future Volume (vph)	44	439	101	119	428	201	136	510	83	163	780	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		200	400		400	250		0	225		0
Storage Lanes	1		1	1		1	1		0	2		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	0.95	0.95	0.97	0.95	0.95
Frt			0.850			0.850		0.979			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1845	1568	1736	1827	1553	1612	3156	0	3019	3068	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1752	1845	1568	1736	1827	1553	1612	3156	0	3019	3068	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			93			207		16			9	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1295			1073			2009			522	
Travel Time (s)		25.2			20.9			39.1			10.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	12%	12%	12%	16%	16%	16%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	453	104	123	441	207	140	612	0	168	884	0
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2	3	7	4		3	8	
Permitted Phases			6			2						
Detector Phase	1	6	6	5	2	3	7	4		3	8	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0	6.0	6.0	6.0		6.0	6.0	
Minimum Split (s)	10.5	22.5	22.5	14.5	22.5	14.5	14.5	24.5		14.5	24.5	
Total Split (s)	14.5	44.5	44.5	14.5	44.5	19.5	19.5	44.5		19.5	44.5	
Total Split (%)	11.8%	36.2%	36.2%	11.8%	36.2%	15.9%	15.9%	36.2%		15.9%	36.2%	
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		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	Max	Max	None	Max	None	None	None		None	None	
Act Effct Green (s)	8.5	40.1	40.1	10.0	43.9	60.6	13.9	39.8		12.2	38.2	
Actuated g/C Ratio	0.07	0.33	0.33	0.08	0.37	0.50	0.12	0.33		0.10	0.32	
v/c Ratio	0.36	0.73	0.17	0.85	0.66	0.23	0.75	0.57		0.54	0.90	
Control Delay (s/veh)	62.4	44.6	8.2	99.1	40.0	3.0	77.1	35.0		58.5	52.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	62.4	44.6	8.2	99.1	40.0	3.0	77.1	35.0		58.5	52.1	
LOS	E	D	A	F	D	A	E	D		E	D	
Approach Delay (s/veh)		39.7			39.5			42.9			53.2	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	35	321	6	98	307	0	109	201		66	345	
Queue Length 95th (ft)	75	450	47	#214	437	40	#203	270		101	#460	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1215			993			1929			442	
Turn Bay Length (ft)	250		200	400		400	250			225		
Base Capacity (vph)	146	615	584	144	667	917	201	1094		377	1028	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.31	0.74	0.18	0.85	0.66	0.23	0.70	0.56		0.45	0.86	

Intersection Summary			
Area Type:	Other		
Cycle Length: 123			
Actuated Cycle Length: 120.2			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay (s/veh): 44.9		Intersection LOS: D	
Intersection Capacity Utilization 76.3%		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: 8: 70th Avenue E & 20th Street E



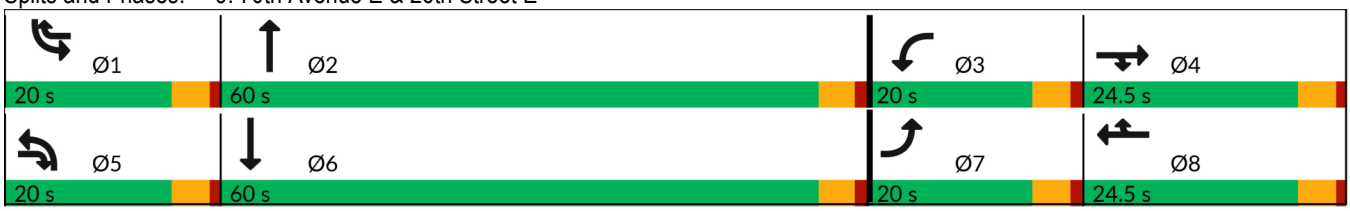


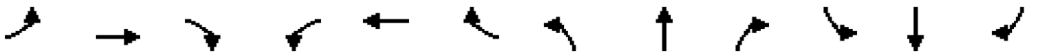
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	45	88	73	23	99	25	565	42	47	885	13
Future Volume (vph)	39	45	88	73	23	99	25	565	42	47	885	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	200		0	225		0
Storage Lanes	1		1	1		1	1		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	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.990			0.998	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1517	1597	1357	1656	1743	1482	1597	3163	0	1543	3079	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1517	1597	1357	1656	1743	1482	1597	3163	0	1543	3079	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			94			105		8			1	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1057			880			2032			2009	
Travel Time (s)		20.6			17.1			39.6			39.1	
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 (%)	19%	19%	19%	9%	9%	9%	13%	13%	13%	17%	17%	17%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	48	94	78	24	105	27	646	0	50	955	0
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases	7	4	4 5	3	8	8 1	5	2		1	6	
Permitted Phases												
Detector Phase	7	4	4 5	3	8	8 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	10.0		6.0	10.0	
Minimum Split (s)	10.5	24.5		10.5	24.5		10.5	22.5		10.5	22.5	
Total Split (s)	20.0	24.5		20.0	24.5		20.0	60.0		20.0	60.0	
Total Split (%)	16.1%	19.7%		16.1%	19.7%		16.1%	48.2%		16.1%	48.2%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		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		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Max		None	Max	
Act Effct Green (s)	8.3	8.6	20.5	10.2	12.7	26.1	7.4	58.2		8.8	62.0	
Actuated g/C Ratio	0.08	0.08	0.20	0.10	0.13	0.26	0.07	0.57		0.09	0.61	
v/c Ratio	0.33	0.35	0.26	0.46	0.11	0.22	0.23	0.35		0.37	0.50	
Control Delay (s/veh)	52.8	52.8	9.3	53.7	43.0	7.3	51.4	13.9		53.2	14.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	52.8	52.8	9.3	53.7	43.0	7.3	51.4	13.9		53.2	14.9	
LOS	D	D	A	D	D	A	D	B		D	B	
Approach Delay (s/veh)		30.5			28.9			15.4			16.9	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	25	30	0	48	14	0	17	114		31	190	
Queue Length 95th (ft)	63	71	43	101	42	41	48	196		73	311	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		977			800			1952			1929	
Turn Bay Length (ft)	150		150	150		150	200			225		
Base Capacity (vph)	232	316	451	254	345	550	245	1816		236	1880	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.18	0.15	0.21	0.31	0.07	0.19	0.11	0.36		0.21	0.51	

Intersection Summary			
Area Type:	Other		
Cycle Length: 124.5			
Actuated Cycle Length: 101.5			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.51			
Intersection Signal Delay (s/veh): 18.8		Intersection LOS: B	
Intersection Capacity Utilization 51.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 9: 70th Avenue E & 26th Street E



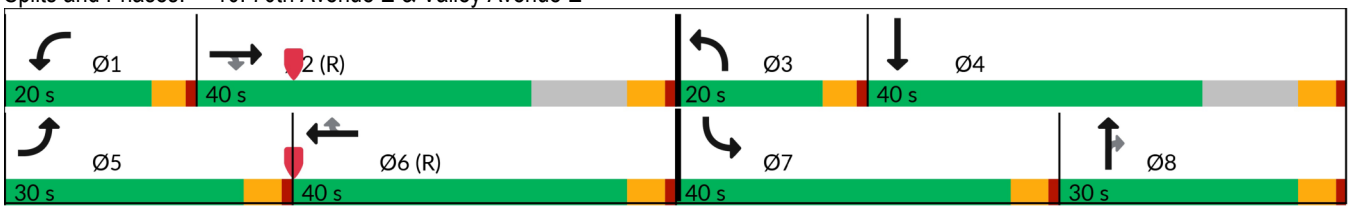


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	467	145	68	248	296	122	257	39	504	464	79
Future Volume (vph)	23	467	145	68	248	296	122	257	39	504	464	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		250	200		0	200		130	350		0
Storage Lanes	1		1	1		1	1		1	2		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	0.95	1.00	0.97	0.95	0.95
Frt			0.850			0.850			0.850		0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1719	1810	1538	1626	1712	1455	1687	3374	1509	3072	3097	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1719	1810	1538	1626	1712	1455	1687	3374	1509	3072	3097	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			130			308			164		14	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		831			1056			750			2032	
Travel Time (s)		18.9			24.0			14.6			39.6	
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 (%)	5%	5%	5%	11%	11%	11%	7%	7%	7%	14%	14%	14%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	24	486	151	71	258	308	127	268	41	525	565	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0	8.0	6.0	8.0	8.0	6.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	11.0	31.0	31.0	10.5	31.0	31.0	10.5	31.0	31.0	13.0	31.0	
Total Split (s)	30.0	40.0	40.0	20.0	40.0	40.0	20.0	30.0	30.0	40.0	40.0	
Total Split (%)	21.4%	28.6%	28.6%	14.3%	28.6%	28.6%	14.3%	21.4%	21.4%	28.6%	28.6%	
Yellow Time (s)	4.0	4.0	4.0	3.5	4.0	4.0	3.5	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	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	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	4.5	5.0	5.0	4.5	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	
Act Effct Green (s)	9.0	63.7	63.7	11.9	68.8	68.8	14.2	17.5	17.5	29.7	33.5	
Actuated g/C Ratio	0.06	0.46	0.46	0.09	0.49	0.49	0.10	0.13	0.13	0.21	0.24	
v/c Ratio	0.21	0.59	0.19	0.51	0.30	0.35	0.74	0.63	0.12	0.80	0.75	
Control Delay (s/veh)	66.1	35.7	7.6	73.4	26.1	4.2	86.1	64.9	0.7	62.1	54.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	66.1	35.7	7.6	73.4	26.1	4.2	86.1	64.9	0.7	62.1	54.3	
LOS	E	D	A	E	C	A	F	E	A	E	D	
Approach Delay (s/veh)		30.4			20.8			65.1			58.1	
Approach LOS		C			C			E			E	
Queue Length 50th (ft)	21	335	11	63	148	0	113	124	0	236	250	
Queue Length 95th (ft)	52	#552	64	112	256	63	#200	166	0	288	288	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		751			976			670			1952	
Turn Bay Length (ft)	150		250	200			200		130	350		
Base Capacity (vph)	306	823	770	182	840	871	186	602	404	768	1004	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.08	0.59	0.20	0.39	0.31	0.35	0.68	0.45	0.10	0.68	0.56	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 30 (21%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay (s/veh): 44.3		Intersection LOS: D	
Intersection Capacity Utilization 67.5%		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: 10: 70th Avenue E & Valley Avenue E



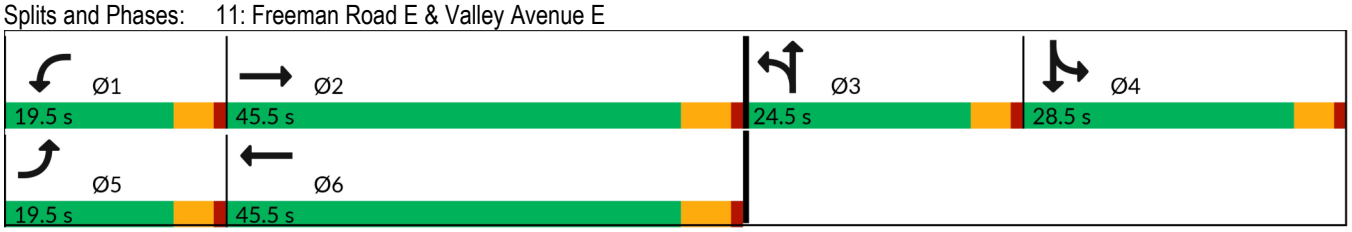
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	883	99	19	453	110	14	32	28	218	142	20
Future Volume (vph)	25	883	99	19	453	110	14	32	28	218	142	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	230		0	50		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.985			0.971			0.931			0.982	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1656	3262	0	1612	3130	0	1671	1638	0	1736	1794	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1656	3262	0	1612	3130	0	1671	1638	0	1736	1794	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			27			31			5	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		671			1259			2534			494	
Travel Time (s)		15.3			28.6			69.1			13.5	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	9%	9%	9%	12%	12%	12%	8%	8%	8%	4%	4%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	1103	0	21	633	0	16	67	0	245	182	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	3		4	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0		4.0	8.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	10.5	26.5		9.5	26.5		22.5	22.5		27.5	27.5	
Total Split (s)	19.5	45.5		19.5	45.5		24.5	24.5		28.5	28.5	
Total Split (%)	16.5%	38.6%		16.5%	38.6%		20.8%	20.8%		24.2%	24.2%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		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	5.5		4.5	5.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Max		None	None		None	None		None	None	
Act Effct Green (s)	7.7	41.6		7.4	41.4		8.3	8.3		17.5	17.5	
Actuated g/C Ratio	0.09	0.50		0.09	0.49		0.10	0.10		0.21	0.21	
v/c Ratio	0.18	0.68		0.14	0.40		0.09	0.35		0.67	0.48	
Control Delay (s/veh)	43.8	22.7		44.0	17.4		41.2	30.5		42.5	34.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	43.8	22.7		44.0	17.4		41.2	30.5		42.5	34.8	
LOS	D	C		D	B		D	C		D	C	
Approach Delay (s/veh)		23.3			18.3			32.6			39.3	
Approach LOS		C			B			C			D	
Queue Length 50th (ft)	13	205		10	94		7	17		112	77	
Queue Length 95th (ft)	45	#442		37	214		30	63		227	166	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		591			1179			2454			414	
Turn Bay Length (ft)	150			230			50			250		
Base Capacity (vph)	307	1622		299	1565		414	429		516	537	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.09	0.68		0.07	0.40		0.04	0.16		0.47	0.34	

Intersection Summary			
Area Type:	Other		
Cycle Length: 118			
Actuated Cycle Length: 83.9			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay (s/veh): 25.2		Intersection LOS: C	
Intersection Capacity Utilization 54.6%		ICU Level of Service A	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Freeman Road E & Valley Avenue E



Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	19	5	60	222	10
Future Vol, veh/h	4	19	5	60	222	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	8	8	4	4
Mvmt Flow	5	22	6	71	261	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	350	267	273	0	-	0
Stage 1	267	-	-	-	-	-
Stage 2	83	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.18	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.272	-	-	-
Pot Cap-1 Maneuver	651	777	1256	-	-	-
Stage 1	782	-	-	-	-	-
Stage 2	945	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	648	777	1256	-	-	-
Mov Cap-2 Maneuver	648	-	-	-	-	-
Stage 1	778	-	-	-	-	-
Stage 2	945	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1256	-	751	-	-
HCM Lane V/C Ratio	0.005	-	0.036	-	-
HCM Control Delay (s/veh)	7.9	0	10	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q (veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	8	5	56	224	12
Future Vol, veh/h	10	8	5	56	224	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	6	6	7	7	4	4
Mvmt Flow	12	9	6	66	264	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	349	271	278	0	-	0
Stage 1	271	-	-	-	-	-
Stage 2	78	-	-	-	-	-
Critical Hdwy	6.46	6.26	4.17	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	2.263	-	-	-
Pot Cap-1 Maneuver	640	758	1257	-	-	-
Stage 1	765	-	-	-	-	-
Stage 2	935	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	637	758	1257	-	-	-
Mov Cap-2 Maneuver	637	-	-	-	-	-
Stage 1	761	-	-	-	-	-
Stage 2	935	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.4	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1257	-	686	-	-
HCM Lane V/C Ratio	0.005	-	0.031	-	-
HCM Control Delay (s/veh)	7.9	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q (veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	2	19	0	5	1	56	5	2	228	1
Future Vol, veh/h	0	0	2	19	0	5	1	56	5	2	228	1
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	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	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	17	17	17	10	10	10	4	4	4
Mvmt Flow	0	0	2	23	0	6	1	67	6	2	275	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	355	355	276	353	352	70	276	0	0	73	0	0
Stage 1	280	280	-	72	72	-	-	-	-	-	-	-
Stage 2	75	75	-	281	280	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.27	6.67	6.37	4.2	-	-	4.14	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.27	5.67	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.27	5.67	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.653	4.153	3.453	2.29	-	-	2.236	-	-
Pot Cap-1 Maneuver	604	574	768	575	549	952	1242	-	-	1514	-	-
Stage 1	731	683	-	901	806	-	-	-	-	-	-	-
Stage 2	939	836	-	694	653	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	599	572	768	572	547	952	1242	-	-	1514	-	-
Mov Cap-2 Maneuver	599	572	-	572	547	-	-	-	-	-	-	-
Stage 1	730	682	-	900	805	-	-	-	-	-	-	-
Stage 2	932	835	-	690	652	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.7	11	0.1	0.1
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1242	-	-	768	624	1514	-	-
HCM Lane V/C Ratio	0.001	-	-	0.003	0.046	0.002	-	-
HCM Control Delay (s/veh)	7.9	0	-	9.7	11	7.4	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q (veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	34	450	133	43	227	29
Future Vol, veh/h	34	450	133	43	227	29
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	96	96	96	96	96	96
Heavy Vehicles, %	3	3	9	9	2	2
Mvmt Flow	35	469	139	45	236	30

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	184	0	-	0	701	162
Stage 1	-	-	-	-	162	-
Stage 2	-	-	-	-	539	-
Critical Hdwy	4.13	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.227	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1385	-	-	-	405	883
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	585	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1385	-	-	-	391	883
Mov Cap-2 Maneuver	-	-	-	-	391	-
Stage 1	-	-	-	-	838	-
Stage 2	-	-	-	-	585	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.5	0	27.7
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1385	-	-	-	417
HCM Lane V/C Ratio	0.026	-	-	-	0.639
HCM Control Delay (s/veh)	7.7	0	-	-	27.7
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q (veh)	0.1	-	-	-	4.3

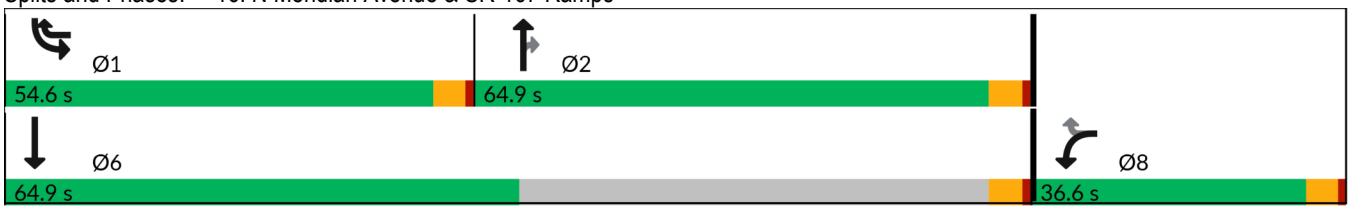
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	897	574	485	1282	1026	811
Future Volume (vph)	897	574	485	1282	1026	811
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	2	2		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	0.88	0.95	1.00	0.97	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3303	2682	3505	1568	3335	3438
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3303	2682	3505	1568	3335	3438
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		356		433		
Link Speed (mph)	35		35			35
Link Distance (ft)	522		278			1175
Travel Time (s)	10.2		5.4			22.9
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	6%	6%	3%	3%	5%	5%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	915	586	495	1308	1047	828
Turn Type	Prot	pm+ov	NA	Perm	Prot	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	2	1	6
Switch Phase						
Minimum Initial (s)	10.0	6.0	10.0	10.0	6.0	10.0
Minimum Split (s)	36.6	10.6	38.9	38.9	10.6	36.9
Total Split (s)	36.6	54.6	64.9	64.9	54.6	64.9
Total Split (%)	23.4%	35.0%	41.6%	41.6%	35.0%	41.6%
Yellow Time (s)	3.6	3.6	3.9	3.9	3.6	3.9
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)	4.6	4.6	4.9	4.9	4.6	4.9
Lead/Lag		Lead	Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Recall Mode	None	None	Max	Max	None	Max
Act Effct Green (s)	32.0	86.6	60.0	60.0	50.0	114.6
Actuated g/C Ratio	0.20	0.55	0.38	0.38	0.32	0.73
v/c Ratio	1.35	0.35	0.36	1.50	0.98	0.32
Control Delay (s/veh)	213.3	7.5	35.4	257.3	75.2	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	213.3	7.5	35.4	257.3	75.2	7.6
LOS	F	A	D	F	E	A
Approach Delay (s/veh)	133.0		196.4			45.4
Approach LOS	F		F			D
Queue Length 50th (ft)	~627	63	190	~1569	546	141
Queue Length 95th (ft)	#762	105	240	#1841	#695	170

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Internal Link Dist (ft)	442		198			1095
Turn Bay Length (ft)					250	
Base Capacity (vph)	677	1646	1347	869	1068	2523
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.35	0.36	0.37	1.51	0.98	0.33

Intersection Summary			
Area Type:	Other		
Cycle Length: 156.1			
Actuated Cycle Length: 156.1			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.51			
Intersection Signal Delay (s/veh): 123.4		Intersection LOS: F	
Intersection Capacity Utilization 116.6%		ICU Level of Service H	
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: 16: N Meridian Avenue & SR-167 Ramps



Intersection	
Int Delay, s/veh	43.2

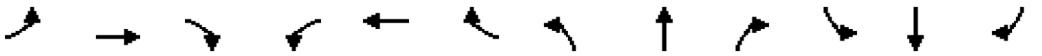
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	379	0	0	508	0	1295	56	0	1471	89
Future Vol, veh/h	0	0	379	0	0	508	0	1295	56	0	1471	89
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Free	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	395	0	0	529	0	1349	58	0	1532	93

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	813	-	-	675	-	0	-	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.96	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.33	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	~ 322	0	0	~ 394	0	-	0	0	-	-
Stage 1	0	0	-	0	0	-	0	-	0	0	-	-
Stage 2	0	0	-	0	0	-	0	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	-	-	~ 322	-	-	~ 394	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	160.6	198.5	0	0
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBT	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	322	394	-	-
HCM Lane V/C Ratio	-	1.226	1.343	-	-
HCM Control Delay (s/veh)	-	160.6	198.5	-	-
HCM Lane LOS	-	F	F	-	-
HCM 95th %tile Q (veh)	-	17.5	24.9	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



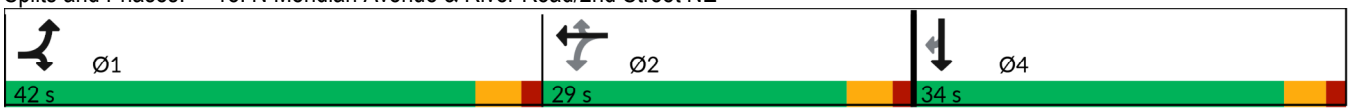
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	997	0	390	19	589	313	0	0	0	0	793	947
Future Volume (vph)	997	0	390	19	589	313	0	0	0	0	793	947
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	125		0	0		0	0		250
Storage Lanes	2		1	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected	0.950			0.950								
Satd. Flow (prot)	3367	0	1553	1770	3539	1583	0	0	0	0	3505	1568
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	3367	0	1553	1770	3539	1583	0	0	0	0	3505	1568
Right Turn on Red			No	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				72		326						673
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		673			590			2133			1751	
Travel Time (s)		13.1			11.5			58.2			47.8	
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%	4%	4%	2%	2%	2%	0%	0%	0%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1039	0	406	20	614	326	0	0	0	0	826	986
Turn Type	Prot		Prot	Perm	NA	Perm					NA	Perm
Protected Phases	1		1		2						4	
Permitted Phases				2		2						4
Detector Phase	1		1	2	2	2					4	4
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0					10.0	10.0
Minimum Split (s)	10.1		10.1	35.1	35.1	35.1					30.8	30.8
Total Split (s)	42.0		42.0	29.0	29.0	29.0					34.0	34.0
Total Split (%)	40.0%		40.0%	27.6%	27.6%	27.6%					32.4%	32.4%
Yellow Time (s)	3.6		3.6	3.6	3.6	3.6					3.3	3.3
All-Red Time (s)	1.5		1.5	1.5	1.5	1.5					1.5	1.5
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Lost Time (s)	5.1		5.1	5.1	5.1	5.1					4.8	4.8
Lead/Lag	Lead		Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes						
Recall Mode	None		None	Max	Max	Max					None	None
Act Effct Green (s)	34.5		34.5	30.0	30.0	30.0					29.2	29.2
Actuated g/C Ratio	0.32		0.32	0.28	0.28	0.28					0.27	0.27
v/c Ratio	0.97		0.82	0.03	0.62	0.48					0.87	1.07
Control Delay (s/veh)	58.5		49.5	0.1	38.3	6.2					50.3	67.3
Queue Delay	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Delay (s/veh)	58.5		49.5	0.1	38.3	6.2					50.3	67.3
LOS	E		D	A	D	A					D	E
Approach Delay (s/veh)		56.0			26.6						59.6	
Approach LOS		E			C						E	
Queue Length 50th (ft)	367		260	0	204	0					300	~411
Queue Length 95th (ft)	#496		#414	0	266	68					#411	#663

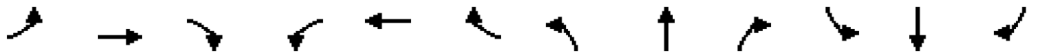
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		593			510			2053			1671	
Turn Bay Length (ft)				125								250
Base Capacity (vph)	1143		526	540	976	672					941	913
Starvation Cap Reductn	0		0	0	0	0					0	0
Spillback Cap Reductn	0		0	0	0	0					0	0
Storage Cap Reductn	0		0	0	0	0					0	0
Reduced v/c Ratio	0.91		0.77	0.04	0.63	0.49					0.88	1.08

Intersection Summary			
Area Type:	Other		
Cycle Length: 105			
Actuated Cycle Length: 108.8			
Natural Cycle: 140			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.08			
Intersection Signal Delay (s/veh): 50.9		Intersection LOS: D	
Intersection Capacity Utilization 83.2%		ICU Level of Service E	
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: 18: N Meridian Avenue & River Road/2nd Street NE



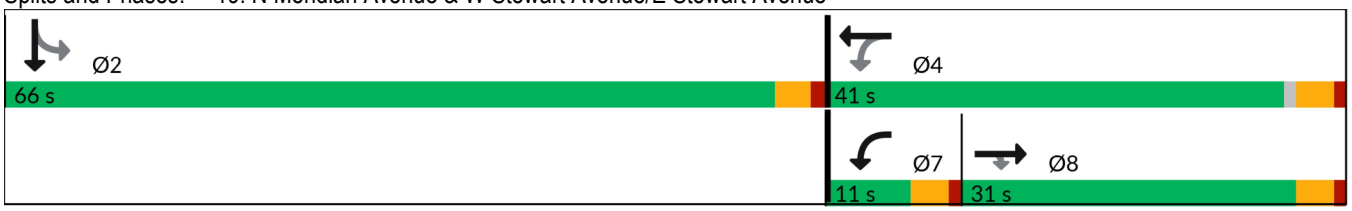


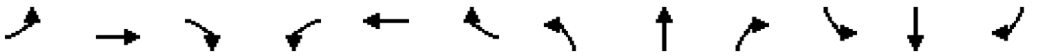
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	194	59	133	274	0	0	0	0	130	992	44
Future Volume (vph)	0	194	59	133	274	0	0	0	0	130	992	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	125		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	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	0.95	0.95	0.95
Frt			0.850								0.994	
Flt Protected				0.950							0.994	
Satd. Flow (prot)	0	1792	1524	1770	1863	0	0	0	0	0	3531	0
Flt Permitted				0.272							0.994	
Satd. Flow (perm)	0	1792	1524	507	1863	0	0	0	0	0	3531	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			51								6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		393			385			1349			2133	
Travel Time (s)		10.7			10.5			36.8			58.2	
Peak Hour 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
Heavy Vehicles (%)	6%	6%	6%	2%	2%	2%	0%	0%	0%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	204	62	140	288	0	0	0	0	0	1227	0
Turn Type		NA	Perm	pm+pt	NA					Perm	NA	
Protected Phases		8		7	4						2	
Permitted Phases			8	4						2		
Detector Phase		8	8	7	4					2	2	
Switch Phase												
Minimum Initial (s)		5.0	5.0	5.0	5.0					10.0	10.0	
Minimum Split (s)		21.0	21.0	9.0	21.0					23.0	23.0	
Total Split (s)		31.0	31.0	11.0	41.0					66.0	66.0	
Total Split (%)		28.7%	28.7%	10.2%	38.0%					61.1%	61.1%	
Yellow Time (s)		3.0	3.0	3.0	3.0					3.0	3.0	
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)		4.0	4.0	4.0	4.0						4.0	
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		None	None	None	None					Max	Max	
Act Effct Green (s)		14.2	14.2	24.9	24.9						62.1	
Actuated g/C Ratio		0.15	0.15	0.26	0.26						0.65	
v/c Ratio		0.76	0.22	0.63	0.59						0.53	
Control Delay (s/veh)		57.5	15.0	41.3	35.7						10.3	
Queue Delay		0.0	0.0	0.0	0.1						0.0	
Total Delay (s/veh)		57.5	15.0	41.3	35.8						10.3	
LOS		E	B	D	D						B	
Approach Delay (s/veh)		47.6			37.6						10.4	
Approach LOS		D			D						B	
Queue Length 50th (ft)		120	6	68	152						185	
Queue Length 95th (ft)		195	41	118	233						290	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		313			305			1269			2053	
Turn Bay Length (ft)			50	125								
Base Capacity (vph)		509	470	226	745						2309	
Starvation Cap Reductn		0	0	0	63						0	
Spillback Cap Reductn		0	0	0	0						0	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		0.40	0.13	0.62	0.42						0.53	

Intersection Summary			
Area Type:	Other		
Cycle Length: 108			
Actuated Cycle Length: 95.1			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay (s/veh): 21.6		Intersection LOS: C	
Intersection Capacity Utilization 60.2%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 19: N Meridian Avenue & W Stewart Avenue



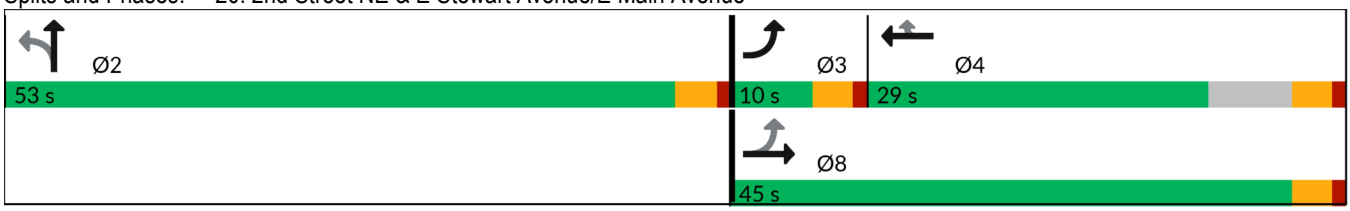


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	261	0	0	317	243	209	638	2	0	0	0
Future Volume (vph)	44	261	0	0	317	243	209	638	2	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	0		125	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
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	0.95	1.00	1.00	1.00
Frt						0.850						
Flt Protected	0.950							0.988				
Satd. Flow (prot)	1752	1845	0	0	1845	1568	0	3531	0	0	0	0
Flt Permitted	0.183							0.988				
Satd. Flow (perm)	338	1845	0	0	1845	1568	0	3531	0	0	0	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		385			615			394			343	
Travel Time (s)		10.5			16.8			10.7			9.4	
Peak Hour 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
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	1%	1%	1%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	46	275	0	0	334	256	0	894	0	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA				
Protected Phases	3	8			4			2				
Permitted Phases	8					4	2					
Detector Phase	3	8			4	4	2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	10.0	10.0				
Minimum Split (s)	9.5	28.0			28.0	28.0	26.0	26.0				
Total Split (s)	10.0	45.0			29.0	29.0	53.0	53.0				
Total Split (%)	10.2%	45.9%			29.6%	29.6%	54.1%	54.1%				
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0				
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)	4.0	4.0			4.0	4.0		4.0				
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	None			None	None	Max	Max				
Act Effct Green (s)	23.1	23.1			17.8	17.8		49.8				
Actuated g/C Ratio	0.29	0.29			0.22	0.22		0.61				
v/c Ratio	0.24	0.52			0.82	0.74		0.41				
Control Delay (s/veh)	22.3	26.9			47.8	43.7		10.5				
Queue Delay	0.0	0.0			0.0	0.0		0.0				
Total Delay (s/veh)	22.3	26.9			47.8	43.7		10.5				
LOS	C	C			D	D		B				
Approach Delay (s/veh)		26.3			46.1			10.5				
Approach LOS		C			D			B				
Queue Length 50th (ft)	17	114			170	128		129				
Queue Length 95th (ft)	39	181			268	212		211				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		305			535			314			263	
Turn Bay Length (ft)	50					125						
Base Capacity (vph)	202	949			717	610		2171				
Starvation Cap Reductn	0	0			0	0		0				
Spillback Cap Reductn	0	0			0	0		0				
Storage Cap Reductn	0	0			0	0		0				
Reduced v/c Ratio	0.23	0.29			0.47	0.42		0.41				

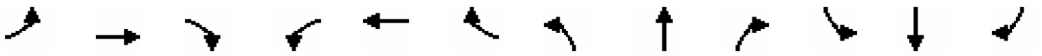
Intersection Summary			
Area Type:	Other		
Cycle Length: 98			
Actuated Cycle Length: 81			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay (s/veh): 24.9		Intersection LOS: C	
Intersection Capacity Utilization 60.2%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 20: 2nd Street NE & E Stewart Avenue/E Main Avenue



APPENDIX C

BASELINE LEVEL OF SERVICE

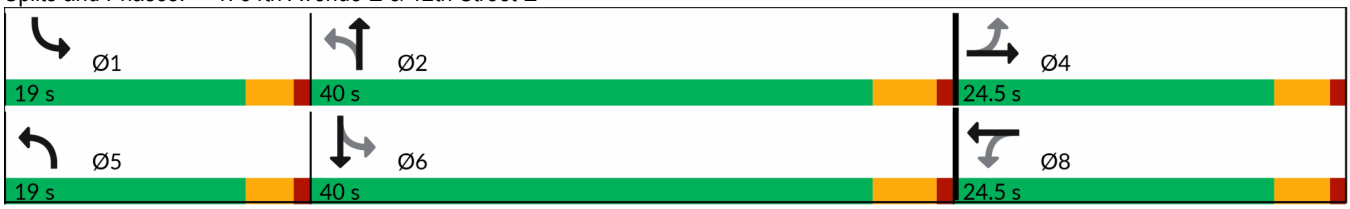


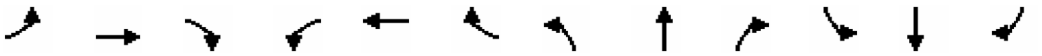
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	138	43	75	77	126	27	478	66	78	379	19
Future Volume (vph)	37	138	43	75	77	126	27	478	66	78	379	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		0	100		0	100		0
Storage Lanes	1		0	1		0	1		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	0.95	0.95	1.00	0.95	0.95
Frt		0.964			0.907			0.982			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1467	1489	0	1467	1401	0	1467	2882	0	1467	2914	0
Flt Permitted	0.447			0.503			0.491			0.360		
Satd. Flow (perm)	690	1489	0	777	1401	0	758	2882	0	556	2914	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			92			22			8	
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		727			778			1175			536	
Travel Time (s)		19.8			15.2			22.9			10.4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	206	0	85	231	0	31	618	0	89	453	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	24.5	24.5		24.5	24.5		10.5	19.0		10.5	17.0	
Total Split (s)	24.5	24.5		24.5	24.5		19.0	40.0		19.0	40.0	
Total Split (%)	29.3%	29.3%		29.3%	29.3%		22.8%	47.9%		22.8%	47.9%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		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		4.0	5.0		4.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Max		None	Max	
Act Effct Green (s)	14.1	14.1		14.1	14.1		41.8	35.9		44.9	40.8	
Actuated g/C Ratio	0.21	0.21		0.21	0.21		0.61	0.52		0.66	0.60	
v/c Ratio	0.30	0.64		0.53	0.64		0.06	0.41		0.19	0.26	
Control Delay (s/veh)	29.5	32.9		37.9	24.0		5.3	12.2		5.9	8.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	29.5	32.9		37.9	24.0		5.3	12.2		5.9	8.8	
LOS	C	C		D	C		A	B		A	A	
Approach Delay (s/veh)		32.3			27.7			11.9			8.3	
Approach LOS		C			C			B			A	
Queue Length 50th (ft)	15	74		33	53		4	80		11	34	
Queue Length 95th (ft)	42	139		75	120		14	141		30	95	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		647			698			1095			456	
Turn Bay Length (ft)	100			200			100			100		
Base Capacity (vph)	204	453		230	479		663	1522		573	1740	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.21	0.45		0.37	0.48		0.05	0.41		0.16	0.26	

Intersection Summary			
Area Type:	Other		
Cycle Length: 83.5			
Actuated Cycle Length: 68.5			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay (s/veh): 16.5		Intersection LOS: B	
Intersection Capacity Utilization 52.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: 54th Avenue E & 12th Street E





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	392	278	467	398	133	344	409	395	123	335	63
Future Volume (vph)	89	392	278	467	398	133	344	409	395	123	335	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	550		0	150		0	125		0
Storage Lanes	1		1	2		0	2		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.962			0.926			0.976	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1517	3034	1357	2943	2918	0	2943	2809	0	1517	2961	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1517	3034	1357	2943	2918	0	2943	2809	0	1517	2961	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			129		32			166			15	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1085			1070			320			1175	
Travel Time (s)		21.1			20.8			6.2			22.9	
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 (%)	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	93	408	290	486	554	0	358	837	0	128	415	0
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		3	3	
Permitted Phases			6									
Detector Phase	1	6	4	5	2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	10.5	38.7	35.7	10.5	37.7		35.7	35.7		38.7	38.7	
Total Split (s)	18.0	40.0	40.0	20.0	42.0		40.0	40.0		40.0	40.0	
Total Split (%)	12.9%	28.6%	28.6%	14.3%	30.0%		28.6%	28.6%		28.6%	28.6%	
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		3.7	3.7		3.7	3.7	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7	4.7	4.5	4.7		4.7	4.7		4.7	4.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	C-Max	None	None		C-Max	C-Max		None	None	
Act Effct Green (s)	12.1	27.6	79.4	15.5	31.0		51.9	51.9		26.5	26.5	
Actuated g/C Ratio	0.09	0.20	0.57	0.11	0.22		0.37	0.37		0.19	0.19	
v/c Ratio	0.71	0.68	0.35	1.50	0.83		0.33	0.73		0.45	0.73	
Control Delay (s/veh)	89.8	57.5	6.2	279.7	59.7		42.8	44.1		54.3	58.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.7	14.9		0.0	0.0	
Total Delay (s/veh)	89.8	57.5	6.2	279.7	59.7		43.6	59.0		54.3	58.6	
LOS	F	E	A	F	E		D	E		D	E	
Approach Delay (s/veh)		42.5			162.5			54.4			57.6	
Approach LOS		D			F			D			E	
Queue Length 50th (ft)	83	181	38	~314	241		139	320		105	182	
Queue Length 95th (ft)	#157	225	86	#428	294		198	#477		160	227	

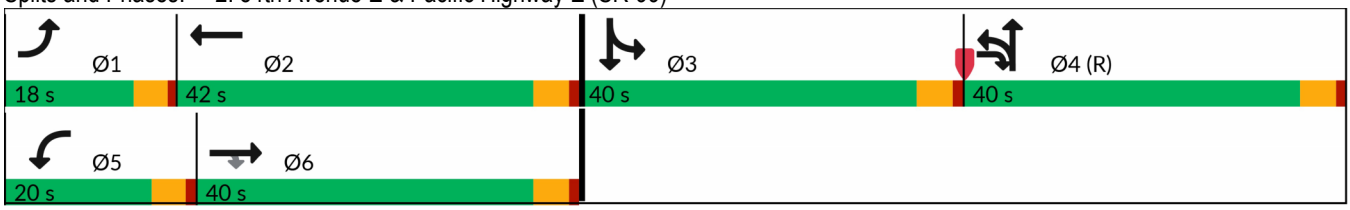
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1005			990			240			1095	
Turn Bay Length (ft)	225			550			150			125		
Base Capacity (vph)	146	765	826	325	800		1090	1145		382	757	
Starvation Cap Reductn	0	0	0	0	0		434	305		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.64	0.53	0.35	1.50	0.69		0.55	1.00		0.34	0.55	

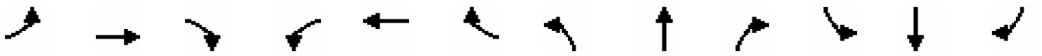
Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 30 (21%), Referenced to phase 4:NBTL, Start of Green			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.50			
Intersection Signal Delay (s/veh): 83.7		Intersection LOS: F	
Intersection Capacity Utilization 70.5%		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: 2: 54th Avenue E & Pacific Highway E (SR-99)





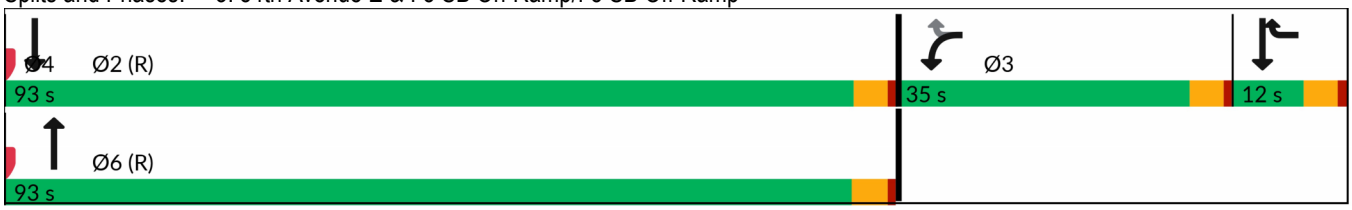
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	268	0	357	0	783	390	0	503	505
Future Volume (vph)	0	0	0	268	0	357	0	783	390	0	503	505
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		25	0		0
Storage Lanes	0		0	1		1	0		1	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	0.95	1.00	1.00	1.00	1.00
Frt						0.850			0.850			0.850
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	1543	0	1380	0	3085	1380	0	1624	1380
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1543	0	1380	0	3085	1380	0	1624	1380
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						197			83			284
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1083			1080			827			320	
Travel Time (s)		21.1			21.0			16.1			6.2	
Peak Hour 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
Heavy Vehicles (%)	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	282	0	376	0	824	411	0	529	532
Turn Type				Prot		custom		NA	Free		NA	Free
Protected Phases				3		4		6			2 4	
Permitted Phases						3			Free			Free
Detector Phase				3		4		6			2 4	
Switch Phase												
Minimum Initial (s)				5.0		3.0		10.0				
Minimum Split (s)				22.5		7.5		22.7				
Total Split (s)				35.0		12.0		93.0				
Total Split (%)				25.0%		8.6%		66.4%				
Yellow Time (s)				3.5		3.5		3.7				
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		4.7				
Lead/Lag				Lead		Lag						
Lead-Lag Optimize?				Yes		Yes						
Recall Mode				None		None		C-Max				
Act Effct Green (s)				28.4		42.2		88.6	140.0		102.6	140.0
Actuated g/C Ratio				0.20		0.30		0.63	1.00		0.73	1.00
v/c Ratio				0.90		0.68		0.42	0.30		0.44	0.39
Control Delay (s/veh)				85.5		26.6		13.7	0.6		4.3	2.7
Queue Delay				0.0		6.2		0.5	0.0		2.2	0.0
Total Delay (s/veh)				85.5		32.8		14.2	0.6		6.5	2.7
LOS				F		C		B	A		A	A
Approach Delay (s/veh)					55.4			9.7			4.6	
Approach LOS					E			A			A	
Queue Length 50th (ft)				248		145		187	0		50	84
Queue Length 95th (ft)				#400		268		231	0		m65	m78

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	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	22.5
Total Split (s)	93.0
Total Split (%)	66%
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	C-Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
LOS	
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1003			1000			747			240	
Turn Bay Length (ft)									25			
Base Capacity (vph)				336		553		1953	1380		1190	1380
Starvation Cap Reductn				0		0		0	0		505	0
Spillback Cap Reductn				0		127		639	0		0	0
Storage Cap Reductn				0		0		0	0		0	0
Reduced v/c Ratio				0.84		0.88		0.63	0.30		0.77	0.39

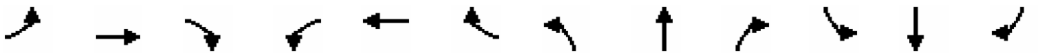
Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 75 (54%), Referenced to phase 2:SBT and 6:NBT, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay (s/veh): 18.0		Intersection LOS: B	
Intersection Capacity Utilization 51.4%		ICU Level of Service A	
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: 3: 54th Avenue E & I-5 SB On-Ramp/I-5 SB Off-Ramp



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

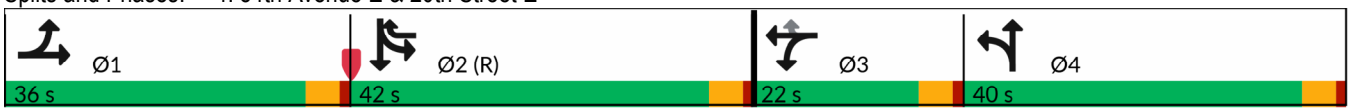


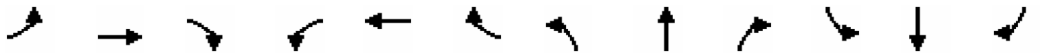
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	319	235	83	38	115	406	147	414	41	466	347	310
Future Volume (vph)	319	235	83	38	115	406	147	414	41	466	347	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	275		0	200		0	175		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.95
Frt		0.971				0.850		0.986			0.937	
Flt Protected	0.950	0.987			0.988		0.950			0.950	0.994	
Satd. Flow (prot)	1356	2736	0	0	1550	1333	1490	2939	0	1356	2659	0
Flt Permitted	0.950	0.987			0.988		0.950			0.950	0.994	
Satd. Flow (perm)	1356	2736	0	0	1550	1333	1490	2939	0	1356	2659	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18				117		7			112	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		738			676			783			335	
Travel Time (s)		14.4			13.2			17.8			7.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Shared Lane Traffic (%)	34%									18%		
Lane Group Flow (vph)	234	473	0	0	170	451	163	506	0	425	823	0
Turn Type	Split	NA		Split	NA	pm+ov	Split	NA		Split	NA	
Protected Phases	1	1		3	3	2	4	4		2	2	
Permitted Phases						3						
Detector Phase	1	1		3	3	2	4	4		2	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	21.5	21.5		10.5	10.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	36.0	36.0		22.0	22.0	42.0	40.0	40.0		42.0	42.0	
Total Split (%)	25.7%	25.7%		15.7%	15.7%	30.0%	28.6%	28.6%		30.0%	30.0%	
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	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	Lead	Lag	Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	C-Max	None	None		C-Max	C-Max	
Act Effct Green (s)	28.2	28.2			16.9	69.7	28.6	28.6		48.4	48.4	
Actuated g/C Ratio	0.20	0.20			0.12	0.50	0.20	0.20		0.35	0.35	
v/c Ratio	0.86	0.84			0.91	0.62	0.54	0.83		0.91	0.83	
Control Delay (s/veh)	81.5	65.1			107.0	25.0	55.6	65.0		69.3	45.7	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	81.5	65.1			107.0	25.0	55.6	65.0		69.3	45.7	
LOS	F	E			F	C	E	E		E	D	
Approach Delay (s/veh)		70.5			47.4			62.7			53.7	
Approach LOS		E			D			E			D	
Queue Length 50th (ft)	225	218			154	226	133	231		418	343	
Queue Length 95th (ft)	#360	284			#291	394	198	282		#738	#539	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		658			596			703			255	
Turn Bay Length (ft)	300						200			175		
Base Capacity (vph)	309	638			193	722	377	750		468	991	
Starvation Cap Reductn	0	0			0	0	0	0		0	0	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.76	0.74			0.88	0.62	0.43	0.67		0.91	0.83	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 48 (34%), Referenced to phase 2:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay (s/veh): 58.0		Intersection LOS: E	
Intersection Capacity Utilization 76.4%		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.			

Splits and Phases: 4: 54th Avenue E & 20th Street E



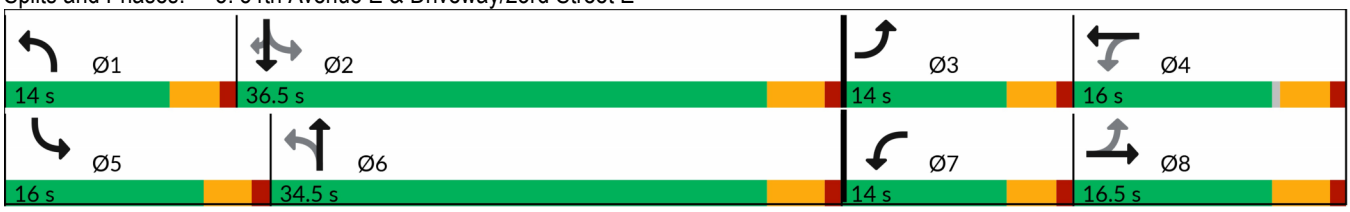


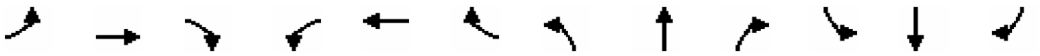
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	50	0	107	0	480	60	97	461	1
Future Volume (vph)	0	0	0	50	0	107	0	480	60	97	461	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	0		0	100		0
Storage Lanes	0		0	1		0	1		0	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	1.00	1.00	1.00	1.00	1.00
Frt					0.850			0.983				0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	1792	0	1703	1524	0	1792	1762	0	1703	1792	1524
Flt Permitted				0.714						0.249		
Satd. Flow (perm)	0	1792	0	1280	1524	0	1792	1762	0	446	1792	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					524			9				128
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		362			838			554			783	
Travel Time (s)		9.9			22.9			12.6			17.8	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	59	126	0	0	636	0	114	542	1
Turn Type				pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6			2		2
Detector Phase	3	8		7	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	6.0
Minimum Split (s)	9.5	24.5		22.5	24.0		9.5	22.5		9.5	22.5	22.5
Total Split (s)	14.0	16.5		14.0	16.0		14.0	34.5		16.0	36.5	36.5
Total Split (%)	17.3%	20.4%		17.3%	19.8%		17.3%	42.6%		19.8%	45.1%	45.1%
Yellow Time (s)	3.0	3.5		3.0	3.0		3.0	3.5		3.0	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		0.0	0.0	0.0
Total Lost Time (s)		4.5		4.0	4.0		4.0	4.5		4.0	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max		None	Max	Max
Act Effct Green (s)				7.4	7.3			34.9		44.1	44.6	44.6
Actuated g/C Ratio				0.13	0.13			0.61		0.77	0.78	0.78
v/c Ratio				0.27	0.19			0.59		0.22	0.39	0.00
Control Delay (s/veh)				26.3	0.7			13.6		3.5	4.1	0.0
Queue Delay				0.0	0.0			0.0		0.0	0.0	0.0
Total Delay (s/veh)				26.3	0.7			13.6		3.5	4.1	0.0
LOS				C	A			B		A	A	A
Approach Delay (s/veh)					8.9			13.6			4.0	
Approach LOS					A			B			A	
Queue Length 50th (ft)				19	0			147		8	53	0
Queue Length 95th (ft)				46	0			272		20	101	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		282			758			474			703	
Turn Bay Length (ft)				100						100		
Base Capacity (vph)				298	743			1076		607	1393	1213
Starvation Cap Reductn				0	0			0		0	0	0
Spillback Cap Reductn				0	0			0		0	0	0
Storage Cap Reductn				0	0			0		0	0	0
Reduced v/c Ratio				0.20	0.17			0.59		0.19	0.39	0.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 81			
Actuated Cycle Length: 57.3			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay (s/veh): 8.7		Intersection LOS: A	
Intersection Capacity Utilization 51.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 5: 54th Avenue E & Driveway/23rd Street E





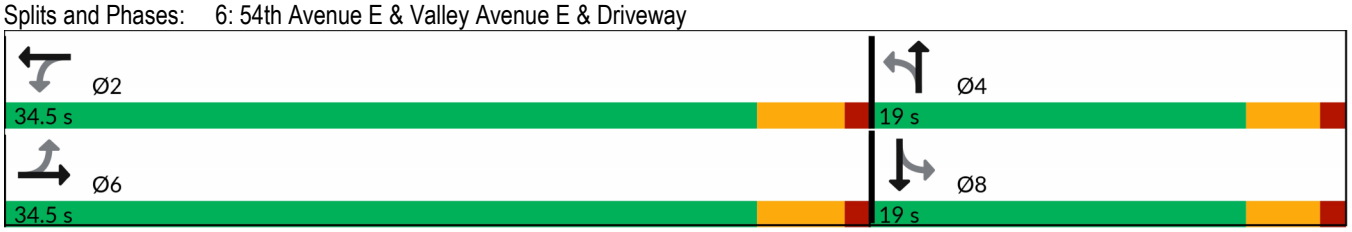
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	238	143	123	386	6	161	1	95	1	1	0
Future Volume (vph)	3	238	143	123	386	6	161	1	95	1	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	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		0.944			0.998			0.950				
Flt Protected	0.950			0.950				0.970			0.976	
Satd. Flow (prot)	1671	1661	0	1671	1756	0	0	1621	0	0	1717	0
Flt Permitted	0.379			0.389				0.808			0.888	
Satd. Flow (perm)	667	1661	0	684	1756	0	0	1350	0	0	1562	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		92			2			55				
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		554			491			578			252	
Travel Time (s)		12.6			11.2			15.8			6.9	
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	4	530	0	171	544	0	0	357	0	0	2	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	30.5	30.5		22.5	22.5		32.0	32.0		32.0	32.0	
Total Split (s)	34.5	34.5		34.5	34.5		19.0	19.0		19.0	19.0	
Total Split (%)	64.5%	64.5%		64.5%	64.5%		35.5%	35.5%		35.5%	35.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		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			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		Max	Max		None	None		None	None	
Act Effct Green (s)	30.2	30.2		30.2	30.2			14.3			14.3	
Actuated g/C Ratio	0.57	0.57		0.57	0.57			0.27			0.27	
v/c Ratio	0.01	0.54		0.44	0.54			0.89			0.00	
Control Delay (s/veh)	5.3	8.4		11.4	9.9			42.8			14.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	5.3	8.4		11.4	9.9			42.8			14.0	
LOS	A	A		B	A			D			B	
Approach Delay (s/veh)		8.4			10.2			42.8			14.0	
Approach LOS		A			B			D			B	
Queue Length 50th (ft)	1	73		28	95			90			1	
Queue Length 95th (ft)	3	93		48	116			#146			3	

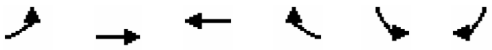
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		474			411			498			172	
Turn Bay Length (ft)	150			125								
Base Capacity (vph)	380	986		390	1002			422			442	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.01	0.54		0.44	0.54			0.85			0.00	

Intersection Summary			
Area Type:	Other		
Cycle Length: 53.5			
Actuated Cycle Length: 53			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay (s/veh): 16.8		Intersection LOS: B	
Intersection Capacity Utilization 59.2%		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: 6: 54th Avenue E & Valley Avenue E & Driveway



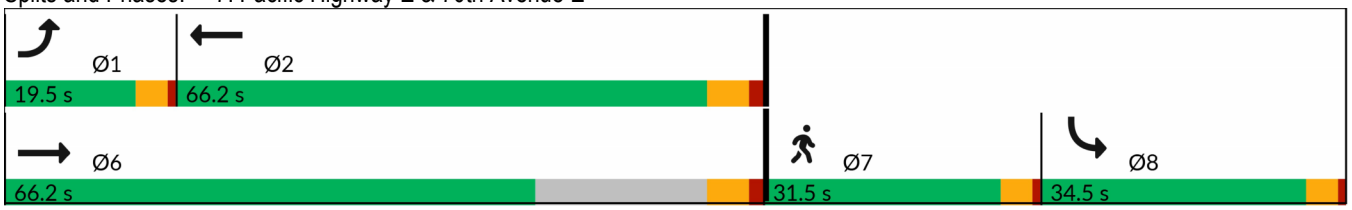


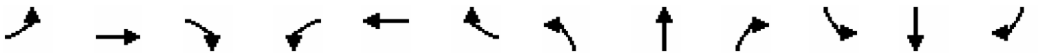
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø7
Lane Configurations							
Traffic Volume (vph)	19	953	684	7	16	64	
Future Volume (vph)	19	953	684	7	16	64	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00	
Frt			0.999		0.892		
Flt Protected	0.950				0.990		
Satd. Flow (prot)	1517	3034	3031	0	1410	0	
Flt Permitted	0.950				0.990		
Satd. Flow (perm)	1517	3034	3031	0	1410	0	
Right Turn on Red				Yes		Yes	
Satd. Flow (RTOR)			1		67		
Link Speed (mph)		30	30		30		
Link Distance (ft)		439	500		370		
Travel Time (s)		10.0	11.4		8.4		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Heavy Vehicles (%)	19%	19%	19%	19%	19%	19%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	20	993	720	0	84	0	
Turn Type	Prot	NA	NA		Prot		
Protected Phases	1	6	2		8		7
Permitted Phases							
Detector Phase	1	6	2		8		
Switch Phase							
Minimum Initial (s)	6.0	10.0	10.0		5.0		5.0
Minimum Split (s)	10.5	23.7	33.7		22.5		31.5
Total Split (s)	19.5	66.2	66.2		34.5		31.5
Total Split (%)	12.9%	43.6%	43.6%		22.7%		21%
Yellow Time (s)	3.5	4.7	4.7		3.5		3.5
All-Red Time (s)	1.0	1.5	1.5		1.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		
Total Lost Time (s)	4.5	6.2	6.2		4.5		
Lead/Lag	Lead		Lag		Lag		Lead
Lead-Lag Optimize?	Yes		Yes		Yes		Yes
Recall Mode	None	Max	None		Max		None
Act Effct Green (s)	7.0	60.0	55.0		30.0		
Actuated g/C Ratio	0.07	0.60	0.55		0.30		
v/c Ratio	0.19	0.55	0.44		0.18		
Control Delay (s/veh)	48.0	13.7	15.7		10.2		
Queue Delay	0.0	0.0	0.0		0.0		
Total Delay (s/veh)	48.0	13.7	15.7		10.2		
LOS	D	B	B		B		
Approach Delay (s/veh)		14.4	15.7		10.2		
Approach LOS		B	B		B		
Queue Length 50th (ft)	12	187	119		8		
Queue Length 95th (ft)	36	242	219		43		
Internal Link Dist (ft)		359	420		290		
Turn Bay Length (ft)							
Base Capacity (vph)	225	2395	1806		467		

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø7
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	0.41	0.40		0.18		

Intersection Summary			
Area Type:	Other		
Cycle Length: 151.7			
Actuated Cycle Length: 100.7			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.55			
Intersection Signal Delay (s/veh): 14.7		Intersection LOS: B	
Intersection Capacity Utilization 40.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 7: Pacific Highway E & 70th Avenue E



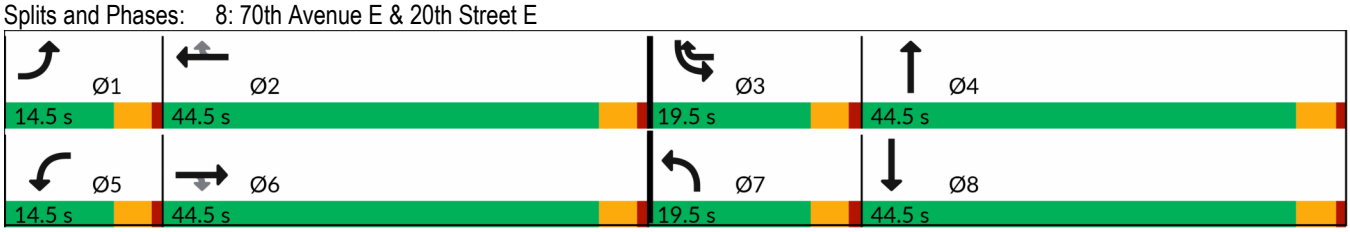


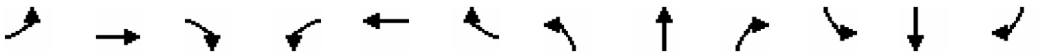
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	403	94	117	503	313	101	794	86	140	429	79
Future Volume (vph)	104	403	94	117	503	313	101	794	86	140	429	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		200	400		400	250		0	225		0
Storage Lanes	1		1	1		1	1		0	2		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	0.95	0.95	0.97	0.95	0.95
Frt			0.850			0.850		0.985			0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1556	1638	1392	1556	1638	1392	1556	3065	0	3019	3040	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1556	1638	1392	1556	1638	1392	1556	3065	0	3019	3040	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			93			68		10			18	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1295			1073			2009			522	
Travel Time (s)		25.2			20.9			39.1			10.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	107	415	97	121	519	323	104	908	0	144	523	0
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2	3	7	4		3	8	
Permitted Phases			6			2						
Detector Phase	1	6	6	5	2	3	7	4		3	8	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	10.0	10.0	10.0	10.0	6.0		10.0	10.0	
Minimum Split (s)	10.5	22.5	22.5	14.5	22.5	14.5	14.5	26.5		14.5	26.5	
Total Split (s)	14.5	44.5	44.5	14.5	44.5	19.5	19.5	44.5		19.5	44.5	
Total Split (%)	11.8%	36.2%	36.2%	11.8%	36.2%	15.9%	15.9%	36.2%		15.9%	36.2%	
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		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	Min	Min	None	Min	None	None	None		None	None	
Act Effct Green (s)	9.9	39.3	39.3	10.0	39.4	55.4	12.8	38.2		11.5	36.9	
Actuated g/C Ratio	0.08	0.34	0.34	0.09	0.34	0.47	0.11	0.33		0.10	0.32	
v/c Ratio	0.81	0.76	0.18	0.91	0.94	0.47	0.62	0.90		0.48	0.54	
Control Delay (s/veh)	94.7	45.4	7.2	111.9	65.5	18.9	66.5	50.7		56.4	34.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	94.7	45.4	7.2	111.9	65.5	18.9	66.5	50.7		56.4	34.5	
LOS	F	D	A	F	E	B	E	D		E	C	
Approach Delay (s/veh)		48.0			55.7			52.3			39.2	
Approach LOS		D			E			D			D	
Queue Length 50th (ft)	82	282	2	94	386	129	77	340		55	167	
Queue Length 95th (ft)	#190	#426	41	#220	#629	209	140	#477		89	227	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1215			993			1929			442	
Turn Bay Length (ft)	250		200	400		400	250			225		
Base Capacity (vph)	133	561	538	133	561	734	199	1056		387	1052	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.80	0.74	0.18	0.91	0.93	0.44	0.52	0.86		0.37	0.50	

Intersection Summary			
Area Type:	Other		
Cycle Length: 123			
Actuated Cycle Length: 117			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay (s/veh): 49.8		Intersection LOS: D	
Intersection Capacity Utilization 80.3%		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: 8: 70th Avenue E & 20th Street E



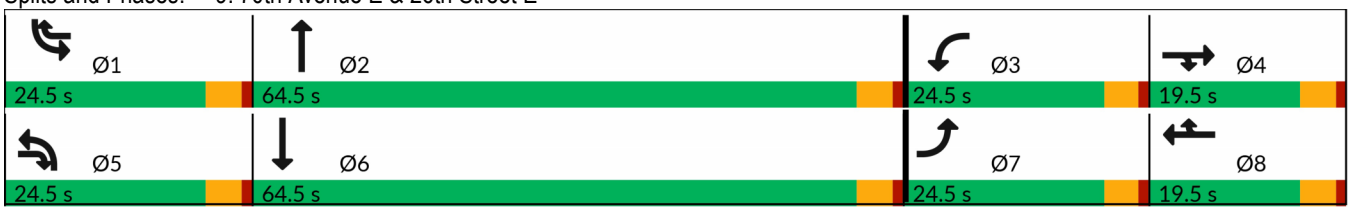


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	83	45	73	23	66	90	867	70	78	478	20
Future Volume (vph)	43	83	45	73	23	66	90	867	70	78	478	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	200		0	225		0
Storage Lanes	1		1	1		1	1		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	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.989			0.994	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1504	1583	1346	1504	1583	1346	1504	2975	0	1504	2990	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1504	1583	1346	1504	1583	1346	1504	2975	0	1504	2990	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			50			73		8			4	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1057			880			2032			2009	
Travel Time (s)		20.6			17.1			39.6			39.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	92	50	81	26	73	100	1041	0	87	553	0
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases	7	4	4 5	3	8	8 1	5	2		1	6	
Permitted Phases												
Detector Phase	7	4	4 5	3	8	8 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	10.0		6.0	10.0	
Minimum Split (s)	10.5	24.5		10.5	24.5		10.5	22.5		10.5	22.5	
Total Split (s)	24.5	19.5		24.5	19.5		24.5	64.5		24.5	64.5	
Total Split (%)	18.4%	14.7%		18.4%	14.7%		18.4%	48.5%		18.4%	48.5%	
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	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		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	10.1	12.1	25.0	12.0	16.2	28.6	13.3	48.9		12.5	48.2	
Actuated g/C Ratio	0.12	0.14	0.28	0.14	0.18	0.33	0.15	0.56		0.14	0.55	
v/c Ratio	0.28	0.42	0.12	0.40	0.09	0.15	0.44	0.63		0.41	0.34	
Control Delay (s/veh)	51.0	51.3	9.2	50.3	42.0	7.7	49.8	23.5		50.1	18.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	51.0	51.3	9.2	50.3	42.0	7.7	49.8	23.5		50.1	18.8	
LOS	D	D	A	D	D	A	D	C		D	B	
Approach Delay (s/veh)		40.1			31.8			25.8			23.1	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	27	51	0	45	13	0	55	264		48	114	
Queue Length 95th (ft)	78	131	31	115	47	35	135	446		121	203	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		977			800			1952			1929	
Turn Bay Length (ft)	150		150	150		150	200			225		
Base Capacity (vph)	431	340	584	431	385	664	431	2053		431	2062	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.11	0.27	0.09	0.19	0.07	0.11	0.23	0.51		0.20	0.27	

Intersection Summary			
Area Type:	Other		
Cycle Length: 133			
Actuated Cycle Length: 87.8			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay (s/veh): 26.8		Intersection LOS: C	
Intersection Capacity Utilization 53.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 9: 70th Avenue E & 26th Street E

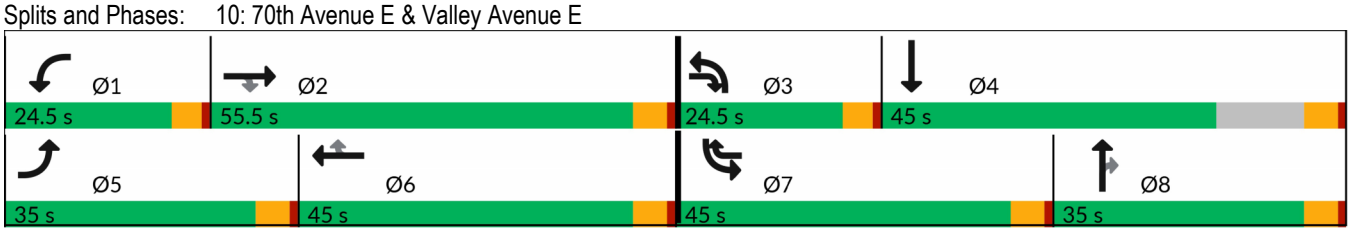


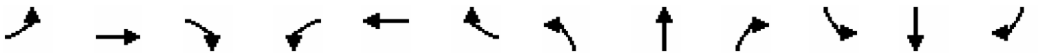
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	283	108	31	271	449	173	536	46	240	187	104
Future Volume (vph)	58	283	108	31	271	449	173	536	46	240	187	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		250	200		0	200		130	350		0
Storage Lanes	1		1	1		1	1		1	2		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	0.95	1.00	0.97	0.95	0.95
Frt			0.850			0.850			0.850		0.947	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1652	1404	1570	1652	1404	1570	3139	1404	3045	2973	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1570	1652	1404	1570	1652	1404	1570	3139	1404	3045	2973	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			113			343			143		70	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		831			1056			750			2032	
Travel Time (s)		18.9			24.0			14.6			39.6	
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 (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	295	113	32	282	468	180	558	48	250	303	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2	3	1	6	7	3	8		7	4	
Permitted Phases			2			6			8			
Detector Phase	5	2	3	1	6	7	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0	6.0	6.0	8.0	8.0	6.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	11.0	31.0	10.5	10.5	31.0	13.0	10.5	31.0	31.0	13.0	31.0	
Total Split (s)	35.0	55.5	24.5	24.5	45.0	45.0	24.5	35.0	35.0	45.0	45.0	
Total Split (%)	21.9%	34.7%	15.3%	15.3%	28.1%	28.1%	15.3%	21.9%	21.9%	28.1%	28.1%	
Yellow Time (s)	4.0	4.0	3.5	3.5	4.0	4.0	3.5	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	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	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.5	4.5	5.0	5.0	4.5	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	Min	None	None	Min	None	None	None	None	None	None	
Act Effct Green (s)	11.4	29.1	53.6	8.5	23.9	45.8	19.1	27.0	27.0	16.5	25.0	
Actuated g/C Ratio	0.12	0.30	0.56	0.09	0.25	0.48	0.20	0.28	0.28	0.17	0.26	
v/c Ratio	0.32	0.59	0.14	0.23	0.69	0.55	0.58	0.63	0.10	0.48	0.37	
Control Delay (s/veh)	50.3	36.4	3.2	52.4	44.8	7.9	48.9	37.0	0.4	42.5	25.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	50.3	36.4	3.2	52.4	44.8	7.9	48.9	37.0	0.4	42.5	25.4	
LOS	D	D	A	D	D	A	D	D	A	D	C	
Approach Delay (s/veh)		30.2			23.0			37.5			33.1	
Approach LOS		C			C			D			C	
Queue Length 50th (ft)	36	168	0	20	167	47	105	160	0	76	63	
Queue Length 95th (ft)	89	289	28	58	293	141	#237	284	0	134	120	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		751			976			670			1952	
Turn Bay Length (ft)	150		250	200			200		130	350		
Base Capacity (vph)	526	932	865	350	738	1132	350	1051	565	1361	1707	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.11	0.32	0.13	0.09	0.38	0.41	0.51	0.53	0.08	0.18	0.18	

Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 96.1			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay (s/veh): 30.8		Intersection LOS: C	
Intersection Capacity Utilization 60.1%		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: 10: 70th Avenue E & Valley Avenue E



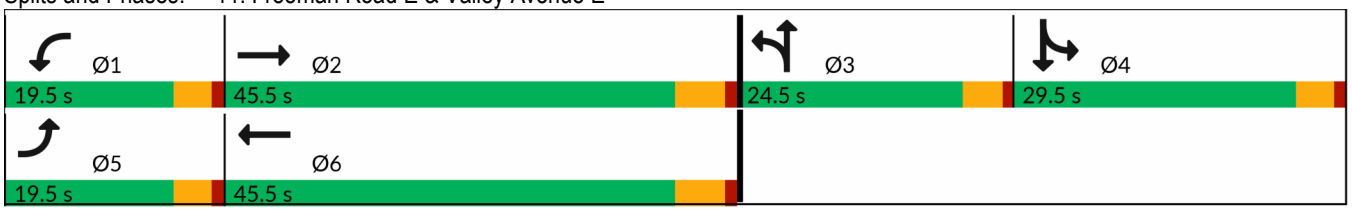


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	420	15	6	610	155	48	83	31	107	53	20
Future Volume (vph)	23	420	15	6	610	155	48	83	31	107	53	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	230		0	50		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.970			0.959			0.959	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1543	3070	0	1543	2993	0	1543	1557	0	1543	1557	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1543	3070	0	1543	2993	0	1543	1557	0	1543	1557	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			29			14			14	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		671			1259			2534			494	
Travel Time (s)		15.3			28.6			69.1			13.5	
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 (%)	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	24	463	0	6	814	0	51	121	0	114	77	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	3		4	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0		4.0	8.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	10.5	26.5		9.5	26.5		22.5	22.5		27.5	27.5	
Total Split (s)	19.5	45.5		19.5	45.5		24.5	24.5		29.5	29.5	
Total Split (%)	16.4%	38.2%		16.4%	38.2%		20.6%	20.6%		24.8%	24.8%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		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	5.5		4.5	5.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	8.3	32.4		7.5	30.1		12.6	12.6		12.9	12.9	
Actuated g/C Ratio	0.12	0.45		0.10	0.42		0.18	0.18		0.18	0.18	
v/c Ratio	0.13	0.33		0.04	0.64		0.19	0.43		0.41	0.26	
Control Delay (s/veh)	41.4	15.4		42.7	21.6		34.8	35.3		38.1	30.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	41.4	15.4		42.7	21.6		34.8	35.3		38.1	30.5	
LOS	D	B		D	C		C	D		D	C	
Approach Delay (s/veh)		16.7			21.8			35.1			35.0	
Approach LOS		B			C			D			D	
Queue Length 50th (ft)	10	65		2	129		19	41		44	23	
Queue Length 95th (ft)	42	156		17	308		65	123		126	81	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		591			1179			2454			414	
Turn Bay Length (ft)	150			230			50			250		
Base Capacity (vph)	380	1986		380	1869		506	520		633	647	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.06	0.23		0.02	0.44		0.10	0.23		0.18	0.12	

Intersection Summary			
Area Type:	Other		
Cycle Length: 119			
Actuated Cycle Length: 71.7			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay (s/veh): 23.2		Intersection LOS: C	
Intersection Capacity Utilization 42.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 11: Freeman Road E & Valley Avenue E



Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	3	7	132	65	9
Future Vol, veh/h	3	3	7	132	65	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	6	6	6	6	6	6
Mvmt Flow	4	4	9	161	79	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	263	85	90	0	-	0
Stage 1	85	-	-	-	-	-
Stage 2	178	-	-	-	-	-
Critical Hdwy	6.46	6.26	4.16	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	2.254	-	-	-
Pot Cap-1 Maneuver	718	963	1480	-	-	-
Stage 1	929	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	713	963	1480	-	-	-
Mov Cap-2 Maneuver	713	-	-	-	-	-
Stage 1	923	-	-	-	-	-
Stage 2	843	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.43	0.38	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	91	-	820	-	-
HCM Lane V/C Ratio	0.006	-	0.009	-	-
HCM Control Delay (s/veh)	7.4	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	6	3	134	66	1
Future Vol, veh/h	9	6	3	134	66	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	7	7	7	7	7	7
Mvmt Flow	10	7	3	152	75	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	235	76	76	0	-	0
Stage 1	76	-	-	-	-	-
Stage 2	159	-	-	-	-	-
Critical Hdwy	6.47	6.27	4.17	-	-	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.363	2.263	-	-	-
Pot Cap-1 Maneuver	743	972	1492	-	-	-
Stage 1	935	-	-	-	-	-
Stage 2	858	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	741	972	1492	-	-	-
Mov Cap-2 Maneuver	741	-	-	-	-	-
Stage 1	933	-	-	-	-	-
Stage 2	858	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.49	0.16	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	39	-	819	-	-
HCM Lane V/C Ratio	0.002	-	0.021	-	-
HCM Control Delay (s/veh)	7.4	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	1	15	0	5	0	141	20	7	65	2
Future Vol, veh/h	0	0	1	15	0	5	0	141	20	7	65	2
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	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	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	0	0	1	18	0	6	0	168	24	8	77	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	263	287	79	274	276	180	80	0	0	192	0	0
Stage 1	95	95	-	180	180	-	-	-	-	-	-	-
Stage 2	168	192	-	94	96	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.6	6.3	7.2	6.6	6.3	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.2	5.6	-	6.2	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.6	-	6.2	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4.09	3.39	3.59	4.09	3.39	2.29	-	-	2.29	-	-
Pot Cap-1 Maneuver	674	610	960	663	618	843	1469	-	-	1335	-	-
Stage 1	892	801	-	804	736	-	-	-	-	-	-	-
Stage 2	816	727	-	893	800	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	664	606	960	658	614	843	1469	-	-	1335	-	-
Mov Cap-2 Maneuver	664	606	-	658	614	-	-	-	-	-	-	-
Stage 1	886	796	-	804	736	-	-	-	-	-	-	-
Stage 2	810	727	-	887	795	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	8.75	10.36	0	0.73
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1469	-	-	960	696	169	-	-
HCM Lane V/C Ratio	-	-	-	0.001	0.034	0.006	-	-
HCM Control Delay (s/veh)	0	-	-	8.8	10.4	7.7	0	-
HCM Lane LOS	A	-	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	241	481	128	58	10
Future Vol, veh/h	13	241	481	128	58	10
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	89	89	89	89	89	89
Heavy Vehicles, %	11	11	11	11	11	11
Mvmt Flow	15	271	540	144	65	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	684	0	-	0	912	612
Stage 1	-	-	-	-	612	-
Stage 2	-	-	-	-	300	-
Critical Hdwy	4.21	-	-	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	2.299	-	-	-	3.599	3.399
Pot Cap-1 Maneuver	868	-	-	-	293	477
Stage 1	-	-	-	-	524	-
Stage 2	-	-	-	-	731	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	868	-	-	-	287	477
Mov Cap-2 Maneuver	-	-	-	-	287	-
Stage 1	-	-	-	-	514	-
Stage 2	-	-	-	-	731	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.47	0	20.71
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	92	-	-	-	305
HCM Lane V/C Ratio	0.017	-	-	-	0.251
HCM Control Delay (s/veh)	9.2	0	-	-	20.7
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1342	1099	911	809	581	423
Future Volume (vph)	1342	1099	911	809	581	423
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	2	2		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	0.88	0.95	1.00	0.97	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3155	2561	3252	1455	3155	3252
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3155	2561	3252	1455	3155	3252
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		5		719		
Link Speed (mph)	35		35			35
Link Distance (ft)	522		278			1175
Travel Time (s)	10.2		5.4			22.9
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1413	1157	959	852	612	445
Turn Type	Prot	pm+ov	NA	Perm	Prot	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8		2		
Minimum Split (s)	36.6	10.6	38.9	38.9	10.6	36.9
Total Split (s)	57.0	31.0	32.0	32.0	31.0	63.0
Total Split (%)	47.5%	25.8%	26.7%	26.7%	25.8%	52.5%
Yellow Time (s)	3.6	3.6	3.9	3.9	3.6	3.9
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)	4.6	4.6	4.9	4.9	4.6	4.9
Lead/Lag		Lead	Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Act Effct Green (s)	52.4	83.4	27.1	27.1	26.4	58.1
Actuated g/C Ratio	0.44	0.70	0.23	0.23	0.22	0.48
v/c Ratio	1.03	0.65	1.31	0.96	0.88	0.28
Control Delay (s/veh)	64.9	12.3	185.7	31.0	60.8	19.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	64.9	12.3	185.7	31.0	60.8	19.1
LOS	E	B	F	C	E	B
Approach Delay (s/veh)	41.2		112.9			43.2
Approach LOS	D		F			D
Queue Length 50th (ft)	~601	253	~502	122	238	105
Queue Length 95th (ft)	#738	326	#633	#444	#336	142
Internal Link Dist (ft)	442		198			1095
Turn Bay Length (ft)					250	
Base Capacity (vph)	1377	1781	734	885	694	1574
Starvation Cap Reductn	0	0	0	0	0	0

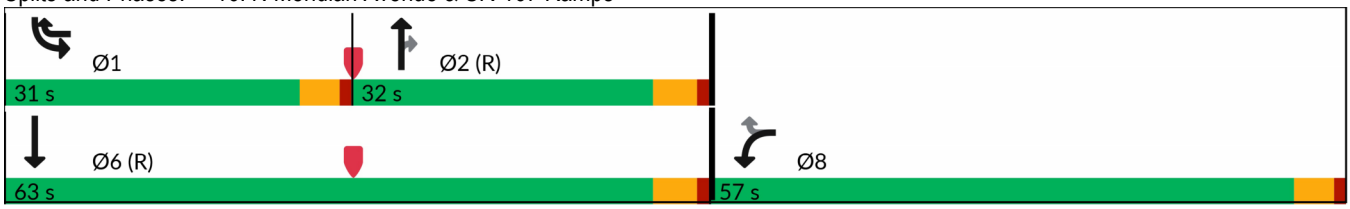
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.65	1.31	0.96	0.88	0.28

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 120			
Control Type: Pretimed			
Maximum v/c Ratio: 1.31			
Intersection Signal Delay (s/veh): 65.5		Intersection LOS: E	
Intersection Capacity Utilization 91.8%		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.

Splits and Phases: 16: N Meridian Avenue & SR-167 Ramps



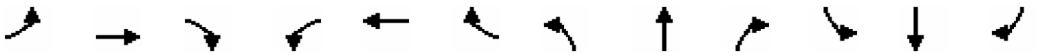
Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	101	0	0	197	0	1409	191	0	1290	438
Future Vol, veh/h	0	0	101	0	0	197	0	1409	191	0	1290	438
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	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Free	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	0	106	0	0	207	0	1483	201	0	1358	461

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	909	-	-	742	-	0	-	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.08	-	-	7.08	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.39	-	-	3.39	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	264	0	0	343	0	-	0	0	-	-
Stage 1	0	0	-	0	0	-	0	-	0	0	-	-
Stage 2	0	0	-	0	0	-	0	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	-	-	264	-	-	343	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	27.5	30.27	0	0
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBT	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	264	343	-	-
HCM Lane V/C Ratio	-	0.402	0.604	-	-
HCM Control Delay (s/veh)	-	27.5	30.3	-	-
HCM Lane LOS	-	D	D	-	-
HCM 95th %tile Q(veh)	-	1.8	3.8	-	-



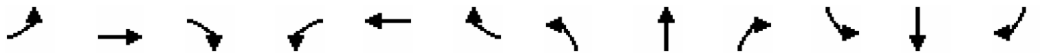
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	999	0	352	10	514	609	0	0	0	0	306	839
Future Volume (vph)	999	0	352	10	514	609	0	0	0	0	306	839
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	125		0	0		0	0		250
Storage Lanes	2		1	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected	0.950			0.950								
Satd. Flow (prot)	3273	0	1509	1687	3374	1509	0	0	0	0	3374	1509
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	3273	0	1509	1687	3374	1509	0	0	0	0	3374	1509
Right Turn on Red			No	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				90		441						597
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		673			590			2133			1751	
Travel Time (s)		13.1			11.5			58.2			47.8	
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 (%)	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1063	0	374	11	547	648	0	0	0	0	326	893
Turn Type	Prot		Prot	Perm	NA	Perm					NA	Perm
Protected Phases	1		1		2						4	
Permitted Phases				2		2						4
Detector Phase	1		1	2	2	2					4	4
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0					10.0	10.0
Minimum Split (s)	10.1		10.1	35.1	35.1	35.1					30.8	30.8
Total Split (s)	31.0		31.0	31.0	31.0	31.0					22.0	22.0
Total Split (%)	36.9%		36.9%	36.9%	36.9%	36.9%					26.2%	26.2%
Yellow Time (s)	3.6		3.6	3.6	3.6	3.6					3.3	3.3
All-Red Time (s)	1.5		1.5	1.5	1.5	1.5					1.5	1.5
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Lost Time (s)	5.1		5.1	5.1	5.1	5.1					4.8	4.8
Lead/Lag	Lead		Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes						
Recall Mode	None		None	Max	Max	Max					None	None
Act Effct Green (s)	25.9		25.9	30.0	30.0	30.0					17.2	17.2
Actuated g/C Ratio	0.29		0.29	0.34	0.34	0.34					0.20	0.20
v/c Ratio	1.10		0.84	0.02	0.48	0.81					0.50	1.15
Control Delay (s/veh)	93.4		48.4	0.1	24.6	17.4					34.6	96.6
Queue Delay	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Delay (s/veh)	93.4		48.4	0.1	24.6	17.4					34.6	96.6
LOS	F		D	A	C	B					C	F
Approach Delay (s/veh)		81.7			20.5						80.0	
Approach LOS		F			C						E	
Queue Length 50th (ft)	~350		194	0	124	99					85	~300
Queue Length 95th (ft)	#472		#347	0	172	#315					127	#531

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		593			510			2053			1671	
Turn Bay Length (ft)				125								250
Base Capacity (vph)	962		443	633	1148	804					658	775
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	1.10		0.84	0.02	0.48	0.81					0.50	1.15

Intersection Summary			
Area Type:	Other		
Cycle Length: 84			
Actuated Cycle Length: 88.1			
Natural Cycle: 120			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.15			
Intersection Signal Delay (s/veh): 62.0		Intersection LOS: E	
Intersection Capacity Utilization 74.4%		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.

Splits and Phases: 18: N Meridian Avenue & River Road/2nd Street NE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	169	46	45	169	0	0	0	0	155	509	30
Future Volume (vph)	0	169	46	45	169	0	0	0	0	155	509	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	125		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	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	0.95	0.95	0.95
Frt			0.850								0.994	
Flt Protected				0.950							0.989	
Satd. Flow (prot)	0	1810	1538	1719	1810	0	0	0	0	0	3380	0
Flt Permitted				0.417							0.989	
Satd. Flow (perm)	0	1810	1538	755	1810	0	0	0	0	0	3380	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91								16	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		393			385			1349			2133	
Travel Time (s)		10.7			10.5			36.8			58.2	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	194	53	52	194	0	0	0	0	0	797	0
Turn Type		NA	Perm	pm+pt	NA					Perm	NA	
Protected Phases		8		7	4						2	
Permitted Phases			8	4						2		
Detector Phase		8	8	7	4					2	2	
Switch Phase												
Minimum Initial (s)		5.0	5.0	5.0	5.0					10.0	10.0	
Minimum Split (s)		21.0	21.0	9.0	21.0					23.0	23.0	
Total Split (s)		9.0	9.0	7.0	13.0					44.0	44.0	
Total Split (%)		15.0%	15.0%	11.7%	21.7%					73.3%	73.3%	
Yellow Time (s)		3.0	3.0	3.0	3.0					3.0	3.0	
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)		4.0	4.0	4.0	4.0						4.0	
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		None	None	None	None					Max	Max	
Act Effct Green (s)		5.6	5.6	9.8	9.8						41.7	
Actuated g/C Ratio		0.09	0.09	0.16	0.16						0.70	
v/c Ratio		1.14	0.23	0.30	0.65						0.34	
Control Delay (s/veh)		144.1	5.5	24.8	33.4						4.2	
Queue Delay		0.0	0.0	0.0	0.0						0.0	
Total Delay (s/veh)		144.1	5.5	24.8	33.4						4.2	
LOS		F	A	C	C						A	
Approach Delay (s/veh)		114.4			31.6						4.2	
Approach LOS		F			C						A	
Queue Length 50th (ft)		~92	0	16	63						52	
Queue Length 95th (ft)		#193	13	39	115						72	

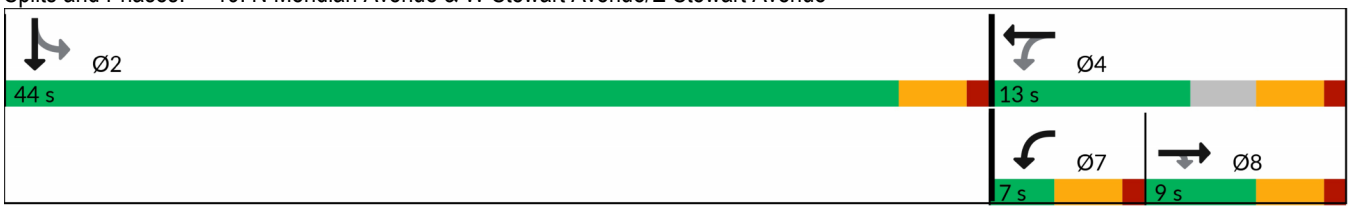
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		313			305			1269			2053	
Turn Bay Length (ft)			50	125								
Base Capacity (vph)		170	227	173	366						2373	
Starvation Cap Reductn		0	0	0	0						0	
Spillback Cap Reductn		0	0	0	0						0	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		1.14	0.23	0.30	0.53						0.34	

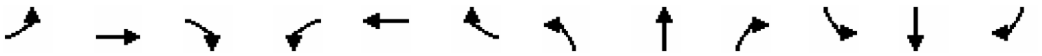
Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 59.5			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.14			
Intersection Signal Delay (s/veh): 30.5		Intersection LOS: C	
Intersection Capacity Utilization 53.0%		ICU Level of Service A	
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: 19: N Meridian Avenue & W Stewart Avenue



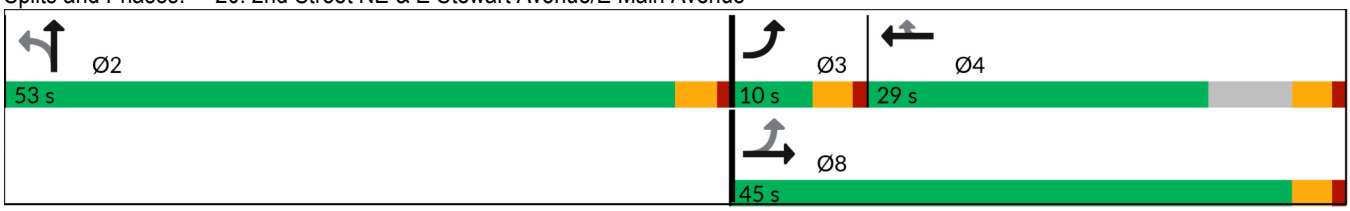


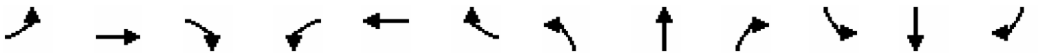
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	254	0	0	137	179	71	930	0	0	0	0
Future Volume (vph)	54	254	0	0	137	179	71	930	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	0		125	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
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	0.95	1.00	1.00	1.00
Frt						0.850						
Flt Protected	0.950							0.996				
Satd. Flow (prot)	1736	1827	0	0	1827	1553	0	3457	0	0	0	0
Flt Permitted	0.450							0.996				
Satd. Flow (perm)	822	1827	0	0	1827	1553	0	3457	0	0	0	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		385			615			394			343	
Travel Time (s)		10.5			16.8			10.7			9.4	
Peak Hour 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
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	267	0	0	144	188	0	1054	0	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA				
Protected Phases	3	8			4			2				
Permitted Phases	8					4	2					
Detector Phase	3	8			4	4	2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	10.0	10.0				
Minimum Split (s)	9.5	28.0			28.0	28.0	26.0	26.0				
Total Split (s)	10.0	45.0			29.0	29.0	53.0	53.0				
Total Split (%)	10.2%	45.9%			29.6%	29.6%	54.1%	54.1%				
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0				
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)	4.0	4.0			4.0	4.0		4.0				
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	None			None	None	Max	Max				
Act Effct Green (s)	18.8	18.8			13.4	13.4		49.6				
Actuated g/C Ratio	0.25	0.25			0.18	0.18		0.65				
v/c Ratio	0.21	0.59			0.45	0.69		0.47				
Control Delay (s/veh)	22.7	30.3			33.7	44.4		9.1				
Queue Delay	0.0	0.0			0.0	0.0		0.0				
Total Delay (s/veh)	22.7	30.3			33.7	44.4		9.1				
LOS	C	C			C	D		A				
Approach Delay (s/veh)		29.0			39.7			9.1				
Approach LOS		C			D			A				
Queue Length 50th (ft)	21	111			66	90		134				
Queue Length 95th (ft)	47	179			119	158		229				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		305			535			314			263	
Turn Bay Length (ft)	50					125						
Base Capacity (vph)	274	990			749	637		2241				
Starvation Cap Reductn	0	0			0	0		0				
Spillback Cap Reductn	0	0			0	0		0				
Storage Cap Reductn	0	0			0	0		0				
Reduced v/c Ratio	0.21	0.27			0.19	0.30		0.47				

Intersection Summary			
Area Type:	Other		
Cycle Length: 98			
Actuated Cycle Length: 76.5			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay (s/veh): 18.8		Intersection LOS: B	
Intersection Capacity Utilization 53.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 20: 2nd Street NE & E Stewart Avenue/E Main Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	150	44	83	234	191	36	326	49	153	494	51
Future Volume (vph)	19	150	44	83	234	191	36	326	49	153	494	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		0	100		0	100		0
Storage Lanes	1		0	1		0	1		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	0.95	0.95	1.00	0.95	0.95
Frt		0.966			0.933			0.980			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1596	0	1570	1541	0	1570	3076	0	1570	3095	0
Flt Permitted	0.200			0.535			0.436			0.461		
Satd. Flow (perm)	330	1596	0	884	1541	0	720	3076	0	762	3095	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			46			25			16	
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		727			778			1175			536	
Travel Time (s)		19.8			15.2			22.9			10.4	
Peak Hour 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
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	20	204	0	87	447	0	38	395	0	161	574	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	24.5	24.5		24.5	24.5		10.5	19.0		10.5	17.0	
Total Split (s)	24.5	24.5		24.5	24.5		19.0	40.0		19.0	40.0	
Total Split (%)	29.3%	29.3%		29.3%	29.3%		22.8%	47.9%		22.8%	47.9%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		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		4.0	5.0		4.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Max		None	Max	
Act Effct Green (s)	20.0	20.0		20.0	20.0		42.4	35.0		48.3	41.5	
Actuated g/C Ratio	0.26	0.26		0.26	0.26		0.55	0.45		0.62	0.54	
v/c Ratio	0.24	0.48		0.38	1.03		0.08	0.28		0.28	0.34	
Control Delay (s/veh)	31.7	27.0		30.1	80.8		6.1	13.3		7.2	11.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	31.7	27.0		30.1	80.8		6.1	13.3		7.2	11.5	
LOS	C	C		C	F		A	B		A	B	
Approach Delay (s/veh)		27.4			72.5			12.6			10.6	
Approach LOS		C			E			B			B	
Queue Length 50th (ft)	8	75		34	~216		6	55		28	84	
Queue Length 95th (ft)	29	144		79	#410		16	91		51	123	

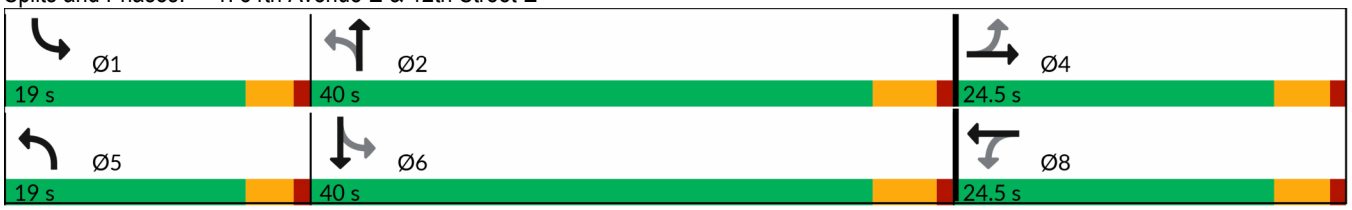
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		647			698			1095			456	
Turn Bay Length (ft)	100			200			100			100		
Base Capacity (vph)	85	425		229	433		618	1407		637	1667	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.24	0.48		0.38	1.03		0.06	0.28		0.25	0.34	

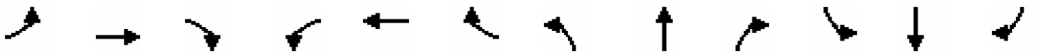
Intersection Summary			
Area Type:	Other		
Cycle Length: 83.5			
Actuated Cycle Length: 77.3			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.03			
Intersection Signal Delay (s/veh): 30.2		Intersection LOS: C	
Intersection Capacity Utilization 64.3%		ICU Level of Service 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: 1: 54th Avenue E & 12th Street E



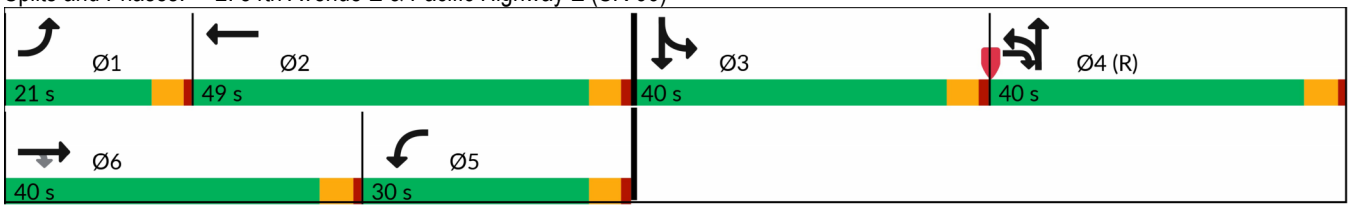


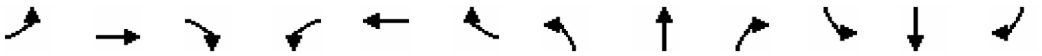
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	115	509	403	789	788	134	386	278	470	196	467	87
Future Volume (vph)	115	509	403	789	788	134	386	278	470	196	467	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	550		0	150		0	125		0
Storage Lanes	1		1	2		0	2		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.978			0.906			0.976	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1626	3252	1455	3155	3181	0	3155	2947	0	1626	3174	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1626	3252	1455	3155	3181	0	3155	2947	0	1626	3174	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			47		13			266			13	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1085			1070			320			1175	
Travel Time (s)		21.1			20.8			6.2			22.9	
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 (%)	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	122	541	429	839	981	0	411	796	0	209	590	0
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		3	3	
Permitted Phases			6									
Detector Phase	1	6	4	5	2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	10.5	38.7	35.7	22.5	37.7		35.7	35.7		38.7	38.7	
Total Split (s)	21.0	40.0	40.0	30.0	49.0		40.0	40.0		40.0	40.0	
Total Split (%)	14.0%	26.7%	26.7%	20.0%	32.7%		26.7%	26.7%		26.7%	26.7%	
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		3.7	3.7		3.7	3.7	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7	4.7	4.5	4.7		4.7	4.7		4.7	4.7	
Lead/Lag	Lead	Lead	Lag	Lag	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	C-Max	None	None		C-Max	C-Max		None	None	
Act Effct Green (s)	14.9	30.0	73.5	29.2	44.3		38.8	38.8		33.4	33.4	
Actuated g/C Ratio	0.10	0.20	0.49	0.19	0.30		0.26	0.26		0.22	0.22	
v/c Ratio	0.76	0.83	0.58	1.37	1.03		0.50	0.87dr		0.58	0.82	
Control Delay (s/veh)	93.6	69.2	27.9	219.0	88.7		58.7	52.6		58.7	64.6	
Queue Delay	0.0	0.0	0.1	0.0	0.0		2.0	20.0		0.0	0.6	
Total Delay (s/veh)	93.6	69.2	27.9	219.0	88.7		60.8	72.6		58.7	65.2	
LOS	F	E	C	F	F		E	E		E	E	
Approach Delay (s/veh)		55.7			148.8			68.6			63.5	
Approach LOS		E			F			E			E	
Queue Length 50th (ft)	117	268	273	~546	~536		197	320		181	281	
Queue Length 95th (ft)	#204	325	366	#728	#675		245	#399		270	354	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1005			990			240			1095	
Turn Bay Length (ft)	225			550			150			125		
Base Capacity (vph)	178	765	736	614	948		816	959		382	756	
Starvation Cap Reductn	0	0	0	0	0		260	178		0	0	
Spillback Cap Reductn	0	0	14	0	0		0	0		0	28	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.69	0.71	0.59	1.37	1.03		0.74	1.02		0.55	0.81	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 10 (7%), Referenced to phase 4:NBTL, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.37			
Intersection Signal Delay (s/veh): 94.6		Intersection LOS: F	
Intersection Capacity Utilization 85.8%		ICU Level of Service E	
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.			
dr Defacto Right Lane. Recode with 1 though lane as a right lane.			

Splits and Phases: 2: 54th Avenue E & Pacific Highway E (SR-99)





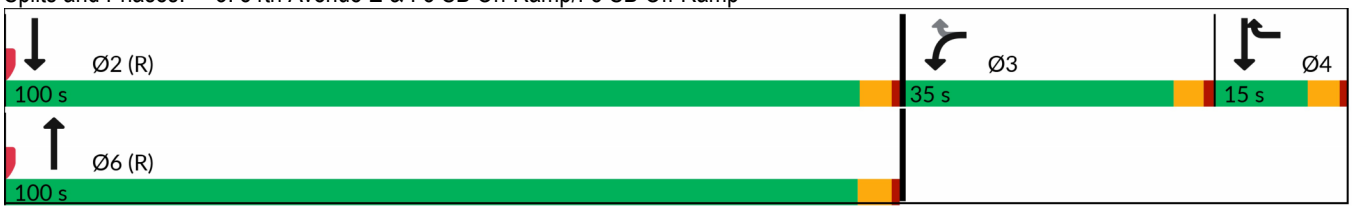
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	312	0	330	0	820	536	0	777	765
Future Volume (vph)	0	0	0	312	0	330	0	820	536	0	777	765
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		25	0		0
Storage Lanes	0		0	1		1	0		1	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	0.95	1.00	1.00	1.00	1.00
Frt						0.850			0.850			0.850
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	1720	0	1539	0	3490	1539	0	1811	1539
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1720	0	1539	0	3490	1539	0	1811	1539
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						184			78			260
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1083			1080			827			320	
Travel Time (s)		24.6			24.5			18.8			7.3	
Peak Hour 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
Bus Blockages (#/hr)	7	7	7	7	7	7	7	7	7	7	7	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	328	0	347	0	863	564	0	818	805
Turn Type				Prot		custom		NA	Free		NA	Free
Protected Phases				3		4		6			2 4	
Permitted Phases						3			Free			Free
Detector Phase				3		4		6			2 4	
Switch Phase												
Minimum Initial (s)				5.0		3.0		10.0				
Minimum Split (s)				22.5		7.5		22.7				
Total Split (s)				35.0		15.0		100.0				
Total Split (%)				23.3%		10.0%		66.7%				
Yellow Time (s)				3.5		3.5		3.7				
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		4.7				
Lead/Lag				Lead		Lag						
Lead-Lag Optimize?				Yes		Yes						
Recall Mode				None		None		C-Max				
Act Effct Green (s)				30.0		45.0		95.8	150.0		111.0	150.0
Actuated g/C Ratio				0.20		0.30		0.64	1.00		0.74	1.00
v/c Ratio				0.95		0.59		0.39	0.37		0.61	0.52
Control Delay (s/veh)				97.0		24.5		13.7	0.7		6.5	3.9
Queue Delay				0.0		6.1		0.1	0.0		8.0	0.0
Total Delay (s/veh)				97.0		30.6		13.8	0.7		14.5	3.9
LOS				F		C		B	A		B	A
Approach Delay (s/veh)					62.8			8.6			9.2	
Approach LOS					E			A			A	
Queue Length 50th (ft)				319		134		204	0		160	84
Queue Length 95th (ft)				#511		243		246	0		m163	m116

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	
Bus Blockages (#/hr)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	22.5
Total Split (s)	100.0
Total Split (%)	67%
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	C-Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
LOS	
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1003			1000			747			240	
Turn Bay Length (ft)									25			
Base Capacity (vph)				349		591		2228	1539		1340	1539
Starvation Cap Reductn				0		0		0	0		479	0
Spillback Cap Reductn				0		188		397	0		0	0
Storage Cap Reductn				0		0		0	0		0	0
Reduced v/c Ratio				0.94		0.86		0.47	0.37		0.95	0.52

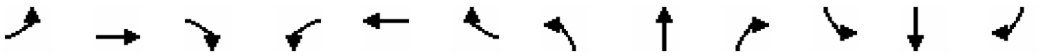
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 60 (40%), Referenced to phase 2:SBT and 6:NBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay (s/veh): 18.7		Intersection 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.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 3: 54th Avenue E & I-5 SB On-Ramp/I-5 SB Off-Ramp



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



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	342	336	213	27	199	584	163	463	26	390	713	306
Future Volume (vph)	342	336	213	27	199	584	163	463	26	390	713	306
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	275		0	200		0	175		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.95
Frt		0.946				0.850		0.992			0.957	
Flt Protected	0.950	0.997			0.994		0.950			0.950	0.998	
Satd. Flow (prot)	1421	2822	0	0	1634	1398	1562	3099	0	1421	2858	0
Flt Permitted	0.950	0.997			0.994		0.950			0.950	0.998	
Satd. Flow (perm)	1421	2822	0	0	1634	1398	1562	3099	0	1421	2858	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		60				102		3			40	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		738			676			783			335	
Travel Time (s)		14.4			13.2			17.8			7.6	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Shared Lane Traffic (%)	12%									10%		
Lane Group Flow (vph)	307	602	0	0	231	596	166	499	0	358	1080	0
Turn Type	Split	NA		Split	NA	pm+ov	Split	NA		Split	NA	
Protected Phases	1	1		3	3	2	4	4		2	2	
Permitted Phases						3						
Detector Phase	1	1		3	3	2	4	4		2	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	24.5	24.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	40.0	40.0		24.0	24.0	55.0	31.0	31.0		55.0	55.0	
Total Split (%)	26.7%	26.7%		16.0%	16.0%	36.7%	20.7%	20.7%		36.7%	36.7%	
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	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	Lead	Lag	Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	C-Max	None	None		C-Max	C-Max	
Act Effct Green (s)	34.3	34.3			19.5	76.4	25.8	25.8		52.4	52.4	
Actuated g/C Ratio	0.23	0.23			0.13	0.51	0.17	0.17		0.35	0.35	
v/c Ratio	0.94	0.87			1.09	0.78	0.62	0.93		0.72	1.06	
Control Delay (s/veh)	94.1	64.1			146.3	33.8	68.3	85.8		53.0	88.8	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	94.1	64.1			146.3	33.8	68.3	85.8		53.0	88.8	
LOS	F	E			F	C	E	F		D	F	
Approach Delay (s/veh)		74.2			65.2			81.4			79.9	
Approach LOS		E			E			F			E	
Queue Length 50th (ft)	324	283			~253	409	152	253		341	~639	
Queue Length 95th (ft)	#523	#370			#430	595	235	#358		483	#786	

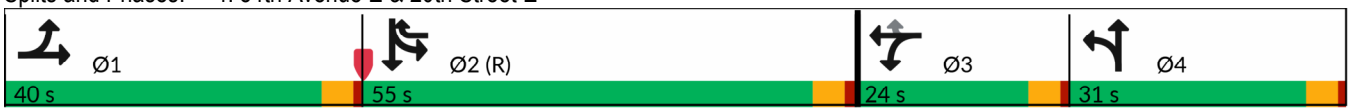
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		658			596			703			255	
Turn Bay Length (ft)	300						200			175		
Base Capacity (vph)	336	713			212	761	275	549		496	1023	
Starvation Cap Reductn	0	0			0	0	0	0		0	0	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.91	0.84			1.09	0.78	0.60	0.91		0.72	1.06	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 20 (13%), Referenced to phase 2:SBTL, Start of Green			
Natural Cycle: 135			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.09			
Intersection Signal Delay (s/veh): 75.7		Intersection LOS: E	
Intersection Capacity Utilization 93.0%		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.

Splits and Phases: 4: 54th Avenue E & 20th Street E



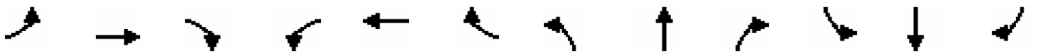
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	3	7	0	122	1	443	6	96	692	0
Future Volume (vph)	1	0	3	7	0	122	1	443	6	96	692	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	0		0	100		0
Storage Lanes	0		0	1		0	1		0	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	1.00	1.00	1.00	1.00	1.00
Frt		0.899			0.850			0.998				
Flt Protected		0.988		0.950			0.950			0.950		
Satd. Flow (prot)	0	1638	0	1752	1568	0	1752	1841	0	1752	1845	1845
Flt Permitted		0.874		0.672			0.322			0.376		
Satd. Flow (perm)	0	1449	0	1240	1568	0	594	1841	0	694	1845	1845
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		74			561			1				
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		362			838			554			783	
Travel Time (s)		9.9			22.9			12.6			17.8	
Peak Hour 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
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	4	0	7	128	0	1	472	0	101	728	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6			2		2
Detector Phase	3	8		7	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	6.0
Minimum Split (s)	9.5	24.5		22.5	24.0		9.5	22.5		9.5	22.5	22.5
Total Split (s)	14.0	16.5		14.0	16.0		14.0	34.5		16.0	36.5	36.5
Total Split (%)	17.3%	20.4%		17.3%	19.8%		17.3%	42.6%		19.8%	45.1%	45.1%
Yellow Time (s)	3.0	3.5		3.0	3.0		3.0	3.5		3.0	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		0.0	0.0	0.0
Total Lost Time (s)		4.5		4.0	4.0		4.0	4.5		4.0	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max		None	Max	Max
Act Effct Green (s)		5.5		7.7	7.7		39.3	35.1		43.7	42.6	
Actuated g/C Ratio		0.10		0.13	0.13		0.68	0.61		0.76	0.74	
v/c Ratio		0.02		0.03	0.18		0.00	0.42		0.15	0.53	
Control Delay (s/veh)		0.3		21.4	0.6		4.0	11.0		3.6	9.2	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)		0.3		21.4	0.6		4.0	11.0		3.6	9.2	
LOS		A		C	A		A	B		A	A	
Approach Delay (s/veh)		0.3			1.7			11.0			8.5	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)		0		2	0		0	88		6	72	
Queue Length 95th (ft)		0		11	0		2	229		29	#445	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		282			758			474			703	
Turn Bay Length (ft)				100						100		
Base Capacity (vph)		363		331	793		641	1123		751	1367	
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		0.01		0.02	0.16		0.00	0.42		0.13	0.53	

Intersection Summary			
Area Type:	Other		
Cycle Length: 81			
Actuated Cycle Length: 57.5			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay (s/veh): 8.7		Intersection LOS: A	
Intersection Capacity Utilization 57.7%		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: 5: 54th Avenue E & Driveway/23rd Street E

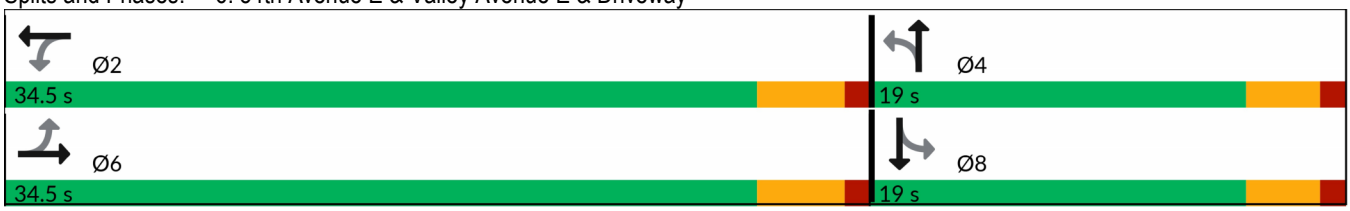


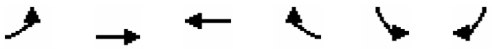
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	689	60	32	437	0	19	0	23	1	0	0
Future Volume (vph)	20	689	60	32	437	0	19	0	23	1	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	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		0.988						0.927				
Flt Protected	0.950			0.950				0.978			0.950	
Satd. Flow (prot)	1770	1840	0	1770	1863	0	0	1689	0	0	1770	0
Flt Permitted	0.491			0.318								
Satd. Flow (perm)	915	1840	0	592	1863	0	0	1727	0	0	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13						31				
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		554			491			578			252	
Travel Time (s)		12.6			11.2			15.8			6.9	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	22	814	0	35	475	0	0	46	0	0	1	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	30.5	30.5		22.5	22.5		32.0	32.0		32.0	32.0	
Total Split (s)	34.5	34.5		34.5	34.5		19.0	19.0		19.0	19.0	
Total Split (%)	64.5%	64.5%		64.5%	64.5%		35.5%	35.5%		35.5%	35.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		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			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		Max	Max		None	None		None	None	
Act Effct Green (s)	45.9	45.9		45.9	45.9			6.4			6.3	
Actuated g/C Ratio	0.88	0.88		0.88	0.88			0.12			0.12	
v/c Ratio	0.03	0.50		0.07	0.29			0.19			0.00	
Control Delay (s/veh)	2.3	3.9		2.5	2.4			13.5			20.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	2.3	3.9		2.5	2.4			13.5			20.0	
LOS	A	A		A	A			B			B	
Approach Delay (s/veh)		3.8			2.4			13.5			20.0	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	0	0		0	0			4			0	
Queue Length 95th (ft)	6	192		9	83			26			4	
Internal Link Dist (ft)		474			411			498			172	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	150			125								
Base Capacity (vph)	808	1627		523	1646			522			540	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.03	0.50		0.07	0.29			0.09			0.00	

Intersection Summary			
Area Type:	Other		
Cycle Length: 53.5			
Actuated Cycle Length: 52			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.50			
Intersection Signal Delay (s/veh): 3.7		Intersection LOS: A	
Intersection Capacity Utilization 50.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 6: 54th Avenue E & Valley Avenue E & Driveway





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø7
Lane Configurations							
Traffic Volume (vph)	68	830	1733	20	10	35	
Future Volume (vph)	68	830	1733	20	10	35	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00	
Frt			0.998		0.894		
Flt Protected	0.950				0.989		
Satd. Flow (prot)	1719	3438	3431	0	1600	0	
Flt Permitted	0.950				0.989		
Satd. Flow (perm)	1719	3438	3431	0	1600	0	
Right Turn on Red				Yes		Yes	
Satd. Flow (RTOR)			1		36		
Link Speed (mph)		30	30		30		
Link Distance (ft)		439	500		370		
Travel Time (s)		10.0	11.4		8.4		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	71	865	1826	0	46	0	
Turn Type	Prot	NA	NA		Prot		
Protected Phases	1	6	2		8		7
Permitted Phases							
Detector Phase	1	6	2		8		
Switch Phase							
Minimum Initial (s)	6.0	10.0	10.0		5.0		5.0
Minimum Split (s)	10.5	23.7	33.7		22.5		31.5
Total Split (s)	19.5	66.2	66.2		34.5		31.5
Total Split (%)	12.9%	43.6%	43.6%		22.7%		21%
Yellow Time (s)	3.5	4.7	4.7		3.5		3.5
All-Red Time (s)	1.0	1.5	1.5		1.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		
Total Lost Time (s)	4.5	6.2	6.2		4.5		
Lead/Lag	Lead		Lag		Lag		Lead
Lead-Lag Optimize?	Yes		Yes		Yes		Yes
Recall Mode	None	Max	None		Max		None
Act Effct Green (s)	10.0	72.3	60.2		30.1		
Actuated g/C Ratio	0.09	0.64	0.53		0.27		
v/c Ratio	0.47	0.39	1.00		0.10		
Control Delay (s/veh)	60.1	10.3	48.8		14.7		
Queue Delay	0.0	0.0	0.0		0.0		
Total Delay (s/veh)	60.1	10.3	48.8		14.7		
LOS	E	B	D		B		
Approach Delay (s/veh)		14.1	48.8		14.7		
Approach LOS		B	D		B		
Queue Length 50th (ft)	51	146	~760		6		
Queue Length 95th (ft)	98	183	#951		36		
Internal Link Dist (ft)		359	420		290		
Turn Bay Length (ft)							
Base Capacity (vph)	228	2424	1826		452		

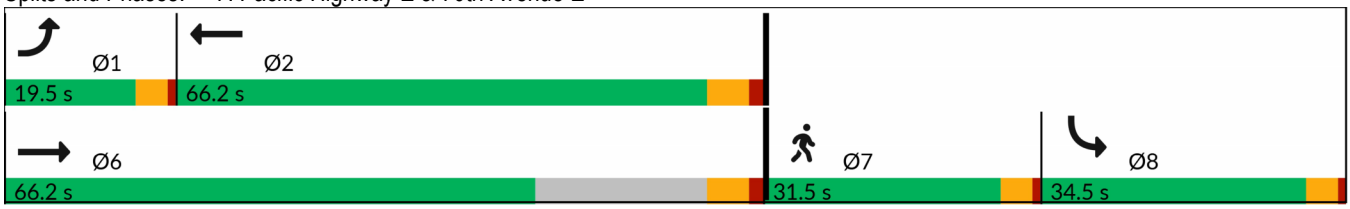
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø7
Starvation Cap Reductn	0	0	0		0		
Spillback Cap Reductn	0	0	0		0		
Storage Cap Reductn	0	0	0		0		
Reduced v/c Ratio	0.31	0.36	1.00		0.10		

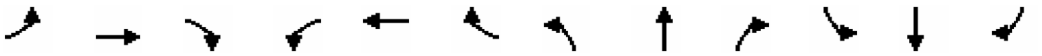
Intersection Summary			
Area Type:	Other		
Cycle Length: 151.7			
Actuated Cycle Length: 113.1			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.00			
Intersection Signal Delay (s/veh): 36.7		Intersection LOS: D	
Intersection Capacity Utilization 69.6%		ICU Level of 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: 7: Pacific Highway E & 70th Avenue E





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	509	117	138	496	233	158	591	96	189	904	90
Future Volume (vph)	51	509	117	138	496	233	158	591	96	189	904	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		200	400		400	250		0	225		0
Storage Lanes	1		1	1		1	1		0	2		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	0.95	0.95	0.97	0.95	0.95
Frt			0.850			0.850		0.979			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1641	1727	1468	1641	1727	1468	1641	3213	0	3183	3236	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	1727	1468	1641	1727	1468	1641	3213	0	3183	3236	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			93			167		16			9	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1295			1073			2009			522	
Travel Time (s)		25.2			20.9			39.1			10.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	525	121	142	511	240	163	708	0	195	1025	0
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2	3	7	4		3	8	
Permitted Phases			6			2						
Detector Phase	1	6	6	5	2	3	7	4		3	8	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	10.0	10.0	10.0	10.0	6.0		10.0	10.0	
Minimum Split (s)	10.5	22.5	22.5	14.5	22.5	14.5	14.5	26.5		14.5	26.5	
Total Split (s)	14.5	44.5	44.5	14.5	44.5	19.5	19.5	44.5		19.5	44.5	
Total Split (%)	11.8%	36.2%	36.2%	11.8%	36.2%	15.9%	15.9%	36.2%		15.9%	36.2%	
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		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	Min	Min	None	Min	None	None	None		None	None	
Act Effct Green (s)	8.6	38.5	38.5	10.0	42.3	59.4	14.3	41.3		12.6	39.6	
Actuated g/C Ratio	0.07	0.32	0.32	0.08	0.35	0.49	0.12	0.34		0.10	0.33	
v/c Ratio	0.45	0.95	0.23	1.04	0.84	0.30	0.84	0.64		0.58	0.96	
Control Delay (s/veh)	67.1	68.7	10.4	143.3	51.8	7.1	85.7	36.2		59.1	59.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	67.1	68.7	10.4	143.3	51.8	7.1	85.7	36.2		59.1	59.3	
LOS	E	E	B	F	D	A	F	D		E	E	
Approach Delay (s/veh)		58.5			54.3			45.5			59.2	
Approach LOS		E			D			D			E	
Queue Length 50th (ft)	41	403	15	~125	385	32	128	242		77	418	
Queue Length 95th (ft)	84	#620	60	#258	#596	81	#246	319		115	#564	

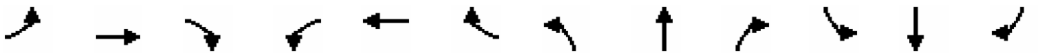
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1215			993			1929			442	
Turn Bay Length (ft)	250		200	400		400	250			225		
Base Capacity (vph)	136	574	550	136	605	834	205	1113		397	1082	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.39	0.91	0.22	1.04	0.84	0.29	0.80	0.64		0.49	0.95	

Intersection Summary			
Area Type:	Other		
Cycle Length: 123			
Actuated Cycle Length: 120.5			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.04			
Intersection Signal Delay (s/veh): 54.7		Intersection LOS: D	
Intersection Capacity Utilization 86.7%		ICU Level of Service E	
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: 8: 70th Avenue E & 20th Street E

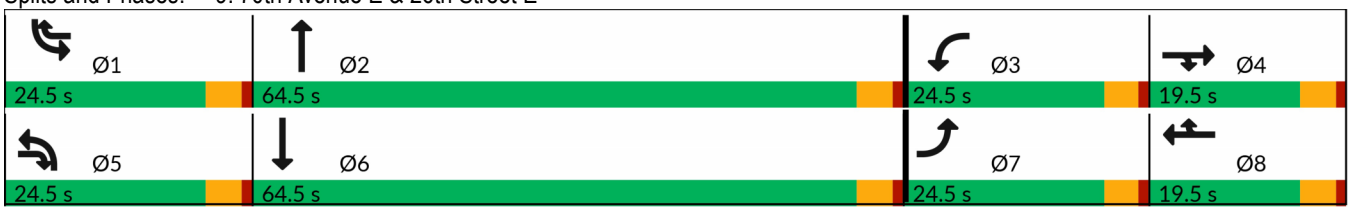


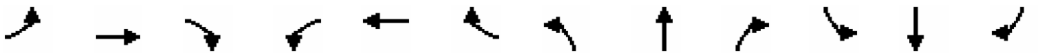
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	52	102	85	27	115	29	655	49	54	1026	15
Future Volume (vph)	45	52	102	85	27	115	29	655	49	54	1026	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	200		0	225		0
Storage Lanes	1		1	1		1	1		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	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.990			0.998	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1652	1404	1570	1652	1404	1570	3108	0	1570	3133	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1570	1652	1404	1570	1652	1404	1570	3108	0	1570	3133	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109			122		7			1	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1057			880			2032			2009	
Travel Time (s)		20.6			17.1			39.6			39.1	
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 (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	55	109	90	29	122	31	749	0	57	1107	0
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases	7	4	4 5	3	8	8 1	5	2		1	6	
Permitted Phases												
Detector Phase	7	4	4 5	3	8	8 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	10.0		6.0	10.0	
Minimum Split (s)	10.5	24.5		10.5	24.5		10.5	22.5		10.5	22.5	
Total Split (s)	24.5	19.5		24.5	19.5		24.5	64.5		24.5	64.5	
Total Split (%)	18.4%	14.7%		18.4%	14.7%		18.4%	48.5%		18.4%	48.5%	
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	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		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	9.3	9.5	22.8	11.9	14.5	29.2	8.4	40.0		9.9	41.5	
Actuated g/C Ratio	0.11	0.11	0.26	0.14	0.17	0.34	0.10	0.46		0.11	0.48	
v/c Ratio	0.29	0.30	0.24	0.42	0.11	0.22	0.21	0.52		0.32	0.74	
Control Delay (s/veh)	47.5	47.3	8.5	46.7	39.9	6.8	47.7	19.3		47.3	23.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	47.5	47.3	8.5	46.7	39.9	6.8	47.7	19.3		47.3	23.0	
LOS	D	D	A	D	D	A	D	B		D	C	
Approach Delay (s/veh)		27.4			25.7			20.4			24.2	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	25	28	0	46	14	0	16	151		29	254	
Queue Length 95th (ft)	74	82	46	118	49	45	55	258		84	417	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		977			800			1952			1929	
Turn Bay Length (ft)	150		150	150		150	200			225		
Base Capacity (vph)	391	309	639	391	346	714	391	2229		391	2245	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.12	0.18	0.17	0.23	0.08	0.17	0.08	0.34		0.15	0.49	

Intersection Summary			
Area Type:	Other		
Cycle Length: 133			
Actuated Cycle Length: 86.9			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay (s/veh): 23.4		Intersection LOS: C	
Intersection Capacity Utilization 56.5%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 9: 70th Avenue E & 26th Street E





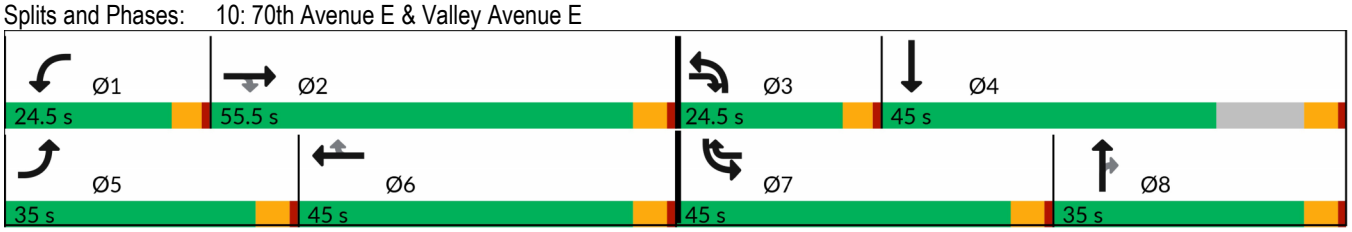
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	541	168	79	287	343	141	298	45	584	538	92
Future Volume (vph)	27	541	168	79	287	343	141	298	45	584	538	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		250	200		0	200		130	350		0
Storage Lanes	1		1	1		1	1		1	2		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	0.95	1.00	0.97	0.95	0.95
Frt			0.850			0.850			0.850		0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1641	1727	1468	1641	1727	1468	1641	3282	1468	3183	3210	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	1727	1468	1641	1727	1468	1641	3282	1468	3183	3210	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			145			357			143		13	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		831			1056			750			2032	
Travel Time (s)		18.9			24.0			14.6			39.6	
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 (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	564	175	82	299	357	147	310	47	608	656	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2	3	1	6	7	3	8		7	4	
Permitted Phases			2			6			8			
Detector Phase	5	2	3	1	6	7	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0	6.0	6.0	8.0	8.0	6.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	11.0	31.0	10.5	10.5	31.0	13.0	10.5	31.0	31.0	13.0	31.0	
Total Split (s)	35.0	55.5	24.5	24.5	45.0	45.0	24.5	35.0	35.0	45.0	45.0	
Total Split (%)	21.9%	34.7%	15.3%	15.3%	28.1%	28.1%	15.3%	21.9%	21.9%	28.1%	28.1%	
Yellow Time (s)	4.0	4.0	3.5	3.5	4.0	4.0	3.5	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	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	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.5	4.5	5.0	5.0	4.5	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	Min	None	None	Min	None	None	None	None	None	None	
Act Effct Green (s)	9.4	51.1	73.1	12.8	59.6	97.9	17.0	19.4	19.4	33.2	36.2	
Actuated g/C Ratio	0.07	0.38	0.54	0.09	0.44	0.72	0.12	0.14	0.14	0.24	0.27	
v/c Ratio	0.25	0.87	0.20	0.54	0.40	0.31	0.72	0.66	0.14	0.78	0.76	
Control Delay (s/veh)	69.9	57.0	5.3	74.2	32.1	1.6	79.3	63.7	0.9	56.6	51.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	69.9	57.0	5.3	74.2	32.1	1.6	79.3	63.7	0.9	56.6	51.7	
LOS	E	E	A	E	C	A	E	E	A	E	D	
Approach Delay (s/veh)		45.6			22.0			62.4			54.1	
Approach LOS		D			C			E			D	
Queue Length 50th (ft)	24	467	12	71	194	0	126	139	0	259	280	
Queue Length 95th (ft)	62	#832	59	138	328	35	#238	206	0	365	373	

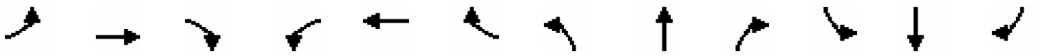
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		751			976			670			1952	
Turn Bay Length (ft)	150		250	200			200		130	350		
Base Capacity (vph)	365	647	886	243	755	1214	243	730	438	945	1211	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.08	0.87	0.20	0.34	0.40	0.29	0.60	0.42	0.11	0.64	0.54	

Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 136.2			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay (s/veh): 46.2		Intersection LOS: D	
Intersection Capacity Utilization 74.9%		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: 10: 70th Avenue E & Valley Avenue E





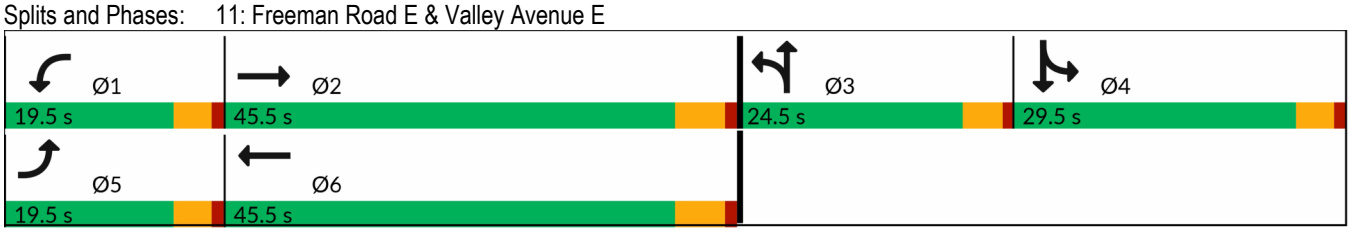
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	1024	115	22	525	128	16	37	32	253	165	23
Future Volume (vph)	29	1024	115	22	525	128	16	37	32	253	165	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	230		0	50		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.985			0.971			0.931			0.982	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1656	3262	0	1656	3216	0	1656	1623	0	1656	1712	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1656	3262	0	1656	3216	0	1656	1623	0	1656	1712	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			27			31			5	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		671			1259			2534			494	
Travel Time (s)		15.3			28.6			69.1			13.5	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	33	1280	0	25	734	0	18	78	0	284	211	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	3		4	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0		4.0	8.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	10.5	26.5		9.5	26.5		22.5	22.5		27.5	27.5	
Total Split (s)	19.5	45.5		19.5	45.5		24.5	24.5		29.5	29.5	
Total Split (%)	16.4%	38.2%		16.4%	38.2%		20.6%	20.6%		24.8%	24.8%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		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	5.5		4.5	5.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	8.0	41.7		7.6	38.9		8.9	8.9		21.0	21.0	
Actuated g/C Ratio	0.09	0.47		0.09	0.44		0.10	0.10		0.24	0.24	
v/c Ratio	0.22	0.83		0.18	0.51		0.11	0.41		0.72	0.51	
Control Delay (s/veh)	46.1	30.0		46.1	22.5		42.4	34.4		44.5	35.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	46.1	30.0		46.1	22.5		42.4	34.4		44.5	35.6	
LOS	D	C		D	C		D	C		D	D	
Approach Delay (s/veh)		30.4			23.2			35.9			40.7	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	17	316		13	180		9	25		137	93	
Queue Length 95th (ft)	52	#621		43	265		33	75		#292	199	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		591			1179			2454			414	
Turn Bay Length (ft)	150			230			50			250		
Base Capacity (vph)	291	1545		291	1526		389	405		486	506	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.11	0.83		0.09	0.48		0.05	0.19		0.58	0.42	

Intersection Summary			
Area Type:	Other		
Cycle Length: 119			
Actuated Cycle Length: 88.3			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay (s/veh): 30.5		Intersection LOS: C	
Intersection Capacity Utilization 61.0%		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: 11: Freeman Road E & Valley Avenue E



Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	22	6	70	257	12
Future Vol, veh/h	5	22	6	70	257	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	6	26	7	82	302	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	406	309	316	0	-	0
Stage 1	309	-	-	-	-	-
Stage 2	96	-	-	-	-	-
Critical Hdwy	6.44	6.24	4.14	-	-	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	2.236	-	-	-
Pot Cap-1 Maneuver	597	726	1232	-	-	-
Stage 1	740	-	-	-	-	-
Stage 2	922	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	594	726	1232	-	-	-
Mov Cap-2 Maneuver	594	-	-	-	-	-
Stage 1	735	-	-	-	-	-
Stage 2	922	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.41	0.63	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	142	-	697	-	-
HCM Lane V/C Ratio	0.006	-	0.046	-	-
HCM Control Delay (s/veh)	7.9	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	12	9	6	65	260	14
Future Vol, veh/h	12	9	6	65	260	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	14	11	7	76	306	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	405	314	322	0	-	0
Stage 1	314	-	-	-	-	-
Stage 2	91	-	-	-	-	-
Critical Hdwy	6.45	6.25	4.15	-	-	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	2.245	-	-	-
Pot Cap-1 Maneuver	596	719	1221	-	-	-
Stage 1	734	-	-	-	-	-
Stage 2	925	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	593	719	1221	-	-	-
Mov Cap-2 Maneuver	593	-	-	-	-	-
Stage 1	729	-	-	-	-	-
Stage 2	925	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.84	0.67	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	152	-	641	-	-
HCM Lane V/C Ratio	0.006	-	0.039	-	-
HCM Control Delay (s/veh)	8	0	10.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	2	22	0	6	1	65	6	2	264	1
Future Vol, veh/h	0	0	2	22	0	6	1	65	6	2	264	1
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	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	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	0	0	2	27	0	7	1	78	7	2	318	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	404	411	319	407	408	82	319	0	0	86	0	0
Stage 1	323	323	-	84	84	-	-	-	-	-	-	-
Stage 2	81	88	-	323	324	-	-	-	-	-	-	-
Critical Hdwy	7.16	6.56	6.26	7.16	6.56	6.26	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.16	5.56	-	6.16	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.16	5.56	-	6.16	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.554	4.054	3.354	3.554	4.054	3.354	2.254	-	-	2.254	-	-
Pot Cap-1 Maneuver	550	524	713	547	526	967	1218	-	-	1486	-	-
Stage 1	680	643	-	914	817	-	-	-	-	-	-	-
Stage 2	918	814	-	681	643	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	544	523	713	544	525	967	1218	-	-	1486	-	-
Mov Cap-2 Maneuver	544	523	-	544	525	-	-	-	-	-	-	-
Stage 1	679	642	-	913	816	-	-	-	-	-	-	-
Stage 2	910	813	-	677	641	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	10.07	11.36	0.11	0.06
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	25	-	-	713	600	13	-	-
HCM Lane V/C Ratio	0.001	-	-	0.003	0.056	0.002	-	-
HCM Control Delay (s/veh)	8	0	-	10.1	11.4	7.4	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0	-	-

Intersection	
Int Delay, s/veh	8.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	39	522	154	50	263	34
Future Vol, veh/h	39	522	154	50	263	34
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	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	41	544	160	52	274	35

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	213	0	-	0	811	186
Stage 1	-	-	-	-	186	-
Stage 2	-	-	-	-	625	-
Critical Hdwy	4.14	-	-	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.236	-	-	-	3.536	3.336
Pot Cap-1 Maneuver	1346	-	-	-	346	851
Stage 1	-	-	-	-	841	-
Stage 2	-	-	-	-	530	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1346	-	-	-	331	851
Mov Cap-2 Maneuver	-	-	-	-	430	-
Stage 1	-	-	-	-	804	-
Stage 2	-	-	-	-	530	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.54	0	28.02
HCM LOS			D

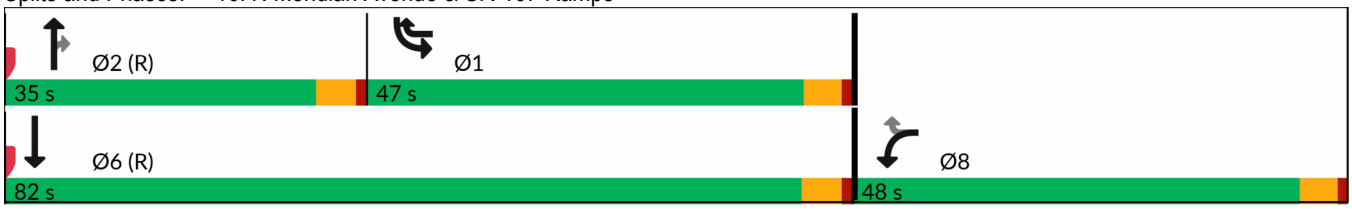
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	125	-	-	-	456
HCM Lane V/C Ratio	0.03	-	-	-	0.679
HCM Control Delay (s/veh)	7.8	0	-	-	28
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	5

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1040	665	562	1486	1189	940
Future Volume (vph)	1040	665	562	1486	1189	940
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	2	2		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	0.88	0.95	1.00	0.97	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3367	2733	3471	1553	3367	3471
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3367	2733	3471	1553	3367	3471
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		68		557		
Link Speed (mph)	35		35			35
Link Distance (ft)	522		278			1175
Travel Time (s)	10.2		5.4			22.9
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1061	679	573	1516	1213	959
Turn Type	Prot	pm+ov	NA	Perm	Prot	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8		2		
Minimum Split (s)	36.6	10.6	38.9	38.9	10.6	36.9
Total Split (s)	48.0	47.0	35.0	35.0	47.0	82.0
Total Split (%)	36.9%	36.2%	26.9%	26.9%	36.2%	63.1%
Yellow Time (s)	3.6	3.6	3.9	3.9	3.6	3.9
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)	4.6	4.6	4.9	4.9	4.6	4.9
Lead/Lag		Lag	Lead	Lead	Lag	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Act Effct Green (s)	43.4	90.4	30.1	30.1	42.4	77.1
Actuated g/C Ratio	0.33	0.70	0.23	0.23	0.33	0.59
v/c Ratio	0.94	0.35	0.71	1.93	1.10	0.47
Control Delay (s/veh)	58.7	7.7	51.7	440.4	101.6	15.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	58.7	7.7	51.7	440.4	101.6	15.8
LOS	E	A	D	F	F	B
Approach Delay (s/veh)	38.8		333.8			63.7
Approach LOS	D		F			E
Queue Length 50th (ft)	447	105	235	~1598	~598	226
Queue Length 95th (ft)	#584	139	302	#1869	#734	277
Internal Link Dist (ft)	442		198			1095
Turn Bay Length (ft)					250	
Base Capacity (vph)	1124	1921	803	787	1098	2058
Starvation Cap Reductn	0	0	0	0	0	0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.35	0.71	1.93	1.10	0.47

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 125 (96%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 150			
Control Type: Pretimed			
Maximum v/c Ratio: 1.93			
Intersection Signal Delay (s/veh): 150.5		Intersection LOS: F	
Intersection Capacity Utilization 133.8%		ICU Level of Service H	
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: 16: N Meridian Avenue & SR-167 Ramps



Intersection	
Int Delay, s/veh	94.7

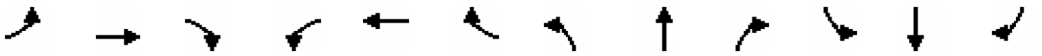
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	439	0	0	589	0	1501	65	0	1705	103
Future Vol, veh/h	0	0	439	0	0	589	0	1501	65	0	1705	103
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Free	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	457	0	0	614	0	1564	68	0	1776	107

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	942	-	-	782	-	0	-	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.96	-	-	6.96	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.33	-	-	3.33	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	~ 262	0	0	~ 335	0	-	0	0	-	-
Stage 1	0	0	-	0	0	-	0	-	0	0	-	-
Stage 2	0	0	-	0	0	-	0	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	-	-	~ 262	-	-	~ 335	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	$ 383	$ 412.21	0	0
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBT	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	262	335	-	-
HCM Lane V/C Ratio	-	1.744	1.831	-	-
HCM Control Delay (s/veh)	-	$ 383	$ 412.2	-	-
HCM Lane LOS	-	F	F	-	-
HCM 95th %tile Q(veh)	-	30.1	40.5	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1156	0	452	22	683	363	0	0	0	0	919	1098
Future Volume (vph)	1156	0	452	22	683	363	0	0	0	0	919	1098
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	125		0	0		0	0		250
Storage Lanes	2		1	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected	0.950			0.950								
Satd. Flow (prot)	3400	0	1568	1752	3505	1568	0	0	0	0	3505	1568
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	3400	0	1568	1752	3505	1568	0	0	0	0	3505	1568
Right Turn on Red			No	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				72		378						668
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		673			590			2133			1751	
Travel Time (s)		13.1			11.5			58.2			47.8	
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 (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1204	0	471	23	711	378	0	0	0	0	957	1144
Turn Type	Prot		Prot	Perm	NA	Perm					NA	Perm
Protected Phases	1		1		2						4	
Permitted Phases				2		2						4
Detector Phase	1		1	2	2	2					4	4
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0					10.0	10.0
Minimum Split (s)	10.1		10.1	35.1	35.1	35.1					30.8	30.8
Total Split (s)	42.0		42.0	29.0	29.0	29.0					34.0	34.0
Total Split (%)	40.0%		40.0%	27.6%	27.6%	27.6%					32.4%	32.4%
Yellow Time (s)	3.6		3.6	3.6	3.6	3.6					3.3	3.3
All-Red Time (s)	1.5		1.5	1.5	1.5	1.5					1.5	1.5
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Lost Time (s)	5.1		5.1	5.1	5.1	5.1					4.8	4.8
Lead/Lag	Lead		Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes						
Recall Mode	None		None	Max	Max	Max					None	None
Act Effct Green (s)	36.9		36.9	30.0	30.0	30.0					29.2	29.2
Actuated g/C Ratio	0.33		0.33	0.27	0.27	0.27					0.26	0.26
v/c Ratio	1.07		0.91	0.04	0.75	0.54					1.04	1.27
Control Delay (s/veh)	82.7		58.4	0.1	43.0	6.5					80.7	144.9
Queue Delay	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Delay (s/veh)	82.7		58.4	0.1	43.0	6.5					80.7	144.9
LOS	F		E	A	D	A					F	F
Approach Delay (s/veh)		75.9			29.7						115.7	
Approach LOS		E			C						F	
Queue Length 50th (ft)	~490		319	0	244	0					~388	~656
Queue Length 95th (ft)	#622		#516	0	315	74					#517	#915

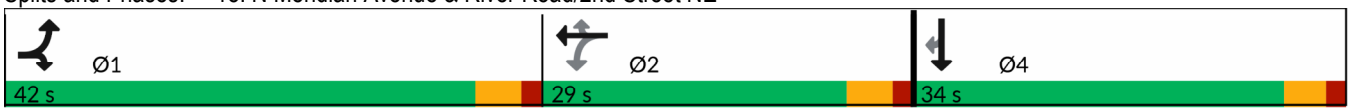
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		593			510			2053			1671	
Turn Bay Length (ft)				125								250
Base Capacity (vph)	1129		520	525	946	699					921	904
Starvation Cap Reductn	0		0	0	0	0					0	0
Spillback Cap Reductn	0		0	0	0	0					0	0
Storage Cap Reductn	0		0	0	0	0					0	0
Reduced v/c Ratio	1.07		0.91	0.04	0.75	0.54					1.04	1.27

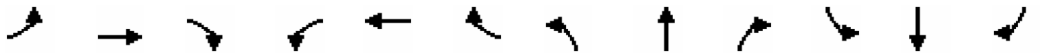
Intersection Summary			
Area Type:	Other		
Cycle Length: 105			
Actuated Cycle Length: 111.1			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.27			
Intersection Signal Delay (s/veh): 82.5		Intersection LOS: F	
Intersection Capacity Utilization 95.1%		ICU Level of 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.

Splits and Phases: 18: N Meridian Avenue & River Road/2nd Street NE





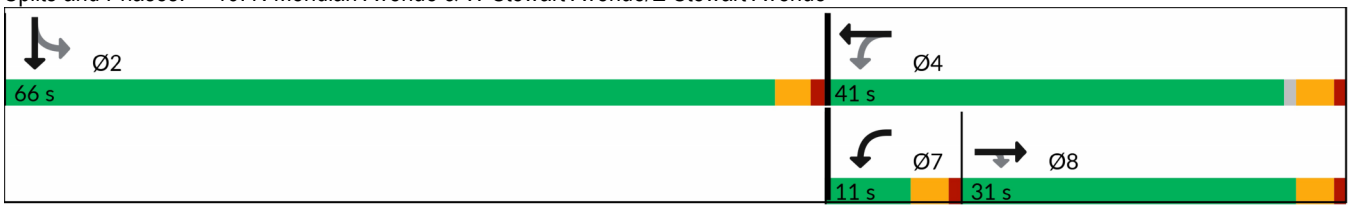
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	225	68	154	318	0	0	0	0	151	1150	51
Future Volume (vph)	0	225	68	154	318	0	0	0	0	151	1150	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	125		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	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	0.95	0.95	0.95
Frt			0.850								0.994	
Flt Protected				0.950							0.994	
Satd. Flow (prot)	0	1863	1583	1770	1863	0	0	0	0	0	3497	0
Flt Permitted				0.228							0.994	
Satd. Flow (perm)	0	1863	1583	425	1863	0	0	0	0	0	3497	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			51								6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		393			385			1349			2133	
Travel Time (s)		10.7			10.5			36.8			58.2	
Peak Hour 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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	237	72	162	335	0	0	0	0	0	1424	0
Turn Type		NA	Perm	pm+pt	NA					Perm	NA	
Protected Phases		8		7	4						2	
Permitted Phases			8	4						2		
Detector Phase		8	8	7	4					2	2	
Switch Phase												
Minimum Initial (s)		5.0	5.0	5.0	5.0					10.0	10.0	
Minimum Split (s)		21.0	21.0	9.0	21.0					23.0	23.0	
Total Split (s)		31.0	31.0	11.0	41.0					66.0	66.0	
Total Split (%)		28.7%	28.7%	10.2%	38.0%					61.1%	61.1%	
Yellow Time (s)		3.0	3.0	3.0	3.0					3.0	3.0	
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)		4.0	4.0	4.0	4.0						4.0	
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		None	None	None	None					Max	Max	
Act Effct Green (s)		15.6	15.6	26.5	26.5						62.1	
Actuated g/C Ratio		0.16	0.16	0.27	0.27						0.64	
v/c Ratio		0.79	0.24	0.76	0.66						0.63	
Control Delay (s/veh)		57.6	16.6	52.3	37.5						12.7	
Queue Delay		0.0	0.0	0.0	0.3						0.0	
Total Delay (s/veh)		57.6	16.6	52.3	37.8						12.7	
LOS		E	B	D	D						B	
Approach Delay (s/veh)		48.0			42.5						12.7	
Approach LOS		D			D						B	
Queue Length 50th (ft)		141	11	79	182						250	
Queue Length 95th (ft)		222	49	#155	272						388	
Internal Link Dist (ft)		313			305			1269			2053	

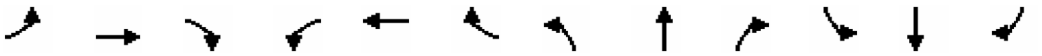
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)			50	125								
Base Capacity (vph)		521	479	214	733						2249	
Starvation Cap Reductn		0	0	0	83						0	
Spillback Cap Reductn		0	0	0	0						0	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		0.45	0.15	0.76	0.52						0.63	

Intersection Summary			
Area Type:	Other		
Cycle Length: 108			
Actuated Cycle Length: 96.7			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay (s/veh): 24.2		Intersection LOS: C	
Intersection Capacity Utilization 68.2%		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: 19: N Meridian Avenue & W Stewart Avenue





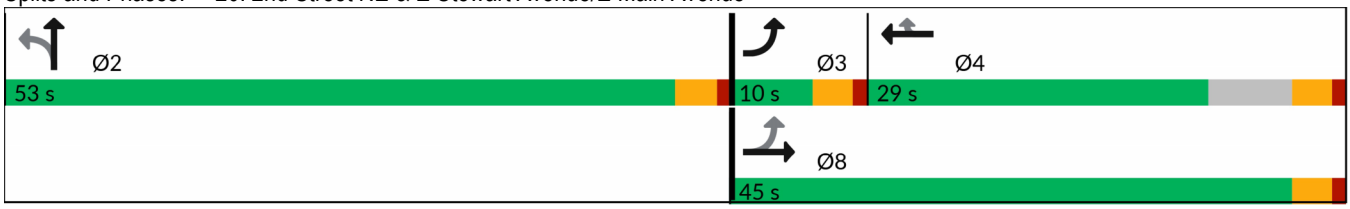
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	303	0	0	367	282	242	740	2	0	0	0
Future Volume (vph)	51	303	0	0	367	282	242	740	2	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	0		125	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
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	0.95	1.00	1.00	1.00
Frt						0.850						
Flt Protected	0.950							0.988				
Satd. Flow (prot)	1770	1863	0	0	1863	1583	0	3497	0	0	0	0
Flt Permitted	0.166							0.988				
Satd. Flow (perm)	309	1863	0	0	1863	1583	0	3497	0	0	0	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		385			615			394			343	
Travel Time (s)		10.5			16.8			10.7			9.4	
Peak Hour 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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	319	0	0	386	297	0	1036	0	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA				
Protected Phases	3	8			4			2				
Permitted Phases	8					4	2					
Detector Phase	3	8			4	4	2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	10.0	10.0				
Minimum Split (s)	9.5	28.0			28.0	28.0	26.0	26.0				
Total Split (s)	10.0	45.0			29.0	29.0	53.0	53.0				
Total Split (%)	10.2%	45.9%			29.6%	29.6%	54.1%	54.1%				
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0				
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)	4.0	4.0			4.0	4.0		4.0				
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	None			None	None	Max	Max				
Act Effct Green (s)	27.4	27.4			20.1	20.1		49.6				
Actuated g/C Ratio	0.32	0.32			0.24	0.24		0.58				
v/c Ratio	0.28	0.53			0.88	0.79		0.51				
Control Delay (s/veh)	22.4	26.3			53.2	47.0		13.1				
Queue Delay	0.0	0.2			0.0	0.0		0.0				
Total Delay (s/veh)	22.4	26.5			53.2	47.0		13.1				
LOS	C	C			D	D		B				
Approach Delay (s/veh)		25.9			50.5			13.1				
Approach LOS		C			D			B				
Queue Length 50th (ft)	20	136			204	153		181				
Queue Length 95th (ft)	44	212			#337	248		256				
Internal Link Dist (ft)		305			535			314			263	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	50					125						
Base Capacity (vph)	203	908			686	583		2037				
Starvation Cap Reductn	0	157			0	0		0				
Spillback Cap Reductn	0	0			0	0		0				
Storage Cap Reductn	0	0			0	0		0				
Reduced v/c Ratio	0.27	0.42			0.56	0.51		0.51				

Intersection Summary			
Area Type:	Other		
Cycle Length: 98			
Actuated Cycle Length: 85.1			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay (s/veh): 27.6		Intersection LOS: C	
Intersection Capacity Utilization 68.2%		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: 20: 2nd Street NE & E Stewart Avenue/E Main Avenue



Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	75	0	0	279
Future Vol, veh/h	0	0	75	0	0	279
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
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	0	82	0	0	303

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	385	82	0	0	82	0
Stage 1	82	-	-	-	-	-
Stage 2	303	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	618	978	-	-	1516	-
Stage 1	942	-	-	-	-	-
Stage 2	749	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	618	978	-	-	1516	-
Mov Cap-2 Maneuver	618	-	-	-	-	-
Stage 1	942	-	-	-	-	-
Stage 2	749	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1516	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s/veh)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

APPENDIX D

LUC 154 – HIGH-CUBE ANALYSIS

LUC - 154
High-Cube Transload
Short-Term Storage Warehouse

Freeman Road Logistics
KH 090222083

Trip Generation for: Development Peak Weekday
(a.k.a.): Average Weekday Daily Trips (AWDT)

									NET EXTERNAL TRIPS BY TYPE											
									IN BOTH DIRECTIONS						DIRECTIONAL ASSIGNMENTS					
			Gross Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
High-Cube Transload and Short-Term Storage Warehouse - Building A (Total)	238.525 KSF	154	1.40	50%	50%	333.94	0%	0.00	333.94	0%	0.00	0%	0.00	333.94	0.00	0.00	0.00	0.00	166.97	166.97
High-Cube Transload and Short-Term Storage Warehouse - Building B (Total)	266.911 KSF	154	1.40	50%	50%	373.68	0%	0.00	373.68	0%	0.00	0%	0.00	373.68	0.00	0.00	0.00	0.00	186.84	186.84
Single-Family Detached	-14 Units	210	9.43	50%	50%	-132.02	0%	0.00	-132.02	0%	0.00	0%	0.00	-132.02	0.00	0.00	0.00	0.00	-66.01	-66.01
Total Vehicle Trips						575.60		0.00	575.60		0.00		0.00	575.60	0.00	0.00	0.00	0.00	287.80	287.80

			Gross Truck Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Truck Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
High-Cube Transload and Short-Term Storage Warehouse - Building A (Truck)	238.525 KSF	154	0.22	50%	50%	52.48	0%	0.00	52.48	0%	0.00	0%	0.00	52.48	0.00	0.00	0.00	0.00	26.24	26.24
High-Cube Transload and Short-Term Storage Warehouse - Building A (Truck)	266.911 KSF	154	0.22	50%	50%	58.72	0%	0.00	58.72	0%	0.00	0%	0.00	58.72	0.00	0.00	0.00	0.00	29.36	29.36
Total Truck Trips						111.20		0.00	111.20		0.00		0.00	111.20	0.00	0.00	0.00	0.00	55.60	55.60

Total Passenger Car Trips:	**464.40**	**232.20**	**232.20**

LUC - 154
High-Cube Transload
Short-Term Storage Warehouse

Freeman Road Logistics
KH 090222083

Trip Generation for: **Development Peak Weekday, Peak Hour of Adjacent Street Traffic, One Hour between 7 and 9 AM**
(a.k.a.): **Weekday AM Peak Hour**

									NET EXTERNAL TRIPS BY TYPE											
									IN BOTH DIRECTIONS						DIRECTIONAL ASSIGNMENTS					
			Gross Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
High-Cube Transload and Short-Term Storage Warehouse - Building A (Total)	238.525 KSF	154	0.08	77%	23%	19.08	0%	0.00	19.08	0%	0.00	0%	0.00	19.08	0.00	0.00	0.00	0.00	14.69	4.39
High-Cube Transload and Short-Term Storage Warehouse - Building B (Total)	266.911 KSF	154	0.08	77%	23%	21.35	0%	0.00	21.35	0%	0.00	0%	0.00	21.35	0.00	0.00	0.00	0.00	16.44	4.91
Single-Family Detached	-14 Units	210	0.70	26%	74%	-9.80	0%	0.00	-9.80	0%	0.00	0%	0.00	-9.80	0.00	0.00	0.00	0.00	-2.55	-7.25
Total Vehicle Trips						30.63		0.00	30.63		0.00		0.00	30.63	0.00	0.00	0.00	0.00	28.58	2.05

			Gross Truck Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Truck Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
High-Cube Transload and Short-Term Storage Warehouse - Building A (Truck)	238.525 KSF	154	0.02	49%	51%	4.77	0%	0.00	4.77	0%	0.00	0%	0.00	4.77	0.00	0.00	0.00	0.00	2.34	2.43
High-Cube Transload and Short-Term Storage Warehouse - Building A (Truck)	266.911 KSF	154	0.02	49%	51%	5.34	0%	0.00	5.34	0%	0.00	0%	0.00	5.34	0.00	0.00	0.00	0.00	2.62	2.72
Total Truck Trips						10.11		0.00	10.11		0.00		0.00	10.11	0.00	0.00	0.00	0.00	4.96	5.15

Total Passenger Car Trips:	**20.52**	**23.62**	**-3.10**

LUC - 154
High-Cube Transload
Short-Term Storage Warehouse

Freeman Road Logistics
KH 090222083

Trip Generation for: **Development Peak Weekday, Peak Hour of Adjacent Street Traffic, One Hour between 4 and 6 PM**
(a.k.a.): **Weekday PM Peak Hour**

									NET EXTERNAL TRIPS BY TYPE											
									IN BOTH DIRECTIONS						DIRECTIONAL ASSIGNMENTS					
			Gross Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
High-Cube Transload and Short-Term Storage Warehouse - Building A (Total)	238.525 KSF	154	0.10	28%	72%	23.85	0%	0.00	23.85	0%	0.00	0%	0.00	23.85	0.00	0.00	0.00	0.00	6.68	17.17
High-Cube Transload and Short-Term Storage Warehouse - Building B (Total)	266.911 KSF	154	0.10	28%	72%	26.69	0%	0.00	26.69	0%	0.00	0%	0.00	26.69	0.00	0.00	0.00	0.00	7.47	19.22
Single-Family Detached	-14 Units	210	0.94	63%	37%	-13.16	0%	0.00	-13.16	0%	0.00	0%	0.00	-13.16	0.00	0.00	0.00	0.00	-8.29	-4.87
Total Vehicle Trips						37.38		0.00	37.38		0.00		0.00	37.38	0.00	0.00	0.00	0.00	5.86	31.52

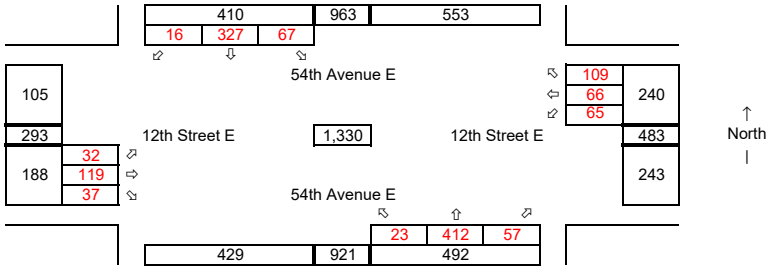
			Gross Truck Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Truck Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
High-Cube Transload and Short-Term Storage Warehouse - Building A (Truck)	238.525 KSF	154	0.01	47%	53%	2.39	0%	0.00	2.39	0%	0.00	0%	0.00	2.39	0.00	0.00	0.00	0.00	1.12	1.27
High-Cube Transload and Short-Term Storage Warehouse - Building A (Truck)	266.911 KSF	154	0.01	47%	53%	2.67	0%	0.00	2.67	0%	0.00	0%	0.00	2.67	0.00	0.00	0.00	0.00	1.25	1.42
Total Truck Trips						5.06		0.00	5.06		0.00		0.00	5.06	0.00	0.00	0.00	0.00	2.37	2.69

Total Passenger Car Trips:	**32.32**		**3.49**	**28.83**

Synchro ID: 1
Existing
Average Weekday
AM Peak Hour

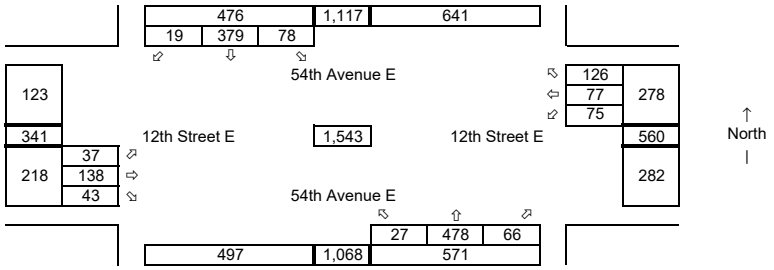
Year: **6/8/2023**

Data Source: IDAX

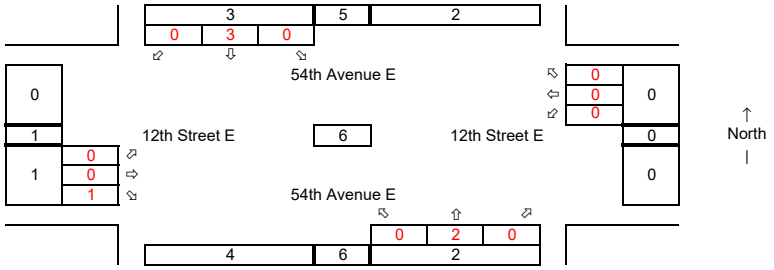


Future without Project
Average Weekday
AM Peak Hour

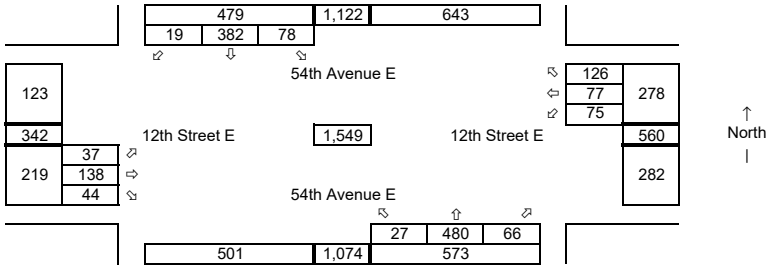
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



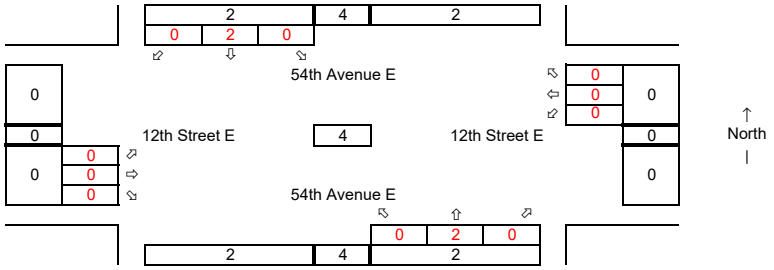
Total Development Trips
Average Weekday
AM Peak Hour



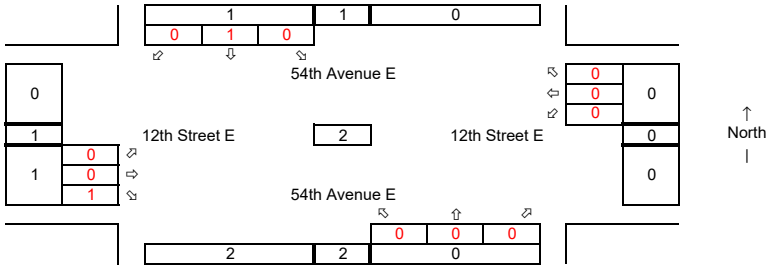
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour

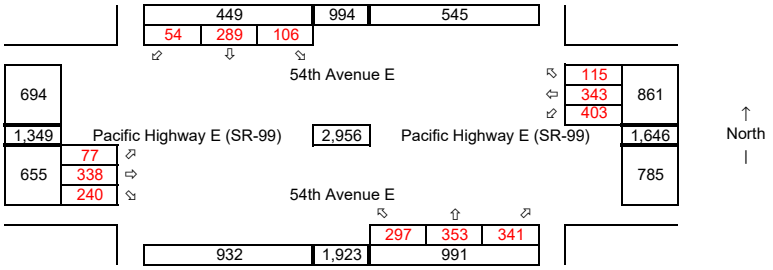


Synchro ID: 2
Existing
Average Weekday
AM Peak Hour

Year: **6/15/2023**

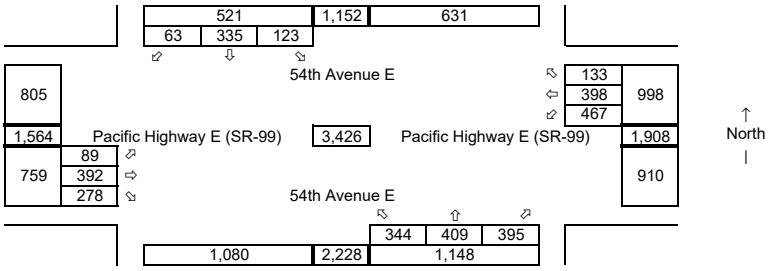
Data Source: IDAX

Two (2) Eastbound U-turns added to Eastbound left-turns

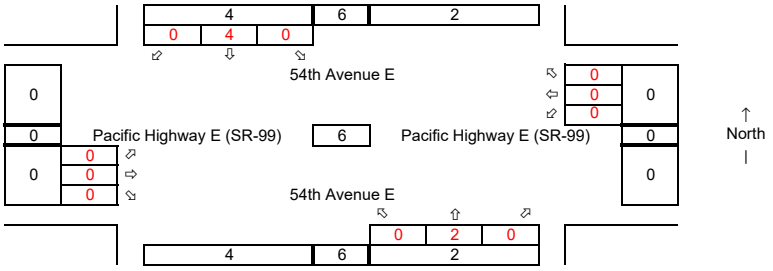


Future without Project
Average Weekday
AM Peak Hour

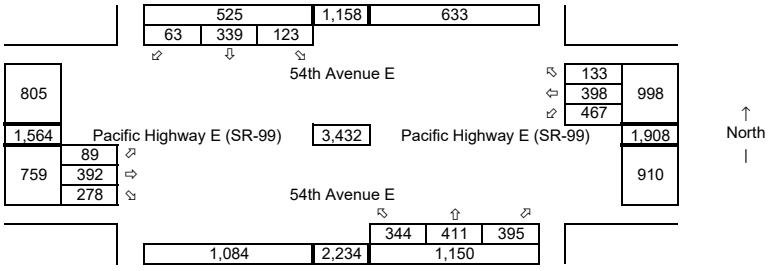
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



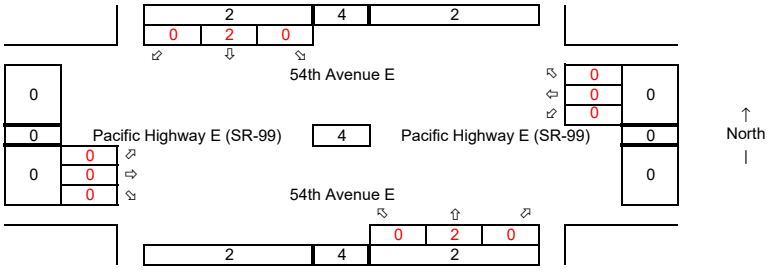
Total Development Trips
Average Weekday
AM Peak Hour



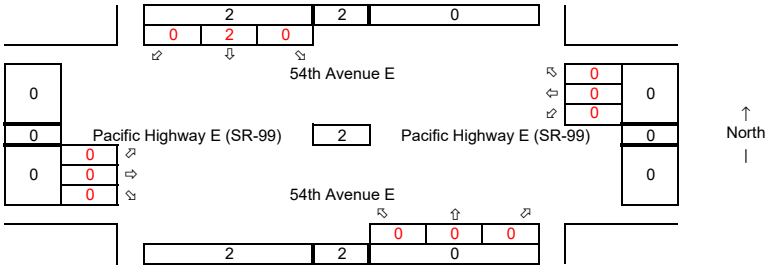
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour

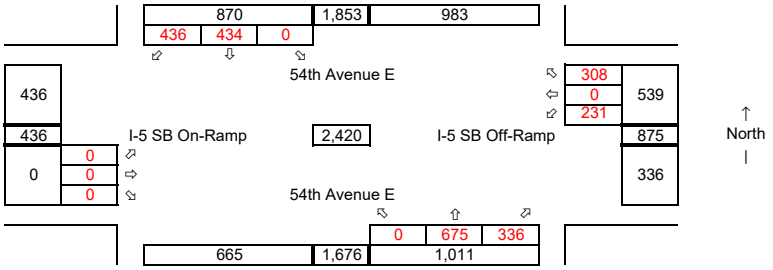


Synchro ID: 3
Existing
Average Weekday
AM Peak Hour

Year: **6/15/2023**

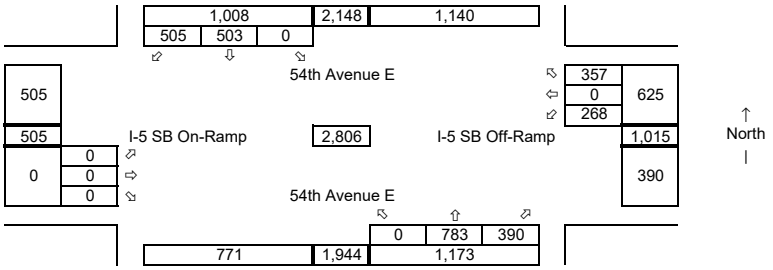
Data Source: IDAX

One (1) Northbound U-turn added to Northbound Thru

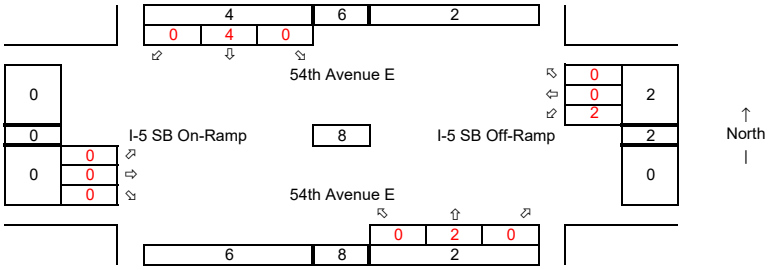


Future without Project
Average Weekday
AM Peak Hour

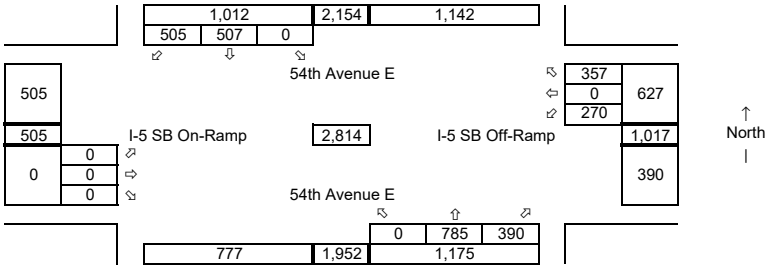
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



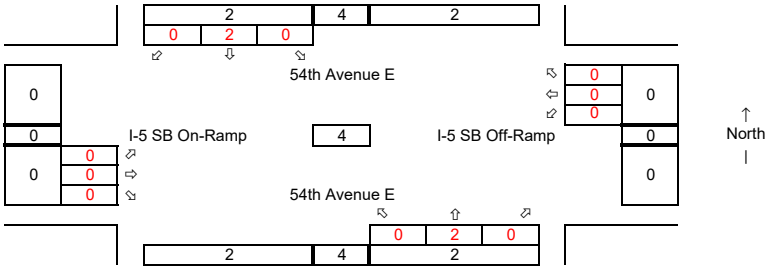
Total Development Trips
Average Weekday
AM Peak Hour



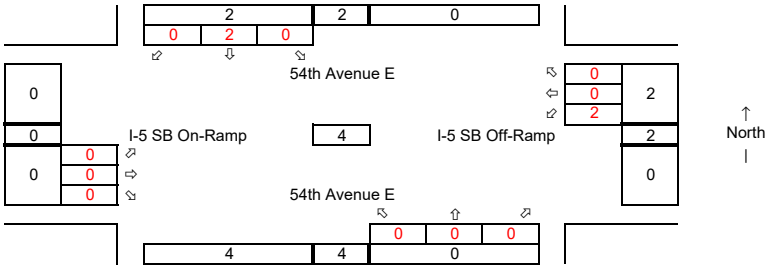
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



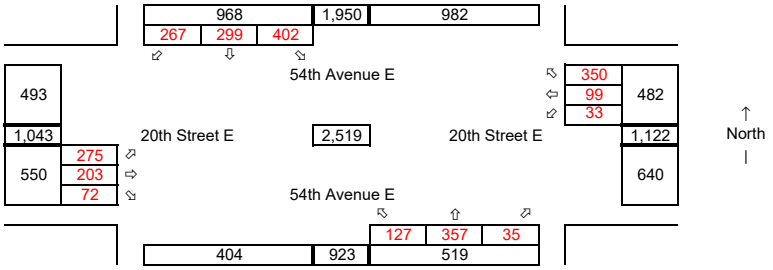
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 4
Existing
Average Weekday
AM Peak Hour

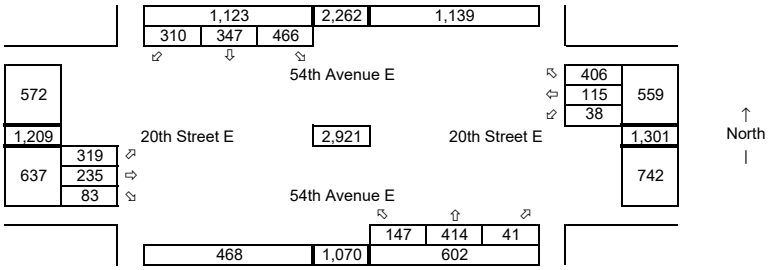
Year: **6/15/2023**

Data Source: IDAX

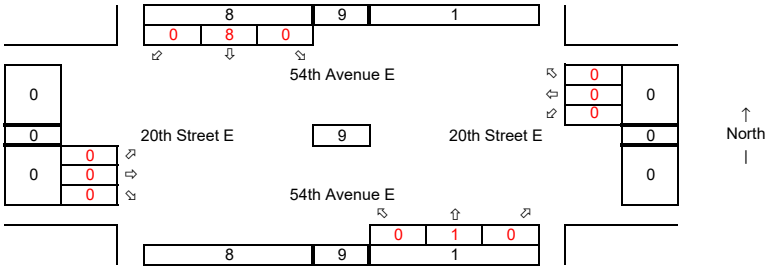


Future without Project
Average Weekday
AM Peak Hour

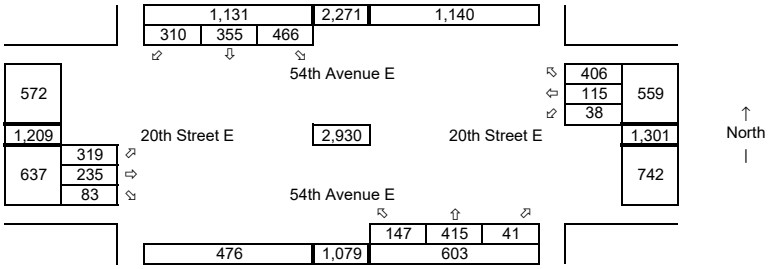
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



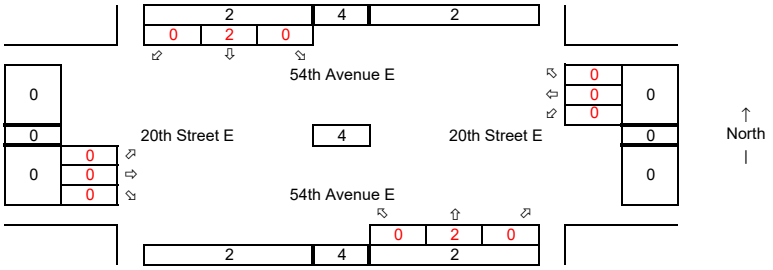
Total Development Trips
Average Weekday
AM Peak Hour



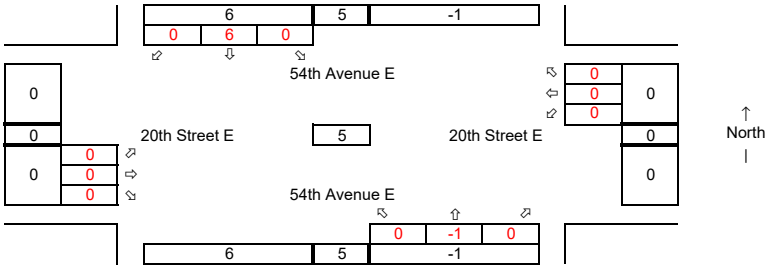
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



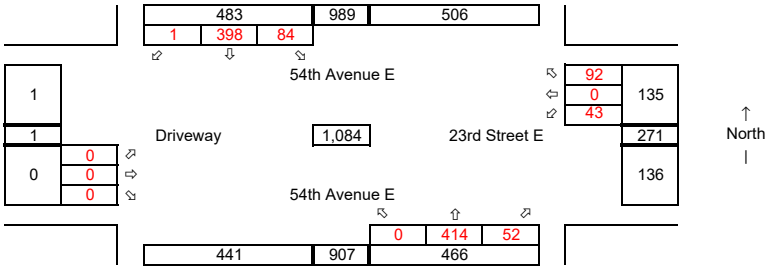
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 5
Existing
Average Weekday
AM Peak Hour

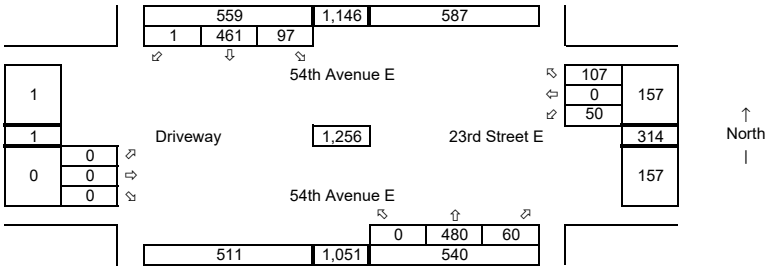
Year: **6/8/2023**

Data Source: IDAX

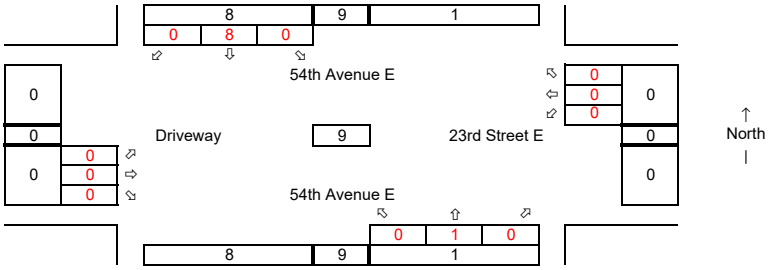


Future without Project
Average Weekday
AM Peak Hour

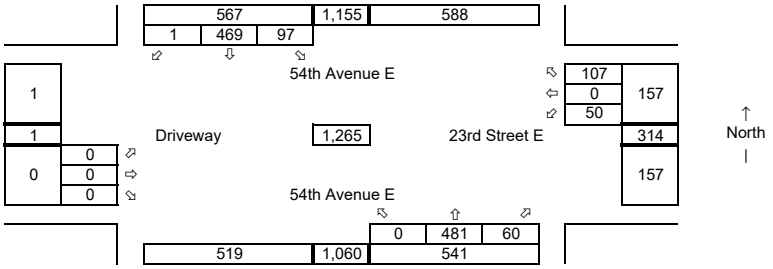
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



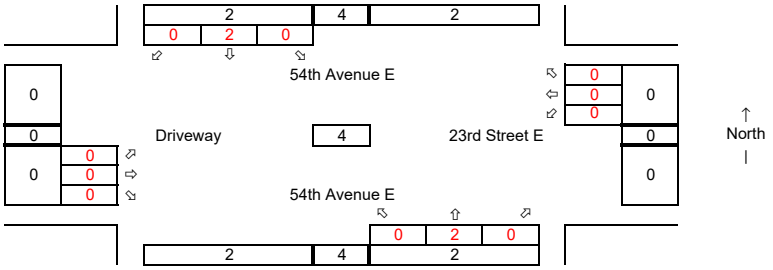
Total Development Trips
Average Weekday
AM Peak Hour



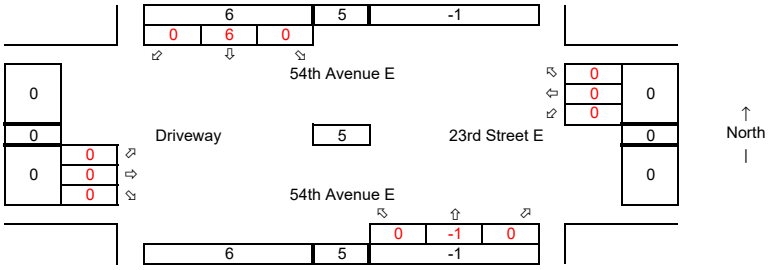
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



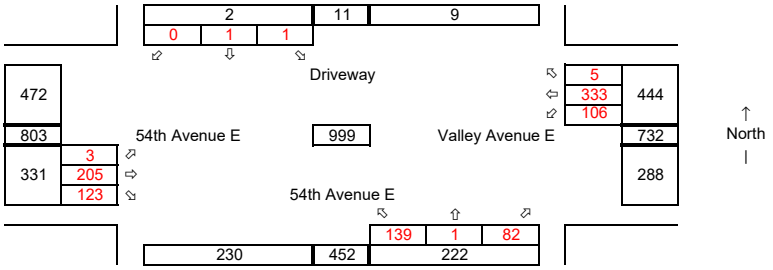
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 6
Existing
Average Weekday
AM Peak Hour

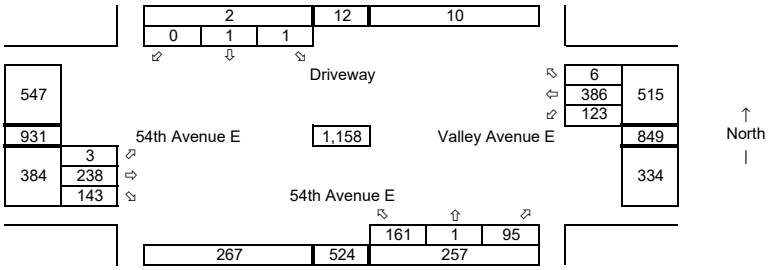
Year: **6/15/2023**

Data Source: IDAX

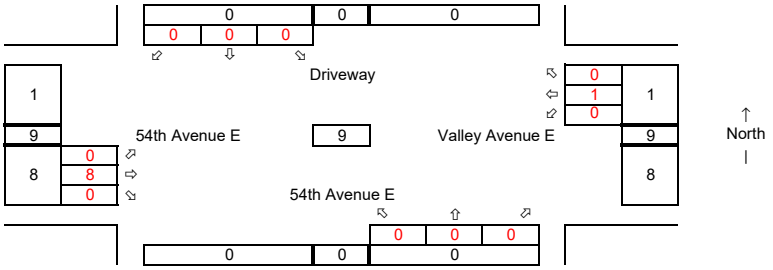


Future without Project
Average Weekday
AM Peak Hour

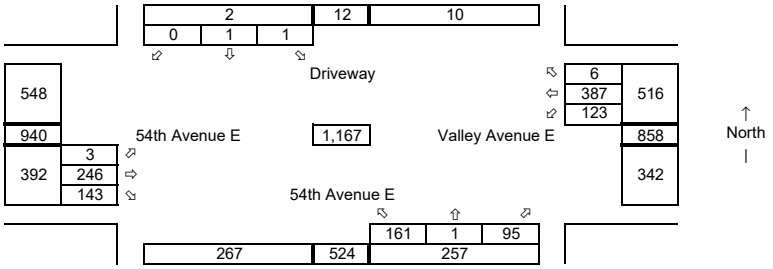
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



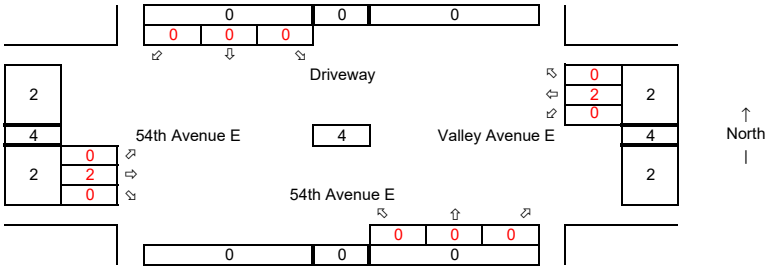
Total Development Trips
Average Weekday
AM Peak Hour



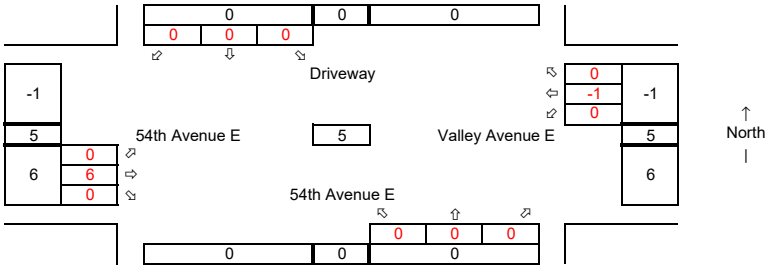
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



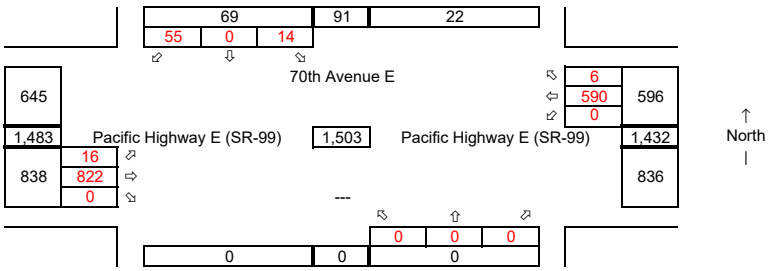
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 7
Existing
Average Weekday
AM Peak Hour

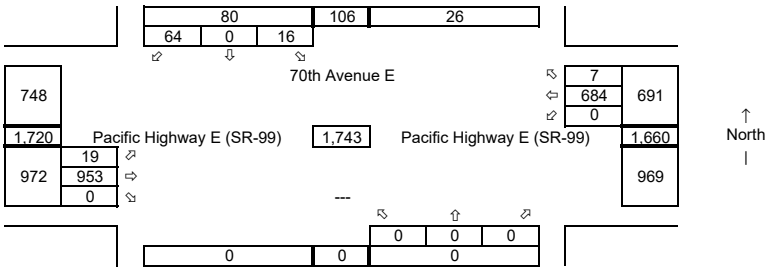
Year: **6/15/2023**

Data Source: IDAX

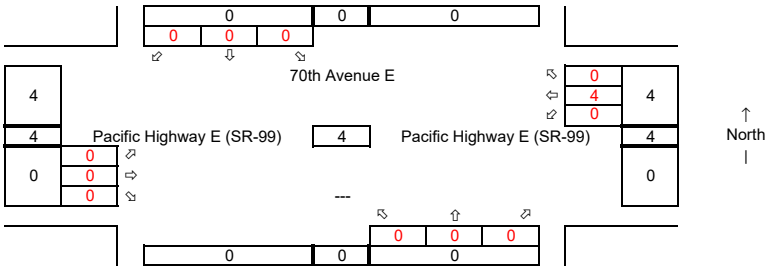


Future without Project
Average Weekday
AM Peak Hour

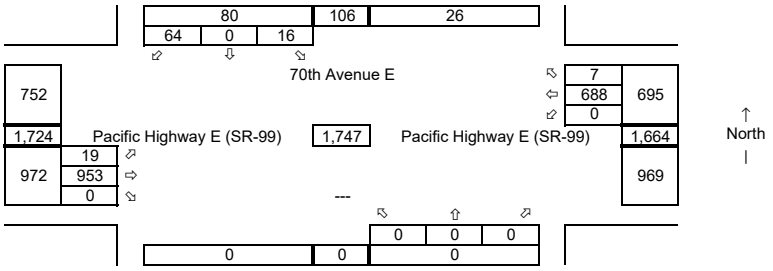
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



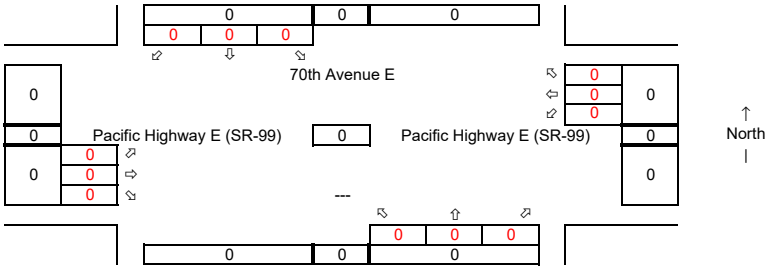
Total Development Trips
Average Weekday
AM Peak Hour



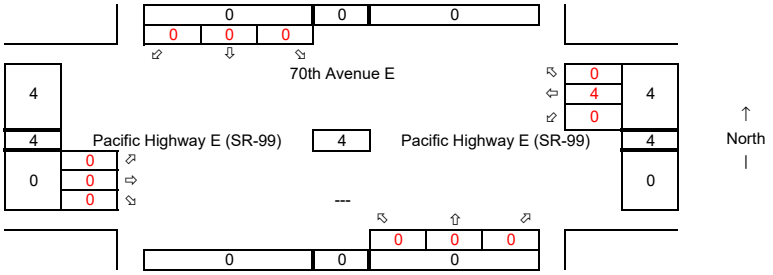
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



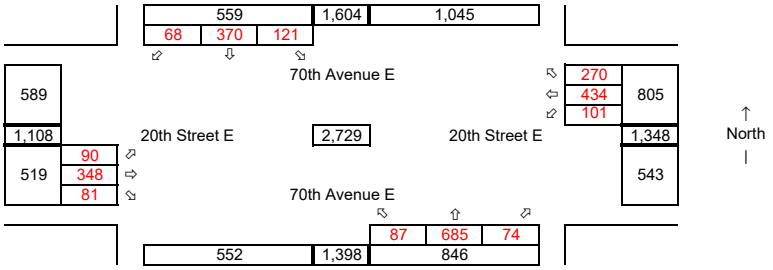
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 8
Existing
Average Weekday
AM Peak Hour

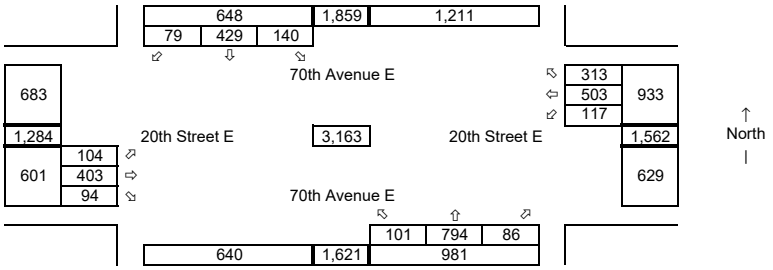
Year: **6/8/2023**

Data Source: IDAX

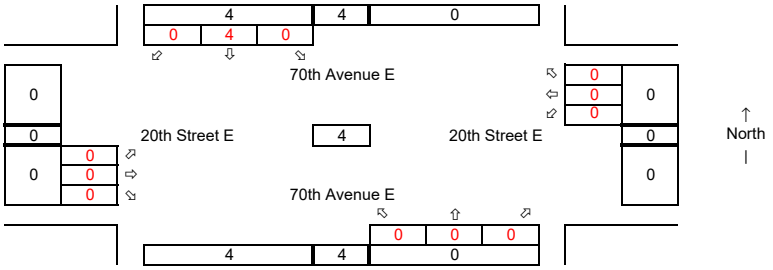


Future without Project
Average Weekday
AM Peak Hour

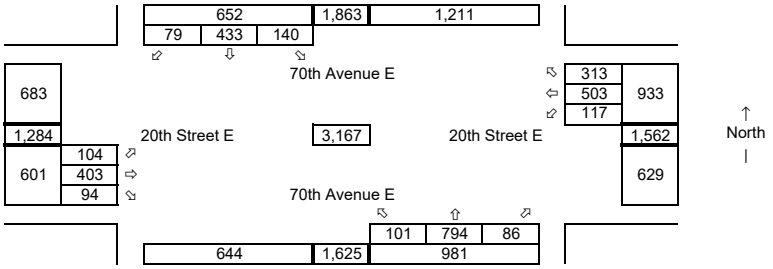
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



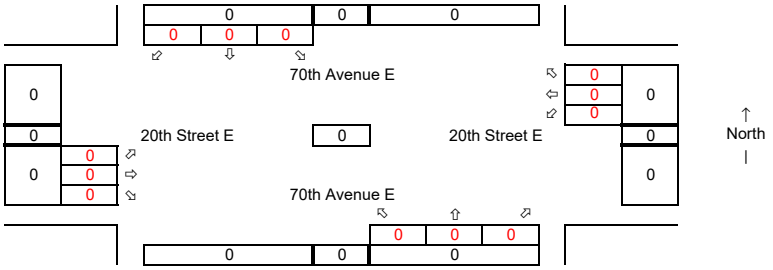
Total Development Trips
Average Weekday
AM Peak Hour



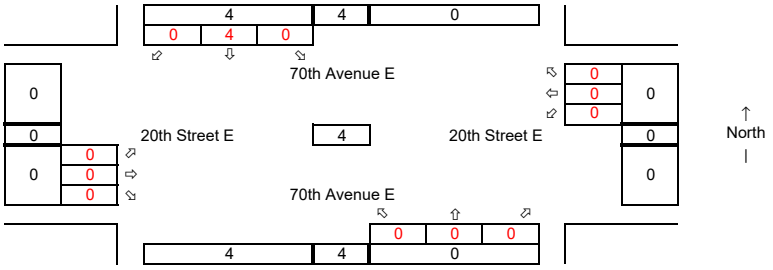
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



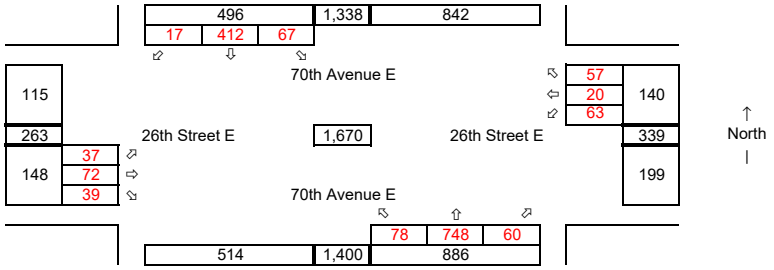
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 9
Existing
Average Weekday
AM Peak Hour

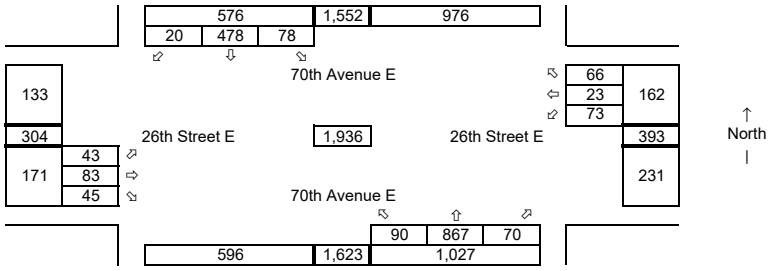
Year: **6/8/2023**

Data Source: IDAX

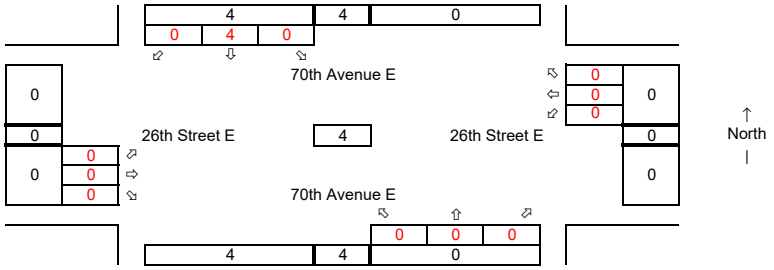


Future without Project
Average Weekday
AM Peak Hour

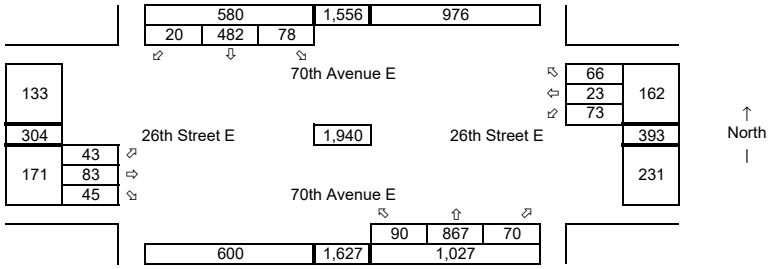
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



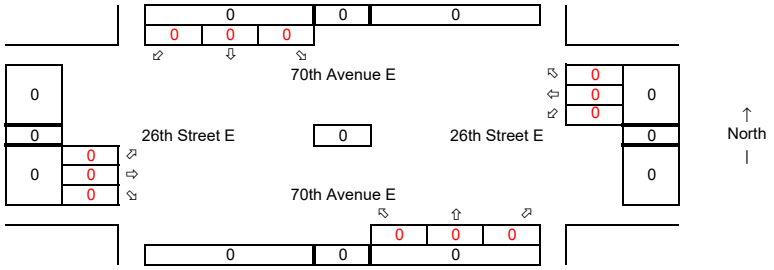
Total Development Trips
Average Weekday
AM Peak Hour



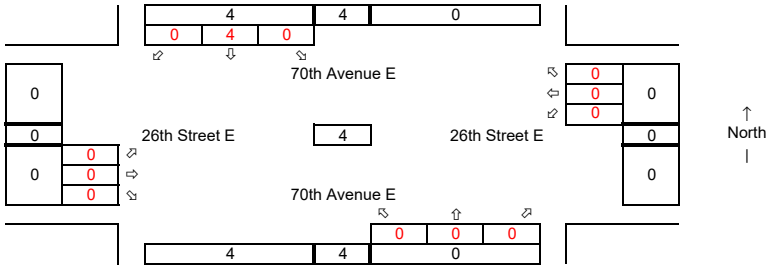
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



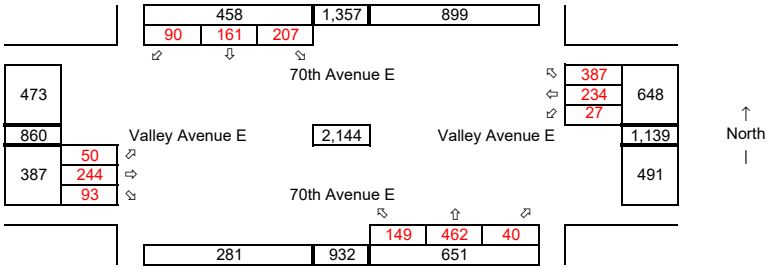
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 10
Existing
Average Weekday
AM Peak Hour

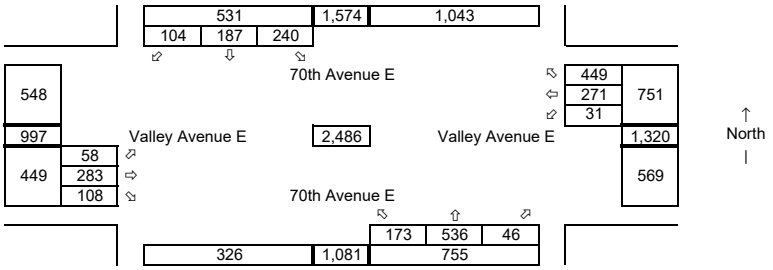
Year: **6/8/2023**

Data Source: IDAX

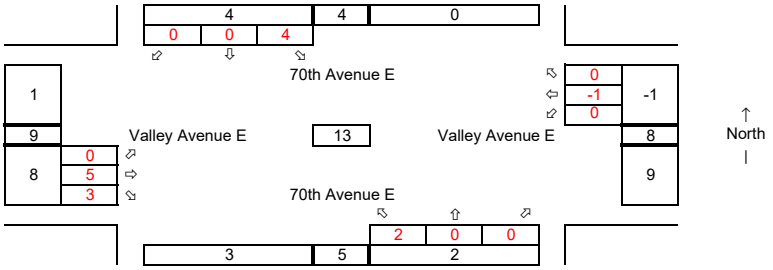


Future without Project
Average Weekday
AM Peak Hour

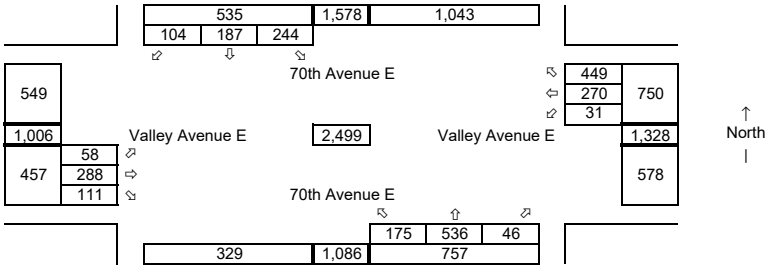
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



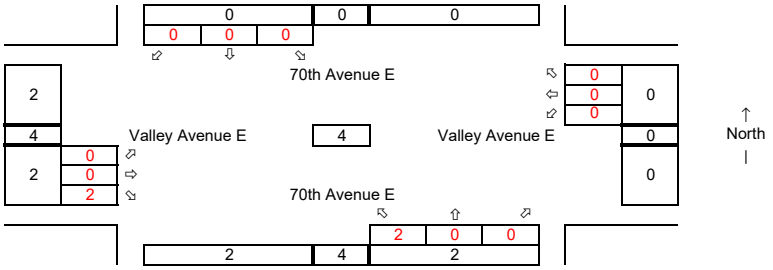
Total Development Trips
Average Weekday
AM Peak Hour



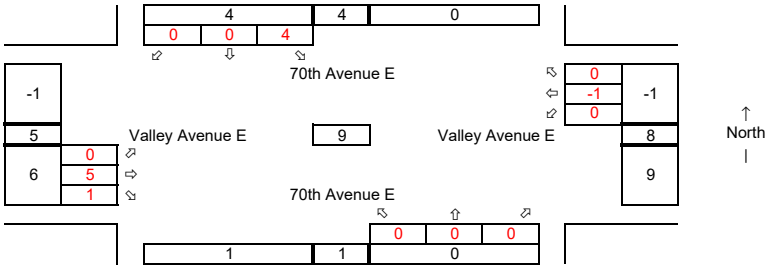
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



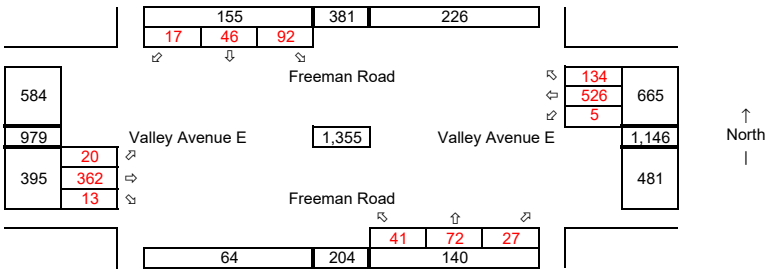
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 11
Existing
Average Weekday
AM Peak Hour

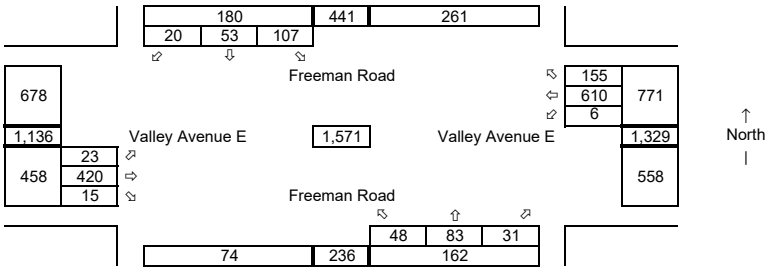
Year: **6/14/2023**

Data Source: IDAX

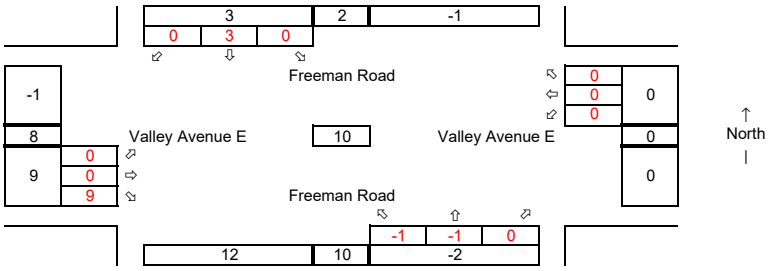


Future without Project
Average Weekday
AM Peak Hour

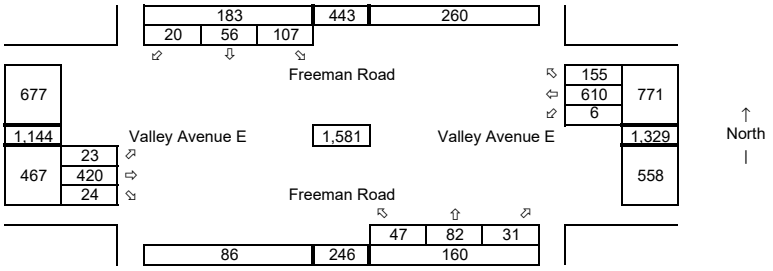
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



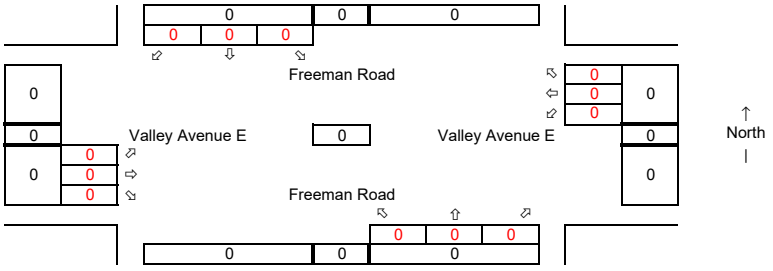
Total Development Trips
Average Weekday
AM Peak Hour



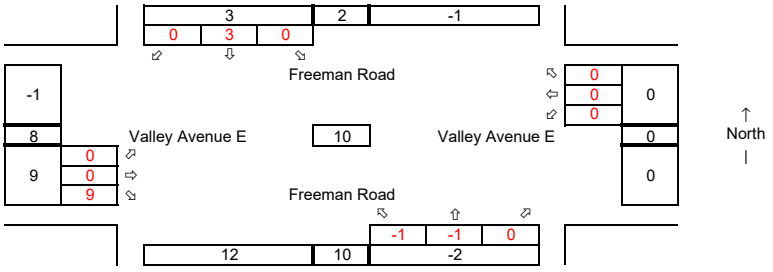
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour



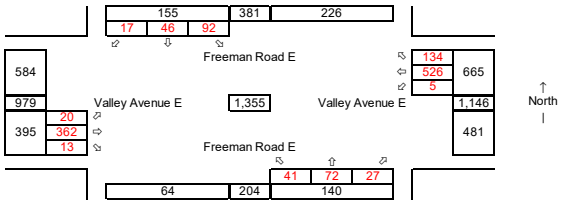
With SR-167 Extension

Synchro ID: 11

Existing
Average Weekday
AM Peak Hour

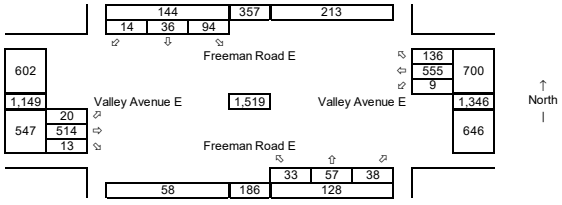
Year: **6/14/23**

Data Source: IDAX

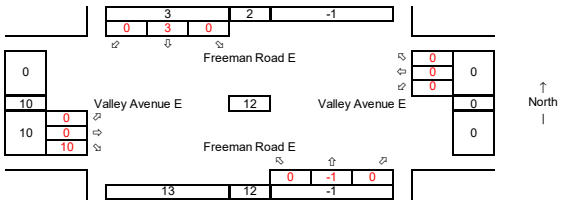


Future without Project
Average Weekday
AM Peak Hour

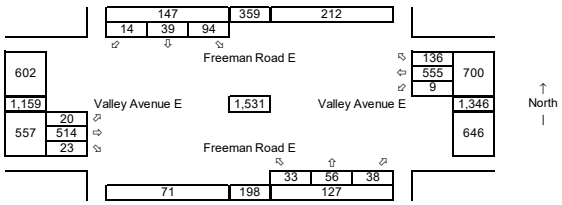
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



Total Development Trips
Average Weekday
AM Peak Hour

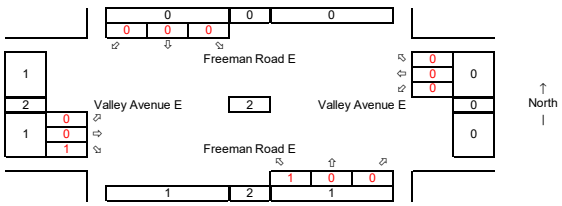


Future with Project
Average Weekday
AM Peak Hour

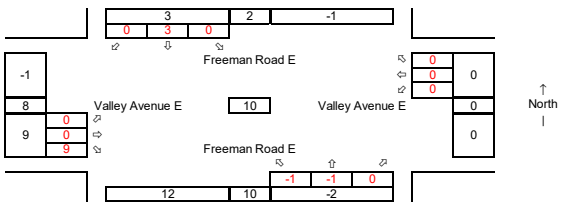


Development Truck Trips
Average Weekday
AM Peak Hour

N/S Diversion % +50%
from 70th Ave E

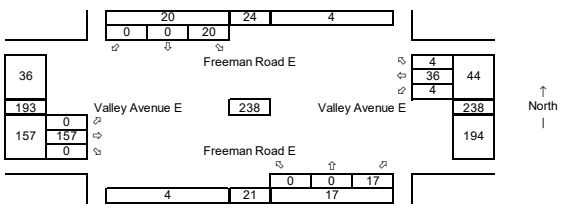


Development Car Trips
Average Weekday
AM Peak Hour



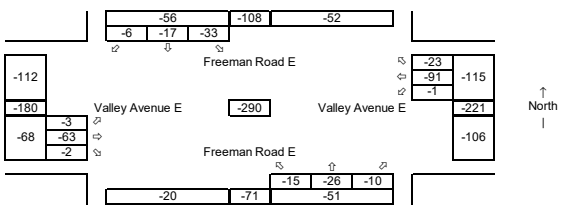
Total Pipeline Project Trips
Average Weekday
AM Peak Hour

Prologis Park Edgewood



SR-167 Extension Diversion
Average Weekday
AM Peak Hour

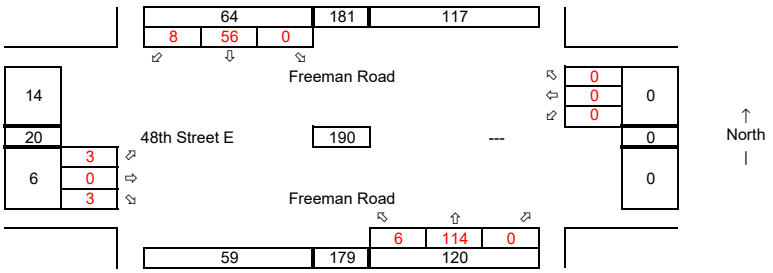
N/S Diversion % -31%
E/W Diversion % -15%



Synchro ID: 12
Existing
Average Weekday
AM Peak Hour

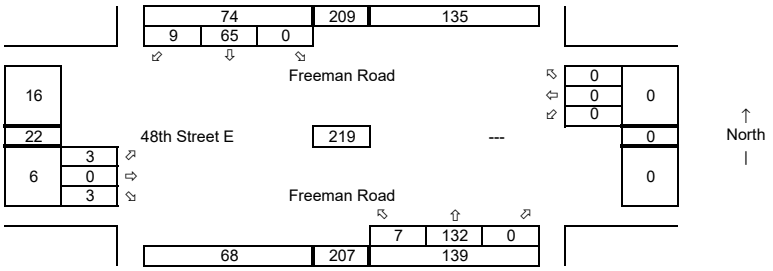
Year: **6/8/2023**

Data Source: IDAX

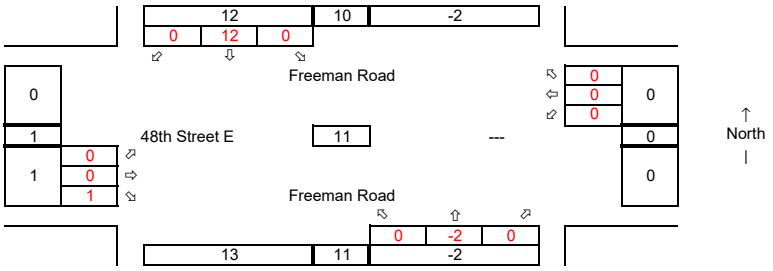


Future without Project
Average Weekday
AM Peak Hour

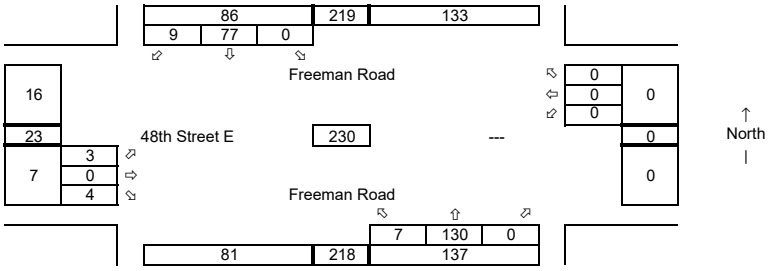
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



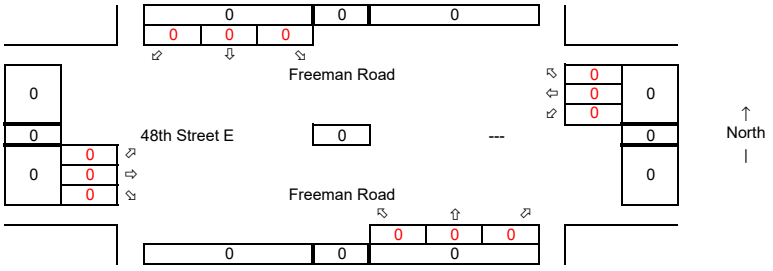
Total Development Trips
Average Weekday
AM Peak Hour



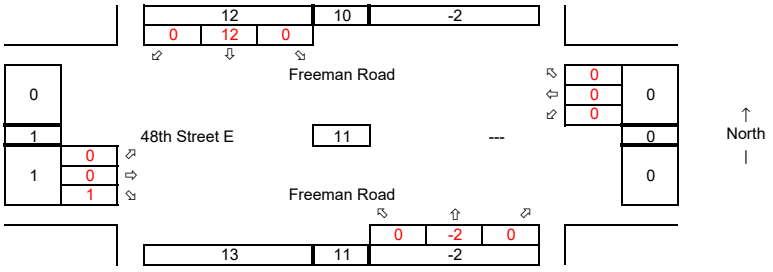
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



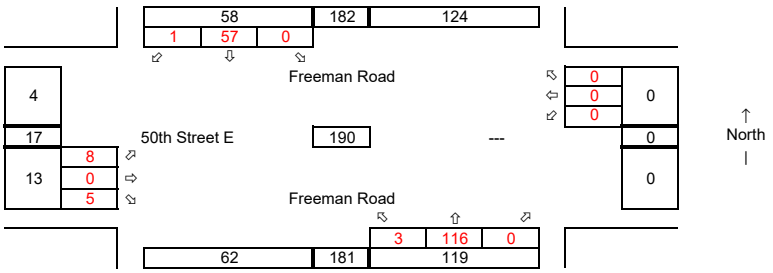
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 13
Existing
Average Weekday
AM Peak Hour

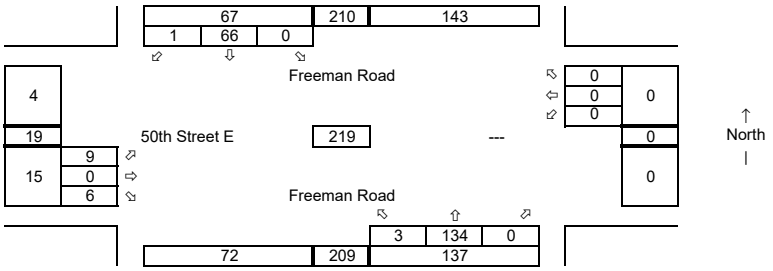
Year: **6/8/2023**

Data Source: IDAX

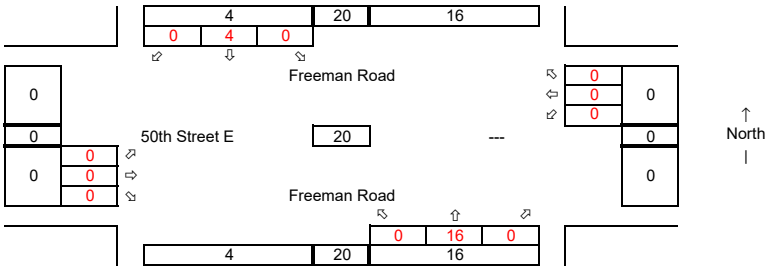


Future without Project
Average Weekday
AM Peak Hour

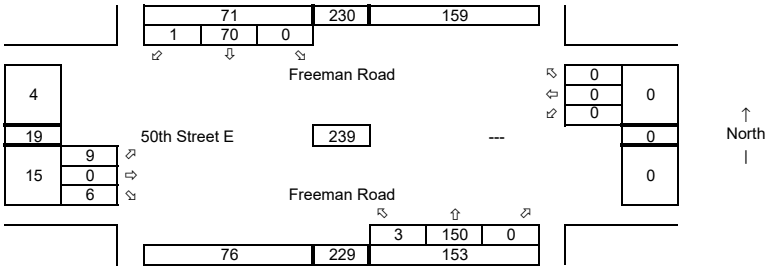
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



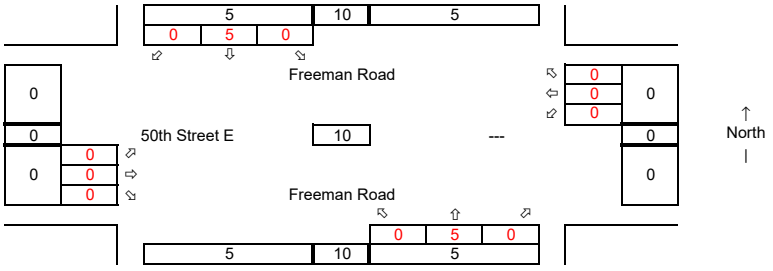
Total Development Trips
Average Weekday
AM Peak Hour



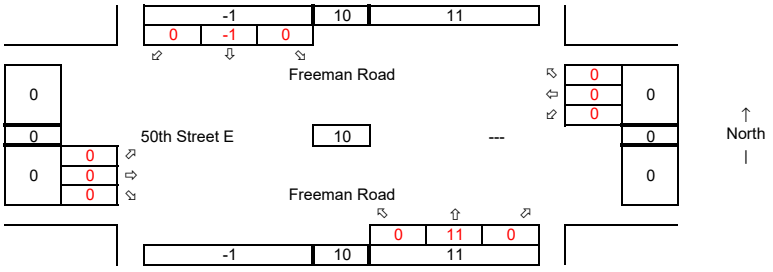
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour

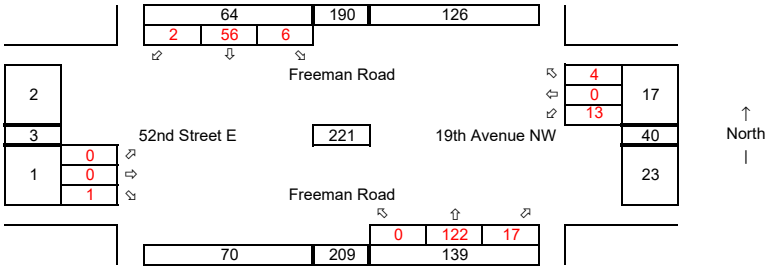


Synchro ID: 14
Existing
Average Weekday
AM Peak Hour

Year: **6/8/2023**

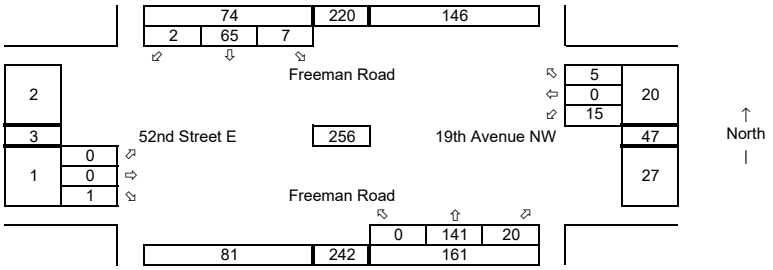
Data Source: IDAX

Two (2) Westbound U-turns added to Westbound Left-turns

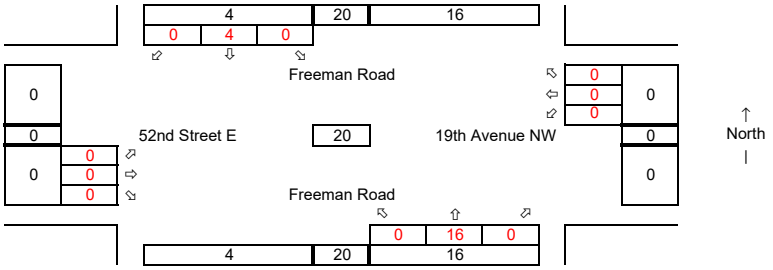


Future without Project
Average Weekday
AM Peak Hour

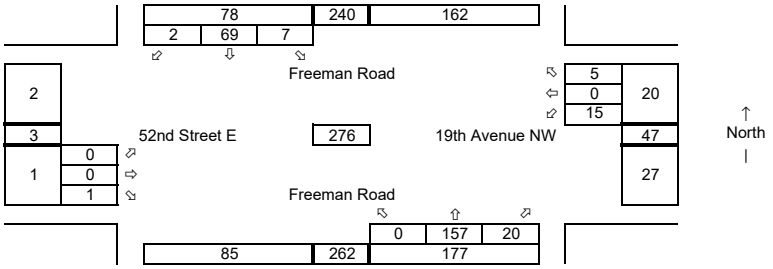
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



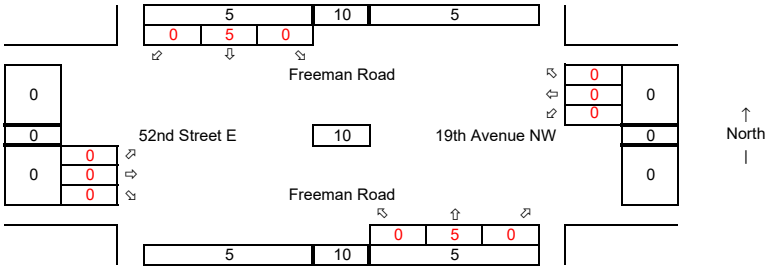
Total Development Trips
Average Weekday
AM Peak Hour



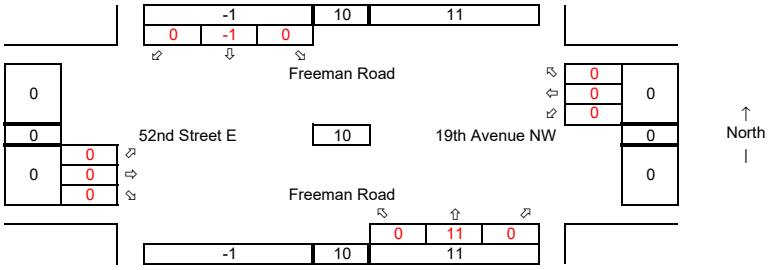
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour

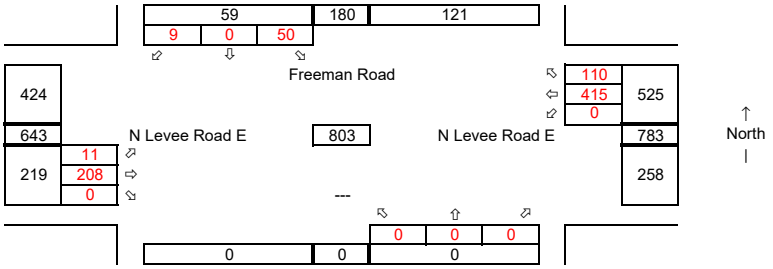


Synchro ID: 15
Existing
Average Weekday
AM Peak Hour

Year: **6/15/2023**

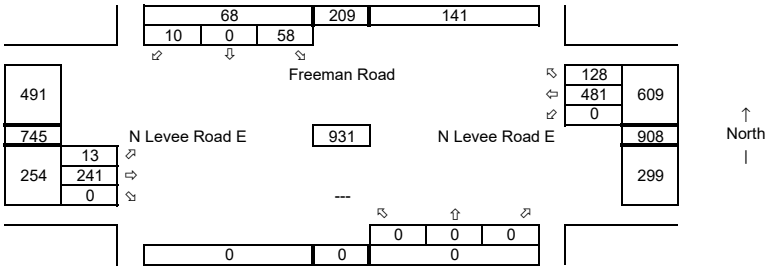
Data Source: IDAX

One (1) Westbound U-turn added to Southbound Left-turns

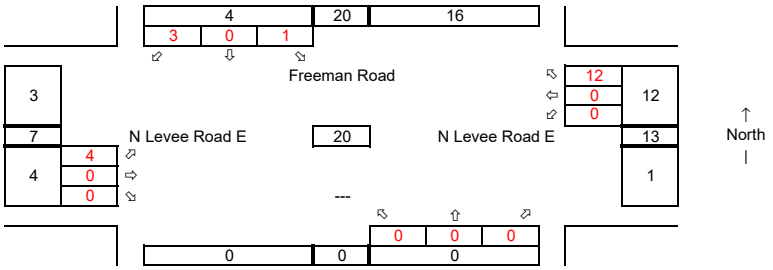


Future without Project
Average Weekday
AM Peak Hour

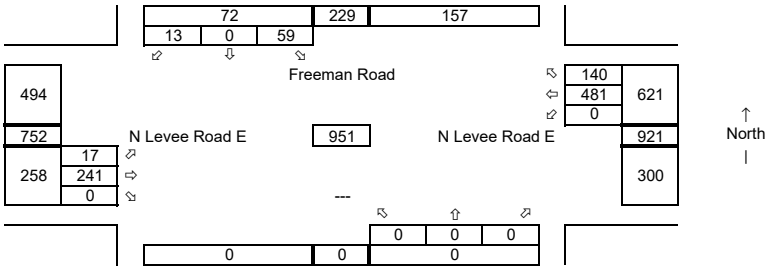
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



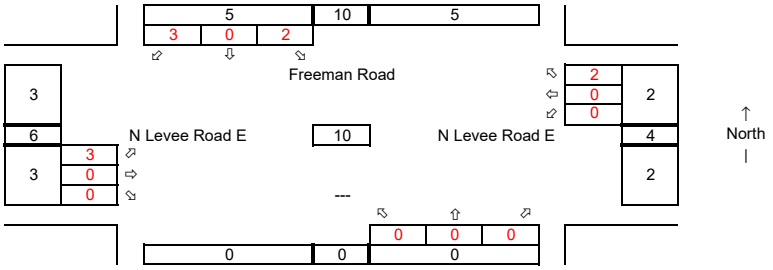
Total Development Trips
Average Weekday
AM Peak Hour



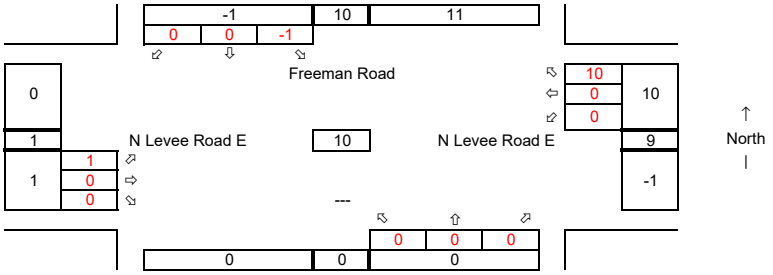
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour



With SR-167 Extension

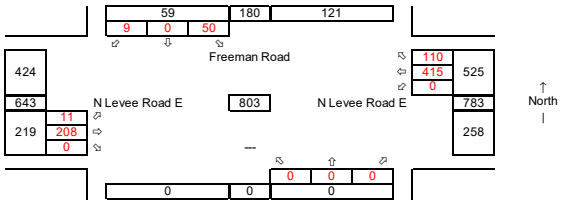
Synchro ID: 15

Existing
Average Weekday
AM Peak Hour

Year: **6/15/2023**

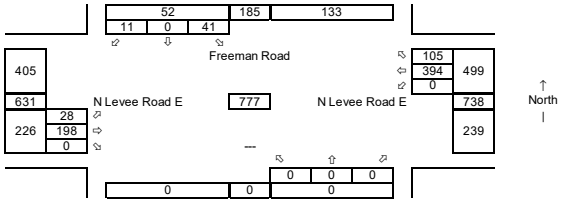
Data Source: IDAX

One (1) Westbound U-turn added to Southbound Left-turns

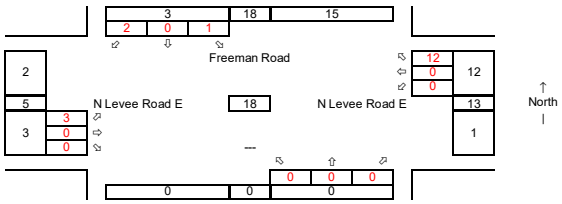


Future without Project
Average Weekday
AM Peak Hour

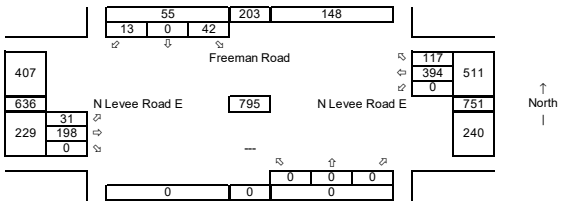
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



Total Development Trips
Average Weekday
AM Peak Hour

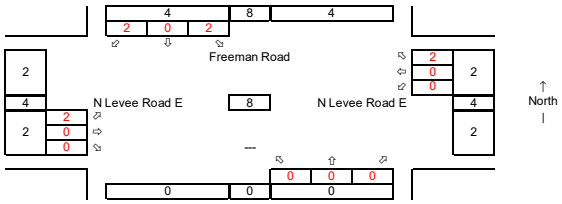


Future with Project
Average Weekday
AM Peak Hour

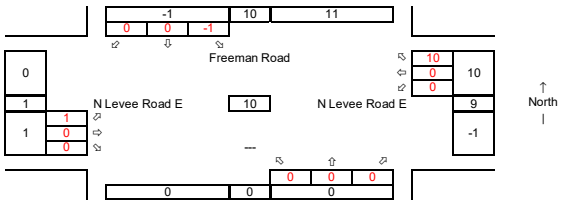


Development Truck Trips
Average Weekday
AM Peak Hour

N/S Diversion % -50%
from 70th Ave E

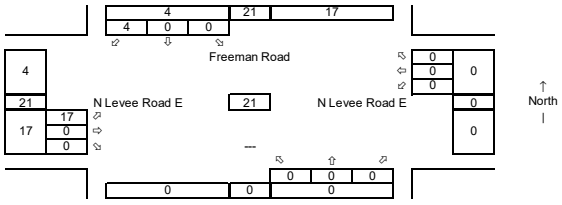


Development Car Trips
Average Weekday
AM Peak Hour



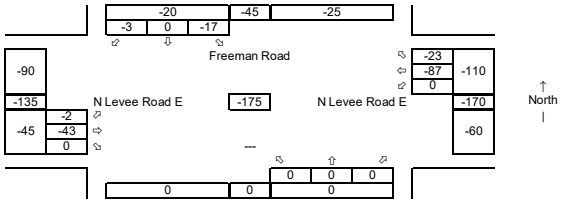
Total Pipeline Project Trips
Average Weekday
AM Peak Hour

Prologis Park Edgewood



SR-167 Extension Diversion
Average Weekday
AM Peak Hour

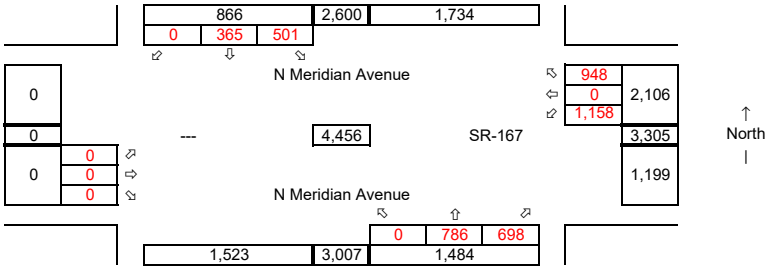
N/S Diversion % -29%
E/W Diversion % -18%



Synchro ID: 16
Existing
Average Weekday
AM Peak Hour

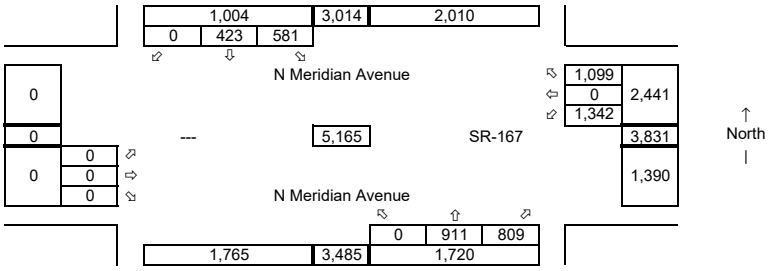
Year: **6/14/2023**

Data Source: IDAX

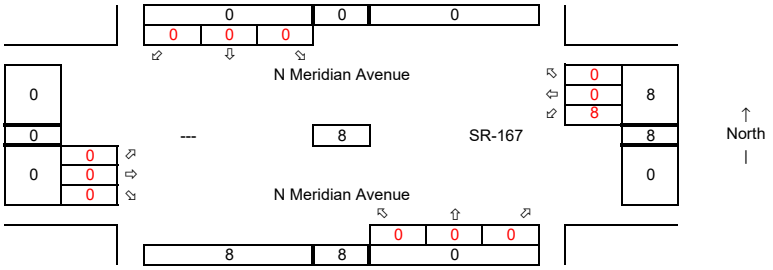


Future without Project
Average Weekday
AM Peak Hour

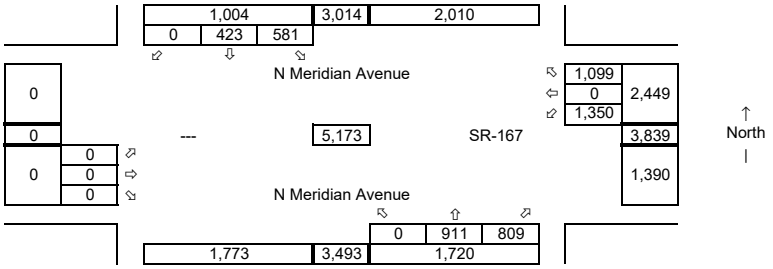
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



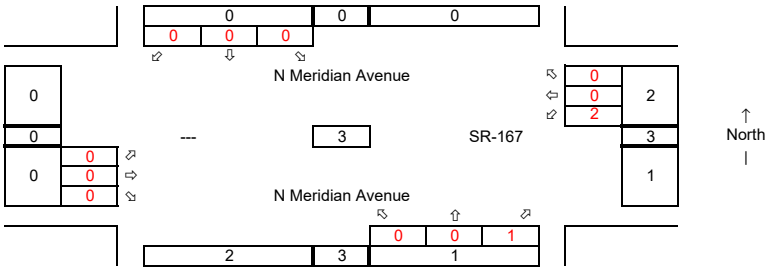
Total Development Trips
Average Weekday
AM Peak Hour



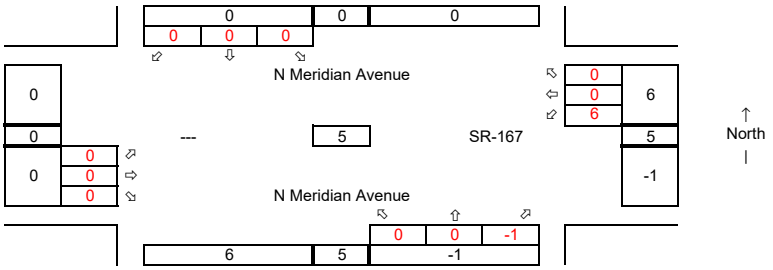
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



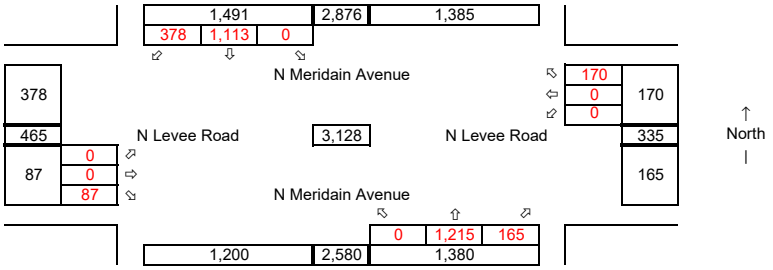
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 17
Existing
Average Weekday
AM Peak Hour

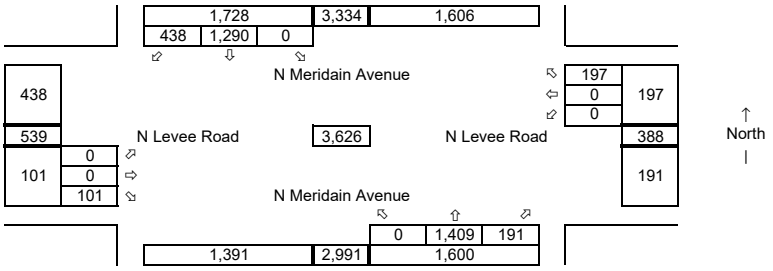
Year: **6/14/2023**

Data Source: IDAX

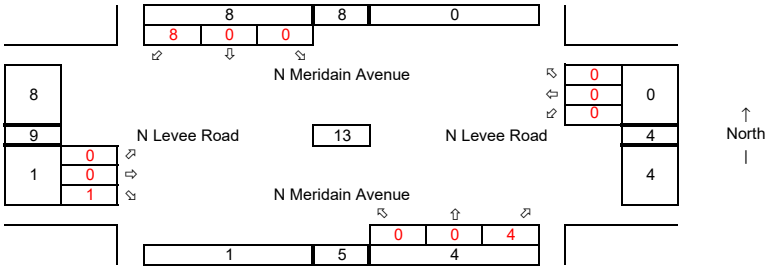


Future without Project
Average Weekday
AM Peak Hour

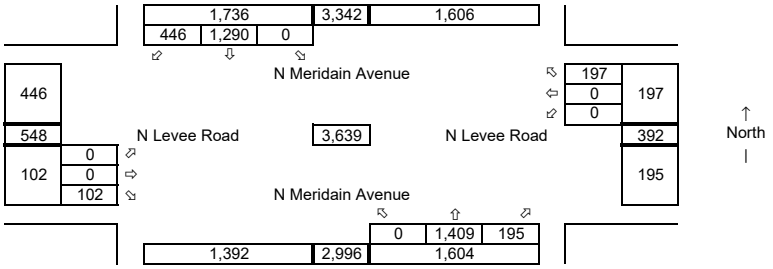
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



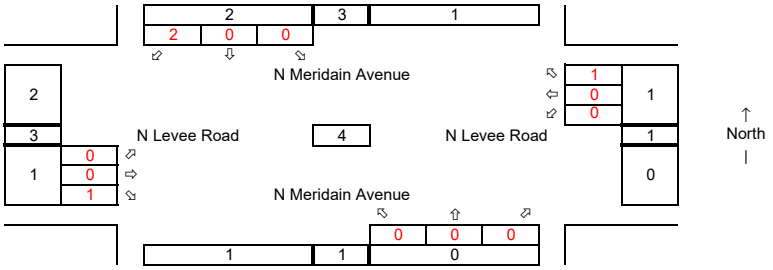
Total Development Trips
Average Weekday
AM Peak Hour



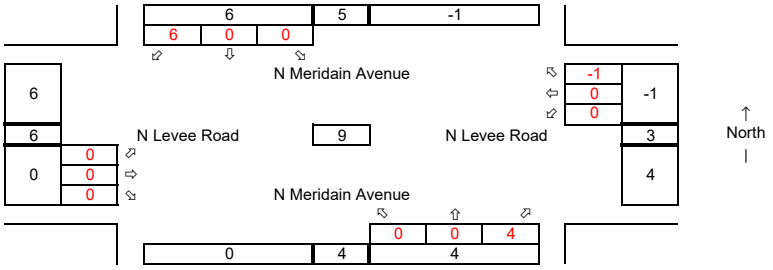
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



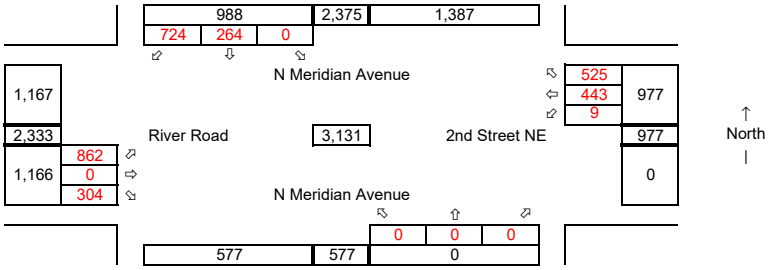
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 18
Existing
Average Weekday
AM Peak Hour

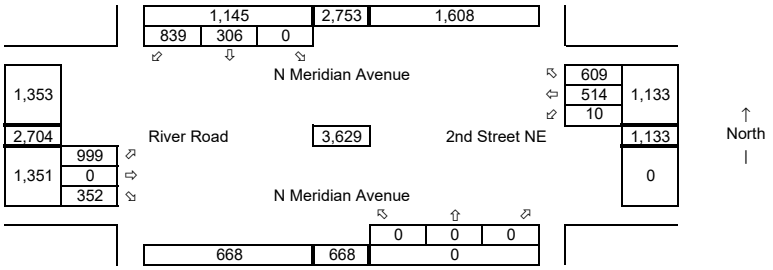
Year: **6/14/2023**

Data Source: IDAX

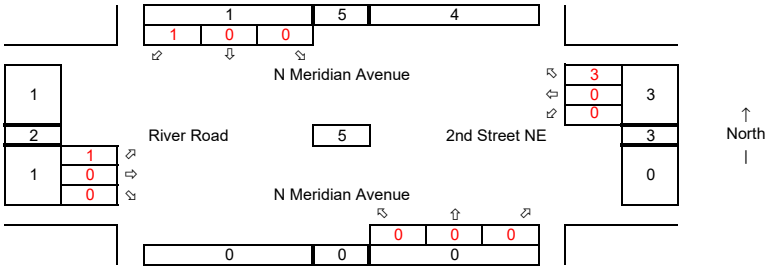


Future without Project
Average Weekday
AM Peak Hour

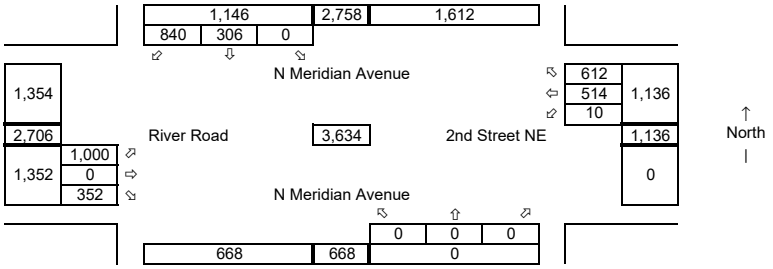
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



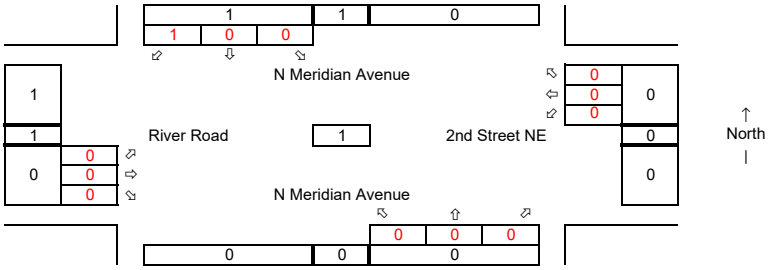
Total Development Trips
Average Weekday
AM Peak Hour



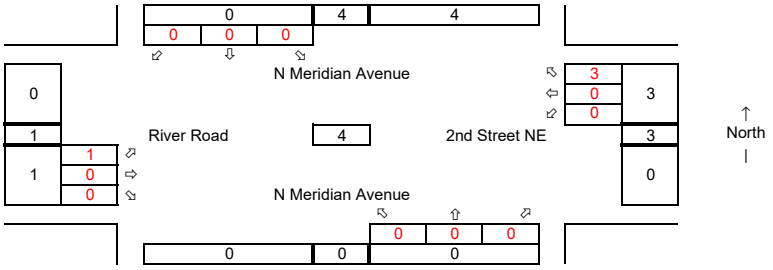
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



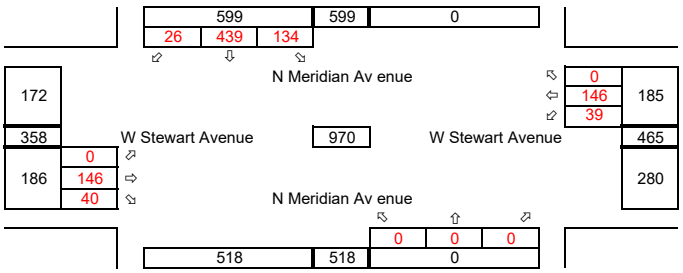
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 19
Existing
Average Weekday
AM Peak Hour

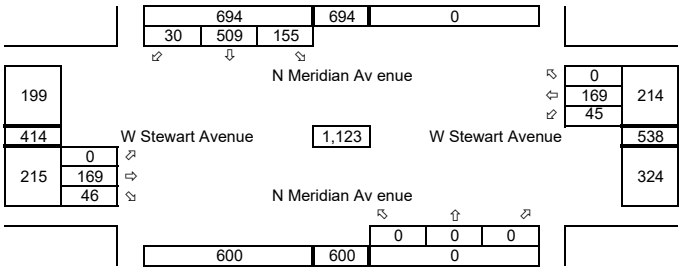
Year: **6/14/2023**

Data Source: IDAX

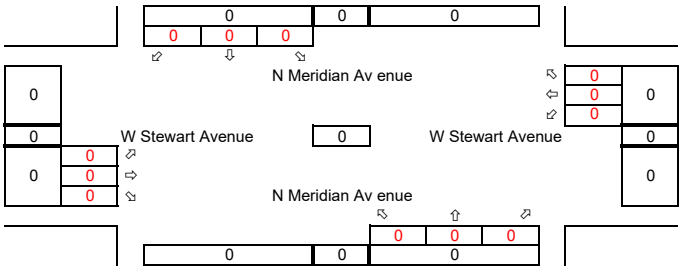


Future without Project
Average Weekday
AM Peak Hour

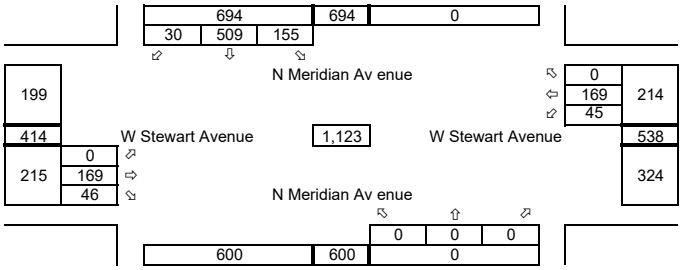
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



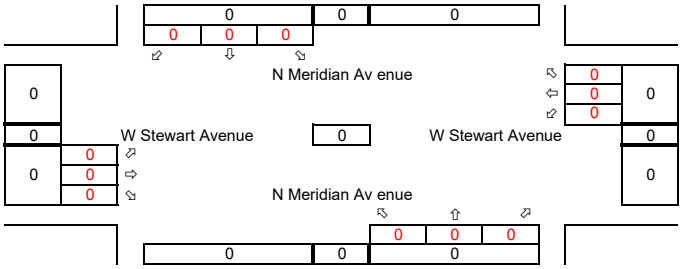
Total Development Trips
Average Weekday
AM Peak Hour



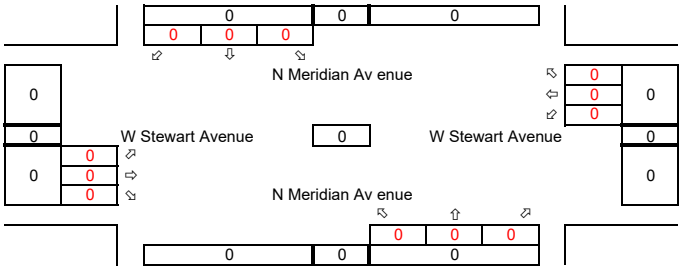
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



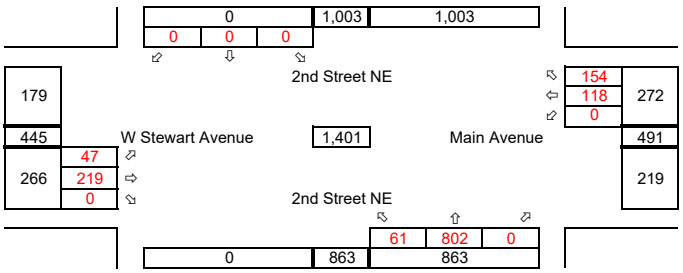
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 20
Existing
Average Weekday
AM Peak Hour

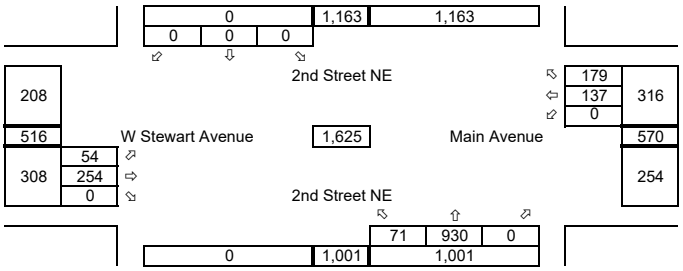
Year: **6/15/2023**

Data Source: IDAX

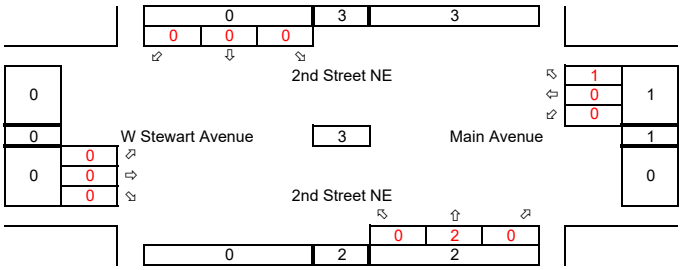


Future without Project
Average Weekday
AM Peak Hour

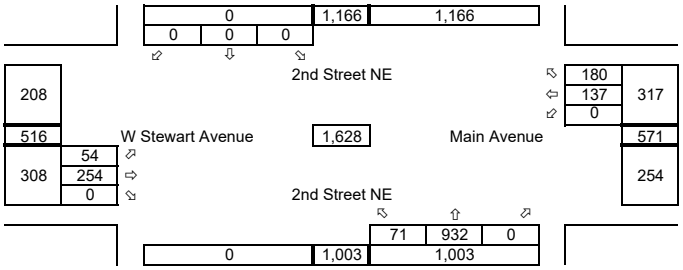
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



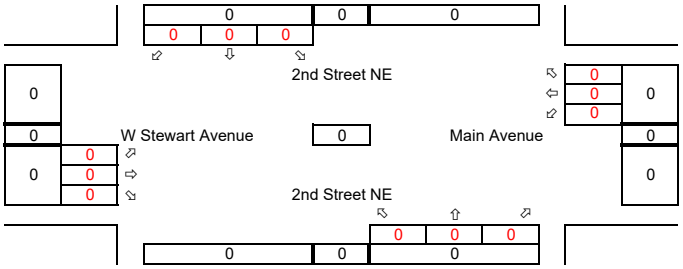
Total Development Trips
Average Weekday
AM Peak Hour



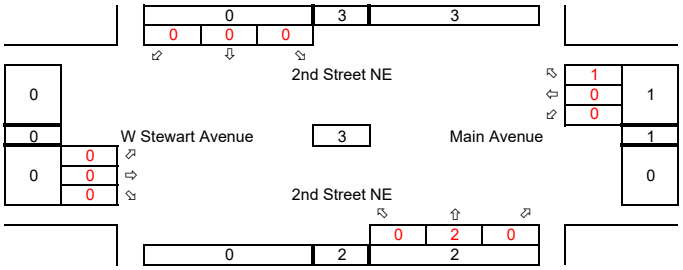
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour

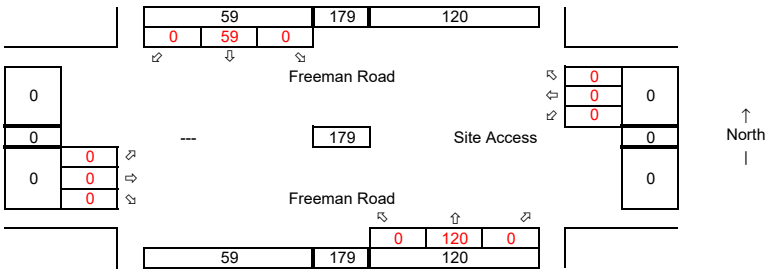


Synchro ID: 21
Existing
Average Weekday
AM Peak Hour

Year: **6/8/2023**

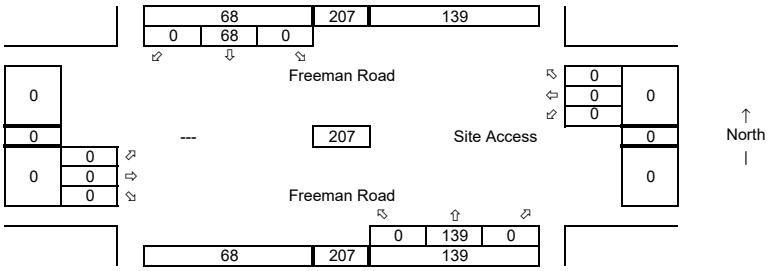
Data Source: IDAX

NB/SB volumes extrapolated
from Freeman at 48th Street E

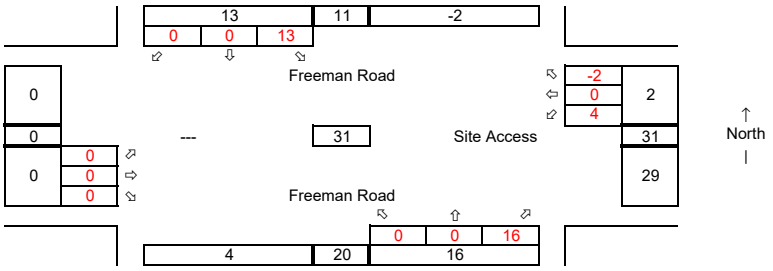


Future without Project
Average Weekday
AM Peak Hour

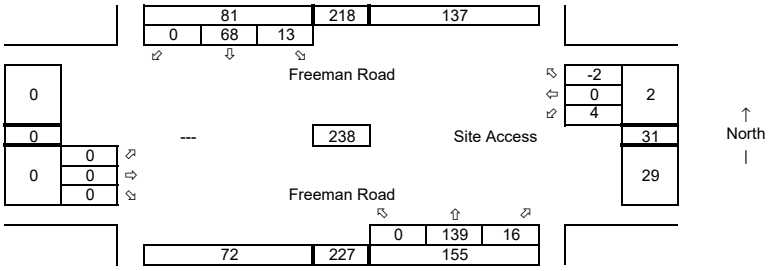
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



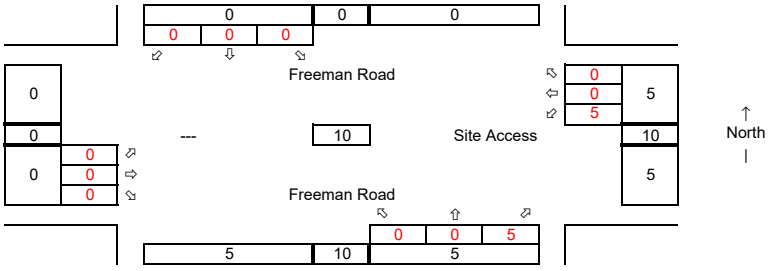
Total Development Trips
Average Weekday
AM Peak Hour



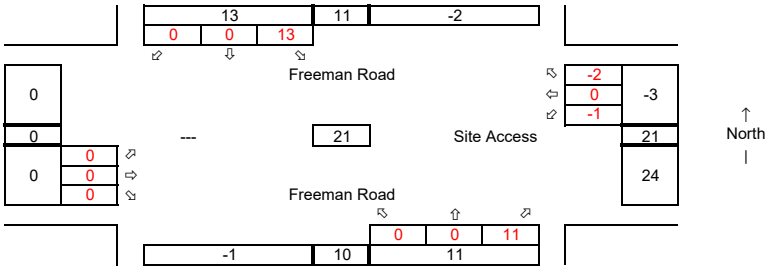
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour

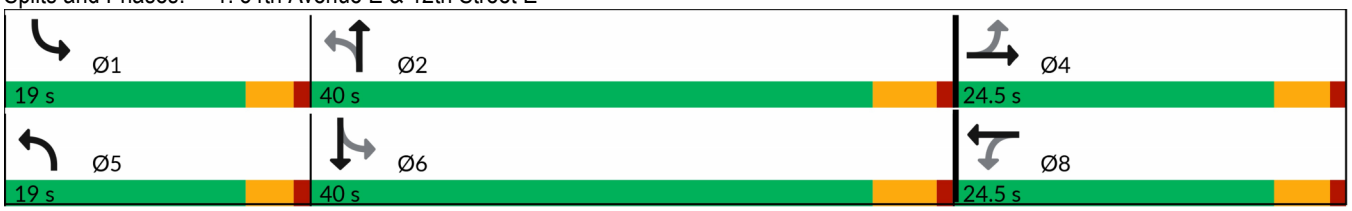


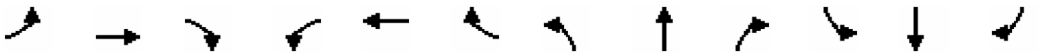
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	138	44	75	77	126	27	480	66	78	382	19
Future Volume (vph)	37	138	44	75	77	126	27	480	66	78	382	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		0	100		0	100		0
Storage Lanes	1		0	1		0	1		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	0.95	0.95	1.00	0.95	0.95
Frt		0.964			0.907			0.982			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1467	1489	0	1467	1401	0	1467	2882	0	1467	2914	0
Flt Permitted	0.448			0.501			0.489			0.359		
Satd. Flow (perm)	692	1489	0	774	1401	0	755	2882	0	555	2914	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			92			22			7	
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		727			778			1175			536	
Travel Time (s)		19.8			15.2			22.9			10.4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	207	0	85	231	0	31	620	0	89	456	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	24.5	24.5		24.5	24.5		10.5	19.0		10.5	17.0	
Total Split (s)	24.5	24.5		24.5	24.5		19.0	40.0		19.0	40.0	
Total Split (%)	29.3%	29.3%		29.3%	29.3%		22.8%	47.9%		22.8%	47.9%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		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		4.0	5.0		4.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Max		None	Max	
Act Effct Green (s)	14.2	14.2		14.2	14.2		41.8	35.9		44.9	40.8	
Actuated g/C Ratio	0.21	0.21		0.21	0.21		0.61	0.52		0.66	0.60	
v/c Ratio	0.29	0.64		0.53	0.64		0.06	0.41		0.19	0.26	
Control Delay (s/veh)	29.4	33.0		38.0	24.0		5.3	12.2		5.9	8.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	29.4	33.0		38.0	24.0		5.3	12.2		5.9	8.9	
LOS	C	C		D	C		A	B		A	A	
Approach Delay (s/veh)		32.4			27.7			11.9			8.4	
Approach LOS		C			C			B			A	
Queue Length 50th (ft)	15	75		33	53		4	80		11	34	
Queue Length 95th (ft)	42	139		75	120		14	141		30	96	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		647			698			1095			456	
Turn Bay Length (ft)	100			200			100			100		
Base Capacity (vph)	205	453		229	479		662	1521		573	1739	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.20	0.46		0.37	0.48		0.05	0.41		0.16	0.26	

Intersection Summary			
Area Type:	Other		
Cycle Length: 83.5			
Actuated Cycle Length: 68.5			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay (s/veh): 16.6		Intersection LOS: B	
Intersection Capacity Utilization 52.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: 54th Avenue E & 12th Street E





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	392	278	467	398	133	344	411	395	123	339	63
Future Volume (vph)	89	392	278	467	398	133	344	411	395	123	339	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	550		0	150		0	125		0
Storage Lanes	1		1	2		0	2		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.962			0.927			0.976	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1517	3034	1357	2943	2918	0	2943	2812	0	1517	2961	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1517	3034	1357	2943	2918	0	2943	2812	0	1517	2961	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			126		32			166			15	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1085			1070			320			1175	
Travel Time (s)		21.1			20.8			6.2			22.9	
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 (%)	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	93	408	290	486	554	0	358	839	0	128	419	0
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		3	3	
Permitted Phases			6									
Detector Phase	1	6	4	5	2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	10.5	38.7	35.7	10.5	37.7		35.7	35.7		38.7	38.7	
Total Split (s)	18.0	40.0	40.0	20.0	42.0		40.0	40.0		40.0	40.0	
Total Split (%)	12.9%	28.6%	28.6%	14.3%	30.0%		28.6%	28.6%		28.6%	28.6%	
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		3.7	3.7		3.7	3.7	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7	4.7	4.5	4.7		4.7	4.7		4.7	4.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	C-Max	None	None		C-Max	C-Max		None	None	
Act Effct Green (s)	12.1	27.6	79.1	15.5	31.0		51.5	51.5		26.8	26.8	
Actuated g/C Ratio	0.09	0.20	0.57	0.11	0.22		0.37	0.37		0.19	0.19	
v/c Ratio	0.71	0.68	0.35	1.50	0.83		0.33	0.74		0.44	0.72	
Control Delay (s/veh)	89.8	57.5	6.3	279.7	59.7		43.1	44.4		53.8	58.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.7	15.1		0.0	0.0	
Total Delay (s/veh)	89.8	57.5	6.3	279.7	59.7		43.8	59.5		53.8	58.2	
LOS	F	E	A	F	E		D	E		D	E	
Approach Delay (s/veh)		42.6			162.5			54.8			57.2	
Approach LOS		D			F			D			E	
Queue Length 50th (ft)	83	181	40	~314	241		140	325		104	183	
Queue Length 95th (ft)	#157	225	88	#428	294		198	#482		160	229	

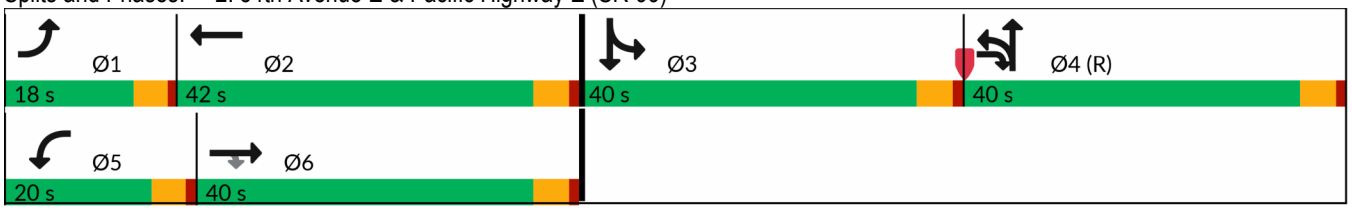
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1005			990			240			1095	
Turn Bay Length (ft)	225			550			150			125		
Base Capacity (vph)	146	765	821	325	800		1083	1139		382	757	
Starvation Cap Reductn	0	0	0	0	0		421	298		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.64	0.53	0.35	1.50	0.69		0.54	1.00		0.34	0.55	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 30 (21%), Referenced to phase 4:NBTL, Start of Green			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.50			
Intersection Signal Delay (s/veh): 83.8		Intersection LOS: F	
Intersection Capacity Utilization 70.5%		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: 2: 54th Avenue E & Pacific Highway E (SR-99)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	392	278	467	398	133	344	411	395	123	339	63
Future Volume (vph)	89	392	278	467	398	133	344	411	395	123	339	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	550		0	150		0	125		0
Storage Lanes	1		1	2		0	2		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.962			0.927			0.976	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1517	3034	1357	2943	2918	0	2943	2812	0	1517	2961	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1517	3034	1357	2943	2918	0	2943	2812	0	1517	2961	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			111		32			163			14	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1085			1070			320			1175	
Travel Time (s)		21.1			20.8			6.2			22.9	
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 (%)	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	93	408	290	486	554	0	358	839	0	128	419	0
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		3	3	
Permitted Phases			6									
Detector Phase	1	6	4	5	2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	10.5	38.7	35.7	10.5	37.7		35.7	35.7		38.7	38.7	
Total Split (s)	21.7	38.7	37.6	25.0	42.0		37.6	37.6		38.7	38.7	
Total Split (%)	15.5%	27.6%	26.9%	17.9%	30.0%		26.9%	26.9%		27.6%	27.6%	
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		3.7	3.7		3.7	3.7	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7	4.7	4.5	4.7		4.7	4.7		4.7	4.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	C-Max	None	None		C-Max	C-Max		None	None	
Act Effct Green (s)	13.4	25.5	74.1	20.5	32.6		48.6	48.6		26.8	26.8	
Actuated g/C Ratio	0.10	0.18	0.53	0.15	0.23		0.35	0.35		0.19	0.19	
v/c Ratio	0.64	0.74	0.38	1.13	0.79		0.35	0.77		0.44	0.73	
Control Delay (s/veh)	80.3	62.0	7.8	136.6	56.1		44.4	46.0		53.8	58.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.8	27.5		0.0	0.0	
Total Delay (s/veh)	80.3	62.0	7.8	136.6	56.1		45.3	73.5		53.8	58.4	
LOS	F	E	A	F	E		D	E		D	E	
Approach Delay (s/veh)		44.3			93.7			65.1			57.4	
Approach LOS		D			F			E			E	
Queue Length 50th (ft)	83	188	44	~263	241		139	319		104	183	
Queue Length 95th (ft)	141	228	95	#377	294		204	#517		160	230	

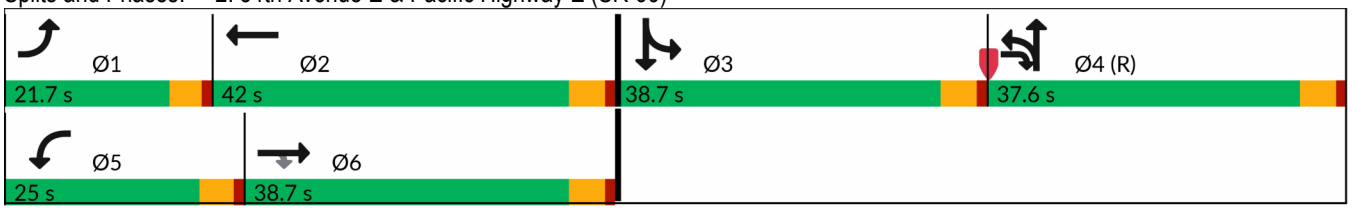
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1005			990			240			1095	
Turn Bay Length (ft)	225			550			150			125		
Base Capacity (vph)	186	736	770	430	800		1022	1083		368	729	
Starvation Cap Reductn	0	0	0	0	0		394	277		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.50	0.55	0.38	1.13	0.69		0.57	1.04		0.35	0.57	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 30 (21%), Referenced to phase 4:NBTL, Start of Green			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.13			
Intersection Signal Delay (s/veh): 67.6		Intersection LOS: E	
Intersection Capacity Utilization 70.5%		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: 2: 54th Avenue E & Pacific Highway E (SR-99)

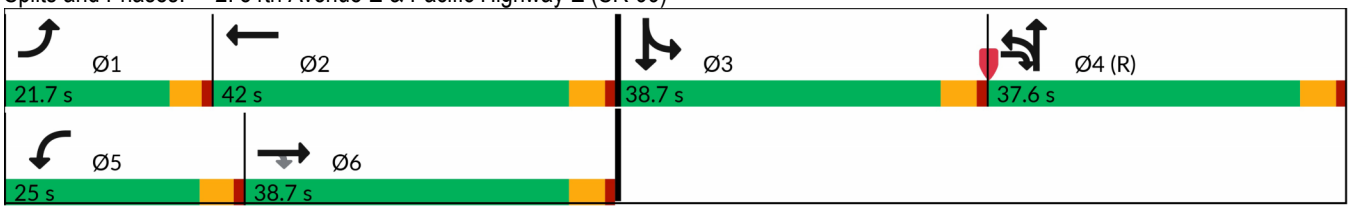


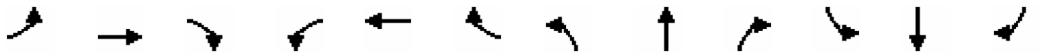
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	292	178	317	298	133	244	311	245	123	242	63
Future Volume (vph)	89	292	178	317	298	133	244	311	245	123	242	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	550		0	150		0	125		0
Storage Lanes	1		1	2		0	2		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.954			0.934			0.969	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1517	3034	1357	2943	2894	0	2943	2833	0	1517	2940	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1517	3034	1357	2943	2894	0	2943	2833	0	1517	2940	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			185		50			134			22	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1085			1070			320			1175	
Travel Time (s)		21.1			20.8			6.2			22.9	
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 (%)	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	93	304	185	330	449	0	254	579	0	128	318	0
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		3	3	
Permitted Phases			6									
Detector Phase	1	6	4	5	2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	10.5	38.7	35.7	10.5	37.7		35.7	35.7		38.7	38.7	
Total Split (s)	21.7	38.7	37.6	25.0	42.0		37.6	37.6		38.7	38.7	
Total Split (%)	15.5%	27.6%	26.9%	17.9%	30.0%		26.9%	26.9%		27.6%	27.6%	
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		3.7	3.7		3.7	3.7	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7	4.7	4.5	4.7		4.7	4.7		4.7	4.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	C-Max	None	None		C-Max	C-Max		None	None	
Act Effct Green (s)	13.4	20.4	80.9	19.2	26.2		60.5	60.5		21.3	21.3	
Actuated g/C Ratio	0.10	0.15	0.58	0.14	0.19		0.43	0.43		0.15	0.15	
v/c Ratio	0.64	0.69	0.21	0.82	0.77		0.20	0.45		0.56	0.68	
Control Delay (s/veh)	80.3	64.4	1.7	75.5	57.1		33.5	30.3		63.6	59.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	1.4		0.0	0.0	
Total Delay (s/veh)	80.3	64.4	1.7	75.5	57.1		33.5	31.7		63.6	59.5	
LOS	F	E	A	E	E		C	C		E	E	
Approach Delay (s/veh)		47.0			64.9			32.3			60.6	
Approach LOS		D			E			C			E	
Queue Length 50th (ft)	83	141	0	151	185		86	177		109	135	
Queue Length 95th (ft)	141	178	19	#208	235		139	256		170	180	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1005			990			240			1095	
Turn Bay Length (ft)	225			550			150			125		
Base Capacity (vph)	186	736	862	430	807		1272	1300		368	730	
Starvation Cap Reductn	0	0	0	0	0		0	499		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.50	0.41	0.21	0.77	0.56		0.20	0.72		0.35	0.44	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 30 (21%), Referenced to phase 4:NBTL, Start of Green			
Natural Cycle: 125			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay (s/veh): 49.9		Intersection LOS: D	
Intersection Capacity Utilization 56.3%		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: 2: 54th Avenue E & Pacific Highway E (SR-99)





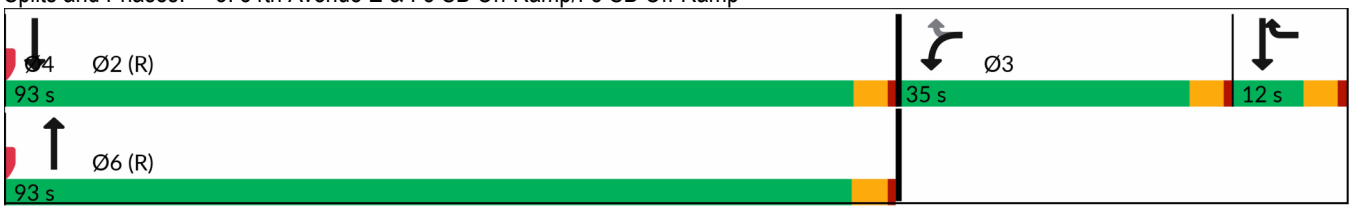
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	270	0	357	0	785	390	0	507	505
Future Volume (vph)	0	0	0	270	0	357	0	785	390	0	507	505
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		25	0		0
Storage Lanes	0		0	1		1	0		1	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	0.95	1.00	1.00	1.00	1.00
Frt						0.850			0.850			0.850
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	1543	0	1380	0	3085	1380	0	1624	1380
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1543	0	1380	0	3085	1380	0	1624	1380
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						196			83			282
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1083			1080			827			320	
Travel Time (s)		21.1			21.0			16.1			6.2	
Peak Hour 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
Heavy Vehicles (%)	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	284	0	376	0	826	411	0	534	532
Turn Type				Prot		custom		NA	Free		NA	Free
Protected Phases				3		4		6			2 4	
Permitted Phases						3			Free			Free
Detector Phase				3		4		6			2 4	
Switch Phase												
Minimum Initial (s)				5.0		3.0		10.0				
Minimum Split (s)				22.5		7.5		22.7				
Total Split (s)				35.0		12.0		93.0				
Total Split (%)				25.0%		8.6%		66.4%				
Yellow Time (s)				3.5		3.5		3.7				
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		4.7				
Lead/Lag				Lead		Lag						
Lead-Lag Optimize?				Yes		Yes						
Recall Mode				None		None		C-Max				
Act Effct Green (s)				28.5		42.3		88.5	140.0		102.5	140.0
Actuated g/C Ratio				0.20		0.30		0.63	1.00		0.73	1.00
v/c Ratio				0.90		0.68		0.42	0.30		0.45	0.39
Control Delay (s/veh)				85.7		26.7		13.8	0.6		4.4	2.6
Queue Delay				0.0		7.1		0.5	0.0		2.2	0.0
Total Delay (s/veh)				85.7		33.9		14.3	0.6		6.6	2.6
LOS				F		C		B	A		A	A
Approach Delay (s/veh)					56.2			9.7			4.6	
Approach LOS					E			A			A	
Queue Length 50th (ft)				250		146		188	0		52	83
Queue Length 95th (ft)				#406		270		232	0		m66	m77

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	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	22.5
Total Split (s)	93.0
Total Split (%)	66%
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	C-Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
LOS	
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1003			1000			747			240	
Turn Bay Length (ft)									25			
Base Capacity (vph)				336		553		1950	1380		1189	1380
Starvation Cap Reductn				0		0		0	0		498	0
Spillback Cap Reductn				0		133		642	0		0	0
Storage Cap Reductn				0		0		0	0		0	0
Reduced v/c Ratio				0.85		0.90		0.63	0.30		0.77	0.39

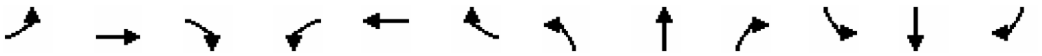
Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 75 (54%), Referenced to phase 2:SBT and 6:NBT, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay (s/veh): 18.2		Intersection LOS: B	
Intersection Capacity Utilization 51.5%		ICU Level of Service A	
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: 3: 54th Avenue E & I-5 SB On-Ramp/I-5 SB Off-Ramp



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

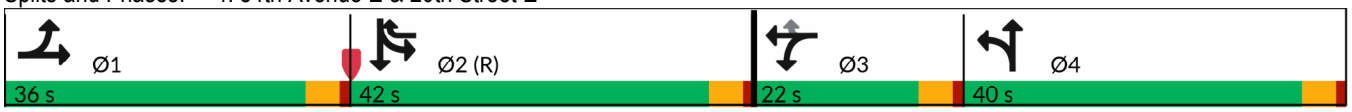


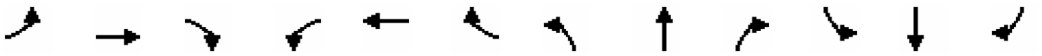
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	319	235	83	38	115	406	147	415	41	466	355	310
Future Volume (vph)	319	235	83	38	115	406	147	415	41	466	355	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	275		0	200		0	175		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.95
Frt		0.971				0.850		0.986			0.938	
Flt Protected	0.950	0.987			0.988		0.950			0.950	0.994	
Satd. Flow (prot)	1356	2736	0	0	1550	1333	1490	2939	0	1356	2662	0
Flt Permitted	0.950	0.987			0.988		0.950			0.950	0.994	
Satd. Flow (perm)	1356	2736	0	0	1550	1333	1490	2939	0	1356	2662	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18				116		7			107	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		738			676			783			335	
Travel Time (s)		14.4			13.2			17.8			7.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Shared Lane Traffic (%)	34%									18%		
Lane Group Flow (vph)	234	473	0	0	170	451	163	507	0	425	831	0
Turn Type	Split	NA		Split	NA	pm+ov	Split	NA		Split	NA	
Protected Phases	1	1		3	3	2	4	4		2	2	
Permitted Phases						3						
Detector Phase	1	1		3	3	2	4	4		2	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	21.5	21.5		10.5	10.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	36.0	36.0		22.0	22.0	42.0	40.0	40.0		42.0	42.0	
Total Split (%)	25.7%	25.7%		15.7%	15.7%	30.0%	28.6%	28.6%		30.0%	30.0%	
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	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	Lead	Lag	Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	C-Max	None	None		C-Max	C-Max	
Act Effct Green (s)	28.2	28.2			16.9	69.7	28.7	28.7		48.3	48.3	
Actuated g/C Ratio	0.20	0.20			0.12	0.50	0.21	0.21		0.35	0.35	
v/c Ratio	0.86	0.84			0.91	0.63	0.54	0.84		0.91	0.84	
Control Delay (s/veh)	81.5	65.1			107.0	25.1	55.5	65.0		69.4	46.7	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	81.5	65.1			107.0	25.1	55.5	65.0		69.4	46.7	
LOS	F	E			F	C	E	E		E	D	
Approach Delay (s/veh)		70.5			47.5			62.7			54.4	
Approach LOS		E			D			E			D	
Queue Length 50th (ft)	225	218			154	227	133	231		418	352	
Queue Length 95th (ft)	#360	284			#291	395	198	283		#738	#550	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		658			596			703			255	
Turn Bay Length (ft)	300						200			175		
Base Capacity (vph)	309	638			193	721	377	750		468	988	
Starvation Cap Reductn	0	0			0	0	0	0		0	0	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.76	0.74			0.88	0.63	0.43	0.68		0.91	0.84	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 48 (34%), Referenced to phase 2:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay (s/veh): 58.3		Intersection LOS: E	
Intersection Capacity Utilization 76.6%		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: 4: 54th Avenue E & 20th Street E



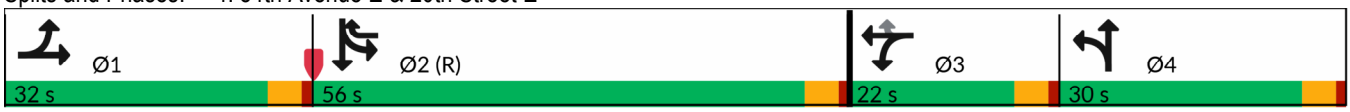


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	319	235	83	38	115	406	147	415	41	466	355	310
Future Volume (vph)	319	235	83	38	115	406	147	415	41	466	355	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	275		0	200		0	175		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.95
Frt		0.971				0.850		0.986			0.938	
Flt Protected	0.950	0.987			0.988		0.950			0.950	0.994	
Satd. Flow (prot)	1356	2736	0	0	1550	1333	1490	2939	0	1356	2662	0
Flt Permitted	0.950	0.987			0.988		0.950			0.950	0.994	
Satd. Flow (perm)	1356	2736	0	0	1550	1333	1490	2939	0	1356	2662	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18				69		7			124	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		738			676			783			335	
Travel Time (s)		14.4			13.2			17.8			7.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Shared Lane Traffic (%)	34%									18%		
Lane Group Flow (vph)	234	473	0	0	170	451	163	507	0	425	831	0
Turn Type	Split	NA		Split	NA	pm+ov	Split	NA		Split	NA	
Protected Phases	1	1		3	3	2	4	4		2	2	
Permitted Phases						3						
Detector Phase	1	1		3	3	2	4	4		2	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	21.5	21.5		10.5	10.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	32.0	32.0		22.0	22.0	56.0	30.0	30.0		56.0	56.0	
Total Split (%)	22.9%	22.9%		15.7%	15.7%	40.0%	21.4%	21.4%		40.0%	40.0%	
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	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	Lead	Lag	Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	C-Max	None	None		C-Max	C-Max	
Act Effct Green (s)	26.1	26.1			16.9	75.3	25.1	25.1		53.9	53.9	
Actuated g/C Ratio	0.19	0.19			0.12	0.54	0.18	0.18		0.39	0.39	
v/c Ratio	0.93	0.90			0.91	0.60	0.61	0.95		0.81	0.75	
Control Delay (s/veh)	96.2	74.8			107.0	22.9	63.6	84.3		53.4	37.2	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	96.2	74.8			107.0	22.9	63.6	84.3		53.4	37.2	
LOS	F	E			F	C	E	F		D	D	
Approach Delay (s/veh)		81.8			45.9			79.3			42.7	
Approach LOS		F			D			E			D	
Queue Length 50th (ft)	229	223			154	239	138	239		390	319	
Queue Length 95th (ft)	#400	#318			#291	357	218	#351		#596	409	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		658			596			703			255	
Turn Bay Length (ft)	300						200			175		
Base Capacity (vph)	266	551			193	748	271	541		522	1101	
Starvation Cap Reductn	0	0			0	0	0	0		0	0	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.88	0.86			0.88	0.60	0.60	0.94		0.81	0.75	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 48 (34%), Referenced to phase 2:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay (s/veh): 59.4		Intersection LOS: E	
Intersection Capacity Utilization 76.6%		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: 4: 54th Avenue E & 20th Street E

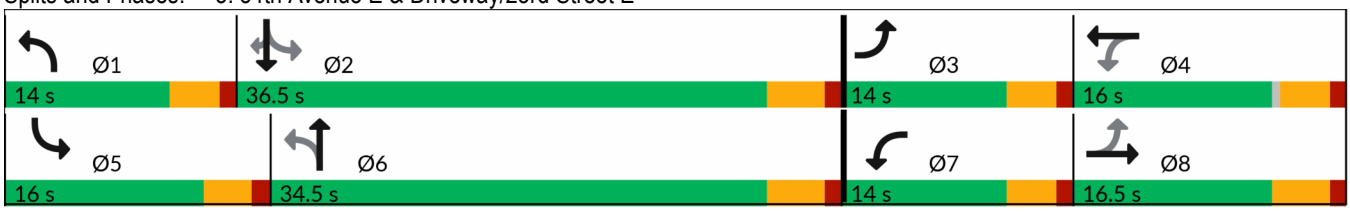


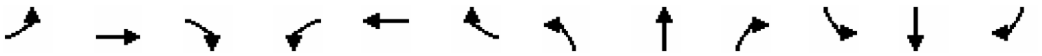
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	50	0	107	0	481	60	97	469	1
Future Volume (vph)	0	0	0	50	0	107	0	481	60	97	469	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	0		0	100		0
Storage Lanes	0		0	1		0	1		0	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	1.00	1.00	1.00	1.00	1.00
Frt					0.850			0.983				0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	1792	0	1703	1524	0	1792	1762	0	1703	1792	1524
Flt Permitted				0.714						0.248		
Satd. Flow (perm)	0	1792	0	1280	1524	0	1792	1762	0	445	1792	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					524			9				128
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		362			838			554			783	
Travel Time (s)		9.9			22.9			12.6			17.8	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	59	126	0	0	637	0	114	552	1
Turn Type				pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6			2		2
Detector Phase	3	8		7	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	6.0
Minimum Split (s)	9.5	24.5		22.5	24.0		9.5	22.5		9.5	22.5	22.5
Total Split (s)	14.0	16.5		14.0	16.0		14.0	34.5		16.0	36.5	36.5
Total Split (%)	17.3%	20.4%		17.3%	19.8%		17.3%	42.6%		19.8%	45.1%	45.1%
Yellow Time (s)	3.0	3.5		3.0	3.0		3.0	3.5		3.0	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		0.0	0.0	0.0
Total Lost Time (s)		4.5		4.0	4.0		4.0	4.5		4.0	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max		None	Max	Max
Act Effct Green (s)				7.4	7.3			34.9		44.1	44.6	44.6
Actuated g/C Ratio				0.13	0.13			0.61		0.77	0.78	0.78
v/c Ratio				0.27	0.19			0.59		0.22	0.40	0.00
Control Delay (s/veh)				26.3	0.7			13.7		3.5	4.1	0.0
Queue Delay				0.0	0.0			0.0		0.0	0.0	0.0
Total Delay (s/veh)				26.3	0.7			13.7		3.5	4.1	0.0
LOS				C	A			B		A	A	A
Approach Delay (s/veh)					8.9			13.7			4.0	
Approach LOS					A			B			A	
Queue Length 50th (ft)				19	0			148		8	55	0
Queue Length 95th (ft)				46	0			272		20	103	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		282			758			474			703	
Turn Bay Length (ft)				100						100		
Base Capacity (vph)				298	743			1076		606	1393	1213
Starvation Cap Reductn				0	0			0		0	0	0
Spillback Cap Reductn				0	0			0		0	0	0
Storage Cap Reductn				0	0			0		0	0	0
Reduced v/c Ratio				0.20	0.17			0.59		0.19	0.40	0.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 81			
Actuated Cycle Length: 57.3			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay (s/veh): 8.8		Intersection LOS: A	
Intersection Capacity Utilization 51.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 5: 54th Avenue E & Driveway/23rd Street E





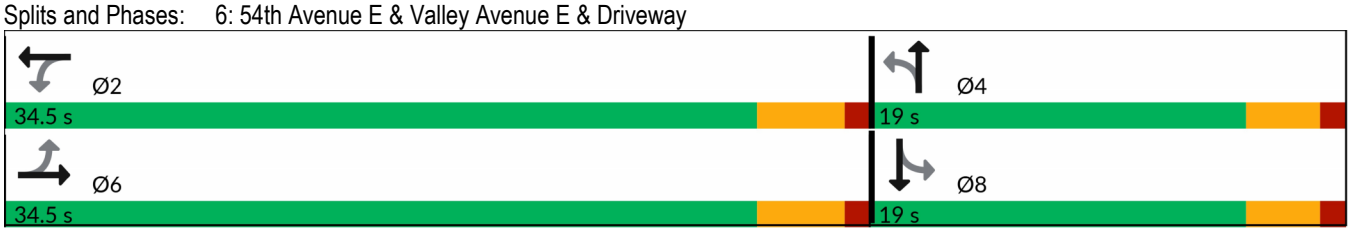
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	246	143	123	387	6	161	1	95	1	1	0
Future Volume (vph)	3	246	143	123	387	6	161	1	95	1	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	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		0.945			0.998			0.950				
Flt Protected	0.950			0.950				0.970			0.976	
Satd. Flow (prot)	1671	1663	0	1671	1756	0	0	1621	0	0	1717	0
Flt Permitted	0.377			0.381				0.808			0.888	
Satd. Flow (perm)	663	1663	0	670	1756	0	0	1350	0	0	1562	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		89			2			55				
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		554			491			578			252	
Travel Time (s)		12.6			11.2			15.8			6.9	
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	4	541	0	171	546	0	0	357	0	0	2	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	30.5	30.5		22.5	22.5		32.0	32.0		32.0	32.0	
Total Split (s)	34.5	34.5		34.5	34.5		19.0	19.0		19.0	19.0	
Total Split (%)	64.5%	64.5%		64.5%	64.5%		35.5%	35.5%		35.5%	35.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		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			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		Max	Max		None	None		None	None	
Act Effct Green (s)	30.2	30.2		30.2	30.2			14.3			14.3	
Actuated g/C Ratio	0.57	0.57		0.57	0.57			0.27			0.27	
v/c Ratio	0.01	0.55		0.45	0.54			0.89			0.00	
Control Delay (s/veh)	5.3	8.6		11.7	9.9			42.8			14.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	5.3	8.6		11.7	9.9			42.8			14.0	
LOS	A	A		B	A			D			B	
Approach Delay (s/veh)		8.6			10.3			42.8			14.0	
Approach LOS		A			B			D			B	
Queue Length 50th (ft)	1	76		28	96			90			1	
Queue Length 95th (ft)	3	96		49	116			#146			3	

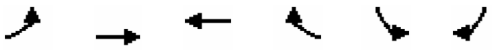
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		474			411			498			172	
Turn Bay Length (ft)	150			125								
Base Capacity (vph)	377	986		382	1002			422			442	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.01	0.55		0.45	0.54			0.85			0.00	

Intersection Summary			
Area Type:	Other		
Cycle Length: 53.5			
Actuated Cycle Length: 53			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay (s/veh): 16.9		Intersection LOS: B	
Intersection Capacity Utilization 59.6%		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: 6: 54th Avenue E & Valley Avenue E & Driveway



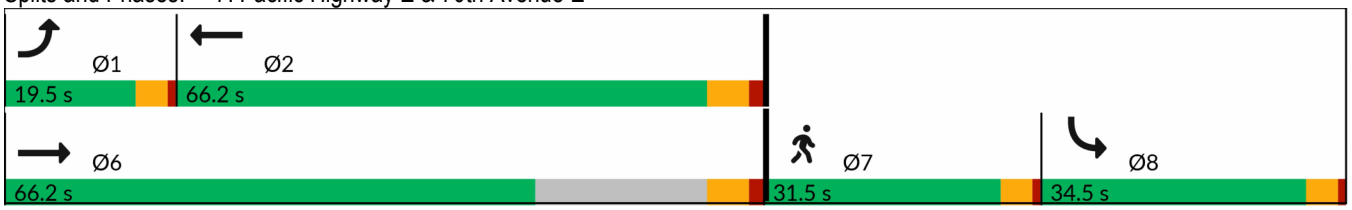


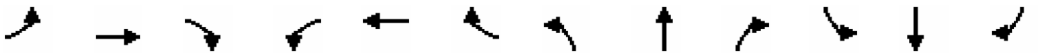
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø7
Lane Configurations							
Traffic Volume (vph)	19	953	688	7	16	64	
Future Volume (vph)	19	953	688	7	16	64	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00	
Frt			0.999		0.892		
Flt Protected	0.950				0.990		
Satd. Flow (prot)	1517	3034	3031	0	1410	0	
Flt Permitted	0.950				0.990		
Satd. Flow (perm)	1517	3034	3031	0	1410	0	
Right Turn on Red				Yes		Yes	
Satd. Flow (RTOR)			1		67		
Link Speed (mph)		30	30		30		
Link Distance (ft)		439	500		370		
Travel Time (s)		10.0	11.4		8.4		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Heavy Vehicles (%)	19%	19%	19%	19%	19%	19%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	20	993	724	0	84	0	
Turn Type	Prot	NA	NA		Prot		
Protected Phases	1	6	2		8		7
Permitted Phases							
Detector Phase	1	6	2		8		
Switch Phase							
Minimum Initial (s)	6.0	10.0	10.0		5.0		5.0
Minimum Split (s)	10.5	23.7	33.7		22.5		31.5
Total Split (s)	19.5	66.2	66.2		34.5		31.5
Total Split (%)	12.9%	43.6%	43.6%		22.7%		21%
Yellow Time (s)	3.5	4.7	4.7		3.5		3.5
All-Red Time (s)	1.0	1.5	1.5		1.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		
Total Lost Time (s)	4.5	6.2	6.2		4.5		
Lead/Lag	Lead		Lag		Lag		Lead
Lead-Lag Optimize?	Yes		Yes		Yes		Yes
Recall Mode	None	Max	None		Max		None
Act Effct Green (s)	7.0	60.0	55.0		30.0		
Actuated g/C Ratio	0.07	0.60	0.55		0.30		
v/c Ratio	0.19	0.55	0.44		0.18		
Control Delay (s/veh)	48.0	13.7	15.8		10.2		
Queue Delay	0.0	0.0	0.0		0.0		
Total Delay (s/veh)	48.0	13.7	15.8		10.2		
LOS	D	B	B		B		
Approach Delay (s/veh)		14.4	15.8		10.2		
Approach LOS		B	B		B		
Queue Length 50th (ft)	12	187	120		8		
Queue Length 95th (ft)	36	242	220		43		
Internal Link Dist (ft)		359	420		290		
Turn Bay Length (ft)							
Base Capacity (vph)	225	2395	1806		467		

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø7
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	0.41	0.40		0.18		

Intersection Summary			
Area Type:	Other		
Cycle Length: 151.7			
Actuated Cycle Length: 100.7			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.55			
Intersection Signal Delay (s/veh): 14.7		Intersection LOS: B	
Intersection Capacity Utilization 40.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 7: Pacific Highway E & 70th Avenue E



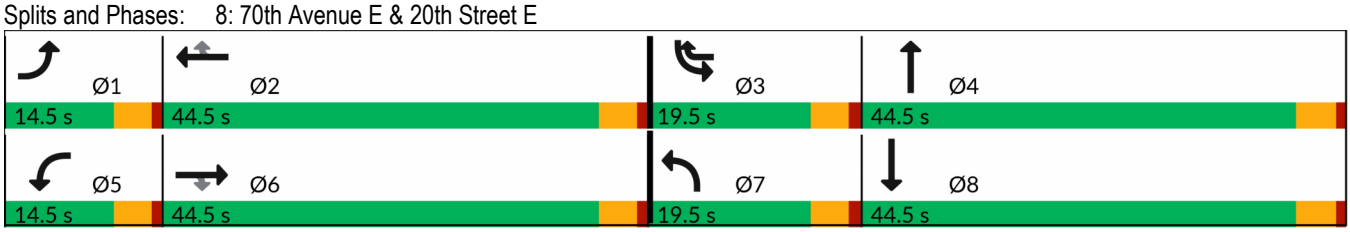


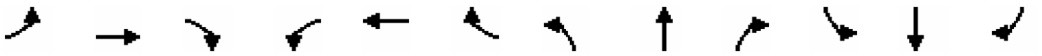
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	403	94	117	503	313	101	794	86	140	433	79
Future Volume (vph)	104	403	94	117	503	313	101	794	86	140	433	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		200	400		400	250		0	225		0
Storage Lanes	1		1	1		1	1		0	2		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	0.95	0.95	0.97	0.95	0.95
Frt			0.850			0.850		0.985			0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1556	1638	1392	1556	1638	1392	1556	3065	0	3019	3040	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1556	1638	1392	1556	1638	1392	1556	3065	0	3019	3040	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			93			68		10			18	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1295			1073			2009			522	
Travel Time (s)		25.2			20.9			39.1			10.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	107	415	97	121	519	323	104	908	0	144	527	0
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2	3	7	4		3	8	
Permitted Phases			6			2						
Detector Phase	1	6	6	5	2	3	7	4		3	8	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	10.0	10.0	10.0	10.0	6.0		10.0	10.0	
Minimum Split (s)	10.5	22.5	22.5	14.5	22.5	14.5	14.5	26.5		14.5	26.5	
Total Split (s)	14.5	44.5	44.5	14.5	44.5	19.5	19.5	44.5		19.5	44.5	
Total Split (%)	11.8%	36.2%	36.2%	11.8%	36.2%	15.9%	15.9%	36.2%		15.9%	36.2%	
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		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	Min	Min	None	Min	None	None	None		None	None	
Act Effct Green (s)	9.9	39.3	39.3	10.0	39.4	55.4	12.8	38.2		11.5	36.9	
Actuated g/C Ratio	0.08	0.34	0.34	0.09	0.34	0.47	0.11	0.33		0.10	0.32	
v/c Ratio	0.81	0.76	0.18	0.91	0.94	0.47	0.62	0.90		0.48	0.54	
Control Delay (s/veh)	94.7	45.4	7.2	111.9	65.5	18.9	66.5	50.7		56.4	34.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	94.7	45.4	7.2	111.9	65.5	18.9	66.5	50.7		56.4	34.6	
LOS	F	D	A	F	E	B	E	D		E	C	
Approach Delay (s/veh)		48.0			55.7			52.3			39.3	
Approach LOS		D			E			D			D	
Queue Length 50th (ft)	82	282	2	94	386	129	77	340		55	168	
Queue Length 95th (ft)	#190	#426	41	#220	#629	209	140	#477		89	230	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1215			993			1929			442	
Turn Bay Length (ft)	250		200	400		400	250			225		
Base Capacity (vph)	133	561	538	133	561	734	199	1056		387	1052	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.80	0.74	0.18	0.91	0.93	0.44	0.52	0.86		0.37	0.50	

Intersection Summary			
Area Type:	Other		
Cycle Length: 123			
Actuated Cycle Length: 117			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay (s/veh): 49.8		Intersection LOS: D	
Intersection Capacity Utilization 80.3%		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: 8: 70th Avenue E & 20th Street E



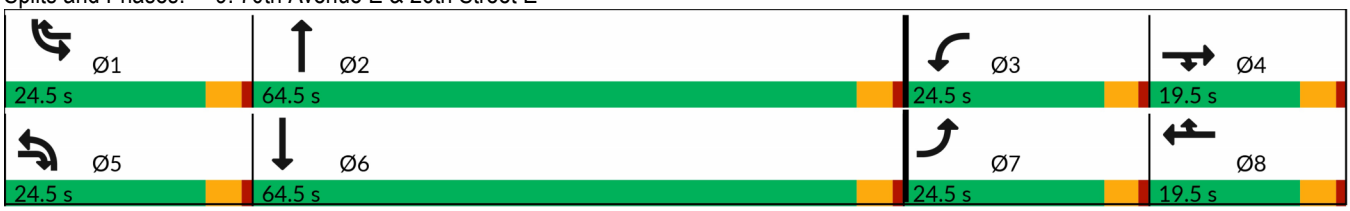


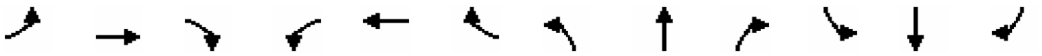
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	83	45	73	23	66	90	867	70	78	482	20
Future Volume (vph)	43	83	45	73	23	66	90	867	70	78	482	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	200		0	225		0
Storage Lanes	1		1	1		1	1		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	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.989			0.994	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1504	1583	1346	1504	1583	1346	1504	2975	0	1504	2990	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1504	1583	1346	1504	1583	1346	1504	2975	0	1504	2990	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			50			73		8			4	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1057			880			2032			2009	
Travel Time (s)		20.6			17.1			39.6			39.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	92	50	81	26	73	100	1041	0	87	558	0
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases	7	4	4 5	3	8	8 1	5	2		1	6	
Permitted Phases												
Detector Phase	7	4	4 5	3	8	8 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	10.0		6.0	10.0	
Minimum Split (s)	10.5	24.5		10.5	24.5		10.5	22.5		10.5	22.5	
Total Split (s)	24.5	19.5		24.5	19.5		24.5	64.5		24.5	64.5	
Total Split (%)	18.4%	14.7%		18.4%	14.7%		18.4%	48.5%		18.4%	48.5%	
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	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		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	10.1	12.1	25.0	12.0	16.2	28.6	13.3	48.9		12.5	48.2	
Actuated g/C Ratio	0.12	0.14	0.28	0.14	0.18	0.33	0.15	0.56		0.14	0.55	
v/c Ratio	0.28	0.42	0.12	0.40	0.09	0.15	0.44	0.63		0.41	0.34	
Control Delay (s/veh)	51.0	51.3	9.2	50.3	42.0	7.7	49.8	23.5		50.1	18.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	51.0	51.3	9.2	50.3	42.0	7.7	49.8	23.5		50.1	18.9	
LOS	D	D	A	D	D	A	D	C		D	B	
Approach Delay (s/veh)		40.1			31.8			25.8			23.1	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	27	51	0	45	13	0	55	264		48	115	
Queue Length 95th (ft)	78	131	31	115	47	35	135	446		121	206	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		977			800			1952			1929	
Turn Bay Length (ft)	150		150	150		150	200			225		
Base Capacity (vph)	431	340	584	431	385	664	431	2053		431	2062	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.11	0.27	0.09	0.19	0.07	0.11	0.23	0.51		0.20	0.27	

Intersection Summary			
Area Type:	Other		
Cycle Length: 133			
Actuated Cycle Length: 87.8			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay (s/veh): 26.8		Intersection LOS: C	
Intersection Capacity Utilization 53.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 9: 70th Avenue E & 26th Street E



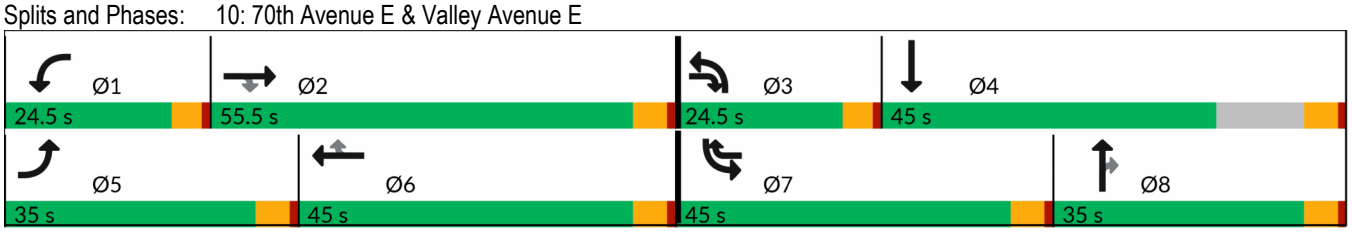


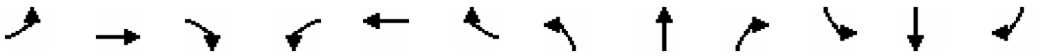
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	288	111	31	270	449	175	536	46	244	187	104
Future Volume (vph)	58	288	111	31	270	449	175	536	46	244	187	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		250	200		0	200		130	350		0
Storage Lanes	1		1	1		1	1		1	2		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	0.95	1.00	0.97	0.95	0.95
Frt			0.850			0.850			0.850		0.947	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1652	1404	1570	1652	1404	1570	3139	1404	3045	2973	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1570	1652	1404	1570	1652	1404	1570	3139	1404	3045	2973	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			116			343			143		70	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		831			1056			750			2032	
Travel Time (s)		18.9			24.0			14.6			39.6	
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 (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	300	116	32	281	468	182	558	48	254	303	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2	3	1	6	7	3	8		7	4	
Permitted Phases			2			6			8			
Detector Phase	5	2	3	1	6	7	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0	6.0	6.0	8.0	8.0	6.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	11.0	31.0	10.5	10.5	31.0	13.0	10.5	31.0	31.0	13.0	31.0	
Total Split (s)	35.0	55.5	24.5	24.5	45.0	45.0	24.5	35.0	35.0	45.0	45.0	
Total Split (%)	21.9%	34.7%	15.3%	15.3%	28.1%	28.1%	15.3%	21.9%	21.9%	28.1%	28.1%	
Yellow Time (s)	4.0	4.0	3.5	3.5	4.0	4.0	3.5	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	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	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.5	4.5	5.0	5.0	4.5	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	Min	None	None	Min	None	None	None	None	None	None	
Act Effct Green (s)	11.4	29.2	53.9	8.5	24.0	46.0	19.3	27.0	27.0	16.7	24.9	
Actuated g/C Ratio	0.12	0.30	0.56	0.09	0.25	0.48	0.20	0.28	0.28	0.17	0.26	
v/c Ratio	0.32	0.60	0.14	0.23	0.68	0.55	0.58	0.63	0.10	0.48	0.37	
Control Delay (s/veh)	50.4	36.8	3.2	52.5	44.9	7.8	48.8	37.1	0.4	42.5	25.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	50.4	36.8	3.2	52.5	44.9	7.8	48.8	37.1	0.4	42.5	25.4	
LOS	D	D	A	D	D	A	D	D	A	D	C	
Approach Delay (s/veh)		30.3			23.0			37.5			33.2	
Approach LOS		C			C			D			C	
Queue Length 50th (ft)	36	172	0	20	167	47	107	160	0	77	62	
Queue Length 95th (ft)	89	296	29	58	292	141	#242	285	0	136	120	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		751			976			670			1952	
Turn Bay Length (ft)	150		250	200			200		130	350		
Base Capacity (vph)	524	930	864	350	736	1131	350	1049	564	1357	1704	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.11	0.32	0.13	0.09	0.38	0.41	0.52	0.53	0.09	0.19	0.18	

Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 96.3			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay (s/veh): 30.9		Intersection LOS: C	
Intersection Capacity Utilization 60.1%		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: 10: 70th Avenue E & Valley Avenue E



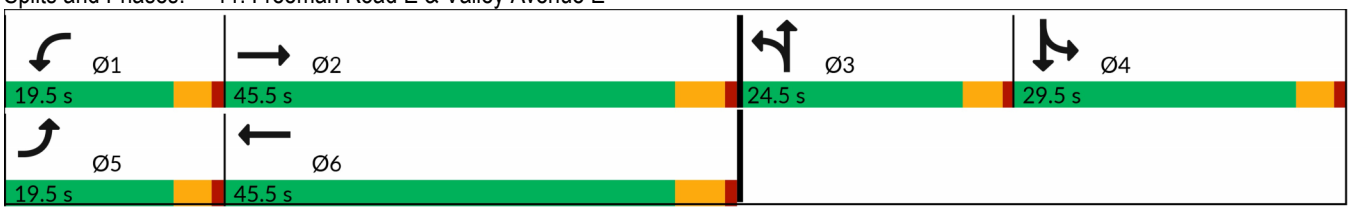


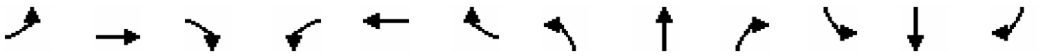
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	420	24	6	610	155	47	82	31	107	56	20
Future Volume (vph)	23	420	24	6	610	155	47	82	31	107	56	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	230		0	50		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.970			0.959			0.961	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1543	3061	0	1543	2993	0	1543	1557	0	1543	1561	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1543	3061	0	1543	2993	0	1543	1557	0	1543	1561	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			29			14			13	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		671			1259			2534			494	
Travel Time (s)		15.3			28.6			69.1			13.5	
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 (%)	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	24	473	0	6	814	0	50	120	0	114	81	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	3		4	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0		4.0	8.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	10.5	26.5		9.5	26.5		22.5	22.5		27.5	27.5	
Total Split (s)	19.5	45.5		19.5	45.5		24.5	24.5		29.5	29.5	
Total Split (%)	16.4%	38.2%		16.4%	38.2%		20.6%	20.6%		24.8%	24.8%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		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	5.5		4.5	5.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	8.3	32.4		7.5	30.1		12.5	12.5		12.9	12.9	
Actuated g/C Ratio	0.12	0.45		0.10	0.42		0.17	0.17		0.18	0.18	
v/c Ratio	0.13	0.34		0.04	0.64		0.19	0.43		0.41	0.28	
Control Delay (s/veh)	41.4	15.4		42.7	21.5		34.8	35.3		38.0	31.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	41.4	15.4		42.7	21.5		34.8	35.3		38.0	31.1	
LOS	D	B		D	C		C	D		D	C	
Approach Delay (s/veh)		16.7			21.7			35.2			35.1	
Approach LOS		B			C			D			D	
Queue Length 50th (ft)	10	66		2	129		19	41		44	25	
Queue Length 95th (ft)	42	159		18	307		65	123		125	85	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		591			1179			2454			414	
Turn Bay Length (ft)	150			230			50			250		
Base Capacity (vph)	380	1983		380	1872		507	521		634	649	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.06	0.24		0.02	0.43		0.10	0.23		0.18	0.12	

Intersection Summary			
Area Type:	Other		
Cycle Length: 119			
Actuated Cycle Length: 71.6			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay (s/veh): 23.1		Intersection LOS: C	
Intersection Capacity Utilization 42.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 11: Freeman Road E & Valley Avenue E



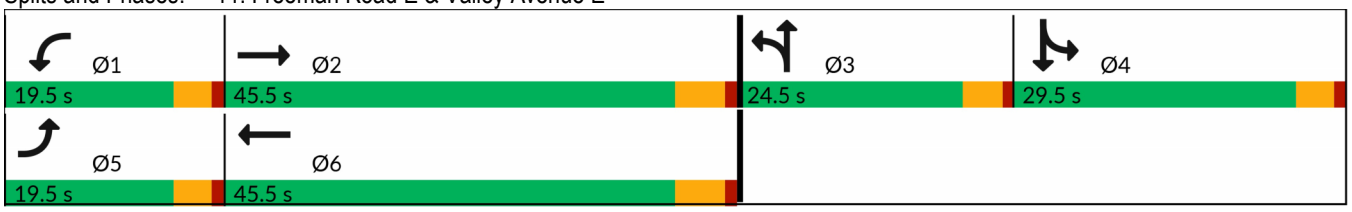


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	514	23	9	555	136	33	56	38	94	39	14
Future Volume (vph)	20	514	23	9	555	136	33	56	38	94	39	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	230		0	50		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.994			0.970			0.940			0.960	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1543	3067	0	1543	2993	0	1543	1526	0	1543	1559	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1543	3067	0	1543	2993	0	1543	1526	0	1543	1559	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			27			24			14	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		671			1259			4678			494	
Travel Time (s)		15.3			28.6			127.6			13.5	
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 (%)	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	21	571	0	10	735	0	35	100	0	100	56	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	3		4	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0		4.0	8.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	10.5	26.5		9.5	26.5		22.5	22.5		27.5	27.5	
Total Split (s)	19.5	45.5		19.5	45.5		24.5	24.5		29.5	29.5	
Total Split (%)	16.4%	38.2%		16.4%	38.2%		20.6%	20.6%		24.8%	24.8%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		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	5.5		4.5	5.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	9.1	33.9		8.6	31.9		11.5	11.5		12.7	12.7	
Actuated g/C Ratio	0.15	0.54		0.14	0.51		0.18	0.18		0.20	0.20	
v/c Ratio	0.09	0.34		0.05	0.48		0.12	0.33		0.32	0.17	
Control Delay (s/veh)	37.4	14.4		38.2	17.8		32.5	28.5		33.4	25.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	37.4	14.4		38.2	17.8		32.5	28.5		33.4	25.8	
LOS	D	B		D	B		C	C		C	C	
Approach Delay (s/veh)		15.2			18.1			29.6			30.7	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	6	72		3	96		10	23		30	12	
Queue Length 95th (ft)	36	184		23	250		49	95		109	60	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		591			1179			4598			414	
Turn Bay Length (ft)	150			230			50			250		
Base Capacity (vph)	500	2106		500	2027		667	673		766	780	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.04	0.27		0.02	0.36		0.05	0.15		0.13	0.07	

Intersection Summary			
Area Type:	Other		
Cycle Length: 119			
Actuated Cycle Length: 62.5			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay (s/veh): 19.2		Intersection LOS: B	
Intersection Capacity Utilization 39.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 11: Freeman Road E & Valley Avenue E



Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	4	7	130	77	9
Future Vol, veh/h	3	4	7	130	77	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	6	6	6	6	6	6
Mvmt Flow	4	5	9	159	94	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	275	99	105	0	-	0
Stage 1	99	-	-	-	-	-
Stage 2	176	-	-	-	-	-
Critical Hdwy	6.46	6.26	4.16	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	2.254	-	-	-
Pot Cap-1 Maneuver	706	945	1462	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	845	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	702	945	1462	-	-	-
Mov Cap-2 Maneuver	702	-	-	-	-	-
Stage 1	909	-	-	-	-	-
Stage 2	845	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.42	0.38	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	92	-	823	-	-
HCM Lane V/C Ratio	0.006	-	0.01	-	-
HCM Control Delay (s/veh)	7.5	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	6	3	150	70	1
Future Vol, veh/h	9	6	3	150	70	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	7	7	7	7	7	7
Mvmt Flow	10	7	3	170	80	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	257	80	81	0	-	0
Stage 1	80	-	-	-	-	-
Stage 2	177	-	-	-	-	-
Critical Hdwy	6.47	6.27	4.17	-	-	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.363	2.263	-	-	-
Pot Cap-1 Maneuver	721	966	1486	-	-	-
Stage 1	931	-	-	-	-	-
Stage 2	841	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	719	966	1486	-	-	-
Mov Cap-2 Maneuver	719	-	-	-	-	-
Stage 1	928	-	-	-	-	-
Stage 2	841	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.59	0.15	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	35	-	801	-	-
HCM Lane V/C Ratio	0.002	-	0.021	-	-
HCM Control Delay (s/veh)	7.4	0	9.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	1	15	0	5	0	157	20	7	69	2
Future Vol, veh/h	0	0	1	15	0	5	0	157	20	7	69	2
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	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	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	0	0	1	18	0	6	0	187	24	8	82	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	287	311	83	298	300	199	85	0	0	211	0	0
Stage 1	100	100	-	199	199	-	-	-	-	-	-	-
Stage 2	187	211	-	99	101	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.6	6.3	7.2	6.6	6.3	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.2	5.6	-	6.2	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.6	-	6.2	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4.09	3.39	3.59	4.09	3.39	2.29	-	-	2.29	-	-
Pot Cap-1 Maneuver	650	591	954	639	599	822	1463	-	-	1314	-	-
Stage 1	887	797	-	785	722	-	-	-	-	-	-	-
Stage 2	797	713	-	888	796	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	641	587	954	634	595	822	1463	-	-	1314	-	-
Mov Cap-2 Maneuver	641	587	-	634	595	-	-	-	-	-	-	-
Stage 1	881	792	-	785	722	-	-	-	-	-	-	-
Stage 2	791	713	-	881	791	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	8.78	10.55	0	0.7
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1463	-	-	954	673	161	-	-
HCM Lane V/C Ratio	-	-	-	0.001	0.035	0.006	-	-
HCM Control Delay (s/veh)	0	-	-	8.8	10.5	7.8	0	-
HCM Lane LOS	A	-	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	17	241	481	140	59	13
Future Vol, veh/h	17	241	481	140	59	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	89	89	89	89	89	89
Heavy Vehicles, %	11	11	11	11	11	11
Mvmt Flow	19	271	540	157	66	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	698	0	-	0	928	619
Stage 1	-	-	-	-	619	-
Stage 2	-	-	-	-	309	-
Critical Hdwy	4.21	-	-	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	2.299	-	-	-	3.599	3.399
Pot Cap-1 Maneuver	858	-	-	-	287	473
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	725	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	858	-	-	-	279	473
Mov Cap-2 Maneuver	-	-	-	-	279	-
Stage 1	-	-	-	-	506	-
Stage 2	-	-	-	-	725	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.61	0	21.27
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	119	-	-	-	301
HCM Lane V/C Ratio	0.022	-	-	-	0.268
HCM Control Delay (s/veh)	9.3	0	-	-	21.3
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1.1

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	17	241	481	140	59	13
Future Vol, veh/h	17	241	481	140	59	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	100	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	11	11	11	11	11	11
Mvmt Flow	19	271	540	157	66	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	698	0	-	0	928	619
Stage 1	-	-	-	-	619	-
Stage 2	-	-	-	-	309	-
Critical Hdwy	4.21	-	-	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	2.299	-	-	-	3.599	3.399
Pot Cap-1 Maneuver	858	-	-	-	287	473
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	725	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	858	-	-	-	280	473
Mov Cap-2 Maneuver	-	-	-	-	450	-
Stage 1	-	-	-	-	509	-
Stage 2	-	-	-	-	725	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.61	0	14.09
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	858	-	-	-	450	473
HCM Lane V/C Ratio	0.022	-	-	-	0.147	0.031
HCM Control Delay (s/veh)	9.3	-	-	-	14.4	12.9
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5	0.1

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	31	198	394	117	42	13
Future Vol, veh/h	31	198	394	117	42	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	89	89	89	89	89	89
Heavy Vehicles, %	11	11	11	11	11	11
Mvmt Flow	35	222	443	131	47	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	574	0	-	0	801	508
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	292	-
Critical Hdwy	4.21	-	-	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	2.299	-	-	-	3.599	3.399
Pot Cap-1 Maneuver	956	-	-	-	342	547
Stage 1	-	-	-	-	586	-
Stage 2	-	-	-	-	738	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	956	-	-	-	328	547
Mov Cap-2 Maneuver	-	-	-	-	328	-
Stage 1	-	-	-	-	562	-
Stage 2	-	-	-	-	738	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.21	0	16.99
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	244	-	-	-	362
HCM Lane V/C Ratio	0.036	-	-	-	0.171
HCM Control Delay (s/veh)	8.9	0	-	-	17
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	31	198	394	117	42	13
Future Vol, veh/h	31	198	394	117	42	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	100	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	11	11	11	11	11	11
Mvmt Flow	35	222	443	131	47	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	574	0	-	0	801	508
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	292	-
Critical Hdwy	4.21	-	-	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	2.299	-	-	-	3.599	3.399
Pot Cap-1 Maneuver	956	-	-	-	342	547
Stage 1	-	-	-	-	586	-
Stage 2	-	-	-	-	738	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	956	-	-	-	329	547
Mov Cap-2 Maneuver	-	-	-	-	497	-
Stage 1	-	-	-	-	565	-
Stage 2	-	-	-	-	738	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.21	0	12.71
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	956	-	-	-	497	547
HCM Lane V/C Ratio	0.036	-	-	-	0.095	0.027
HCM Control Delay (s/veh)	8.9	-	-	-	13	11.8
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	0.1

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1350	1099	911	809	581	423
Future Volume (vph)	1350	1099	911	809	581	423
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	2	2		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	0.88	0.95	1.00	0.97	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3155	2561	3252	1455	3155	3252
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3155	2561	3252	1455	3155	3252
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		5		719		
Link Speed (mph)	35		35			35
Link Distance (ft)	522		278			1175
Travel Time (s)	10.2		5.4			22.9
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1421	1157	959	852	612	445
Turn Type	Prot	pm+ov	NA	Perm	Prot	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8		2		
Minimum Split (s)	36.6	10.6	38.9	38.9	10.6	36.9
Total Split (s)	57.0	31.0	32.0	32.0	31.0	63.0
Total Split (%)	47.5%	25.8%	26.7%	26.7%	25.8%	52.5%
Yellow Time (s)	3.6	3.6	3.9	3.9	3.6	3.9
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)	4.6	4.6	4.9	4.9	4.6	4.9
Lead/Lag		Lead	Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Act Effct Green (s)	52.4	83.4	27.1	27.1	26.4	58.1
Actuated g/C Ratio	0.44	0.70	0.23	0.23	0.22	0.48
v/c Ratio	1.03	0.65	1.31	0.96	0.88	0.28
Control Delay (s/veh)	66.6	12.3	185.7	31.0	60.8	19.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	66.6	12.3	185.7	31.0	60.8	19.1
LOS	E	B	F	C	E	B
Approach Delay (s/veh)	42.2		112.9			43.2
Approach LOS	D		F			D
Queue Length 50th (ft)	~608	253	~502	122	238	105
Queue Length 95th (ft)	#744	326	#633	#444	#336	142
Internal Link Dist (ft)	442		198			1095
Turn Bay Length (ft)					250	
Base Capacity (vph)	1377	1781	734	885	694	1574
Starvation Cap Reductn	0	0	0	0	0	0

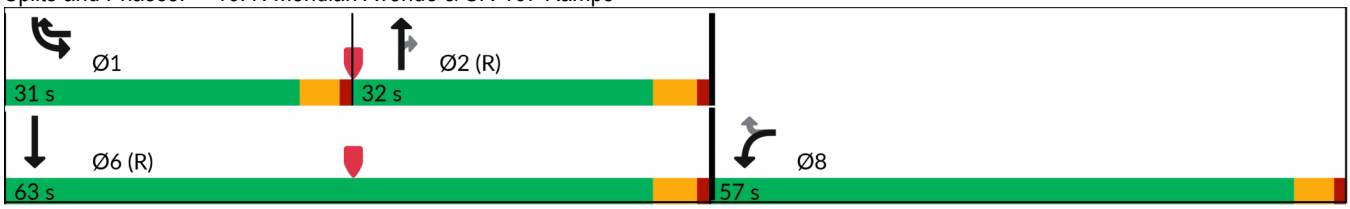
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.65	1.31	0.96	0.88	0.28

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 120			
Control Type: Pretimed			
Maximum v/c Ratio: 1.31			
Intersection Signal Delay (s/veh): 65.9		Intersection LOS: E	
Intersection Capacity Utilization 92.0%		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.

Splits and Phases: 16: N Meridian Avenue & SR-167 Ramps

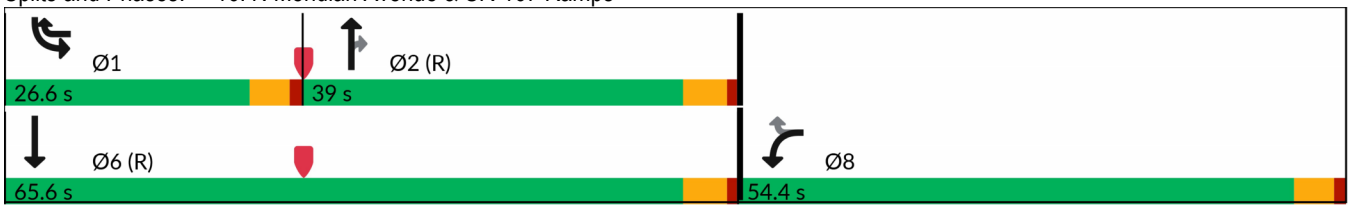


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1350	1099	911	809	581	423
Future Volume (vph)	1350	1099	911	809	581	423
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	2	2		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	0.88	0.95	1.00	0.97	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3155	2561	3252	1455	3155	3252
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3155	2561	3252	1455	3155	3252
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		19		760		
Link Speed (mph)	35		35			35
Link Distance (ft)	522		278			1175
Travel Time (s)	10.2		5.4			22.9
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1421	1157	959	852	612	445
Turn Type	Prot	pm+ov	NA	Perm	Prot	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8		2		
Minimum Split (s)	36.6	10.6	38.9	38.9	10.6	36.9
Total Split (s)	54.4	26.6	39.0	39.0	26.6	65.6
Total Split (%)	45.3%	22.2%	32.5%	32.5%	22.2%	54.7%
Yellow Time (s)	3.6	3.6	3.9	3.9	3.6	3.9
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)	4.6	4.6	4.9	4.9	4.6	4.9
Lead/Lag		Lead	Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Act Effct Green (s)	49.8	76.4	34.1	34.1	22.0	60.7
Actuated g/C Ratio	0.42	0.64	0.28	0.28	0.18	0.51
v/c Ratio	1.09	0.71	1.04	0.89	1.06	0.27
Control Delay (s/veh)	85.7	17.1	82.0	18.1	100.9	17.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	85.7	17.1	82.0	18.1	100.9	17.5
LOS	F	B	F	B	F	B
Approach Delay (s/veh)	55.0		52.0			65.8
Approach LOS	D		D			E
Queue Length 50th (ft)	~636	307	~421	55	~268	100
Queue Length 95th (ft)	#773	395	#553	#395	#384	135
Internal Link Dist (ft)	442		198			1095
Turn Bay Length (ft)					250	
Base Capacity (vph)	1309	1637	924	957	578	1644
Starvation Cap Reductn	0	0	0	0	0	0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.09	0.71	1.04	0.89	1.06	0.27

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 120			
Control Type: Pretimed			
Maximum v/c Ratio: 1.09			
Intersection Signal Delay (s/veh): 56.1		Intersection LOS: E	
Intersection Capacity Utilization 92.0%		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.			

Splits and Phases: 16: N Meridian Avenue & SR-167 Ramps



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	0	0	102	0	0	197	0	1409	195	0	1290	446
Future Vol, veh/h	0	0	102	0	0	197	0	1409	195	0	1290	446
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	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Free	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	0	107	0	0	207	0	1483	205	0	1358	469

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	914	-	-	742	-	0	-	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.08	-	-	7.08	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.39	-	-	3.39	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	263	0	0	343	0	-	0	0	-	-
Stage 1	0	0	-	0	0	-	0	-	0	0	-	-
Stage 2	0	0	-	0	0	-	0	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	-	-	263	-	-	343	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	27.88	30.27	0	0
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBT	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	263	343	-	-
HCM Lane V/C Ratio	-	0.409	0.604	-	-
HCM Control Delay (s/veh)	-	27.9	30.3	-	-
HCM Lane LOS	-	D	D	-	-
HCM 95th %tile Q(veh)	-	1.9	3.8	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1000	0	352	10	514	612	0	0	0	0	306	840
Future Volume (vph)	1000	0	352	10	514	612	0	0	0	0	306	840
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	125		0	0		0	0		250
Storage Lanes	2		1	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected	0.950			0.950								
Satd. Flow (prot)	3273	0	1509	1687	3374	1509	0	0	0	0	3374	1509
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	3273	0	1509	1687	3374	1509	0	0	0	0	3374	1509
Right Turn on Red			No	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				90		441						597
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		673			590			2133			1751	
Travel Time (s)		13.1			11.5			58.2			47.8	
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 (%)	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1064	0	374	11	547	651	0	0	0	0	326	894
Turn Type	Prot		Prot	Perm	NA	Perm					NA	Perm
Protected Phases	1		1		2						4	
Permitted Phases				2		2						4
Detector Phase	1		1	2	2	2					4	4
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0					10.0	10.0
Minimum Split (s)	10.1		10.1	35.1	35.1	35.1					30.8	30.8
Total Split (s)	31.0		31.0	31.0	31.0	31.0					22.0	22.0
Total Split (%)	36.9%		36.9%	36.9%	36.9%	36.9%					26.2%	26.2%
Yellow Time (s)	3.6		3.6	3.6	3.6	3.6					3.3	3.3
All-Red Time (s)	1.5		1.5	1.5	1.5	1.5					1.5	1.5
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Lost Time (s)	5.1		5.1	5.1	5.1	5.1					4.8	4.8
Lead/Lag	Lead		Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes						
Recall Mode	None		None	Max	Max	Max					None	None
Act Effct Green (s)	25.9		25.9	30.0	30.0	30.0					17.2	17.2
Actuated g/C Ratio	0.29		0.29	0.34	0.34	0.34					0.20	0.20
v/c Ratio	1.11		0.84	0.02	0.48	0.81					0.50	1.15
Control Delay (s/veh)	93.7		48.4	0.1	24.6	17.7					34.6	97.1
Queue Delay	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Delay (s/veh)	93.7		48.4	0.1	24.6	17.7					34.6	97.1
LOS	F		D	A	C	B					C	F
Approach Delay (s/veh)		82.0			20.6						80.4	
Approach LOS		F			C						F	
Queue Length 50th (ft)	~351		194	0	124	102					85	~301
Queue Length 95th (ft)	#472		#347	0	172	#319					127	#532

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		593			510			2053			1671	
Turn Bay Length (ft)				125								250
Base Capacity (vph)	962		443	633	1148	804					658	775
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	1.11		0.84	0.02	0.48	0.81					0.50	1.15

Intersection Summary			
Area Type:	Other		
Cycle Length: 84			
Actuated Cycle Length: 88.1			
Natural Cycle: 120			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.15			
Intersection Signal Delay (s/veh): 62.3		Intersection LOS: E	
Intersection Capacity Utilization 74.5%		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.

Splits and Phases: 18: N Meridian Avenue & River Road/2nd Street NE

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1000	0	352	10	514	612	0	0	0	0	306	840
Future Volume (vph)	1000	0	352	10	514	612	0	0	0	0	306	840
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	125		0	0		0	0		250
Storage Lanes	2		1	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected	0.950			0.950								
Satd. Flow (prot)	3273	0	1509	1687	3374	1509	0	0	0	0	3374	1509
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	3273	0	1509	1687	3374	1509	0	0	0	0	3374	1509
Right Turn on Red			No	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				63		525						636
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		673			590			2133			1751	
Travel Time (s)		13.1			11.5			58.2			47.8	
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 (%)	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1064	0	374	11	547	651	0	0	0	0	326	894
Turn Type	Prot		Prot	Perm	NA	Perm					NA	Perm
Protected Phases	1		1		2						4	
Permitted Phases				2		2						4
Detector Phase	1		1	2	2	2					4	4
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0					10.0	10.0
Minimum Split (s)	10.1		10.1	35.1	35.1	35.1					30.8	30.8
Total Split (s)	44.0		44.0	36.0	36.0	36.0					40.0	40.0
Total Split (%)	36.7%		36.7%	30.0%	30.0%	30.0%					33.3%	33.3%
Yellow Time (s)	3.6		3.6	3.6	3.6	3.6					3.3	3.3
All-Red Time (s)	1.5		1.5	1.5	1.5	1.5					1.5	1.5
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Lost Time (s)	5.1		5.1	5.1	5.1	5.1					4.8	4.8
Lead/Lag	Lead		Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes						
Recall Mode	None		None	Max	Max	Max					None	None
Act Effct Green (s)	38.9		38.9	30.9	30.9	30.9					35.2	35.2
Actuated g/C Ratio	0.32		0.32	0.26	0.26	0.26					0.29	0.29
v/c Ratio	1.00		0.76	0.02	0.63	0.84					0.33	1.00
Control Delay (s/veh)	69.3		48.3	0.1	43.3	19.4					34.3	43.8
Queue Delay	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Delay (s/veh)	69.3		48.3	0.1	43.3	19.4					34.3	43.8
LOS	E		D	A	D	B					C	D
Approach Delay (s/veh)		63.8			30.0						41.2	
Approach LOS		E			C						D	
Queue Length 50th (ft)	~426		259	0	198	90					104	~287
Queue Length 95th (ft)	#574		#387	0	259	#326					145	#598

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		593			510			2053			1671	
Turn Bay Length (ft)				125								250
Base Capacity (vph)	1060		489	481	868	778					989	892
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	1.00		0.76	0.02	0.63	0.84					0.33	1.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Natural Cycle: 120			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.00			
Intersection Signal Delay (s/veh): 46.1		Intersection LOS: D	
Intersection Capacity Utilization 74.5%		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.

Splits and Phases: 18: N Meridian Avenue & River Road/2nd Street NE

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	169	46	45	169	0	0	0	0	155	509	30
Future Volume (vph)	0	169	46	45	169	0	0	0	0	155	509	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	125		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	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	0.95	0.95	0.95
Frt			0.850								0.994	
Flt Protected				0.950							0.989	
Satd. Flow (prot)	0	1810	1538	1719	1810	0	0	0	0	0	3380	0
Flt Permitted				0.417							0.989	
Satd. Flow (perm)	0	1810	1538	755	1810	0	0	0	0	0	3380	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91								16	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		393			385			1349			2133	
Travel Time (s)		10.7			10.5			36.8			58.2	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	194	53	52	194	0	0	0	0	0	797	0
Turn Type		NA	Perm	pm+pt	NA					Perm	NA	
Protected Phases		8		7	4						2	
Permitted Phases			8	4						2		
Detector Phase		8	8	7	4					2	2	
Switch Phase												
Minimum Initial (s)		5.0	5.0	5.0	5.0					10.0	10.0	
Minimum Split (s)		21.0	21.0	9.0	21.0					23.0	23.0	
Total Split (s)		9.0	9.0	7.0	13.0					44.0	44.0	
Total Split (%)		15.0%	15.0%	11.7%	21.7%					73.3%	73.3%	
Yellow Time (s)		3.0	3.0	3.0	3.0					3.0	3.0	
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)		4.0	4.0	4.0	4.0						4.0	
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		None	None	None	None					Max	Max	
Act Effct Green (s)		5.6	5.6	9.8	9.8						41.7	
Actuated g/C Ratio		0.09	0.09	0.16	0.16						0.70	
v/c Ratio		1.14	0.23	0.30	0.65						0.34	
Control Delay (s/veh)		144.1	5.5	24.8	33.4						4.2	
Queue Delay		0.0	0.0	0.0	0.0						0.0	
Total Delay (s/veh)		144.1	5.5	24.8	33.4						4.2	
LOS		F	A	C	C						A	
Approach Delay (s/veh)		114.4			31.6						4.2	
Approach LOS		F			C						A	
Queue Length 50th (ft)		~92	0	16	63						52	
Queue Length 95th (ft)		#193	13	39	115						72	

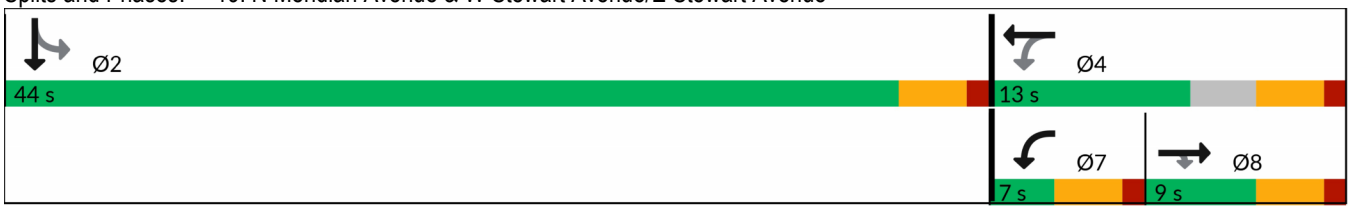
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		313			305			1269			2053	
Turn Bay Length (ft)			50	125								
Base Capacity (vph)		170	227	173	366						2373	
Starvation Cap Reductn		0	0	0	0						0	
Spillback Cap Reductn		0	0	0	0						0	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		1.14	0.23	0.30	0.53						0.34	

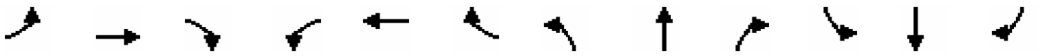
Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 59.5			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.14			
Intersection Signal Delay (s/veh): 30.5		Intersection LOS: C	
Intersection Capacity Utilization 53.1%		ICU Level of Service A	
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: 19: N Meridian Avenue & W Stewart Avenue/E Stewart Avenue



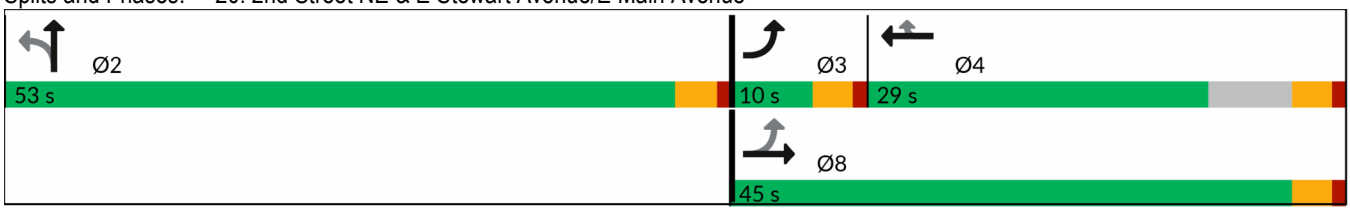


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	254	0	0	137	180	71	932	0	0	0	0
Future Volume (vph)	54	254	0	0	137	180	71	932	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	0		125	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
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	0.95	1.00	1.00	1.00
Frt						0.850						
Flt Protected	0.950							0.996				
Satd. Flow (prot)	1736	1827	0	0	1827	1553	0	3457	0	0	0	0
Flt Permitted	0.450							0.996				
Satd. Flow (perm)	822	1827	0	0	1827	1553	0	3457	0	0	0	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		385			615			394			343	
Travel Time (s)		10.5			16.8			10.7			9.4	
Peak Hour 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
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	267	0	0	144	189	0	1056	0	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA				
Protected Phases	3	8			4			2				
Permitted Phases	8					4	2					
Detector Phase	3	8			4	4	2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	10.0	10.0				
Minimum Split (s)	9.5	28.0			28.0	28.0	26.0	26.0				
Total Split (s)	10.0	45.0			29.0	29.0	53.0	53.0				
Total Split (%)	10.2%	45.9%			29.6%	29.6%	54.1%	54.1%				
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0				
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)	4.0	4.0			4.0	4.0		4.0				
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	None			None	None	Max	Max				
Act Effct Green (s)	18.8	18.8			13.4	13.4		49.6				
Actuated g/C Ratio	0.25	0.25			0.18	0.18		0.65				
v/c Ratio	0.21	0.59			0.45	0.69		0.47				
Control Delay (s/veh)	22.6	30.3			33.6	44.4		9.1				
Queue Delay	0.0	0.0			0.0	0.0		0.0				
Total Delay (s/veh)	22.6	30.3			33.6	44.4		9.1				
LOS	C	C			C	D		A				
Approach Delay (s/veh)		28.9			39.8			9.1				
Approach LOS		C			D			A				
Queue Length 50th (ft)	21	111			66	90		135				
Queue Length 95th (ft)	47	179			119	159		230				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		305			535			314			263	
Turn Bay Length (ft)	50					125						
Base Capacity (vph)	274	990			749	636		2240				
Starvation Cap Reductn	0	0			0	0		0				
Spillback Cap Reductn	0	0			0	0		0				
Storage Cap Reductn	0	0			0	0		0				
Reduced v/c Ratio	0.21	0.27			0.19	0.30		0.47				

Intersection Summary			
Area Type:	Other		
Cycle Length: 98			
Actuated Cycle Length: 76.5			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay (s/veh): 18.8		Intersection LOS: B	
Intersection Capacity Utilization 53.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 20: 2nd Street NE & E Stewart Avenue/E Main Avenue



Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	0	139	16	13	68
Future Vol, veh/h	4	0	139	16	13	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
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	0	151	17	14	74

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	262	160	0	0	168	0
Stage 1	160	-	-	-	-	-
Stage 2	102	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	727	885	-	-	1409	-
Stage 1	869	-	-	-	-	-
Stage 2	922	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	720	885	-	-	1409	-
Mov Cap-2 Maneuver	720	-	-	-	-	-
Stage 1	869	-	-	-	-	-
Stage 2	913	-	-	-	-	-

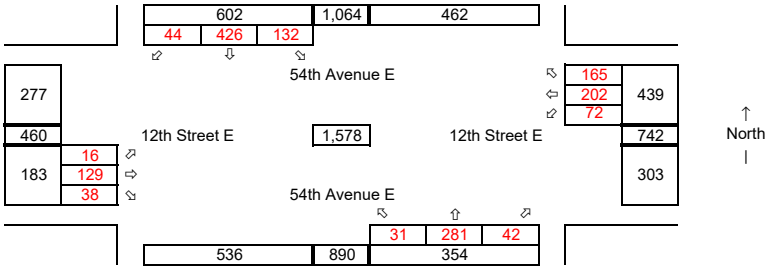
Approach	WB	NB	SB
HCM Control Delay, s/v	10.03	0	1.22
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	720	1409	-
HCM Lane V/C Ratio	-	-	0.006	0.01	-
HCM Control Delay (s/veh)	-	-	10	7.6	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Synchro ID: 1
Existing
Average Weekday
PM Peak Hour

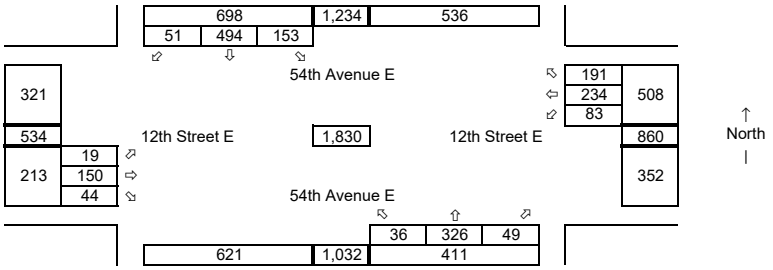
Year: **6/8/2023**

Data Source: IDAX

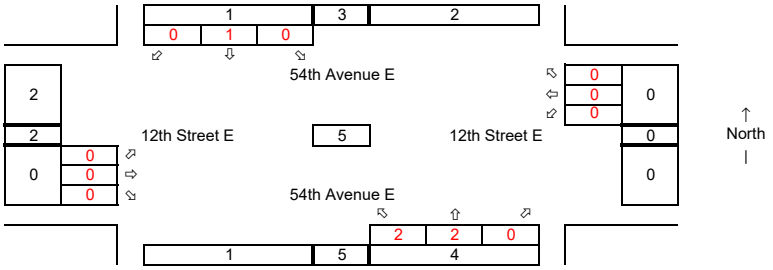


Future without Project
Average Weekday
PM Peak Hour

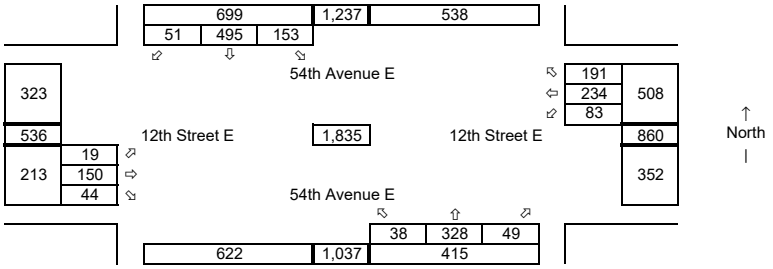
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



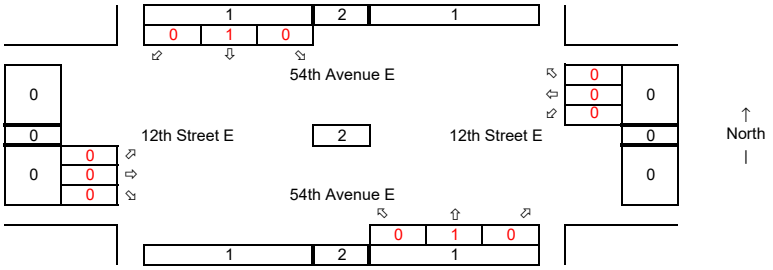
Total Development Trips
Average Weekday
PM Peak Hour



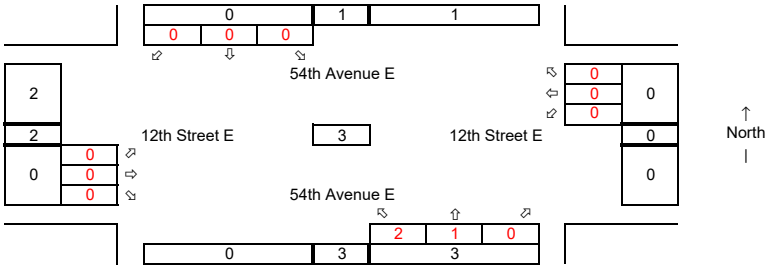
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour

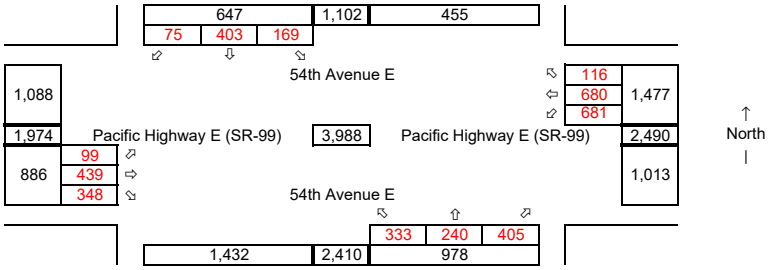


Synchro ID: 2
Existing
Average Weekday
PM Peak Hour

Year: **6/15/2023**

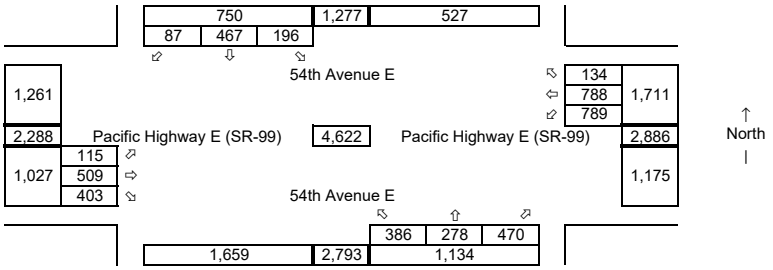
Data Source: IDAX

Two (2) Eastbound U-turns added to Eastbound left-turns

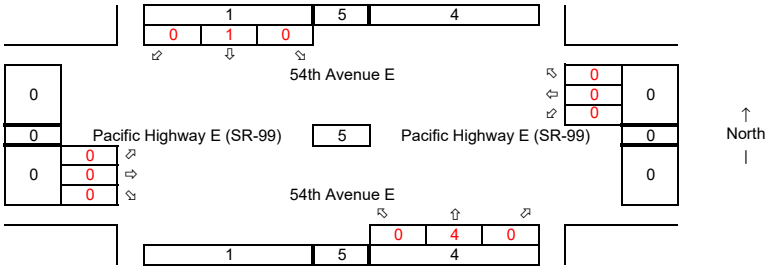


Future without Project
Average Weekday
PM Peak Hour

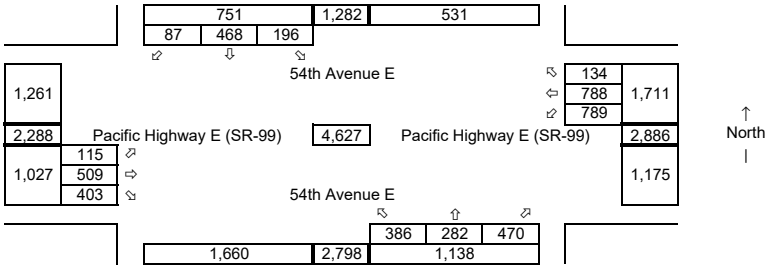
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



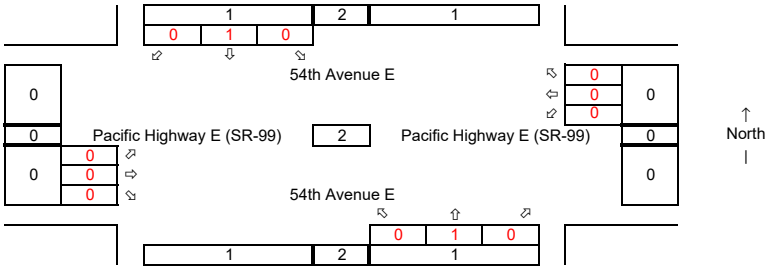
Total Development Trips
Average Weekday
PM Peak Hour



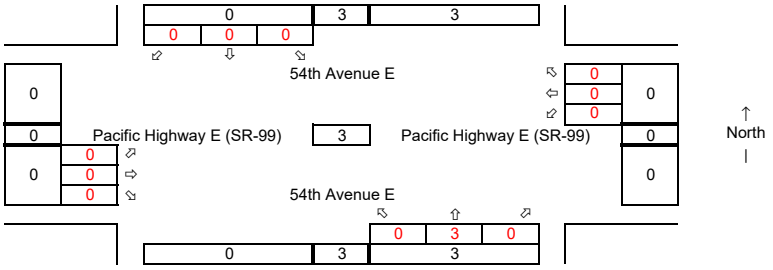
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour

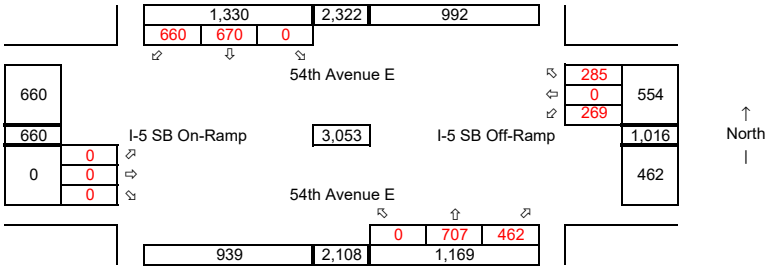


Synchro ID: 3
Existing
Average Weekday
PM Peak Hour

Year: **6/15/2023**

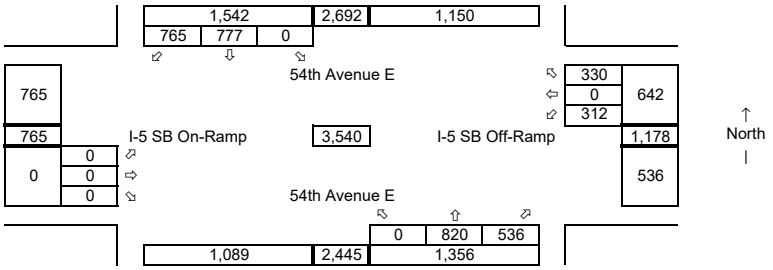
Data Source: IDAX

One (1) NB U-turn added to NBT.
One (1) NBL added to NBR.
One (1) WBT added to WBL

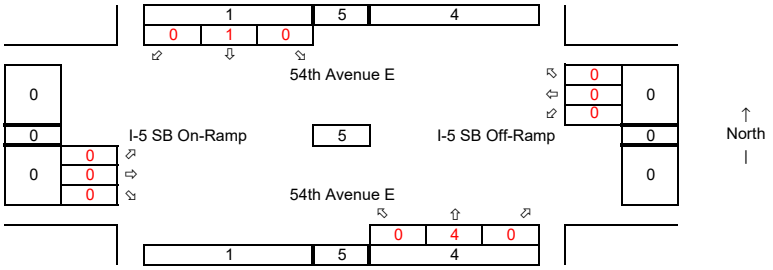


Future without Project
Average Weekday
PM Peak Hour

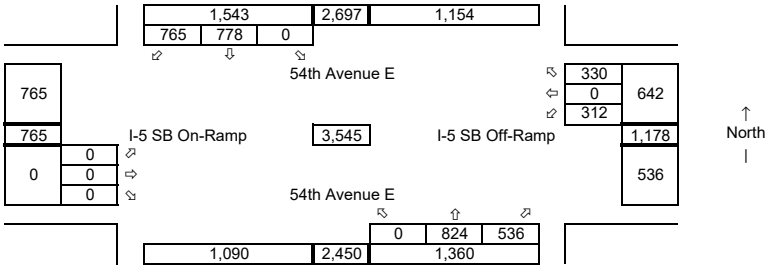
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



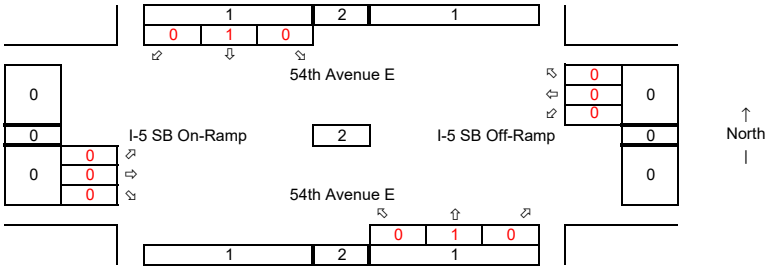
Total Development Trips
Average Weekday
PM Peak Hour



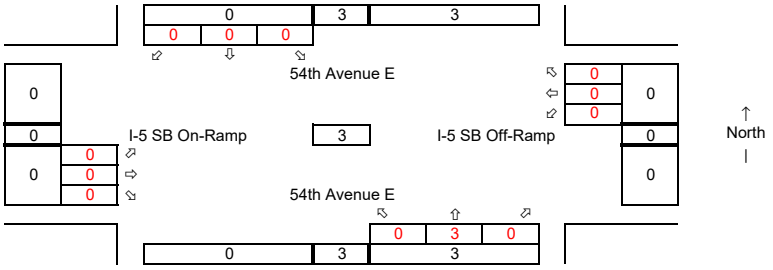
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



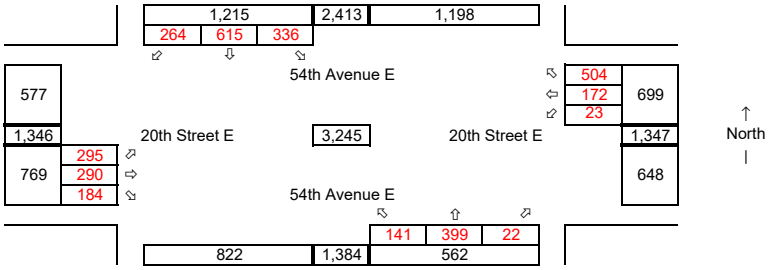
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 4
Existing
Average Weekday
PM Peak Hour

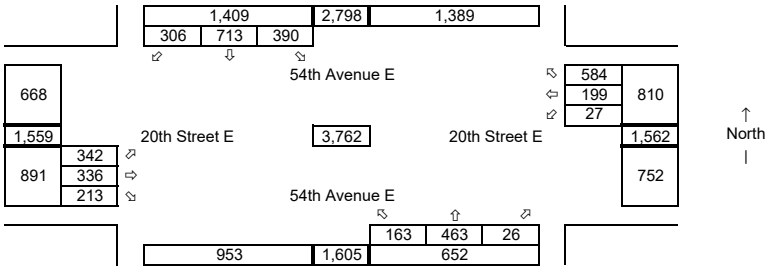
Year: **6/15/2023**

Data Source: IDAX

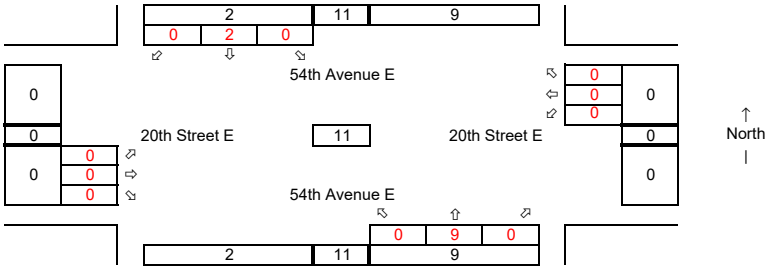


Future without Project
Average Weekday
PM Peak Hour

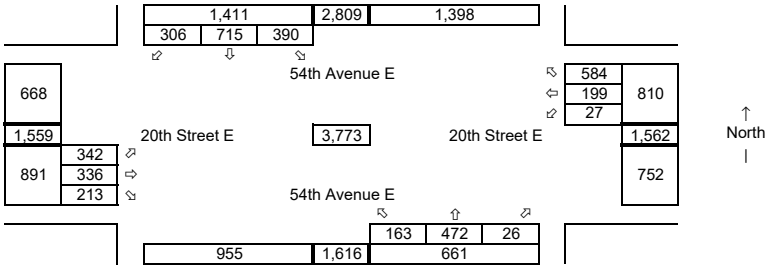
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



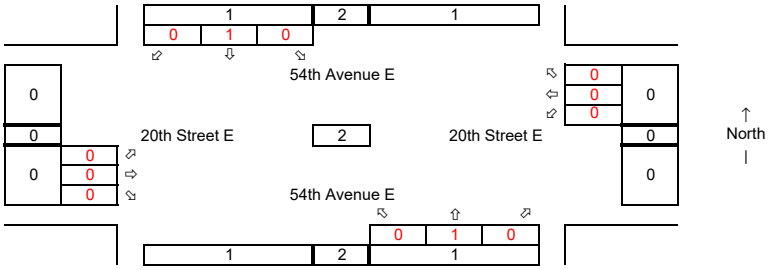
Total Development Trips
Average Weekday
PM Peak Hour



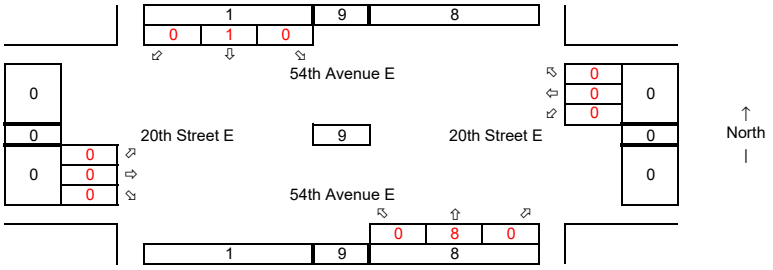
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



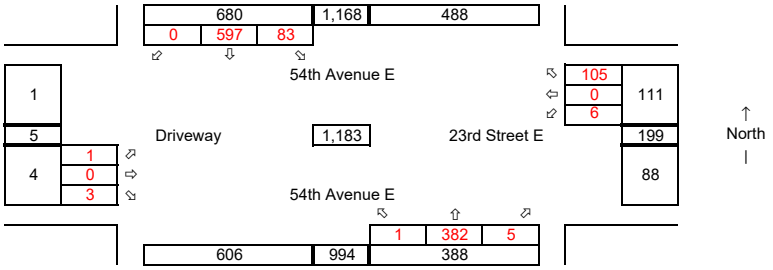
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 5
Existing
Average Weekday
PM Peak Hour

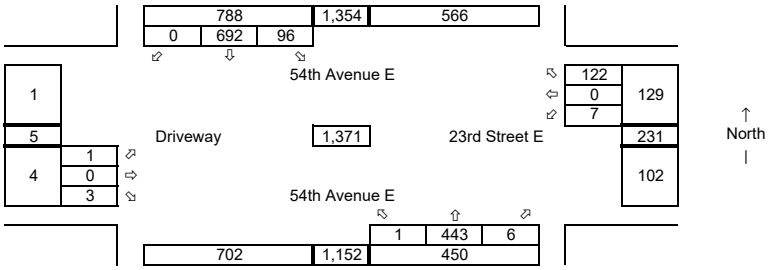
Year: **6/8/2023**

Data Source: IDAX

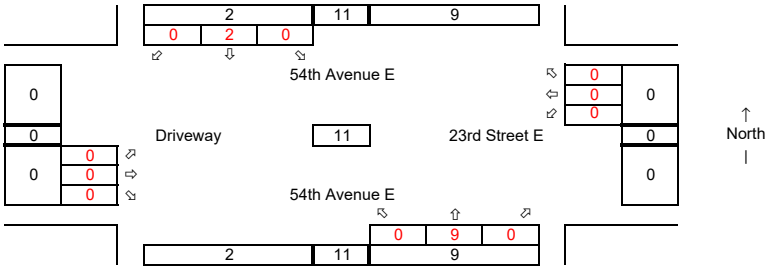


Future without Project
Average Weekday
PM Peak Hour

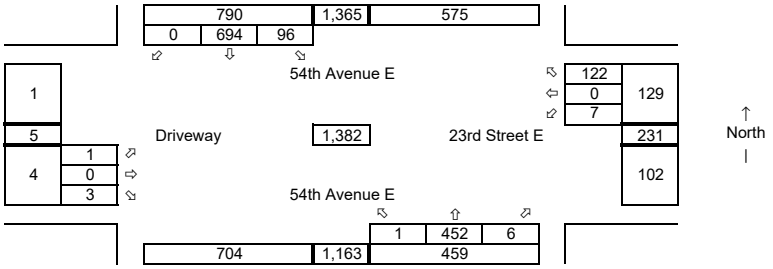
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



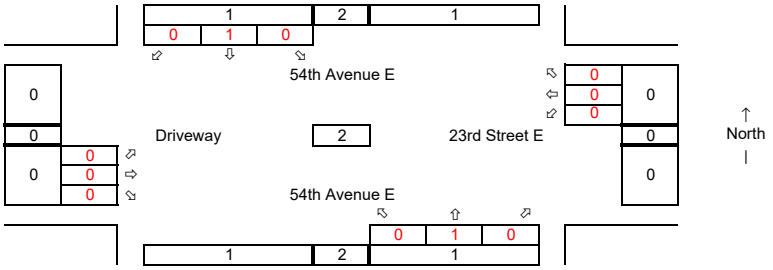
Total Development Trips
Average Weekday
PM Peak Hour



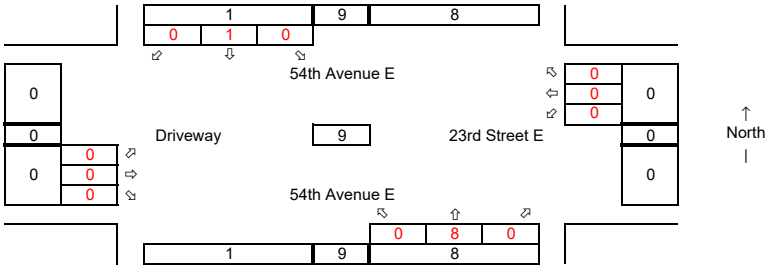
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



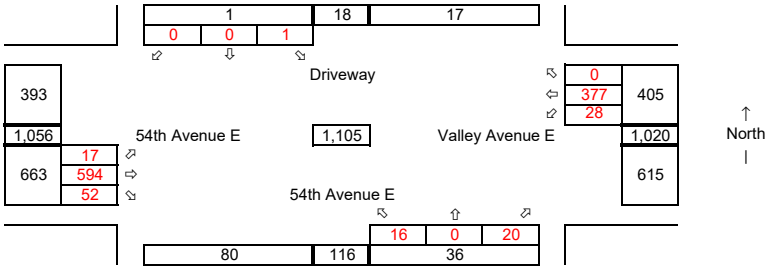
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 6
Existing
Average Weekday
PM Peak Hour

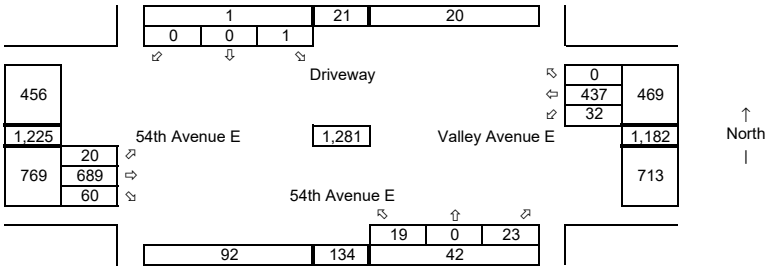
Year: **6/15/2023**

Data Source: IDAX

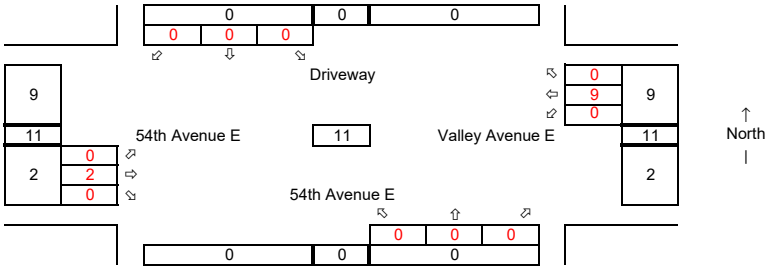


Future without Project
Average Weekday
PM Peak Hour

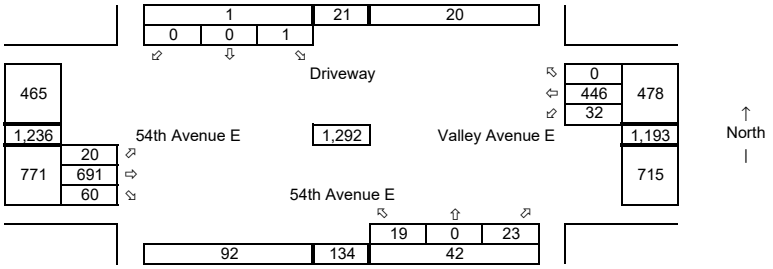
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



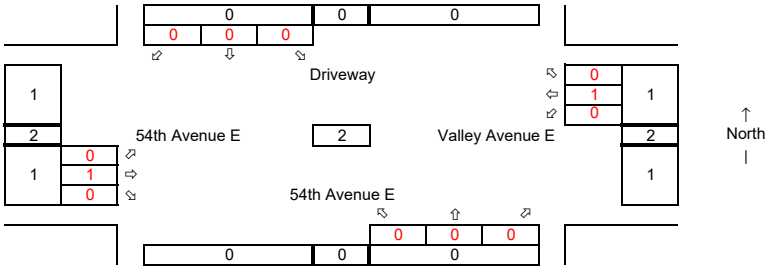
Total Development Trips
Average Weekday
PM Peak Hour



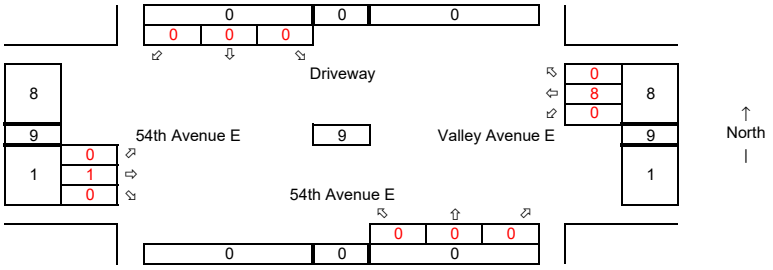
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour



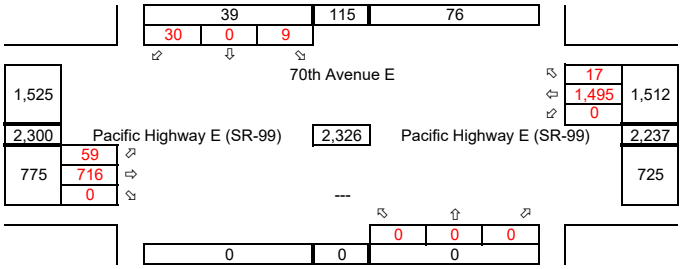
Synchro ID: 7

Existing
Average Weekday
PM Peak Hour

Year: **6/15/2023**

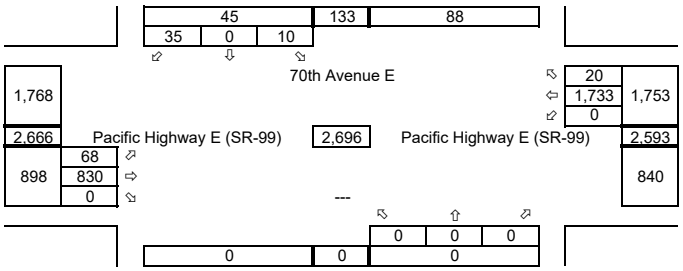
Data Source: IDAX

One (1) Eastbound U-turn
added to Eastbound left-turns

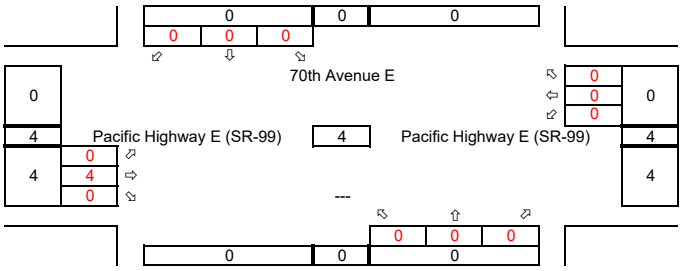


Future without Project
Average Weekday
PM Peak Hour

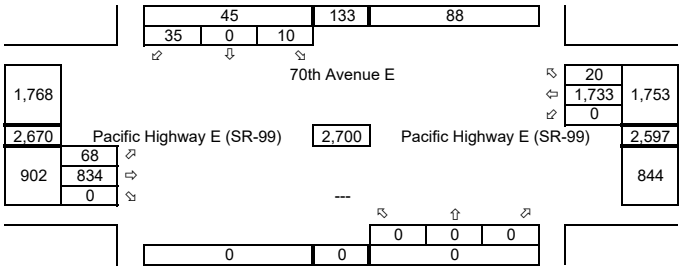
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



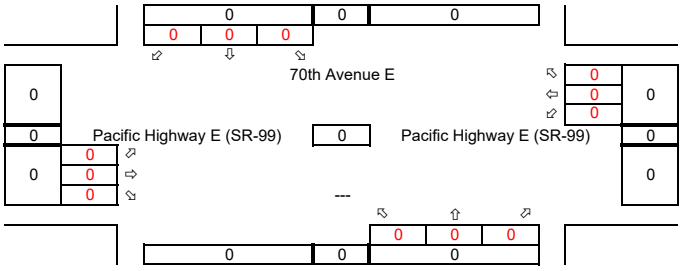
Total Development Trips
Average Weekday
PM Peak Hour



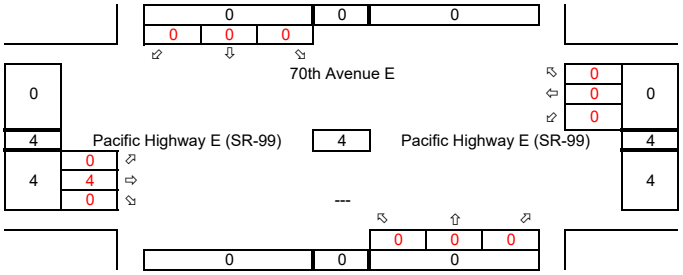
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



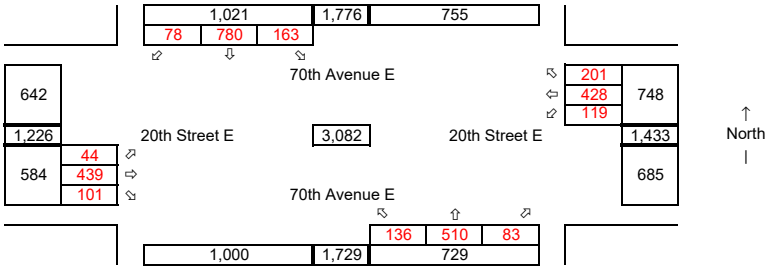
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 8
Existing
Average Weekday
PM Peak Hour

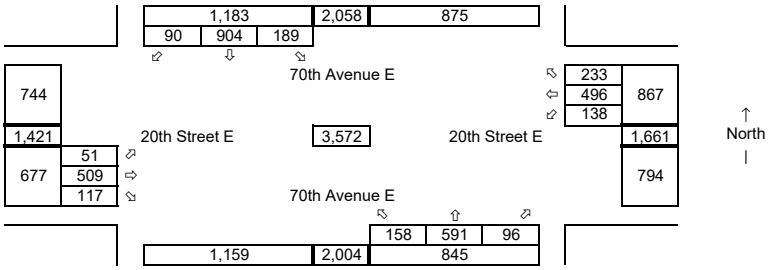
Year: **6/8/2023**

Data Source: IDAX

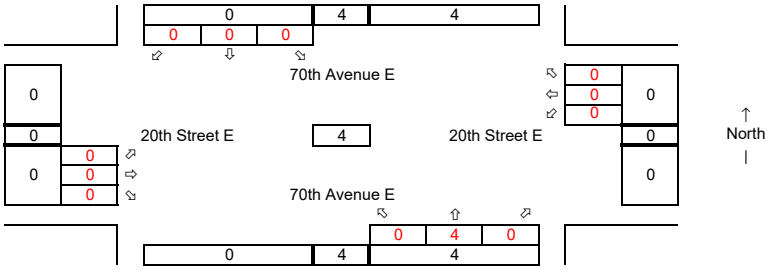


Future without Project
Average Weekday
PM Peak Hour

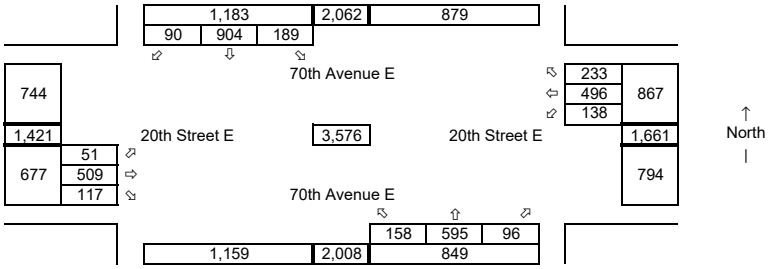
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



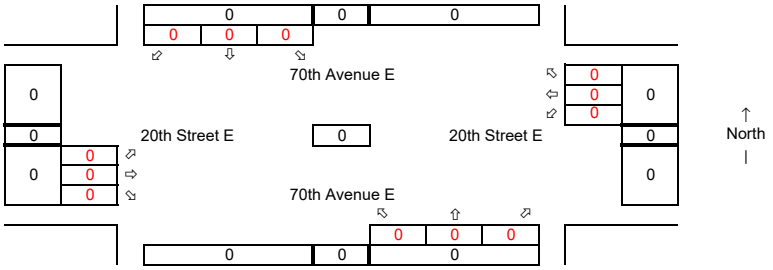
Total Development Trips
Average Weekday
PM Peak Hour



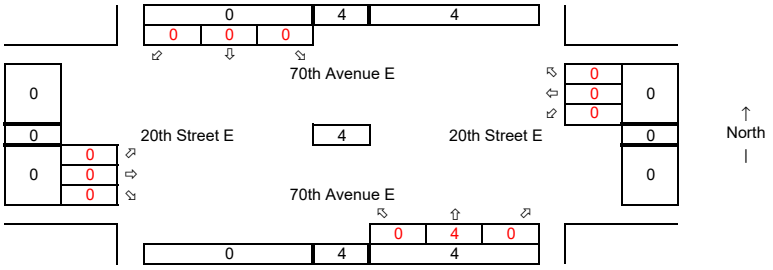
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



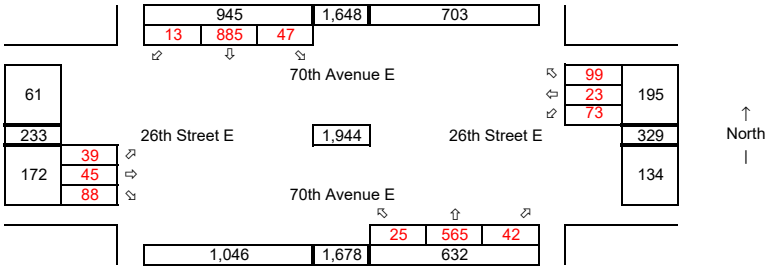
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 9
Existing
Average Weekday
PM Peak Hour

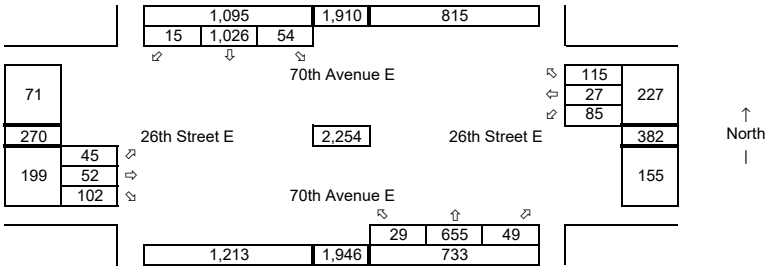
Year: **6/8/2023**

Data Source: IDAX

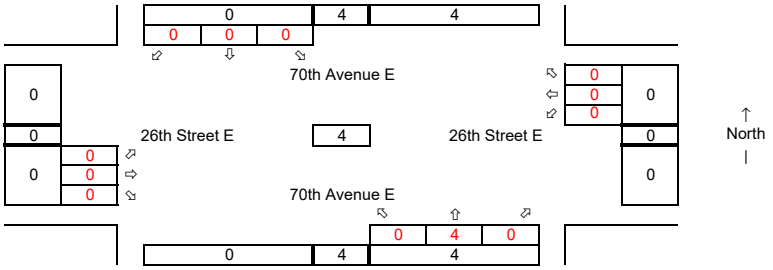


Future without Project
Average Weekday
PM Peak Hour

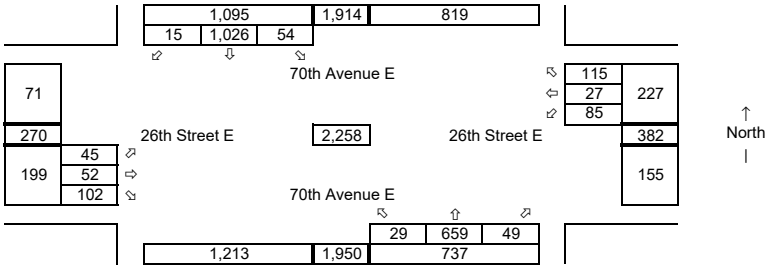
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



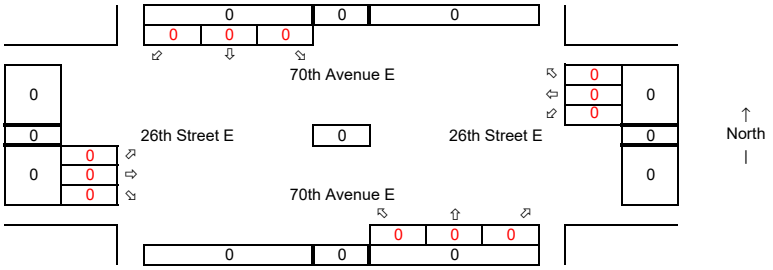
Total Development Trips
Average Weekday
PM Peak Hour



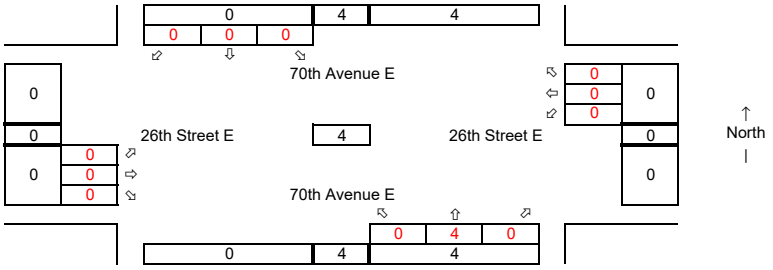
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



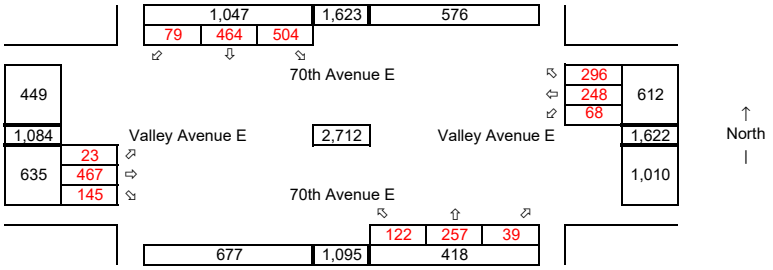
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 10
Existing
Average Weekday
PM Peak Hour

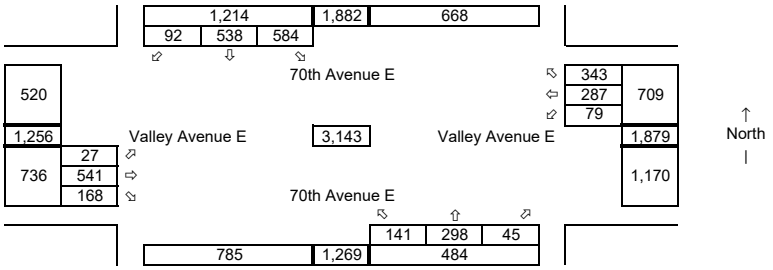
Year: **6/8/2023**

Data Source: IDAX

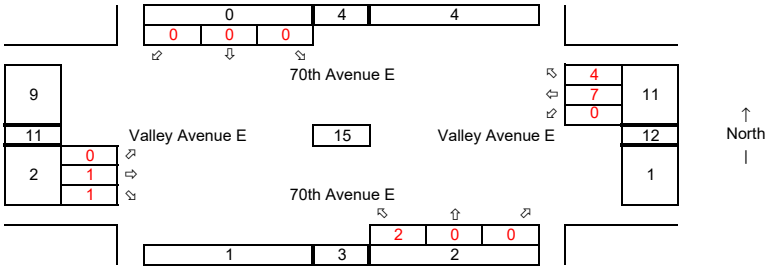


Future without Project
Average Weekday
PM Peak Hour

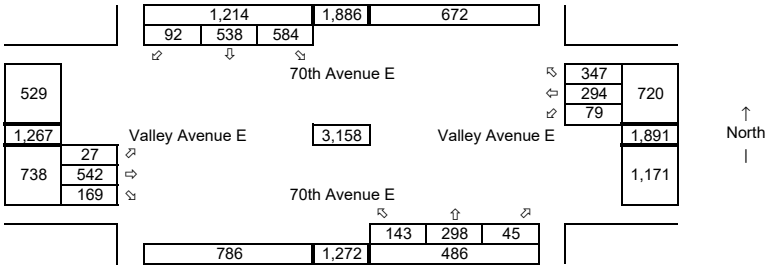
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



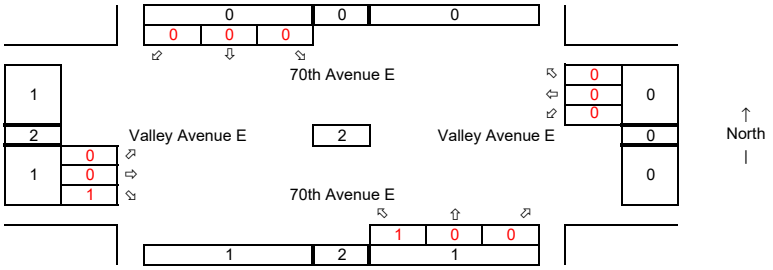
Total Development Trips
Average Weekday
PM Peak Hour



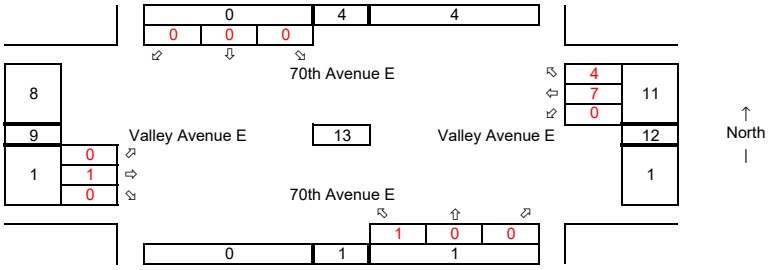
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



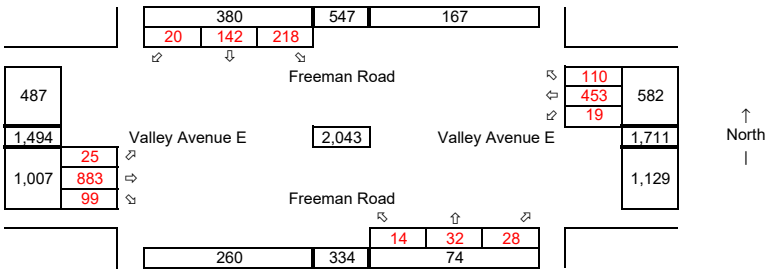
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 11
Existing
Average Weekday
PM Peak Hour

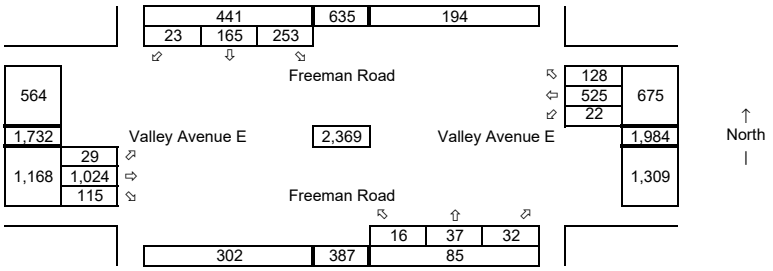
Year: **6/14/2023**

Data Source: IDAX

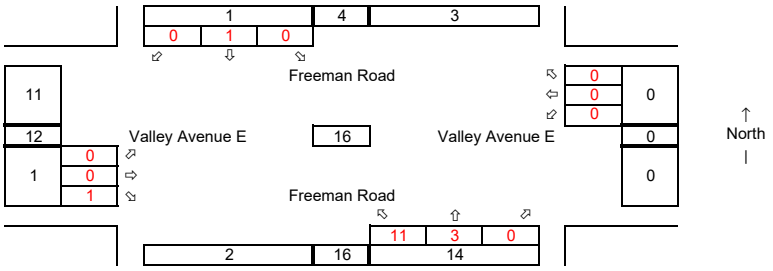


Future without Project
Average Weekday
PM Peak Hour

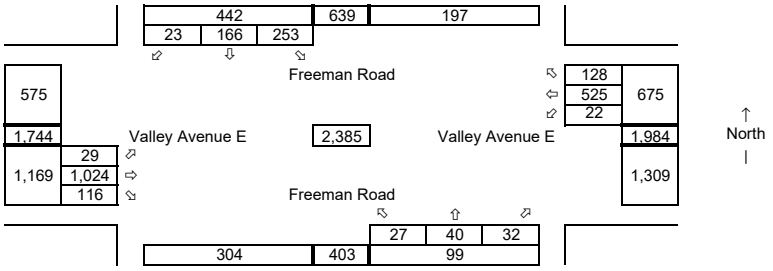
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



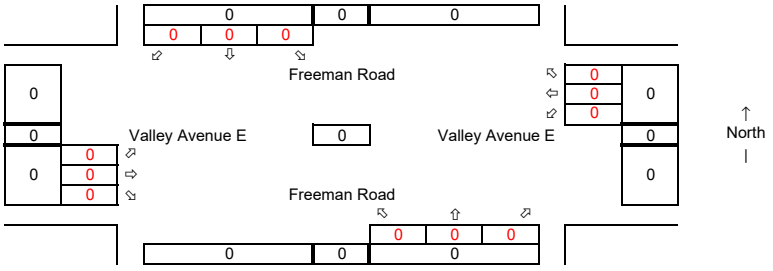
Total Development Trips
Average Weekday
PM Peak Hour



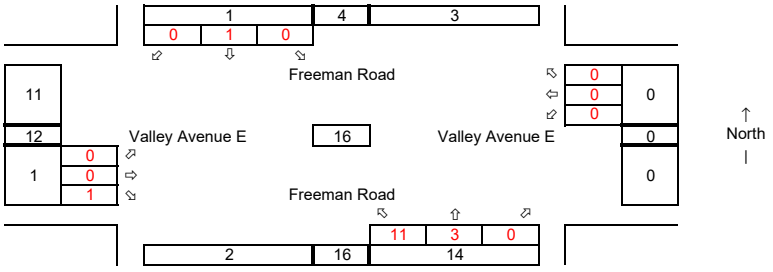
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour



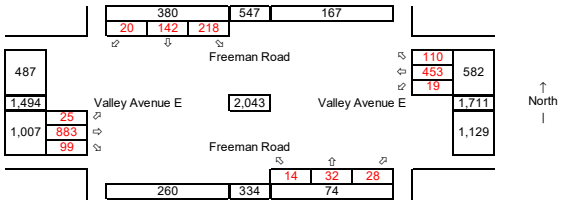
With SR-167 Extension

Synchro ID: 11

Existing
Average Weekday
PM Peak Hour

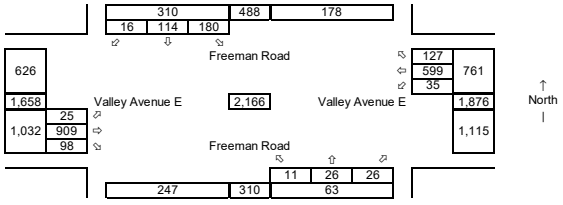
Year: **6/14/2023**

Data Source: IDAX

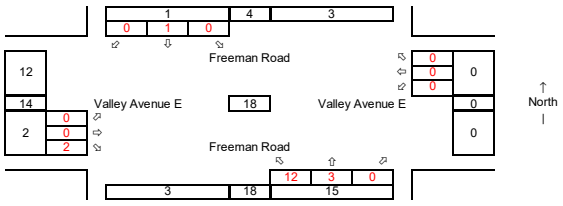


Future without Project
Average Weekday
PM Peak Hour

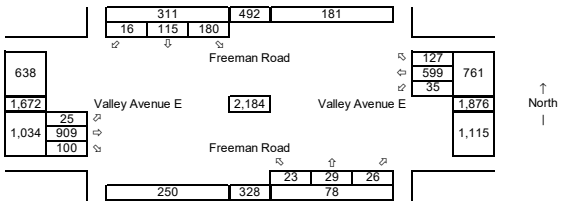
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



Total Development Trips
Average Weekday
PM Peak Hour

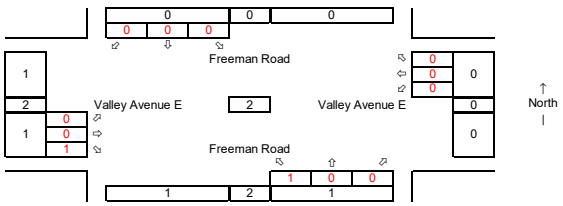


Future with Project
Average Weekday
PM Peak Hour

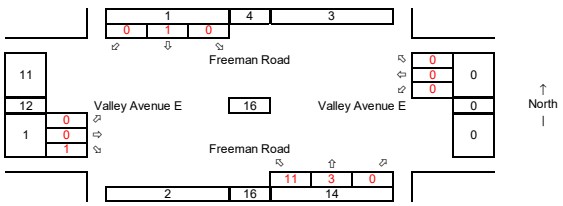


Development Truck Trips
Average Weekday
PM Peak Hour

N/S Diversion % +50%
from 70th Ave E

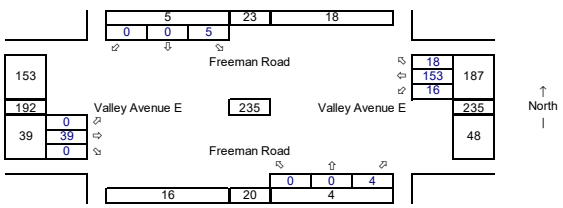


Development Car Trips
Average Weekday
PM Peak Hour



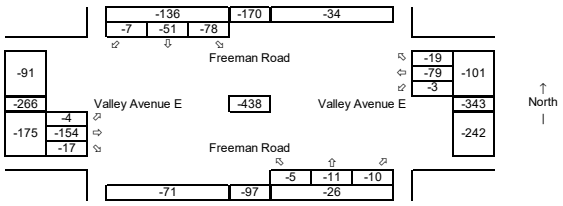
Total Pipeline Project Trips
Average Weekday
PM Peak Hour

Prologis Park Edgewood



SR-167 Extension Diversion
Average Weekday
PM Peak Hour

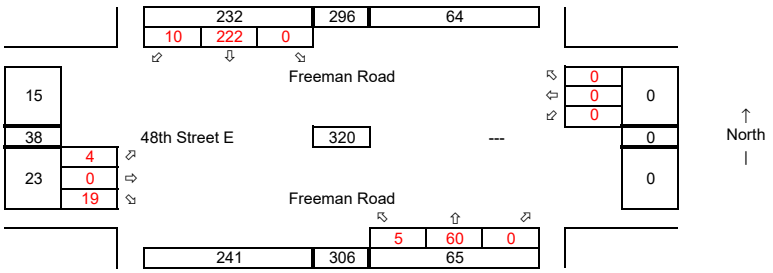
N/S Diversion % -31%
E/W Diversion % -15%



Synchro ID: 12
Existing
Average Weekday
PM Peak Hour

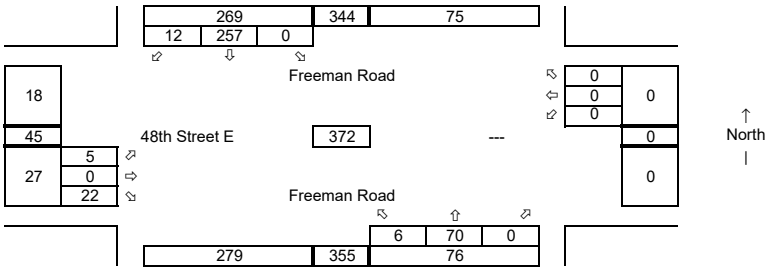
Year: **6/8/2023**

Data Source: IDAX

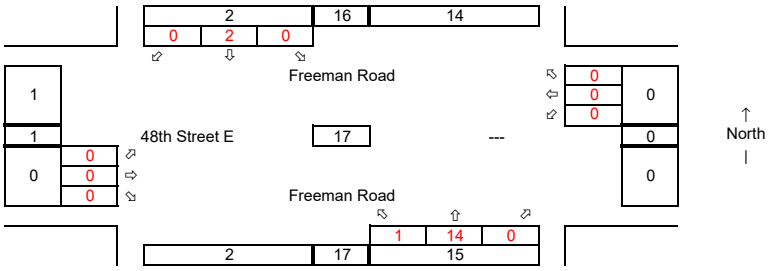


Future without Project
Average Weekday
PM Peak Hour

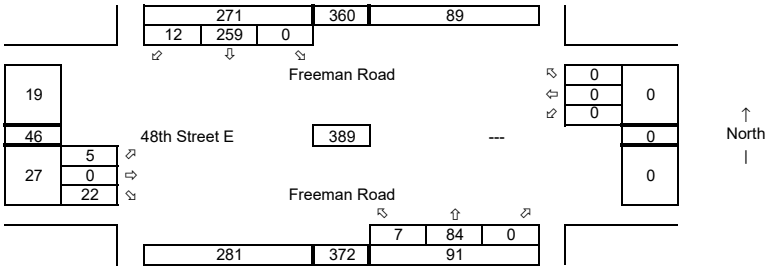
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



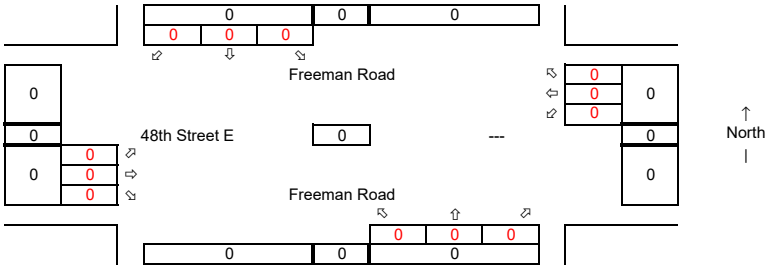
Total Development Trips
Average Weekday
PM Peak Hour



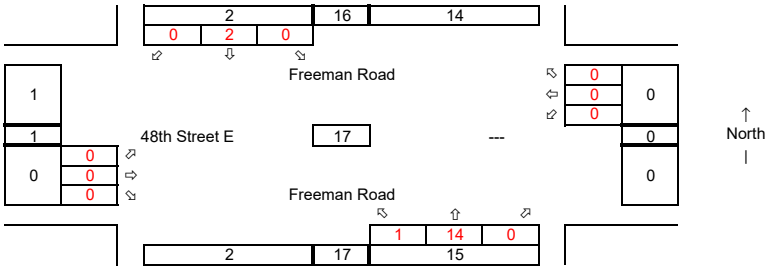
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



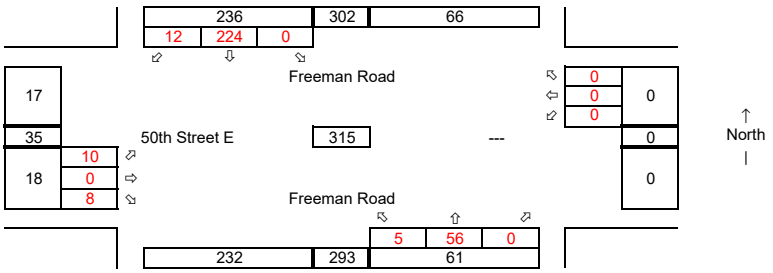
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 13
Existing
Average Weekday
PM Peak Hour

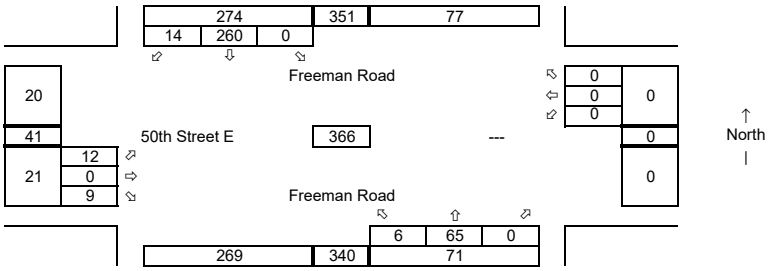
Year: **6/8/2023**

Data Source: IDAX

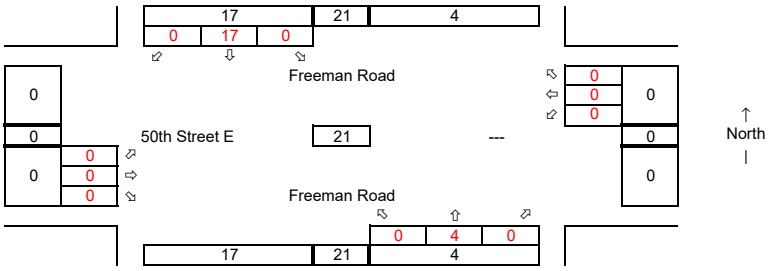


Future without Project
Average Weekday
PM Peak Hour

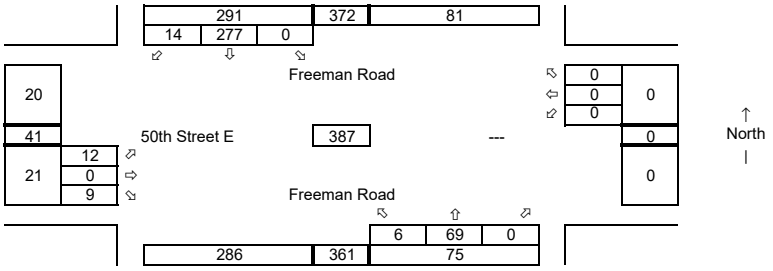
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



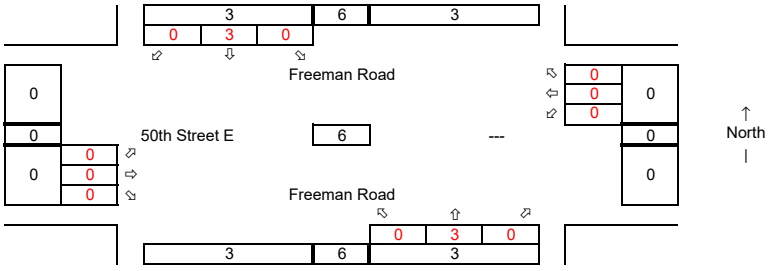
Total Development Trips
Average Weekday
PM Peak Hour



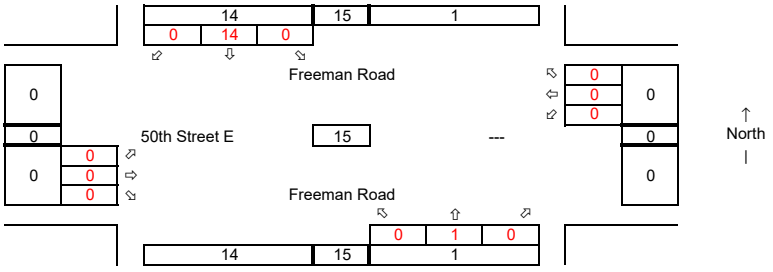
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



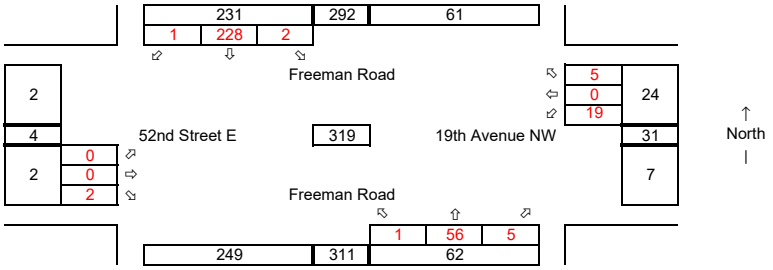
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 14
Existing
Average Weekday
PM Peak Hour

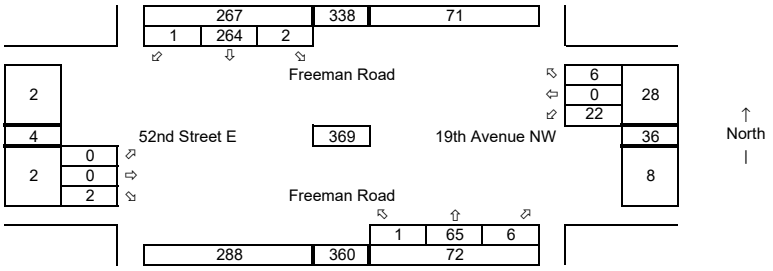
Year: **6/8/2023**

Data Source: IDAX

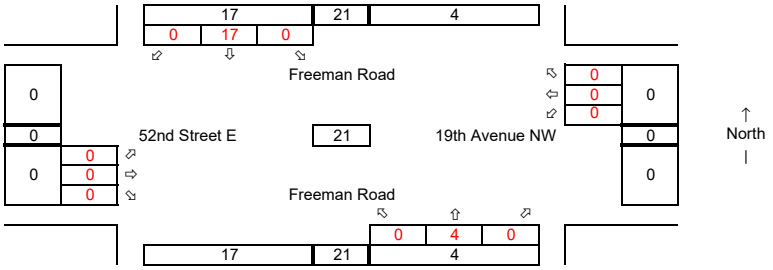


Future without Project
Average Weekday
PM Peak Hour

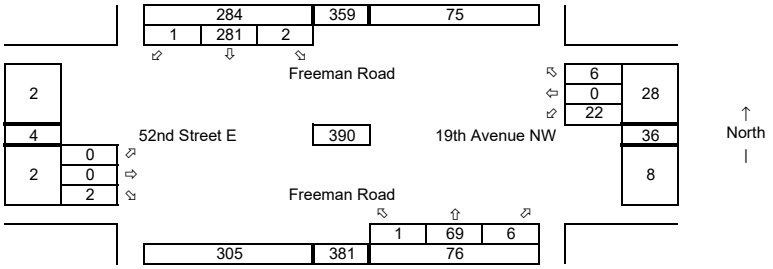
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



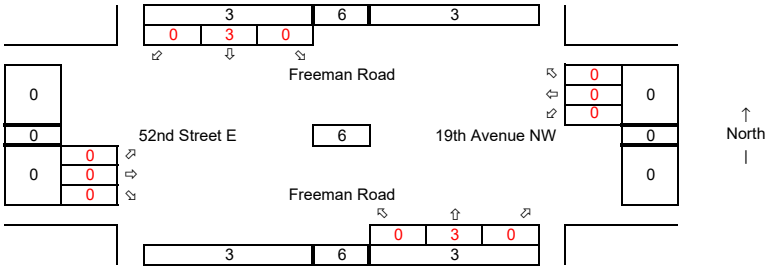
Total Development Trips
Average Weekday
PM Peak Hour



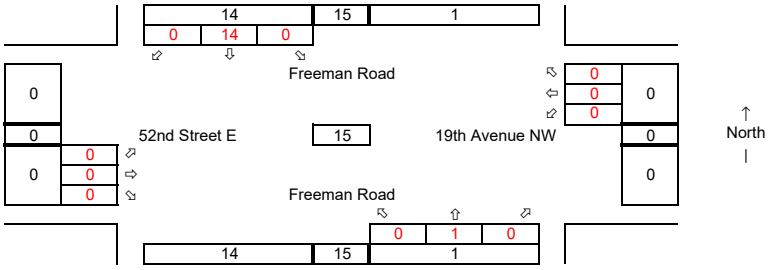
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour

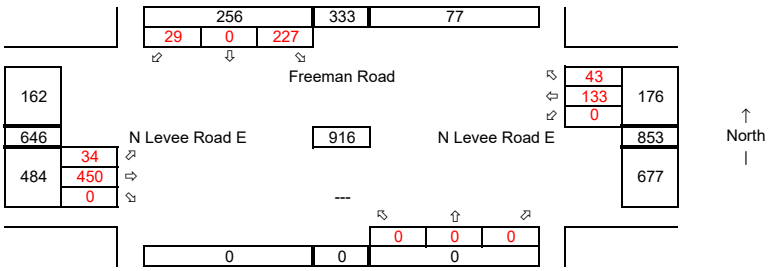


Synchro ID: 15

Existing
Average Weekday
PM Peak Hour

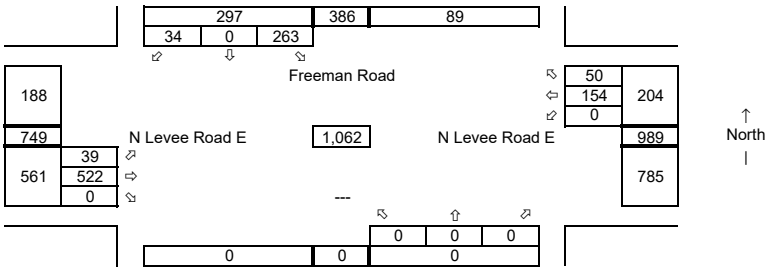
Year: **6/15/2023**

Data Source: IDAX

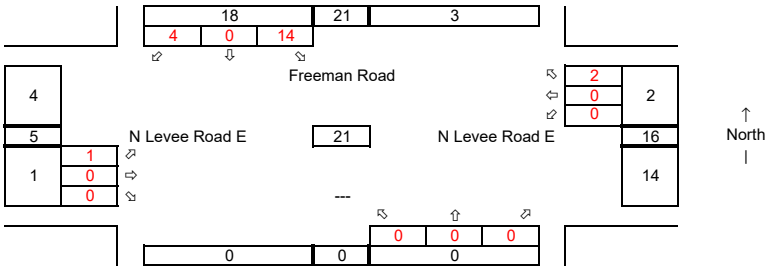


Future without Project
Average Weekday
PM Peak Hour

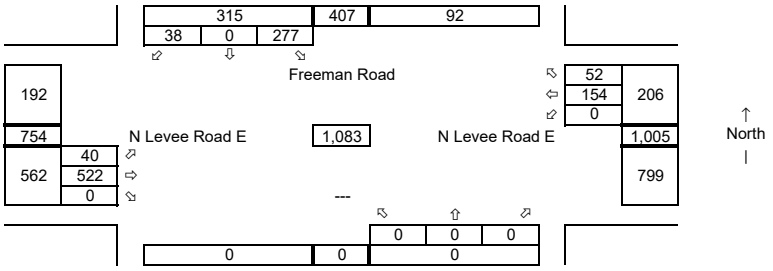
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



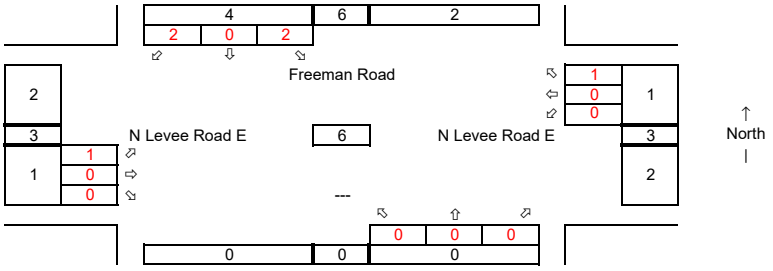
Total Development Trips
Average Weekday
PM Peak Hour



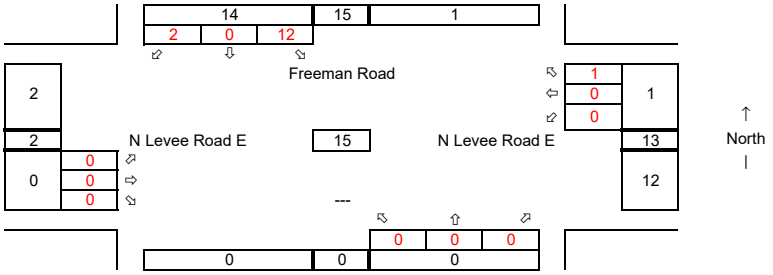
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour



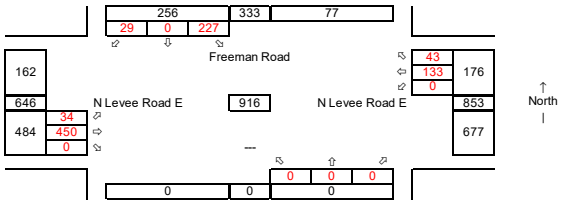
With SR-167 Extension

Synchro ID: 15

Existing
Average Weekday
PM Peak Hour

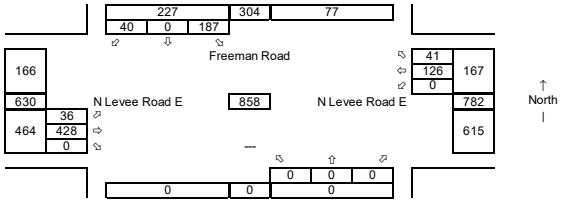
Year: **6/15/2023**

Data Source: IDAX

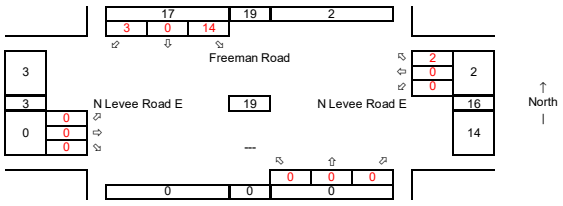


Future without Project
Average Weekday
PM Peak Hour

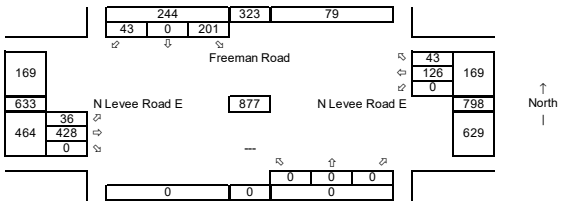
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



Total Development Trips
Average Weekday
PM Peak Hour

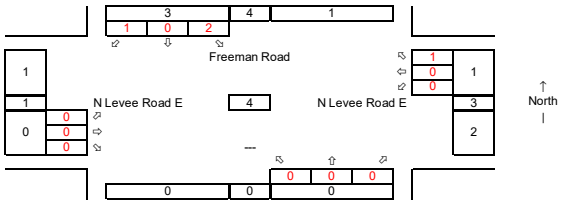


Future with Project
Average Weekday
PM Peak Hour

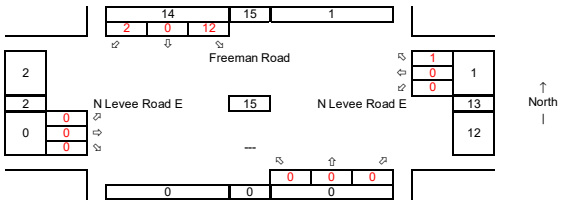


Development Truck Trips
Average Weekday
PM Peak Hour

N/S Diversion % -50%
from 70th Ave E

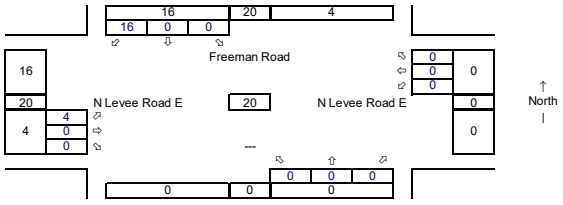


Development Car Trips
Average Weekday
PM Peak Hour



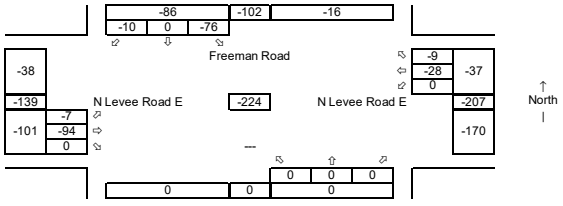
Total Pipeline Project Trips
Average Weekday
PM Peak Hour

Prologis Park Edgewood



SR-167 Extension Diversion
Average Weekday
PM Peak Hour

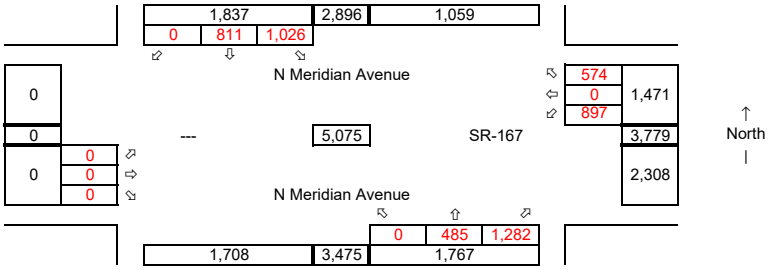
N/S Diversion % -29%
E/W Diversion % -18%



Synchro ID: 16
Existing
Average Weekday
PM Peak Hour

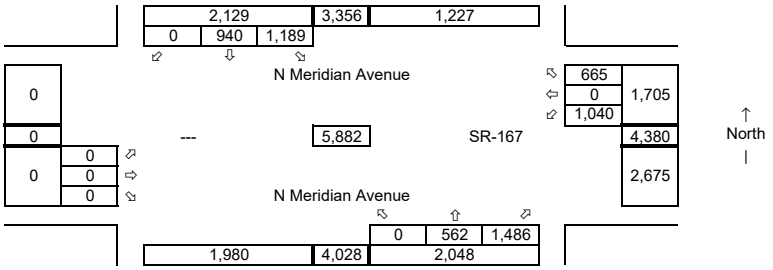
Year: **6/14/2023**

Data Source: IDAX

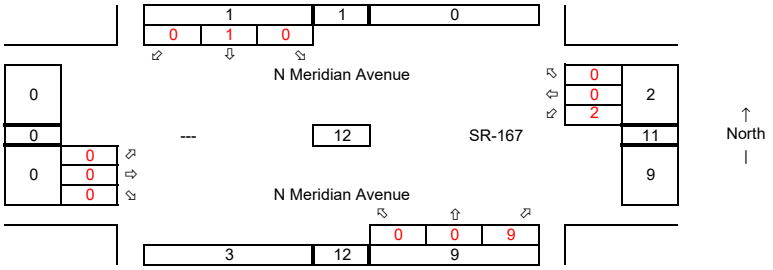


Future without Project
Average Weekday
PM Peak Hour

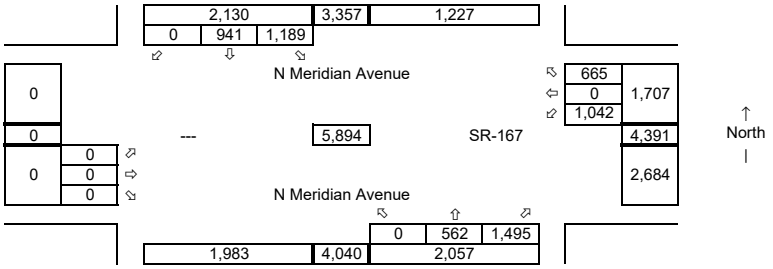
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



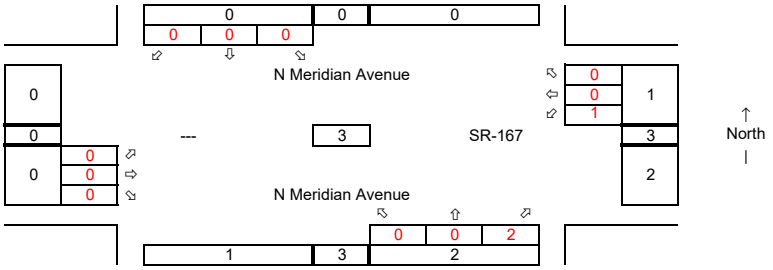
Total Development Trips
Average Weekday
PM Peak Hour



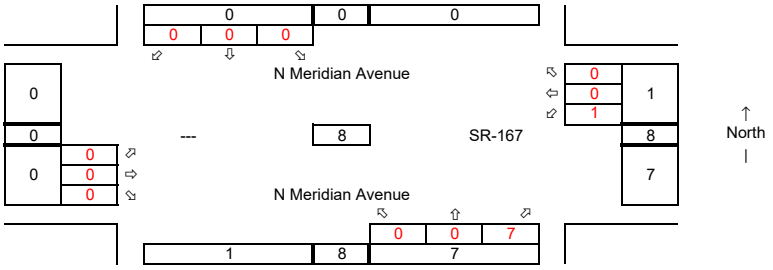
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



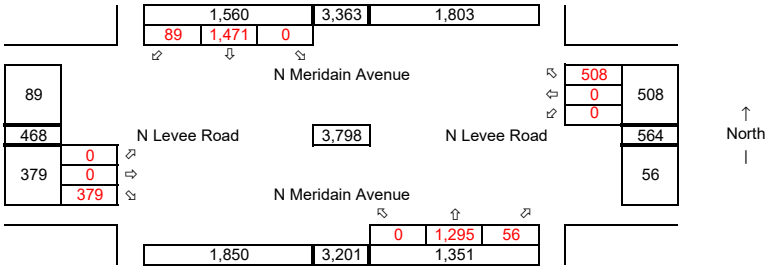
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 17
Existing
Average Weekday
PM Peak Hour

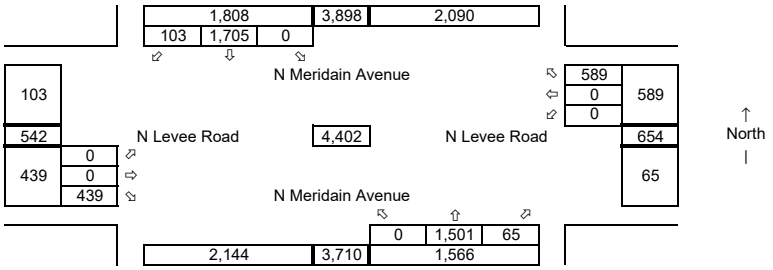
Year: **6/14/2023**

Data Source: IDAX

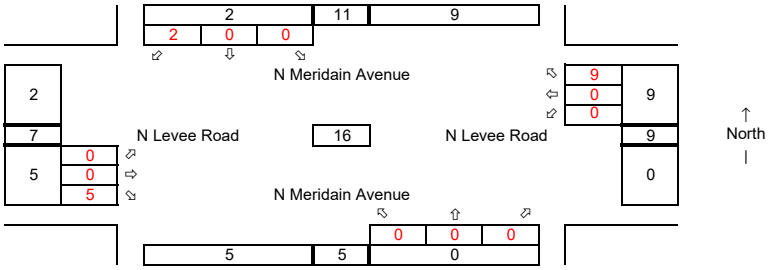


Future without Project
Average Weekday
PM Peak Hour

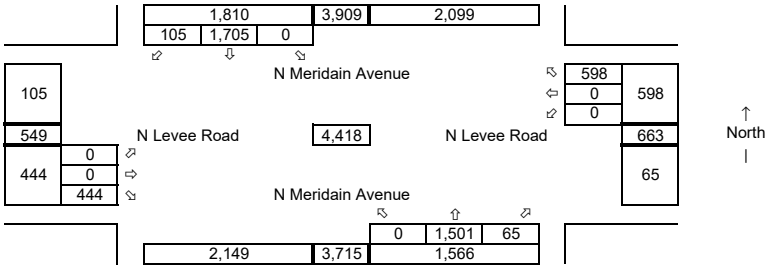
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



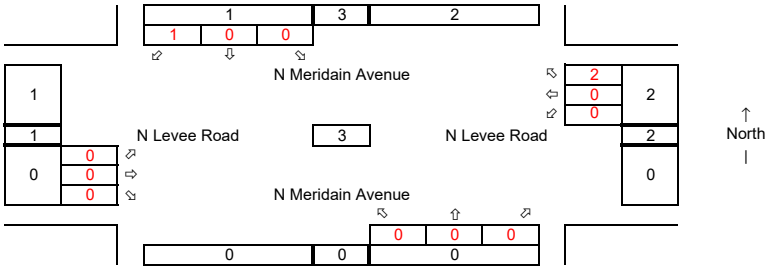
Total Development Trips
Average Weekday
PM Peak Hour



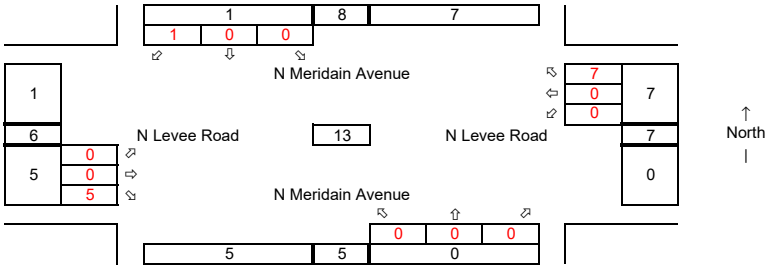
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



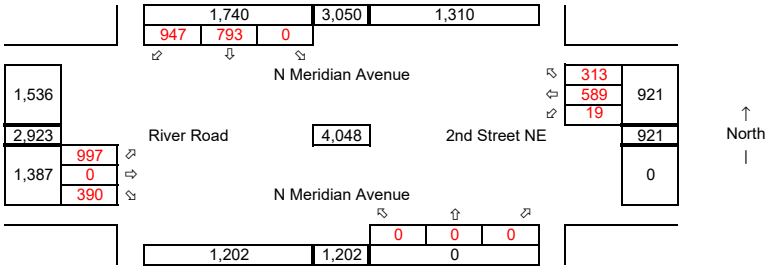
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 18
Existing
Average Weekday
PM Peak Hour

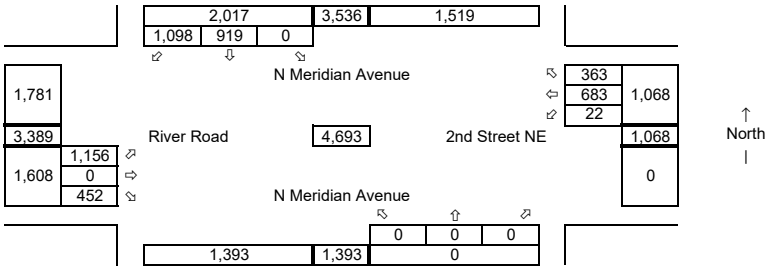
Year: **6/14/2023**

Data Source: IDAX

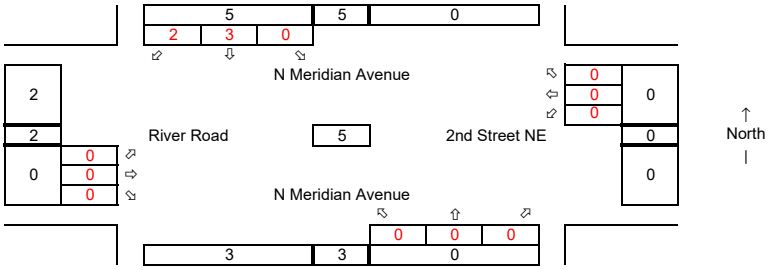


Future without Project
Average Weekday
PM Peak Hour

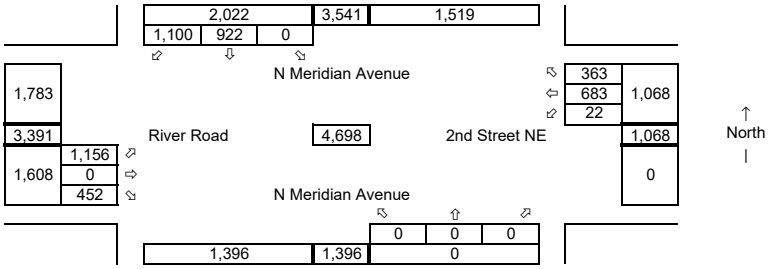
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



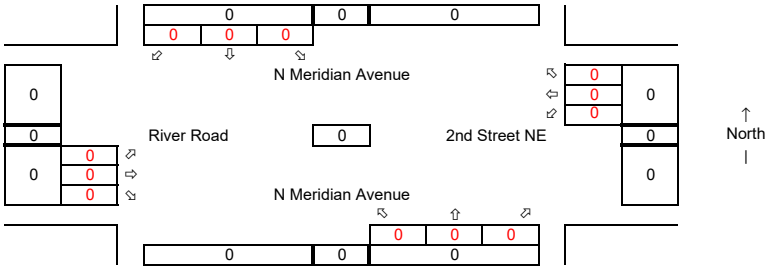
Total Development Trips
Average Weekday
PM Peak Hour



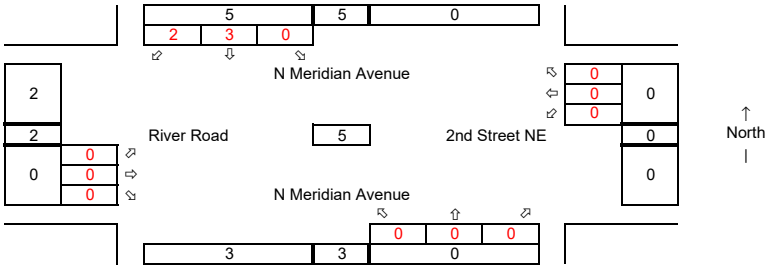
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour

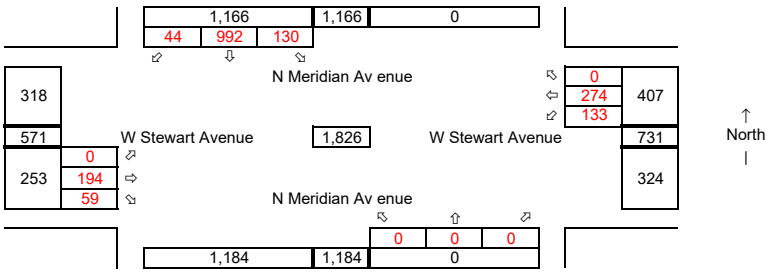


Synchro ID: 19
Existing
Average Weekday
PM Peak Hour

Year: **6/14/2023**

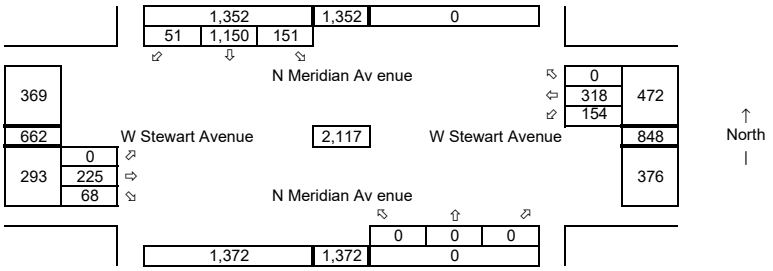
Data Source: IDAX

One (1) Westbound U-turn
added to Westbound left-turns

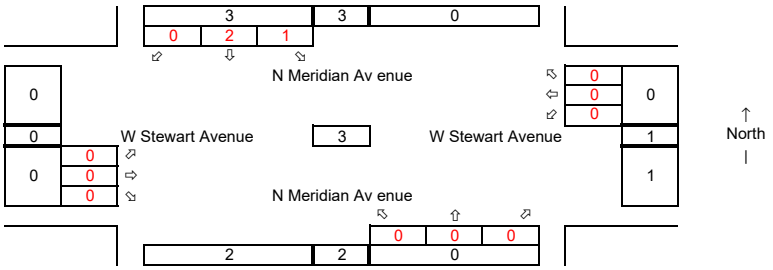


Future without Project
Average Weekday
PM Peak Hour

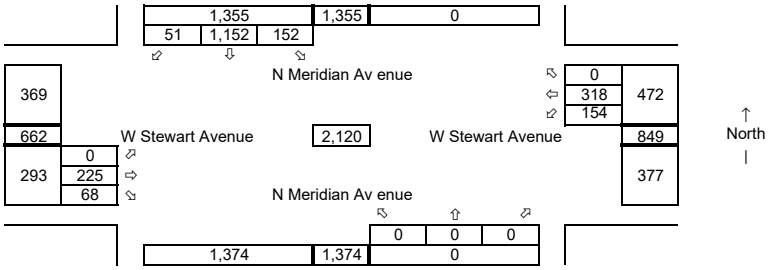
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



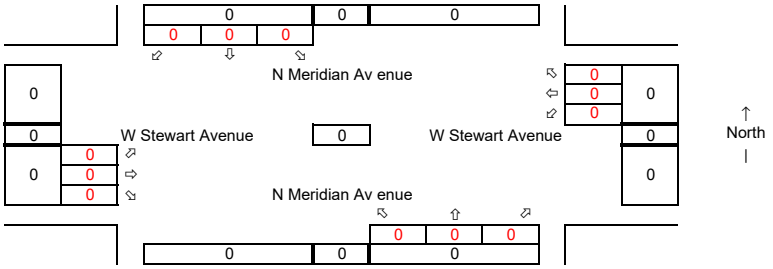
Total Development Trips
Average Weekday
PM Peak Hour



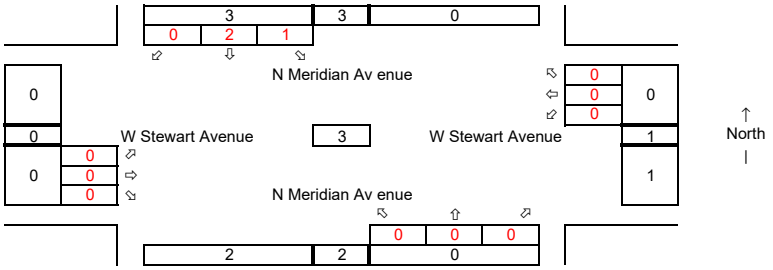
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



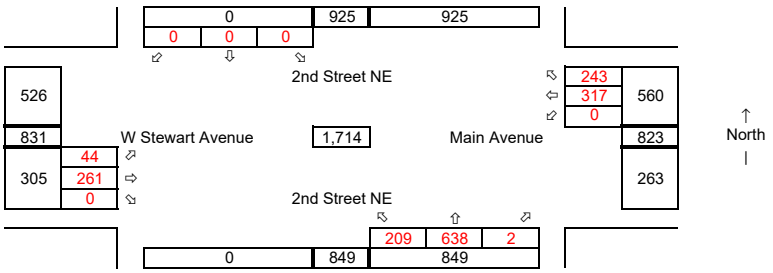
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 20
Existing
Average Weekday
PM Peak Hour

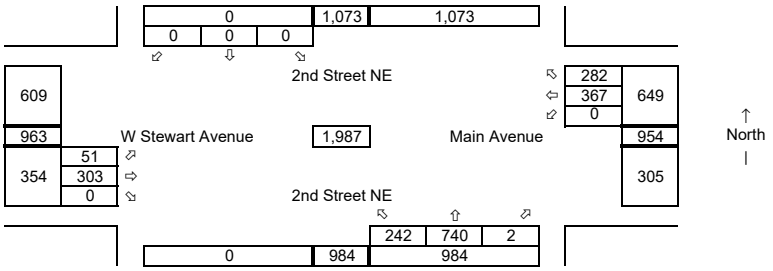
Year: **6/15/2023**

Data Source: IDAX

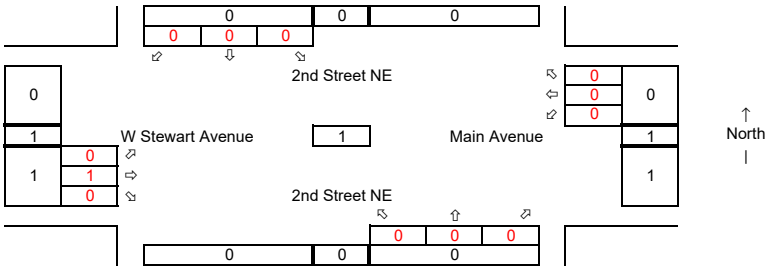


Future without Project
Average Weekday
PM Peak Hour

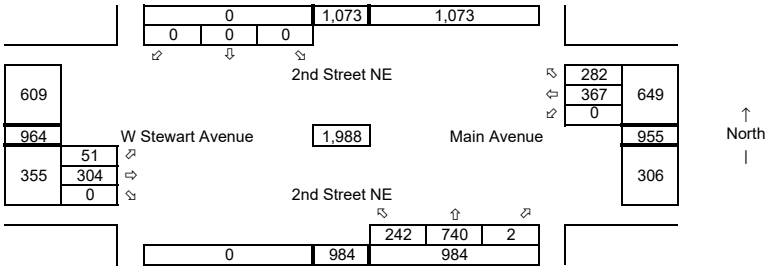
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



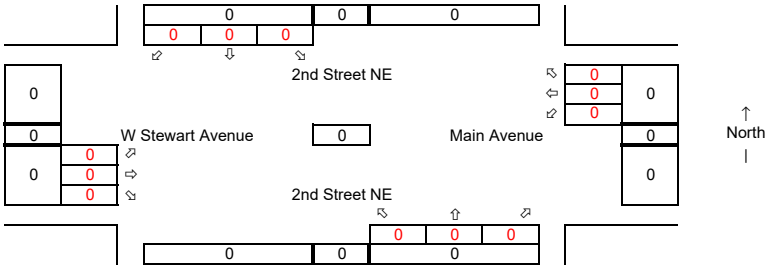
Total Development Trips
Average Weekday
PM Peak Hour



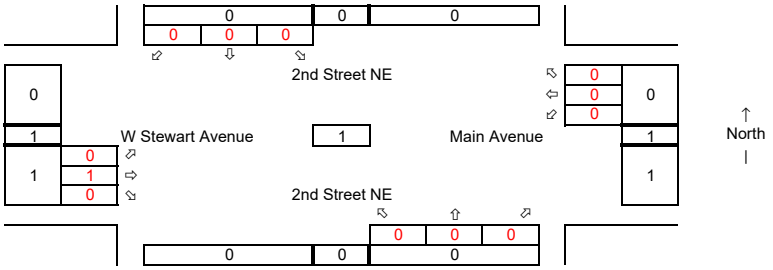
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour

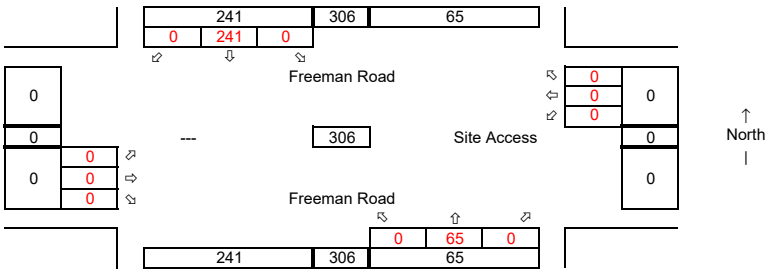


Synchro ID: 21
Existing
Average Weekday
PM Peak Hour

Year: **6/8/2023**

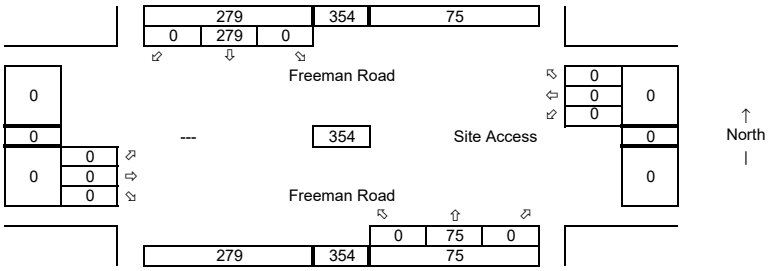
Data Source: IDAX

NB/SB volumes extrapolated from Freeman at 48th Street E

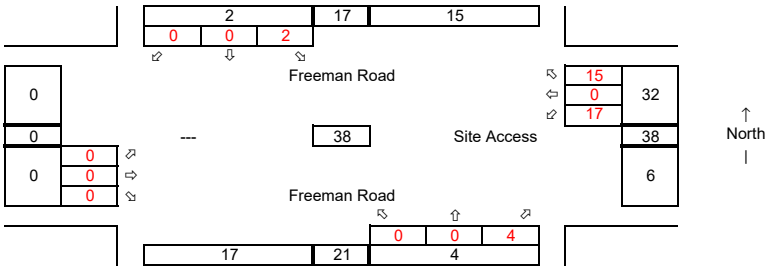


Future without Project
Average Weekday
PM Peak Hour

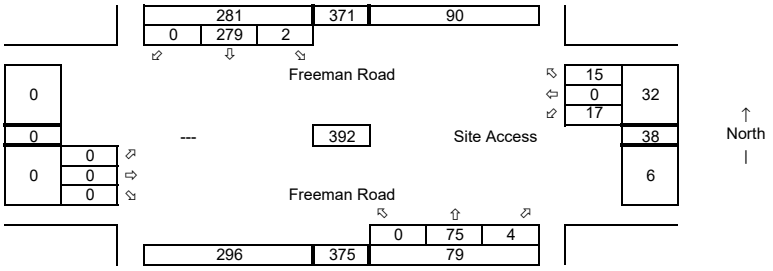
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



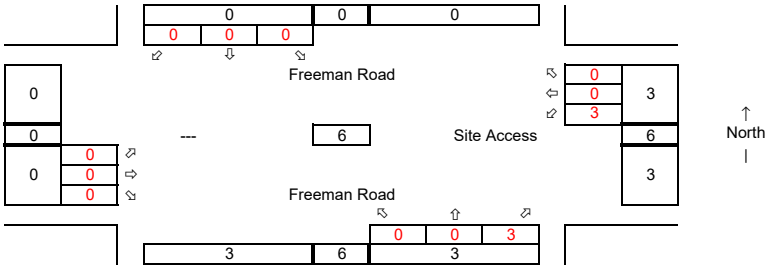
Total Development Trips
Average Weekday
PM Peak Hour



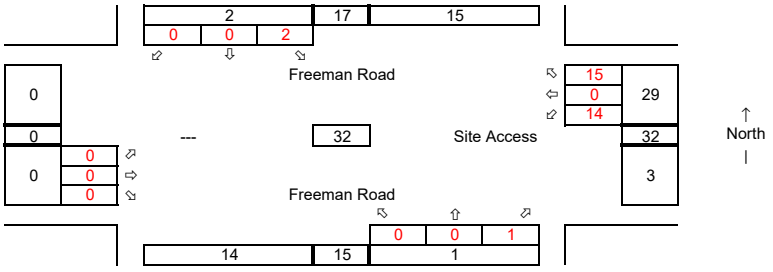
Future with Project
Average Weekday
PM Peak Hour

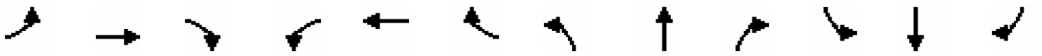


Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	150	44	83	234	191	38	328	49	153	495	51
Future Volume (vph)	19	150	44	83	234	191	38	328	49	153	495	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		0	100		0	100		0
Storage Lanes	1		0	1		0	1		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	0.95	0.95	1.00	0.95	0.95
Frt		0.966			0.933			0.980			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1596	0	1570	1541	0	1570	3076	0	1570	3095	0
Flt Permitted	0.200			0.535			0.436			0.460		
Satd. Flow (perm)	330	1596	0	884	1541	0	720	3076	0	760	3095	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			46			25			16	
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		727			778			1175			536	
Travel Time (s)		19.8			15.2			22.9			10.4	
Peak Hour 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
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	20	204	0	87	447	0	40	397	0	161	575	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	24.5	24.5		24.5	24.5		10.5	19.0		10.5	17.0	
Total Split (s)	24.5	24.5		24.5	24.5		19.0	40.0		19.0	40.0	
Total Split (%)	29.3%	29.3%		29.3%	29.3%		22.8%	47.9%		22.8%	47.9%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		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		4.0	5.0		4.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Max		None	Max	
Act Effct Green (s)	20.0	20.0		20.0	20.0		42.4	35.0		48.3	41.5	
Actuated g/C Ratio	0.26	0.26		0.26	0.26		0.55	0.45		0.62	0.54	
v/c Ratio	0.24	0.48		0.38	1.03		0.09	0.28		0.28	0.34	
Control Delay (s/veh)	31.7	27.0		30.1	80.8		6.1	13.3		7.2	11.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	31.7	27.0		30.1	80.8		6.1	13.3		7.2	11.5	
LOS	C	C		C	F		A	B		A	B	
Approach Delay (s/veh)		27.4			72.5			12.6			10.6	
Approach LOS		C			E			B			B	
Queue Length 50th (ft)	8	75		34	~216		6	55		28	84	
Queue Length 95th (ft)	29	144		79	#410		17	91		51	123	

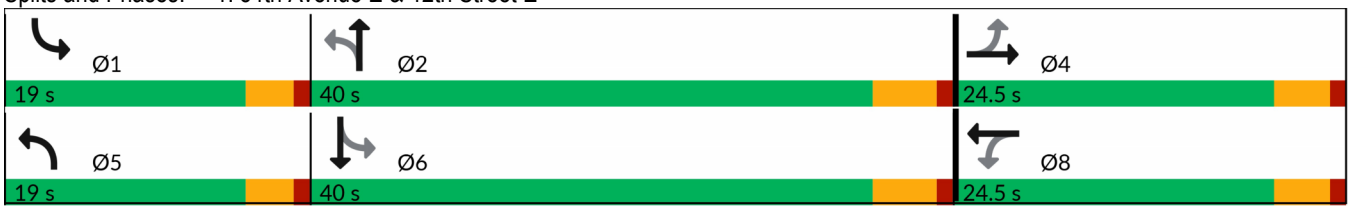
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		647			698			1095			456	
Turn Bay Length (ft)	100			200			100			100		
Base Capacity (vph)	85	425		229	433		618	1407		636	1667	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.24	0.48		0.38	1.03		0.06	0.28		0.25	0.34	

Intersection Summary			
Area Type:	Other		
Cycle Length: 83.5			
Actuated Cycle Length: 77.3			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.03			
Intersection Signal Delay (s/veh): 30.1		Intersection LOS: C	
Intersection Capacity Utilization 64.3%		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: 1: 54th Avenue E & 12th Street E

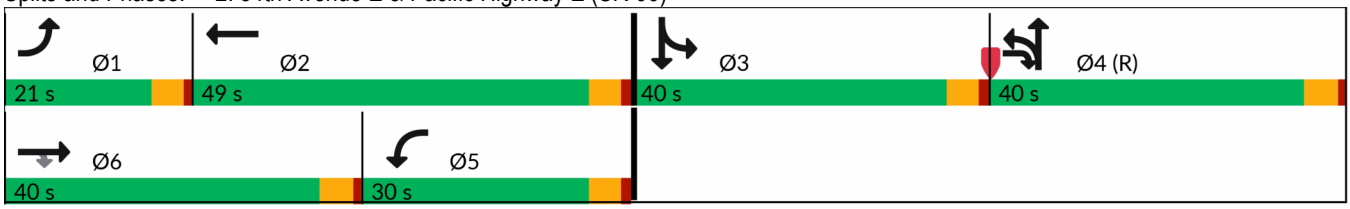


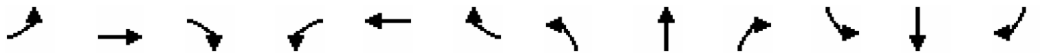
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	115	509	403	789	788	134	386	282	470	196	468	87
Future Volume (vph)	115	509	403	789	788	134	386	282	470	196	468	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	550		0	150		0	125		0
Storage Lanes	1		1	2		0	2		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.978			0.906			0.976	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1626	3252	1455	3155	3181	0	3155	2947	0	1626	3174	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1626	3252	1455	3155	3181	0	3155	2947	0	1626	3174	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			47		13			262			13	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1085			1070			320			1175	
Travel Time (s)		21.1			20.8			6.2			22.9	
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 (%)	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	122	541	429	839	981	0	411	800	0	209	591	0
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		3	3	
Permitted Phases			6									
Detector Phase	1	6	4	5	2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	10.5	38.7	35.7	22.5	37.7		35.7	35.7		38.7	38.7	
Total Split (s)	21.0	40.0	40.0	30.0	49.0		40.0	40.0		40.0	40.0	
Total Split (%)	14.0%	26.7%	26.7%	20.0%	32.7%		26.7%	26.7%		26.7%	26.7%	
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		3.7	3.7		3.7	3.7	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7	4.7	4.5	4.7		4.7	4.7		4.7	4.7	
Lead/Lag	Lead	Lead	Lag	Lag	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	C-Max	None	None		C-Max	C-Max		None	None	
Act Effct Green (s)	14.9	30.0	73.5	29.2	44.3		38.8	38.8		33.4	33.4	
Actuated g/C Ratio	0.10	0.20	0.49	0.19	0.30		0.26	0.26		0.22	0.22	
v/c Ratio	0.76	0.83	0.58	1.37	1.03		0.50	0.88dr		0.58	0.82	
Control Delay (s/veh)	93.6	69.2	27.9	219.0	88.7		58.7	53.3		58.7	64.7	
Queue Delay	0.0	0.0	0.1	0.0	0.0		2.0	22.6		0.0	0.6	
Total Delay (s/veh)	93.6	69.2	27.9	219.0	88.7		60.8	75.9		58.7	65.3	
LOS	F	E	C	F	F		E	E		E	E	
Approach Delay (s/veh)		55.7			148.8			70.8			63.5	
Approach LOS		E			F			E			E	
Queue Length 50th (ft)	117	268	273	~546	~536		197	324		181	281	
Queue Length 95th (ft)	#204	325	366	#728	#675		245	#406		270	355	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1005			990			240			1095	
Turn Bay Length (ft)	225			550			150			125		
Base Capacity (vph)	178	765	736	614	948		816	956		382	756	
Starvation Cap Reductn	0	0	0	0	0		260	178		0	0	
Spillback Cap Reductn	0	0	15	0	0		0	0		0	28	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.69	0.71	0.60	1.37	1.03		0.74	1.03		0.55	0.81	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 10 (7%), Referenced to phase 4:NBTL, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.37			
Intersection Signal Delay (s/veh): 95.1		Intersection LOS: F	
Intersection Capacity Utilization 85.9%		ICU Level of Service E	
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.			
dr Defacto Right Lane. Recode with 1 though lane as a right lane.			

Splits and Phases: 2: 54th Avenue E & Pacific Highway E (SR-99)



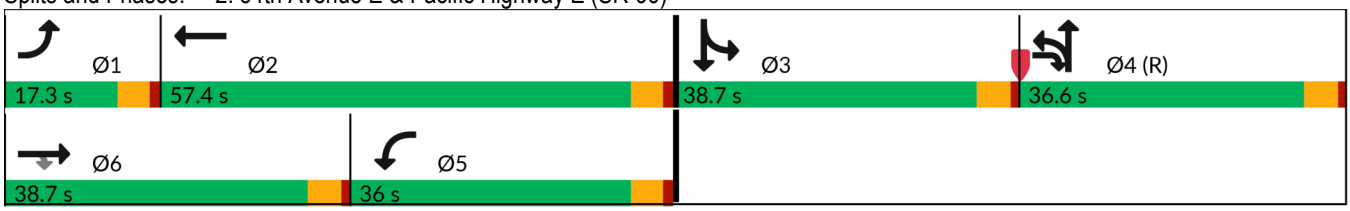


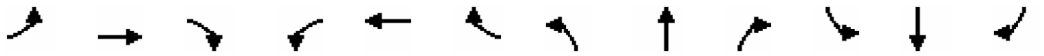
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	115	509	403	789	788	134	386	282	470	196	468	87
Future Volume (vph)	115	509	403	789	788	134	386	282	470	196	468	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	550		0	150		0	125		0
Storage Lanes	1		1	2		0	2		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.978			0.906			0.976	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1626	3252	1455	3155	3181	0	3155	2947	0	1626	3174	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1626	3252	1455	3155	3181	0	3155	2947	0	1626	3174	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			47		14			254			13	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1085			1070			320			1175	
Travel Time (s)		21.1			20.8			6.2			22.9	
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 (%)	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	122	541	429	839	981	0	411	800	0	209	591	0
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		3	3	
Permitted Phases			6									
Detector Phase	1	6	4	5	2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	10.5	38.7	35.7	22.5	37.7		35.7	35.7		38.7	38.7	
Total Split (s)	17.3	38.7	36.6	36.0	57.4		36.6	36.6		38.7	38.7	
Total Split (%)	11.5%	25.8%	24.4%	24.0%	38.3%		24.4%	24.4%		25.8%	25.8%	
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		3.7	3.7		3.7	3.7	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7	4.7	4.5	4.7		4.7	4.7		4.7	4.7	
Lead/Lag	Lead	Lead	Lag	Lag	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	C-Max	None	None		C-Max	C-Max		None	None	
Act Effct Green (s)	12.7	29.7	70.1	33.3	50.2		35.8	35.8		32.7	32.7	
Actuated g/C Ratio	0.08	0.20	0.47	0.22	0.33		0.24	0.24		0.22	0.22	
v/c Ratio	0.89	0.84	0.61	1.20	0.91		0.55	0.93dr		0.59	0.84	
Control Delay (s/veh)	118.3	70.3	30.8	151.6	60.2		60.2	57.5		60.0	66.8	
Queue Delay	0.0	0.0	0.1	0.0	0.0		1.9	28.5		0.0	0.0	
Total Delay (s/veh)	118.3	70.3	30.9	151.6	60.2		62.2	86.0		60.0	66.8	
LOS	F	E	C	F	E		E	F		E	E	
Approach Delay (s/veh)		60.2			102.3			77.9			65.0	
Approach LOS		E			F			E			E	
Queue Length 50th (ft)	120	268	286	~493	466		199	326		183	285	
Queue Length 95th (ft)	#245	330	392	#662	561		250	#440		273	359	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1005			990			240			1095	
Turn Bay Length (ft)	225			550			150			125		
Base Capacity (vph)	138	737	705	700	1126		751	895		368	729	
Starvation Cap Reductn	0	0	0	0	0		200	134		0	0	
Spillback Cap Reductn	0	0	14	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.88	0.73	0.62	1.20	0.87		0.75	1.05		0.57	0.81	

Intersection Summary	
Area Type:	Other
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 10 (7%), Referenced to phase 4:NBTL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.20	
Intersection Signal Delay (s/veh): 80.9	Intersection LOS: F
Intersection Capacity Utilization 85.9%	ICU Level of Service E
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.	
dr Defacto Right Lane. Recode with 1 though lane as a right lane.	

Splits and Phases: 2: 54th Avenue E & Pacific Highway E (SR-99)





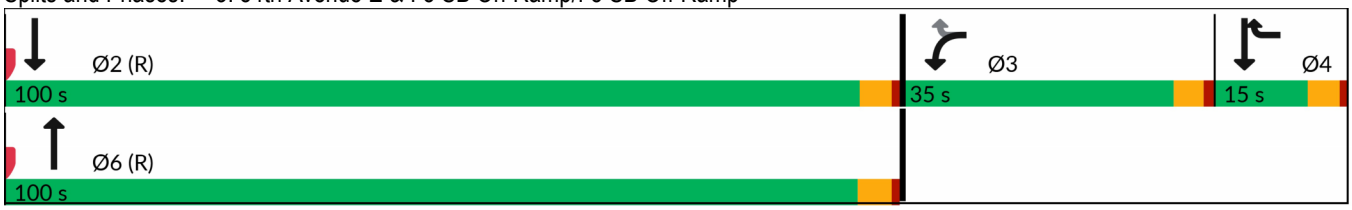
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	312	0	330	0	824	536	0	778	765
Future Volume (vph)	0	0	0	312	0	330	0	824	536	0	778	765
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		25	0		0
Storage Lanes	0		0	1		1	0		1	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	0.95	1.00	1.00	1.00	1.00
Frt						0.850			0.850			0.850
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	1720	0	1539	0	3490	1539	0	1811	1539
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1720	0	1539	0	3490	1539	0	1811	1539
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						182			78			259
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1083			1080			827			320	
Travel Time (s)		24.6			24.5			18.8			7.3	
Peak Hour 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
Bus Blockages (#/hr)	7	7	7	7	7	7	7	7	7	7	7	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	328	0	347	0	867	564	0	819	805
Turn Type				Prot		custom		NA	Free		NA	Free
Protected Phases				3		4		6			2 4	
Permitted Phases						3			Free			Free
Detector Phase				3		4		6			2 4	
Switch Phase												
Minimum Initial (s)				5.0		3.0		10.0				
Minimum Split (s)				22.5		7.5		22.7				
Total Split (s)				35.0		15.0		100.0				
Total Split (%)				23.3%		10.0%		66.7%				
Yellow Time (s)				3.5		3.5		3.7				
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		4.7				
Lead/Lag				Lead		Lag						
Lead-Lag Optimize?				Yes		Yes						
Recall Mode				None		None		C-Max				
Act Effct Green (s)				30.0		45.0		95.8	150.0		111.0	150.0
Actuated g/C Ratio				0.20		0.30		0.64	1.00		0.74	1.00
v/c Ratio				0.95		0.59		0.39	0.37		0.61	0.52
Control Delay (s/veh)				97.0		24.8		13.7	0.7		6.5	3.9
Queue Delay				0.0		6.4		0.1	0.0		8.1	0.0
Total Delay (s/veh)				97.0		31.2		13.9	0.7		14.6	3.9
LOS				F		C		B	A		B	A
Approach Delay (s/veh)					63.1			8.7			9.3	
Approach LOS					E			A			A	
Queue Length 50th (ft)				319		136		205	0		160	84
Queue Length 95th (ft)				#511		245		247	0		m164	m115

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	
Bus Blockages (#/hr)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	22.5
Total Split (s)	100.0
Total Split (%)	67%
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	C-Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
LOS	
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1003			1000			747			240	
Turn Bay Length (ft)									25			
Base Capacity (vph)				349		589		2228	1539		1340	1539
Starvation Cap Reductn				0		0		0	0		479	0
Spillback Cap Reductn				0		188		424	0		0	0
Storage Cap Reductn				0		0		0	0		0	0
Reduced v/c Ratio				0.94		0.87		0.48	0.37		0.95	0.52

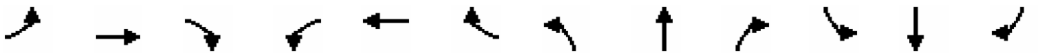
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 60 (40%), Referenced to phase 2:SBT and 6:NBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay (s/veh): 18.8		Intersection 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.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 3: 54th Avenue E & I-5 SB On-Ramp/I-5 SB Off-Ramp



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

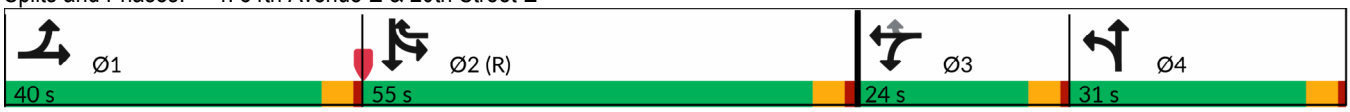


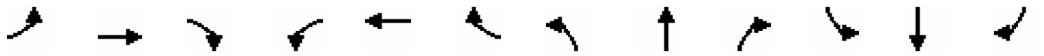
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	342	336	213	27	199	584	163	472	26	390	715	306
Future Volume (vph)	342	336	213	27	199	584	163	472	26	390	715	306
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	275		0	200		0	175		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.95
Frt		0.946				0.850		0.992			0.957	
Flt Protected	0.950	0.997			0.994		0.950			0.950	0.998	
Satd. Flow (prot)	1421	2822	0	0	1634	1398	1562	3099	0	1421	2858	0
Flt Permitted	0.950	0.997			0.994		0.950			0.950	0.998	
Satd. Flow (perm)	1421	2822	0	0	1634	1398	1562	3099	0	1421	2858	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		60				101		3			40	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		738			676			783			335	
Travel Time (s)		14.4			13.2			17.8			7.6	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Shared Lane Traffic (%)	12%									10%		
Lane Group Flow (vph)	307	602	0	0	231	596	166	509	0	358	1082	0
Turn Type	Split	NA		Split	NA	pm+ov	Split	NA		Split	NA	
Protected Phases	1	1		3	3	2	4	4		2	2	
Permitted Phases						3						
Detector Phase	1	1		3	3	2	4	4		2	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	24.5	24.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	40.0	40.0		24.0	24.0	55.0	31.0	31.0		55.0	55.0	
Total Split (%)	26.7%	26.7%		16.0%	16.0%	36.7%	20.7%	20.7%		36.7%	36.7%	
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	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	Lead	Lag	Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	C-Max	None	None		C-Max	C-Max	
Act Effct Green (s)	34.3	34.3			19.5	76.2	26.0	26.0		52.2	52.2	
Actuated g/C Ratio	0.23	0.23			0.13	0.51	0.17	0.17		0.35	0.35	
v/c Ratio	0.94	0.87			1.09	0.78	0.62	0.95		0.72	1.06	
Control Delay (s/veh)	94.1	64.1			146.3	34.0	68.1	88.0		53.2	90.3	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	94.1	64.1			146.3	34.0	68.1	88.0		53.2	90.3	
LOS	F	E			F	C	E	F		D	F	
Approach Delay (s/veh)		74.2			65.4			83.1			81.1	
Approach LOS		E			E			F			F	
Queue Length 50th (ft)	324	283			~253	409	152	260		341	~641	
Queue Length 95th (ft)	#523	#370			#430	596	235	#370		483	#787	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		658			596			703			255	
Turn Bay Length (ft)	300						200			175		
Base Capacity (vph)	336	713			212	760	275	549		494	1020	
Starvation Cap Reductn	0	0			0	0	0	0		0	0	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.91	0.84			1.09	0.78	0.60	0.93		0.72	1.06	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 20 (13%), Referenced to phase 2:SBTL, Start of Green			
Natural Cycle: 135			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.09			
Intersection Signal Delay (s/veh): 76.4		Intersection LOS: E	
Intersection Capacity Utilization 93.3%		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.			

Splits and Phases: 4: 54th Avenue E & 20th Street E



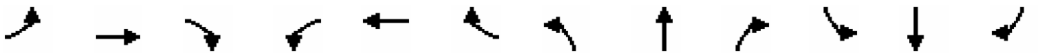


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	3	7	0	122	1	452	6	96	694	0
Future Volume (vph)	1	0	3	7	0	122	1	452	6	96	694	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	0		0	100		0
Storage Lanes	0		0	1		0	1		0	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	1.00	1.00	1.00	1.00	1.00
Frt		0.899			0.850			0.998				
Flt Protected		0.988		0.950			0.950			0.950		
Satd. Flow (prot)	0	1638	0	1752	1568	0	1752	1841	0	1752	1845	1845
Flt Permitted		0.874		0.672			0.320			0.369		
Satd. Flow (perm)	0	1449	0	1240	1568	0	590	1841	0	681	1845	1845
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		74			557			1				
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		362			838			554			783	
Travel Time (s)		9.9			22.9			12.6			17.8	
Peak Hour 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
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	4	0	7	128	0	1	482	0	101	731	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6			2		2
Detector Phase	3	8		7	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	6.0
Minimum Split (s)	9.5	24.5		22.5	24.0		9.5	22.5		9.5	22.5	22.5
Total Split (s)	14.0	16.5		14.0	16.0		14.0	34.5		16.0	36.5	36.5
Total Split (%)	17.3%	20.4%		17.3%	19.8%		17.3%	42.6%		19.8%	45.1%	45.1%
Yellow Time (s)	3.0	3.5		3.0	3.0		3.0	3.5		3.0	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		0.0	0.0	0.0
Total Lost Time (s)		4.5		4.0	4.0		4.0	4.5		4.0	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max		None	Max	Max
Act Effct Green (s)		5.5		7.7	7.7		39.3	35.1		43.7	42.6	
Actuated g/C Ratio		0.10		0.13	0.13		0.68	0.61		0.76	0.74	
v/c Ratio		0.02		0.03	0.18		0.00	0.43		0.15	0.53	
Control Delay (s/veh)		0.3		21.4	0.6		4.0	11.1		3.6	9.3	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)		0.3		21.4	0.6		4.0	11.1		3.6	9.3	
LOS		A		C	A		A	B		A	A	
Approach Delay (s/veh)		0.3			1.7			11.1			8.6	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)		0		2	0		0	90		6	72	
Queue Length 95th (ft)		0		11	0		2	235		29	#449	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		282			758			474			703	
Turn Bay Length (ft)				100						100		
Base Capacity (vph)		363		331	790		638	1123		744	1367	
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		0.01		0.02	0.16		0.00	0.43		0.14	0.53	

Intersection Summary			
Area Type:	Other		
Cycle Length: 81			
Actuated Cycle Length: 57.5			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay (s/veh): 8.7		Intersection LOS: A	
Intersection Capacity Utilization 57.8%		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: 5: 54th Avenue E & Driveway/23rd Street E

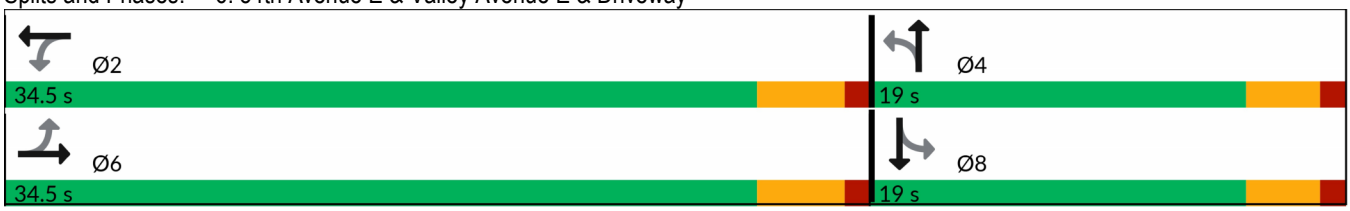


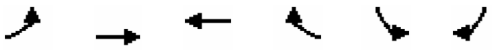
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	691	60	32	446	0	19	0	23	1	0	0
Future Volume (vph)	20	691	60	32	446	0	19	0	23	1	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	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		0.988						0.927				
Flt Protected	0.950			0.950				0.978			0.950	
Satd. Flow (prot)	1770	1840	0	1770	1863	0	0	1689	0	0	1770	0
Flt Permitted	0.487			0.317								
Satd. Flow (perm)	907	1840	0	590	1863	0	0	1727	0	0	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13						31				
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		554			491			578			252	
Travel Time (s)		12.6			11.2			15.8			6.9	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	22	816	0	35	485	0	0	46	0	0	1	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	30.5	30.5		22.5	22.5		32.0	32.0		32.0	32.0	
Total Split (s)	34.5	34.5		34.5	34.5		19.0	19.0		19.0	19.0	
Total Split (%)	64.5%	64.5%		64.5%	64.5%		35.5%	35.5%		35.5%	35.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		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			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		Max	Max		None	None		None	None	
Act Effct Green (s)	45.9	45.9		45.9	45.9			6.4			6.3	
Actuated g/C Ratio	0.88	0.88		0.88	0.88			0.12			0.12	
v/c Ratio	0.03	0.50		0.07	0.29			0.19			0.00	
Control Delay (s/veh)	2.3	3.9		2.5	2.5			13.5			20.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	2.3	3.9		2.5	2.5			13.5			20.0	
LOS	A	A		A	A			B			B	
Approach Delay (s/veh)		3.8			2.5			13.5			20.0	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	0	0		0	0			4			0	
Queue Length 95th (ft)	6	193		9	85			26			4	
Internal Link Dist (ft)		474			411			498			172	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	150			125								
Base Capacity (vph)	801	1627		521	1646			522			540	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.03	0.50		0.07	0.29			0.09			0.00	

Intersection Summary			
Area Type:	Other		
Cycle Length: 53.5			
Actuated Cycle Length: 52			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.50			
Intersection Signal Delay (s/veh): 3.7		Intersection LOS: A	
Intersection Capacity Utilization 50.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 6: 54th Avenue E & Valley Avenue E & Driveway





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø7
Lane Configurations							
Traffic Volume (vph)	68	834	1733	20	10	35	
Future Volume (vph)	68	834	1733	20	10	35	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00	
Frt			0.998		0.894		
Flt Protected	0.950				0.989		
Satd. Flow (prot)	1719	3438	3431	0	1600	0	
Flt Permitted	0.950				0.989		
Satd. Flow (perm)	1719	3438	3431	0	1600	0	
Right Turn on Red				Yes		Yes	
Satd. Flow (RTOR)			1		36		
Link Speed (mph)		30	30		30		
Link Distance (ft)		439	500		370		
Travel Time (s)		10.0	11.4		8.4		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	71	869	1826	0	46	0	
Turn Type	Prot	NA	NA		Prot		
Protected Phases	1	6	2		8		7
Permitted Phases							
Detector Phase	1	6	2		8		
Switch Phase							
Minimum Initial (s)	6.0	10.0	10.0		5.0		5.0
Minimum Split (s)	10.5	23.7	33.7		22.5		31.5
Total Split (s)	19.5	66.2	66.2		34.5		31.5
Total Split (%)	12.9%	43.6%	43.6%		22.7%		21%
Yellow Time (s)	3.5	4.7	4.7		3.5		3.5
All-Red Time (s)	1.0	1.5	1.5		1.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		
Total Lost Time (s)	4.5	6.2	6.2		4.5		
Lead/Lag	Lead		Lag		Lag		Lead
Lead-Lag Optimize?	Yes		Yes		Yes		Yes
Recall Mode	None	Max	None		Max		None
Act Effct Green (s)	10.0	72.3	60.2		30.1		
Actuated g/C Ratio	0.09	0.64	0.53		0.27		
v/c Ratio	0.47	0.40	1.00		0.10		
Control Delay (s/veh)	60.1	10.4	48.8		14.7		
Queue Delay	0.0	0.0	0.0		0.0		
Total Delay (s/veh)	60.1	10.4	48.8		14.7		
LOS	E	B	D		B		
Approach Delay (s/veh)		14.1	48.8		14.7		
Approach LOS		B	D		B		
Queue Length 50th (ft)	51	147	~760		6		
Queue Length 95th (ft)	98	184	#951		36		
Internal Link Dist (ft)		359	420		290		
Turn Bay Length (ft)							
Base Capacity (vph)	228	2424	1826		452		

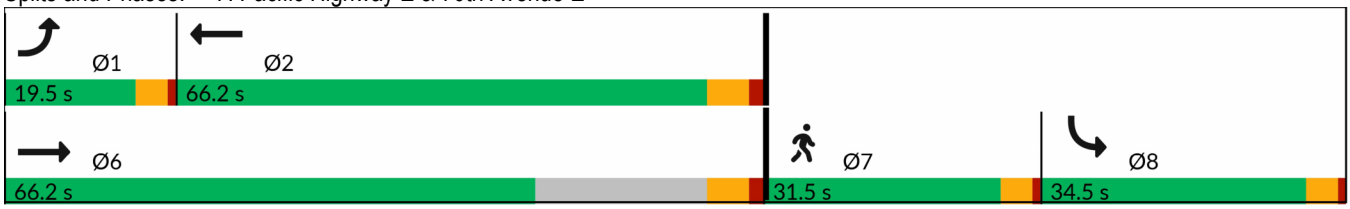
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø7
Starvation Cap Reductn	0	0	0		0		
Spillback Cap Reductn	0	0	0		0		
Storage Cap Reductn	0	0	0		0		
Reduced v/c Ratio	0.31	0.36	1.00		0.10		

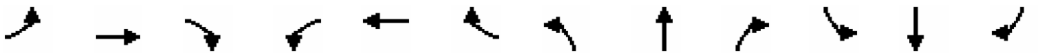
Intersection Summary			
Area Type:	Other		
Cycle Length: 151.7			
Actuated Cycle Length: 113.1			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.00			
Intersection Signal Delay (s/veh): 36.6		Intersection LOS: D	
Intersection Capacity Utilization 69.6%		ICU Level of 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: 7: Pacific Highway E & 70th Avenue E





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	509	117	138	496	233	158	595	96	189	904	90
Future Volume (vph)	51	509	117	138	496	233	158	595	96	189	904	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		200	400		400	250		0	225		0
Storage Lanes	1		1	1		1	1		0	2		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	0.95	0.95	0.97	0.95	0.95
Frt			0.850			0.850		0.979			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1641	1727	1468	1641	1727	1468	1641	3213	0	3183	3236	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	1727	1468	1641	1727	1468	1641	3213	0	3183	3236	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			93			165		16			9	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1295			1073			2009			522	
Travel Time (s)		25.2			20.9			39.1			10.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	525	121	142	511	240	163	712	0	195	1025	0
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2	3	7	4		3	8	
Permitted Phases			6			2						
Detector Phase	1	6	6	5	2	3	7	4		3	8	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	10.0	10.0	10.0	10.0	6.0		10.0	10.0	
Minimum Split (s)	10.5	22.5	22.5	14.5	22.5	14.5	14.5	26.5		14.5	26.5	
Total Split (s)	14.5	44.5	44.5	14.5	44.5	19.5	19.5	44.5		19.5	44.5	
Total Split (%)	11.8%	36.2%	36.2%	11.8%	36.2%	15.9%	15.9%	36.2%		15.9%	36.2%	
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		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	Min	Min	None	Min	None	None	None		None	None	
Act Effct Green (s)	8.6	38.5	38.5	10.0	42.3	59.4	14.3	41.3		12.6	39.6	
Actuated g/C Ratio	0.07	0.32	0.32	0.08	0.35	0.49	0.12	0.34		0.10	0.33	
v/c Ratio	0.45	0.95	0.23	1.04	0.84	0.30	0.84	0.64		0.58	0.96	
Control Delay (s/veh)	67.1	68.7	10.4	143.3	51.8	7.3	85.7	36.3		59.1	59.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	67.1	68.7	10.4	143.3	51.8	7.3	85.7	36.3		59.1	59.3	
LOS	E	E	B	F	D	A	F	D		E	E	
Approach Delay (s/veh)		58.5			54.4			45.5			59.2	
Approach LOS		E			D			D			E	
Queue Length 50th (ft)	41	403	15	~125	385	32	128	244		77	418	
Queue Length 95th (ft)	84	#620	60	#258	#596	82	#246	321		115	#564	

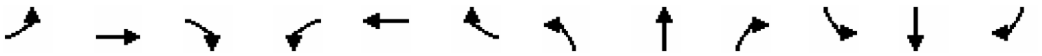
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1215			993			1929			442	
Turn Bay Length (ft)	250		200	400		400	250			225		
Base Capacity (vph)	136	574	550	136	605	833	205	1113		397	1082	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.39	0.91	0.22	1.04	0.84	0.29	0.80	0.64		0.49	0.95	

Intersection Summary			
Area Type:	Other		
Cycle Length: 123			
Actuated Cycle Length: 120.5			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.04			
Intersection Signal Delay (s/veh): 54.7		Intersection LOS: D	
Intersection Capacity Utilization 86.7%		ICU Level of Service E	
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: 8: 70th Avenue E & 20th Street E

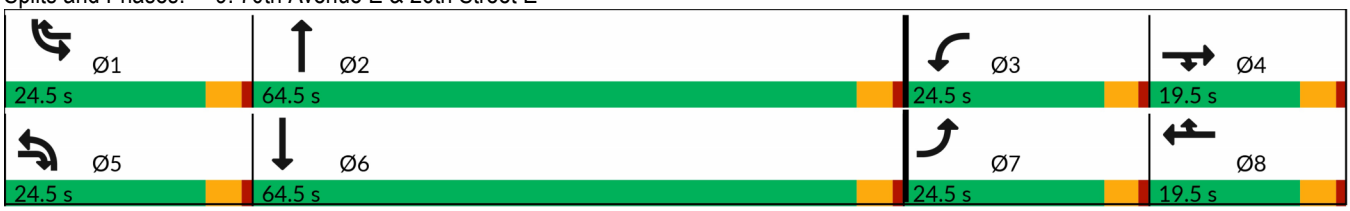


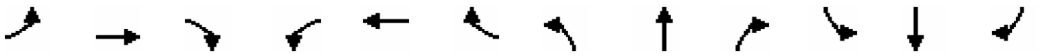
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	52	102	85	27	115	29	659	49	54	1026	15
Future Volume (vph)	45	52	102	85	27	115	29	659	49	54	1026	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	200		0	225		0
Storage Lanes	1		1	1		1	1		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	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.990			0.998	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1652	1404	1570	1652	1404	1570	3108	0	1570	3133	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1570	1652	1404	1570	1652	1404	1570	3108	0	1570	3133	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109			122		7			1	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1057			880			2032			2009	
Travel Time (s)		20.6			17.1			39.6			39.1	
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 (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	55	109	90	29	122	31	753	0	57	1107	0
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases	7	4	4 5	3	8	8 1	5	2		1	6	
Permitted Phases												
Detector Phase	7	4	4 5	3	8	8 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	10.0		6.0	10.0	
Minimum Split (s)	10.5	24.5		10.5	24.5		10.5	22.5		10.5	22.5	
Total Split (s)	24.5	19.5		24.5	19.5		24.5	64.5		24.5	64.5	
Total Split (%)	18.4%	14.7%		18.4%	14.7%		18.4%	48.5%		18.4%	48.5%	
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	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		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	9.3	9.5	22.8	11.9	14.5	29.2	8.4	40.0		9.9	41.5	
Actuated g/C Ratio	0.11	0.11	0.26	0.14	0.17	0.34	0.10	0.46		0.11	0.48	
v/c Ratio	0.29	0.30	0.24	0.42	0.11	0.22	0.21	0.52		0.32	0.74	
Control Delay (s/veh)	47.5	47.3	8.5	46.7	39.9	6.8	47.7	19.3		47.3	23.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	47.5	47.3	8.5	46.7	39.9	6.8	47.7	19.3		47.3	23.0	
LOS	D	D	A	D	D	A	D	B		D	C	
Approach Delay (s/veh)		27.4			25.7			20.5			24.2	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	25	28	0	46	14	0	16	152		29	254	
Queue Length 95th (ft)	74	82	46	118	49	45	55	260		84	417	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		977			800			1952			1929	
Turn Bay Length (ft)	150		150	150		150	200			225		
Base Capacity (vph)	391	309	639	391	346	714	391	2229		391	2245	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.12	0.18	0.17	0.23	0.08	0.17	0.08	0.34		0.15	0.49	

Intersection Summary			
Area Type:	Other		
Cycle Length: 133			
Actuated Cycle Length: 86.9			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay (s/veh): 23.4		Intersection LOS: C	
Intersection Capacity Utilization 56.5%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 9: 70th Avenue E & 26th Street E



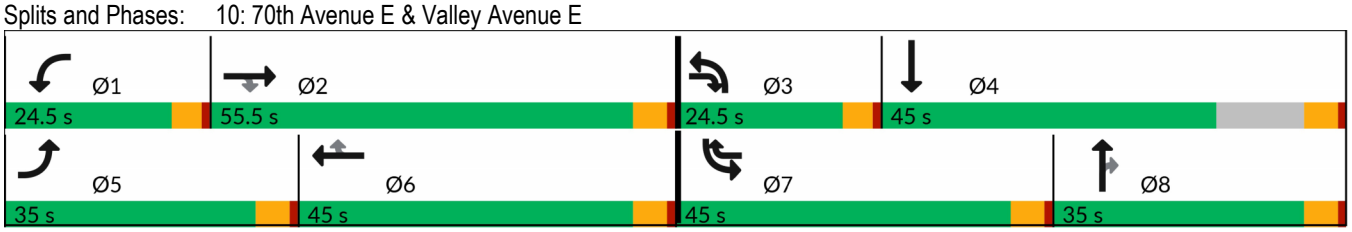


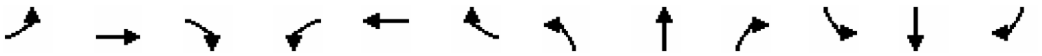
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	542	169	79	294	347	143	298	45	584	538	92
Future Volume (vph)	27	542	169	79	294	347	143	298	45	584	538	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		250	200		0	200		130	350		0
Storage Lanes	1		1	1		1	1		1	2		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	0.95	1.00	0.97	0.95	0.95
Frt			0.850			0.850			0.850		0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1641	1727	1468	1641	1727	1468	1641	3282	1468	3183	3210	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	1727	1468	1641	1727	1468	1641	3282	1468	3183	3210	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			146			361			143		13	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		831			1056			750			2032	
Travel Time (s)		18.9			24.0			14.6			39.6	
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 (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	565	176	82	306	361	149	310	47	608	656	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2	3	1	6	7	3	8		7	4	
Permitted Phases			2			6			8			
Detector Phase	5	2	3	1	6	7	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0	6.0	6.0	8.0	8.0	6.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	11.0	31.0	10.5	10.5	31.0	13.0	10.5	31.0	31.0	13.0	31.0	
Total Split (s)	35.0	55.5	24.5	24.5	45.0	45.0	24.5	35.0	35.0	45.0	45.0	
Total Split (%)	21.9%	34.7%	15.3%	15.3%	28.1%	28.1%	15.3%	21.9%	21.9%	28.1%	28.1%	
Yellow Time (s)	4.0	4.0	3.5	3.5	4.0	4.0	3.5	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	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	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.5	4.5	5.0	5.0	4.5	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	Min	None	None	Min	None	None	None	None	None	None	
Act Effct Green (s)	9.4	51.1	73.2	12.8	59.6	97.9	17.1	19.4	19.4	33.2	36.0	
Actuated g/C Ratio	0.07	0.38	0.54	0.09	0.44	0.72	0.13	0.14	0.14	0.24	0.26	
v/c Ratio	0.25	0.87	0.21	0.54	0.41	0.31	0.72	0.66	0.14	0.78	0.76	
Control Delay (s/veh)	69.9	57.1	5.3	74.2	32.3	1.6	79.4	63.7	0.9	56.6	52.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	69.9	57.1	5.3	74.2	32.3	1.6	79.4	63.7	0.9	56.6	52.0	
LOS	E	E	A	E	C	A	E	E	A	E	D	
Approach Delay (s/veh)		45.7			22.1			62.5			54.2	
Approach LOS		D			C			E			D	
Queue Length 50th (ft)	24	468	12	71	199	0	127	139	0	259	281	
Queue Length 95th (ft)	62	#834	59	138	338	36	#242	206	0	365	373	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		751			976			670			1952	
Turn Bay Length (ft)	150		250	200			200		130	350		
Base Capacity (vph)	365	647	886	243	755	1215	243	730	438	945	1211	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.08	0.87	0.20	0.34	0.41	0.30	0.61	0.42	0.11	0.64	0.54	

Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 136.2			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay (s/veh): 46.2		Intersection LOS: D	
Intersection Capacity Utilization 75.1%		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: 10: 70th Avenue E & Valley Avenue E



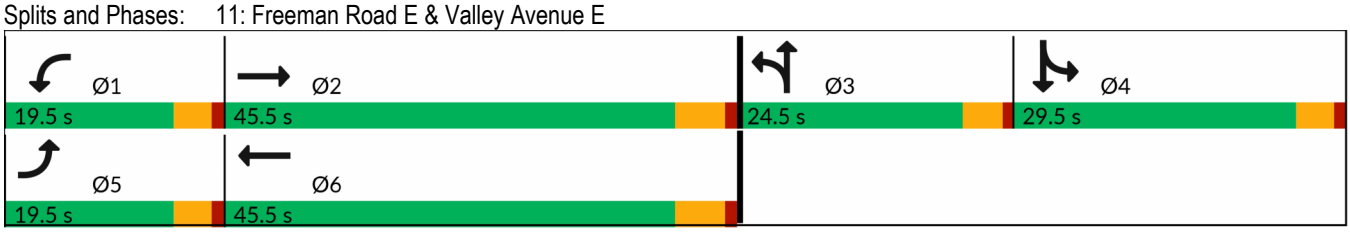


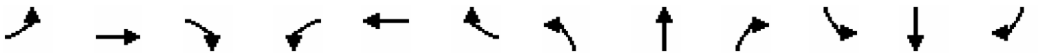
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	1024	116	22	525	128	27	40	32	253	166	23
Future Volume (vph)	29	1024	116	22	525	128	27	40	32	253	166	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	230		0	50		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.985			0.971			0.933			0.982	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1656	3262	0	1656	3216	0	1656	1626	0	1656	1712	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1656	3262	0	1656	3216	0	1656	1626	0	1656	1712	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			27			29			5	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		671			1259			2534			494	
Travel Time (s)		15.3			28.6			69.1			13.5	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	33	1281	0	25	734	0	30	81	0	284	213	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	3		4	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0		4.0	8.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	10.5	26.5		9.5	26.5		22.5	22.5		27.5	27.5	
Total Split (s)	19.5	45.5		19.5	45.5		24.5	24.5		29.5	29.5	
Total Split (%)	16.4%	38.2%		16.4%	38.2%		20.6%	20.6%		24.8%	24.8%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		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	5.5		4.5	5.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	8.0	41.7		7.6	38.9		9.2	9.2		21.1	21.1	
Actuated g/C Ratio	0.09	0.47		0.09	0.44		0.10	0.10		0.24	0.24	
v/c Ratio	0.22	0.83		0.18	0.51		0.18	0.42		0.72	0.52	
Control Delay (s/veh)	46.3	30.3		46.3	22.6		43.2	35.9		44.8	35.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	46.3	30.3		46.3	22.6		43.2	35.9		44.8	35.9	
LOS	D	C		D	C		D	D		D	D	
Approach Delay (s/veh)		30.7			23.4			37.8			41.0	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	17	320		13	181		16	27		137	95	
Queue Length 95th (ft)	52	#627		43	266		47	79		#294	202	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		591			1179			2454			414	
Turn Bay Length (ft)	150			230			50			250		
Base Capacity (vph)	290	1540		290	1522		388	403		485	505	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.11	0.83		0.09	0.48		0.08	0.20		0.59	0.42	

Intersection Summary			
Area Type:	Other		
Cycle Length: 119			
Actuated Cycle Length: 88.6			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay (s/veh): 30.9		Intersection LOS: C	
Intersection Capacity Utilization 62.8%		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: 11: Freeman Road E & Valley Avenue E



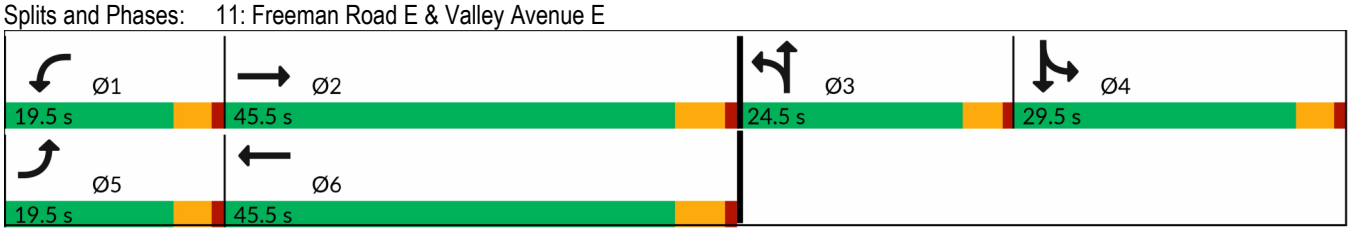


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	909	100	35	599	127	23	29	26	180	115	16
Future Volume (vph)	25	909	100	35	599	127	23	29	26	180	115	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	230		0	50		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.985			0.974			0.930			0.982	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1656	3262	0	1656	3226	0	1656	1621	0	1656	1712	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1656	3262	0	1656	3226	0	1656	1621	0	1656	1712	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			23			29			5	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		671			1259			4678			494	
Travel Time (s)		15.3			28.6			127.6			13.5	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	1133	0	39	816	0	26	62	0	202	147	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	3		4	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0		4.0	8.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	10.5	26.5		9.5	26.5		22.5	22.5		27.5	27.5	
Total Split (s)	19.5	45.5		19.5	45.5		24.5	24.5		29.5	29.5	
Total Split (%)	16.4%	38.2%		16.4%	38.2%		20.6%	20.6%		24.8%	24.8%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		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	5.5		4.5	5.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	7.8	41.6		8.3	44.3		8.3	8.3		16.6	16.6	
Actuated g/C Ratio	0.09	0.48		0.10	0.52		0.10	0.10		0.19	0.19	
v/c Ratio	0.19	0.71		0.24	0.49		0.16	0.34		0.63	0.44	
Control Delay (s/veh)	45.3	25.0		45.4	18.0		43.8	31.4		43.6	36.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	45.3	25.0		45.4	18.0		43.8	31.4		43.6	36.2	
LOS	D	C		D	B		D	C		D	D	
Approach Delay (s/veh)		25.5			19.3			35.0			40.5	
Approach LOS		C			B			D			D	
Queue Length 50th (ft)	16	286		22	127		14	18		110	74	
Queue Length 95th (ft)	46	#510		58	295		43	61		194	140	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		591			1179			4598			414	
Turn Bay Length (ft)	150			230			50			250		
Base Capacity (vph)	303	1602		303	1690		405	418		506	527	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.09	0.71		0.13	0.48		0.06	0.15		0.40	0.28	

Intersection Summary			
Area Type:	Other		
Cycle Length: 119			
Actuated Cycle Length: 85.8			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay (s/veh): 25.8		Intersection LOS: C	
Intersection Capacity Utilization 56.1%		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: 11: Freeman Road E & Valley Avenue E



Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	22	7	84	259	12
Future Vol, veh/h	5	22	7	84	259	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	6	26	8	99	305	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	427	312	319	0	-	0
Stage 1	312	-	-	-	-	-
Stage 2	115	-	-	-	-	-
Critical Hdwy	6.44	6.24	4.14	-	-	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	2.236	-	-	-
Pot Cap-1 Maneuver	581	724	1230	-	-	-
Stage 1	738	-	-	-	-	-
Stage 2	905	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	577	724	1230	-	-	-
Mov Cap-2 Maneuver	577	-	-	-	-	-
Stage 1	733	-	-	-	-	-
Stage 2	905	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.46	0.61	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	138	-	691	-	-
HCM Lane V/C Ratio	0.007	-	0.046	-	-
HCM Control Delay (s/veh)	7.9	0	10.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	12	9	6	69	277	14
Future Vol, veh/h	12	9	6	69	277	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	14	11	7	81	326	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	429	334	342	0	-	0
Stage 1	334	-	-	-	-	-
Stage 2	95	-	-	-	-	-
Critical Hdwy	6.45	6.25	4.15	-	-	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	2.245	-	-	-
Pot Cap-1 Maneuver	577	701	1200	-	-	-
Stage 1	719	-	-	-	-	-
Stage 2	921	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	573	701	1200	-	-	-
Mov Cap-2 Maneuver	573	-	-	-	-	-
Stage 1	714	-	-	-	-	-
Stage 2	921	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	11.03	0.64	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	144	-	622	-	-
HCM Lane V/C Ratio	0.006	-	0.04	-	-
HCM Control Delay (s/veh)	8	0	11	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	2	22	0	6	1	69	6	2	281	1
Future Vol, veh/h	0	0	2	22	0	6	1	69	6	2	281	1
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	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	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	0	0	2	27	0	7	1	83	7	2	339	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	430	437	339	433	434	87	340	0	0	90	0	0
Stage 1	344	344	-	89	89	-	-	-	-	-	-	-
Stage 2	86	93	-	343	345	-	-	-	-	-	-	-
Critical Hdwy	7.16	6.56	6.26	7.16	6.56	6.26	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.16	5.56	-	6.16	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.16	5.56	-	6.16	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.554	4.054	3.354	3.554	4.054	3.354	2.254	-	-	2.254	-	-
Pot Cap-1 Maneuver	529	507	694	527	509	961	1197	-	-	1480	-	-
Stage 1	663	630	-	908	813	-	-	-	-	-	-	-
Stage 2	912	810	-	664	629	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	523	506	694	523	508	961	1197	-	-	1480	-	-
Mov Cap-2 Maneuver	523	506	-	523	508	-	-	-	-	-	-	-
Stage 1	662	628	-	907	812	-	-	-	-	-	-	-
Stage 2	905	810	-	660	628	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	10.2	11.59	0.11	0.05
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	23	-	-	694	580	13	-	-
HCM Lane V/C Ratio	0.001	-	-	0.003	0.058	0.002	-	-
HCM Control Delay (s/veh)	8	0	-	10.2	11.6	7.4	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0	-	-

Intersection	
Int Delay, s/veh	9.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	40	522	154	52	277	38
Future Vol, veh/h	40	522	154	52	277	38
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	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	42	544	160	54	289	40

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	215	0	-	0	815	188
Stage 1	-	-	-	-	188	-
Stage 2	-	-	-	-	627	-
Critical Hdwy	4.14	-	-	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.236	-	-	-	3.536	3.336
Pot Cap-1 Maneuver	1344	-	-	-	344	849
Stage 1	-	-	-	-	840	-
Stage 2	-	-	-	-	529	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1344	-	-	-	329	849
Mov Cap-2 Maneuver	-	-	-	-	429	-
Stage 1	-	-	-	-	802	-
Stage 2	-	-	-	-	529	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.55	0	30.69
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	128	-	-	-	456
HCM Lane V/C Ratio	0.031	-	-	-	0.72
HCM Control Delay (s/veh)	7.8	0	-	-	30.7
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	5.7

Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	40	522	154	52	277	38
Future Vol, veh/h	40	522	154	52	277	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	42	544	160	54	289	40

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	215	0	-	0	815	188
Stage 1	-	-	-	-	188	-
Stage 2	-	-	-	-	627	-
Critical Hdwy	4.14	-	-	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.236	-	-	-	3.536	3.336
Pot Cap-1 Maneuver	1344	-	-	-	344	849
Stage 1	-	-	-	-	840	-
Stage 2	-	-	-	-	529	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1344	-	-	-	334	849
Mov Cap-2 Maneuver	-	-	-	-	482	-
Stage 1	-	-	-	-	814	-
Stage 2	-	-	-	-	529	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.55	0	21.34
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1344	-	-	-	482	849
HCM Lane V/C Ratio	0.031	-	-	-	0.598	0.047
HCM Control Delay (s/veh)	7.8	-	-	-	23	9.4
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.1	-	-	-	3.9	0.1

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	36	428	126	43	201	43
Future Vol, veh/h	36	428	126	43	201	43
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	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	38	446	131	45	209	45

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	176	0	-	0	674	154
Stage 1	-	-	-	-	154	-
Stage 2	-	-	-	-	521	-
Critical Hdwy	4.14	-	-	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.236	-	-	-	3.536	3.336
Pot Cap-1 Maneuver	1388	-	-	-	417	887
Stage 1	-	-	-	-	870	-
Stage 2	-	-	-	-	592	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1388	-	-	-	402	887
Mov Cap-2 Maneuver	-	-	-	-	488	-
Stage 1	-	-	-	-	838	-
Stage 2	-	-	-	-	592	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.59	0	17.91
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	140	-	-	-	530
HCM Lane V/C Ratio	0.027	-	-	-	0.48
HCM Control Delay (s/veh)	7.7	0	-	-	17.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	2.6

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	36	428	126	43	201	43
Future Vol, veh/h	36	428	126	43	201	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	38	446	131	45	209	45

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	176	0	-	0	674	154
Stage 1	-	-	-	-	154	-
Stage 2	-	-	-	-	521	-
Critical Hdwy	4.14	-	-	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.236	-	-	-	3.536	3.336
Pot Cap-1 Maneuver	1388	-	-	-	417	887
Stage 1	-	-	-	-	870	-
Stage 2	-	-	-	-	592	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1388	-	-	-	405	887
Mov Cap-2 Maneuver	-	-	-	-	542	-
Stage 1	-	-	-	-	846	-
Stage 2	-	-	-	-	592	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.59	0	14.62
HCM LOS			B

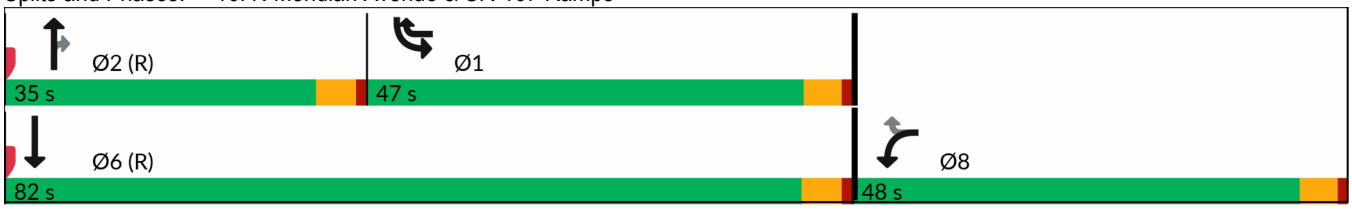
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1388	-	-	-	542	887
HCM Lane V/C Ratio	0.027	-	-	-	0.386	0.05
HCM Control Delay (s/veh)	7.7	-	-	-	15.8	9.3
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.1	-	-	-	1.8	0.2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1042	665	562	1495	1189	941
Future Volume (vph)	1042	665	562	1495	1189	941
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	2	2		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	0.88	0.95	1.00	0.97	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3367	2733	3471	1553	3367	3471
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3367	2733	3471	1553	3367	3471
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		68		557		
Link Speed (mph)	35		35			35
Link Distance (ft)	522		278			1175
Travel Time (s)	10.2		5.4			22.9
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1063	679	573	1526	1213	960
Turn Type	Prot	pm+ov	NA	Perm	Prot	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8		2		
Minimum Split (s)	36.6	10.6	38.9	38.9	10.6	36.9
Total Split (s)	48.0	47.0	35.0	35.0	47.0	82.0
Total Split (%)	36.9%	36.2%	26.9%	26.9%	36.2%	63.1%
Yellow Time (s)	3.6	3.6	3.9	3.9	3.6	3.9
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)	4.6	4.6	4.9	4.9	4.6	4.9
Lead/Lag		Lag	Lead	Lead	Lag	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Act Effct Green (s)	43.4	90.4	30.1	30.1	42.4	77.1
Actuated g/C Ratio	0.33	0.70	0.23	0.23	0.33	0.59
v/c Ratio	0.95	0.35	0.71	1.94	1.10	0.47
Control Delay (s/veh)	59.0	7.7	51.7	446.1	101.6	15.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	59.0	7.7	51.7	446.1	101.6	15.8
LOS	E	A	D	F	F	B
Approach Delay (s/veh)	39.0		338.4			63.7
Approach LOS	D		F			E
Queue Length 50th (ft)	448	105	235	~1616	~598	227
Queue Length 95th (ft)	#585	139	302	#1886	#734	277
Internal Link Dist (ft)	442		198			1095
Turn Bay Length (ft)					250	
Base Capacity (vph)	1124	1921	803	787	1098	2058
Starvation Cap Reductn	0	0	0	0	0	0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.35	0.71	1.94	1.10	0.47

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 125 (96%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 150			
Control Type: Pretimed			
Maximum v/c Ratio: 1.94			
Intersection Signal Delay (s/veh): 152.4		Intersection LOS: F	
Intersection Capacity Utilization 134.4%		ICU Level of Service H	
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: 16: N Meridian Avenue & SR-167 Ramps



Intersection	
Int Delay, s/veh	98.4

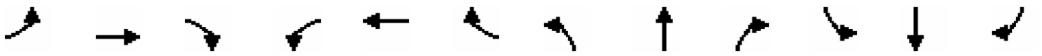
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	444	0	0	598	0	1501	65	0	1705	105
Future Vol, veh/h	0	0	444	0	0	598	0	1501	65	0	1705	105
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Free	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	463	0	0	623	0	1564	68	0	1776	109

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	943	-	-	782	-	0	-	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.96	-	-	6.96	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.33	-	-	3.33	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	~ 262	0	0	~ 335	0	-	0	0	-	-
Stage 1	0	0	-	0	0	-	0	-	0	0	-	-
Stage 2	0	0	-	0	0	-	0	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	-	-	~ 262	-	-	~ 335	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

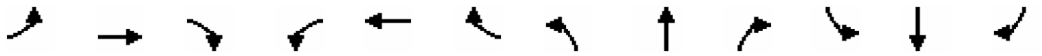
Approach	EB	WB	NB	SB
HCM Control Delay, $/s	$ 392.87	$ 424.47	0	0
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBT	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	262	335	-	-
HCM Lane V/C Ratio	-	1.766	1.859	-	-
HCM Control Delay (s/veh)	-	$ 392.9	$ 424.5	-	-
HCM Lane LOS	-	F	F	-	-
HCM 95th %tile Q(veh)	-	30.7	41.6	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1156	0	452	22	683	363	0	0	0	0	922	1100
Future Volume (vph)	1156	0	452	22	683	363	0	0	0	0	922	1100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	125		0	0		0	0		250
Storage Lanes	2		1	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected	0.950			0.950								
Satd. Flow (prot)	3400	0	1568	1752	3505	1568	0	0	0	0	3505	1568
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	3400	0	1568	1752	3505	1568	0	0	0	0	3505	1568
Right Turn on Red			No	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				72		378						668
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		673			590			2133			1751	
Travel Time (s)		13.1			11.5			58.2			47.8	
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 (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1204	0	471	23	711	378	0	0	0	0	960	1146
Turn Type	Prot		Prot	Perm	NA	Perm					NA	Perm
Protected Phases	1		1		2						4	
Permitted Phases				2		2						4
Detector Phase	1		1	2	2	2					4	4
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0					10.0	10.0
Minimum Split (s)	10.1		10.1	35.1	35.1	35.1					30.8	30.8
Total Split (s)	42.0		42.0	29.0	29.0	29.0					34.0	34.0
Total Split (%)	40.0%		40.0%	27.6%	27.6%	27.6%					32.4%	32.4%
Yellow Time (s)	3.6		3.6	3.6	3.6	3.6					3.3	3.3
All-Red Time (s)	1.5		1.5	1.5	1.5	1.5					1.5	1.5
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Lost Time (s)	5.1		5.1	5.1	5.1	5.1					4.8	4.8
Lead/Lag	Lead		Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes						
Recall Mode	None		None	Max	Max	Max					None	None
Act Effct Green (s)	36.9		36.9	30.0	30.0	30.0					29.2	29.2
Actuated g/C Ratio	0.33		0.33	0.27	0.27	0.27					0.26	0.26
v/c Ratio	1.07		0.91	0.04	0.75	0.54					1.04	1.27
Control Delay (s/veh)	82.7		58.4	0.1	43.0	6.5					81.6	145.9
Queue Delay	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Delay (s/veh)	82.7		58.4	0.1	43.0	6.5					81.6	145.9
LOS	F		E	A	D	A					F	F
Approach Delay (s/veh)		75.9			29.7						116.6	
Approach LOS		E			C						F	
Queue Length 50th (ft)	~490		319	0	244	0					~391	~659
Queue Length 95th (ft)	#622		#516	0	315	74					#520	#918



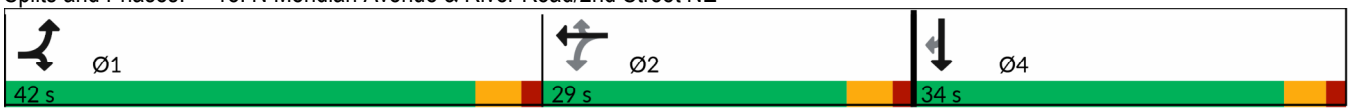
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		593			510			2053			1671	
Turn Bay Length (ft)				125								250
Base Capacity (vph)	1129		520	525	946	699					921	904
Starvation Cap Reductn	0		0	0	0	0					0	0
Spillback Cap Reductn	0		0	0	0	0					0	0
Storage Cap Reductn	0		0	0	0	0					0	0
Reduced v/c Ratio	1.07		0.91	0.04	0.75	0.54					1.04	1.27

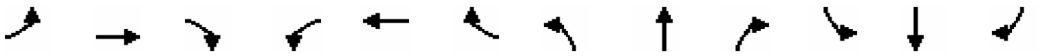
Intersection Summary			
Area Type:	Other		
Cycle Length: 105			
Actuated Cycle Length: 111.1			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.27			
Intersection Signal Delay (s/veh): 82.9		Intersection LOS: F	
Intersection Capacity Utilization 95.2%		ICU Level of Service F	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

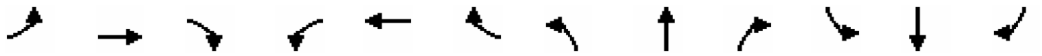
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 18: N Meridian Avenue & River Road/2nd Street NE





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1156	0	452	22	683	363	0	0	0	0	922	1100
Future Volume (vph)	1156	0	452	22	683	363	0	0	0	0	922	1100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	125		0	0		0	0		250
Storage Lanes	2		1	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected	0.950			0.950								
Satd. Flow (prot)	3400	0	1568	1752	3505	1568	0	0	0	0	3505	1568
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	3400	0	1568	1752	3505	1568	0	0	0	0	3505	1568
Right Turn on Red			No	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				50		339						654
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		673			590			2133			1751	
Travel Time (s)		13.1			11.5			58.2			47.8	
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 (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1204	0	471	23	711	378	0	0	0	0	960	1146
Turn Type	Prot		Prot	Perm	NA	Perm					NA	Perm
Protected Phases	1		1		2						4	
Permitted Phases				2		2						4
Detector Phase	1		1	2	2	2					4	4
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0					10.0	10.0
Minimum Split (s)	10.1		10.1	35.1	35.1	35.1					30.8	30.8
Total Split (s)	52.0		52.0	37.0	37.0	37.0					61.0	61.0
Total Split (%)	34.7%		34.7%	24.7%	24.7%	24.7%					40.7%	40.7%
Yellow Time (s)	3.6		3.6	3.6	3.6	3.6					3.3	3.3
All-Red Time (s)	1.5		1.5	1.5	1.5	1.5					1.5	1.5
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Lost Time (s)	5.1		5.1	5.1	5.1	5.1					4.8	4.8
Lead/Lag	Lead		Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes						
Recall Mode	None		None	Max	Max	Max					None	None
Act Effct Green (s)	46.9		46.9	31.9	31.9	31.9					56.2	56.2
Actuated g/C Ratio	0.31		0.31	0.21	0.21	0.21					0.37	0.37
v/c Ratio	1.13		0.96	0.06	0.95	0.63					0.73	1.15
Control Delay (s/veh)	117.9		82.5	1.4	81.5	12.9					44.4	98.4
Queue Delay	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Delay (s/veh)	117.9		82.5	1.4	81.5	12.9					44.4	98.4
LOS	F		F	A	F	B					D	F
Approach Delay (s/veh)		108.0			56.5						73.8	
Approach LOS		F			E						E	
Queue Length 50th (ft)	~703		454	0	365	31					424	~892
Queue Length 95th (ft)	#841		#681	5	#491	141					506	#1161



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		593			510			2053			1671	
Turn Bay Length (ft)				125								250
Base Capacity (vph)	1063		490	411	745	600					1313	996
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	1.13		0.96	0.06	0.95	0.63					0.73	1.15

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.15			
Intersection Signal Delay (s/veh): 81.6		Intersection LOS: F	
Intersection Capacity Utilization 95.2%		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.

Splits and Phases: 18: N Meridian Avenue & River Road/2nd Street NE

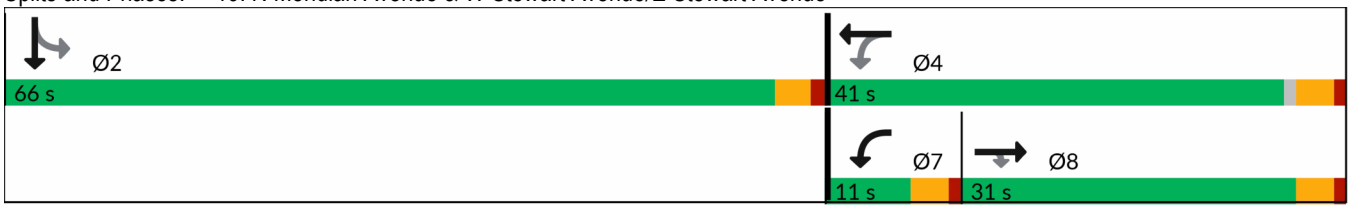
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	225	68	154	318	0	0	0	0	152	1152	51
Future Volume (vph)	0	225	68	154	318	0	0	0	0	152	1152	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	125		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	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	0.95	0.95	0.95
Frt			0.850								0.994	
Flt Protected				0.950							0.994	
Satd. Flow (prot)	0	1863	1583	1770	1863	0	0	0	0	0	3497	0
Flt Permitted				0.228							0.994	
Satd. Flow (perm)	0	1863	1583	425	1863	0	0	0	0	0	3497	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			51								6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		393			385			1349			2133	
Travel Time (s)		10.7			10.5			36.8			58.2	
Peak Hour 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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	237	72	162	335	0	0	0	0	0	1427	0
Turn Type		NA	Perm	pm+pt	NA					Perm	NA	
Protected Phases		8		7	4						2	
Permitted Phases			8	4						2		
Detector Phase		8	8	7	4					2	2	
Switch Phase												
Minimum Initial (s)		5.0	5.0	5.0	5.0					10.0	10.0	
Minimum Split (s)		21.0	21.0	9.0	21.0					23.0	23.0	
Total Split (s)		31.0	31.0	11.0	41.0					66.0	66.0	
Total Split (%)		28.7%	28.7%	10.2%	38.0%					61.1%	61.1%	
Yellow Time (s)		3.0	3.0	3.0	3.0					3.0	3.0	
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)		4.0	4.0	4.0	4.0						4.0	
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		None	None	None	None					Max	Max	
Act Effct Green (s)		15.6	15.6	26.5	26.5						62.1	
Actuated g/C Ratio		0.16	0.16	0.27	0.27						0.64	
v/c Ratio		0.79	0.24	0.76	0.66						0.63	
Control Delay (s/veh)		57.6	16.6	52.3	37.5						12.7	
Queue Delay		0.0	0.0	0.0	0.3						0.0	
Total Delay (s/veh)		57.6	16.6	52.3	37.8						12.7	
LOS		E	B	D	D						B	
Approach Delay (s/veh)		48.0			42.5						12.7	
Approach LOS		D			D						B	
Queue Length 50th (ft)		141	11	79	182						251	
Queue Length 95th (ft)		222	49	#155	272						390	
Internal Link Dist (ft)		313			305			1269			2053	

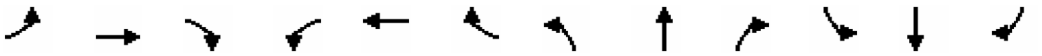
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)			50	125								
Base Capacity (vph)		521	479	214	733						2249	
Starvation Cap Reductn		0	0	0	83						0	
Spillback Cap Reductn		0	0	0	0						0	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		0.45	0.15	0.76	0.52						0.63	

Intersection Summary			
Area Type:	Other		
Cycle Length: 108			
Actuated Cycle Length: 96.7			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay (s/veh): 24.2		Intersection LOS: C	
Intersection Capacity Utilization 68.3%		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: 19: N Meridian Avenue & W Stewart Avenue





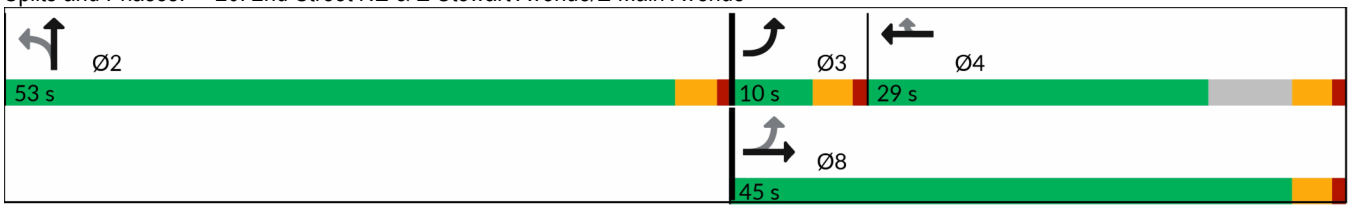
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	304	0	0	367	282	242	740	2	0	0	0
Future Volume (vph)	51	304	0	0	367	282	242	740	2	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	0		125	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
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	0.95	1.00	1.00	1.00
Frt						0.850						
Flt Protected	0.950							0.988				
Satd. Flow (prot)	1770	1863	0	0	1863	1583	0	3497	0	0	0	0
Flt Permitted	0.166							0.988				
Satd. Flow (perm)	309	1863	0	0	1863	1583	0	3497	0	0	0	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		385			615			394			343	
Travel Time (s)		10.5			16.8			10.7			9.4	
Peak Hour 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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	320	0	0	386	297	0	1036	0	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA				
Protected Phases	3	8			4			2				
Permitted Phases	8					4	2					
Detector Phase	3	8			4	4	2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	10.0	10.0				
Minimum Split (s)	9.5	28.0			28.0	28.0	26.0	26.0				
Total Split (s)	10.0	45.0			29.0	29.0	53.0	53.0				
Total Split (%)	10.2%	45.9%			29.6%	29.6%	54.1%	54.1%				
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0				
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)	4.0	4.0			4.0	4.0		4.0				
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	None			None	None	Max	Max				
Act Effct Green (s)	27.4	27.4			20.1	20.1		49.6				
Actuated g/C Ratio	0.32	0.32			0.24	0.24		0.58				
v/c Ratio	0.28	0.53			0.88	0.79		0.51				
Control Delay (s/veh)	22.4	26.3			53.2	47.0		13.1				
Queue Delay	0.0	0.2			0.0	0.0		0.0				
Total Delay (s/veh)	22.4	26.5			53.2	47.0		13.1				
LOS	C	C			D	D		B				
Approach Delay (s/veh)		25.9			50.5			13.1				
Approach LOS		C			D			B				
Queue Length 50th (ft)	20	137			204	153		181				
Queue Length 95th (ft)	44	213			#337	248		256				
Internal Link Dist (ft)		305			535			314			263	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	50					125						
Base Capacity (vph)	203	908			686	583		2037				
Starvation Cap Reductn	0	157			0	0		0				
Spillback Cap Reductn	0	0			0	0		0				
Storage Cap Reductn	0	0			0	0		0				
Reduced v/c Ratio	0.27	0.43			0.56	0.51		0.51				

Intersection Summary			
Area Type:	Other		
Cycle Length: 98			
Actuated Cycle Length: 85.1			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay (s/veh): 27.6		Intersection LOS: C	
Intersection Capacity Utilization 68.3%		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: 20: 2nd Street NE & E Stewart Avenue/E Main Avenue



Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	17	15	75	4	2	279
Future Vol, veh/h	17	15	75	4	2	279
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
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	18	16	82	4	2	303

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	391	84	0	0	86	0
Stage 1	84	-	-	-	-	-
Stage 2	308	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	613	976	-	-	1510	-
Stage 1	940	-	-	-	-	-
Stage 2	746	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	612	976	-	-	1510	-
Mov Cap-2 Maneuver	612	-	-	-	-	-
Stage 1	940	-	-	-	-	-
Stage 2	745	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	10.09	0	0.05
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	742	1510	-
HCM Lane V/C Ratio	-	-	0.047	0.001	-
HCM Control Delay (s/veh)	-	-	10.1	7.4	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

APPENDIX E

LUC 150 – WAREHOUSE ANALYSIS

LUC - 150
Warehousing

Freeman Road Logistics
KH 090222083

Trip Generation for: Development Peak Weekday
(a.k.a.): Average Weekday Daily Trips (AWDT)

									NET EXTERNAL TRIPS BY TYPE											
									IN BOTH DIRECTIONS						DIRECTIONAL ASSIGNMENTS					
			Gross Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
Warehousing Building A (Total)	238.525 KSF	150	1.71	50%	50%	407.88	0%	0.00	407.88	0%	0.00	0%	0.00	407.88	0.00	0.00	0.00	0.00	203.94	203.94
Warehousing Building B (Total)	266.911 KSF	150	1.71	50%	50%	456.42	0%	0.00	456.42	0%	0.00	0%	0.00	456.42	0.00	0.00	0.00	0.00	228.21	228.21
Single-Family Detached	-14 Units	210	9.43	50%	50%	-132.02	0%	0.00	-132.02	0%	0.00	0%	0.00	-132.02	0.00	0.00	0.00	0.00	-66.01	-66.01
Total Vehicle Trips						732.28		0.00	732.28		0.00		0.00	732.28	0.00	0.00	0.00	0.00	366.14	366.14

			Gross Truck Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Truck Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
Warehousing Building A (Truck)	238.525 KSF	150	0.60	50%	50%	143.12	0%	0.00	143.12	0%	0.00	0%	0.00	143.12	0.00	0.00	0.00	0.00	71.56	71.56
Warehousing Building B (Truck)	266.911 KSF	150	0.60	50%	50%	160.15	0%	0.00	160.15	0%	0.00	0%	0.00	160.15	0.00	0.00	0.00	0.00	80.08	80.07
Total Truck Trips						303.27		0.00	303.27		0.00		0.00	303.27	0.00	0.00	0.00	0.00	151.64	151.63

Total Passenger Car Trips:	**429.01**	**214.50**	**214.51**

LUC - 150
Warehousing

Freeman Road Logistics
KH 090222083

Trip Generation for: **Development Peak Weekday, Peak Hour of Adjacent Street Traffic, One Hour between 7 and 9 AM**
(a.k.a.): **Weekday AM Peak Hour**

									NET EXTERNAL TRIPS BY TYPE											
									IN BOTH DIRECTIONS						DIRECTIONAL ASSIGNMENTS					
			Gross Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
Warehousing Building A (Total)	238.525 KSF	150	0.17	81%	19%	40.55	0%	0.00	40.55	0%	0.00	0%	0.00	40.55	0.00	0.00	0.00	0.00	32.85	7.70
Warehousing Building B (Total)	266.911 KSF	150	0.17	81%	19%	45.37	0%	0.00	45.37	0%	0.00	0%	0.00	45.37	0.00	0.00	0.00	0.00	36.75	8.62
Single-Family Detached	-14 Units	210	0.70	26%	74%	-9.80	0%	0.00	-9.80	0%	0.00	0%	0.00	-9.80	0.00	0.00	0.00	0.00	-2.55	-7.25
Total Vehicle Trips						76.12		0.00	76.12		0.00		0.00	76.12	0.00	0.00	0.00	0.00	67.05	9.07

			Gross Truck Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Truck Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
Warehousing Building A (Truck)	238.525 KSF	150	0.02	52%	48%	4.77	0%	0.00	4.77	0%	0.00	0%	0.00	4.77	0.00	0.00	0.00	0.00	2.48	2.29
Warehousing Building B (Truck)	266.911 KSF	150	0.02	52%	48%	5.34	0%	0.00	5.34	0%	0.00	0%	0.00	5.34	0.00	0.00	0.00	0.00	2.78	2.56
Total Truck Trips						10.11		0.00	10.11		0.00		0.00	10.11	0.00	0.00	0.00	0.00	5.26	4.85

Total Passenger Car Trips:	**66.01**																		**61.79**	**4.22**

LUC - 150
Warehousing

Freeman Road Logistics
KH 090222083

Trip Generation for: **Development Peak Weekday, Peak Hour of Adjacent Street Traffic, One Hour between 4 and 6 PM**
(a.k.a.): **Weekday PM Peak Hour**

									NET EXTERNAL TRIPS BY TYPE											
									IN BOTH DIRECTIONS						DIRECTIONAL ASSIGNMENTS					
			Gross Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
Warehousing Building A (Total)	238.525 KSF	150	0.18	39%	61%	42.93	0%	0.00	42.93	0%	0.00	0%	0.00	42.93	0.00	0.00	0.00	0.00	16.74	26.19
Warehousing Building B (Total)	266.911 KSF	150	0.18	39%	61%	48.04	0%	0.00	48.04	0%	0.00	0%	0.00	48.04	0.00	0.00	0.00	0.00	18.74	29.30
Single-Family Detached	-14 Units	210	0.94	63%	37%	-13.16	0%	0.00	-13.16	0%	0.00	0%	0.00	-13.16	0.00	0.00	0.00	0.00	-8.29	-4.87
Total Vehicle Trips						77.81		0.00	77.81		0.00		0.00	77.81	0.00	0.00	0.00	0.00	27.19	50.62

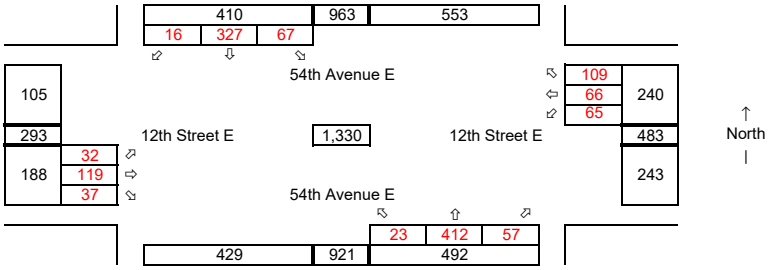
			Gross Truck Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Truck Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
Warehousing Building A (Truck)	238.525 KSF	150	0.03	52%	48%	7.16	0%	0.00	7.16	0%	0.00	0%	0.00	7.16	0.00	0.00	0.00	0.00	3.72	3.44
Warehousing Building B (Truck)	266.911 KSF	150	0.03	52%	48%	8.01	0%	0.00	8.01	0%	0.00	0%	0.00	8.01	0.00	0.00	0.00	0.00	4.17	3.84
Total Truck Trips						15.17		0.00	15.17		0.00		0.00	15.17	0.00	0.00	0.00	0.00	7.89	7.28

Total Passenger Car Trips:	**62.64**	**19.30**	**43.34**

Synchro ID: 1
Existing
Average Weekday
AM Peak Hour

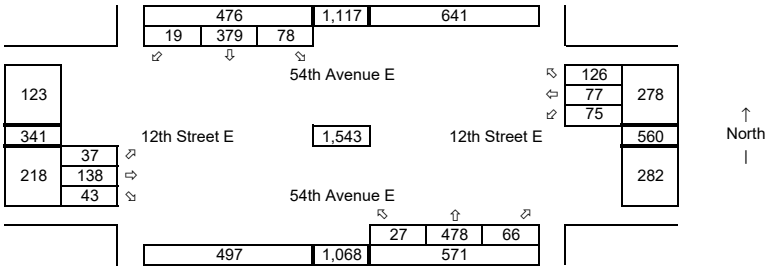
Year: **6/8/2023**

Data Source: IDAX

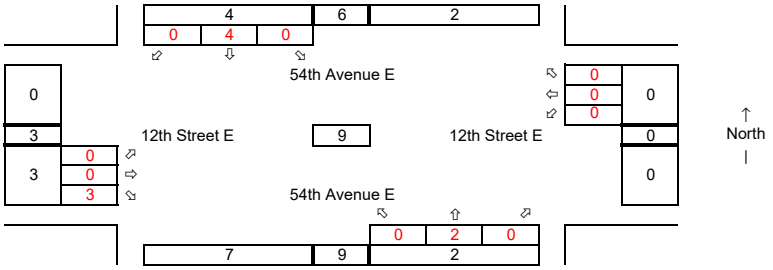


Future without Project
Average Weekday
AM Peak Hour

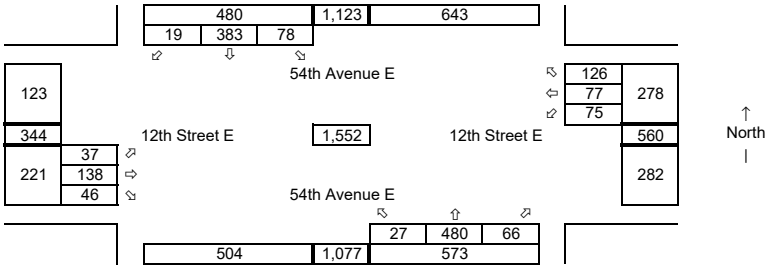
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



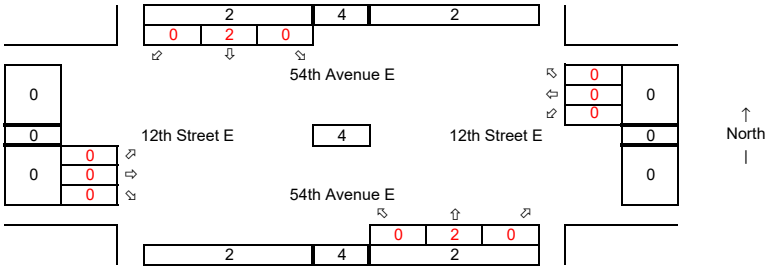
Total Development Trips
Average Weekday
AM Peak Hour



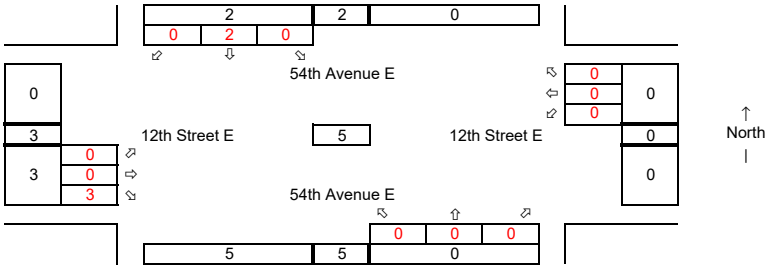
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour

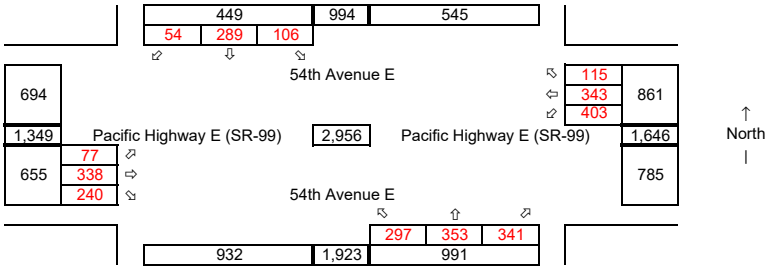


Synchro ID: 2
Existing
Average Weekday
AM Peak Hour

Year: **6/15/2023**

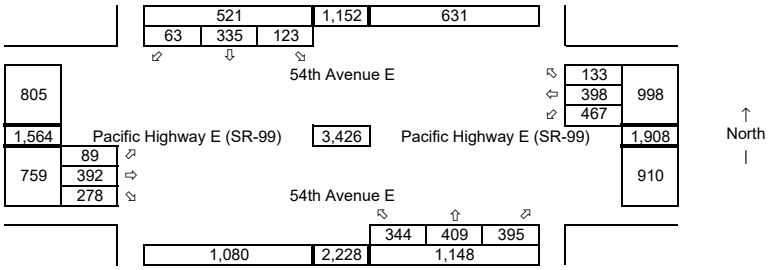
Data Source: IDAX

Two (2) Eastbound U-turns added to Eastbound left-turns

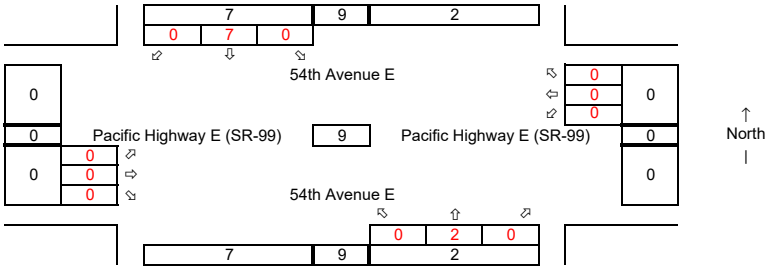


Future without Project
Average Weekday
AM Peak Hour

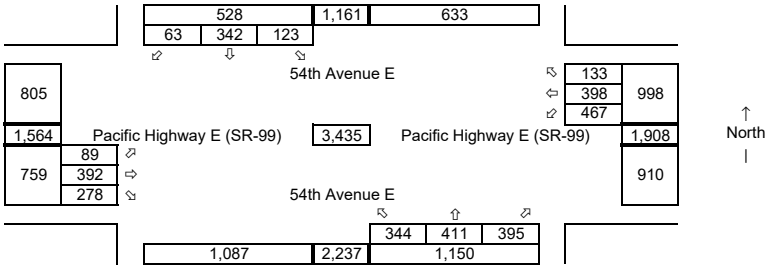
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



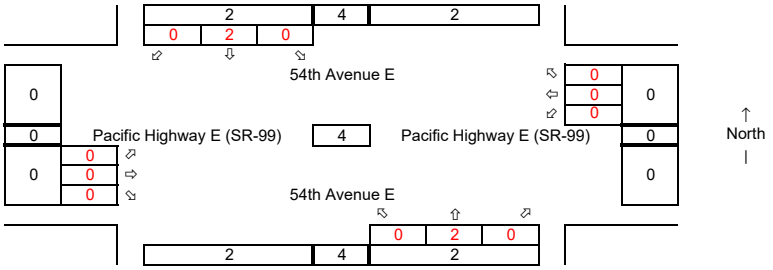
Total Development Trips
Average Weekday
AM Peak Hour



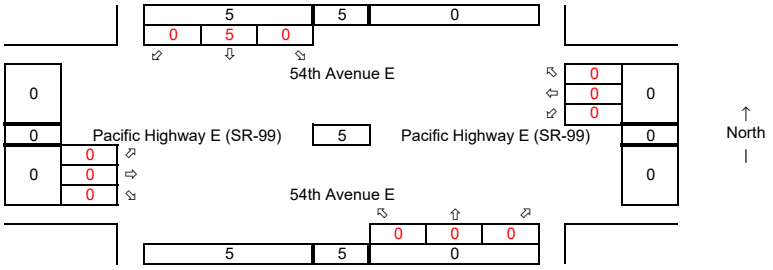
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour

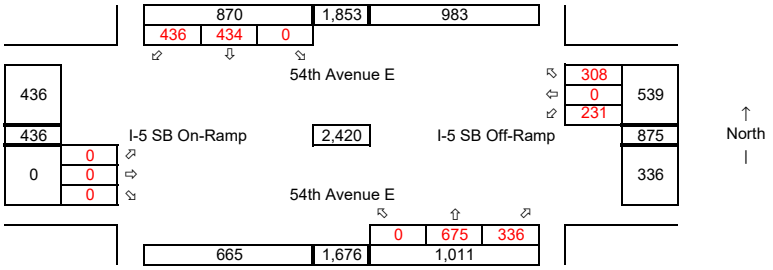


Synchro ID: 3
Existing
Average Weekday
AM Peak Hour

Year: **6/15/2023**

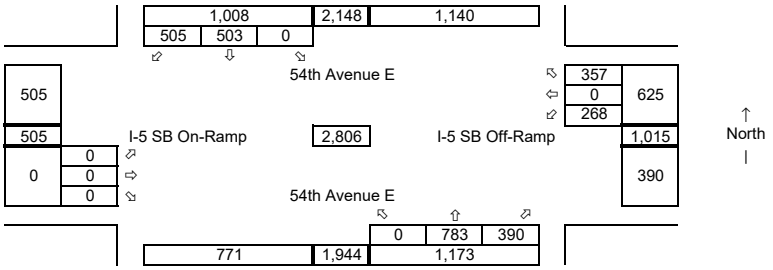
Data Source: IDAX

One (1) Northbound U-turn added to Northbound Thru

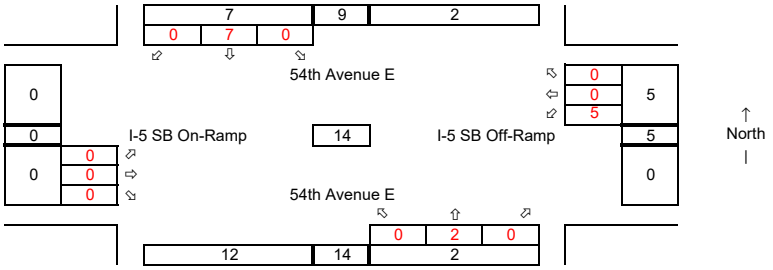


Future without Project
Average Weekday
AM Peak Hour

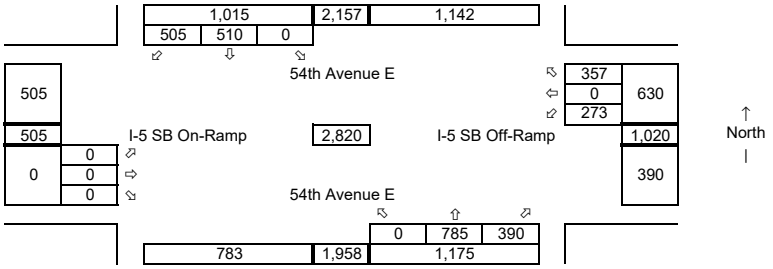
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



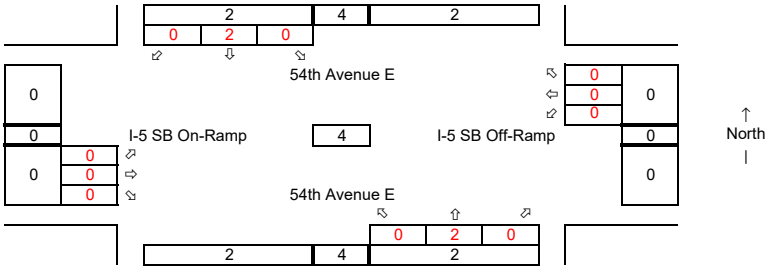
Total Development Trips
Average Weekday
AM Peak Hour



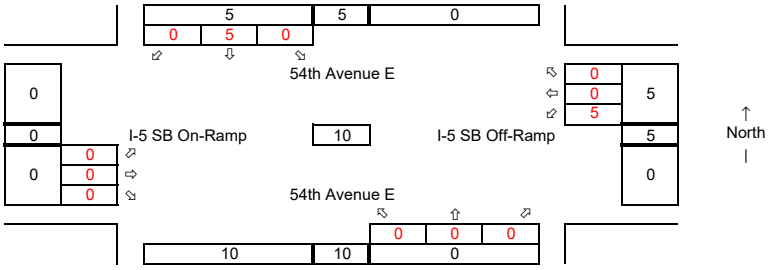
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



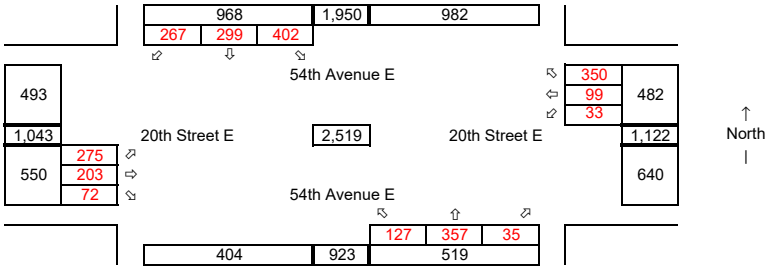
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 4
Existing
Average Weekday
AM Peak Hour

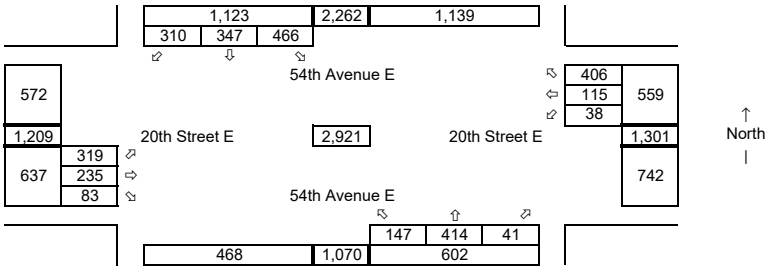
Year: **6/15/2023**

Data Source: IDAX

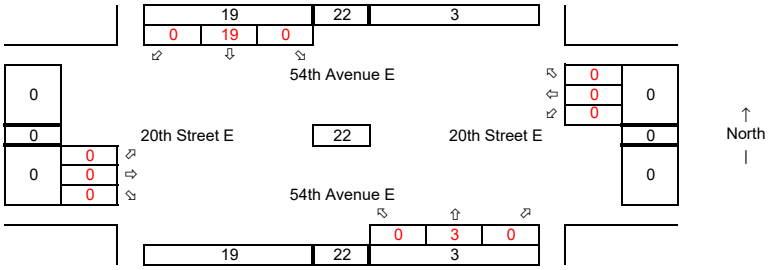


Future without Project
Average Weekday
AM Peak Hour

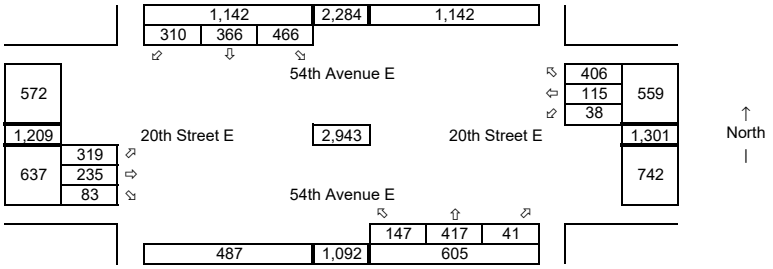
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



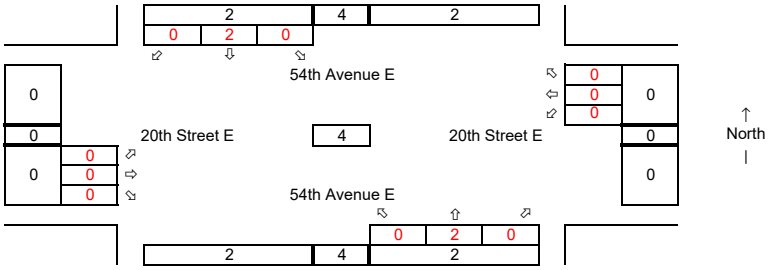
Total Development Trips
Average Weekday
AM Peak Hour



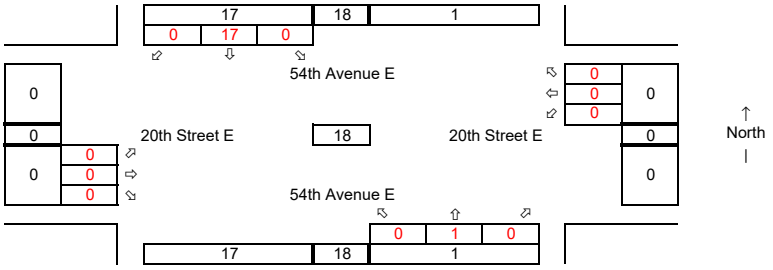
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



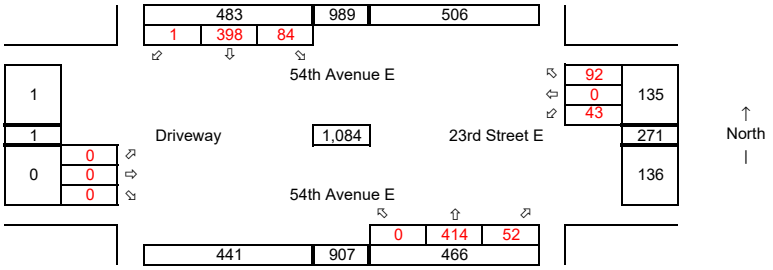
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 5
Existing
Average Weekday
AM Peak Hour

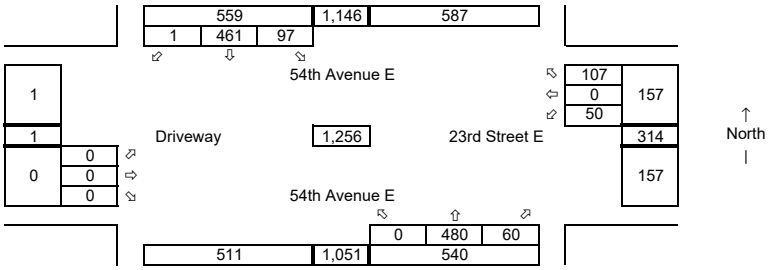
Year: **6/8/2023**

Data Source: IDAX

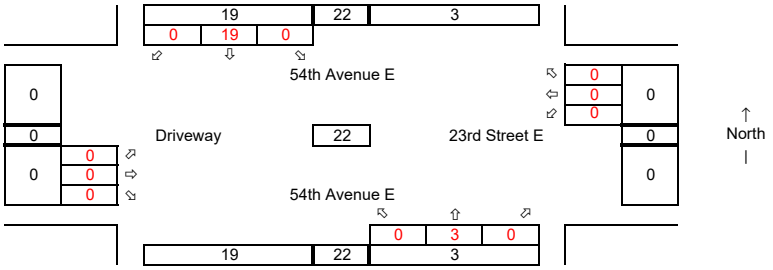


Future without Project
Average Weekday
AM Peak Hour

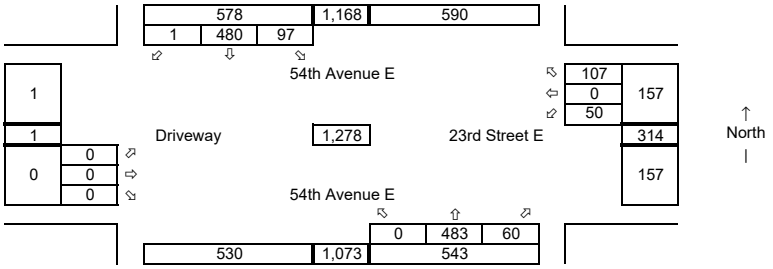
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



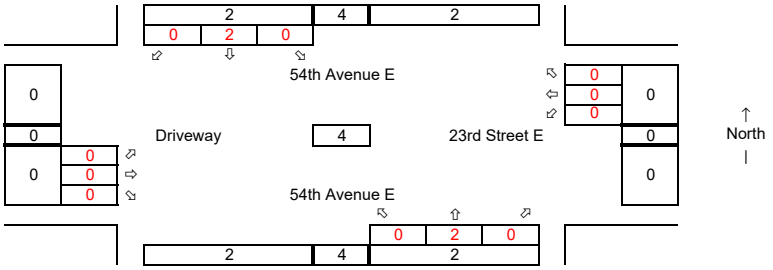
Total Development Trips
Average Weekday
AM Peak Hour



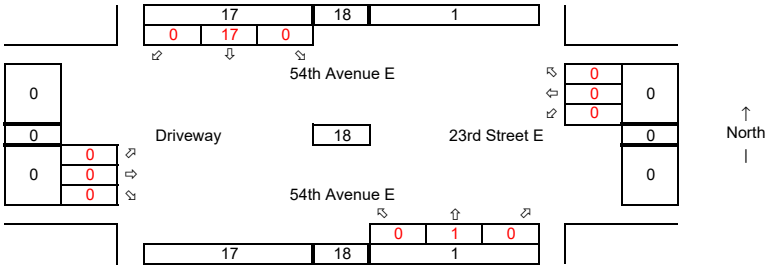
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



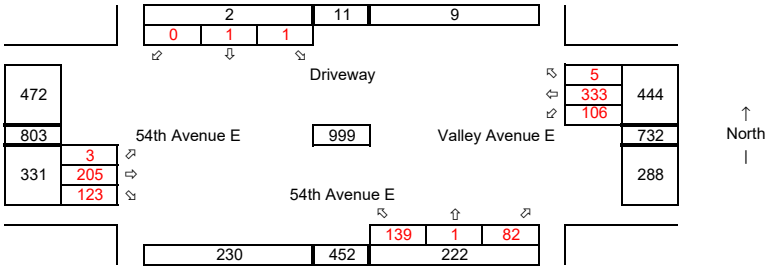
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 6
Existing
Average Weekday
AM Peak Hour

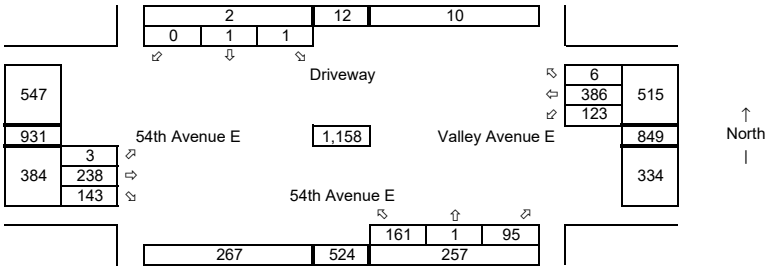
Year: **6/15/2023**

Data Source: IDAX

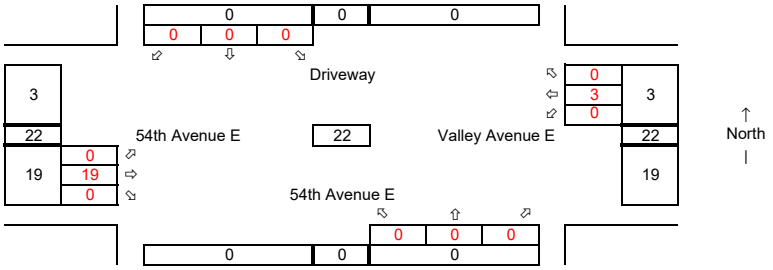


Future without Project
Average Weekday
AM Peak Hour

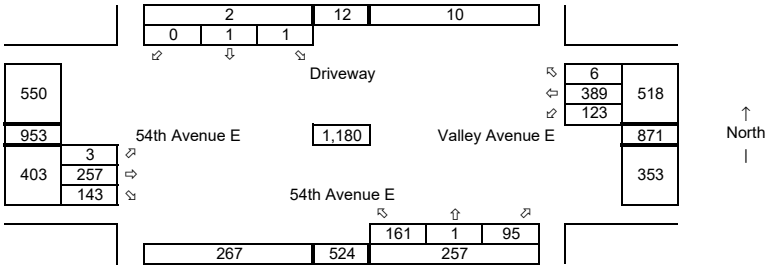
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



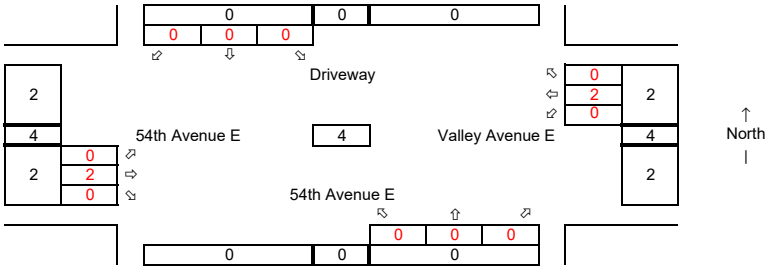
Total Development Trips
Average Weekday
AM Peak Hour



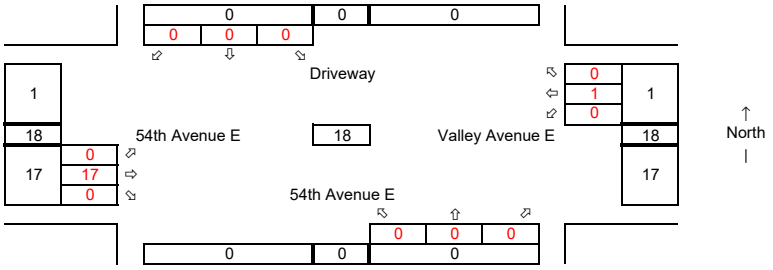
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



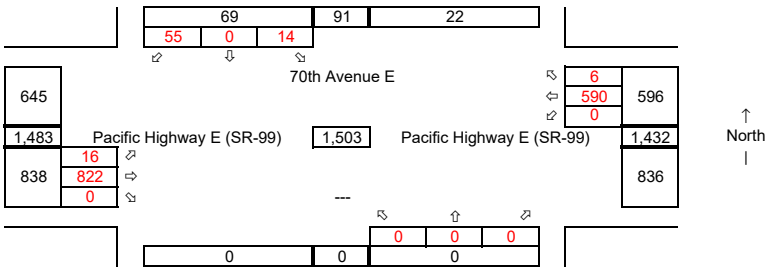
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 7
Existing
Average Weekday
AM Peak Hour

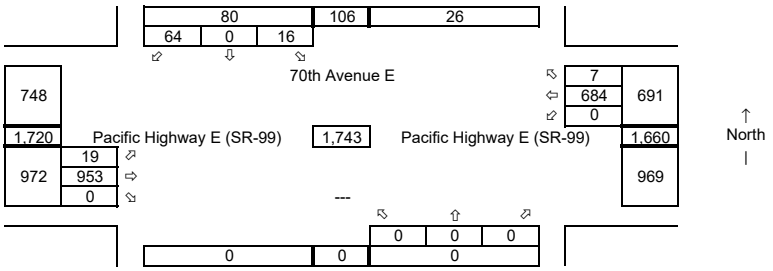
Year: **6/15/2023**

Data Source: IDAX

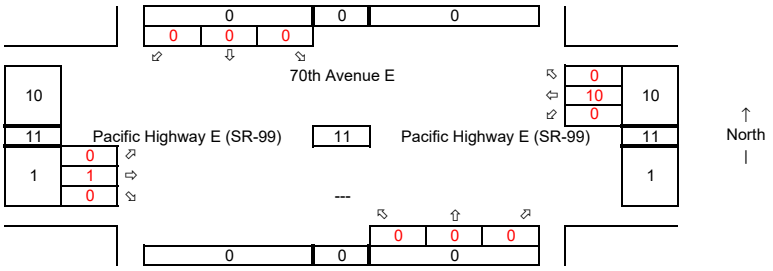


Future without Project
Average Weekday
AM Peak Hour

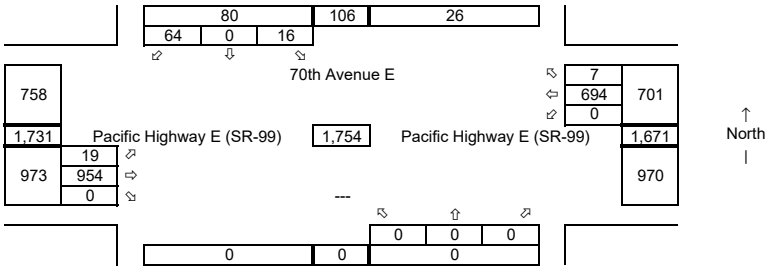
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



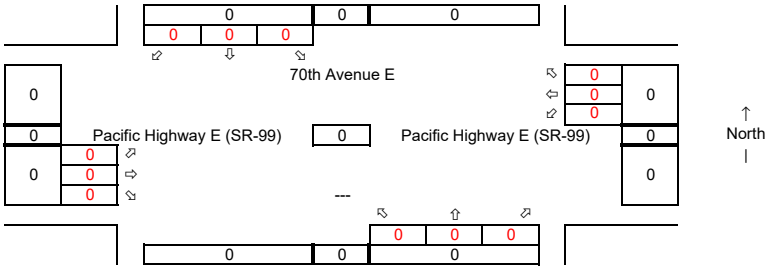
Total Development Trips
Average Weekday
AM Peak Hour



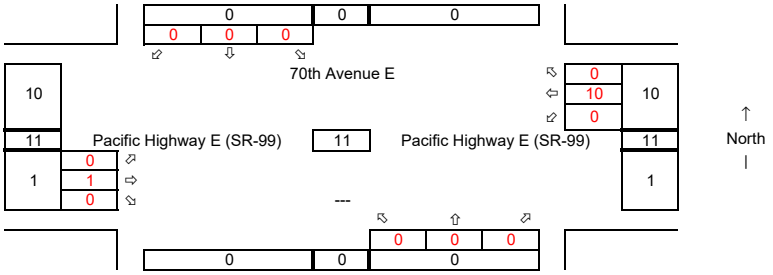
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



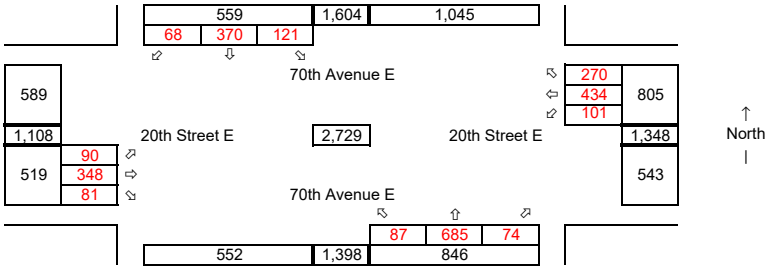
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 8
Existing
Average Weekday
AM Peak Hour

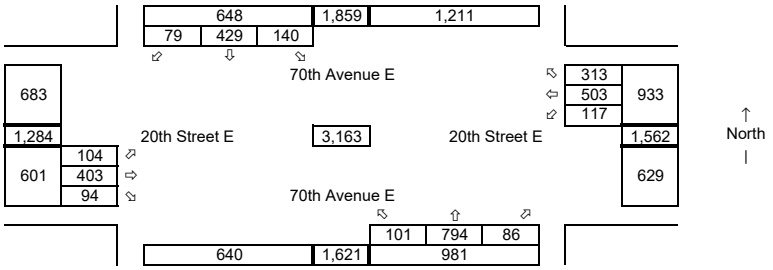
Year: **6/8/2023**

Data Source: IDAX

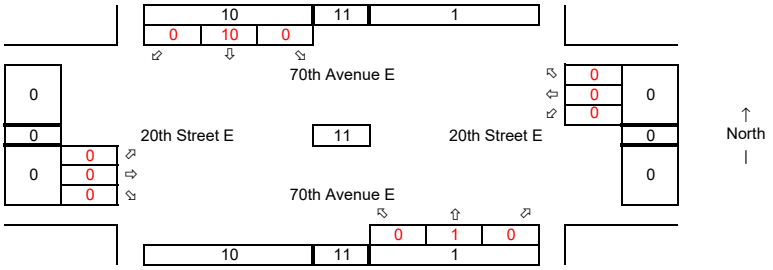


Future without Project
Average Weekday
AM Peak Hour

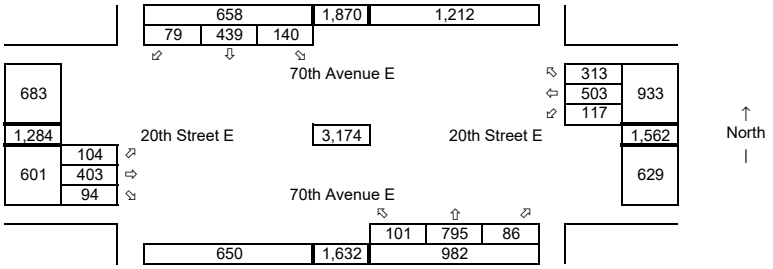
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



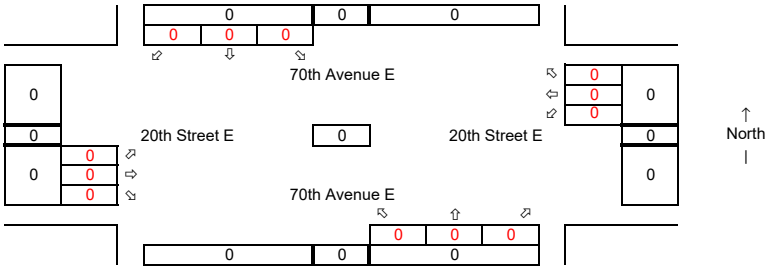
Total Development Trips
Average Weekday
AM Peak Hour



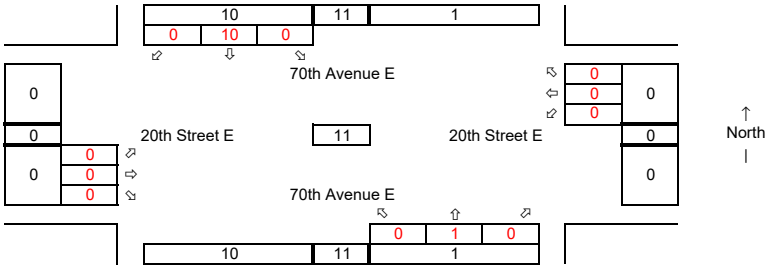
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



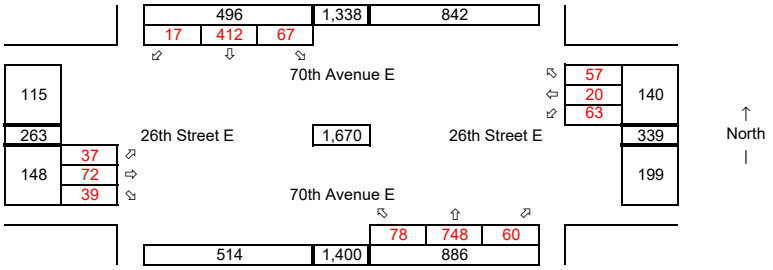
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 9
Existing
Average Weekday
AM Peak Hour

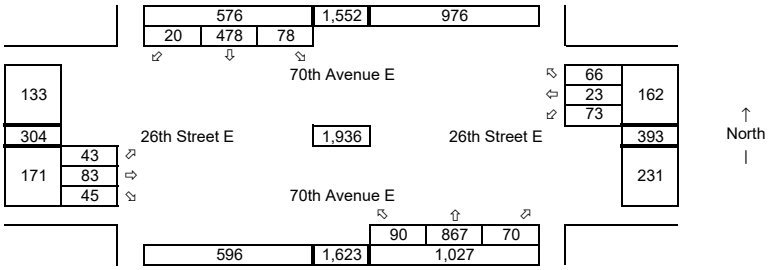
Year: **6/8/2023**

Data Source: IDAX

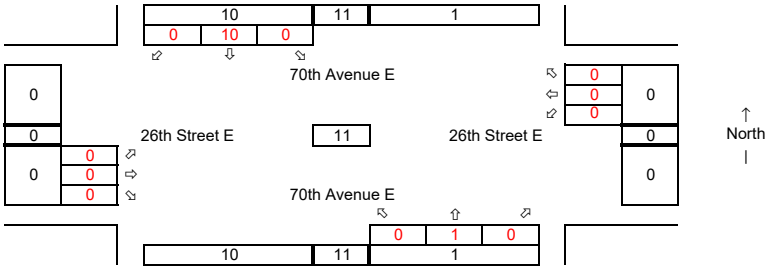


Future without Project
Average Weekday
AM Peak Hour

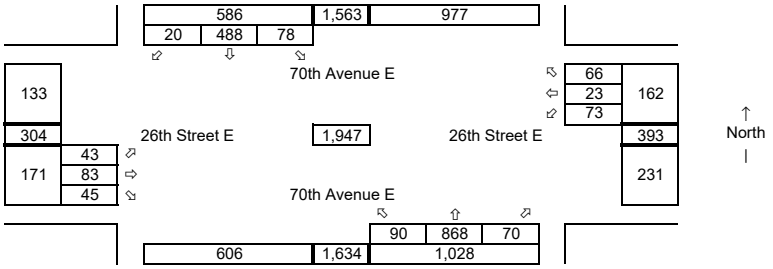
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



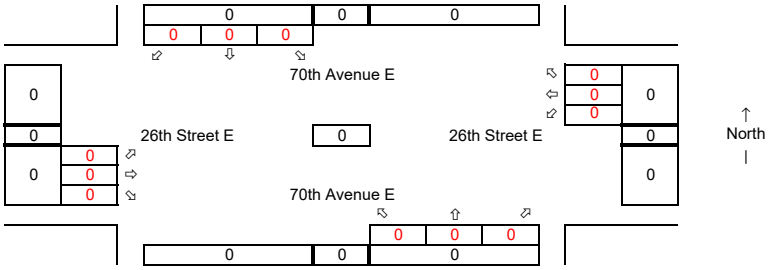
Total Development Trips
Average Weekday
AM Peak Hour



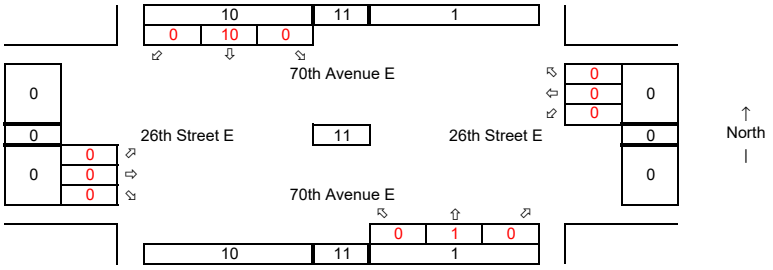
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



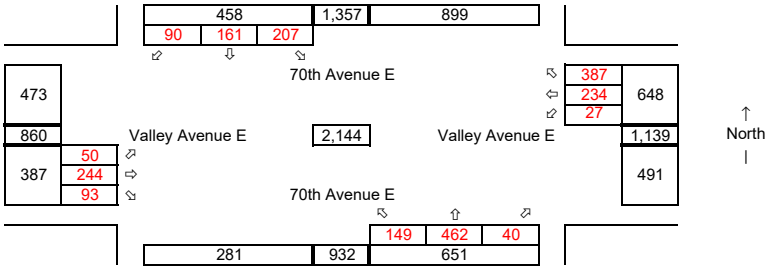
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 10
Existing
Average Weekday
AM Peak Hour

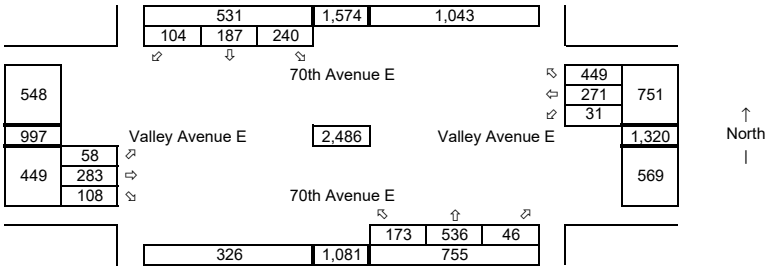
Year: **6/8/2023**

Data Source: IDAX

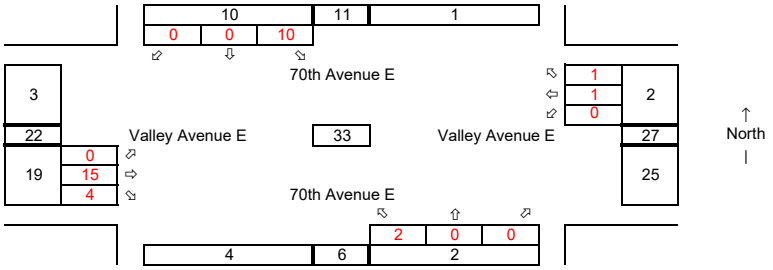


Future without Project
Average Weekday
AM Peak Hour

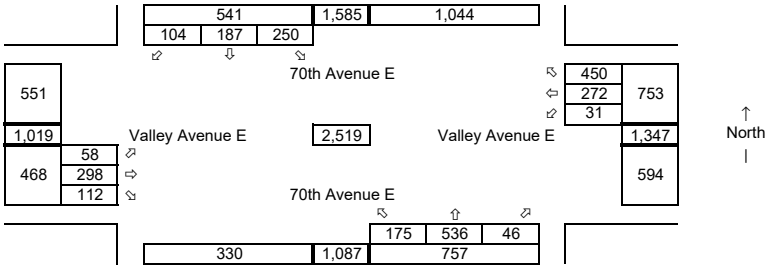
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



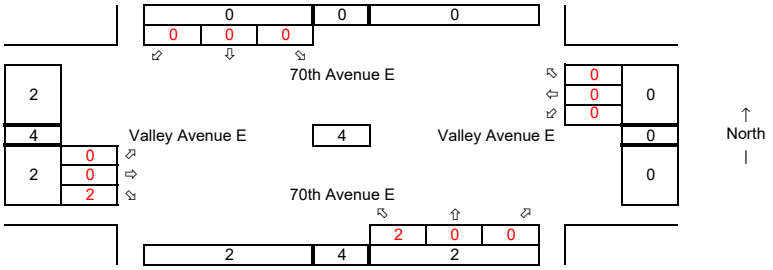
Total Development Trips
Average Weekday
AM Peak Hour



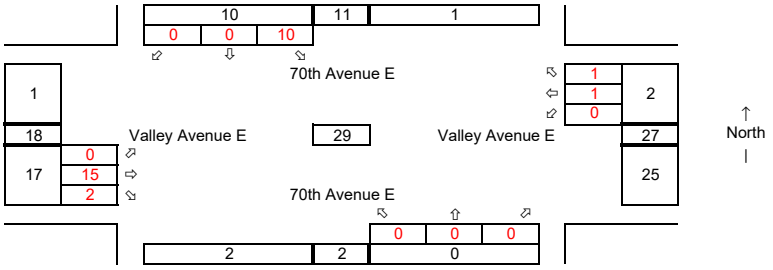
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



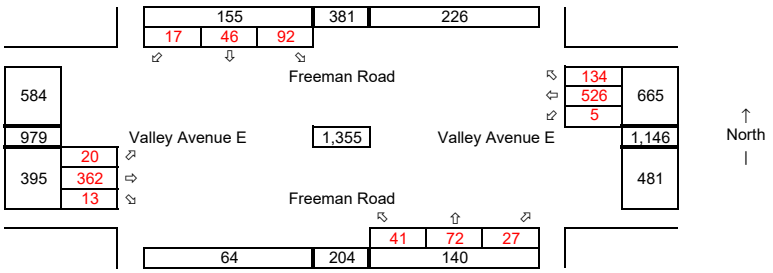
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 11
Existing
Average Weekday
AM Peak Hour

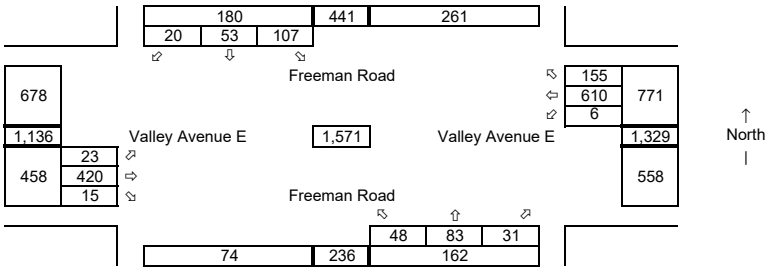
Year: **6/14/2023**

Data Source: IDAX

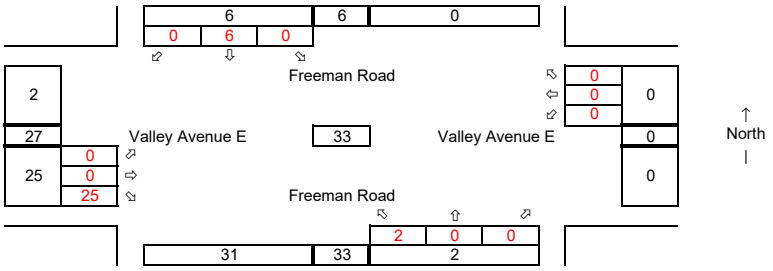


Future without Project
Average Weekday
AM Peak Hour

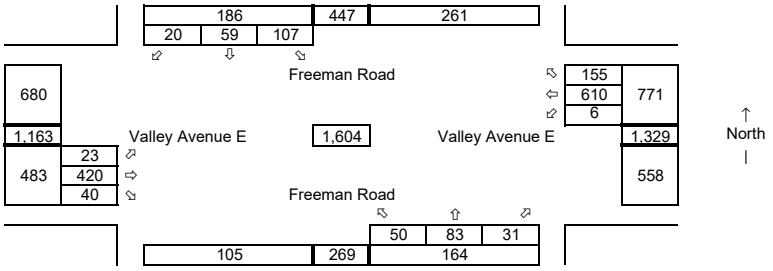
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



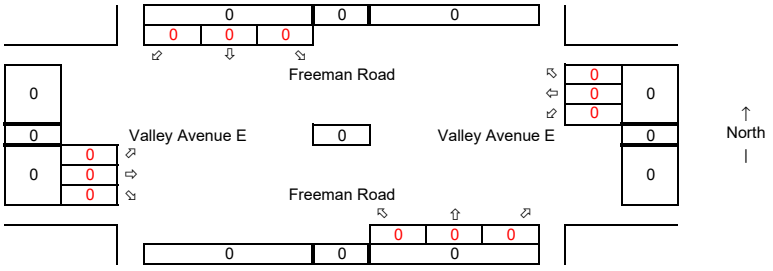
Total Development Trips
Average Weekday
AM Peak Hour



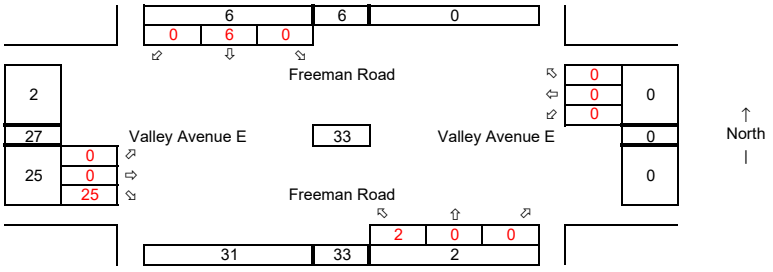
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



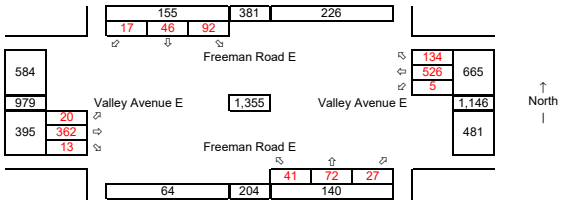
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 11
Existing
Average Weekday
AM Peak Hour

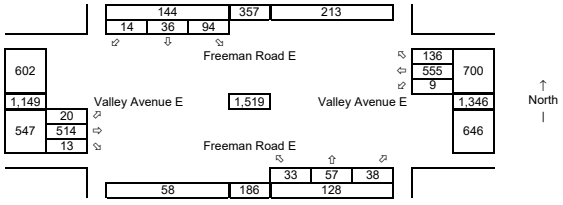
Year: **6/14/23**

Data Source: IDAX

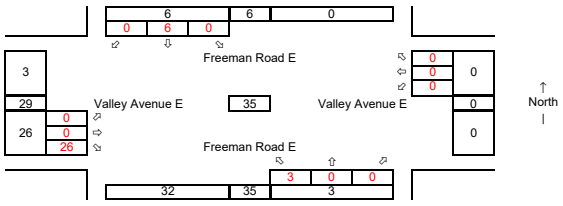


Future without Project
Average Weekday
AM Peak Hour

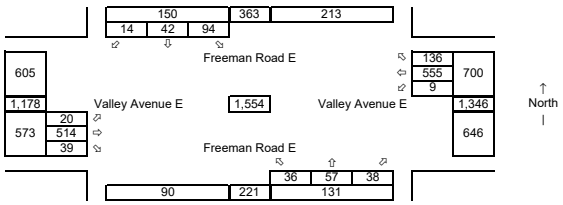
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



Total Development Trips
Average Weekday
AM Peak Hour

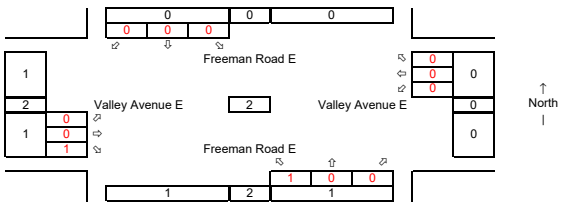


Future with Project
Average Weekday
AM Peak Hour

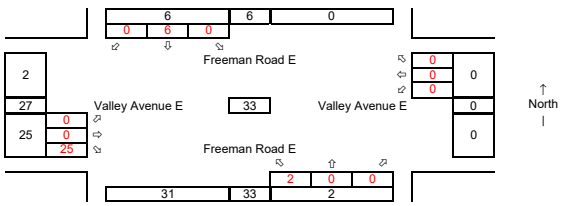


Development Truck Trips
Average Weekday
AM Peak Hour

N/S Diversion % +50%
from 70th Ave E

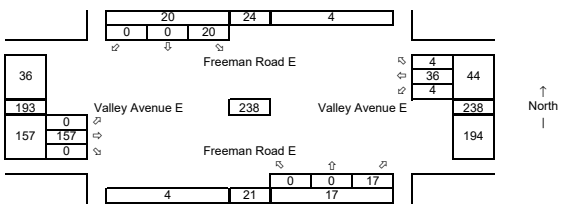


Development Car Trips
Average Weekday
AM Peak Hour



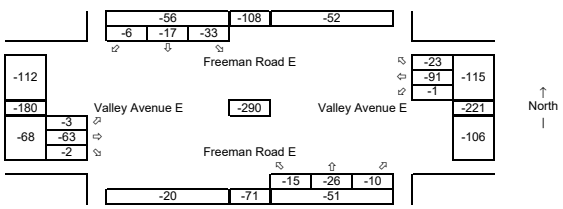
Total Pipeline Project Trips
Average Weekday
AM Peak Hour

Prologis Park Edgewood



SR-167 Extension Diversion
Average Weekday
AM Peak Hour

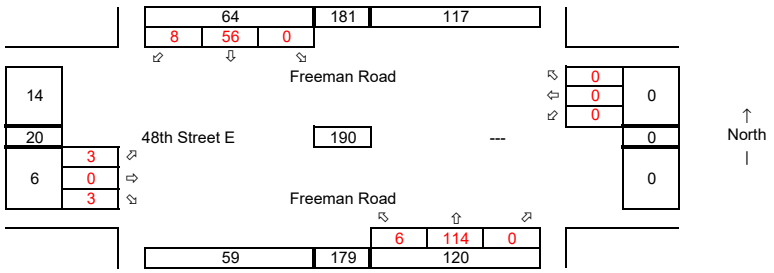
N/S Diversion % -31%
E/W Diversion % -15%



Synchro ID: 12
Existing
Average Weekday
AM Peak Hour

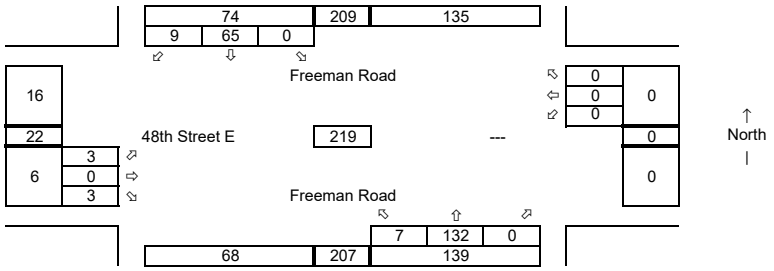
Year: **6/8/2023**

Data Source: IDAX

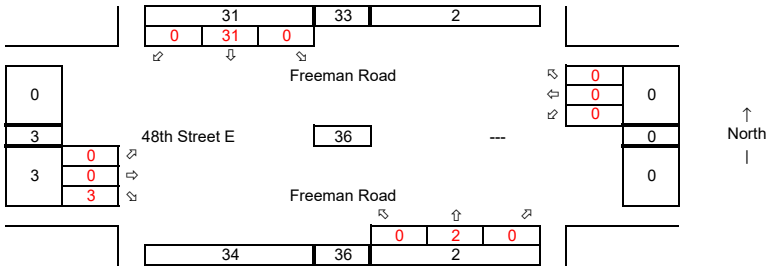


Future without Project
Average Weekday
AM Peak Hour

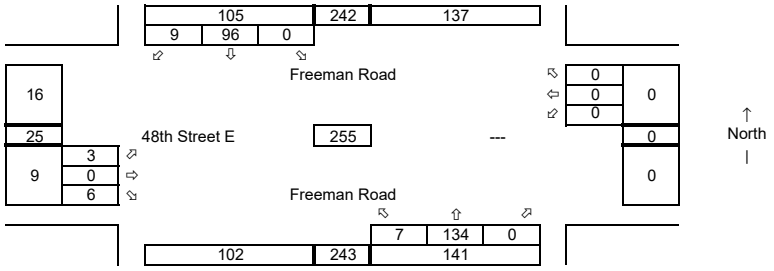
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



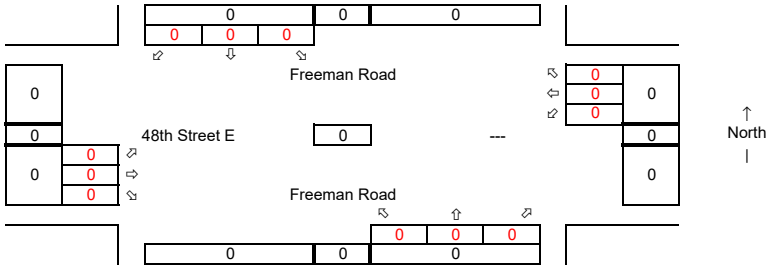
Total Development Trips
Average Weekday
AM Peak Hour



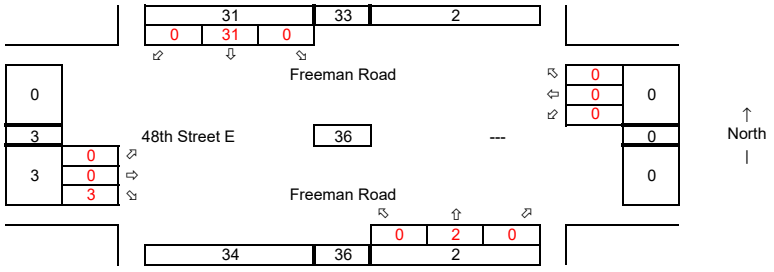
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



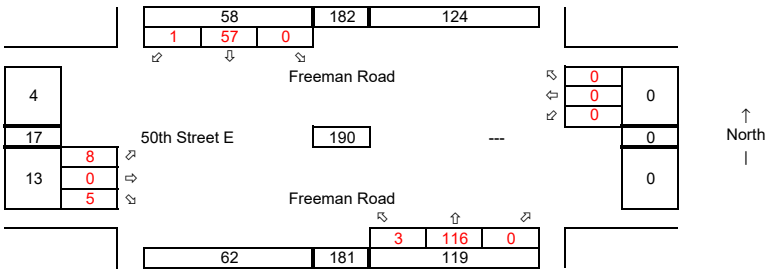
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 13
Existing
Average Weekday
AM Peak Hour

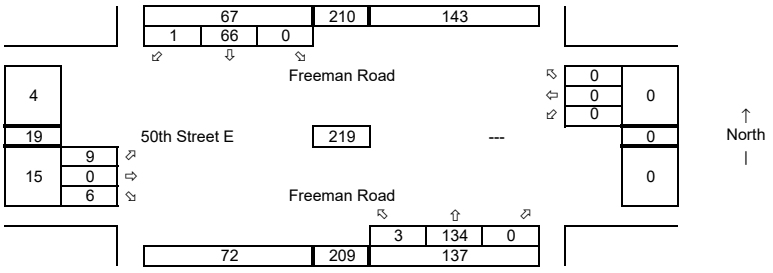
Year: **6/8/2023**

Data Source: IDAX

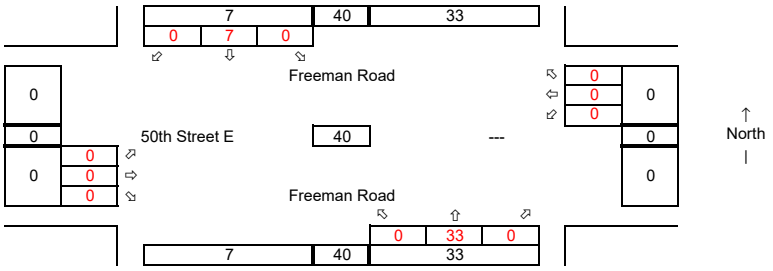


Future without Project
Average Weekday
AM Peak Hour

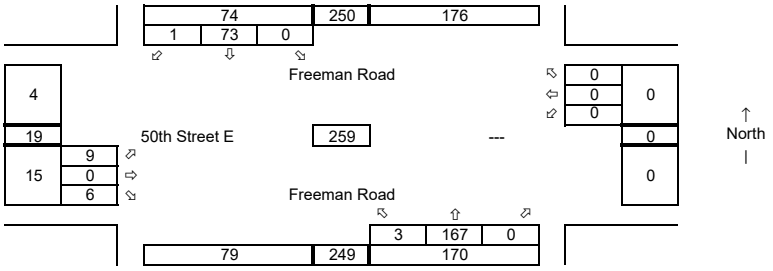
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



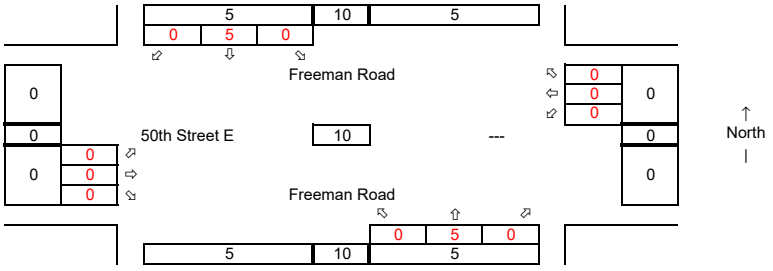
Total Development Trips
Average Weekday
AM Peak Hour



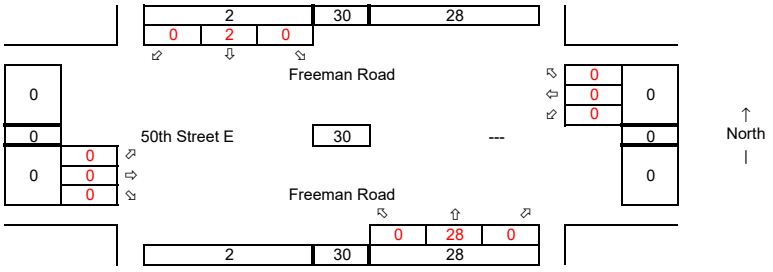
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour

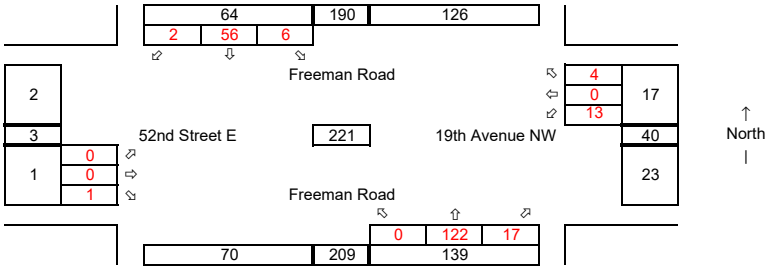


Synchro ID: 14
Existing
Average Weekday
AM Peak Hour

Year: **6/8/2023**

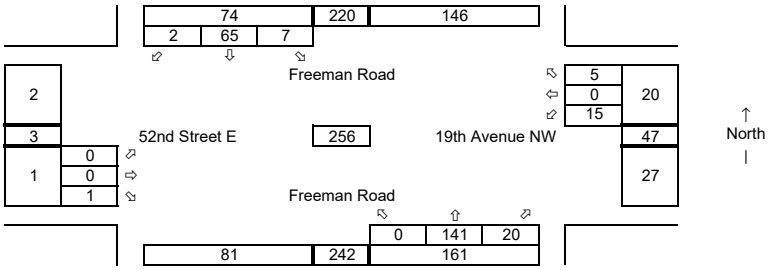
Data Source: IDAX

Two (2) Westbound U-turns
added to Westbound Left-turns

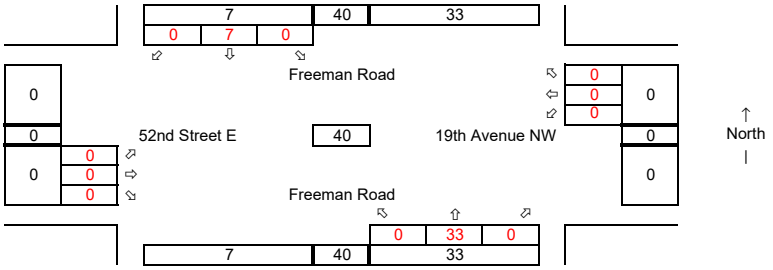


Future without Project
Average Weekday
AM Peak Hour

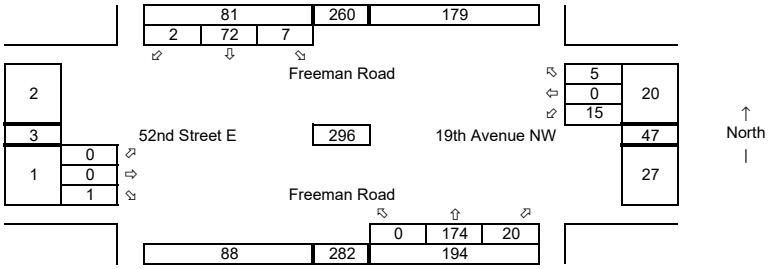
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



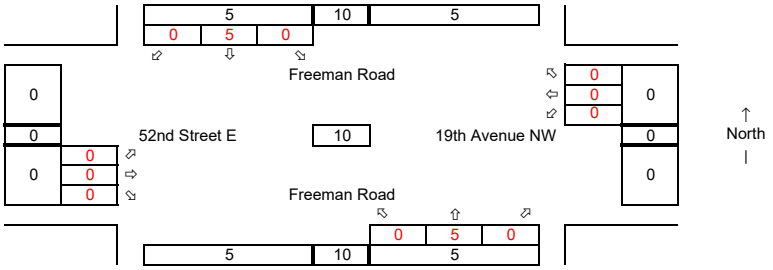
Total Development Trips
Average Weekday
AM Peak Hour



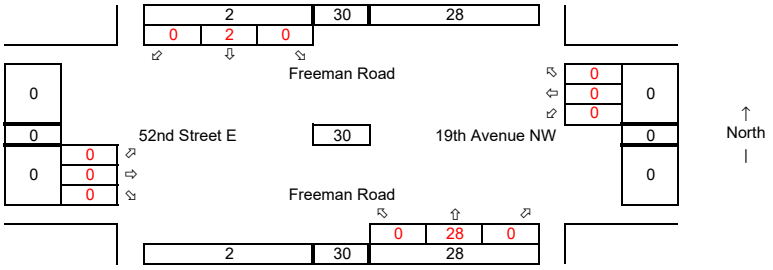
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour

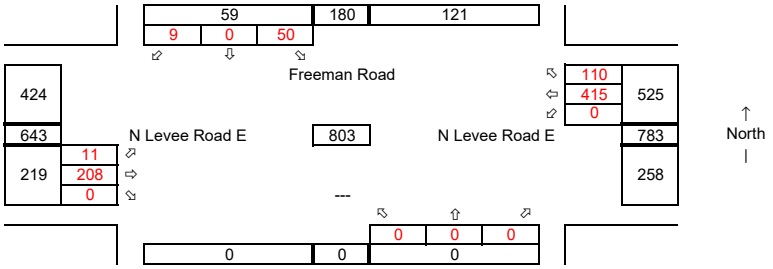


Synchro ID: 15
Existing
Average Weekday
AM Peak Hour

Year: **6/15/2023**

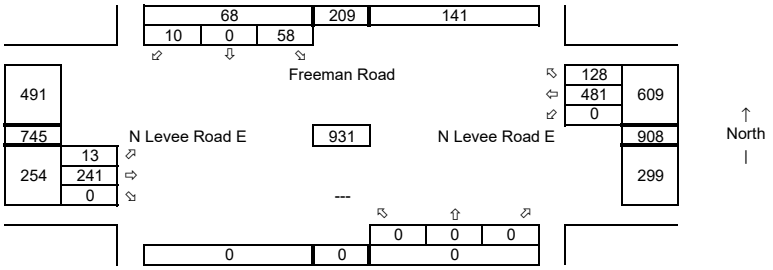
Data Source: IDAX

One (1) Westbound U-turn added to Southbound Left-turns

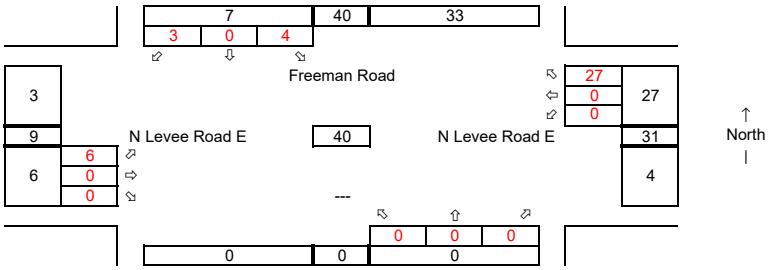


Future without Project
Average Weekday
AM Peak Hour

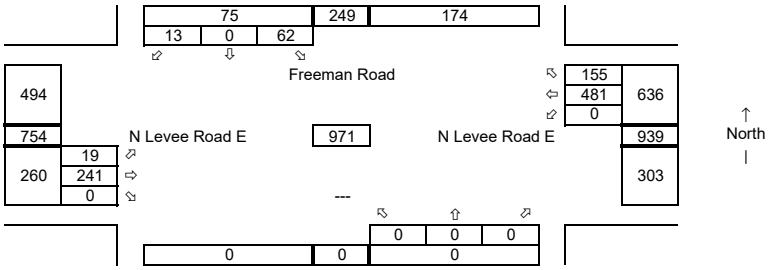
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



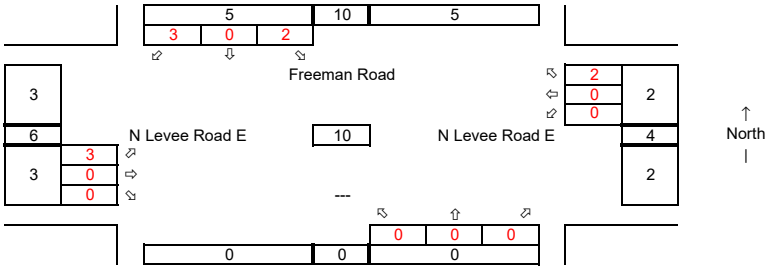
Total Development Trips
Average Weekday
AM Peak Hour



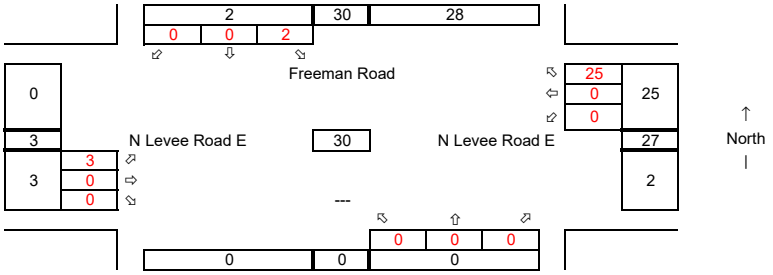
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour



With SR-167 Extension

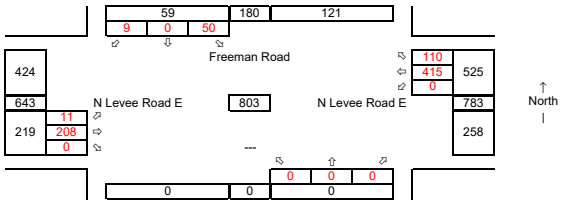
Synchro ID: 15

Existing
Average Weekday
AM Peak Hour

Year: **6/15/2023**

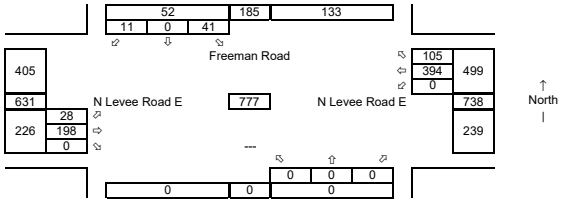
Data Source: IDAX

One (1) Westbound U-turn added to Southbound Left-turns

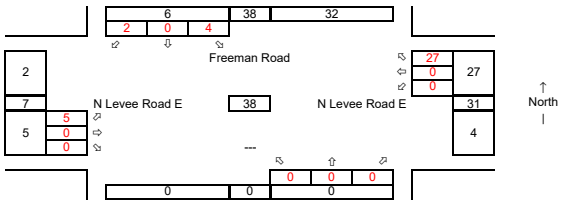


Future without Project
Average Weekday
AM Peak Hour

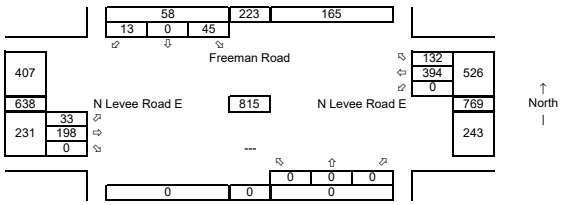
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



Total Development Trips
Average Weekday
AM Peak Hour

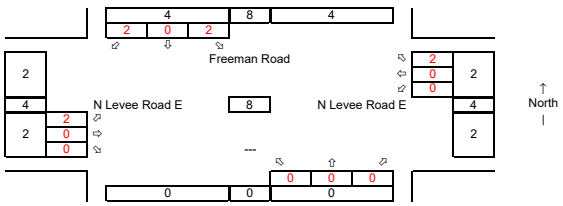


Future with Project
Average Weekday
AM Peak Hour

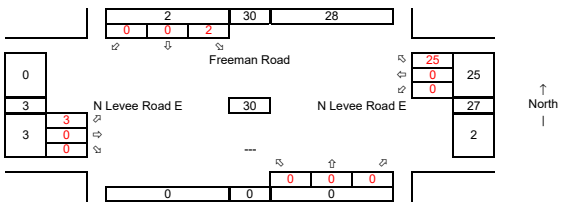


Development Truck Trips
Average Weekday
AM Peak Hour

N/S Diversion % -50%
from 70th Ave E

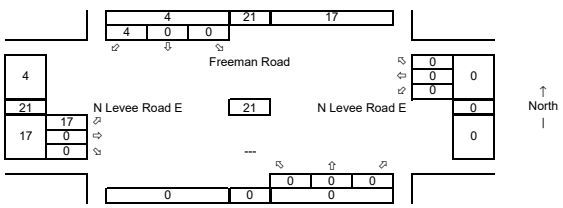


Development Car Trips
Average Weekday
AM Peak Hour



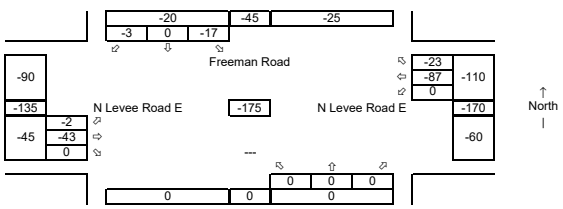
Total Pipeline Project Trips
Average Weekday
AM Peak Hour

Prologis Park Edgewood



SR-167 Extension Diversion
Average Weekday
AM Peak Hour

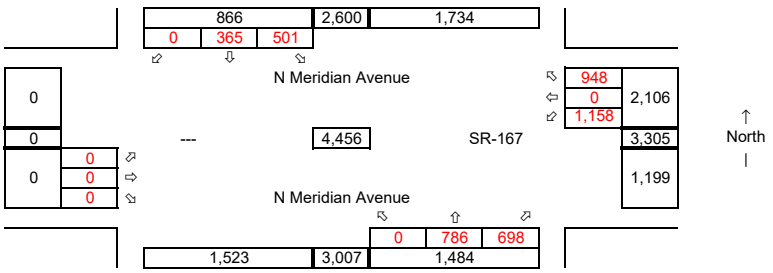
N/S Diversion % -29%
E/W Diversion % -18%



Synchro ID: 16
Existing
Average Weekday
AM Peak Hour

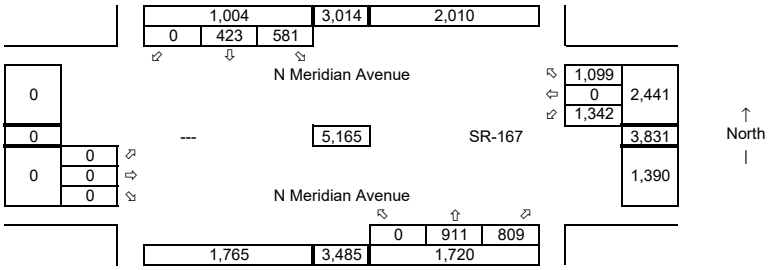
Year: **6/14/2023**

Data Source: IDAX

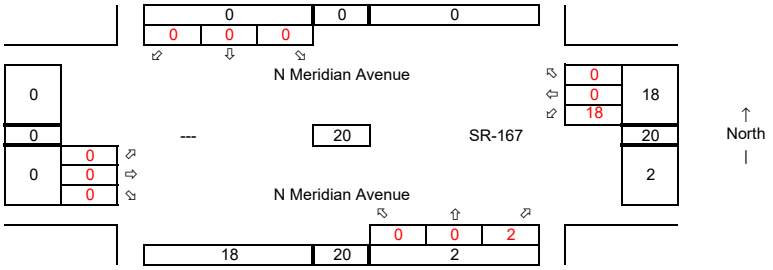


Future without Project
Average Weekday
AM Peak Hour

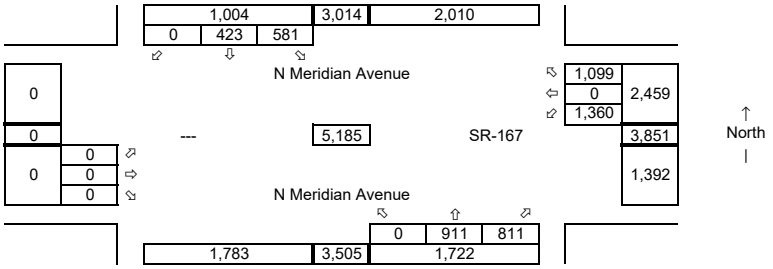
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



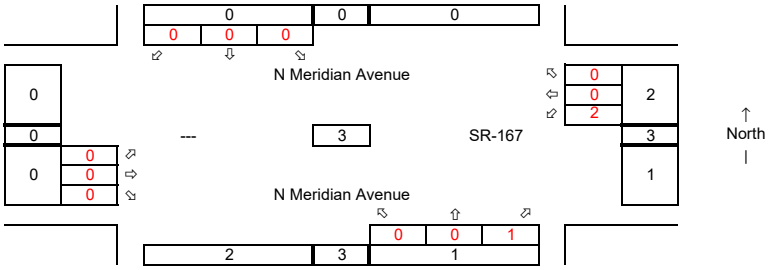
Total Development Trips
Average Weekday
AM Peak Hour



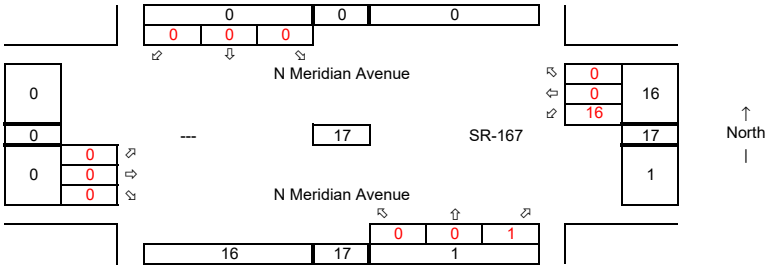
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



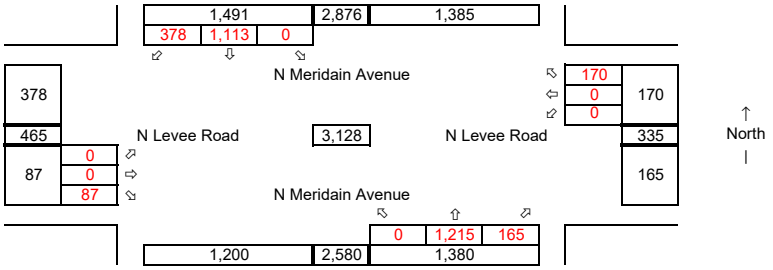
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 17
Existing
Average Weekday
AM Peak Hour

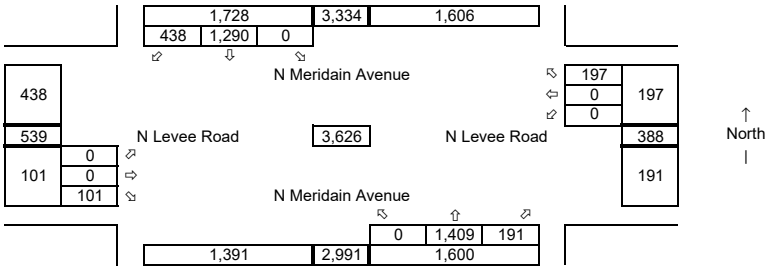
Year: **6/14/2023**

Data Source: IDAX

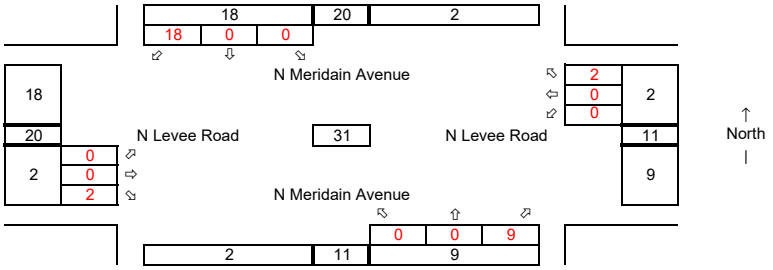


Future without Project
Average Weekday
AM Peak Hour

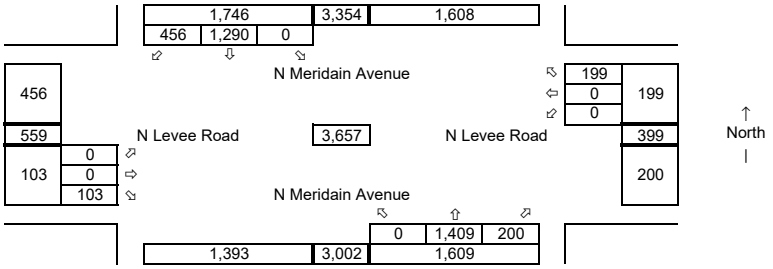
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



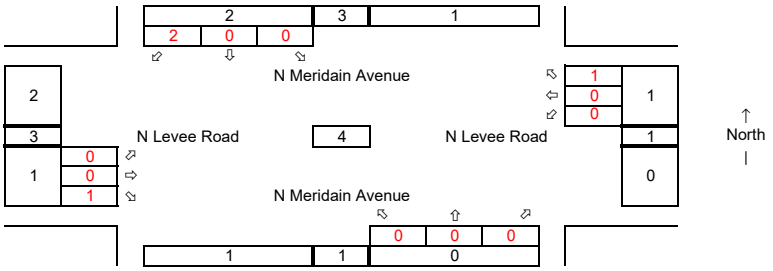
Total Development Trips
Average Weekday
AM Peak Hour



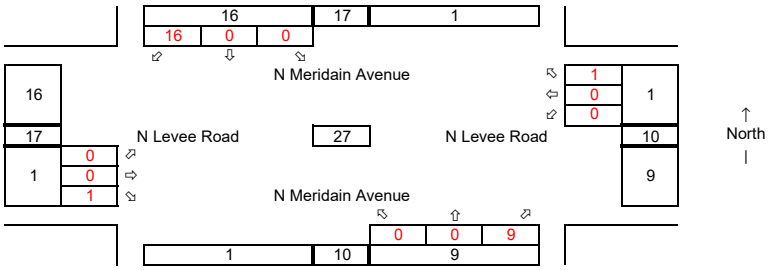
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



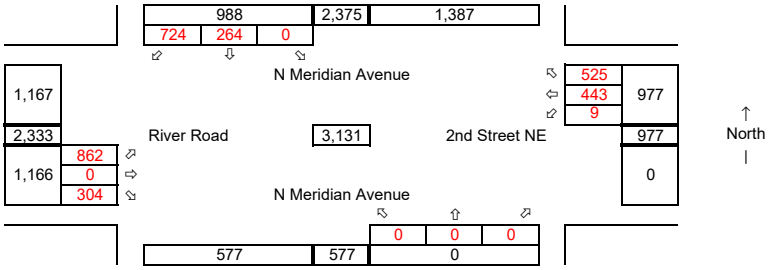
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 18
Existing
Average Weekday
AM Peak Hour

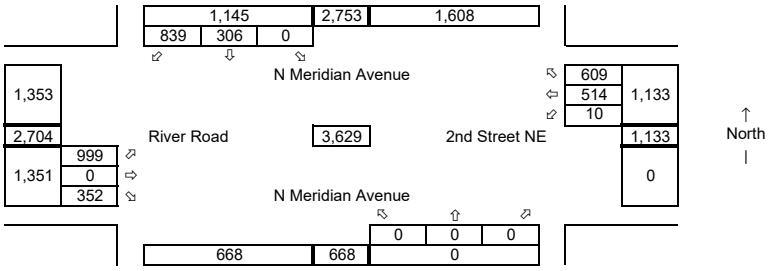
Year: **6/14/2023**

Data Source: IDAX

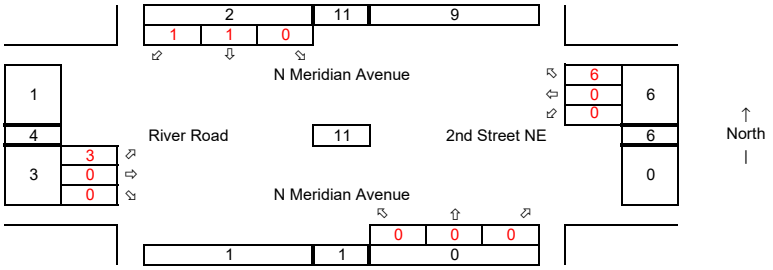


Future without Project
Average Weekday
AM Peak Hour

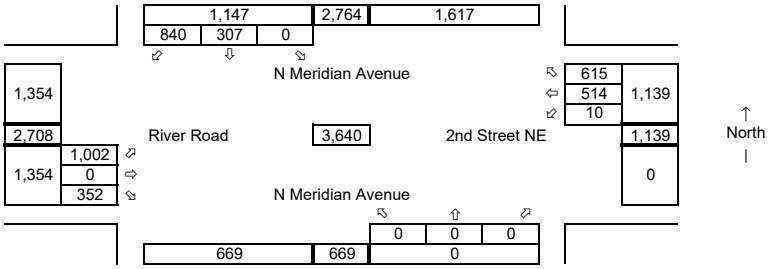
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



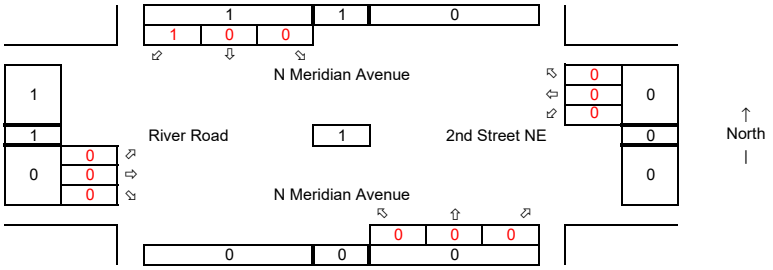
Total Development Trips
Average Weekday
AM Peak Hour



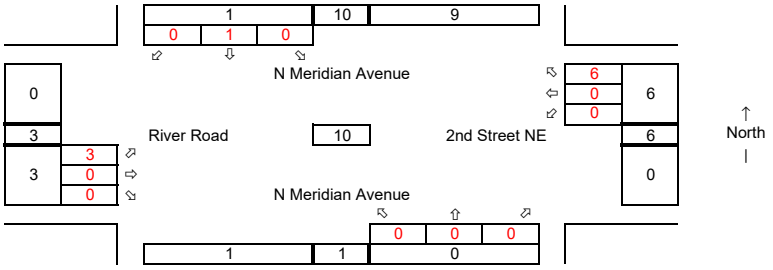
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



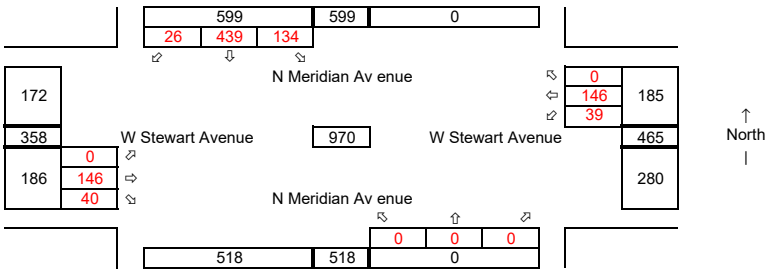
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 19
Existing
Average Weekday
AM Peak Hour

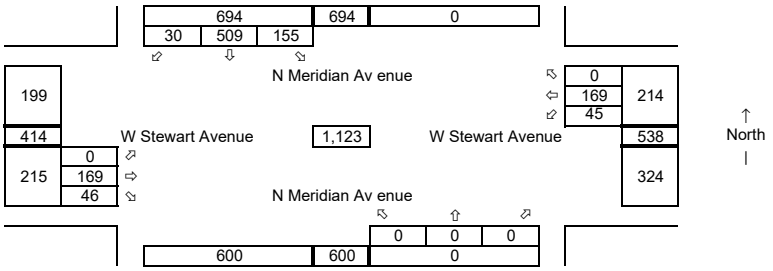
Year: **6/14/2023**

Data Source: IDAX

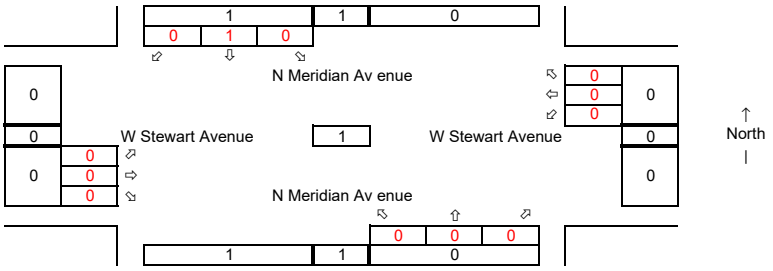


Future without Project
Average Weekday
AM Peak Hour

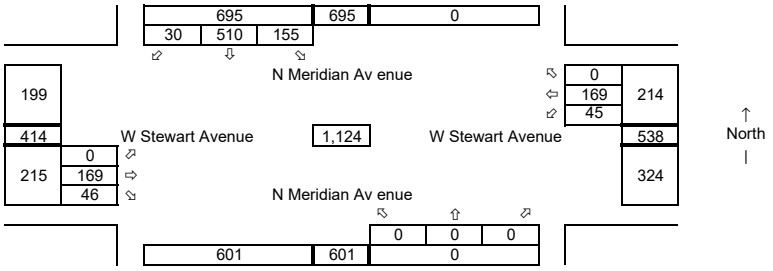
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



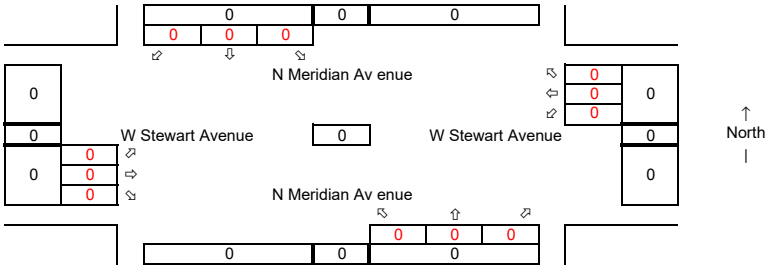
Total Development Trips
Average Weekday
AM Peak Hour



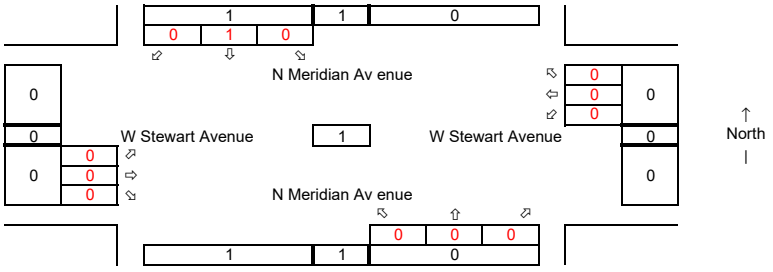
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



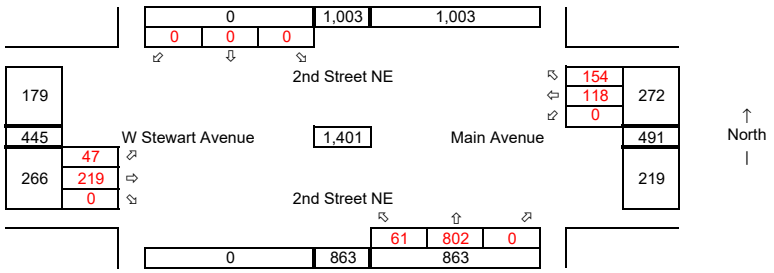
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 20
Existing
Average Weekday
AM Peak Hour

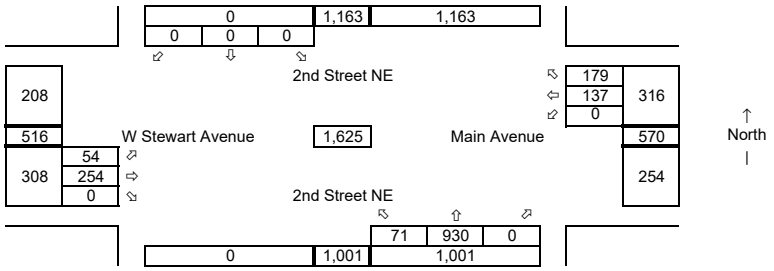
Year: **6/15/2023**

Data Source: IDAX

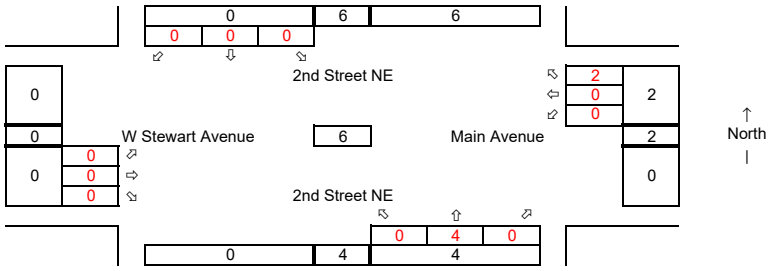


Future without Project
Average Weekday
AM Peak Hour

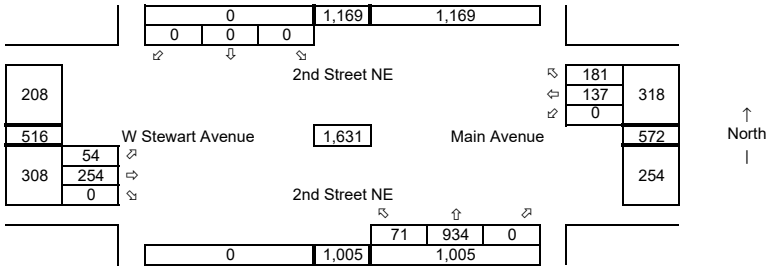
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



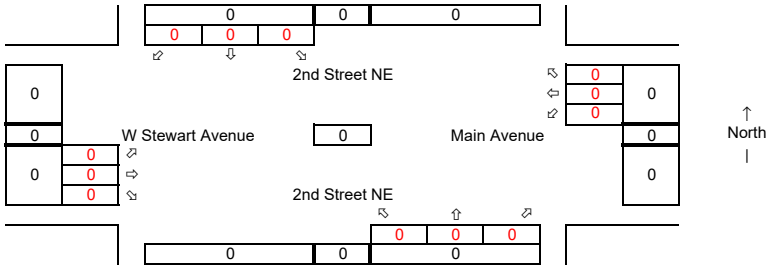
Total Development Trips
Average Weekday
AM Peak Hour



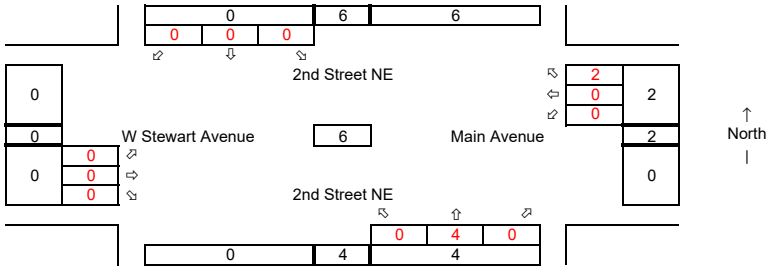
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour

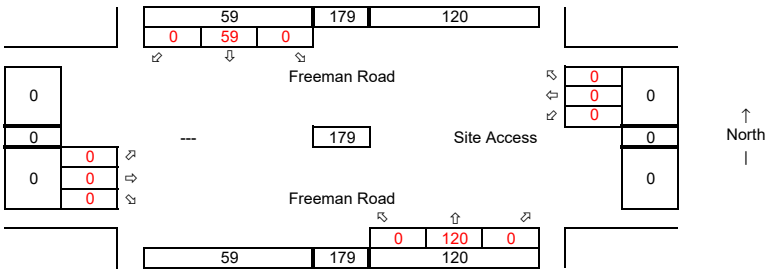


Synchro ID: 21
Existing
Average Weekday
AM Peak Hour

Year: **6/8/2023**

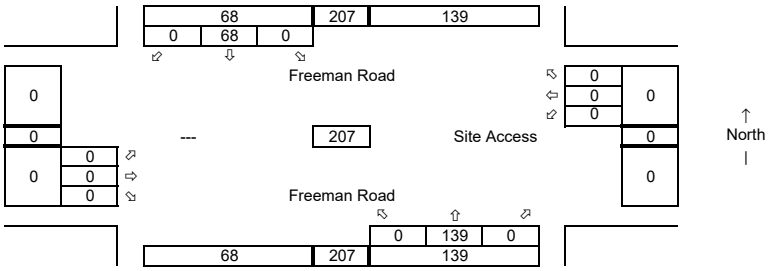
Data Source: IDAX

NB/SB volumes extrapolated
from Freeman at 48th Street E

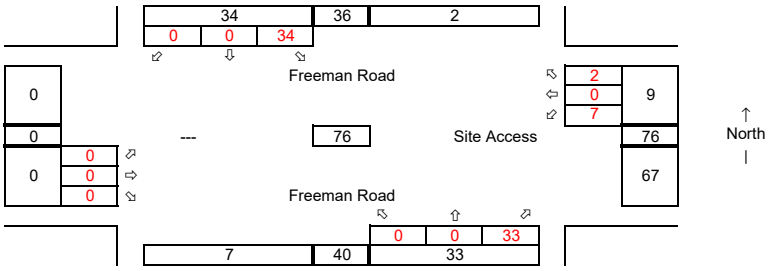


Future without Project
Average Weekday
AM Peak Hour

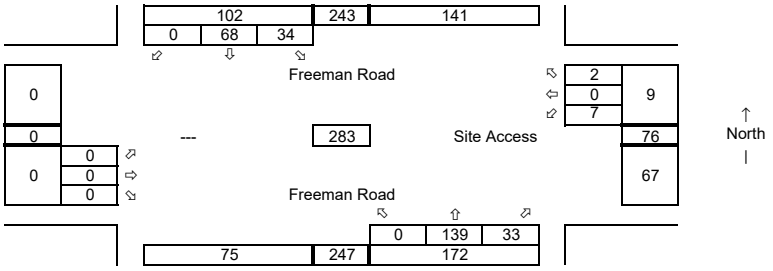
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



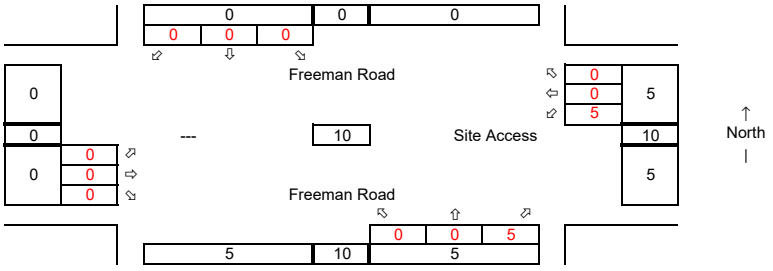
Total Development Trips
Average Weekday
AM Peak Hour



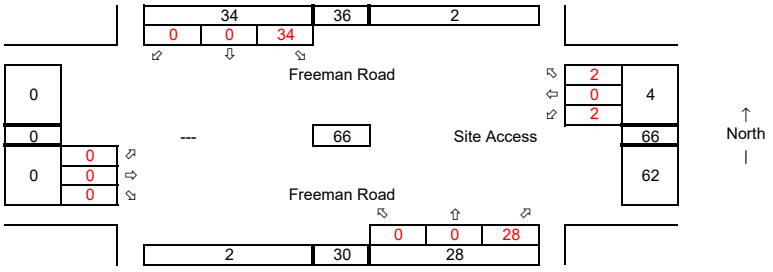
Future with Project
Average Weekday
AM Peak Hour

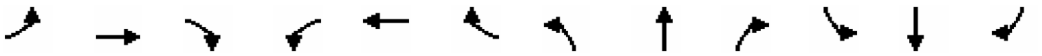


Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour



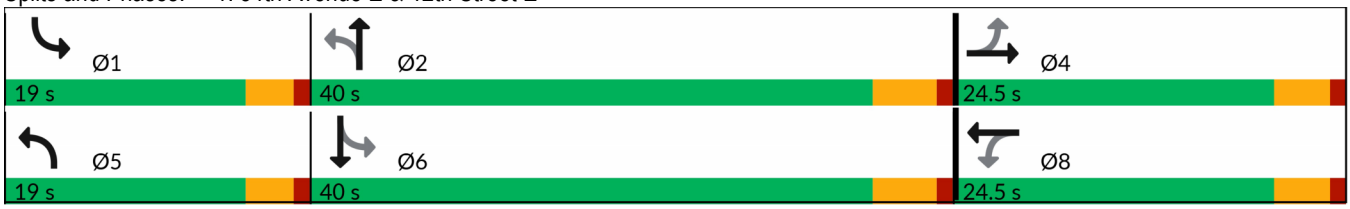


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	138	46	75	77	126	27	480	66	78	383	19
Future Volume (vph)	37	138	46	75	77	126	27	480	66	78	383	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		0	100		0	100		0
Storage Lanes	1		0	1		0	1		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	0.95	0.95	1.00	0.95	0.95
Frt		0.963			0.907			0.982			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1467	1488	0	1467	1401	0	1467	2882	0	1467	2914	0
Flt Permitted	0.448			0.497			0.489			0.359		
Satd. Flow (perm)	692	1488	0	768	1401	0	755	2882	0	555	2914	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19			92			22			7	
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		727			778			1175			536	
Travel Time (s)		19.8			15.2			22.9			10.4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	209	0	85	231	0	31	620	0	89	457	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	24.5	24.5		24.5	24.5		10.5	19.0		10.5	17.0	
Total Split (s)	24.5	24.5		24.5	24.5		19.0	40.0		19.0	40.0	
Total Split (%)	29.3%	29.3%		29.3%	29.3%		22.8%	47.9%		22.8%	47.9%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		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		4.0	5.0		4.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Max		None	Max	
Act Effct Green (s)	14.2	14.2		14.2	14.2		41.8	36.0		44.9	40.9	
Actuated g/C Ratio	0.21	0.21		0.21	0.21		0.61	0.52		0.65	0.60	
v/c Ratio	0.29	0.65		0.54	0.64		0.06	0.41		0.19	0.26	
Control Delay (s/veh)	29.3	33.0		38.3	23.9		5.3	12.3		5.9	8.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	29.3	33.0		38.3	23.9		5.3	12.3		5.9	8.9	
LOS	C	C		D	C		A	B		A	A	
Approach Delay (s/veh)		32.4			27.8			11.9			8.4	
Approach LOS		C			C			B			A	
Queue Length 50th (ft)	15	75		33	53		4	80		11	35	
Queue Length 95th (ft)	42	140		75	120		14	141		30	96	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		647			698			1095			456	
Turn Bay Length (ft)	100			200			100			100		
Base Capacity (vph)	205	454		227	479		661	1520		572	1738	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.20	0.46		0.37	0.48		0.05	0.41		0.16	0.26	

Intersection Summary			
Area Type:	Other		
Cycle Length: 83.5			
Actuated Cycle Length: 68.6			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay (s/veh): 16.6		Intersection LOS: B	
Intersection Capacity Utilization 52.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: 54th Avenue E & 12th Street E

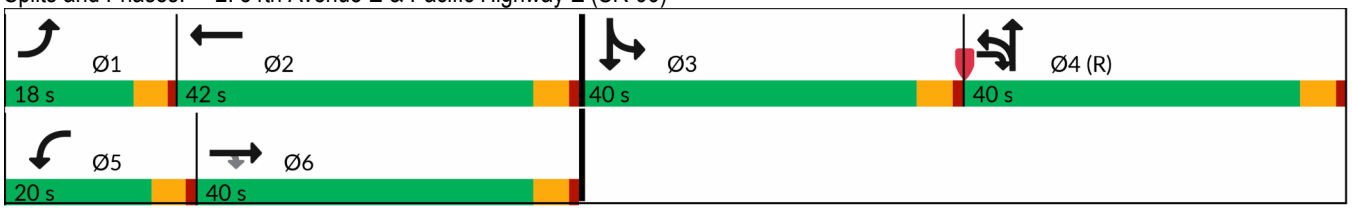


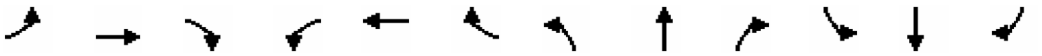
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	392	278	467	398	133	344	411	395	123	342	63
Future Volume (vph)	89	392	278	467	398	133	344	411	395	123	342	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	550		0	150		0	125		0
Storage Lanes	1		1	2		0	2		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.962			0.927			0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1517	3034	1357	2943	2918	0	2943	2812	0	1517	2964	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1517	3034	1357	2943	2918	0	2943	2812	0	1517	2964	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			124		32			166			15	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1085			1070			320			1175	
Travel Time (s)		21.1			20.8			6.2			22.9	
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 (%)	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	93	408	290	486	554	0	358	839	0	128	422	0
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		3	3	
Permitted Phases			6									
Detector Phase	1	6	4	5	2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	10.5	38.7	35.7	10.5	37.7		35.7	35.7		38.7	38.7	
Total Split (s)	18.0	40.0	40.0	20.0	42.0		40.0	40.0		40.0	40.0	
Total Split (%)	12.9%	28.6%	28.6%	14.3%	30.0%		28.6%	28.6%		28.6%	28.6%	
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		3.7	3.7		3.7	3.7	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7	4.7	4.5	4.7		4.7	4.7		4.7	4.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	C-Max	None	None		C-Max	C-Max		None	None	
Act Effct Green (s)	12.1	27.6	79.0	15.5	31.0		51.4	51.4		26.9	26.9	
Actuated g/C Ratio	0.09	0.20	0.56	0.11	0.22		0.37	0.37		0.19	0.19	
v/c Ratio	0.71	0.68	0.35	1.50	0.83		0.33	0.74		0.44	0.73	
Control Delay (s/veh)	89.8	57.5	6.4	279.7	59.7		43.2	44.5		53.6	58.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.7	15.1		0.0	0.0	
Total Delay (s/veh)	89.8	57.5	6.4	279.7	59.7		43.9	59.6		53.6	58.2	
LOS	F	E	A	F	E		D	E		D	E	
Approach Delay (s/veh)		42.6			162.5			54.9			57.1	
Approach LOS		D			F			D			E	
Queue Length 50th (ft)	83	181	40	~314	241		140	326		104	184	
Queue Length 95th (ft)	#157	225	90	#428	294		198	#483		160	231	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1005			990			240			1095	
Turn Bay Length (ft)	225			550			150			125		
Base Capacity (vph)	146	765	819	325	800		1080	1137		382	758	
Starvation Cap Reductn	0	0	0	0	0		419	296		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.64	0.53	0.35	1.50	0.69		0.54	1.00		0.34	0.56	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 30 (21%), Referenced to phase 4:NBTL, Start of Green			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.50			
Intersection Signal Delay (s/veh): 83.8		Intersection LOS: F	
Intersection Capacity Utilization 70.5%		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: 2: 54th Avenue E & Pacific Highway E (SR-99)



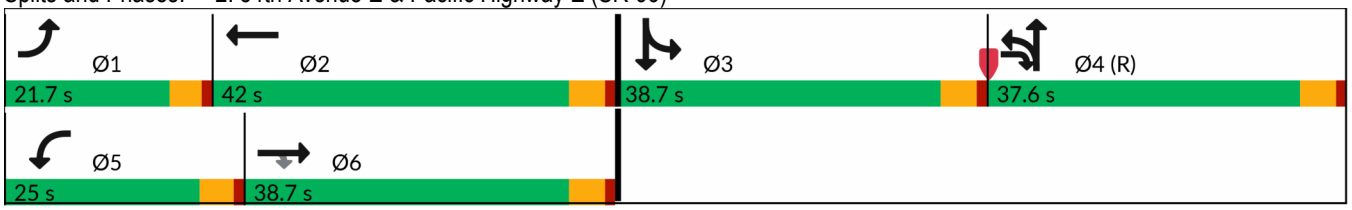


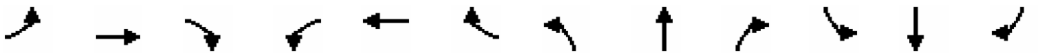
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	392	278	467	398	133	344	411	395	123	342	63
Future Volume (vph)	89	392	278	467	398	133	344	411	395	123	342	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	550		0	150		0	125		0
Storage Lanes	1		1	2		0	2		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.962			0.927			0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1517	3034	1357	2943	2918	0	2943	2812	0	1517	2964	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1517	3034	1357	2943	2918	0	2943	2812	0	1517	2964	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109		32			163			14	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1085			1070			320			1175	
Travel Time (s)		21.1			20.8			6.2			22.9	
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 (%)	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	93	408	290	486	554	0	358	839	0	128	422	0
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		3	3	
Permitted Phases			6									
Detector Phase	1	6	4	5	2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	10.5	38.7	35.7	10.5	37.7		35.7	35.7		38.7	38.7	
Total Split (s)	21.7	38.7	37.6	25.0	42.0		37.6	37.6		38.7	38.7	
Total Split (%)	15.5%	27.6%	26.9%	17.9%	30.0%		26.9%	26.9%		27.6%	27.6%	
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		3.7	3.7		3.7	3.7	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7	4.7	4.5	4.7		4.7	4.7		4.7	4.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	C-Max	None	None		C-Max	C-Max		None	None	
Act Effct Green (s)	13.4	25.5	74.0	20.5	32.6		48.5	48.5		26.9	26.9	
Actuated g/C Ratio	0.10	0.18	0.53	0.15	0.23		0.35	0.35		0.19	0.19	
v/c Ratio	0.64	0.74	0.38	1.13	0.79		0.35	0.78		0.44	0.73	
Control Delay (s/veh)	80.3	62.0	7.9	136.6	56.1		44.5	46.1		53.6	58.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.8	27.9		0.0	0.0	
Total Delay (s/veh)	80.3	62.0	7.9	136.6	56.1		45.4	74.0		53.6	58.4	
LOS	F	E	A	F	E		D	E		D	E	
Approach Delay (s/veh)		44.3			93.7			65.5			57.3	
Approach LOS		D			F			E			E	
Queue Length 50th (ft)	83	188	45	~263	241		139	320		104	185	
Queue Length 95th (ft)	141	228	96	#377	294		204	#518		160	231	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1005			990			240			1095	
Turn Bay Length (ft)	225			550			150			125		
Base Capacity (vph)	186	736	768	430	800		1020	1081		368	730	
Starvation Cap Reductn	0	0	0	0	0		392	276		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.50	0.55	0.38	1.13	0.69		0.57	1.04		0.35	0.58	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 30 (21%), Referenced to phase 4:NBTL, Start of Green			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.13			
Intersection Signal Delay (s/veh): 67.7		Intersection LOS: E	
Intersection Capacity Utilization 70.5%		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: 2: 54th Avenue E & Pacific Highway E (SR-99)





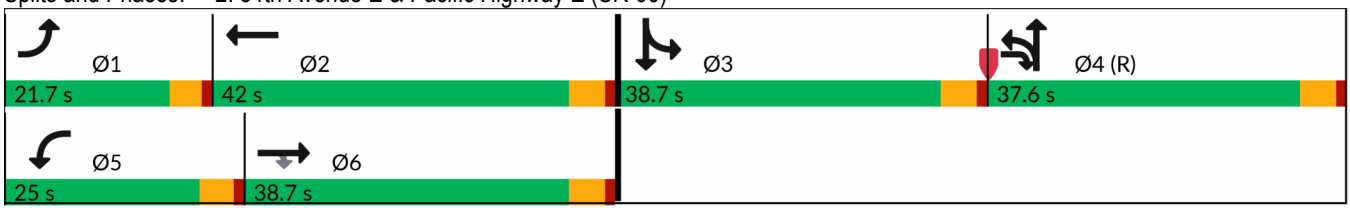
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	292	178	317	298	133	244	311	245	123	242	63
Future Volume (vph)	89	292	178	317	298	133	244	311	245	123	242	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	550		0	150		0	125		0
Storage Lanes	1		1	2		0	2		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.954			0.934			0.969	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1517	3034	1357	2943	2894	0	2943	2833	0	1517	2940	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1517	3034	1357	2943	2894	0	2943	2833	0	1517	2940	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			185		50			134			22	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1085			1070			320			1175	
Travel Time (s)		21.1			20.8			6.2			22.9	
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 (%)	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	93	304	185	330	449	0	254	579	0	128	318	0
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		3	3	
Permitted Phases			6									
Detector Phase	1	6	4	5	2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	10.5	38.7	35.7	10.5	37.7		35.7	35.7		38.7	38.7	
Total Split (s)	21.7	38.7	37.6	25.0	42.0		37.6	37.6		38.7	38.7	
Total Split (%)	15.5%	27.6%	26.9%	17.9%	30.0%		26.9%	26.9%		27.6%	27.6%	
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		3.7	3.7		3.7	3.7	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7	4.7	4.5	4.7		4.7	4.7		4.7	4.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	C-Max	None	None		C-Max	C-Max		None	None	
Act Effct Green (s)	13.4	20.4	80.9	19.2	26.2		60.5	60.5		21.3	21.3	
Actuated g/C Ratio	0.10	0.15	0.58	0.14	0.19		0.43	0.43		0.15	0.15	
v/c Ratio	0.64	0.69	0.21	0.82	0.77		0.20	0.45		0.56	0.68	
Control Delay (s/veh)	80.3	64.4	1.7	75.5	57.1		33.5	30.3		63.6	59.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	1.4		0.0	0.0	
Total Delay (s/veh)	80.3	64.4	1.7	75.5	57.1		33.5	31.7		63.6	59.5	
LOS	F	E	A	E	E		C	C		E	E	
Approach Delay (s/veh)		47.0			64.9			32.3			60.6	
Approach LOS		D			E			C			E	
Queue Length 50th (ft)	83	141	0	151	185		86	177		109	135	
Queue Length 95th (ft)	141	178	19	#208	235		139	256		170	180	

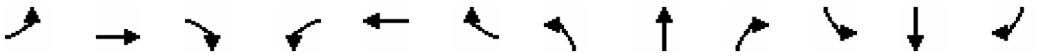
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1005			990			240			1095	
Turn Bay Length (ft)	225			550			150			125		
Base Capacity (vph)	186	736	862	430	807		1272	1300		368	730	
Starvation Cap Reductn	0	0	0	0	0		0	499		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.50	0.41	0.21	0.77	0.56		0.20	0.72		0.35	0.44	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 30 (21%), Referenced to phase 4:NBTL, Start of Green			
Natural Cycle: 125			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay (s/veh): 49.9		Intersection LOS: D	
Intersection Capacity Utilization 56.3%		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: 2: 54th Avenue E & Pacific Highway E (SR-99)





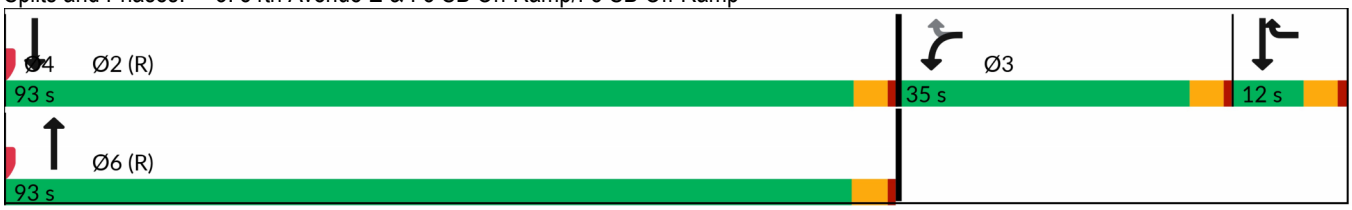
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	273	0	357	0	785	390	0	510	505
Future Volume (vph)	0	0	0	273	0	357	0	785	390	0	510	505
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		25	0		0
Storage Lanes	0		0	1		1	0		1	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	0.95	1.00	1.00	1.00	1.00
Frt						0.850			0.850			0.850
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	1543	0	1380	0	3085	1380	0	1624	1380
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1543	0	1380	0	3085	1380	0	1624	1380
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						196			83			280
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1083			1080			827			320	
Travel Time (s)		21.1			21.0			16.1			6.2	
Peak Hour 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
Heavy Vehicles (%)	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	287	0	376	0	826	411	0	537	532
Turn Type				Prot		custom		NA	Free		NA	Free
Protected Phases				3		4		6			2 4	
Permitted Phases						3			Free			Free
Detector Phase				3		4		6			2 4	
Switch Phase												
Minimum Initial (s)				5.0		3.0		10.0				
Minimum Split (s)				22.5		7.5		22.7				
Total Split (s)				35.0		12.0		93.0				
Total Split (%)				25.0%		8.6%		66.4%				
Yellow Time (s)				3.5		3.5		3.7				
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		4.7				
Lead/Lag				Lead		Lag						
Lead-Lag Optimize?				Yes		Yes						
Recall Mode				None		None		C-Max				
Act Effct Green (s)				28.6		42.4		88.4	140.0		102.4	140.0
Actuated g/C Ratio				0.20		0.30		0.63	1.00		0.73	1.00
v/c Ratio				0.91		0.68		0.42	0.30		0.45	0.39
Control Delay (s/veh)				86.3		26.7		13.8	0.6		4.4	2.6
Queue Delay				0.0		7.3		0.5	0.0		2.3	0.0
Total Delay (s/veh)				86.3		34.0		14.3	0.6		6.6	2.6
LOS				F		C		B	A		A	A
Approach Delay (s/veh)					56.7			9.7			4.6	
Approach LOS					E			A			A	
Queue Length 50th (ft)				253		146		188	0		53	82
Queue Length 95th (ft)				#410		270		232	0		m67	m77

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	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	22.5
Total Split (s)	93.0
Total Split (%)	66%
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	C-Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
LOS	
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1003			1000			747			240	
Turn Bay Length (ft)									25			
Base Capacity (vph)				336		554		1948	1380		1187	1380
Starvation Cap Reductn				0		0		0	0		495	0
Spillback Cap Reductn				0		135		641	0		0	0
Storage Cap Reductn				0		0		0	0		0	0
Reduced v/c Ratio				0.85		0.90		0.63	0.30		0.78	0.39

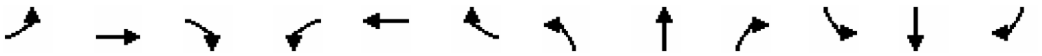
Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 75 (54%), Referenced to phase 2:SBT and 6:NBT, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay (s/veh): 18.4		Intersection LOS: B	
Intersection Capacity Utilization 51.5%		ICU Level of Service A	
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: 3: 54th Avenue E & I-5 SB On-Ramp/I-5 SB Off-Ramp



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

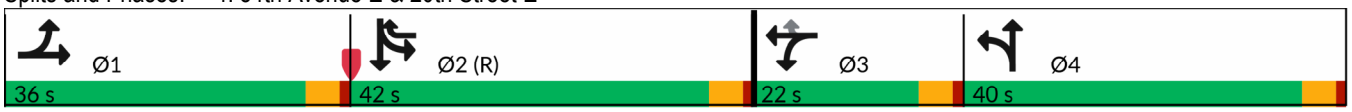


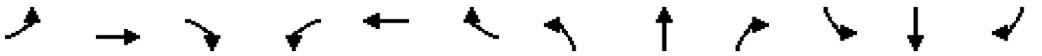
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	319	235	83	38	115	406	147	417	41	466	366	310
Future Volume (vph)	319	235	83	38	115	406	147	417	41	466	366	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	275		0	200		0	175		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.95
Frt		0.971				0.850		0.986			0.938	
Flt Protected	0.950	0.987			0.988		0.950			0.950	0.995	
Satd. Flow (prot)	1356	2736	0	0	1550	1333	1490	2939	0	1356	2665	0
Flt Permitted	0.950	0.987			0.988		0.950			0.950	0.995	
Satd. Flow (perm)	1356	2736	0	0	1550	1333	1490	2939	0	1356	2665	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18				116		7			103	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		738			676			783			335	
Travel Time (s)		14.4			13.2			17.8			7.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Shared Lane Traffic (%)	34%									17%		
Lane Group Flow (vph)	234	473	0	0	170	451	163	509	0	430	839	0
Turn Type	Split	NA		Split	NA	pm+ov	Split	NA		Split	NA	
Protected Phases	1	1		3	3	2	4	4		2	2	
Permitted Phases						3						
Detector Phase	1	1		3	3	2	4	4		2	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	21.5	21.5		10.5	10.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	36.0	36.0		22.0	22.0	42.0	40.0	40.0		42.0	42.0	
Total Split (%)	25.7%	25.7%		15.7%	15.7%	30.0%	28.6%	28.6%		30.0%	30.0%	
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	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	Lead	Lag	Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	C-Max	None	None		C-Max	C-Max	
Act Effct Green (s)	28.2	28.2			16.9	69.5	28.9	28.9		48.1	48.1	
Actuated g/C Ratio	0.20	0.20			0.12	0.50	0.21	0.21		0.34	0.34	
v/c Ratio	0.86	0.84			0.91	0.63	0.53	0.83		0.92	0.85	
Control Delay (s/veh)	81.5	65.1			107.0	25.2	55.2	64.5		72.0	48.0	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	81.5	65.1			107.0	25.2	55.2	64.5		72.0	48.0	
LOS	F	E			F	C	E	E		E	D	
Approach Delay (s/veh)		70.5			47.6			62.3			56.1	
Approach LOS		E			D			E			E	
Queue Length 50th (ft)	225	218			154	227	133	232		425	359	
Queue Length 95th (ft)	#360	284			#291	395	198	283		#750	#563	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		658			596			703			255	
Turn Bay Length (ft)	300						200			175		
Base Capacity (vph)	309	638			193	719	377	750		465	983	
Starvation Cap Reductn	0	0			0	0	0	0		0	0	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.76	0.74			0.88	0.63	0.43	0.68		0.92	0.85	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 48 (34%), Referenced to phase 2:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay (s/veh): 58.9		Intersection LOS: E	
Intersection Capacity Utilization 76.8%		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: 4: 54th Avenue E & 20th Street E



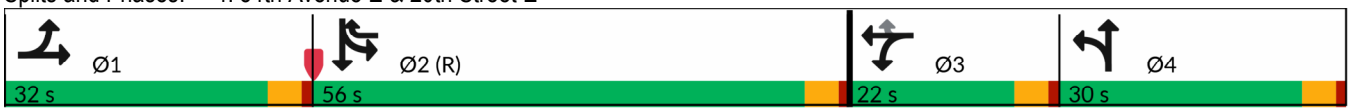


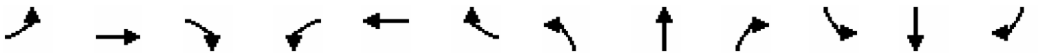
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	319	235	83	38	115	406	147	417	41	466	366	310
Future Volume (vph)	319	235	83	38	115	406	147	417	41	466	366	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	275		0	200		0	175		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.95
Frt		0.971				0.850		0.986			0.938	
Flt Protected	0.950	0.987			0.988		0.950			0.950	0.995	
Satd. Flow (prot)	1356	2736	0	0	1550	1333	1490	2939	0	1356	2665	0
Flt Permitted	0.950	0.987			0.988		0.950			0.950	0.995	
Satd. Flow (perm)	1356	2736	0	0	1550	1333	1490	2939	0	1356	2665	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18				69		7			120	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		738			676			783			335	
Travel Time (s)		14.4			13.2			17.8			7.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Shared Lane Traffic (%)	34%									17%		
Lane Group Flow (vph)	234	473	0	0	170	451	163	509	0	430	839	0
Turn Type	Split	NA		Split	NA	pm+ov	Split	NA		Split	NA	
Protected Phases	1	1		3	3	2	4	4		2	2	
Permitted Phases						3						
Detector Phase	1	1		3	3	2	4	4		2	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	21.5	21.5		10.5	10.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	32.0	32.0		22.0	22.0	56.0	30.0	30.0		56.0	56.0	
Total Split (%)	22.9%	22.9%		15.7%	15.7%	40.0%	21.4%	21.4%		40.0%	40.0%	
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	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	Lead	Lag	Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	C-Max	None	None		C-Max	C-Max	
Act Effct Green (s)	26.1	26.1			16.9	75.2	25.2	25.2		53.9	53.9	
Actuated g/C Ratio	0.19	0.19			0.12	0.54	0.18	0.18		0.39	0.39	
v/c Ratio	0.93	0.90			0.91	0.60	0.61	0.95		0.83	0.76	
Control Delay (s/veh)	96.2	74.8			107.0	22.9	63.5	84.7		54.3	37.9	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	96.2	74.8			107.0	22.9	63.5	84.7		54.3	37.9	
LOS	F	E			F	C	E	F		D	D	
Approach Delay (s/veh)		81.8			45.9			79.6			43.5	
Approach LOS		F			D			E			D	
Queue Length 50th (ft)	229	223			154	239	138	240		396	326	
Queue Length 95th (ft)	#400	#318			#291	357	218	#352		#609	418	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		658			596			703			255	
Turn Bay Length (ft)	300						200			175		
Base Capacity (vph)	266	551			193	748	271	541		521	1099	
Starvation Cap Reductn	0	0			0	0	0	0		0	0	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.88	0.86			0.88	0.60	0.60	0.94		0.83	0.76	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 48 (34%), Referenced to phase 2:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay (s/veh): 59.7		Intersection LOS: E	
Intersection Capacity Utilization 76.8%		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: 4: 54th Avenue E & 20th Street E



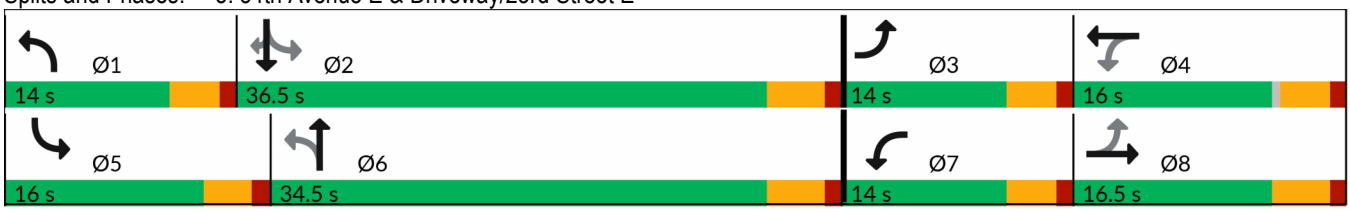


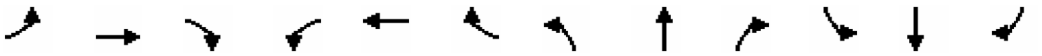
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	50	0	107	0	483	60	97	480	1
Future Volume (vph)	0	0	0	50	0	107	0	483	60	97	480	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	0		0	100		0
Storage Lanes	0		0	1		0	1		0	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	1.00	1.00	1.00	1.00	1.00
Frt					0.850			0.983				0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	1792	0	1703	1524	0	1792	1762	0	1703	1792	1524
Flt Permitted				0.714						0.247		
Satd. Flow (perm)	0	1792	0	1280	1524	0	1792	1762	0	443	1792	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					523			9				128
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		362			838			554			783	
Travel Time (s)		9.9			22.9			12.6			17.8	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	59	126	0	0	639	0	114	565	1
Turn Type				pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6			2		2
Detector Phase	3	8		7	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	6.0
Minimum Split (s)	9.5	24.5		22.5	24.0		9.5	22.5		9.5	22.5	22.5
Total Split (s)	14.0	16.5		14.0	16.0		14.0	34.5		16.0	36.5	36.5
Total Split (%)	17.3%	20.4%		17.3%	19.8%		17.3%	42.6%		19.8%	45.1%	45.1%
Yellow Time (s)	3.0	3.5		3.0	3.0		3.0	3.5		3.0	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		0.0	0.0	0.0
Total Lost Time (s)		4.5		4.0	4.0		4.0	4.5		4.0	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max		None	Max	Max
Act Effct Green (s)				7.4	7.3			34.9		44.1	44.6	44.6
Actuated g/C Ratio				0.13	0.13			0.61		0.77	0.78	0.78
v/c Ratio				0.27	0.19			0.59		0.22	0.41	0.00
Control Delay (s/veh)				26.3	0.7			13.7		3.5	4.2	0.0
Queue Delay				0.0	0.0			0.0		0.0	0.0	0.0
Total Delay (s/veh)				26.3	0.7			13.7		3.5	4.2	0.0
LOS				C	A			B		A	A	A
Approach Delay (s/veh)					8.9			13.7			4.1	
Approach LOS					A			B			A	
Queue Length 50th (ft)				19	0			148		8	56	0
Queue Length 95th (ft)				46	0			274		20	107	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		282			758			474			703	
Turn Bay Length (ft)				100						100		
Base Capacity (vph)				298	742			1076		605	1393	1213
Starvation Cap Reductn				0	0			0		0	0	0
Spillback Cap Reductn				0	0			0		0	0	0
Storage Cap Reductn				0	0			0		0	0	0
Reduced v/c Ratio				0.20	0.17			0.59		0.19	0.41	0.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 81			
Actuated Cycle Length: 57.3			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay (s/veh): 8.8		Intersection LOS: A	
Intersection Capacity Utilization 51.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 5: 54th Avenue E & Driveway/23rd Street E



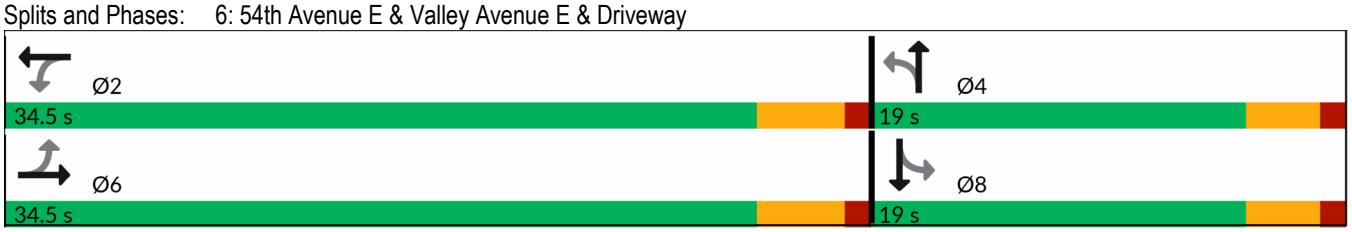


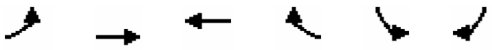
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	257	143	123	389	6	161	1	95	1	1	0
Future Volume (vph)	3	257	143	123	389	6	161	1	95	1	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	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		0.946			0.998			0.950				
Flt Protected	0.950			0.950				0.970			0.976	
Satd. Flow (prot)	1671	1664	0	1671	1756	0	0	1621	0	0	1717	0
Flt Permitted	0.376			0.370				0.808			0.888	
Satd. Flow (perm)	661	1664	0	651	1756	0	0	1350	0	0	1562	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		85			2			55				
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		554			491			578			252	
Travel Time (s)		12.6			11.2			15.8			6.9	
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	4	556	0	171	548	0	0	357	0	0	2	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	30.5	30.5		22.5	22.5		32.0	32.0		32.0	32.0	
Total Split (s)	34.5	34.5		34.5	34.5		19.0	19.0		19.0	19.0	
Total Split (%)	64.5%	64.5%		64.5%	64.5%		35.5%	35.5%		35.5%	35.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		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			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		Max	Max		None	None		None	None	
Act Effct Green (s)	30.2	30.2		30.2	30.2			14.3			14.3	
Actuated g/C Ratio	0.57	0.57		0.57	0.57			0.27			0.27	
v/c Ratio	0.01	0.56		0.46	0.55			0.89			0.00	
Control Delay (s/veh)	5.3	9.0		12.1	9.9			42.8			14.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	5.3	9.0		12.1	9.9			42.8			14.0	
LOS	A	A		B	A			D			B	
Approach Delay (s/veh)		8.9			10.4			42.8			14.0	
Approach LOS		A			B			D			B	
Queue Length 50th (ft)	1	81		28	97			90			1	
Queue Length 95th (ft)	3	101		49	117			#146			3	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		474			411			498			172	
Turn Bay Length (ft)	150			125								
Base Capacity (vph)	376	985		371	1002			422			442	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.01	0.56		0.46	0.55			0.85			0.00	

Intersection Summary			
Area Type:	Other		
Cycle Length: 53.5			
Actuated Cycle Length: 53			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay (s/veh): 17.0		Intersection LOS: B	
Intersection Capacity Utilization 60.2%		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: 6: 54th Avenue E & Valley Avenue E & Driveway



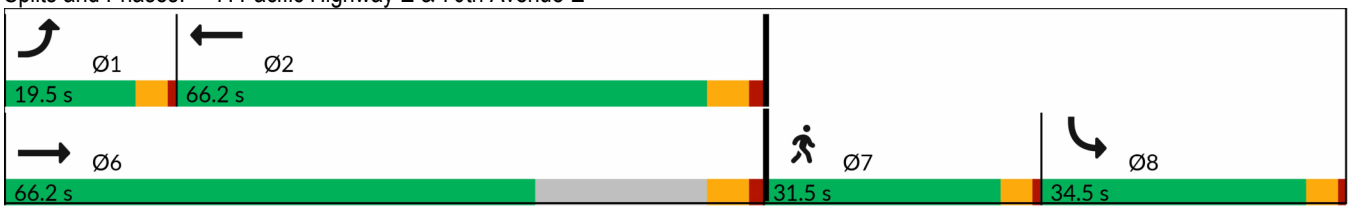


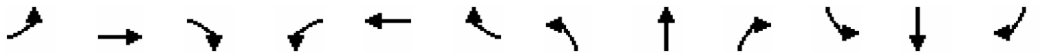
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø7
Lane Configurations							
Traffic Volume (vph)	19	954	694	7	16	64	
Future Volume (vph)	19	954	694	7	16	64	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00	
Frt			0.999		0.892		
Flt Protected	0.950				0.990		
Satd. Flow (prot)	1517	3034	3031	0	1410	0	
Flt Permitted	0.950				0.990		
Satd. Flow (perm)	1517	3034	3031	0	1410	0	
Right Turn on Red				Yes		Yes	
Satd. Flow (RTOR)			1		67		
Link Speed (mph)		30	30		30		
Link Distance (ft)		439	500		370		
Travel Time (s)		10.0	11.4		8.4		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Heavy Vehicles (%)	19%	19%	19%	19%	19%	19%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	20	994	730	0	84	0	
Turn Type	Prot	NA	NA		Prot		
Protected Phases	1	6	2		8		7
Permitted Phases							
Detector Phase	1	6	2		8		
Switch Phase							
Minimum Initial (s)	6.0	10.0	10.0		5.0		5.0
Minimum Split (s)	10.5	23.7	33.7		22.5		31.5
Total Split (s)	19.5	66.2	66.2		34.5		31.5
Total Split (%)	12.9%	43.6%	43.6%		22.7%		21%
Yellow Time (s)	3.5	4.7	4.7		3.5		3.5
All-Red Time (s)	1.0	1.5	1.5		1.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		
Total Lost Time (s)	4.5	6.2	6.2		4.5		
Lead/Lag	Lead		Lag		Lag		Lead
Lead-Lag Optimize?	Yes		Yes		Yes		Yes
Recall Mode	None	Max	None		Max		None
Act Effct Green (s)	7.0	60.0	55.0		30.0		
Actuated g/C Ratio	0.07	0.60	0.55		0.30		
v/c Ratio	0.19	0.55	0.44		0.18		
Control Delay (s/veh)	48.0	13.7	15.8		10.2		
Queue Delay	0.0	0.0	0.0		0.0		
Total Delay (s/veh)	48.0	13.7	15.8		10.2		
LOS	D	B	B		B		
Approach Delay (s/veh)		14.4	15.8		10.2		
Approach LOS		B	B		B		
Queue Length 50th (ft)	12	187	121		8		
Queue Length 95th (ft)	36	243	222		43		
Internal Link Dist (ft)		359	420		290		
Turn Bay Length (ft)							
Base Capacity (vph)	225	2395	1806		467		

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø7
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	0.42	0.40		0.18		

Intersection Summary			
Area Type:	Other		
Cycle Length: 151.7			
Actuated Cycle Length: 100.7			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.55			
Intersection Signal Delay (s/veh): 14.7		Intersection LOS: B	
Intersection Capacity Utilization 40.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 7: Pacific Highway E & 70th Avenue E



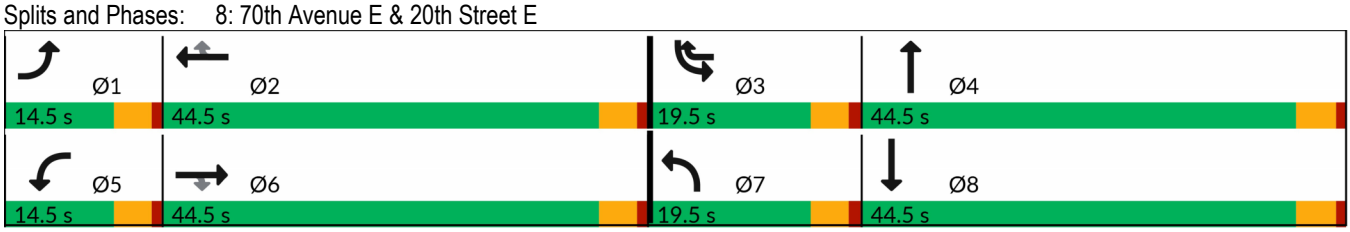


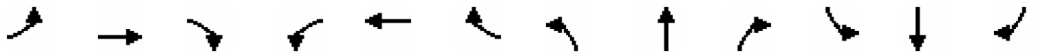
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	403	94	117	503	313	101	795	86	140	439	79
Future Volume (vph)	104	403	94	117	503	313	101	795	86	140	439	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		200	400		400	250		0	225		0
Storage Lanes	1		1	1		1	1		0	2		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	0.95	0.95	0.97	0.95	0.95
Frt			0.850			0.850		0.985			0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1556	1638	1392	1556	1638	1392	1556	3065	0	3019	3040	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1556	1638	1392	1556	1638	1392	1556	3065	0	3019	3040	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			93			68		10			18	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1295			1073			2009			522	
Travel Time (s)		25.2			20.9			39.1			10.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	107	415	97	121	519	323	104	909	0	144	534	0
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2	3	7	4		3	8	
Permitted Phases			6			2						
Detector Phase	1	6	6	5	2	3	7	4		3	8	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	10.0	10.0	10.0	10.0	6.0		10.0	10.0	
Minimum Split (s)	10.5	22.5	22.5	14.5	22.5	14.5	14.5	26.5		14.5	26.5	
Total Split (s)	14.5	44.5	44.5	14.5	44.5	19.5	19.5	44.5		19.5	44.5	
Total Split (%)	11.8%	36.2%	36.2%	11.8%	36.2%	15.9%	15.9%	36.2%		15.9%	36.2%	
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		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	Min	Min	None	Min	None	None	None		None	None	
Act Effct Green (s)	9.9	39.3	39.3	10.0	39.4	55.4	12.8	38.2		11.5	37.0	
Actuated g/C Ratio	0.08	0.34	0.34	0.09	0.34	0.47	0.11	0.33		0.10	0.32	
v/c Ratio	0.81	0.76	0.18	0.91	0.94	0.47	0.62	0.90		0.48	0.55	
Control Delay (s/veh)	94.7	45.4	7.2	111.9	65.6	18.9	66.5	50.7		56.4	34.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	94.7	45.4	7.2	111.9	65.6	18.9	66.5	50.7		56.4	34.8	
LOS	F	D	A	F	E	B	E	D		E	C	
Approach Delay (s/veh)		48.0			55.7			52.4			39.4	
Approach LOS		D			E			D			D	
Queue Length 50th (ft)	82	282	2	94	386	129	77	341		55	171	
Queue Length 95th (ft)	#190	#426	41	#220	#629	209	140	#478		89	233	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1215			993			1929			442	
Turn Bay Length (ft)	250		200	400		400	250			225		
Base Capacity (vph)	133	560	537	133	560	734	199	1055		387	1052	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.80	0.74	0.18	0.91	0.93	0.44	0.52	0.86		0.37	0.51	

Intersection Summary			
Area Type:	Other		
Cycle Length: 123			
Actuated Cycle Length: 117.1			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay (s/veh): 49.8		Intersection LOS: D	
Intersection Capacity Utilization 80.3%		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: 8: 70th Avenue E & 20th Street E



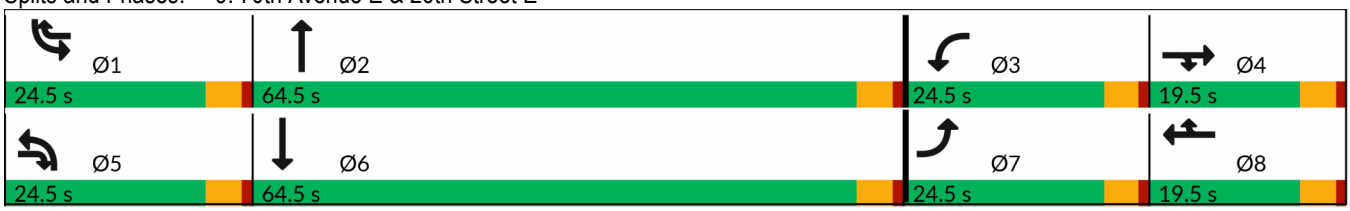


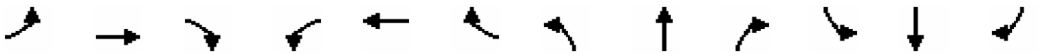
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	83	45	73	23	66	90	868	70	78	488	20
Future Volume (vph)	43	83	45	73	23	66	90	868	70	78	488	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	200		0	225		0
Storage Lanes	1		1	1		1	1		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	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.989			0.994	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1504	1583	1346	1504	1583	1346	1504	2975	0	1504	2990	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1504	1583	1346	1504	1583	1346	1504	2975	0	1504	2990	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			50			73		8			4	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1057			880			2032			2009	
Travel Time (s)		20.6			17.1			39.6			39.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	92	50	81	26	73	100	1042	0	87	564	0
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases	7	4	4 5	3	8	8 1	5	2		1	6	
Permitted Phases												
Detector Phase	7	4	4 5	3	8	8 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	10.0		6.0	10.0	
Minimum Split (s)	10.5	24.5		10.5	24.5		10.5	22.5		10.5	22.5	
Total Split (s)	24.5	19.5		24.5	19.5		24.5	64.5		24.5	64.5	
Total Split (%)	18.4%	14.7%		18.4%	14.7%		18.4%	48.5%		18.4%	48.5%	
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	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		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	10.1	12.1	25.0	12.0	16.2	28.6	13.3	48.9		12.4	48.2	
Actuated g/C Ratio	0.12	0.14	0.28	0.14	0.18	0.33	0.15	0.56		0.14	0.55	
v/c Ratio	0.28	0.42	0.12	0.40	0.09	0.15	0.44	0.63		0.41	0.34	
Control Delay (s/veh)	51.0	51.3	9.2	50.3	42.0	7.7	49.8	23.6		50.1	18.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	51.0	51.3	9.2	50.3	42.0	7.7	49.8	23.6		50.1	18.9	
LOS	D	D	A	D	D	A	D	C		D	B	
Approach Delay (s/veh)		40.1			31.8			25.9			23.1	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	27	51	0	45	13	0	55	264		48	116	
Queue Length 95th (ft)	78	131	31	115	47	35	135	447		121	208	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		977			800			1952			1929	
Turn Bay Length (ft)	150		150	150		150	200			225		
Base Capacity (vph)	430	339	584	430	385	663	430	2052		430	2061	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.11	0.27	0.09	0.19	0.07	0.11	0.23	0.51		0.20	0.27	

Intersection Summary			
Area Type:	Other		
Cycle Length: 133			
Actuated Cycle Length: 87.8			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay (s/veh): 26.8		Intersection LOS: C	
Intersection Capacity Utilization 53.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 9: 70th Avenue E & 26th Street E



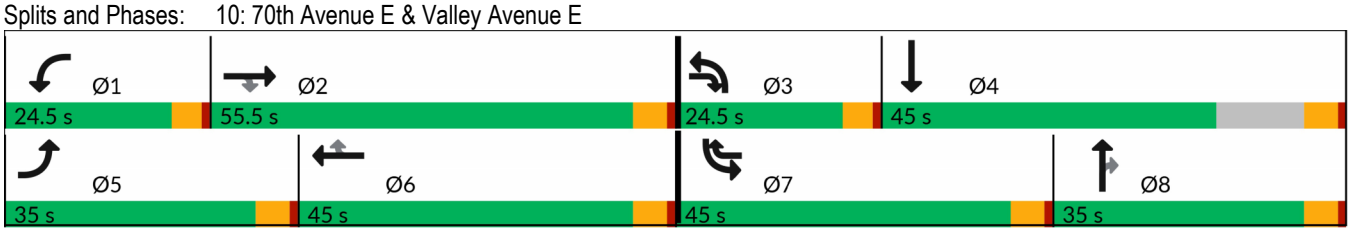


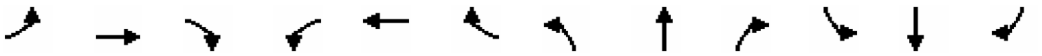
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	298	112	31	272	450	175	536	46	250	187	104
Future Volume (vph)	58	298	112	31	272	450	175	536	46	250	187	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		250	200		0	200		130	350		0
Storage Lanes	1		1	1		1	1		1	2		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	0.95	1.00	0.97	0.95	0.95
Frt			0.850			0.850			0.850		0.947	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1652	1404	1570	1652	1404	1570	3139	1404	3045	2973	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1570	1652	1404	1570	1652	1404	1570	3139	1404	3045	2973	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			117			343			143		70	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		831			1056			750			2032	
Travel Time (s)		18.9			24.0			14.6			39.6	
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 (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	310	117	32	283	469	182	558	48	260	303	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2	3	1	6	7	3	8		7	4	
Permitted Phases			2			6			8			
Detector Phase	5	2	3	1	6	7	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0	6.0	6.0	8.0	8.0	6.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	11.0	31.0	10.5	10.5	31.0	13.0	10.5	31.0	31.0	13.0	31.0	
Total Split (s)	35.0	55.5	24.5	24.5	45.0	45.0	24.5	35.0	35.0	45.0	45.0	
Total Split (%)	21.9%	34.7%	15.3%	15.3%	28.1%	28.1%	15.3%	21.9%	21.9%	28.1%	28.1%	
Yellow Time (s)	4.0	4.0	3.5	3.5	4.0	4.0	3.5	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	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	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.5	4.5	5.0	5.0	4.5	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	Min	None	None	Min	None	None	None	None	None	None	
Act Effct Green (s)	11.4	29.5	54.2	8.5	24.3	46.6	19.4	27.1	27.1	16.9	25.2	
Actuated g/C Ratio	0.12	0.30	0.56	0.09	0.25	0.48	0.20	0.28	0.28	0.17	0.26	
v/c Ratio	0.33	0.62	0.14	0.23	0.69	0.55	0.58	0.64	0.10	0.49	0.37	
Control Delay (s/veh)	50.7	37.5	3.2	52.8	45.0	7.8	49.2	37.4	0.4	42.6	25.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	50.7	37.5	3.2	52.8	45.0	7.8	49.2	37.4	0.4	42.6	25.4	
LOS	D	D	A	D	D	A	D	D	A	D	C	
Approach Delay (s/veh)		30.9			23.1			37.9			33.4	
Approach LOS		C			C			D			C	
Queue Length 50th (ft)	36	181	0	20	170	48	108	162	0	79	63	
Queue Length 95th (ft)	89	308	30	58	295	141	#244	287	0	139	120	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		751			976			670			1952	
Turn Bay Length (ft)	150		250	200			200		130	350		
Base Capacity (vph)	520	922	864	347	730	1130	347	1041	561	1346	1690	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.12	0.34	0.14	0.09	0.39	0.42	0.52	0.54	0.09	0.19	0.18	

Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 96.9			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay (s/veh): 31.2		Intersection LOS: C	
Intersection Capacity Utilization 60.2%		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: 10: 70th Avenue E & Valley Avenue E



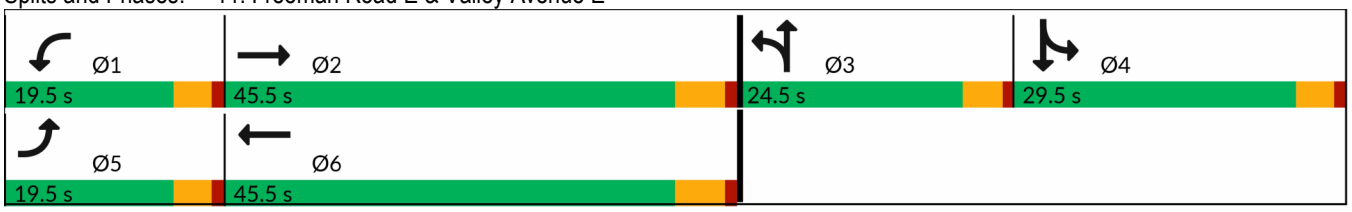


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	420	40	6	610	155	50	83	31	107	59	20
Future Volume (vph)	23	420	40	6	610	155	50	83	31	107	59	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	230		0	50		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987			0.970			0.959			0.962	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1543	3045	0	1543	2993	0	1543	1557	0	1543	1562	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1543	3045	0	1543	2993	0	1543	1557	0	1543	1562	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			29			14			13	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		671			1259			2534			494	
Travel Time (s)		15.3			28.6			69.1			13.5	
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 (%)	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	24	490	0	6	814	0	53	121	0	114	84	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	3		4	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0		4.0	8.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	10.5	26.5		9.5	26.5		22.5	22.5		27.5	27.5	
Total Split (s)	19.5	45.5		19.5	45.5		24.5	24.5		29.5	29.5	
Total Split (%)	16.4%	38.2%		16.4%	38.2%		20.6%	20.6%		24.8%	24.8%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		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	5.5		4.5	5.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	8.3	32.4		7.5	30.1		12.6	12.6		12.9	12.9	
Actuated g/C Ratio	0.12	0.45		0.10	0.42		0.18	0.18		0.18	0.18	
v/c Ratio	0.13	0.36		0.04	0.64		0.20	0.43		0.41	0.29	
Control Delay (s/veh)	41.4	15.5		42.7	21.6		34.9	35.3		38.1	31.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	41.4	15.5		42.7	21.6		34.9	35.3		38.1	31.4	
LOS	D	B		D	C		C	D		D	C	
Approach Delay (s/veh)		16.7			21.8			35.2			35.3	
Approach LOS		B			C			D			D	
Queue Length 50th (ft)	10	68		2	129		20	41		44	27	
Queue Length 95th (ft)	42	165		17	308		68	123		126	88	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		591			1179			2454			414	
Turn Bay Length (ft)	150			230			50			250		
Base Capacity (vph)	380	1973		380	1869		506	520		633	648	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.06	0.25		0.02	0.44		0.10	0.23		0.18	0.13	

Intersection Summary			
Area Type:	Other		
Cycle Length: 119			
Actuated Cycle Length: 71.7			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay (s/veh): 23.2		Intersection LOS: C	
Intersection Capacity Utilization 42.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 11: Freeman Road E & Valley Avenue E



Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	6	7	134	96	9
Future Vol, veh/h	3	6	7	134	96	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	6	6	6	6	6	6
Mvmt Flow	4	7	9	163	117	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	303	123	128	0	-	0
Stage 1	123	-	-	-	-	-
Stage 2	180	-	-	-	-	-
Critical Hdwy	6.46	6.26	4.16	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	2.254	-	-	-
Pot Cap-1 Maneuver	680	918	1433	-	-	-
Stage 1	893	-	-	-	-	-
Stage 2	841	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	676	918	1433	-	-	-
Mov Cap-2 Maneuver	676	-	-	-	-	-
Stage 1	887	-	-	-	-	-
Stage 2	841	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.45	0.37	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	89	-	820	-	-
HCM Lane V/C Ratio	0.006	-	0.013	-	-
HCM Control Delay (s/veh)	7.5	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	6	3	167	73	1
Future Vol, veh/h	9	6	3	167	73	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	7	7	7	7	7	7
Mvmt Flow	10	7	3	190	83	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	280	84	84	0	-	0
Stage 1	84	-	-	-	-	-
Stage 2	197	-	-	-	-	-
Critical Hdwy	6.47	6.27	4.17	-	-	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.363	2.263	-	-	-
Pot Cap-1 Maneuver	699	962	1482	-	-	-
Stage 1	927	-	-	-	-	-
Stage 2	825	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	697	962	1482	-	-	-
Mov Cap-2 Maneuver	697	-	-	-	-	-
Stage 1	925	-	-	-	-	-
Stage 2	825	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.7	0.13	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	32	-	784	-	-
HCM Lane V/C Ratio	0.002	-	0.022	-	-
HCM Control Delay (s/veh)	7.4	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	1	15	0	5	0	174	20	7	72	2
Future Vol, veh/h	0	0	1	15	0	5	0	174	20	7	72	2
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	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	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	0	0	1	18	0	6	0	207	24	8	86	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	311	335	87	321	324	219	88	0	0	231	0	0
Stage 1	104	104	-	219	219	-	-	-	-	-	-	-
Stage 2	207	231	-	102	105	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.6	6.3	7.2	6.6	6.3	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.2	5.6	-	6.2	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.6	-	6.2	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4.09	3.39	3.59	4.09	3.39	2.29	-	-	2.29	-	-
Pot Cap-1 Maneuver	626	573	950	616	581	801	1459	-	-	1291	-	-
Stage 1	883	794	-	765	707	-	-	-	-	-	-	-
Stage 2	777	699	-	884	793	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	618	569	950	611	577	801	1459	-	-	1291	-	-
Mov Cap-2 Maneuver	618	569	-	611	577	-	-	-	-	-	-	-
Stage 1	877	789	-	765	707	-	-	-	-	-	-	-
Stage 2	771	699	-	877	788	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	8.79	10.75	0	0.67
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1459	-	-	950	650	155	-	-
HCM Lane V/C Ratio	-	-	-	0.001	0.037	0.006	-	-
HCM Control Delay (s/veh)	0	-	-	8.8	10.8	7.8	0	-
HCM Lane LOS	A	-	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	19	241	481	155	62	13
Future Vol, veh/h	19	241	481	155	62	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	89	89	89	89	89	89
Heavy Vehicles, %	11	11	11	11	11	11
Mvmt Flow	21	271	540	174	70	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	715	0	-	0	941	628
Stage 1	-	-	-	-	628	-
Stage 2	-	-	-	-	313	-
Critical Hdwy	4.21	-	-	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	2.299	-	-	-	3.599	3.399
Pot Cap-1 Maneuver	846	-	-	-	282	467
Stage 1	-	-	-	-	515	-
Stage 2	-	-	-	-	721	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	846	-	-	-	273	467
Mov Cap-2 Maneuver	-	-	-	-	273	-
Stage 1	-	-	-	-	500	-
Stage 2	-	-	-	-	721	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.68	0	22.06
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	132	-	-	-	294
HCM Lane V/C Ratio	0.025	-	-	-	0.286
HCM Control Delay (s/veh)	9.4	0	-	-	22.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1.2

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	19	241	481	155	62	13
Future Vol, veh/h	19	241	481	155	62	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	100	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	11	11	11	11	11	11
Mvmt Flow	21	271	540	174	70	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	715	0	-	0	941	628
Stage 1	-	-	-	-	628	-
Stage 2	-	-	-	-	313	-
Critical Hdwy	4.21	-	-	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	2.299	-	-	-	3.599	3.399
Pot Cap-1 Maneuver	846	-	-	-	282	467
Stage 1	-	-	-	-	515	-
Stage 2	-	-	-	-	721	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	846	-	-	-	274	467
Mov Cap-2 Maneuver	-	-	-	-	445	-
Stage 1	-	-	-	-	502	-
Stage 2	-	-	-	-	721	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.68	0	14.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	846	-	-	-	445	467
HCM Lane V/C Ratio	0.025	-	-	-	0.157	0.031
HCM Control Delay (s/veh)	9.4	-	-	-	14.6	13
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6	0.1

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	33	198	394	132	45	13
Future Vol, veh/h	33	198	394	132	45	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	89	89	89	89	89	89
Heavy Vehicles, %	11	11	11	11	11	11
Mvmt Flow	37	222	443	148	51	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	591	0	-	0	813	517
Stage 1	-	-	-	-	517	-
Stage 2	-	-	-	-	297	-
Critical Hdwy	4.21	-	-	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	2.299	-	-	-	3.599	3.399
Pot Cap-1 Maneuver	942	-	-	-	336	541
Stage 1	-	-	-	-	581	-
Stage 2	-	-	-	-	734	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	942	-	-	-	321	541
Mov Cap-2 Maneuver	-	-	-	-	321	-
Stage 1	-	-	-	-	555	-
Stage 2	-	-	-	-	734	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.28	0	17.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	257	-	-	-	353
HCM Lane V/C Ratio	0.039	-	-	-	0.185
HCM Control Delay (s/veh)	9	0	-	-	17.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.7

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	33	198	394	132	45	13
Future Vol, veh/h	33	198	394	132	45	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	100	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	11	11	11	11	11	11
Mvmt Flow	37	222	443	148	51	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	591	0	-	0	813	517
Stage 1	-	-	-	-	517	-
Stage 2	-	-	-	-	297	-
Critical Hdwy	4.21	-	-	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	2.299	-	-	-	3.599	3.399
Pot Cap-1 Maneuver	942	-	-	-	336	541
Stage 1	-	-	-	-	581	-
Stage 2	-	-	-	-	734	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	942	-	-	-	322	541
Mov Cap-2 Maneuver	-	-	-	-	491	-
Stage 1	-	-	-	-	558	-
Stage 2	-	-	-	-	734	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.28	0	12.87
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	942	-	-	-	491	541
HCM Lane V/C Ratio	0.039	-	-	-	0.103	0.027
HCM Control Delay (s/veh)	9	-	-	-	13.2	11.8
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	0.1

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1360	1099	911	811	581	423
Future Volume (vph)	1360	1099	911	811	581	423
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	2	2		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	0.88	0.95	1.00	0.97	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3155	2561	3252	1455	3155	3252
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3155	2561	3252	1455	3155	3252
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		5		721		
Link Speed (mph)	35		35			35
Link Distance (ft)	522		278			1175
Travel Time (s)	10.2		5.4			22.9
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1432	1157	959	854	612	445
Turn Type	Prot	pm+ov	NA	Perm	Prot	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8		2		
Minimum Split (s)	36.6	10.6	38.9	38.9	10.6	36.9
Total Split (s)	57.0	31.0	32.0	32.0	31.0	63.0
Total Split (%)	47.5%	25.8%	26.7%	26.7%	25.8%	52.5%
Yellow Time (s)	3.6	3.6	3.9	3.9	3.6	3.9
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)	4.6	4.6	4.9	4.9	4.6	4.9
Lead/Lag		Lead	Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Act Effct Green (s)	52.4	83.4	27.1	27.1	26.4	58.1
Actuated g/C Ratio	0.44	0.70	0.23	0.23	0.22	0.48
v/c Ratio	1.04	0.65	1.31	0.96	0.88	0.28
Control Delay (s/veh)	68.9	12.3	185.7	31.2	60.8	19.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	68.9	12.3	185.7	31.2	60.8	19.1
LOS	E	B	F	C	E	B
Approach Delay (s/veh)	43.6		112.9			43.2
Approach LOS	D		F			D
Queue Length 50th (ft)	~617	253	~502	122	238	105
Queue Length 95th (ft)	#753	326	#633	#443	#336	142
Internal Link Dist (ft)	442		198			1095
Turn Bay Length (ft)					250	
Base Capacity (vph)	1377	1781	734	886	694	1574
Starvation Cap Reductn	0	0	0	0	0	0

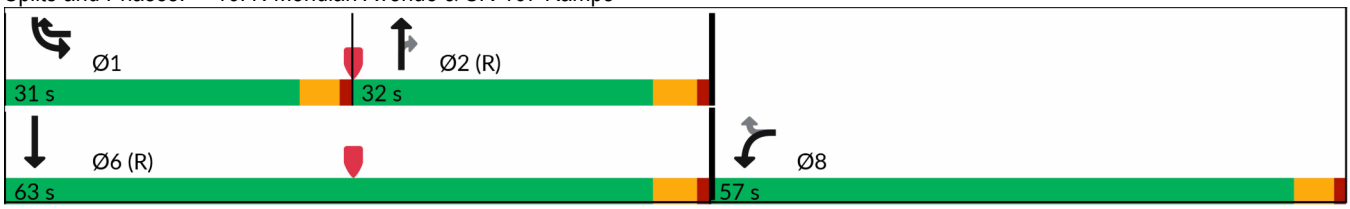
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.04	0.65	1.31	0.96	0.88	0.28

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 120			
Control Type: Pretimed			
Maximum v/c Ratio: 1.31			
Intersection Signal Delay (s/veh): 66.6		Intersection LOS: E	
Intersection Capacity Utilization 92.3%		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.

Splits and Phases: 16: N Meridian Avenue & SR-167 Ramps



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1360	1099	911	811	581	423
Future Volume (vph)	1360	1099	911	811	581	423
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	2	2		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	0.88	0.95	1.00	0.97	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3155	2561	3252	1455	3155	3252
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3155	2561	3252	1455	3155	3252
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		19		760		
Link Speed (mph)	35		35			35
Link Distance (ft)	522		278			1175
Travel Time (s)	10.2		5.4			22.9
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1432	1157	959	854	612	445
Turn Type	Prot	pm+ov	NA	Perm	Prot	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8		2		
Minimum Split (s)	36.6	10.6	38.9	38.9	10.6	36.9
Total Split (s)	54.4	26.6	39.0	39.0	26.6	65.6
Total Split (%)	45.3%	22.2%	32.5%	32.5%	22.2%	54.7%
Yellow Time (s)	3.6	3.6	3.9	3.9	3.6	3.9
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)	4.6	4.6	4.9	4.9	4.6	4.9
Lead/Lag		Lead	Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Act Effct Green (s)	49.8	76.4	34.1	34.1	22.0	60.7
Actuated g/C Ratio	0.42	0.64	0.28	0.28	0.18	0.51
v/c Ratio	1.09	0.71	1.04	0.89	1.06	0.27
Control Delay (s/veh)	88.8	17.1	82.0	18.4	100.9	17.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	88.8	17.1	82.0	18.4	100.9	17.5
LOS	F	B	F	B	F	B
Approach Delay (s/veh)	56.8		52.0			65.8
Approach LOS	E		D			E
Queue Length 50th (ft)	~645	307	~421	56	~268	100
Queue Length 95th (ft)	#781	395	#553	#396	#384	135
Internal Link Dist (ft)	442		198			1095
Turn Bay Length (ft)					250	
Base Capacity (vph)	1309	1637	924	957	578	1644
Starvation Cap Reductn	0	0	0	0	0	0

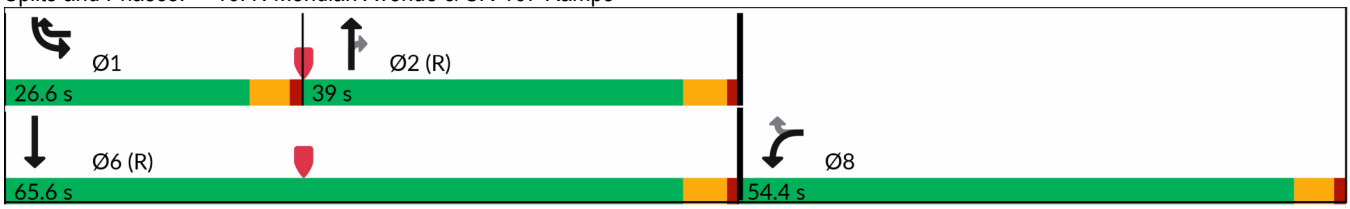
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.09	0.71	1.04	0.89	1.06	0.27

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 120			
Control Type: Pretimed			
Maximum v/c Ratio: 1.09			
Intersection Signal Delay (s/veh): 56.9		Intersection LOS: E	
Intersection Capacity Utilization 92.3%		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.

Splits and Phases: 16: N Meridian Avenue & SR-167 Ramps



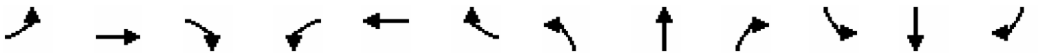
Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	103	0	0	199	0	1409	200	0	1290	456
Future Vol, veh/h	0	0	103	0	0	199	0	1409	200	0	1290	456
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	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Free	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	0	108	0	0	209	0	1483	211	0	1358	480

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	919	-	-	742	-	0	-	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.08	-	-	7.08	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.39	-	-	3.39	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	260	0	0	343	0	-	0	0	-	-
Stage 1	0	0	-	0	0	-	0	-	0	0	-	-
Stage 2	0	0	-	0	0	-	0	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	-	-	260	-	-	343	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	28.34	30.61	0	0
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBT	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	260	343	-	-
HCM Lane V/C Ratio	-	0.416	0.61	-	-
HCM Control Delay (s/veh)	-	28.3	30.6	-	-
HCM Lane LOS	-	D	D	-	-
HCM 95th %tile Q(veh)	-	1.9	3.8	-	-



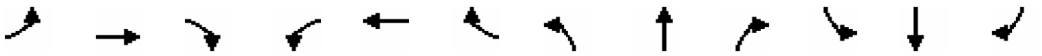
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1002	0	352	10	514	615	0	0	0	0	307	840
Future Volume (vph)	1002	0	352	10	514	615	0	0	0	0	307	840
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	125		0	0		0	0		250
Storage Lanes	2		1	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected	0.950			0.950								
Satd. Flow (prot)	3273	0	1509	1687	3374	1509	0	0	0	0	3374	1509
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	3273	0	1509	1687	3374	1509	0	0	0	0	3374	1509
Right Turn on Red			No	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				90		441						597
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		673			590			2133			1751	
Travel Time (s)		13.1			11.5			58.2			47.8	
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 (%)	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1066	0	374	11	547	654	0	0	0	0	327	894
Turn Type	Prot		Prot	Perm	NA	Perm					NA	Perm
Protected Phases	1		1		2						4	
Permitted Phases				2		2						4
Detector Phase	1		1	2	2	2					4	4
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0					10.0	10.0
Minimum Split (s)	10.1		10.1	35.1	35.1	35.1					30.8	30.8
Total Split (s)	31.0		31.0	31.0	31.0	31.0					22.0	22.0
Total Split (%)	36.9%		36.9%	36.9%	36.9%	36.9%					26.2%	26.2%
Yellow Time (s)	3.6		3.6	3.6	3.6	3.6					3.3	3.3
All-Red Time (s)	1.5		1.5	1.5	1.5	1.5					1.5	1.5
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Lost Time (s)	5.1		5.1	5.1	5.1	5.1					4.8	4.8
Lead/Lag	Lead		Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes						
Recall Mode	None		None	Max	Max	Max					None	None
Act Effct Green (s)	25.9		25.9	30.0	30.0	30.0					17.2	17.2
Actuated g/C Ratio	0.29		0.29	0.34	0.34	0.34					0.20	0.20
v/c Ratio	1.11		0.84	0.02	0.48	0.81					0.50	1.15
Control Delay (s/veh)	94.5		48.4	0.1	24.6	18.0					34.6	97.1
Queue Delay	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Delay (s/veh)	94.5		48.4	0.1	24.6	18.0					34.6	97.1
LOS	F		D	A	C	B					C	F
Approach Delay (s/veh)		82.5			20.8						80.4	
Approach LOS		F			C						F	
Queue Length 50th (ft)	~352		194	0	124	104					85	~301
Queue Length 95th (ft)	#474		#347	0	172	#324					127	#532

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		593			510			2053			1671	
Turn Bay Length (ft)				125								250
Base Capacity (vph)	962		443	633	1148	804					658	775
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	1.11		0.84	0.02	0.48	0.81					0.50	1.15

Intersection Summary			
Area Type:	Other		
Cycle Length: 84			
Actuated Cycle Length: 88.1			
Natural Cycle: 120			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.15			
Intersection Signal Delay (s/veh): 62.5		Intersection LOS: E	
Intersection Capacity Utilization 74.5%		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.

Splits and Phases: 18: N Meridian Avenue & River Road/2nd Street NE



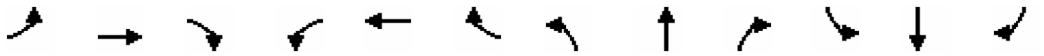
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1002	0	352	10	514	615	0	0	0	0	307	840
Future Volume (vph)	1002	0	352	10	514	615	0	0	0	0	307	840
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	125		0	0		0	0		250
Storage Lanes	2		1	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected	0.950			0.950								
Satd. Flow (prot)	3273	0	1509	1687	3374	1509	0	0	0	0	3374	1509
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	3273	0	1509	1687	3374	1509	0	0	0	0	3374	1509
Right Turn on Red			No	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				63		524						636
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		673			590			2133			1751	
Travel Time (s)		13.1			11.5			58.2			47.8	
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 (%)	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1066	0	374	11	547	654	0	0	0	0	327	894
Turn Type	Prot		Prot	Perm	NA	Perm					NA	Perm
Protected Phases	1		1		2						4	
Permitted Phases				2		2						4
Detector Phase	1		1	2	2	2					4	4
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0					10.0	10.0
Minimum Split (s)	10.1		10.1	35.1	35.1	35.1					30.8	30.8
Total Split (s)	44.0		44.0	36.0	36.0	36.0					40.0	40.0
Total Split (%)	36.7%		36.7%	30.0%	30.0%	30.0%					33.3%	33.3%
Yellow Time (s)	3.6		3.6	3.6	3.6	3.6					3.3	3.3
All-Red Time (s)	1.5		1.5	1.5	1.5	1.5					1.5	1.5
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Lost Time (s)	5.1		5.1	5.1	5.1	5.1					4.8	4.8
Lead/Lag	Lead		Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes						
Recall Mode	None		None	Max	Max	Max					None	None
Act Effct Green (s)	38.9		38.9	30.9	30.9	30.9					35.2	35.2
Actuated g/C Ratio	0.32		0.32	0.26	0.26	0.26					0.29	0.29
v/c Ratio	1.01		0.76	0.02	0.63	0.84					0.33	1.00
Control Delay (s/veh)	69.7		48.3	0.1	43.3	19.9					34.3	43.8
Queue Delay	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Delay (s/veh)	69.7		48.3	0.1	43.3	19.9					34.3	43.8
LOS	E		D	A	D	B					C	D
Approach Delay (s/veh)		64.1			30.3						41.2	
Approach LOS		E			C						D	
Queue Length 50th (ft)	~428		259	0	198	94					104	~287
Queue Length 95th (ft)	#576		#387	0	259	#333					146	#598

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		593			510			2053			1671	
Turn Bay Length (ft)				125								250
Base Capacity (vph)	1060		489	481	868	777					989	892
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	1.01		0.76	0.02	0.63	0.84					0.33	1.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Natural Cycle: 120			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.01			
Intersection Signal Delay (s/veh): 46.3		Intersection LOS: D	
Intersection Capacity Utilization 74.5%		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.

Splits and Phases: 18: N Meridian Avenue & River Road/2nd Street NE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	169	46	45	169	0	0	0	0	155	510	30
Future Volume (vph)	0	169	46	45	169	0	0	0	0	155	510	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	125		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	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	0.95	0.95	0.95
Frt			0.850								0.994	
Flt Protected				0.950							0.989	
Satd. Flow (prot)	0	1810	1538	1719	1810	0	0	0	0	0	3380	0
Flt Permitted				0.417							0.989	
Satd. Flow (perm)	0	1810	1538	755	1810	0	0	0	0	0	3380	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91								16	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		393			385			1349			2133	
Travel Time (s)		10.7			10.5			36.8			58.2	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	194	53	52	194	0	0	0	0	0	798	0
Turn Type		NA	Perm	pm+pt	NA					Perm	NA	
Protected Phases		8		7	4						2	
Permitted Phases			8	4						2		
Detector Phase		8	8	7	4					2	2	
Switch Phase												
Minimum Initial (s)		5.0	5.0	5.0	5.0					10.0	10.0	
Minimum Split (s)		21.0	21.0	9.0	21.0					23.0	23.0	
Total Split (s)		9.0	9.0	7.0	13.0					44.0	44.0	
Total Split (%)		15.0%	15.0%	11.7%	21.7%					73.3%	73.3%	
Yellow Time (s)		3.0	3.0	3.0	3.0					3.0	3.0	
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)		4.0	4.0	4.0	4.0						4.0	
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		None	None	None	None					Max	Max	
Act Effct Green (s)		5.6	5.6	9.8	9.8						41.7	
Actuated g/C Ratio		0.09	0.09	0.16	0.16						0.70	
v/c Ratio		1.14	0.23	0.30	0.65						0.34	
Control Delay (s/veh)		144.1	5.5	24.8	33.4						4.2	
Queue Delay		0.0	0.0	0.0	0.0						0.0	
Total Delay (s/veh)		144.1	5.5	24.8	33.4						4.2	
LOS		F	A	C	C						A	
Approach Delay (s/veh)		114.4			31.6						4.2	
Approach LOS		F			C						A	
Queue Length 50th (ft)		~92	0	16	63						52	
Queue Length 95th (ft)		#193	13	39	115						72	

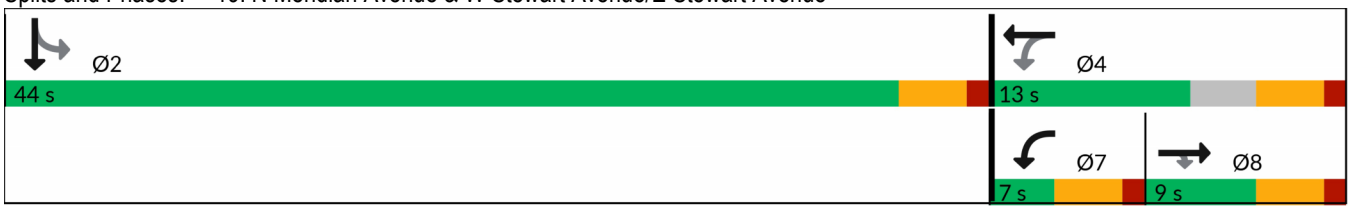
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		313			305			1269			2053	
Turn Bay Length (ft)			50	125								
Base Capacity (vph)		170	227	173	366						2373	
Starvation Cap Reductn		0	0	0	0						0	
Spillback Cap Reductn		0	0	0	0						0	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		1.14	0.23	0.30	0.53						0.34	

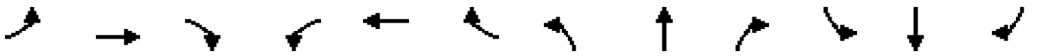
Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 59.5			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.14			
Intersection Signal Delay (s/veh): 30.5		Intersection LOS: C	
Intersection Capacity Utilization 53.3%		ICU Level of Service A	
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: 19: N Meridian Avenue & W Stewart Avenue/E Stewart Avenue



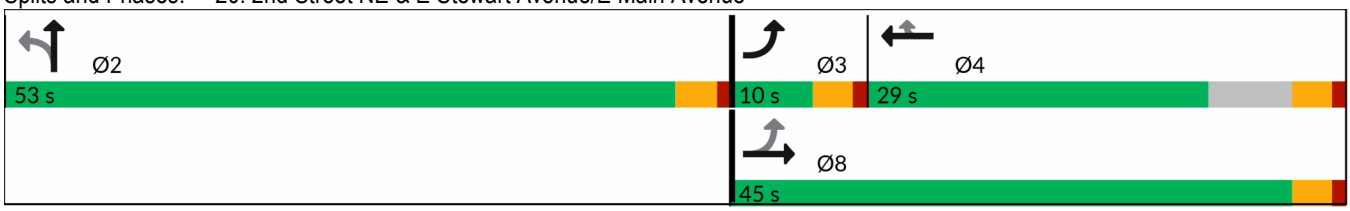


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	254	0	0	137	181	71	934	0	0	0	0
Future Volume (vph)	54	254	0	0	137	181	71	934	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	0		125	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
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	0.95	1.00	1.00	1.00
Frt						0.850						
Flt Protected	0.950							0.996				
Satd. Flow (prot)	1736	1827	0	0	1827	1553	0	3457	0	0	0	0
Flt Permitted	0.451							0.996				
Satd. Flow (perm)	824	1827	0	0	1827	1553	0	3457	0	0	0	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		385			615			394			343	
Travel Time (s)		10.5			16.8			10.7			9.4	
Peak Hour 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
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	267	0	0	144	191	0	1058	0	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA				
Protected Phases	3	8			4			2				
Permitted Phases	8					4	2					
Detector Phase	3	8			4	4	2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	10.0	10.0				
Minimum Split (s)	9.5	28.0			28.0	28.0	26.0	26.0				
Total Split (s)	10.0	45.0			29.0	29.0	53.0	53.0				
Total Split (%)	10.2%	45.9%			29.6%	29.6%	54.1%	54.1%				
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0				
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)	4.0	4.0			4.0	4.0		4.0				
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	None			None	None	Max	Max				
Act Effct Green (s)	18.9	18.9			13.5	13.5		49.6				
Actuated g/C Ratio	0.25	0.25			0.18	0.18		0.65				
v/c Ratio	0.21	0.59			0.45	0.70		0.47				
Control Delay (s/veh)	22.6	30.2			33.5	44.6		9.2				
Queue Delay	0.0	0.0			0.0	0.0		0.0				
Total Delay (s/veh)	22.6	30.2			33.5	44.6		9.2				
LOS	C	C			C	D		A				
Approach Delay (s/veh)		28.8			39.8			9.2				
Approach LOS		C			D			A				
Queue Length 50th (ft)	21	111			66	92		136				
Queue Length 95th (ft)	47	179			119	160		232				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		305			535			314			263	
Turn Bay Length (ft)	50					125						
Base Capacity (vph)	275	989			748	636		2238				
Starvation Cap Reductn	0	0			0	0		0				
Spillback Cap Reductn	0	0			0	0		0				
Storage Cap Reductn	0	0			0	0		0				
Reduced v/c Ratio	0.21	0.27			0.19	0.30		0.47				

Intersection Summary			
Area Type:	Other		
Cycle Length: 98			
Actuated Cycle Length: 76.6			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay (s/veh): 18.9		Intersection LOS: B	
Intersection Capacity Utilization 53.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 20: 2nd Street NE & E Stewart Avenue/E Main Avenue



Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	2	139	33	34	68
Future Vol, veh/h	7	2	139	33	34	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
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	8	2	151	36	37	74

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	317	169	0	0	187	0
Stage 1	169	-	-	-	-	-
Stage 2	148	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	676	875	-	-	1387	-
Stage 1	861	-	-	-	-	-
Stage 2	880	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	658	875	-	-	1387	-
Mov Cap-2 Maneuver	658	-	-	-	-	-
Stage 1	861	-	-	-	-	-
Stage 2	856	-	-	-	-	-

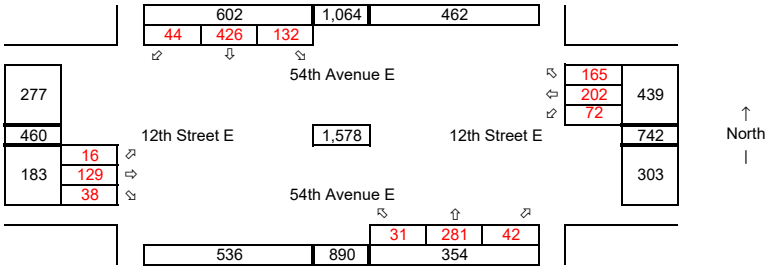
Approach	WB	NB	SB
HCM Control Delay, s/v	10.24	0	2.56
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	697	1387	-
HCM Lane V/C Ratio	-	-	0.014	0.027	-
HCM Control Delay (s/veh)	-	-	10.2	7.7	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0.1	-

Synchro ID: 1
Existing
Average Weekday
PM Peak Hour

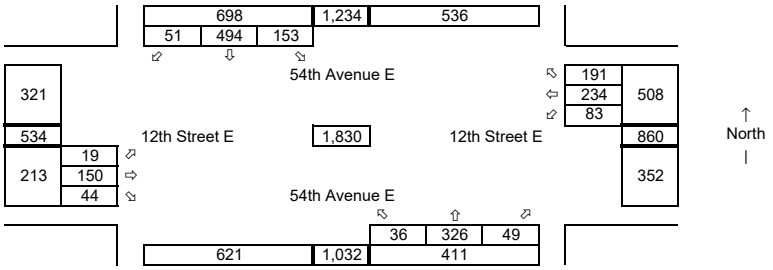
Year: **6/8/2023**

Data Source: IDAX

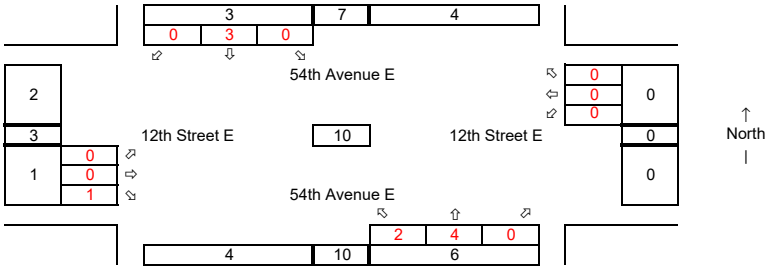


Future without Project
Average Weekday
PM Peak Hour

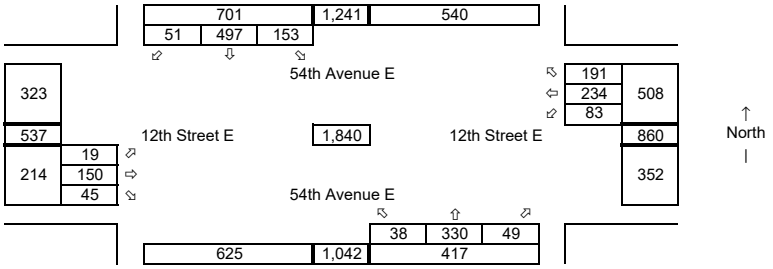
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



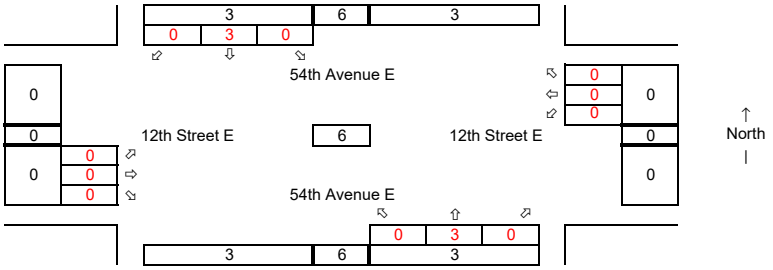
Total Development Trips
Average Weekday
PM Peak Hour



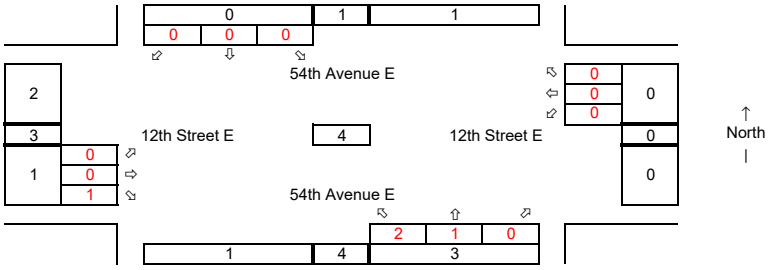
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour

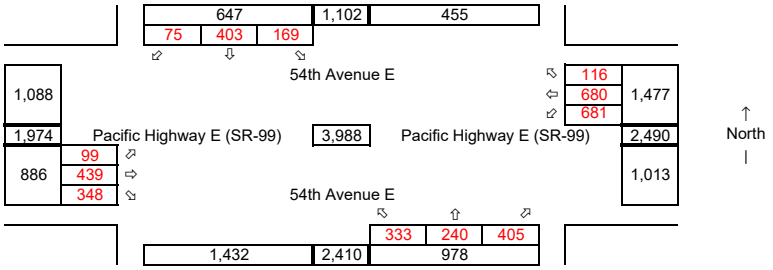


Synchro ID: 2
Existing
Average Weekday
PM Peak Hour

Year: **6/15/2023**

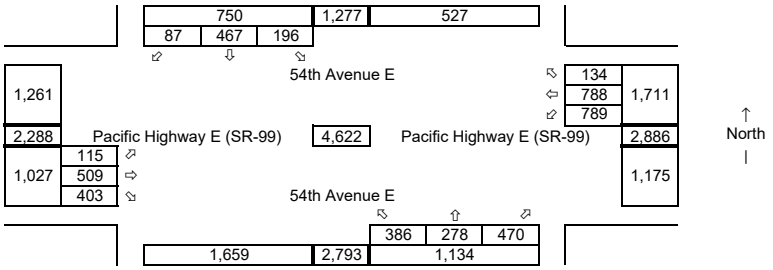
Data Source: IDAX

Two (2) Eastbound U-turns added to Eastbound left-turns

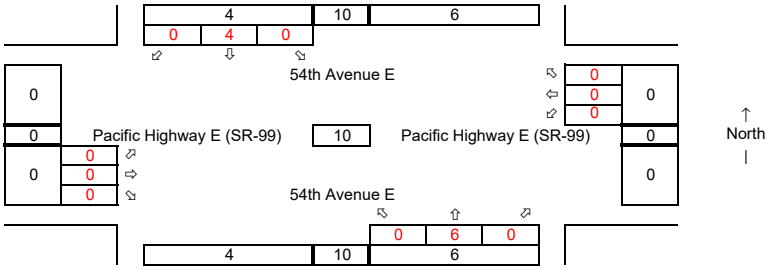


Future without Project
Average Weekday
PM Peak Hour

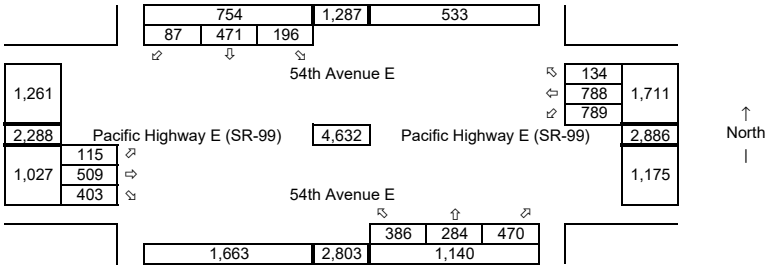
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



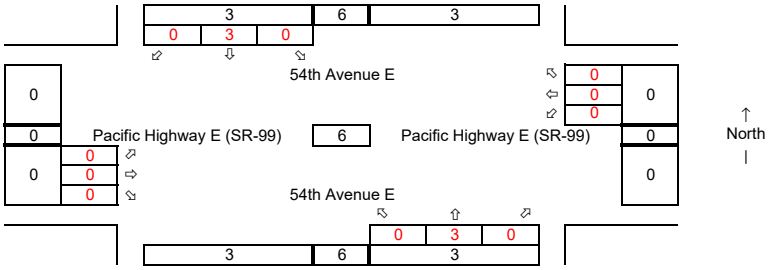
Total Development Trips
Average Weekday
PM Peak Hour



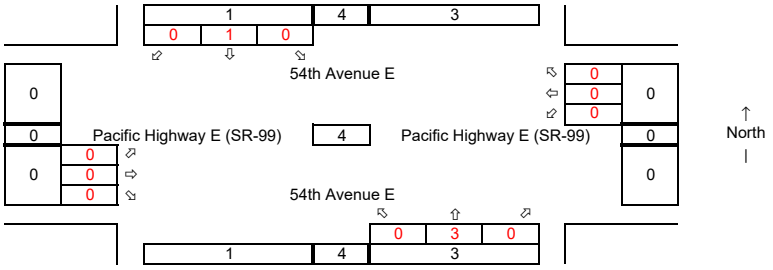
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour

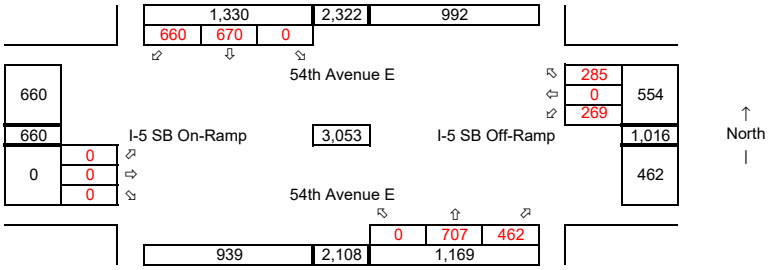


Synchro ID: 3
Existing
Average Weekday
PM Peak Hour

Year: **6/15/2023**

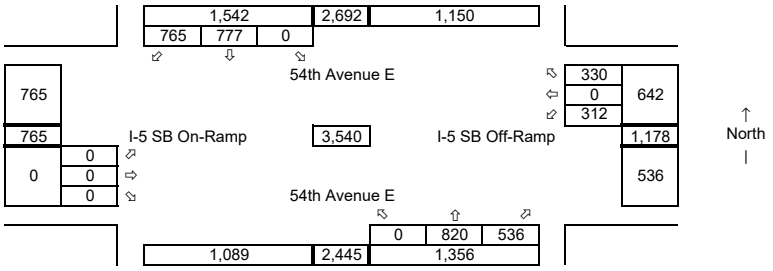
Data Source: IDAX

One (1) NB U-turn added to NBT.
One (1) NBL added to NBR.
One (1) WBT added to WBL

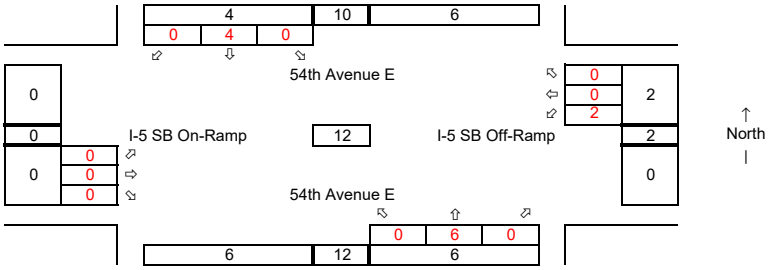


Future without Project
Average Weekday
PM Peak Hour

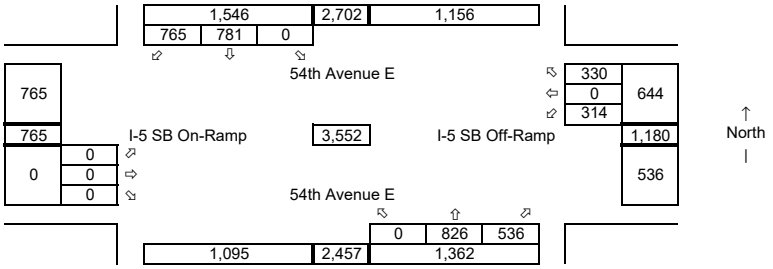
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



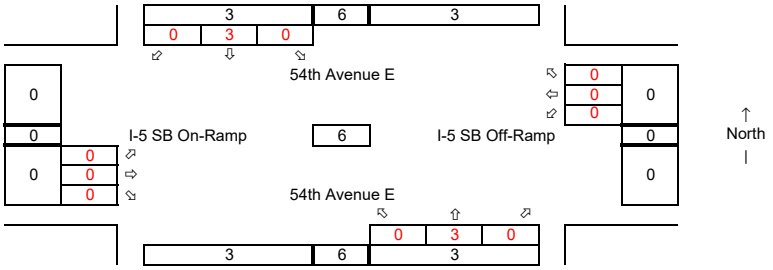
Total Development Trips
Average Weekday
PM Peak Hour



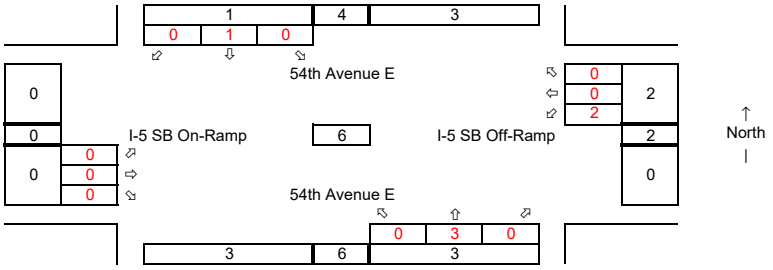
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



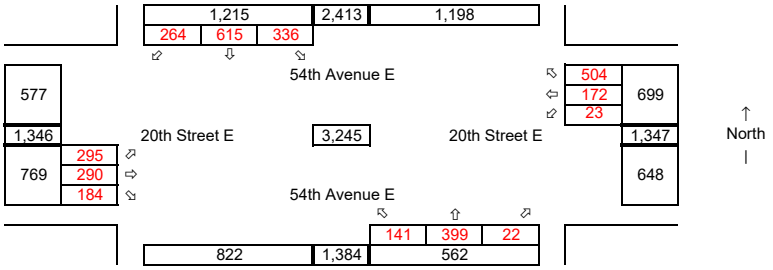
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 4
Existing
Average Weekday
PM Peak Hour

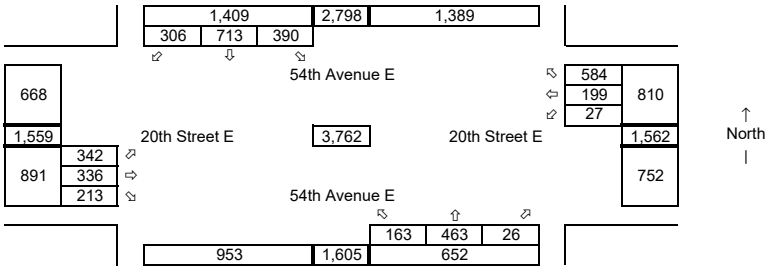
Year: **6/15/2023**

Data Source: IDAX

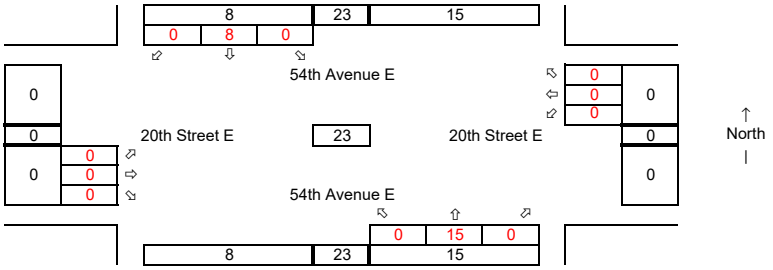


Future without Project
Average Weekday
PM Peak Hour

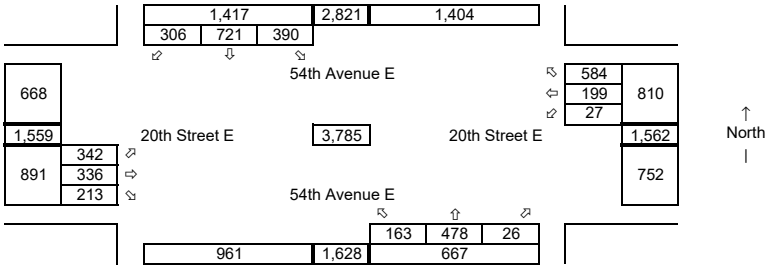
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



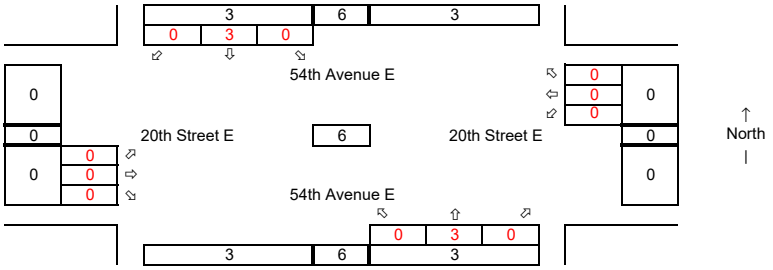
Total Development Trips
Average Weekday
PM Peak Hour



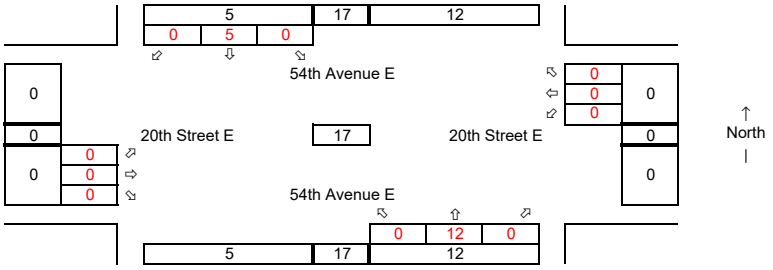
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



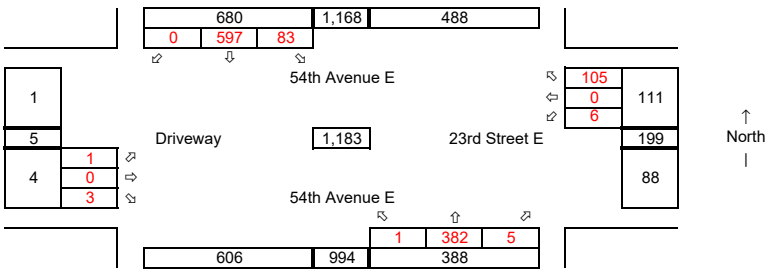
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 5
Existing
Average Weekday
PM Peak Hour

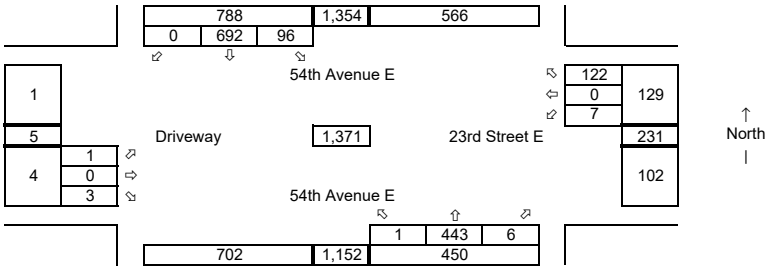
Year: **6/8/2023**

Data Source: IDAX

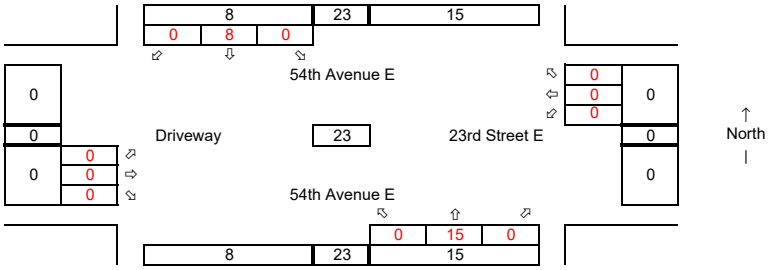


Future without Project
Average Weekday
PM Peak Hour

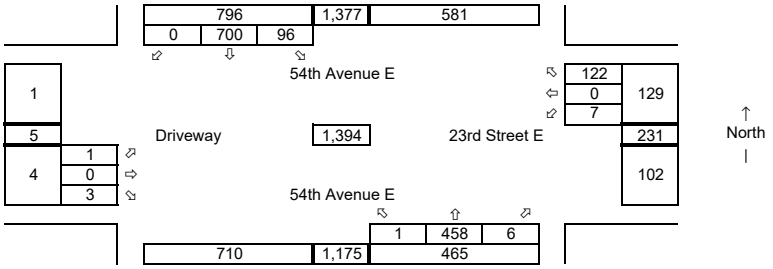
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



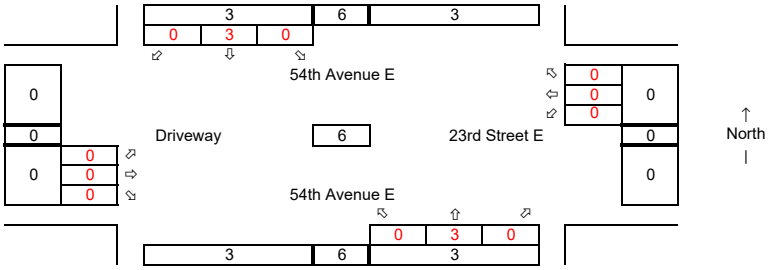
Total Development Trips
Average Weekday
PM Peak Hour



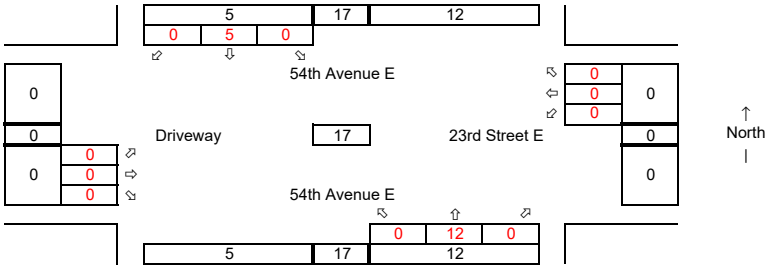
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



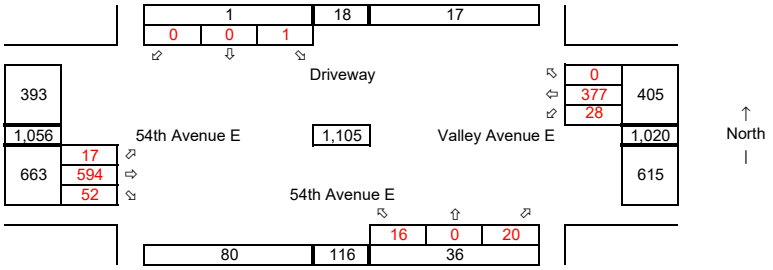
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 6
Existing
Average Weekday
PM Peak Hour

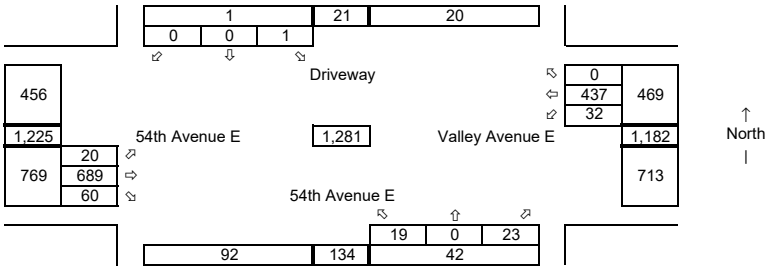
Year: **6/15/2023**

Data Source: IDAX

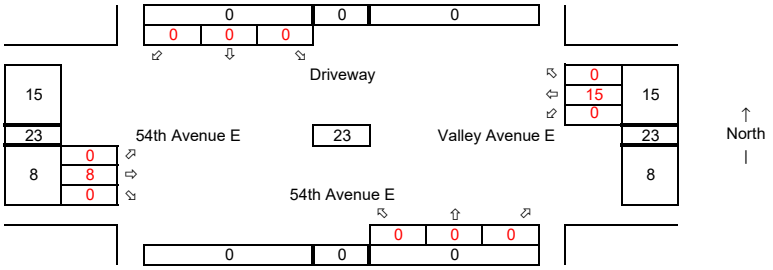


Future without Project
Average Weekday
PM Peak Hour

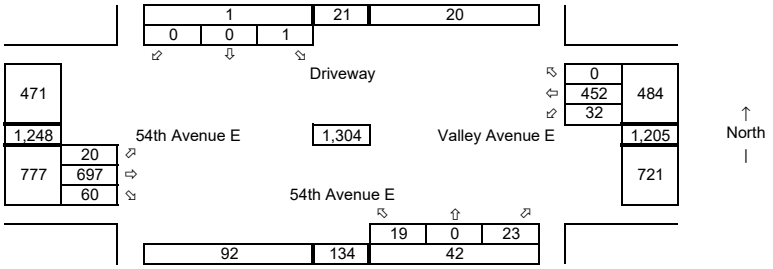
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



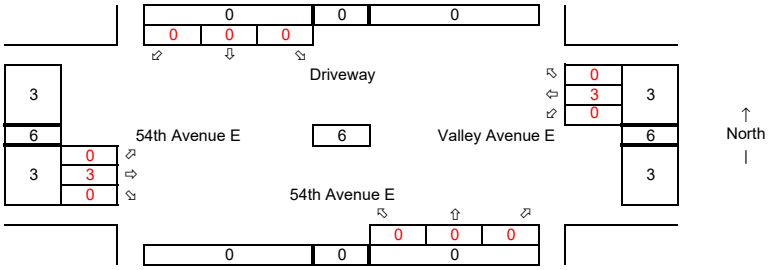
Total Development Trips
Average Weekday
PM Peak Hour



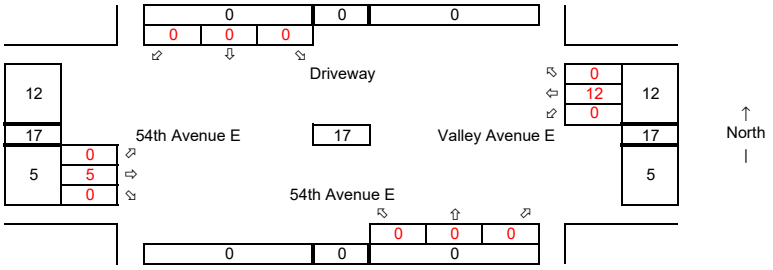
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour



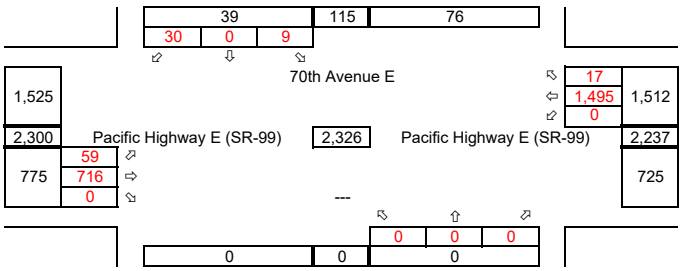
Synchro ID: 7

Existing
Average Weekday
PM Peak Hour

Year: **6/15/2023**

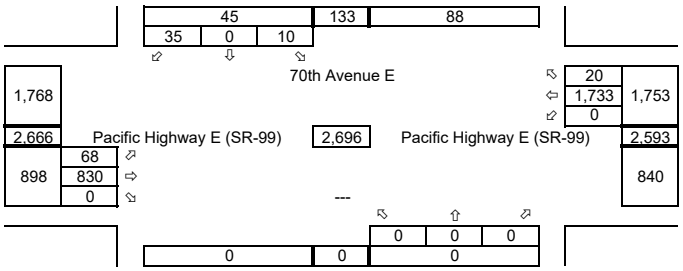
Data Source: IDAX

One (1) Eastbound U-turn
added to Eastbound left-turns

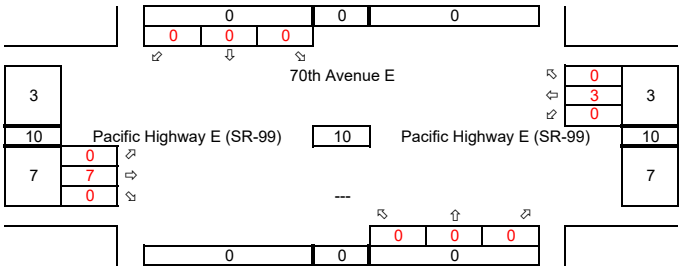


Future without Project
Average Weekday
PM Peak Hour

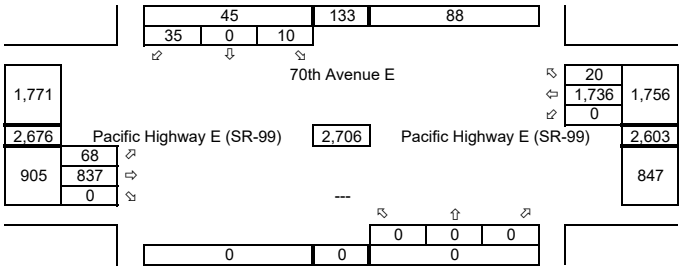
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



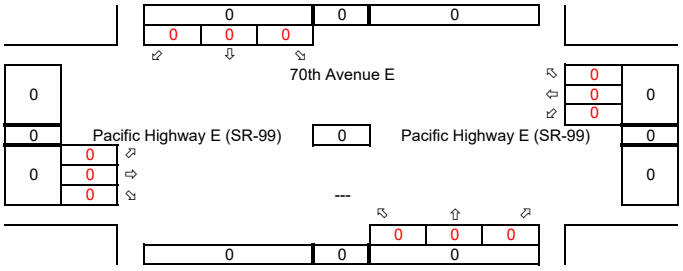
Total Development Trips
Average Weekday
PM Peak Hour



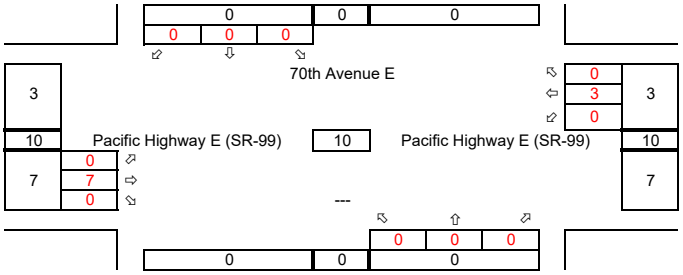
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



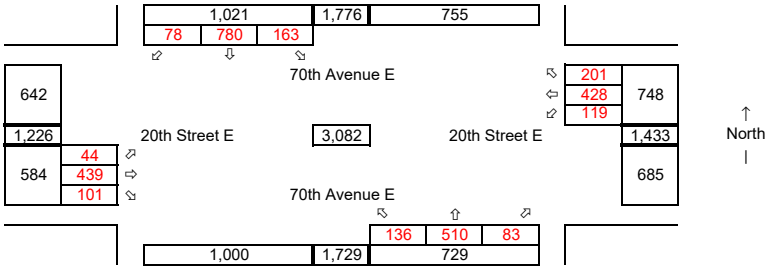
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 8
Existing
Average Weekday
PM Peak Hour

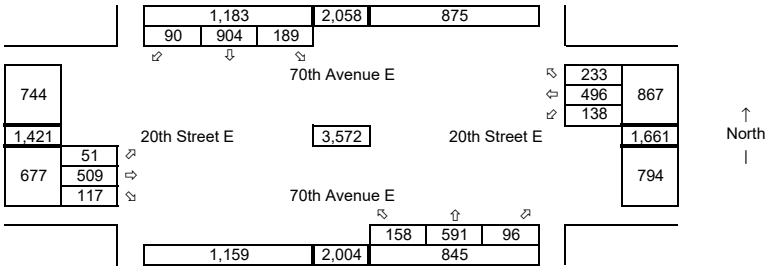
Year: **6/8/2023**

Data Source: IDAX

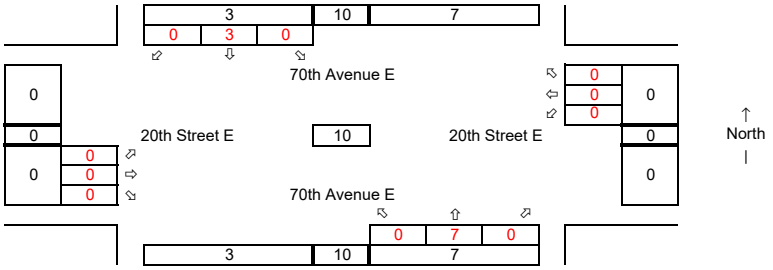


Future without Project
Average Weekday
PM Peak Hour

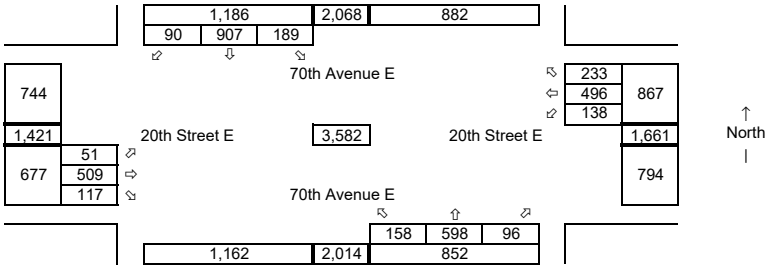
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



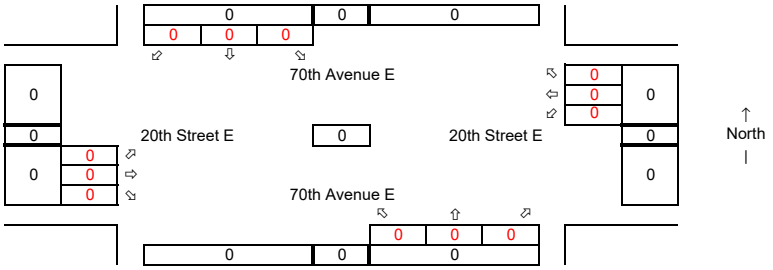
Total Development Trips
Average Weekday
PM Peak Hour



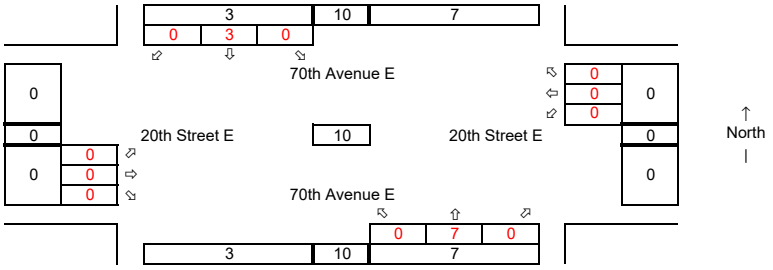
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



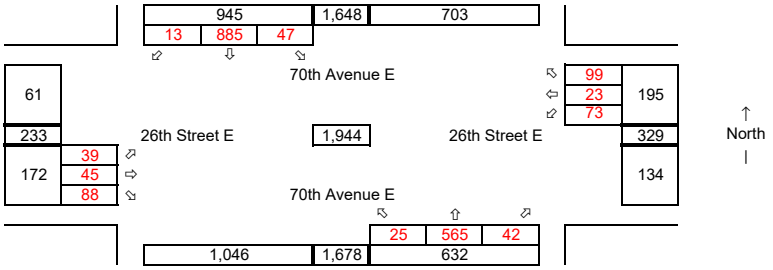
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 9
Existing
Average Weekday
PM Peak Hour

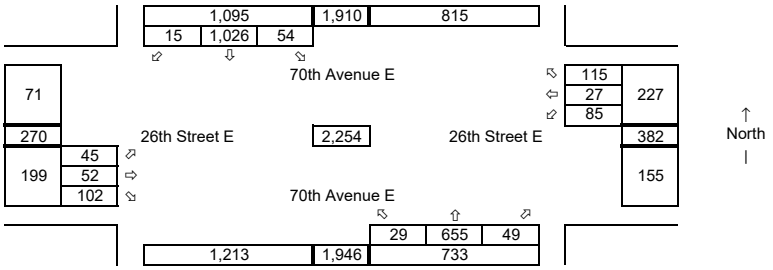
Year: **6/8/2023**

Data Source: IDAX

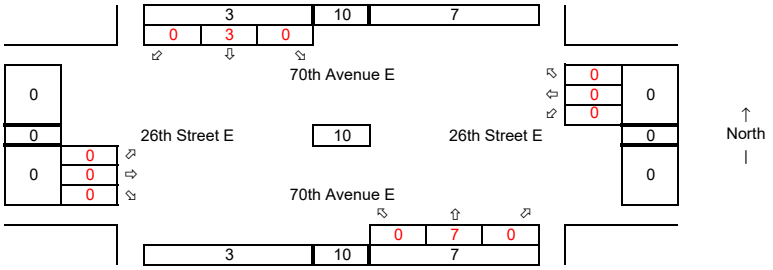


Future without Project
Average Weekday
PM Peak Hour

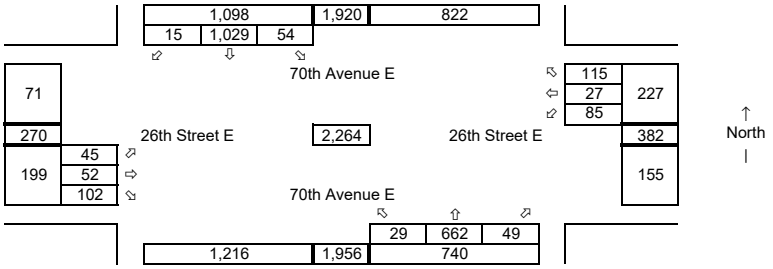
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



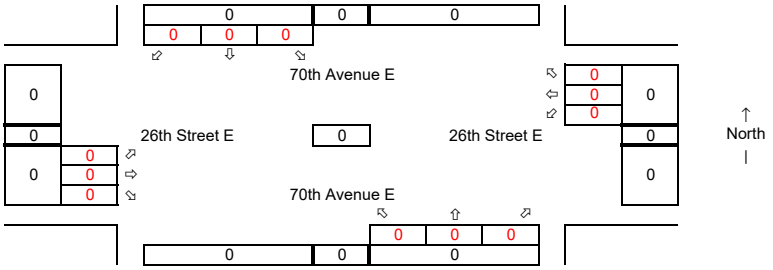
Total Development Trips
Average Weekday
PM Peak Hour



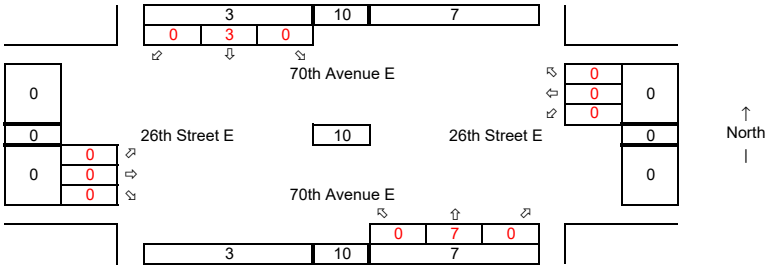
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



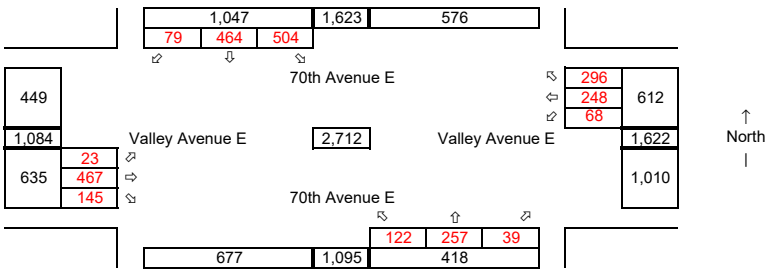
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 10
Existing
Average Weekday
PM Peak Hour

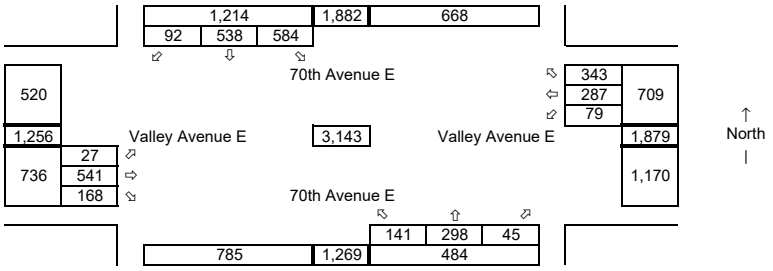
Year: **6/8/2023**

Data Source: IDAX

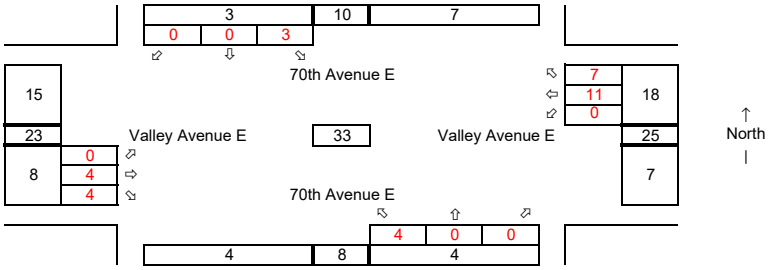


Future without Project
Average Weekday
PM Peak Hour

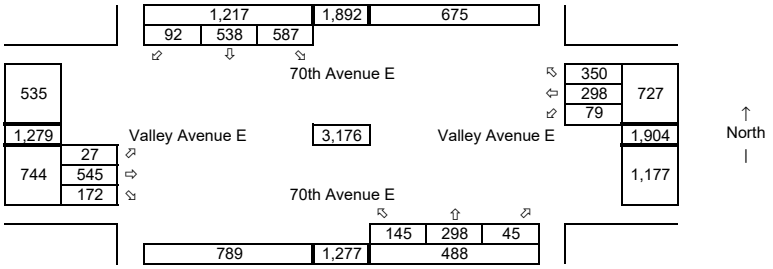
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



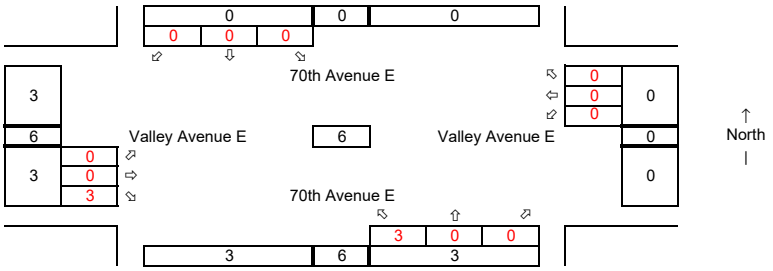
Total Development Trips
Average Weekday
PM Peak Hour



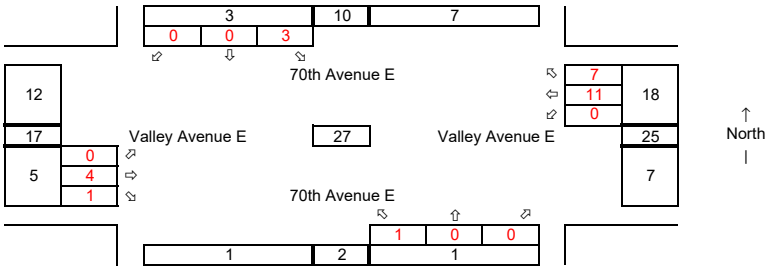
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



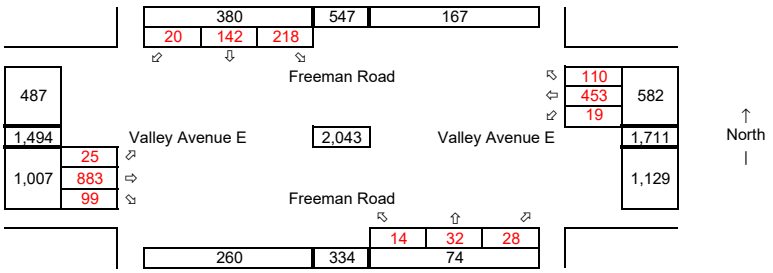
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 11
Existing
Average Weekday
PM Peak Hour

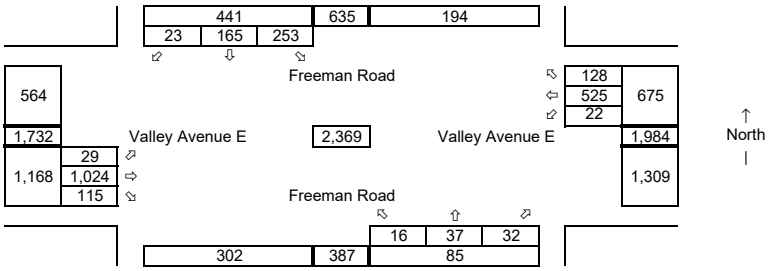
Year: **6/14/2023**

Data Source: IDAX

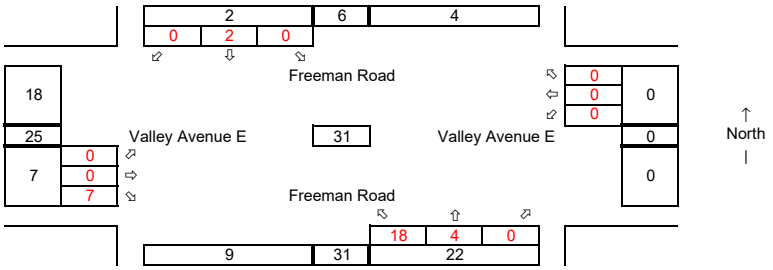


Future without Project
Average Weekday
PM Peak Hour

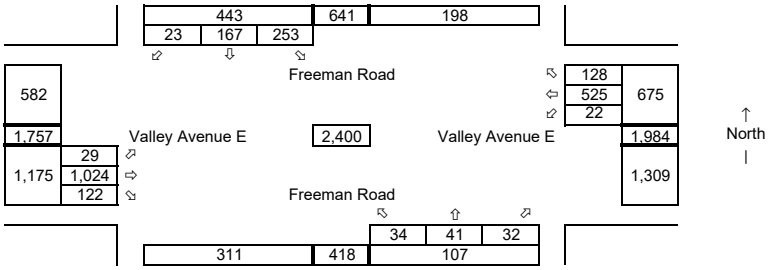
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



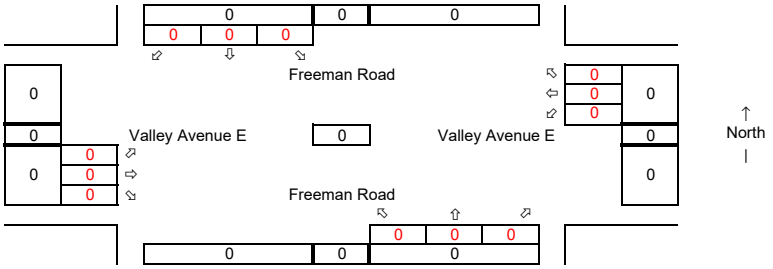
Total Development Trips
Average Weekday
PM Peak Hour



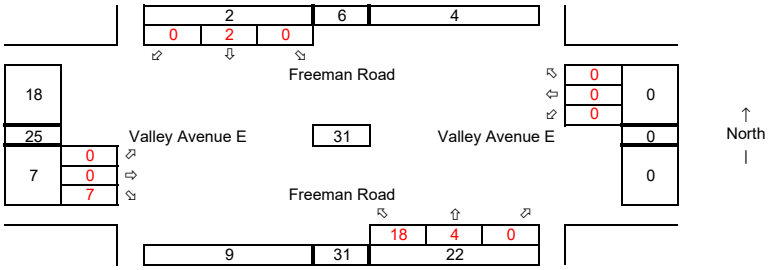
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour



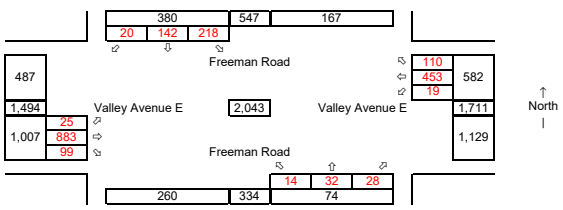
With SR-167 Extension

Synchro ID: 11

Existing
Average Weekday
PM Peak Hour

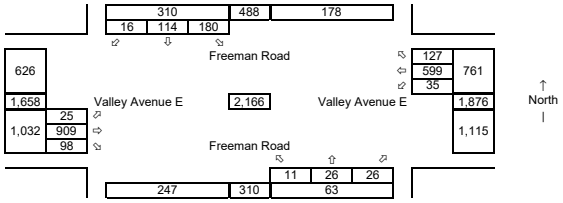
Year: **6/14/2023**

Data Source: IDAX

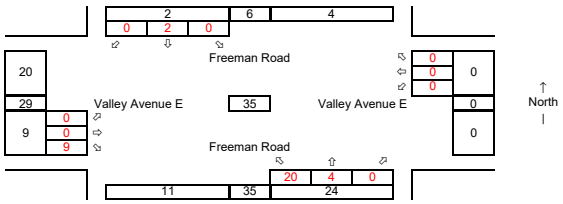


Future without Project
Average Weekday
PM Peak Hour

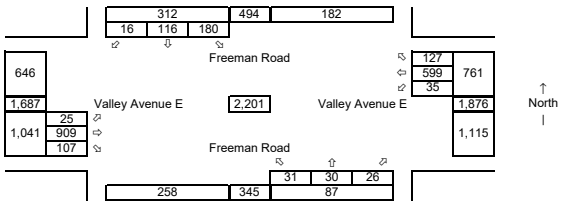
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



Total Development Trips
Average Weekday
PM Peak Hour

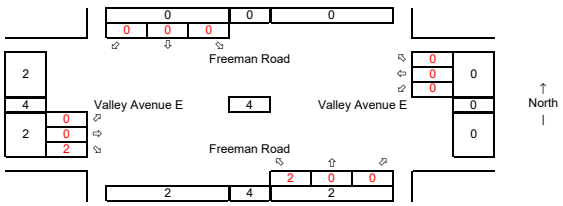


Future with Project
Average Weekday
PM Peak Hour

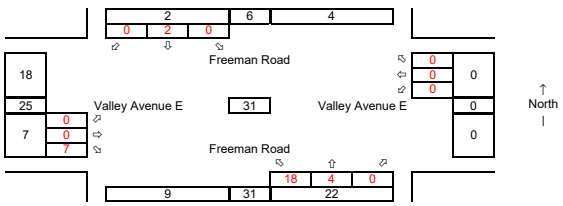


Development Truck Trips
Average Weekday
PM Peak Hour

N/S Diversion % +50%
from 70th Ave E

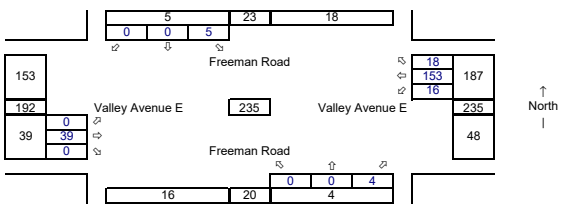


Development Car Trips
Average Weekday
PM Peak Hour



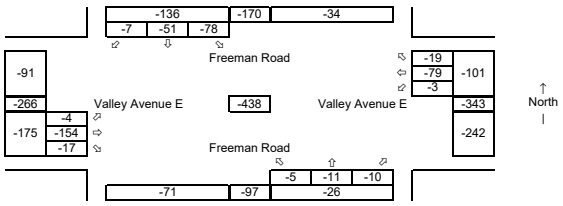
Total Pipeline Project Trips
Average Weekday
PM Peak Hour

Prologis Park Edgewood



SR-167 Extension Diversion
Average Weekday
PM Peak Hour

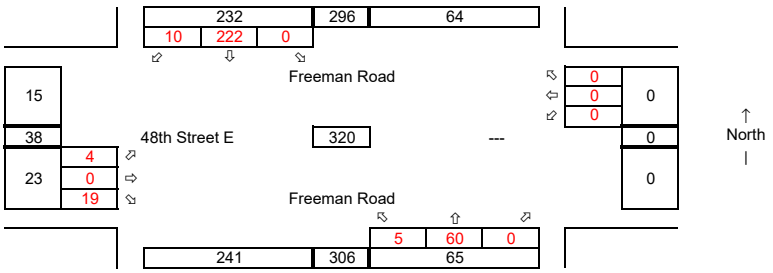
N/S Diversion % -31%
E/W Diversion % -15%



Synchro ID: 12
Existing
Average Weekday
PM Peak Hour

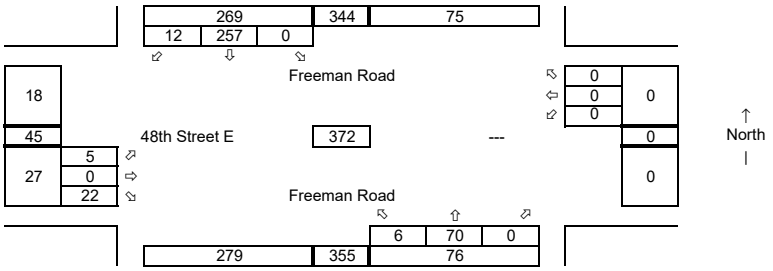
Year: **6/8/2023**

Data Source: IDAX

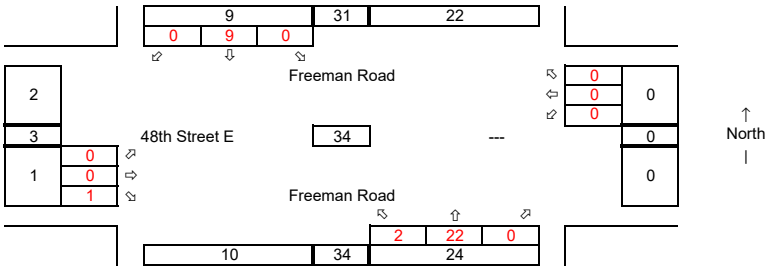


Future without Project
Average Weekday
PM Peak Hour

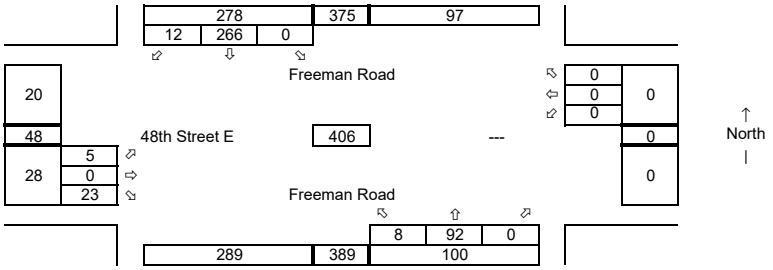
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



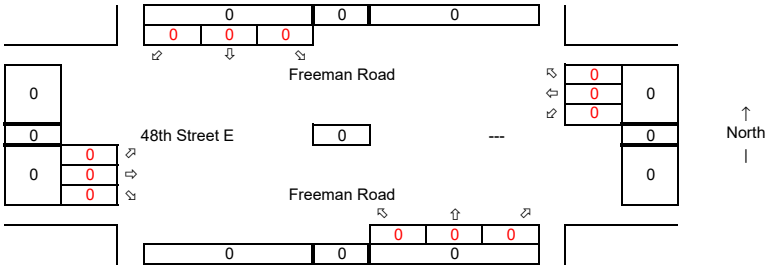
Total Development Trips
Average Weekday
PM Peak Hour



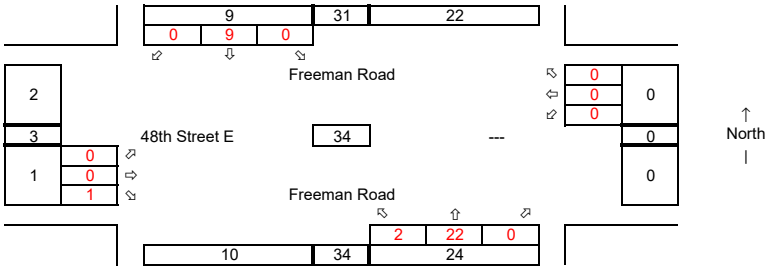
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



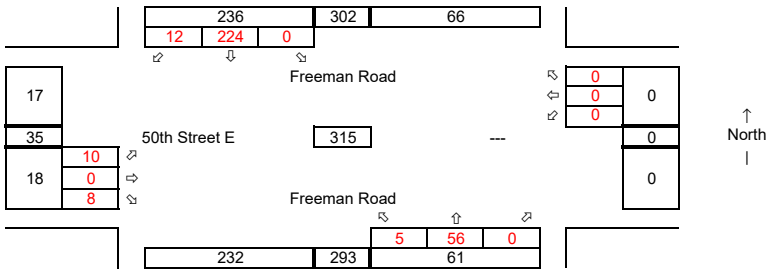
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 13
Existing
Average Weekday
PM Peak Hour

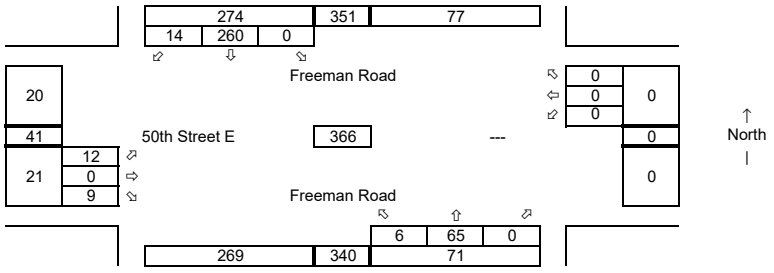
Year: **6/8/2023**

Data Source: IDAX

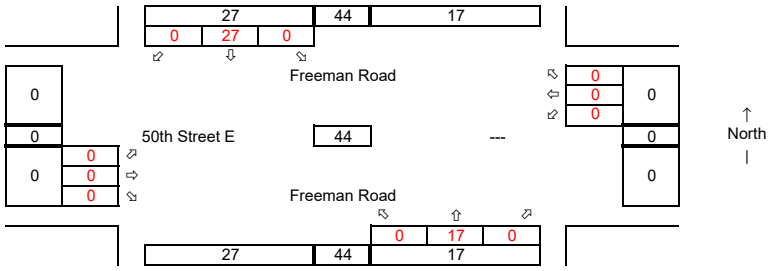


Future without Project
Average Weekday
PM Peak Hour

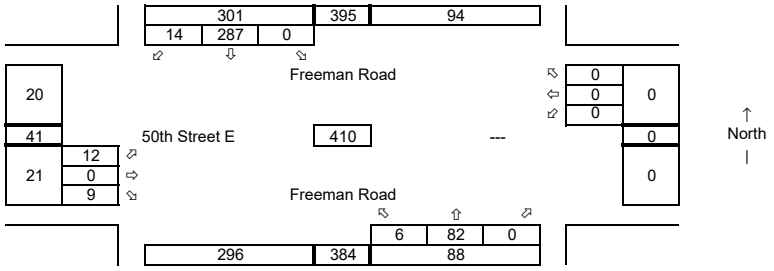
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



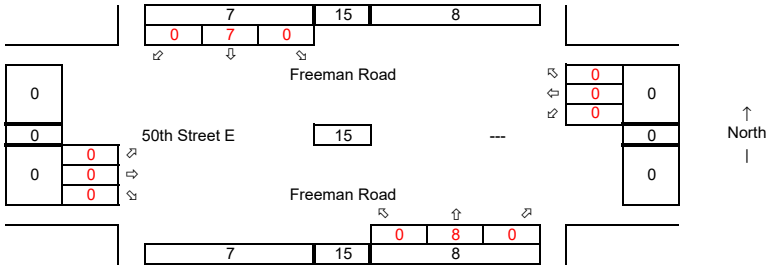
Total Development Trips
Average Weekday
PM Peak Hour



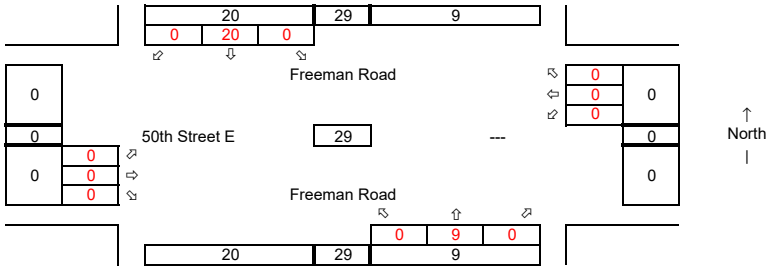
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



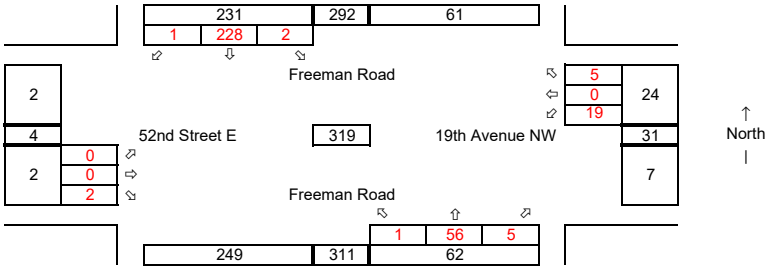
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 14
Existing
Average Weekday
PM Peak Hour

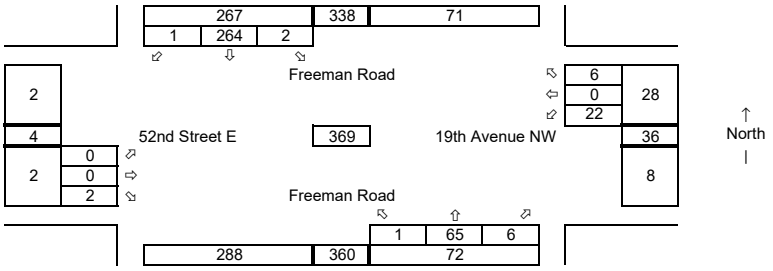
Year: **6/8/2023**

Data Source: IDAX

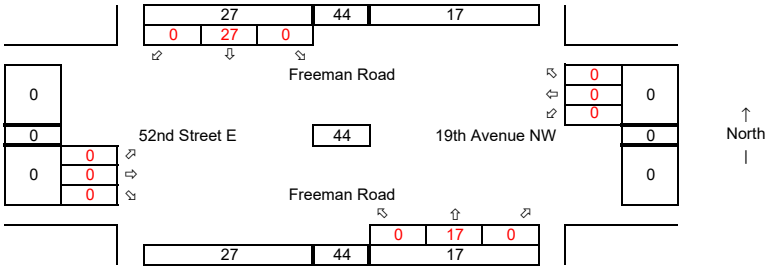


Future without Project
Average Weekday
PM Peak Hour

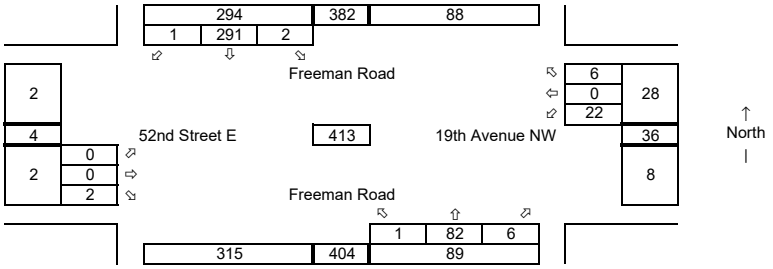
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



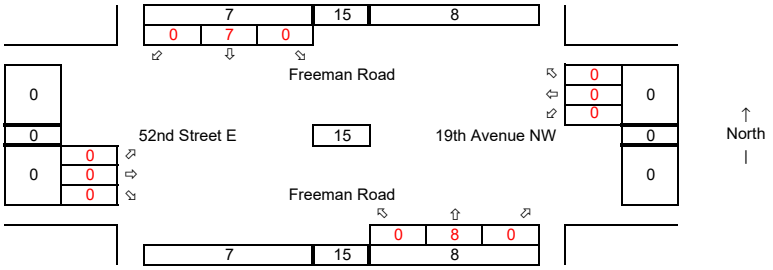
Total Development Trips
Average Weekday
PM Peak Hour



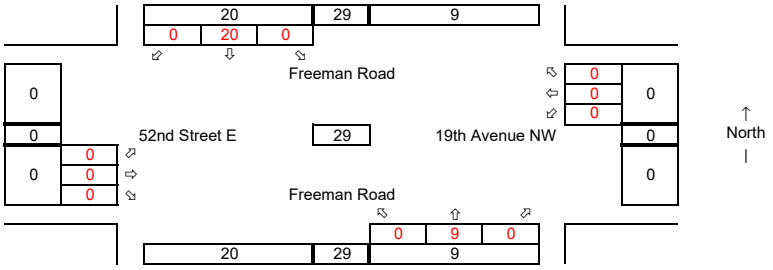
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



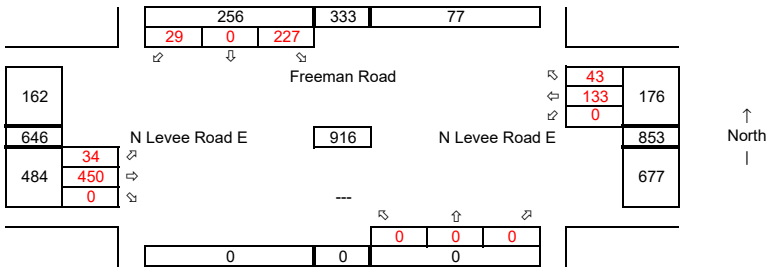
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 15
Existing
Average Weekday
PM Peak Hour

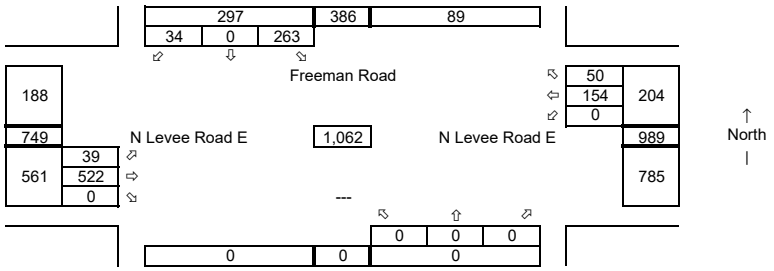
Year: **6/15/2023**

Data Source: IDAX

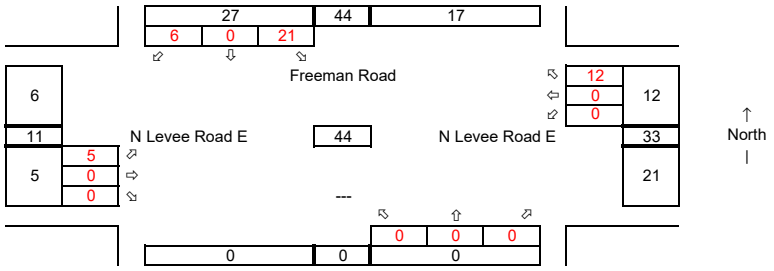


Future without Project
Average Weekday
PM Peak Hour

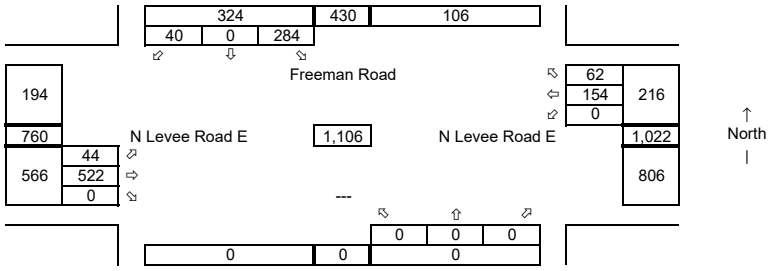
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



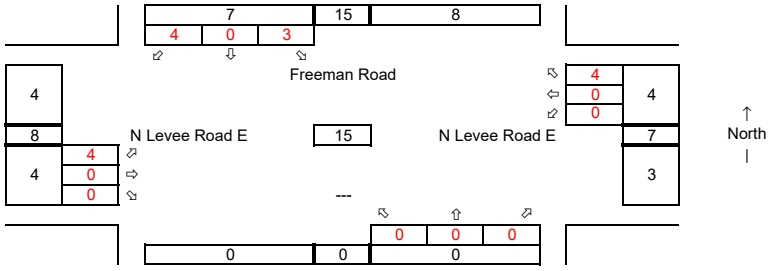
Total Development Trips
Average Weekday
PM Peak Hour



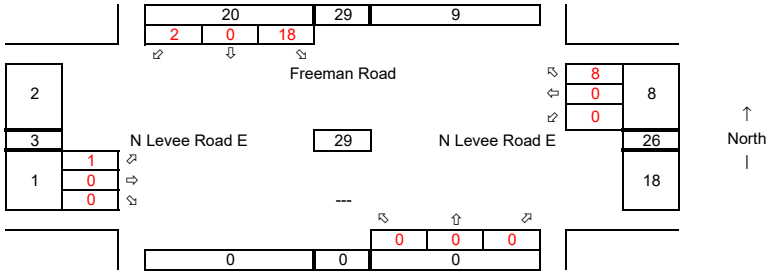
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour



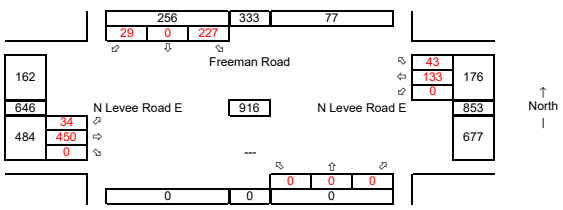
With SR-167 Extension

Synchro ID: 15

Existing
Average Weekday
PM Peak Hour

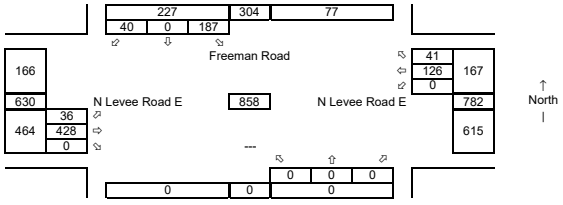
Year: **6/15/2023**

Data Source: IDAX

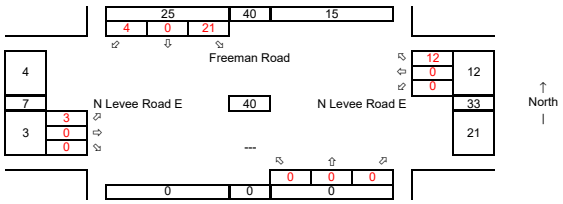


Future without Project
Average Weekday
PM Peak Hour

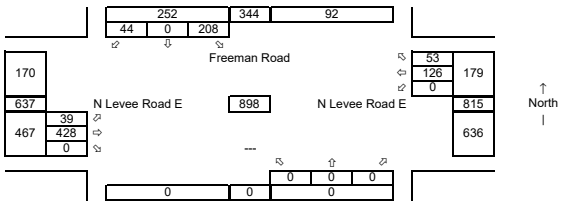
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



Total Development Trips
Average Weekday
PM Peak Hour

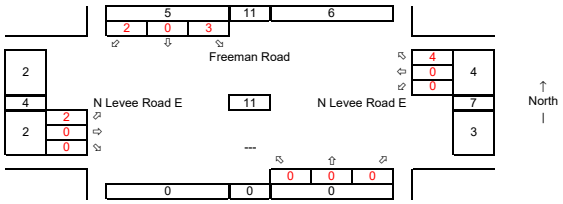


Future with Project
Average Weekday
PM Peak Hour

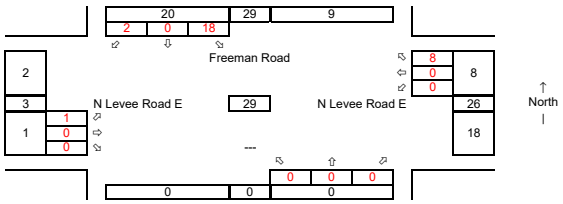


Development Truck Trips
Average Weekday
PM Peak Hour

N/S Diversion % -50%
from 70th Ave E

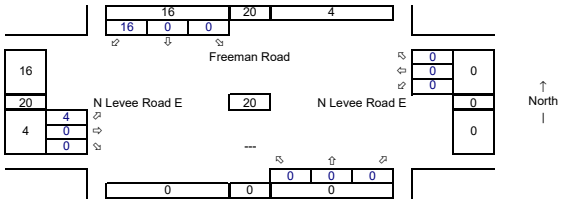


Development Car Trips
Average Weekday
PM Peak Hour



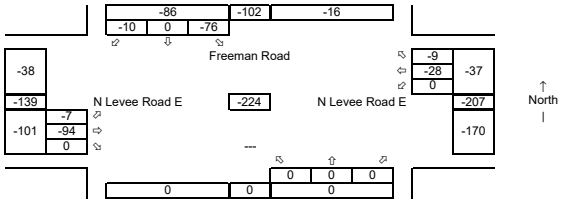
Total Pipeline Project Trips
Average Weekday
PM Peak Hour

Prologis Park Edgewood



SR-167 Extension Diversion
Average Weekday
PM Peak Hour

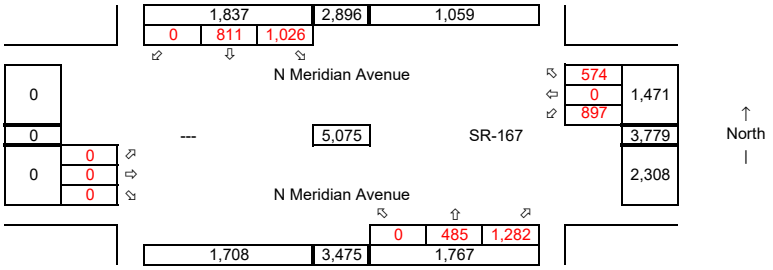
N/S Diversion % -29%
E/W Diversion % -18%



Synchro ID: 16
Existing
Average Weekday
PM Peak Hour

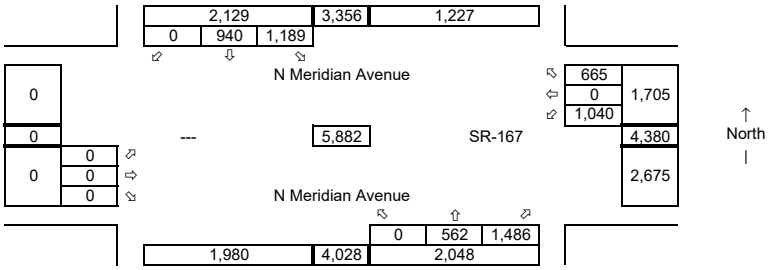
Year: **6/14/2023**

Data Source: IDAX

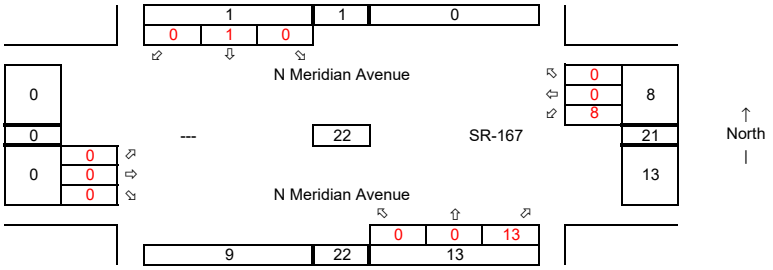


Future without Project
Average Weekday
PM Peak Hour

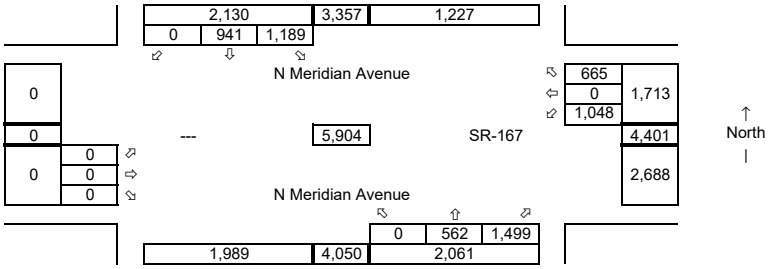
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



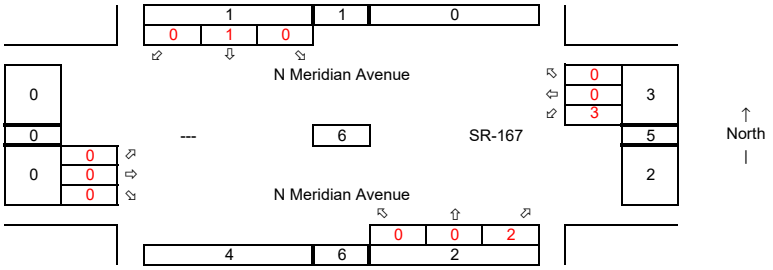
Total Development Trips
Average Weekday
PM Peak Hour



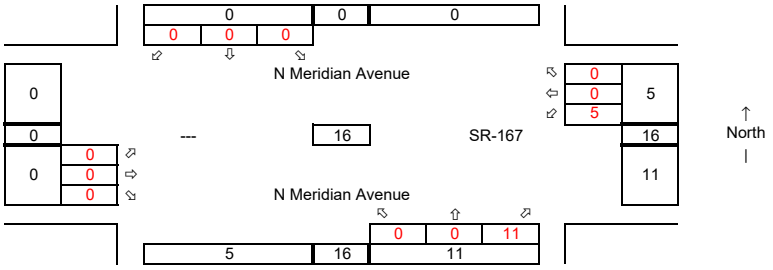
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



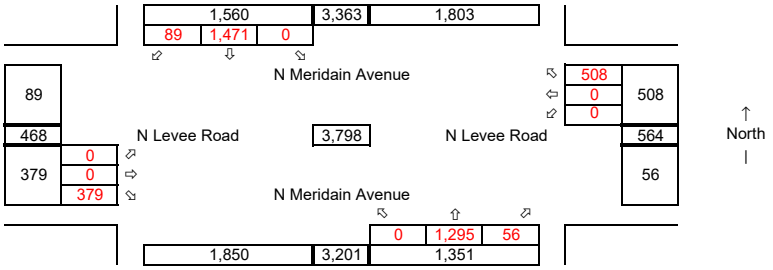
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 17
Existing
Average Weekday
PM Peak Hour

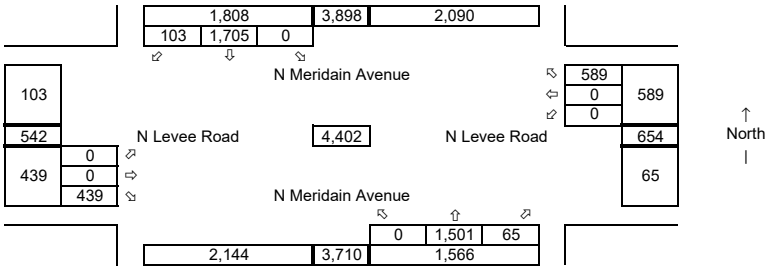
Year: **6/14/2023**

Data Source: IDAX

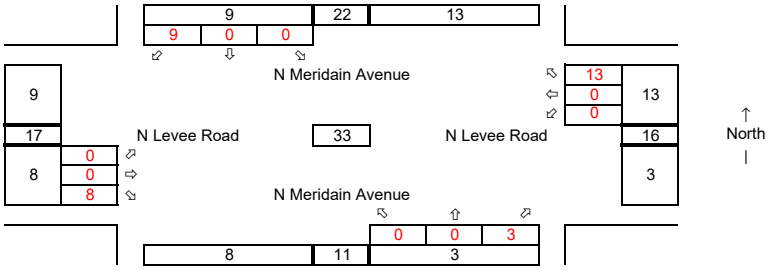


Future without Project
Average Weekday
PM Peak Hour

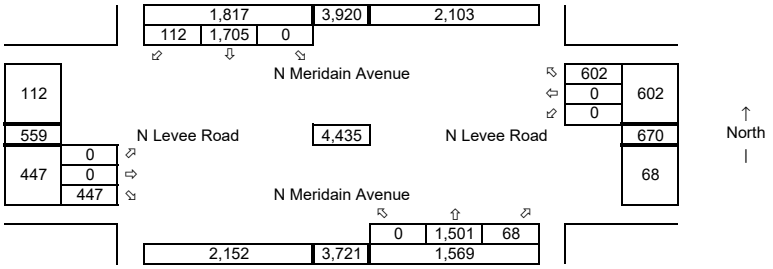
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



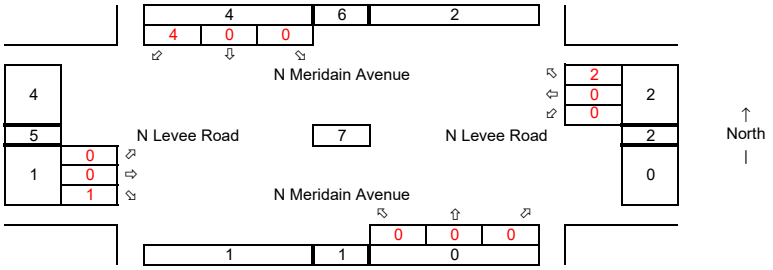
Total Development Trips
Average Weekday
PM Peak Hour



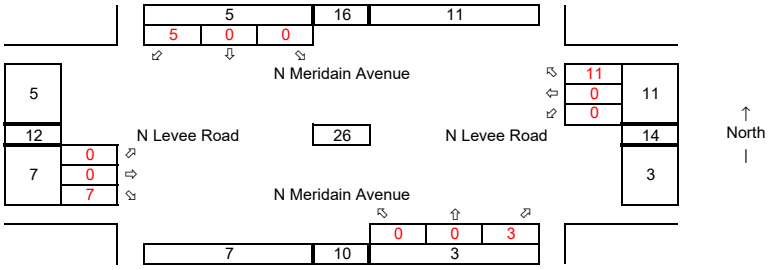
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



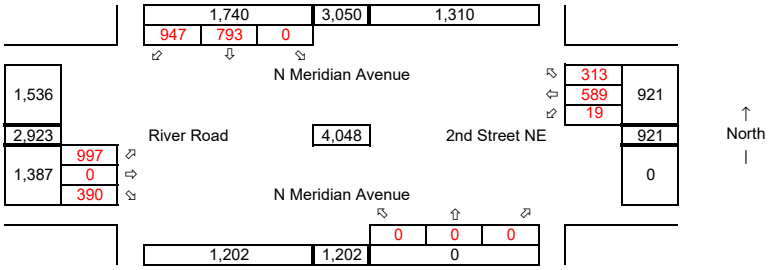
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 18
Existing
Average Weekday
PM Peak Hour

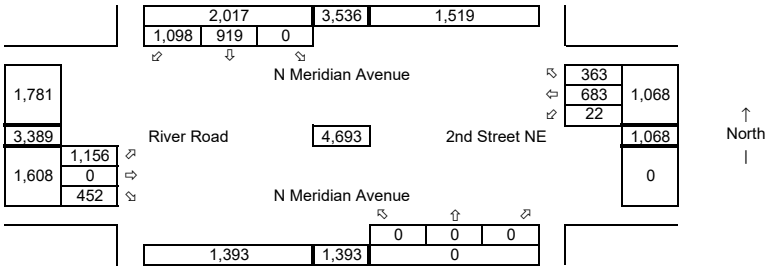
Year: **6/14/2023**

Data Source: IDAX

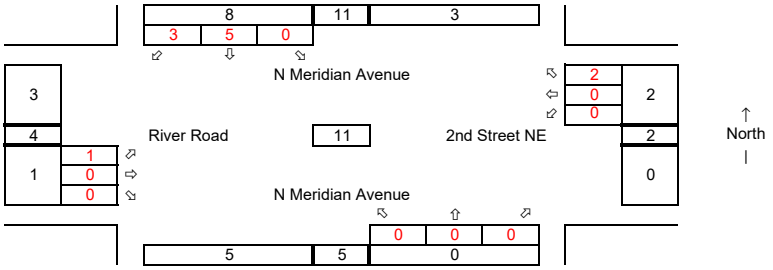


Future without Project
Average Weekday
PM Peak Hour

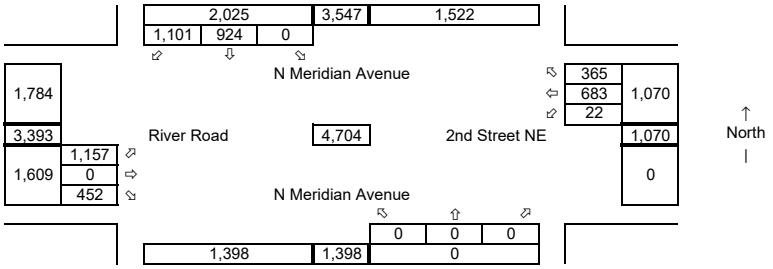
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



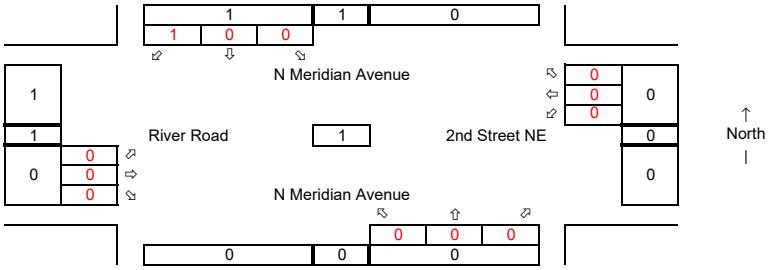
Total Development Trips
Average Weekday
PM Peak Hour



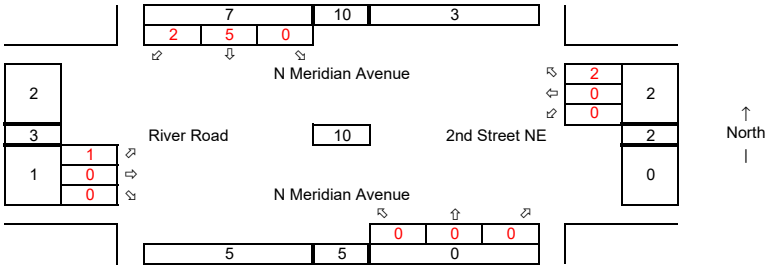
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour

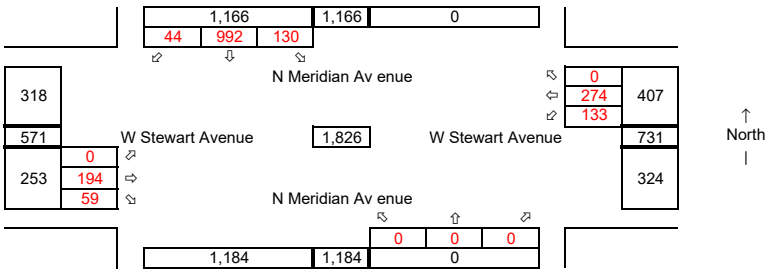


Synchro ID: 19
Existing
Average Weekday
PM Peak Hour

Year: **6/14/2023**

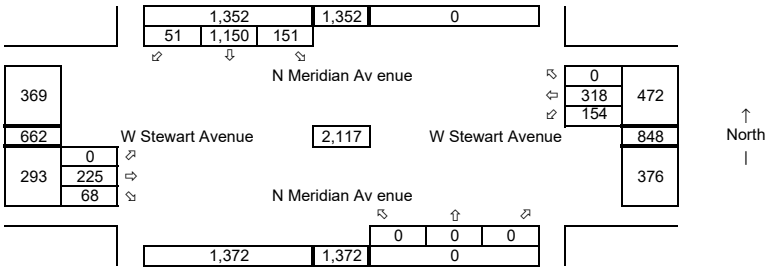
Data Source: IDAX

One (1) Westbound U-turn
added to Westbound left-turns

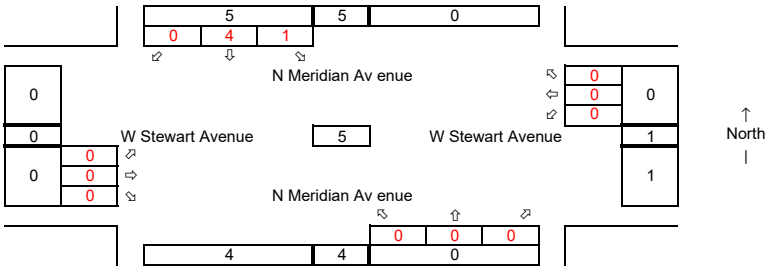


Future without Project
Average Weekday
PM Peak Hour

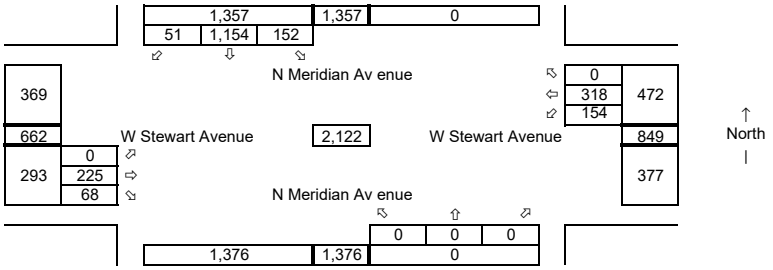
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



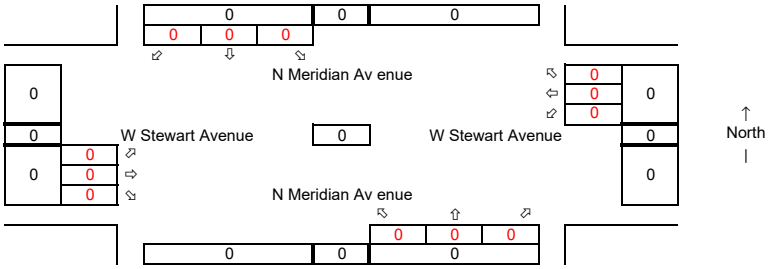
Total Development Trips
Average Weekday
PM Peak Hour



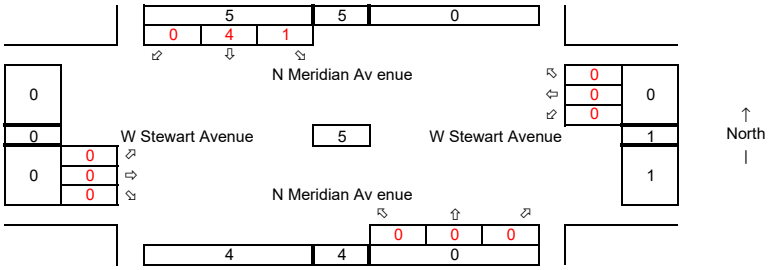
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



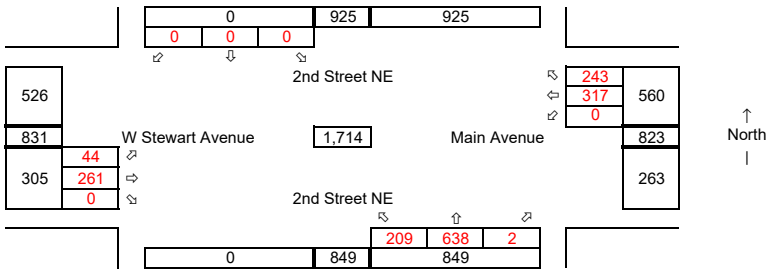
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 20
Existing
Average Weekday
PM Peak Hour

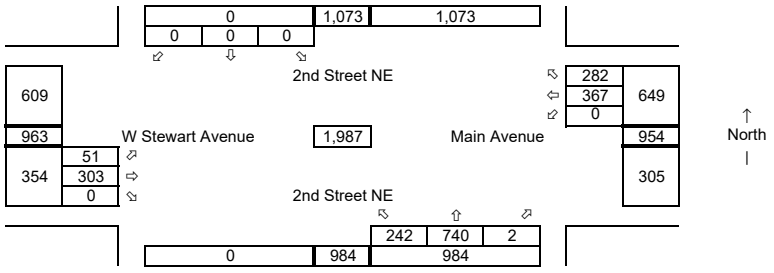
Year: **6/15/2023**

Data Source: IDAX

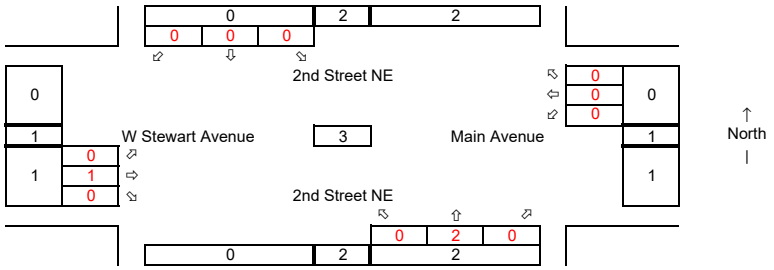


Future without Project
Average Weekday
PM Peak Hour

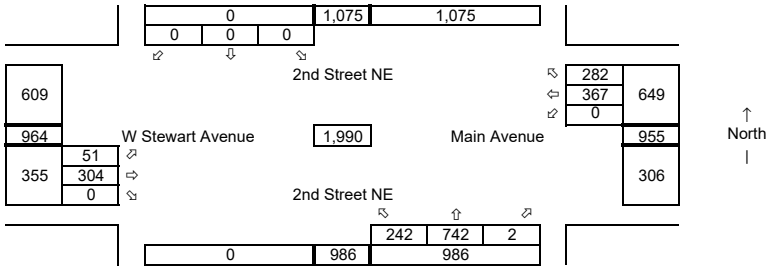
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



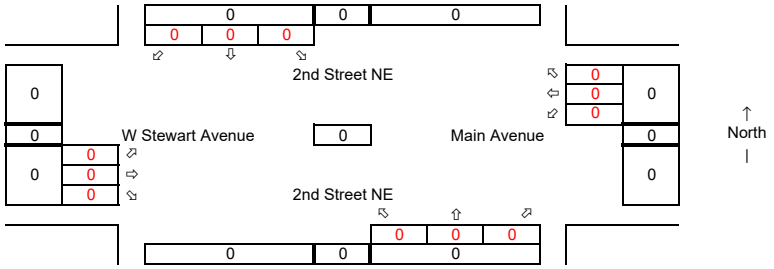
Total Development Trips
Average Weekday
PM Peak Hour



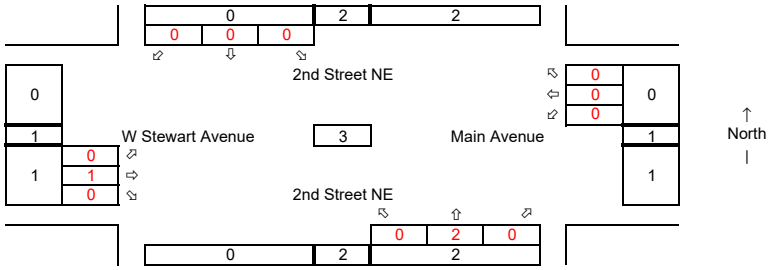
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour

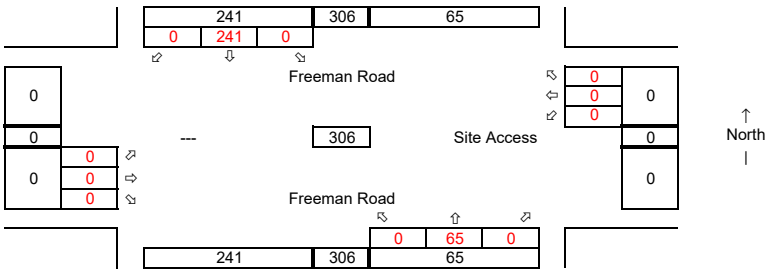


Synchro ID: 21
Existing
Average Weekday
PM Peak Hour

Year: **6/8/2023**

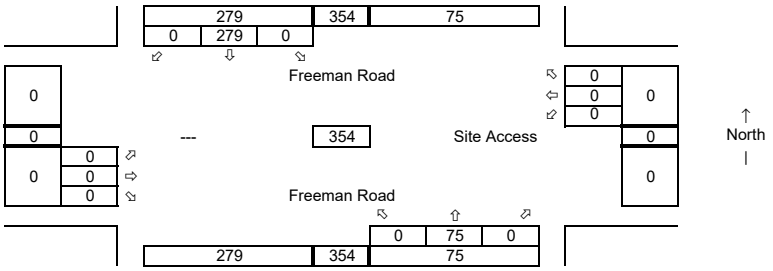
Data Source: IDAX

NB/SB volumes extrapolated
from Freeman at 48th Street E

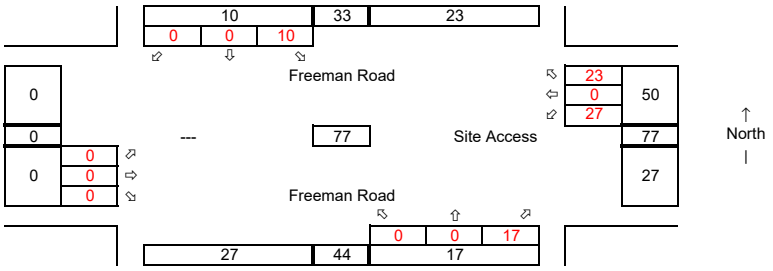


Future without Project
Average Weekday
PM Peak Hour

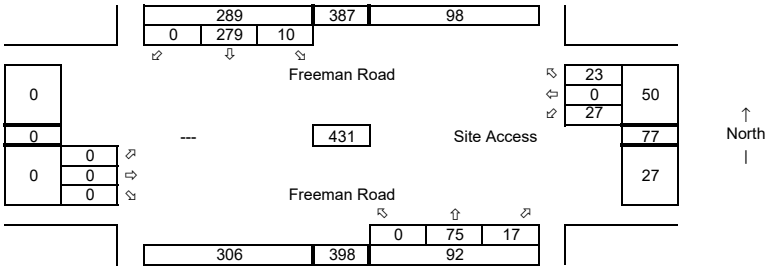
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



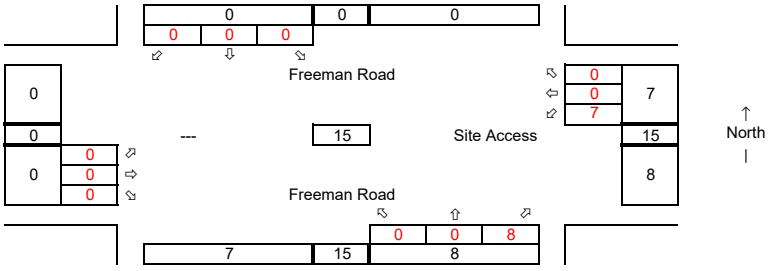
Total Development Trips
Average Weekday
PM Peak Hour



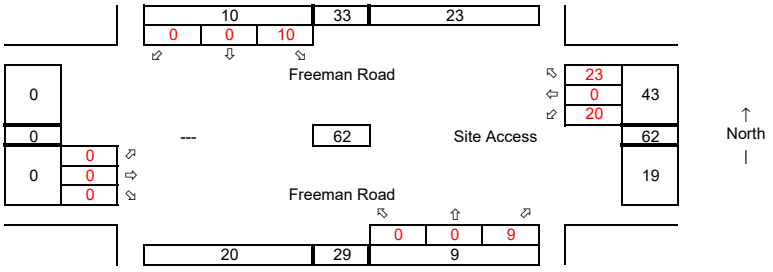
Future with Project
Average Weekday
PM Peak Hour

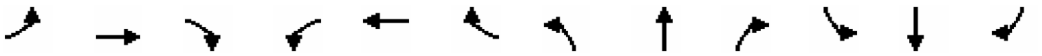


Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour





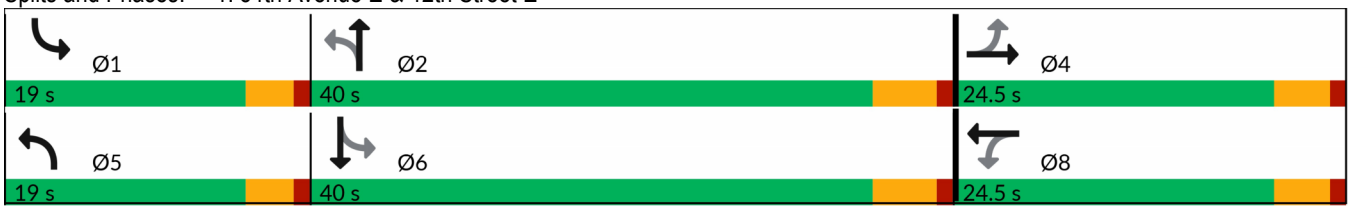
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	150	45	83	234	191	38	330	49	153	497	51
Future Volume (vph)	19	150	45	83	234	191	38	330	49	153	497	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		0	100		0	100		0
Storage Lanes	1		0	1		0	1		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	0.95	0.95	1.00	0.95	0.95
Frt		0.966			0.933			0.980			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1596	0	1570	1541	0	1570	3076	0	1570	3095	0
Flt Permitted	0.200			0.533			0.435			0.459		
Satd. Flow (perm)	330	1596	0	881	1541	0	719	3076	0	758	3095	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			46			24			16	
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		727			778			1175			536	
Travel Time (s)		19.8			15.2			22.9			10.4	
Peak Hour 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
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	20	205	0	87	447	0	40	399	0	161	577	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	24.5	24.5		24.5	24.5		10.5	19.0		10.5	17.0	
Total Split (s)	24.5	24.5		24.5	24.5		19.0	40.0		19.0	40.0	
Total Split (%)	29.3%	29.3%		29.3%	29.3%		22.8%	47.9%		22.8%	47.9%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		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		4.0	5.0		4.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Max		None	Max	
Act Effct Green (s)	20.0	20.0		20.0	20.0		42.4	35.0		48.3	41.5	
Actuated g/C Ratio	0.26	0.26		0.26	0.26		0.55	0.45		0.62	0.54	
v/c Ratio	0.24	0.48		0.38	1.03		0.09	0.28		0.28	0.35	
Control Delay (s/veh)	31.7	27.0		30.1	80.8		6.2	13.3		7.2	11.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	31.7	27.0		30.1	80.8		6.2	13.3		7.2	11.5	
LOS	C	C		C	F		A	B		A	B	
Approach Delay (s/veh)		27.5			72.5			12.7			10.6	
Approach LOS		C			E			B			B	
Queue Length 50th (ft)	8	76		34	~216		6	56		28	84	
Queue Length 95th (ft)	29	145		79	#410		17	92		51	124	

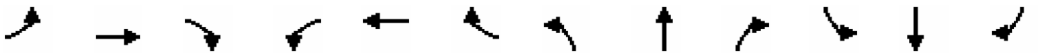
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		647			698			1095			456	
Turn Bay Length (ft)	100			200			100			100		
Base Capacity (vph)	85	425		228	433		618	1406		635	1667	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.24	0.48		0.38	1.03		0.06	0.28		0.25	0.35	

Intersection Summary			
Area Type:	Other		
Cycle Length: 83.5			
Actuated Cycle Length: 77.3			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.03			
Intersection Signal Delay (s/veh): 30.1		Intersection LOS: C	
Intersection Capacity Utilization 64.3%		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: 1: 54th Avenue E & 12th Street E



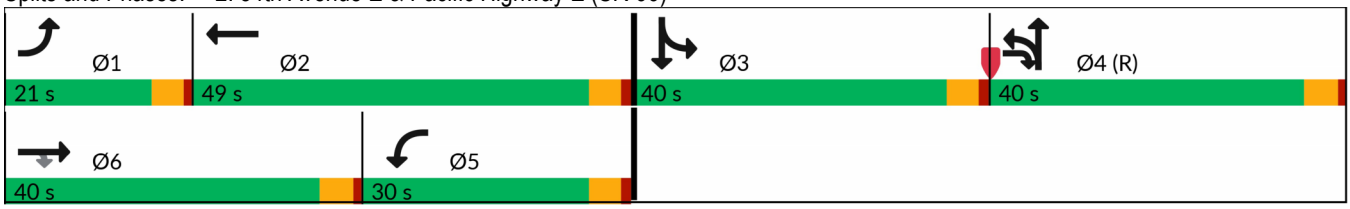


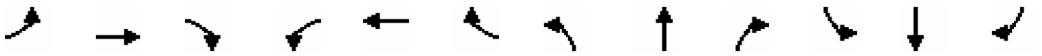
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	115	509	403	789	788	134	386	284	470	196	471	87
Future Volume (vph)	115	509	403	789	788	134	386	284	470	196	471	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	550		0	150		0	125		0
Storage Lanes	1		1	2		0	2		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.978			0.906			0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1626	3252	1455	3155	3181	0	3155	2947	0	1626	3177	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1626	3252	1455	3155	3181	0	3155	2947	0	1626	3177	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			47		13			262			13	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1085			1070			320			1175	
Travel Time (s)		21.1			20.8			6.2			22.9	
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 (%)	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	122	541	429	839	981	0	411	802	0	209	594	0
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		3	3	
Permitted Phases			6									
Detector Phase	1	6	4	5	2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	10.5	38.7	35.7	22.5	37.7		35.7	35.7		38.7	38.7	
Total Split (s)	21.0	40.0	40.0	30.0	49.0		40.0	40.0		40.0	40.0	
Total Split (%)	14.0%	26.7%	26.7%	20.0%	32.7%		26.7%	26.7%		26.7%	26.7%	
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		3.7	3.7		3.7	3.7	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7	4.7	4.5	4.7		4.7	4.7		4.7	4.7	
Lead/Lag	Lead	Lead	Lag	Lag	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	C-Max	None	None		C-Max	C-Max		None	None	
Act Effct Green (s)	14.9	30.0	73.4	29.2	44.3		38.8	38.8		33.5	33.5	
Actuated g/C Ratio	0.10	0.20	0.49	0.19	0.30		0.26	0.26		0.22	0.22	
v/c Ratio	0.76	0.83	0.58	1.37	1.03		0.50	0.88dr		0.58	0.83	
Control Delay (s/veh)	93.6	69.2	27.9	219.0	88.7		58.7	53.5		58.6	64.8	
Queue Delay	0.0	0.0	0.1	0.0	0.0		2.0	23.3		0.0	0.6	
Total Delay (s/veh)	93.6	69.2	28.0	219.0	88.7		60.7	76.8		58.6	65.5	
LOS	F	E	C	F	F		E	E		E	E	
Approach Delay (s/veh)		55.8			148.8			71.4			63.7	
Approach LOS		E			F			E			E	
Queue Length 50th (ft)	117	268	273	~546	~536		197	325		181	283	
Queue Length 95th (ft)	#204	325	366	#728	#675		245	#408		270	356	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1005			990			240			1095	
Turn Bay Length (ft)	225			550			150			125		
Base Capacity (vph)	178	765	736	614	948		815	955		382	757	
Starvation Cap Reductn	0	0	0	0	0		260	177		0	0	
Spillback Cap Reductn	0	0	16	0	0		0	0		0	29	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.69	0.71	0.60	1.37	1.03		0.74	1.03		0.55	0.82	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 10 (7%), Referenced to phase 4:NBTL, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.37			
Intersection Signal Delay (s/veh): 95.3		Intersection LOS: F	
Intersection Capacity Utilization 85.9%		ICU Level of Service E	
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.			
dr Defacto Right Lane. Recode with 1 though lane as a right lane.			

Splits and Phases: 2: 54th Avenue E & Pacific Highway E (SR-99)



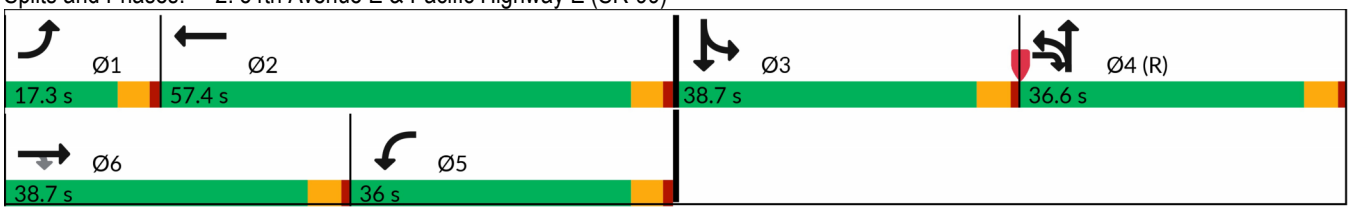


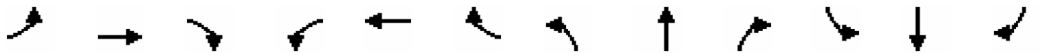
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	115	509	403	789	788	134	386	284	470	196	471	87
Future Volume (vph)	115	509	403	789	788	134	386	284	470	196	471	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	550		0	150		0	125		0
Storage Lanes	1		1	2		0	2		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.978			0.906			0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1626	3252	1455	3155	3181	0	3155	2947	0	1626	3177	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1626	3252	1455	3155	3181	0	3155	2947	0	1626	3177	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			47		14			254			13	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1085			1070			320			1175	
Travel Time (s)		21.1			20.8			6.2			22.9	
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 (%)	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	122	541	429	839	981	0	411	802	0	209	594	0
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		3	3	
Permitted Phases			6									
Detector Phase	1	6	4	5	2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	10.5	38.7	35.7	22.5	37.7		35.7	35.7		38.7	38.7	
Total Split (s)	17.3	38.7	36.6	36.0	57.4		36.6	36.6		38.7	38.7	
Total Split (%)	11.5%	25.8%	24.4%	24.0%	38.3%		24.4%	24.4%		25.8%	25.8%	
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		3.7	3.7		3.7	3.7	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7	4.7	4.5	4.7		4.7	4.7		4.7	4.7	
Lead/Lag	Lead	Lead	Lag	Lag	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	C-Max	None	None		C-Max	C-Max		None	None	
Act Effct Green (s)	12.7	29.7	70.0	33.3	50.2		35.7	35.7		32.8	32.8	
Actuated g/C Ratio	0.08	0.20	0.47	0.22	0.33		0.24	0.24		0.22	0.22	
v/c Ratio	0.89	0.84	0.61	1.20	0.91		0.55	0.93dr		0.59	0.84	
Control Delay (s/veh)	118.3	70.3	30.8	151.6	60.2		60.2	57.9		59.9	66.8	
Queue Delay	0.0	0.0	0.1	0.0	0.0		2.0	29.8		0.0	0.0	
Total Delay (s/veh)	118.3	70.3	30.9	151.6	60.2		62.2	87.7		59.9	66.8	
LOS	F	E	C	F	E		E	F		E	E	
Approach Delay (s/veh)		60.2			102.3			79.1			65.0	
Approach LOS		E			F			E			E	
Queue Length 50th (ft)	120	268	286	~493	466		198	328		183	286	
Queue Length 95th (ft)	#245	330	392	#662	561		250	#442		273	361	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1005			990			240			1095	
Turn Bay Length (ft)	225			550			150			125		
Base Capacity (vph)	138	737	704	700	1126		750	894		368	730	
Starvation Cap Reductn	0	0	0	0	0		200	134		0	0	
Spillback Cap Reductn	0	0	14	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.88	0.73	0.62	1.20	0.87		0.75	1.06		0.57	0.81	

Intersection Summary	
Area Type:	Other
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 10 (7%), Referenced to phase 4:NBTL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.20	
Intersection Signal Delay (s/veh): 81.2	Intersection LOS: F
Intersection Capacity Utilization 85.9%	ICU Level of Service E
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.	
dr Defacto Right Lane. Recode with 1 though lane as a right lane.	

Splits and Phases: 2: 54th Avenue E & Pacific Highway E (SR-99)





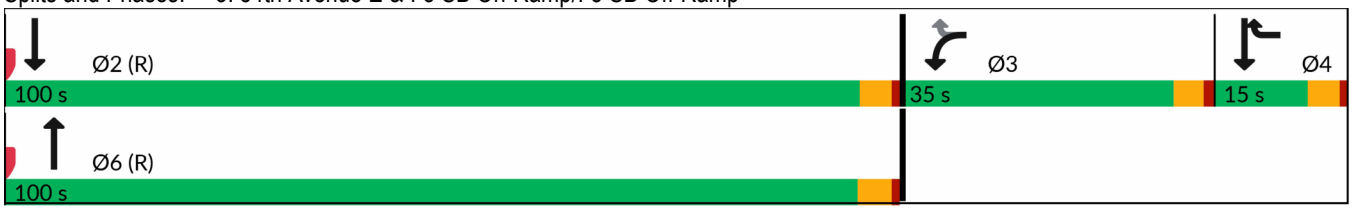
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	314	0	330	0	826	536	0	781	765
Future Volume (vph)	0	0	0	314	0	330	0	826	536	0	781	765
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		25	0		0
Storage Lanes	0		0	1		1	0		1	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	0.95	1.00	1.00	1.00	1.00
Frt						0.850			0.850			0.850
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	1720	0	1539	0	3490	1539	0	1811	1539
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1720	0	1539	0	3490	1539	0	1811	1539
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						181			78			259
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1083			1080			827			320	
Travel Time (s)		24.6			24.5			18.8			7.3	
Peak Hour 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
Bus Blockages (#/hr)	7	7	7	7	7	7	7	7	7	7	7	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	331	0	347	0	869	564	0	822	805
Turn Type				Prot		custom		NA	Free		NA	Free
Protected Phases				3		4		6			2 4	
Permitted Phases						3			Free			Free
Detector Phase				3		4		6			2 4	
Switch Phase												
Minimum Initial (s)				5.0		3.0		10.0				
Minimum Split (s)				22.5		7.5		22.7				
Total Split (s)				35.0		15.0		100.0				
Total Split (%)				23.3%		10.0%		66.7%				
Yellow Time (s)				3.5		3.5		3.7				
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		4.7				
Lead/Lag				Lead		Lag						
Lead-Lag Optimize?				Yes		Yes						
Recall Mode				None		None		C-Max				
Act Effct Green (s)				30.1		45.1		95.7	150.0		110.9	150.0
Actuated g/C Ratio				0.20		0.30		0.64	1.00		0.74	1.00
v/c Ratio				0.96		0.59		0.39	0.37		0.61	0.52
Control Delay (s/veh)				97.8		24.9		13.8	0.7		6.6	3.8
Queue Delay				0.0		6.5		0.1	0.0		8.5	0.0
Total Delay (s/veh)				97.8		31.4		13.9	0.7		15.1	3.8
LOS				F		C		B	A		B	A
Approach Delay (s/veh)					63.8			8.7			9.5	
Approach LOS					E			A			A	
Queue Length 50th (ft)				323		137		205	0		160	83
Queue Length 95th (ft)				#518		246		247	0		m166	m115

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	
Bus Blockages (#/hr)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	22.5
Total Split (s)	100.0
Total Split (%)	67%
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	C-Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
LOS	
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1003			1000			747			240	
Turn Bay Length (ft)									25			
Base Capacity (vph)				349		589		2225	1539		1338	1539
Starvation Cap Reductn				0		0		0	0		477	0
Spillback Cap Reductn				0		189		429	0		0	0
Storage Cap Reductn				0		0		0	0		0	0
Reduced v/c Ratio				0.95		0.87		0.48	0.37		0.95	0.52

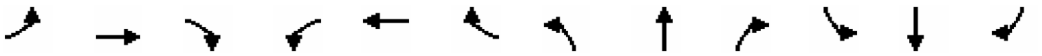
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 60 (40%), Referenced to phase 2:SBT and 6:NBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay (s/veh): 19.1		Intersection LOS: B	
Intersection Capacity Utilization 65.6%		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.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 3: 54th Avenue E & I-5 SB On-Ramp/I-5 SB Off-Ramp



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

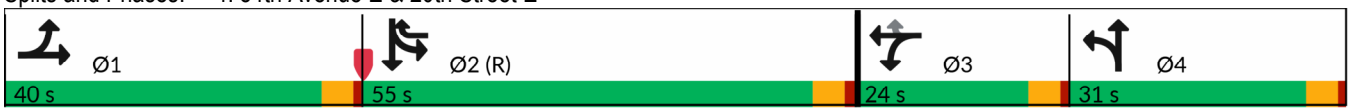


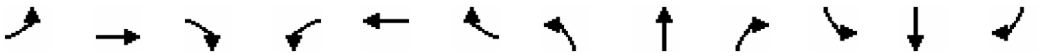
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	342	336	213	27	199	584	163	478	26	390	721	306
Future Volume (vph)	342	336	213	27	199	584	163	478	26	390	721	306
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	275		0	200		0	175		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.95
Frt		0.946				0.850		0.992			0.957	
Flt Protected	0.950	0.997			0.994		0.950			0.950	0.998	
Satd. Flow (prot)	1421	2822	0	0	1634	1398	1562	3099	0	1421	2858	0
Flt Permitted	0.950	0.997			0.994		0.950			0.950	0.998	
Satd. Flow (perm)	1421	2822	0	0	1634	1398	1562	3099	0	1421	2858	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		60				101		3			39	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		738			676			783			335	
Travel Time (s)		14.4			13.2			17.8			7.6	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Shared Lane Traffic (%)	12%									10%		
Lane Group Flow (vph)	307	602	0	0	231	596	166	515	0	358	1088	0
Turn Type	Split	NA		Split	NA	pm+ov	Split	NA		Split	NA	
Protected Phases	1	1		3	3	2	4	4		2	2	
Permitted Phases						3						
Detector Phase	1	1		3	3	2	4	4		2	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	24.5	24.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	40.0	40.0		24.0	24.0	55.0	31.0	31.0		55.0	55.0	
Total Split (%)	26.7%	26.7%		16.0%	16.0%	36.7%	20.7%	20.7%		36.7%	36.7%	
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	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	Lead	Lag	Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	C-Max	None	None		C-Max	C-Max	
Act Effct Green (s)	34.3	34.3			19.5	76.1	26.1	26.1		52.1	52.1	
Actuated g/C Ratio	0.23	0.23			0.13	0.51	0.17	0.17		0.35	0.35	
v/c Ratio	0.94	0.87			1.09	0.79	0.61	0.95		0.73	1.07	
Control Delay (s/veh)	94.1	64.1			146.3	34.1	67.8	88.9		53.4	93.1	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	94.1	64.1			146.3	34.1	67.8	88.9		53.4	93.1	
LOS	F	E			F	C	E	F		D	F	
Approach Delay (s/veh)		74.2			65.5			83.8			83.3	
Approach LOS		E			E			F			F	
Queue Length 50th (ft)	324	283			~253	409	152	263		341	~648	
Queue Length 95th (ft)	#523	#370			#430	596	235	#376		483	#796	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		658			596			703			255	
Turn Bay Length (ft)	300						200			175		
Base Capacity (vph)	336	713			212	759	275	549		493	1018	
Starvation Cap Reductn	0	0			0	0	0	0		0	0	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.91	0.84			1.09	0.79	0.60	0.94		0.73	1.07	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 20 (13%), Referenced to phase 2:SBTL, Start of Green			
Natural Cycle: 135			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.09			
Intersection Signal Delay (s/veh): 77.4		Intersection LOS: E	
Intersection Capacity Utilization 93.6%		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.			

Splits and Phases: 4: 54th Avenue E & 20th Street E



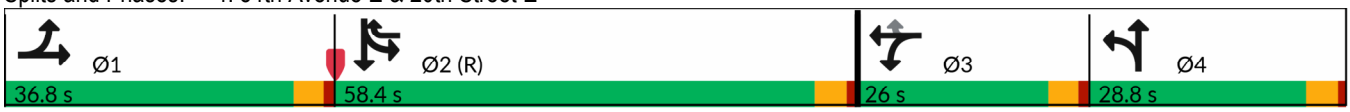


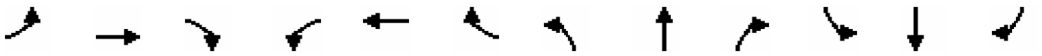
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	342	336	213	27	199	584	163	478	26	390	721	306
Future Volume (vph)	342	336	213	27	199	584	163	478	26	390	721	306
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	275		0	200		0	175		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.95
Frt		0.946				0.850		0.992			0.957	
Flt Protected	0.950	0.997			0.994		0.950			0.950	0.998	
Satd. Flow (prot)	1421	2822	0	0	1634	1398	1562	3099	0	1421	2858	0
Flt Permitted	0.950	0.997			0.994		0.950			0.950	0.998	
Satd. Flow (perm)	1421	2822	0	0	1634	1398	1562	3099	0	1421	2858	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		58				81		3			41	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		738			676			783			335	
Travel Time (s)		14.4			13.2			17.8			7.6	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Shared Lane Traffic (%)	12%									10%		
Lane Group Flow (vph)	307	602	0	0	231	596	166	515	0	358	1088	0
Turn Type	Split	NA		Split	NA	pm+ov	Split	NA		Split	NA	
Protected Phases	1	1		3	3	2	4	4		2	2	
Permitted Phases						3						
Detector Phase	1	1		3	3	2	4	4		2	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	24.5	24.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	36.8	36.8		26.0	26.0	58.4	28.8	28.8		58.4	58.4	
Total Split (%)	24.5%	24.5%		17.3%	17.3%	38.9%	19.2%	19.2%		38.9%	38.9%	
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	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	Lead	Lag	Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	C-Max	None	None		C-Max	C-Max	
Act Effct Green (s)	32.3	32.3			21.5	79.9	24.3	24.3		53.9	53.9	
Actuated g/C Ratio	0.22	0.22			0.14	0.53	0.16	0.16		0.36	0.36	
v/c Ratio	1.01	0.92			0.99	0.76	0.66	1.02		0.70	1.03	
Control Delay (s/veh)	110.7	72.4			118.6	31.2	72.3	106.0		50.0	81.4	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	110.7	72.4			118.6	31.2	72.3	106.0		50.0	81.4	
LOS	F	E			F	C	E	F		D	F	
Approach Delay (s/veh)		85.3			55.6			97.8			73.6	
Approach LOS		F			E			F			E	
Queue Length 50th (ft)	~335	293			229	394	154	~279		328	~610	
Queue Length 95th (ft)	#557	#413			#408	569	239	#401		465	#759	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		658			596			703			255	
Turn Bay Length (ft)	300						200			175		
Base Capacity (vph)	305	653			234	782	253	504		510	1053	
Starvation Cap Reductn	0	0			0	0	0	0		0	0	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	1.01	0.92			0.99	0.76	0.66	1.02		0.70	1.03	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 20 (13%), Referenced to phase 2:SBTL, Start of Green			
Natural Cycle: 135			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.03			
Intersection Signal Delay (s/veh): 76.8		Intersection LOS: E	
Intersection Capacity Utilization 93.6%		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.			

Splits and Phases: 4: 54th Avenue E & 20th Street E





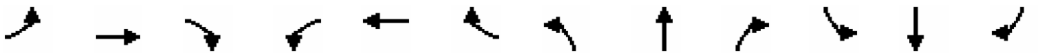
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	3	7	0	122	1	458	6	96	700	0
Future Volume (vph)	1	0	3	7	0	122	1	458	6	96	700	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	0		0	100		0
Storage Lanes	0		0	1		0	1		0	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	1.00	1.00	1.00	1.00	1.00
Frt		0.899			0.850			0.998				
Flt Protected		0.988		0.950			0.950			0.950		
Satd. Flow (prot)	0	1638	0	1752	1568	0	1752	1841	0	1752	1845	1845
Flt Permitted		0.874		0.672			0.315			0.364		
Satd. Flow (perm)	0	1449	0	1240	1568	0	581	1841	0	671	1845	1845
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		74			554			1				
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		362			838			554			783	
Travel Time (s)		9.9			22.9			12.6			17.8	
Peak Hour 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
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	4	0	7	128	0	1	488	0	101	737	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6			2		2
Detector Phase	3	8		7	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	6.0
Minimum Split (s)	9.5	24.5		22.5	24.0		9.5	22.5		9.5	22.5	22.5
Total Split (s)	14.0	16.5		14.0	16.0		14.0	34.5		16.0	36.5	36.5
Total Split (%)	17.3%	20.4%		17.3%	19.8%		17.3%	42.6%		19.8%	45.1%	45.1%
Yellow Time (s)	3.0	3.5		3.0	3.0		3.0	3.5		3.0	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		0.0	0.0	0.0
Total Lost Time (s)		4.5		4.0	4.0		4.0	4.5		4.0	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max		None	Max	Max
Act Effct Green (s)		5.5		7.7	7.7		39.3	35.1		43.7	42.6	
Actuated g/C Ratio		0.10		0.13	0.13		0.68	0.61		0.76	0.74	
v/c Ratio		0.02		0.03	0.19		0.00	0.43		0.16	0.54	
Control Delay (s/veh)		0.3		21.4	0.6		4.0	11.2		3.6	9.4	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)		0.3		21.4	0.6		4.0	11.2		3.6	9.4	
LOS		A		C	A		A	B		A	A	
Approach Delay (s/veh)		0.3			1.7			11.2			8.7	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)		0		2	0		0	92		6	73	
Queue Length 95th (ft)		0		11	0		2	239		29	#454	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		282			758			474			703	
Turn Bay Length (ft)				100						100		
Base Capacity (vph)		363		331	788		634	1123		739	1367	
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		0.01		0.02	0.16		0.00	0.43		0.14	0.54	

Intersection Summary			
Area Type:	Other		
Cycle Length: 81			
Actuated Cycle Length: 57.5			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay (s/veh): 8.8		Intersection LOS: A	
Intersection Capacity Utilization 58.1%		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: 5: 54th Avenue E & Driveway/23rd Street E

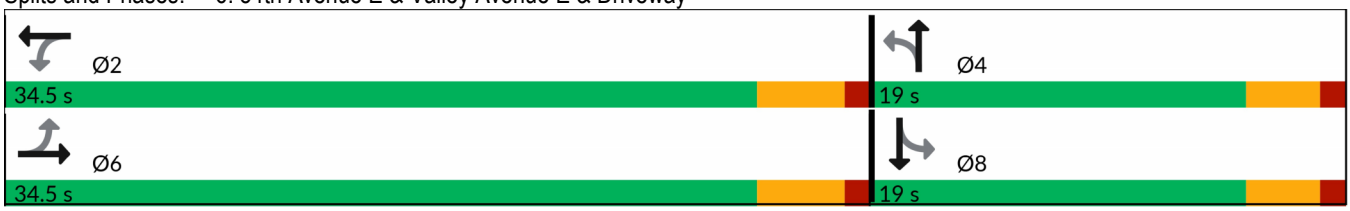


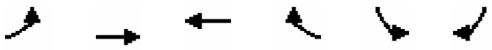
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	697	60	32	452	0	19	0	23	1	0	0
Future Volume (vph)	20	697	60	32	452	0	19	0	23	1	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	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		0.988						0.927				
Flt Protected	0.950			0.950				0.978			0.950	
Satd. Flow (prot)	1770	1840	0	1770	1863	0	0	1689	0	0	1770	0
Flt Permitted	0.484			0.314								
Satd. Flow (perm)	902	1840	0	585	1863	0	0	1727	0	0	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13						31				
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		554			491			578			252	
Travel Time (s)		12.6			11.2			15.8			6.9	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	22	823	0	35	491	0	0	46	0	0	1	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	30.5	30.5		22.5	22.5		32.0	32.0		32.0	32.0	
Total Split (s)	34.5	34.5		34.5	34.5		19.0	19.0		19.0	19.0	
Total Split (%)	64.5%	64.5%		64.5%	64.5%		35.5%	35.5%		35.5%	35.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		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			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		Max	Max		None	None		None	None	
Act Effct Green (s)	45.9	45.9		45.9	45.9			6.4			6.3	
Actuated g/C Ratio	0.88	0.88		0.88	0.88			0.12			0.12	
v/c Ratio	0.03	0.51		0.07	0.30			0.19			0.00	
Control Delay (s/veh)	2.3	3.9		2.5	2.5			13.5			20.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	2.3	3.9		2.5	2.5			13.5			20.0	
LOS	A	A		A	A			B			B	
Approach Delay (s/veh)		3.9			2.5			13.5			20.0	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	0	0		0	0			4			0	
Queue Length 95th (ft)	6	198		9	86			26			4	
Internal Link Dist (ft)		474			411			498			172	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	150			125								
Base Capacity (vph)	797	1627		517	1646			522			540	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.03	0.51		0.07	0.30			0.09			0.00	

Intersection Summary			
Area Type:	Other		
Cycle Length: 53.5			
Actuated Cycle Length: 52			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.51			
Intersection Signal Delay (s/veh): 3.7		Intersection LOS: A	
Intersection Capacity Utilization 50.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 6: 54th Avenue E & Valley Avenue E & Driveway





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø7
Lane Configurations							
Traffic Volume (vph)	68	837	1736	20	10	35	
Future Volume (vph)	68	837	1736	20	10	35	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00	
Frt			0.998		0.894		
Flt Protected	0.950				0.989		
Satd. Flow (prot)	1719	3438	3431	0	1600	0	
Flt Permitted	0.950				0.989		
Satd. Flow (perm)	1719	3438	3431	0	1600	0	
Right Turn on Red				Yes		Yes	
Satd. Flow (RTOR)			1		36		
Link Speed (mph)		30	30		30		
Link Distance (ft)		439	500		370		
Travel Time (s)		10.0	11.4		8.4		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	71	872	1829	0	46	0	
Turn Type	Prot	NA	NA		Prot		
Protected Phases	1	6	2		8		7
Permitted Phases							
Detector Phase	1	6	2		8		
Switch Phase							
Minimum Initial (s)	6.0	10.0	10.0		5.0		5.0
Minimum Split (s)	10.5	23.7	33.7		22.5		31.5
Total Split (s)	19.5	66.2	66.2		34.5		31.5
Total Split (%)	12.9%	43.6%	43.6%		22.7%		21%
Yellow Time (s)	3.5	4.7	4.7		3.5		3.5
All-Red Time (s)	1.0	1.5	1.5		1.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		
Total Lost Time (s)	4.5	6.2	6.2		4.5		
Lead/Lag	Lead		Lag		Lag		Lead
Lead-Lag Optimize?	Yes		Yes		Yes		Yes
Recall Mode	None	Max	None		Max		None
Act Effct Green (s)	10.0	72.3	60.2		30.1		
Actuated g/C Ratio	0.09	0.64	0.53		0.27		
v/c Ratio	0.47	0.40	1.00		0.10		
Control Delay (s/veh)	60.1	10.4	49.2		14.7		
Queue Delay	0.0	0.0	0.0		0.0		
Total Delay (s/veh)	60.1	10.4	49.2		14.7		
LOS	E	B	D		B		
Approach Delay (s/veh)		14.1	49.2		14.7		
Approach LOS		B	D		B		
Queue Length 50th (ft)	51	148	~762		6		
Queue Length 95th (ft)	98	185	#953		36		
Internal Link Dist (ft)		359	420		290		
Turn Bay Length (ft)							
Base Capacity (vph)	228	2424	1826		452		

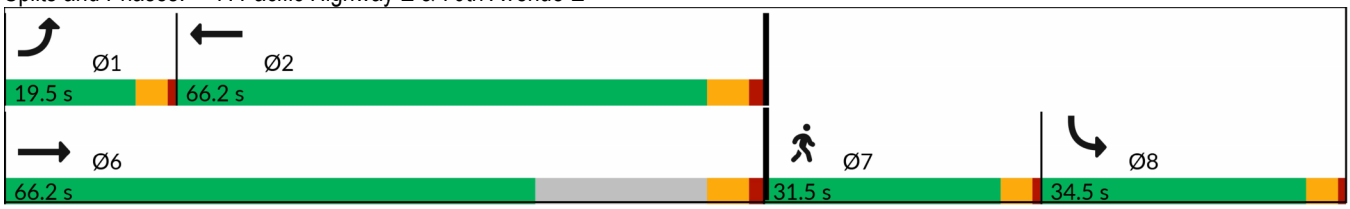
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø7
Starvation Cap Reductn	0	0	0		0		
Spillback Cap Reductn	0	0	0		0		
Storage Cap Reductn	0	0	0		0		
Reduced v/c Ratio	0.31	0.36	1.00		0.10		

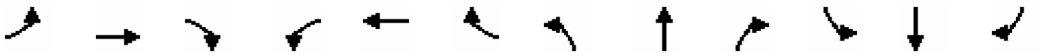
Intersection Summary			
Area Type:	Other		
Cycle Length: 151.7			
Actuated Cycle Length: 113.1			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.00			
Intersection Signal Delay (s/veh): 36.9		Intersection LOS: D	
Intersection Capacity Utilization 69.6%		ICU Level of 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: 7: Pacific Highway E & 70th Avenue E





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	509	117	138	496	233	158	598	96	189	907	90
Future Volume (vph)	51	509	117	138	496	233	158	598	96	189	907	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		200	400		400	250		0	225		0
Storage Lanes	1		1	1		1	1		0	2		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	0.95	0.95	0.97	0.95	0.95
Frt			0.850			0.850		0.979			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1641	1727	1468	1641	1727	1468	1641	3213	0	3183	3236	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	1727	1468	1641	1727	1468	1641	3213	0	3183	3236	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			93			164		16			9	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1295			1073			2009			522	
Travel Time (s)		25.2			20.9			39.1			10.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	525	121	142	511	240	163	715	0	195	1028	0
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2	3	7	4		3	8	
Permitted Phases			6			2						
Detector Phase	1	6	6	5	2	3	7	4		3	8	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	10.0	10.0	10.0	10.0	6.0		10.0	10.0	
Minimum Split (s)	10.5	22.5	22.5	14.5	22.5	14.5	14.5	26.5		14.5	26.5	
Total Split (s)	14.5	44.5	44.5	14.5	44.5	19.5	19.5	44.5		19.5	44.5	
Total Split (%)	11.8%	36.2%	36.2%	11.8%	36.2%	15.9%	15.9%	36.2%		15.9%	36.2%	
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		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	Min	Min	None	Min	None	None	None		None	None	
Act Effct Green (s)	8.6	38.5	38.5	10.0	42.2	59.4	14.3	41.3		12.6	39.6	
Actuated g/C Ratio	0.07	0.32	0.32	0.08	0.35	0.49	0.12	0.34		0.10	0.33	
v/c Ratio	0.46	0.95	0.23	1.04	0.84	0.30	0.84	0.64		0.58	0.96	
Control Delay (s/veh)	67.1	68.9	10.4	143.4	51.9	7.4	85.9	36.4		59.2	59.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	67.1	68.9	10.4	143.4	51.9	7.4	85.9	36.4		59.2	59.5	
LOS	E	E	B	F	D	A	F	D		E	E	
Approach Delay (s/veh)		58.6			54.5			45.6			59.4	
Approach LOS		E			D			D			E	
Queue Length 50th (ft)	41	403	15	~125	385	33	128	245		77	420	
Queue Length 95th (ft)	84	#620	60	#258	#596	83	#246	322		115	#567	

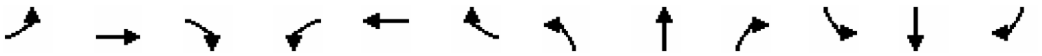
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1215			993			1929			442	
Turn Bay Length (ft)	250		200	400		400	250			225		
Base Capacity (vph)	136	574	550	136	605	832	204	1112		397	1081	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.39	0.91	0.22	1.04	0.84	0.29	0.80	0.64		0.49	0.95	

Intersection Summary			
Area Type:	Other		
Cycle Length: 123			
Actuated Cycle Length: 120.5			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.04			
Intersection Signal Delay (s/veh): 54.8		Intersection LOS: D	
Intersection Capacity Utilization 86.8%		ICU Level of Service E	
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: 8: 70th Avenue E & 20th Street E

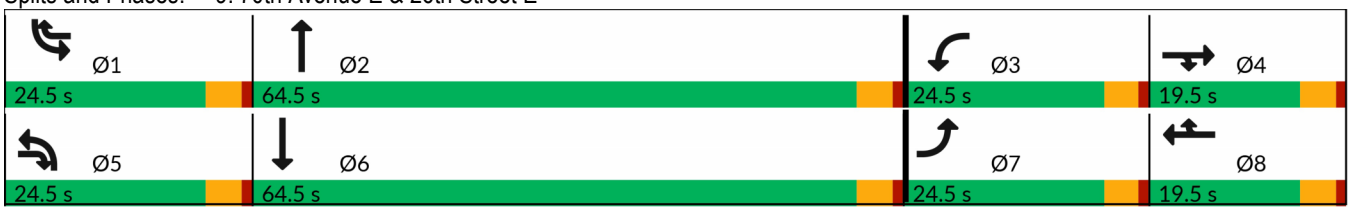


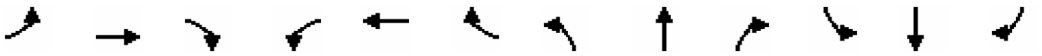
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	52	102	85	27	115	29	662	49	54	1029	15
Future Volume (vph)	45	52	102	85	27	115	29	662	49	54	1029	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	200		0	225		0
Storage Lanes	1		1	1		1	1		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	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.990			0.998	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1652	1404	1570	1652	1404	1570	3108	0	1570	3133	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1570	1652	1404	1570	1652	1404	1570	3108	0	1570	3133	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109			122		7			1	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1057			880			2032			2009	
Travel Time (s)		20.6			17.1			39.6			39.1	
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 (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	55	109	90	29	122	31	756	0	57	1111	0
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases	7	4	4 5	3	8	8 1	5	2		1	6	
Permitted Phases												
Detector Phase	7	4	4 5	3	8	8 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	10.0		6.0	10.0	
Minimum Split (s)	10.5	24.5		10.5	24.5		10.5	22.5		10.5	22.5	
Total Split (s)	24.5	19.5		24.5	19.5		24.5	64.5		24.5	64.5	
Total Split (%)	18.4%	14.7%		18.4%	14.7%		18.4%	48.5%		18.4%	48.5%	
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	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		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	9.3	9.5	22.8	11.9	14.5	29.2	8.4	40.2		9.9	41.7	
Actuated g/C Ratio	0.11	0.11	0.26	0.14	0.17	0.34	0.10	0.46		0.11	0.48	
v/c Ratio	0.29	0.31	0.24	0.42	0.11	0.22	0.21	0.53		0.32	0.74	
Control Delay (s/veh)	47.6	47.3	8.5	46.8	39.9	6.8	47.8	19.3		47.4	23.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	47.6	47.3	8.5	46.8	39.9	6.8	47.8	19.3		47.4	23.0	
LOS	D	D	A	D	D	A	D	B		D	C	
Approach Delay (s/veh)		27.4			25.7			20.4			24.2	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	25	28	0	46	14	0	16	152		29	255	
Queue Length 95th (ft)	74	82	46	118	49	45	55	262		84	420	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		977			800			1952			1929	
Turn Bay Length (ft)	150		150	150		150	200			225		
Base Capacity (vph)	391	308	639	391	345	713	391	2226		391	2242	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.12	0.18	0.17	0.23	0.08	0.17	0.08	0.34		0.15	0.50	

Intersection Summary			
Area Type:	Other		
Cycle Length: 133			
Actuated Cycle Length: 87			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay (s/veh): 23.4		Intersection LOS: C	
Intersection Capacity Utilization 56.5%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 9: 70th Avenue E & 26th Street E





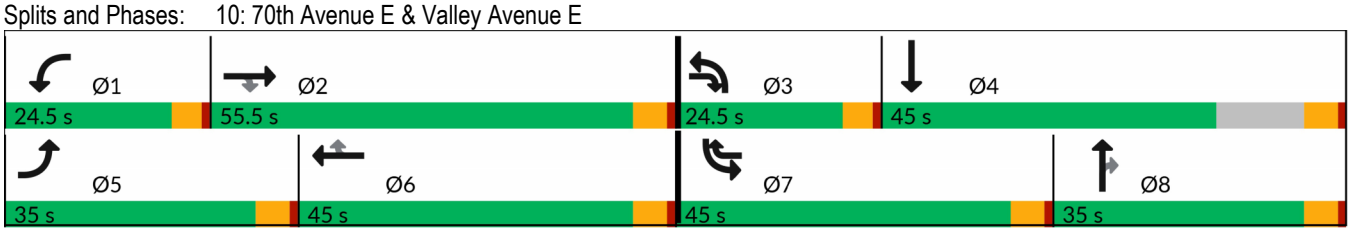
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	545	172	79	298	350	145	298	45	587	538	92
Future Volume (vph)	27	545	172	79	298	350	145	298	45	587	538	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		250	200		0	200		130	350		0
Storage Lanes	1		1	1		1	1		1	2		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	0.95	1.00	0.97	0.95	0.95
Frt			0.850			0.850			0.850		0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1641	1727	1468	1641	1727	1468	1641	3282	1468	3183	3210	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	1727	1468	1641	1727	1468	1641	3282	1468	3183	3210	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			148			365			143		13	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		831			1056			750			2032	
Travel Time (s)		18.9			24.0			14.6			39.6	
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 (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	568	179	82	310	365	151	310	47	611	656	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2	3	1	6	7	3	8		7	4	
Permitted Phases			2			6			8			
Detector Phase	5	2	3	1	6	7	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0	6.0	6.0	8.0	8.0	6.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	11.0	31.0	10.5	10.5	31.0	13.0	10.5	31.0	31.0	13.0	31.0	
Total Split (s)	35.0	55.5	24.5	24.5	45.0	45.0	24.5	35.0	35.0	45.0	45.0	
Total Split (%)	21.9%	34.7%	15.3%	15.3%	28.1%	28.1%	15.3%	21.9%	21.9%	28.1%	28.1%	
Yellow Time (s)	4.0	4.0	3.5	3.5	4.0	4.0	3.5	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	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	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.5	4.5	5.0	5.0	4.5	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	Min	None	None	Min	None	None	None	None	None	None	
Act Effct Green (s)	9.4	51.0	73.4	12.8	59.6	98.0	17.3	19.4	19.4	33.3	36.0	
Actuated g/C Ratio	0.07	0.37	0.54	0.09	0.44	0.72	0.13	0.14	0.14	0.24	0.26	
v/c Ratio	0.25	0.88	0.21	0.54	0.41	0.32	0.73	0.66	0.14	0.79	0.77	
Control Delay (s/veh)	69.9	57.7	5.3	74.3	32.4	1.6	79.5	63.8	0.9	56.7	52.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	69.9	57.7	5.3	74.3	32.4	1.6	79.5	63.8	0.9	56.7	52.1	
LOS	E	E	A	E	C	A	E	E	A	E	D	
Approach Delay (s/veh)		46.1			22.1			62.6			54.3	
Approach LOS		D			C			E			D	
Queue Length 50th (ft)	24	473	12	71	203	0	129	139	0	260	282	
Queue Length 95th (ft)	62	#840	60	138	341	36	#246	206	0	367	373	

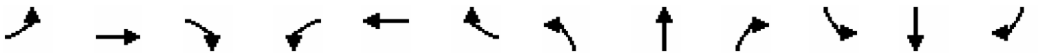
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		751			976			670			1952	
Turn Bay Length (ft)	150		250	200			200		130	350		
Base Capacity (vph)	365	646	887	243	755	1215	243	730	438	944	1210	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.08	0.88	0.20	0.34	0.41	0.30	0.62	0.42	0.11	0.65	0.54	

Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 136.3			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay (s/veh): 46.3		Intersection LOS: D	
Intersection Capacity Utilization 75.4%		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.

Splits and Phases: 10: 70th Avenue E & Valley Avenue E



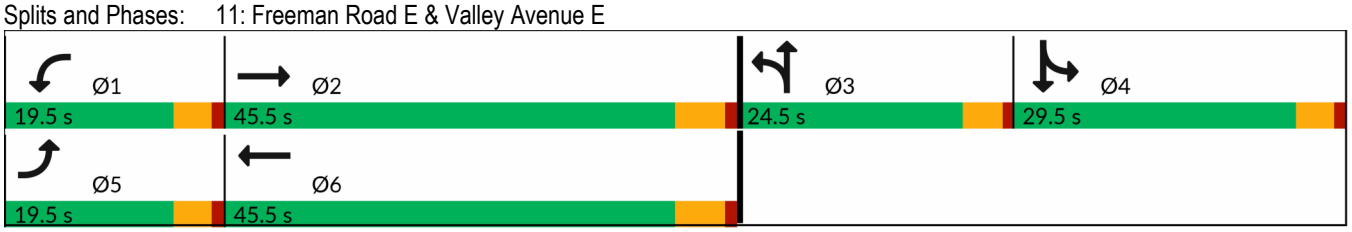


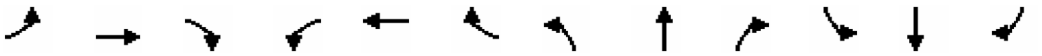
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	1024	122	22	525	128	34	41	32	253	167	23
Future Volume (vph)	29	1024	122	22	525	128	34	41	32	253	167	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	230		0	50		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.984			0.971			0.934			0.982	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1656	3259	0	1656	3216	0	1656	1628	0	1656	1712	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1656	3259	0	1656	3216	0	1656	1628	0	1656	1712	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			27			28			5	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		671			1259			2534			494	
Travel Time (s)		15.3			28.6			69.1			13.5	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	33	1288	0	25	734	0	38	82	0	284	214	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	3		4	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0		4.0	8.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	10.5	26.5		9.5	26.5		22.5	22.5		27.5	27.5	
Total Split (s)	19.5	45.5		19.5	45.5		24.5	24.5		29.5	29.5	
Total Split (%)	16.4%	38.2%		16.4%	38.2%		20.6%	20.6%		24.8%	24.8%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		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	5.5		4.5	5.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	8.1	41.7		7.6	38.9		9.3	9.3		21.1	21.1	
Actuated g/C Ratio	0.09	0.47		0.09	0.44		0.10	0.10		0.24	0.24	
v/c Ratio	0.22	0.84		0.18	0.51		0.22	0.42		0.72	0.52	
Control Delay (s/veh)	46.3	30.7		46.4	22.7		43.9	36.4		45.0	36.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	46.3	30.7		46.4	22.7		43.9	36.4		45.0	36.1	
LOS	D	C		D	C		D	D		D	D	
Approach Delay (s/veh)		31.1			23.5			38.8			41.2	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	17	324		13	181		20	28		138	96	
Queue Length 95th (ft)	51	#634		43	267		55	82		#296	203	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		591			1179			2454			414	
Turn Bay Length (ft)	150			230			50			250		
Base Capacity (vph)	290	1538		290	1520		387	402		484	504	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.11	0.84		0.09	0.48		0.10	0.20		0.59	0.42	

Intersection Summary			
Area Type:	Other		
Cycle Length: 119			
Actuated Cycle Length: 88.7			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay (s/veh): 31.1		Intersection LOS: C	
Intersection Capacity Utilization 63.3%		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: 11: Freeman Road E & Valley Avenue E





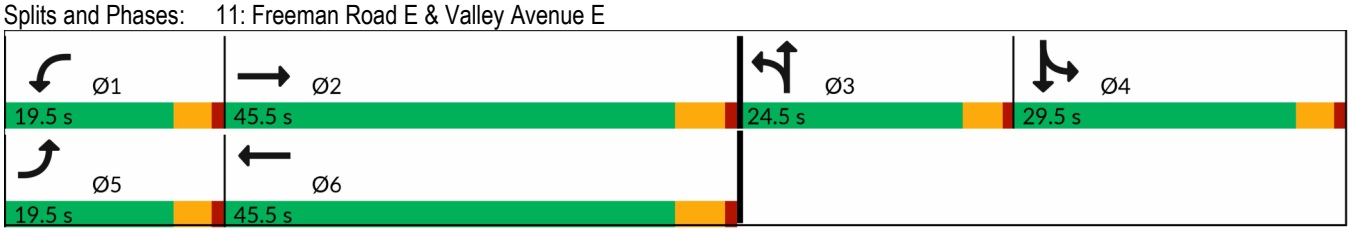
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	909	107	35	599	127	31	30	26	180	116	16
Future Volume (vph)	25	909	107	35	599	127	31	30	26	180	116	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	230		0	50		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.984			0.974			0.931			0.982	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1656	3259	0	1656	3226	0	1656	1623	0	1656	1712	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1656	3259	0	1656	3226	0	1656	1623	0	1656	1712	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			23			29			5	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		671			1259			4678			494	
Travel Time (s)		15.3			28.6			127.6			13.5	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	1141	0	39	816	0	35	63	0	202	148	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	3		4	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0		4.0	8.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	10.5	26.5		9.5	26.5		22.5	22.5		27.5	27.5	
Total Split (s)	19.5	45.5		19.5	45.5		24.5	24.5		29.5	29.5	
Total Split (%)	16.4%	38.2%		16.4%	38.2%		20.6%	20.6%		24.8%	24.8%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		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	5.5		4.5	5.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	7.8	41.9		8.3	44.5		8.4	8.4		16.6	16.6	
Actuated g/C Ratio	0.09	0.49		0.10	0.52		0.10	0.10		0.19	0.19	
v/c Ratio	0.19	0.72		0.25	0.49		0.22	0.34		0.64	0.44	
Control Delay (s/veh)	45.4	25.2		45.5	18.0		44.7	31.5		43.8	36.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	45.4	25.2		45.5	18.0		44.7	31.5		43.8	36.4	
LOS	D	C		D	B		D	C		D	D	
Approach Delay (s/veh)		25.7			19.3			36.2			40.7	
Approach LOS		C			B			D			D	
Queue Length 50th (ft)	16	291		22	127		19	19		110	75	
Queue Length 95th (ft)	46	#516		58	295		53	62		194	140	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		591			1179			4598			414	
Turn Bay Length (ft)	150			230			50			250		
Base Capacity (vph)	301	1588		301	1677		401	415		502	523	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.09	0.72		0.13	0.49		0.09	0.15		0.40	0.28	

Intersection Summary			
Area Type:	Other		
Cycle Length: 119			
Actuated Cycle Length: 86.2			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay (s/veh): 26.0		Intersection LOS: C	
Intersection Capacity Utilization 56.1%		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: 11: Freeman Road E & Valley Avenue E



Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	23	8	92	266	12
Future Vol, veh/h	5	23	8	92	266	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	6	27	9	108	313	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	447	320	327	0	-	0
Stage 1	320	-	-	-	-	-
Stage 2	127	-	-	-	-	-
Critical Hdwy	6.44	6.24	4.14	-	-	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	2.236	-	-	-
Pot Cap-1 Maneuver	565	716	1221	-	-	-
Stage 1	732	-	-	-	-	-
Stage 2	894	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	561	716	1221	-	-	-
Mov Cap-2 Maneuver	561	-	-	-	-	-
Stage 1	726	-	-	-	-	-
Stage 2	894	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.54	0.64	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	144	-	682	-	-
HCM Lane V/C Ratio	0.008	-	0.048	-	-
HCM Control Delay (s/veh)	8	0	10.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	12	9	6	82	287	14
Future Vol, veh/h	12	9	6	82	287	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	14	11	7	96	338	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	456	346	354	0	-	0
Stage 1	346	-	-	-	-	-
Stage 2	111	-	-	-	-	-
Critical Hdwy	6.45	6.25	4.15	-	-	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	2.245	-	-	-
Pot Cap-1 Maneuver	556	690	1188	-	-	-
Stage 1	710	-	-	-	-	-
Stage 2	907	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	553	690	1188	-	-	-
Mov Cap-2 Maneuver	553	-	-	-	-	-
Stage 1	705	-	-	-	-	-
Stage 2	907	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	11.21	0.55	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	123	-	605	-	-
HCM Lane V/C Ratio	0.006	-	0.041	-	-
HCM Control Delay (s/veh)	8	0	11.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	2	22	0	6	1	82	6	2	291	1
Future Vol, veh/h	0	0	2	22	0	6	1	82	6	2	291	1
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	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	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	0	0	2	27	0	7	1	99	7	2	351	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	457	464	351	460	461	102	352	0	0	106	0	0
Stage 1	356	356	-	105	105	-	-	-	-	-	-	-
Stage 2	101	108	-	355	357	-	-	-	-	-	-	-
Critical Hdwy	7.16	6.56	6.26	7.16	6.56	6.26	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.16	5.56	-	6.16	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.16	5.56	-	6.16	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.554	4.054	3.354	3.554	4.054	3.354	2.254	-	-	2.254	-	-
Pot Cap-1 Maneuver	507	489	683	505	491	942	1185	-	-	1460	-	-
Stage 1	653	622	-	891	801	-	-	-	-	-	-	-
Stage 2	895	798	-	654	622	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	502	488	683	501	490	942	1185	-	-	1460	-	-
Mov Cap-2 Maneuver	502	488	-	501	490	-	-	-	-	-	-	-
Stage 1	652	621	-	890	800	-	-	-	-	-	-	-
Stage 2	887	797	-	650	620	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	10.29	11.88	0.09	0.05
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	20	-	-	683	557	12	-	-
HCM Lane V/C Ratio	0.001	-	-	0.004	0.061	0.002	-	-
HCM Control Delay (s/veh)	8	0	-	10.3	11.9	7.5	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0	-	-

Intersection	
Int Delay, s/veh	10

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	44	522	154	62	284	40
Future Vol, veh/h	44	522	154	62	284	40
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	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	46	544	160	65	296	42

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	225	0	-	0	828	193
Stage 1	-	-	-	-	193	-
Stage 2	-	-	-	-	635	-
Critical Hdwy	4.14	-	-	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.236	-	-	-	3.536	3.336
Pot Cap-1 Maneuver	1332	-	-	-	338	844
Stage 1	-	-	-	-	835	-
Stage 2	-	-	-	-	524	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1332	-	-	-	321	844
Mov Cap-2 Maneuver	-	-	-	-	423	-
Stage 1	-	-	-	-	794	-
Stage 2	-	-	-	-	524	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.61	0	33.22
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	140	-	-	-	451
HCM Lane V/C Ratio	0.034	-	-	-	0.749
HCM Control Delay (s/veh)	7.8	0	-	-	33.2
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	6.2

Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	44	522	154	62	284	40
Future Vol, veh/h	44	522	154	62	284	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	46	544	160	65	296	42

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	225	0	-	0	828	193
Stage 1	-	-	-	-	193	-
Stage 2	-	-	-	-	635	-
Critical Hdwy	4.14	-	-	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.236	-	-	-	3.536	3.336
Pot Cap-1 Maneuver	1332	-	-	-	338	844
Stage 1	-	-	-	-	835	-
Stage 2	-	-	-	-	524	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1332	-	-	-	327	844
Mov Cap-2 Maneuver	-	-	-	-	477	-
Stage 1	-	-	-	-	806	-
Stage 2	-	-	-	-	524	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.61	0	22.27
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1332	-	-	-	477	844
HCM Lane V/C Ratio	0.034	-	-	-	0.62	0.049
HCM Control Delay (s/veh)	7.8	-	-	-	24.1	9.5
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.1	-	-	-	4.1	0.2

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	39	428	126	53	208	44
Future Vol, veh/h	39	428	126	53	208	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	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	41	446	131	55	217	46

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	186	0	-	0	686	159
Stage 1	-	-	-	-	159	-
Stage 2	-	-	-	-	527	-
Critical Hdwy	4.14	-	-	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.236	-	-	-	3.536	3.336
Pot Cap-1 Maneuver	1376	-	-	-	410	881
Stage 1	-	-	-	-	865	-
Stage 2	-	-	-	-	588	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1376	-	-	-	394	881
Mov Cap-2 Maneuver	-	-	-	-	482	-
Stage 1	-	-	-	-	831	-
Stage 2	-	-	-	-	588	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.64	0	18.58
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	150	-	-	-	524
HCM Lane V/C Ratio	0.03	-	-	-	0.501
HCM Control Delay (s/veh)	7.7	0	-	-	18.6
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	2.8

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	39	428	126	53	208	44
Future Vol, veh/h	39	428	126	53	208	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	100	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	41	446	131	55	217	46

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	186	0	-	0	686	159
Stage 1	-	-	-	-	159	-
Stage 2	-	-	-	-	527	-
Critical Hdwy	4.14	-	-	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.236	-	-	-	3.536	3.336
Pot Cap-1 Maneuver	1376	-	-	-	410	881
Stage 1	-	-	-	-	865	-
Stage 2	-	-	-	-	588	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1376	-	-	-	398	881
Mov Cap-2 Maneuver	-	-	-	-	537	-
Stage 1	-	-	-	-	839	-
Stage 2	-	-	-	-	588	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.64	0	14.95
HCM LOS			B

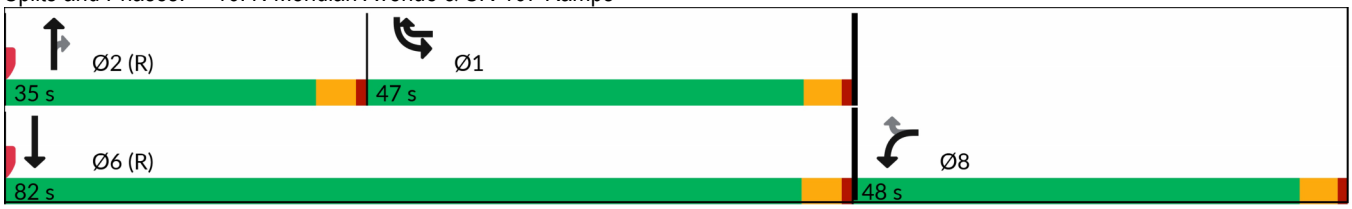
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1376	-	-	-	537	881
HCM Lane V/C Ratio	0.03	-	-	-	0.403	0.052
HCM Control Delay (s/veh)	7.7	-	-	-	16.1	9.3
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.1	-	-	-	1.9	0.2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1048	665	562	1499	1189	941
Future Volume (vph)	1048	665	562	1499	1189	941
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	2	2		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	0.88	0.95	1.00	0.97	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3367	2733	3471	1553	3367	3471
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3367	2733	3471	1553	3367	3471
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		68		557		
Link Speed (mph)	35		35			35
Link Distance (ft)	522		278			1175
Travel Time (s)	10.2		5.4			22.9
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1069	679	573	1530	1213	960
Turn Type	Prot	pm+ov	NA	Perm	Prot	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8		2		
Minimum Split (s)	36.6	10.6	38.9	38.9	10.6	36.9
Total Split (s)	48.0	47.0	35.0	35.0	47.0	82.0
Total Split (%)	36.9%	36.2%	26.9%	26.9%	36.2%	63.1%
Yellow Time (s)	3.6	3.6	3.9	3.9	3.6	3.9
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)	4.6	4.6	4.9	4.9	4.6	4.9
Lead/Lag		Lag	Lead	Lead	Lag	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Act Effct Green (s)	43.4	90.4	30.1	30.1	42.4	77.1
Actuated g/C Ratio	0.33	0.70	0.23	0.23	0.33	0.59
v/c Ratio	0.95	0.35	0.71	1.94	1.10	0.47
Control Delay (s/veh)	59.9	7.7	51.7	448.3	101.6	15.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	59.9	7.7	51.7	448.3	101.6	15.8
LOS	E	A	D	F	F	B
Approach Delay (s/veh)	39.6		340.3			63.7
Approach LOS	D		F			E
Queue Length 50th (ft)	452	105	235	~1623	~598	227
Queue Length 95th (ft)	#591	139	302	#1893	#734	277
Internal Link Dist (ft)	442		198			1095
Turn Bay Length (ft)					250	
Base Capacity (vph)	1124	1921	803	787	1098	2058
Starvation Cap Reductn	0	0	0	0	0	0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.35	0.71	1.94	1.10	0.47

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 125 (96%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 150			
Control Type: Pretimed			
Maximum v/c Ratio: 1.94			
Intersection Signal Delay (s/veh): 153.2		Intersection LOS: F	
Intersection Capacity Utilization 134.7%		ICU Level of Service H	
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: 16: N Meridian Avenue & SR-167 Ramps



Intersection	
Int Delay, s/veh	100.5

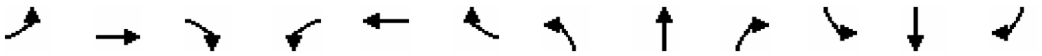
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	447	0	0	602	0	1501	68	0	1705	112
Future Vol, veh/h	0	0	447	0	0	602	0	1501	68	0	1705	112
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Free	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	466	0	0	627	0	1564	71	0	1776	117

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	946	-	-	782	-	0	-	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.96	-	-	6.96	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.33	-	-	3.33	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	~ 260	0	0	~ 335	0	-	0	0	-	-
Stage 1	0	0	-	0	0	-	0	-	0	0	-	-
Stage 2	0	0	-	0	0	-	0	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	-	-	~ 260	-	-	~ 335	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 402.6	$ 429.92	0	0
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBT	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	260	335	-	-
HCM Lane V/C Ratio	-	1.788	1.872	-	-
HCM Control Delay (s/veh)	-	$ 402.6	$ 429.9	-	-
HCM Lane LOS	-	F	F	-	-
HCM 95th %tile Q(veh)	-	31.2	42.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1157	0	452	22	683	365	0	0	0	0	924	1101
Future Volume (vph)	1157	0	452	22	683	365	0	0	0	0	924	1101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	125		0	0		0	0		250
Storage Lanes	2		1	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected	0.950			0.950								
Satd. Flow (prot)	3400	0	1568	1752	3505	1568	0	0	0	0	3505	1568
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	3400	0	1568	1752	3505	1568	0	0	0	0	3505	1568
Right Turn on Red			No	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				72		380						668
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		673			590			2133			1751	
Travel Time (s)		13.1			11.5			58.2			47.8	
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 (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1205	0	471	23	711	380	0	0	0	0	963	1147
Turn Type	Prot		Prot	Perm	NA	Perm					NA	Perm
Protected Phases	1		1		2						4	
Permitted Phases				2		2						4
Detector Phase	1		1	2	2	2					4	4
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0					10.0	10.0
Minimum Split (s)	10.1		10.1	35.1	35.1	35.1					30.8	30.8
Total Split (s)	42.0		42.0	29.0	29.0	29.0					34.0	34.0
Total Split (%)	40.0%		40.0%	27.6%	27.6%	27.6%					32.4%	32.4%
Yellow Time (s)	3.6		3.6	3.6	3.6	3.6					3.3	3.3
All-Red Time (s)	1.5		1.5	1.5	1.5	1.5					1.5	1.5
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Lost Time (s)	5.1		5.1	5.1	5.1	5.1					4.8	4.8
Lead/Lag	Lead		Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes						
Recall Mode	None		None	Max	Max	Max					None	None
Act Effct Green (s)	36.9		36.9	30.0	30.0	30.0					29.2	29.2
Actuated g/C Ratio	0.33		0.33	0.27	0.27	0.27					0.26	0.26
v/c Ratio	1.07		0.91	0.04	0.75	0.54					1.05	1.27
Control Delay (s/veh)	83.0		58.4	0.1	43.0	6.5					82.6	146.4
Queue Delay	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Delay (s/veh)	83.0		58.4	0.1	43.0	6.5					82.6	146.4
LOS	F		E	A	D	A					F	F
Approach Delay (s/veh)		76.1			29.7						117.3	
Approach LOS		E			C						F	
Queue Length 50th (ft)	~491		319	0	244	0					~393	~661
Queue Length 95th (ft)	#623		#516	0	315	75					#523	#920

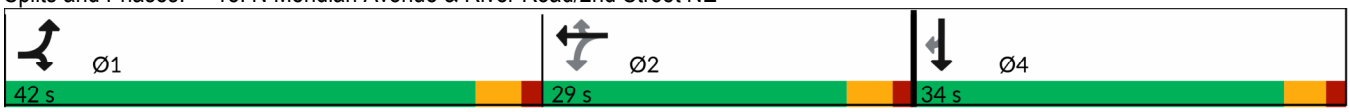
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		593			510			2053			1671	
Turn Bay Length (ft)				125								250
Base Capacity (vph)	1129		520	525	946	700					921	904
Starvation Cap Reductn	0		0	0	0	0					0	0
Spillback Cap Reductn	0		0	0	0	0					0	0
Storage Cap Reductn	0		0	0	0	0					0	0
Reduced v/c Ratio	1.07		0.91	0.04	0.75	0.54					1.05	1.27

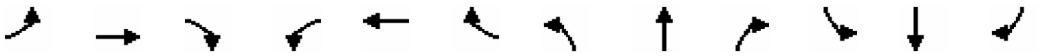
Intersection Summary			
Area Type:	Other		
Cycle Length: 105			
Actuated Cycle Length: 111.1			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.27			
Intersection Signal Delay (s/veh): 83.3		Intersection LOS: F	
Intersection Capacity Utilization 95.3%		ICU Level of 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.

Splits and Phases: 18: N Meridian Avenue & River Road/2nd Street NE





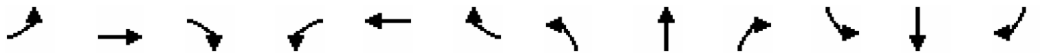
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1157	0	452	22	683	365	0	0	0	0	924	1101
Future Volume (vph)	1157	0	452	22	683	365	0	0	0	0	924	1101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	125		0	0		0	0		250
Storage Lanes	2		1	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected	0.950			0.950								
Satd. Flow (prot)	3400	0	1568	1752	3505	1568	0	0	0	0	3505	1568
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	3400	0	1568	1752	3505	1568	0	0	0	0	3505	1568
Right Turn on Red			No	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				50		341						654
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		673			590			2133			1751	
Travel Time (s)		13.1			11.5			58.2			47.8	
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 (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1205	0	471	23	711	380	0	0	0	0	963	1147
Turn Type	Prot		Prot	Perm	NA	Perm					NA	Perm
Protected Phases	1		1		2						4	
Permitted Phases				2		2						4
Detector Phase	1		1	2	2	2					4	4
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0					10.0	10.0
Minimum Split (s)	10.1		10.1	35.1	35.1	35.1					30.8	30.8
Total Split (s)	52.0		52.0	37.0	37.0	37.0					61.0	61.0
Total Split (%)	34.7%		34.7%	24.7%	24.7%	24.7%					40.7%	40.7%
Yellow Time (s)	3.6		3.6	3.6	3.6	3.6					3.3	3.3
All-Red Time (s)	1.5		1.5	1.5	1.5	1.5					1.5	1.5
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Lost Time (s)	5.1		5.1	5.1	5.1	5.1					4.8	4.8
Lead/Lag	Lead		Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes						
Recall Mode	None		None	Max	Max	Max					None	None
Act Effct Green (s)	46.9		46.9	31.9	31.9	31.9					56.2	56.2
Actuated g/C Ratio	0.31		0.31	0.21	0.21	0.21					0.37	0.37
v/c Ratio	1.13		0.96	0.06	0.95	0.63					0.73	1.15
Control Delay (s/veh)	118.3		82.5	1.4	81.5	12.9					44.5	98.9
Queue Delay	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Delay (s/veh)	118.3		82.5	1.4	81.5	12.9					44.5	98.9
LOS	F		F	A	F	B					D	F
Approach Delay (s/veh)		108.2			56.4						74.0	
Approach LOS		F			E						E	
Queue Length 50th (ft)	~704		454	0	365	31					426	~894
Queue Length 95th (ft)	#842		#681	5	#491	140					508	#1164

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		593			510			2053			1671	
Turn Bay Length (ft)				125								250
Base Capacity (vph)	1063		490	411	745	601					1313	996
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	1.13		0.96	0.06	0.95	0.63					0.73	1.15

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.15			
Intersection Signal Delay (s/veh): 81.7		Intersection LOS: F	
Intersection Capacity Utilization 95.3%		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.

Splits and Phases: 18: N Meridian Avenue & River Road/2nd Street NE



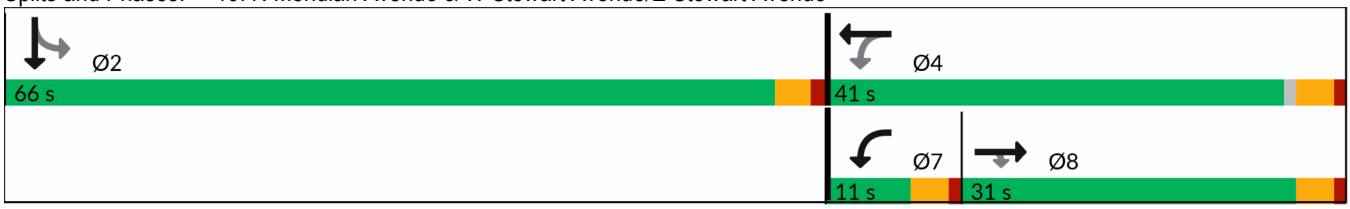
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	225	68	154	318	0	0	0	0	152	1154	51
Future Volume (vph)	0	225	68	154	318	0	0	0	0	152	1154	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	125		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	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	0.95	0.95	0.95
Frt			0.850								0.994	
Flt Protected				0.950							0.994	
Satd. Flow (prot)	0	1863	1583	1770	1863	0	0	0	0	0	3497	0
Flt Permitted				0.228							0.994	
Satd. Flow (perm)	0	1863	1583	425	1863	0	0	0	0	0	3497	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			51								6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		393			385			1349			2133	
Travel Time (s)		10.7			10.5			36.8			58.2	
Peak Hour 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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	237	72	162	335	0	0	0	0	0	1429	0
Turn Type		NA	Perm	pm+pt	NA					Perm	NA	
Protected Phases		8		7	4						2	
Permitted Phases			8	4						2		
Detector Phase		8	8	7	4					2	2	
Switch Phase												
Minimum Initial (s)		5.0	5.0	5.0	5.0					10.0	10.0	
Minimum Split (s)		21.0	21.0	9.0	21.0					23.0	23.0	
Total Split (s)		31.0	31.0	11.0	41.0					66.0	66.0	
Total Split (%)		28.7%	28.7%	10.2%	38.0%					61.1%	61.1%	
Yellow Time (s)		3.0	3.0	3.0	3.0					3.0	3.0	
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)		4.0	4.0	4.0	4.0						4.0	
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		None	None	None	None					Max	Max	
Act Effct Green (s)		15.6	15.6	26.5	26.5						62.1	
Actuated g/C Ratio		0.16	0.16	0.27	0.27						0.64	
v/c Ratio		0.79	0.24	0.76	0.66						0.64	
Control Delay (s/veh)		57.6	16.6	52.3	37.5						12.7	
Queue Delay		0.0	0.0	0.0	0.3						0.0	
Total Delay (s/veh)		57.6	16.6	52.3	37.8						12.7	
LOS		E	B	D	D						B	
Approach Delay (s/veh)		48.0			42.5						12.7	
Approach LOS		D			D						B	
Queue Length 50th (ft)		141	11	79	182						251	
Queue Length 95th (ft)		222	49	#155	272						391	
Internal Link Dist (ft)		313			305			1269			2053	

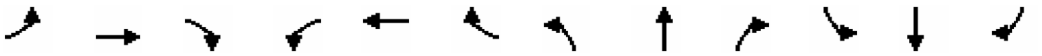
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)			50	125								
Base Capacity (vph)		521	479	214	733						2249	
Starvation Cap Reductn		0	0	0	83						0	
Spillback Cap Reductn		0	0	0	0						0	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		0.45	0.15	0.76	0.52						0.64	

Intersection Summary			
Area Type:	Other		
Cycle Length: 108			
Actuated Cycle Length: 96.7			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay (s/veh): 24.2		Intersection LOS: C	
Intersection Capacity Utilization 68.3%		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: 19: N Meridian Avenue & W Stewart Avenue





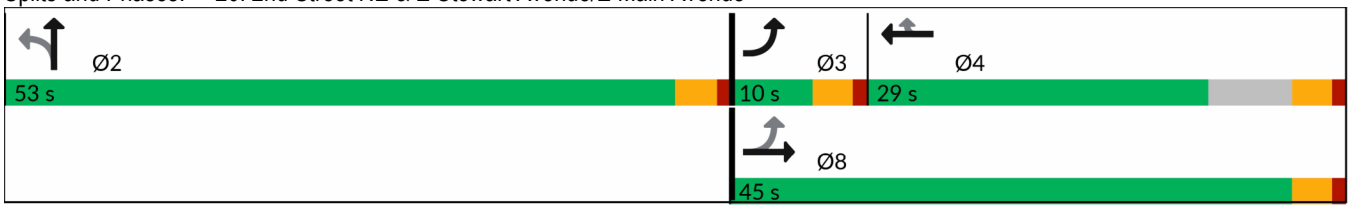
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	304	0	0	367	282	242	742	2	0	0	0
Future Volume (vph)	51	304	0	0	367	282	242	742	2	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	0		125	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
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	0.95	1.00	1.00	1.00
Frt						0.850						
Flt Protected	0.950							0.988				
Satd. Flow (prot)	1770	1863	0	0	1863	1583	0	3497	0	0	0	0
Flt Permitted	0.166							0.988				
Satd. Flow (perm)	309	1863	0	0	1863	1583	0	3497	0	0	0	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		385			615			394			343	
Travel Time (s)		10.5			16.8			10.7			9.4	
Peak Hour 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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	320	0	0	386	297	0	1038	0	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA				
Protected Phases	3	8			4			2				
Permitted Phases	8					4	2					
Detector Phase	3	8			4	4	2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	10.0	10.0				
Minimum Split (s)	9.5	28.0			28.0	28.0	26.0	26.0				
Total Split (s)	10.0	45.0			29.0	29.0	53.0	53.0				
Total Split (%)	10.2%	45.9%			29.6%	29.6%	54.1%	54.1%				
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0				
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)	4.0	4.0			4.0	4.0		4.0				
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	None			None	None	Max	Max				
Act Effct Green (s)	27.4	27.4			20.1	20.1		49.6				
Actuated g/C Ratio	0.32	0.32			0.24	0.24		0.58				
v/c Ratio	0.28	0.53			0.88	0.79		0.51				
Control Delay (s/veh)	22.4	26.3			53.2	47.0		13.1				
Queue Delay	0.0	0.2			0.0	0.0		0.0				
Total Delay (s/veh)	22.4	26.5			53.2	47.0		13.1				
LOS	C	C			D	D		B				
Approach Delay (s/veh)		25.9			50.5			13.1				
Approach LOS		C			D			B				
Queue Length 50th (ft)	20	137			204	153		181				
Queue Length 95th (ft)	44	213			#337	248		257				
Internal Link Dist (ft)		305			535			314			263	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	50					125						
Base Capacity (vph)	203	908			686	583		2037				
Starvation Cap Reductn	0	157			0	0		0				
Spillback Cap Reductn	0	0			0	0		0				
Storage Cap Reductn	0	0			0	0		0				
Reduced v/c Ratio	0.27	0.43			0.56	0.51		0.51				

Intersection Summary			
Area Type:	Other		
Cycle Length: 98			
Actuated Cycle Length: 85.1			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay (s/veh): 27.6		Intersection LOS: C	
Intersection Capacity Utilization 68.3%		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: 20: 2nd Street NE & E Stewart Avenue/E Main Avenue



Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	27	23	75	17	10	279
Future Vol, veh/h	27	23	75	17	10	279
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
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	29	25	82	18	11	303

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	416	91	0	0	100	0
Stage 1	91	-	-	-	-	-
Stage 2	325	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	593	967	-	-	1493	-
Stage 1	933	-	-	-	-	-
Stage 2	732	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	589	967	-	-	1493	-
Mov Cap-2 Maneuver	589	-	-	-	-	-
Stage 1	933	-	-	-	-	-
Stage 2	727	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	10.42	0	0.26
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	718	1493	-
HCM Lane V/C Ratio	-	-	0.076	0.007	-
HCM Control Delay (s/veh)	-	-	10.4	7.4	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

APPENDIX F

LUC 130 – INDUSTRIAL PARK ANALYSIS

LUC - 130
Industrial Park

Freeman Road Logistics
KH 090222083

Trip Generation for: Development Peak Weekday
(a.k.a.): Average Weekday Daily Trips (AWDT)

									NET EXTERNAL TRIPS BY TYPE											
									IN BOTH DIRECTIONS						DIRECTIONAL ASSIGNMENTS					
			Gross Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
Industrial Park Building A (Total)	238.525 KSF	130	3.37	50%	50%	803.83	0%	0.00	803.83	0%	0.00	0%	0.00	803.83	0.00	0.00	0.00	0.00	401.92	401.91
Industrial Park Building B (Total)	266.911 KSF	130	3.37	50%	50%	899.49	0%	0.00	899.49	0%	0.00	0%	0.00	899.49	0.00	0.00	0.00	0.00	449.75	449.74
Single-Family Detached	-14 Units	210	9.43	50%	50%	-132.02	0%	0.00	-132.02	0%	0.00	0%	0.00	-132.02	0.00	0.00	0.00	0.00	-66.01	-66.01
Industrial						1,571.30		0.00	1,571.30		0.00		0.00	1,571.30	0.00	0.00	0.00	0.00	785.66	785.64

			Gross Truck Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Truck Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
Industrial Park Building A (Truck)	238.525 KSF	130	0.57	50%	50%	135.96	0%	0.00	135.96	0%	0.00	0%	0.00	135.96	0.00	0.00	0.00	0.00	67.98	67.98
Industrial Park Building B (Truck)	266.911 KSF	130	0.57	50%	50%	152.14	0%	0.00	152.14	0%	0.00	0%	0.00	152.14	0.00	0.00	0.00	0.00	76.07	76.07
Total Truck Trips						288.10		0.00	288.10		0.00		0.00	288.10	0.00	0.00	0.00	0.00	144.05	144.05

Total Passenger Car Trips:	**1,283.20**																		**641.61**	**641.59**

Freeman Road Logistics
KH 090222083

Trip Generation for: **Development Peak Weekday, Peak Hour of Adjacent Street Traffic, One Hour between 7 and 9 AM**
(a.k.a.): **Weekday AM Peak Hour**

									NET EXTERNAL TRIPS BY TYPE											
									IN BOTH DIRECTIONS						DIRECTIONAL ASSIGNMENTS					
			Gross Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
Industrial Park Building A (Total)	238.525 KSF	130	0.34	81%	19%	81.10	0%	0.00	81.10	0%	0.00	0%	0.00	81.10	0.00	0.00	0.00	0.00	65.69	15.41
Industrial Park Building B (Total)	266.911 KSF	130	0.34	81%	19%	90.75	0%	0.00	90.75	0%	0.00	0%	0.00	90.75	0.00	0.00	0.00	0.00	73.51	17.24
Single-Family Detached	-14 Units	210	0.70	26%	74%	-9.80	0%	0.00	-9.80	0%	0.00	0%	0.00	-9.80	0.00	0.00	0.00	0.00	-2.55	-7.25
Total Vehicle Trips						162.05		0.00	162.05		0.00		0.00	162.05	0.00	0.00	0.00	0.00	136.65	25.40

			Gross Truck Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Truck Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
Industrial Park Building A (Truck)	238.525 KSF	130	0.04	45%	55%	9.54	0%	0.00	9.54	0%	0.00	0%	0.00	9.54	0.00	0.00	0.00	0.00	4.29	5.25
Industrial Park Building B (Truck)	266.911 KSF	130	0.04	45%	55%	10.68	0%	0.00	10.68	0%	0.00	0%	0.00	10.68	0.00	0.00	0.00	0.00	4.81	5.87
Total Truck Trips						20.22		0.00	20.22		0.00		0.00	20.22	0.00	0.00	0.00	0.00	9.10	11.12

Total Passenger Car Trips:	**141.83**			**127.55**	**14.28**

Freeman Road Logistics
KH 090222083

Trip Generation for: **Development Peak Weekday, Peak Hour of Adjacent Street Traffic, One Hour between 4 and 6 PM**
(a.k.a.): **Weekday PM Peak Hour**

									NET EXTERNAL TRIPS BY TYPE											
									IN BOTH DIRECTIONS						DIRECTIONAL ASSIGNMENTS					
			Gross Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
Industrial Park Building A (Total)	238.525 KSF	130	0.34	22%	78%	81.10	0%	0.00	81.10	0%	0.00	0%	0.00	81.10	0.00	0.00	0.00	0.00	17.84	63.26
Industrial Park Building B (Total)	266.911 KSF	130	0.34	22%	78%	90.75	0%	0.00	90.75	0%	0.00	0%	0.00	90.75	0.00	0.00	0.00	0.00	19.97	70.78
Single-Family Detached	-14 Units	210	0.94	63%	37%	-13.16	0%	0.00	-13.16	0%	0.00	0%	0.00	-13.16	0.00	0.00	0.00	0.00	-8.29	-4.87
Total Vehicle Trips						158.69		0.00	158.69		0.00		0.00	158.69	0.00	0.00	0.00	0.00	29.52	129.17

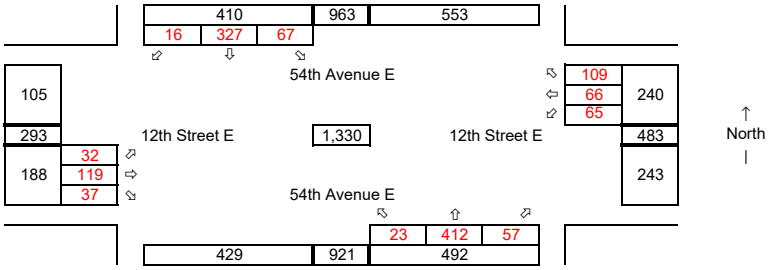
			Gross Truck Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Truck Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
Industrial Park Building A (Truck)	238.525 KSF	130	0.04	38%	62%	9.54	0%	0.00	9.54	0%	0.00	0%	0.00	9.54	0.00	0.00	0.00	0.00	3.63	5.91
Industrial Park Building B (Truck)	266.911 KSF	130	0.04	38%	62%	10.68	0%	0.00	10.68	0%	0.00	0%	0.00	10.68	0.00	0.00	0.00	0.00	4.06	6.62
Total Truck Trips						20.22		0.00	20.22		0.00		0.00	20.22	0.00	0.00	0.00	0.00	7.69	12.53

Total Passenger Car Trips:	**138.47**		**21.83**	**116.64**

Synchro ID: 1
Existing
Average Weekday
AM Peak Hour

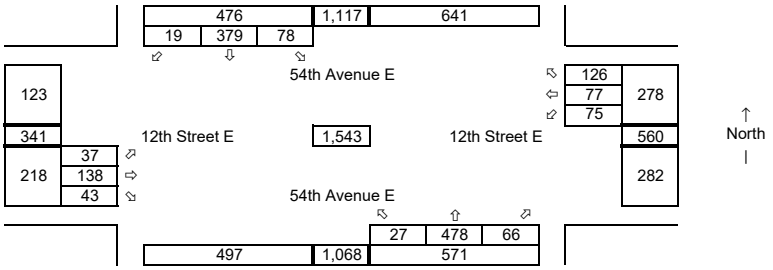
Year: **6/8/2023**

Data Source: IDAX

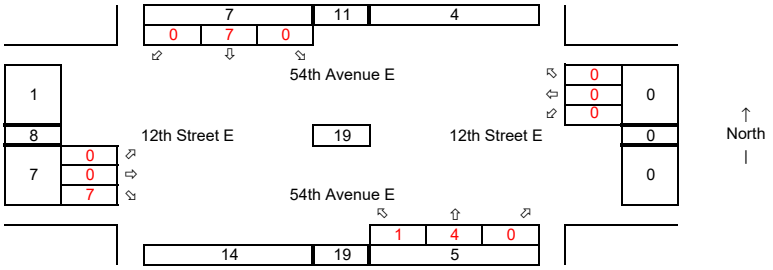


Future without Project
Average Weekday
AM Peak Hour

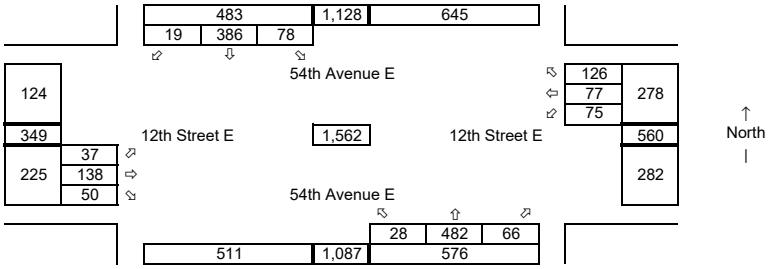
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



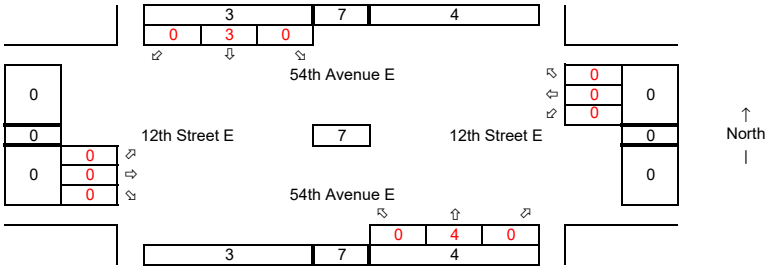
Total Development Trips
Average Weekday
AM Peak Hour



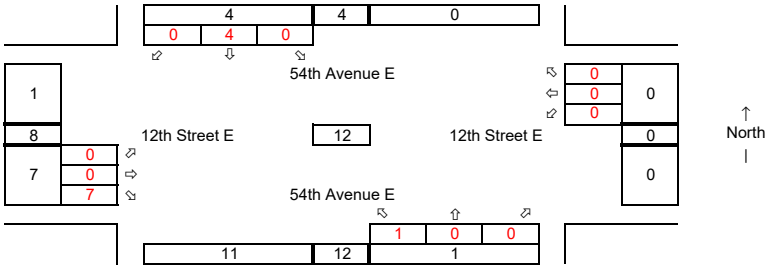
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour

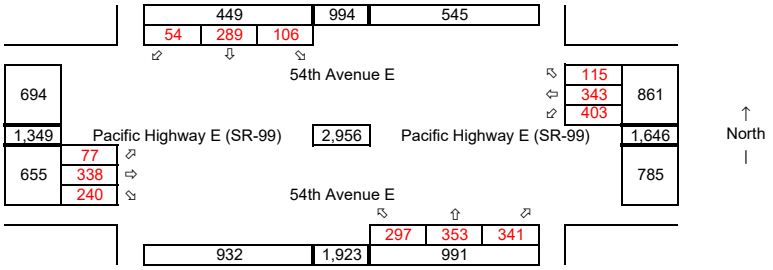


Synchro ID: 2
Existing
Average Weekday
AM Peak Hour

Year: **6/15/2023**

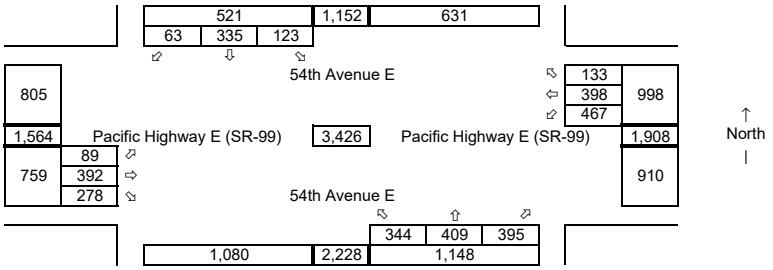
Data Source: IDAX

Two (2) Eastbound U-turns added to Eastbound left-turns

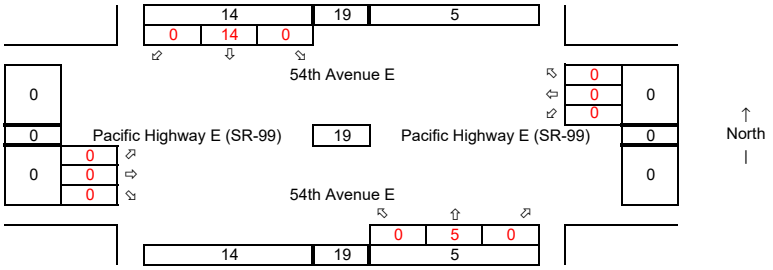


Future without Project
Average Weekday
AM Peak Hour

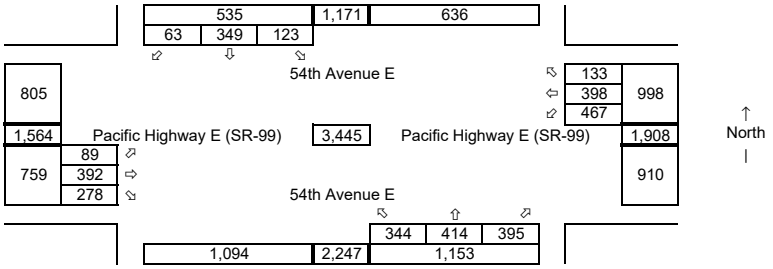
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



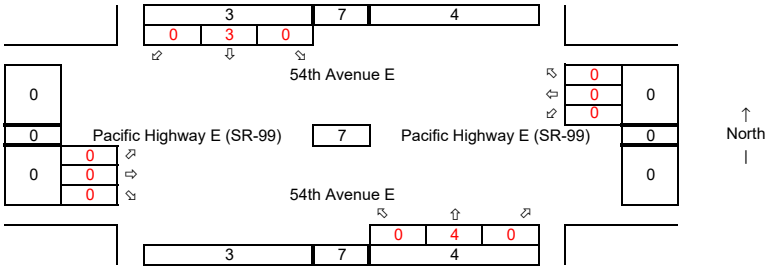
Total Development Trips
Average Weekday
AM Peak Hour



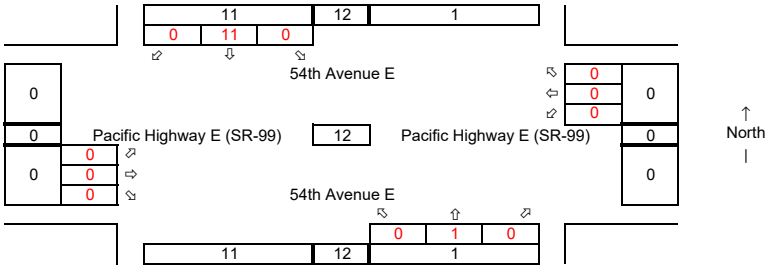
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour

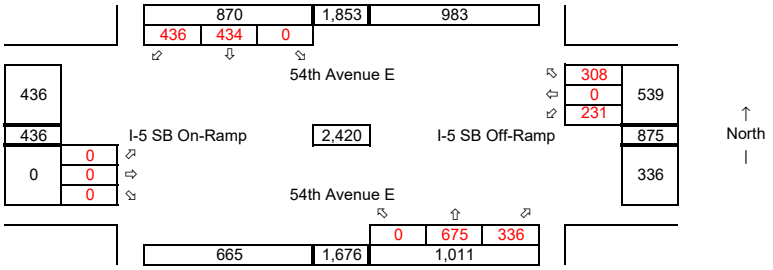


Synchro ID: 3
Existing
Average Weekday
AM Peak Hour

Year: **6/15/2023**

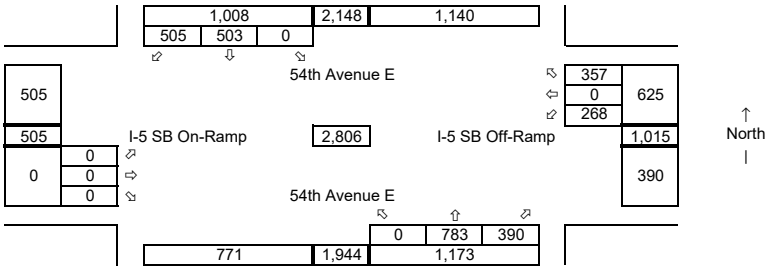
Data Source: IDAX

One (1) Northbound U-turn added to Northbound Thru

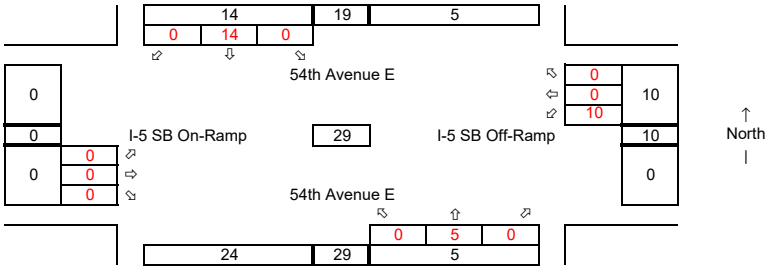


Future without Project
Average Weekday
AM Peak Hour

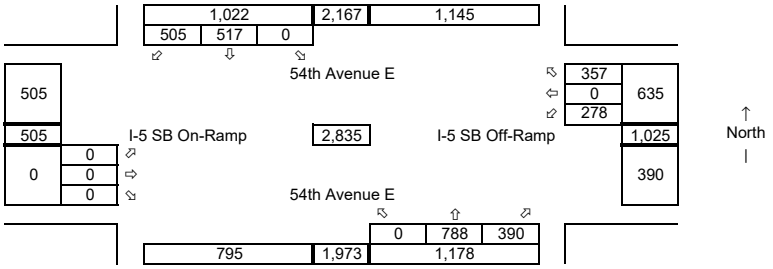
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



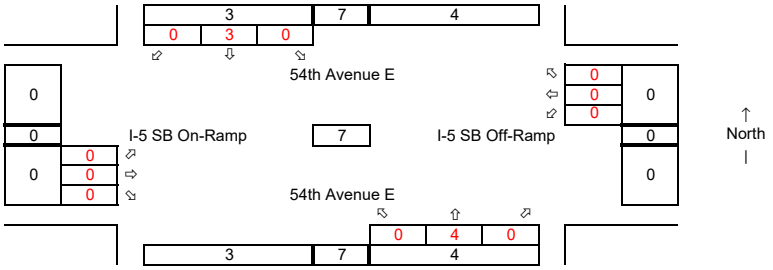
Total Development Trips
Average Weekday
AM Peak Hour



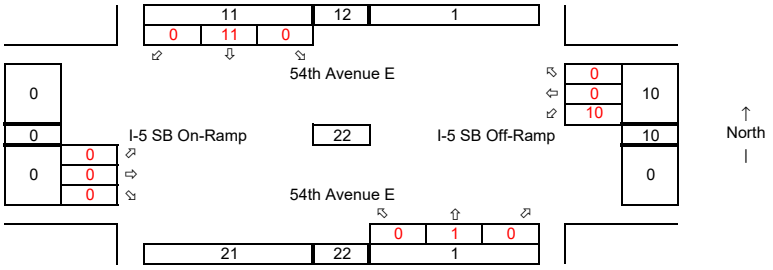
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



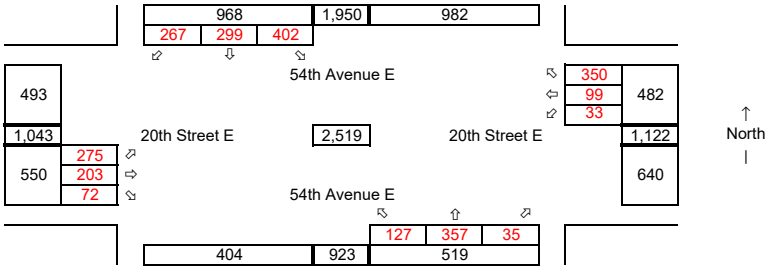
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 4
Existing
Average Weekday
AM Peak Hour

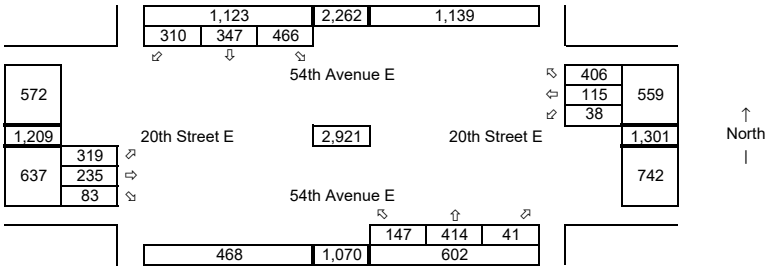
Year: **6/15/2023**

Data Source: IDAX

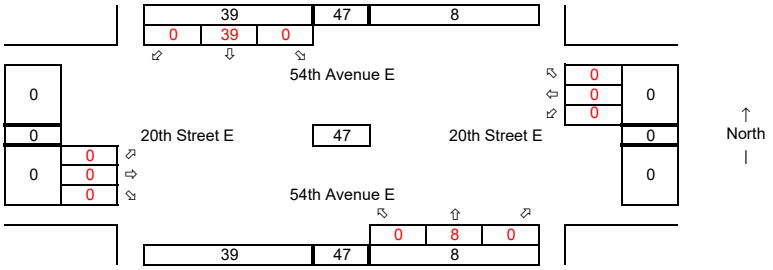


Future without Project
Average Weekday
AM Peak Hour

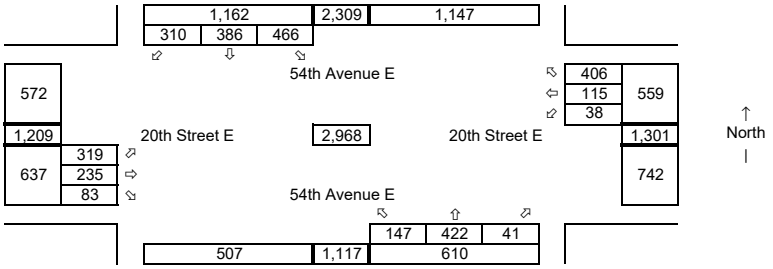
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



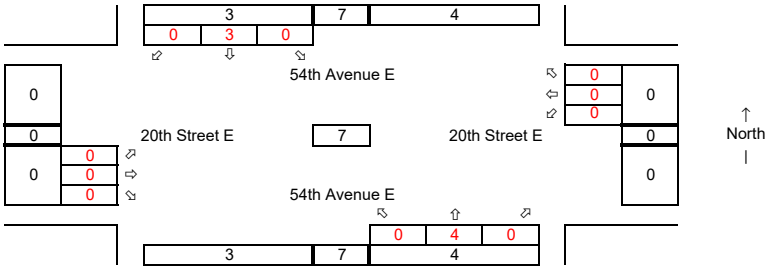
Total Development Trips
Average Weekday
AM Peak Hour



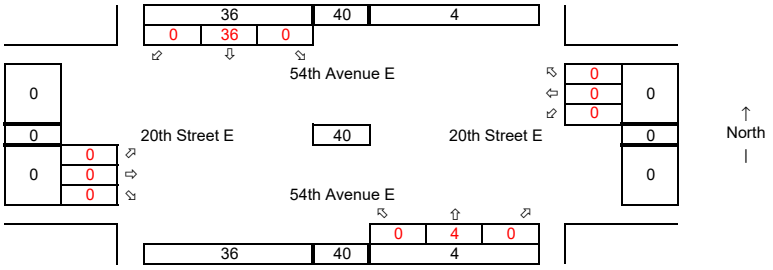
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



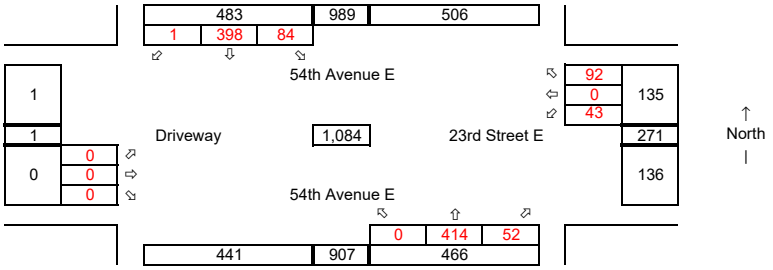
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 5
Existing
Average Weekday
AM Peak Hour

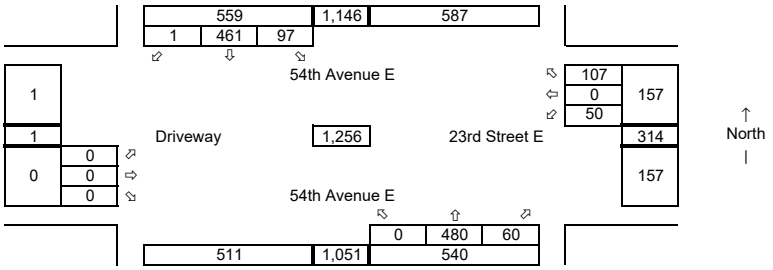
Year: **6/8/2023**

Data Source: IDAX

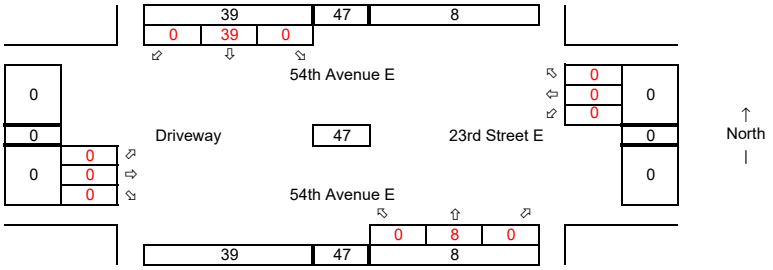


Future without Project
Average Weekday
AM Peak Hour

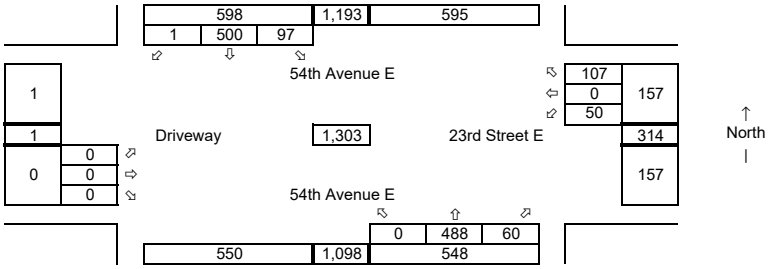
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



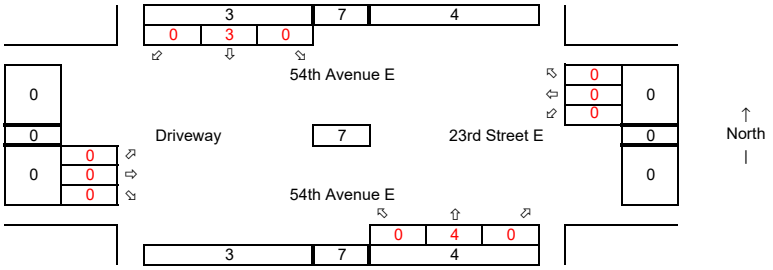
Total Development Trips
Average Weekday
AM Peak Hour



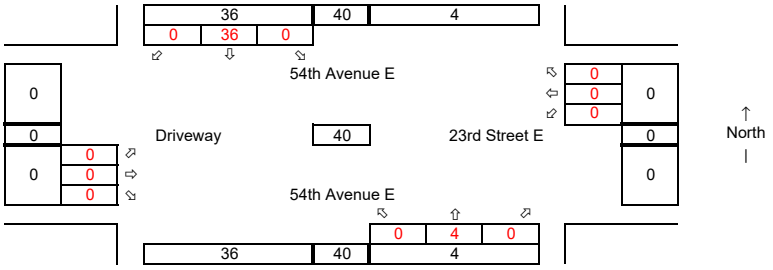
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



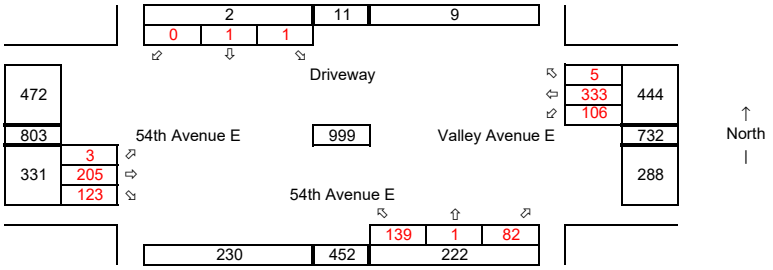
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 6
Existing
Average Weekday
AM Peak Hour

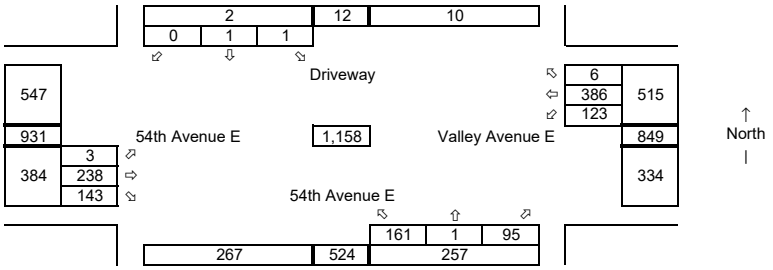
Year: **6/15/2023**

Data Source: IDAX

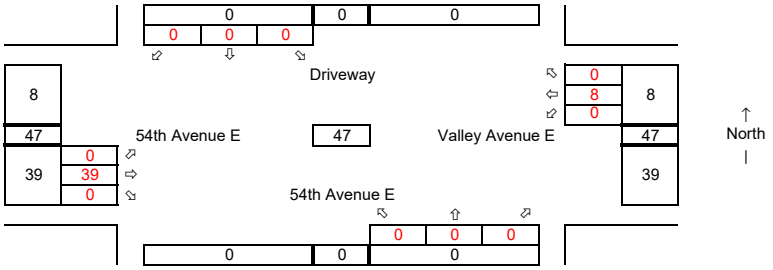


Future without Project
Average Weekday
AM Peak Hour

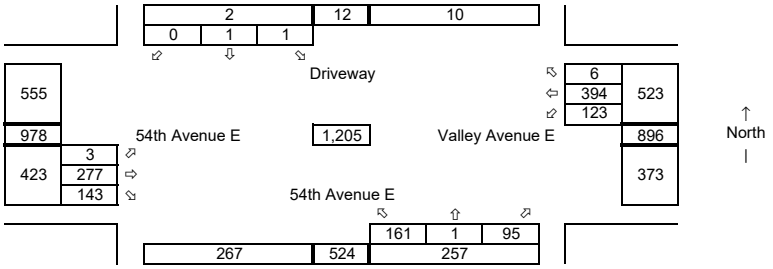
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



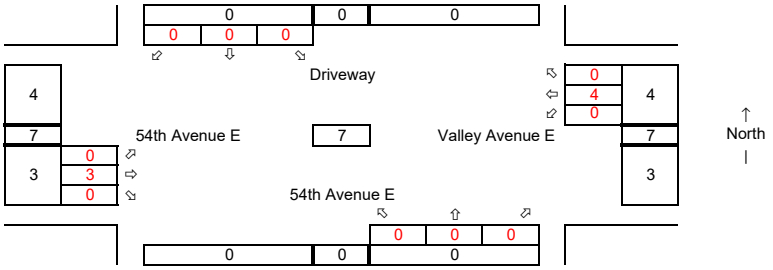
Total Development Trips
Average Weekday
AM Peak Hour



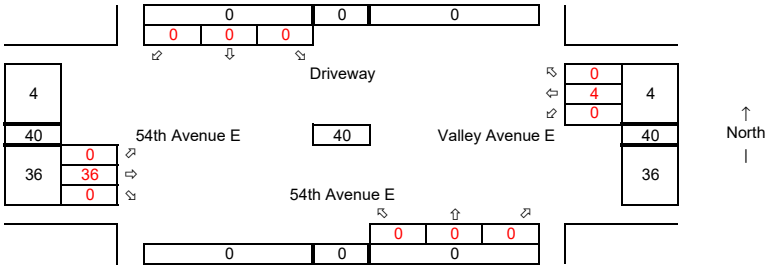
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



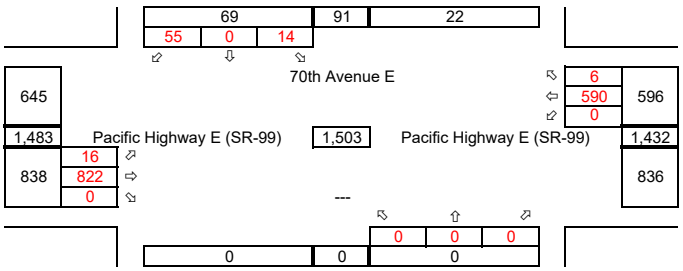
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 7
Existing
Average Weekday
AM Peak Hour

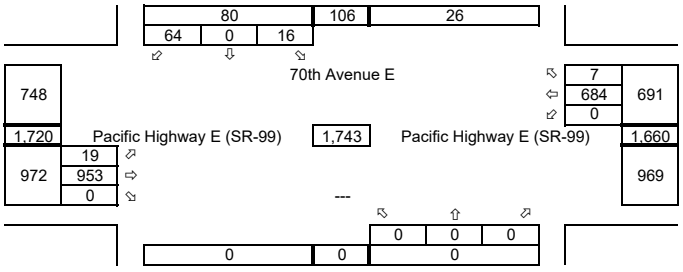
Year: **6/15/2023**

Data Source: IDAX

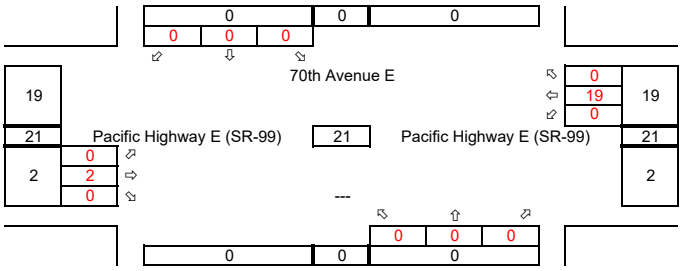


Future without Project
Average Weekday
AM Peak Hour

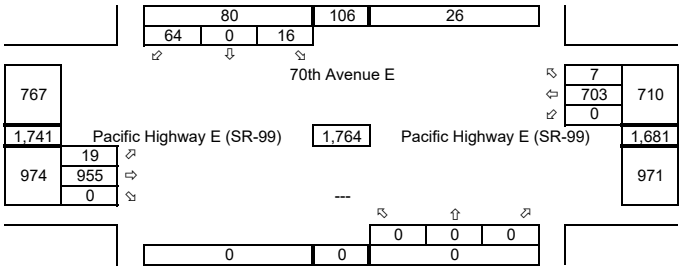
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



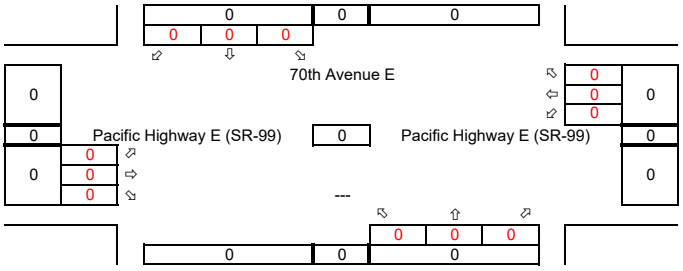
Total Development Trips
Average Weekday
AM Peak Hour



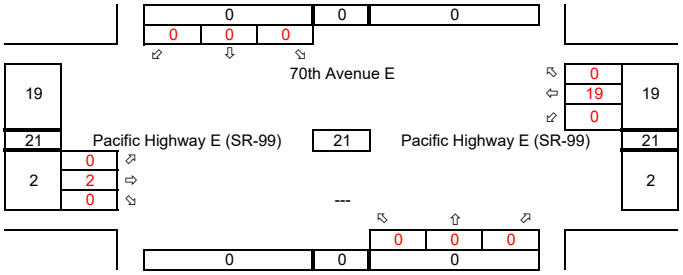
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



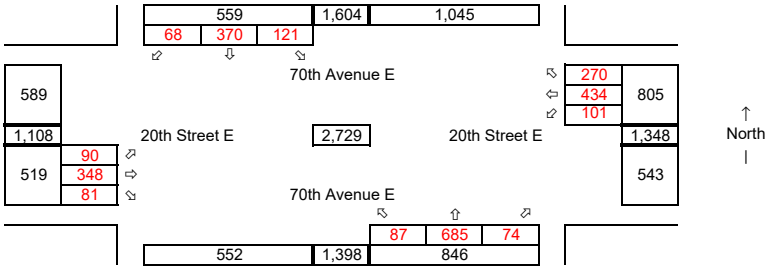
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 8
Existing
Average Weekday
AM Peak Hour

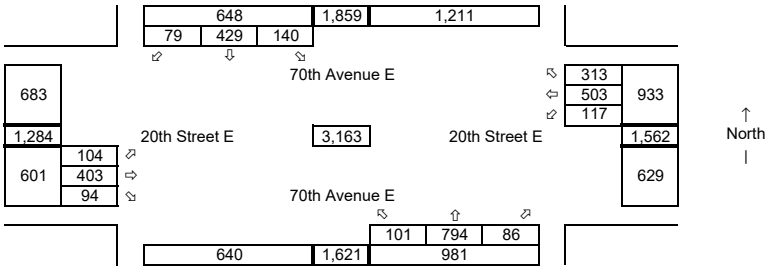
Year: **6/8/2023**

Data Source: IDAX

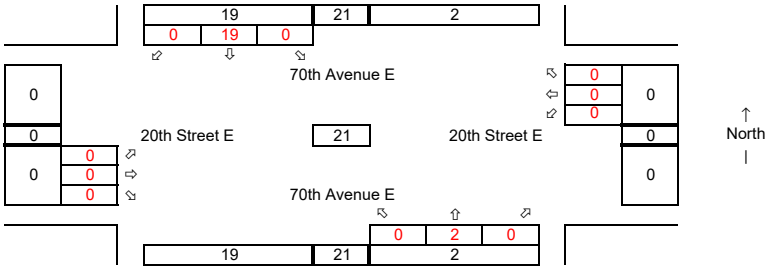


Future without Project
Average Weekday
AM Peak Hour

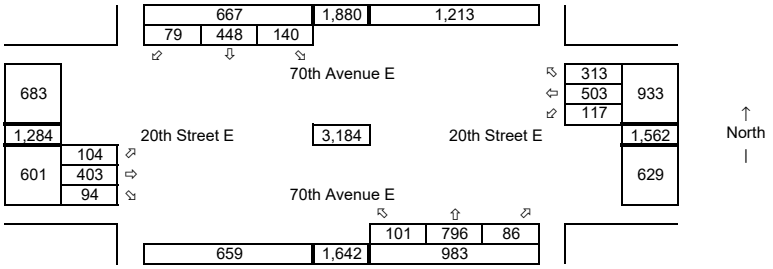
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



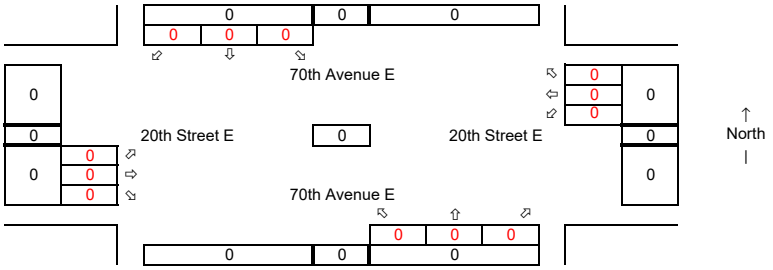
Total Development Trips
Average Weekday
AM Peak Hour



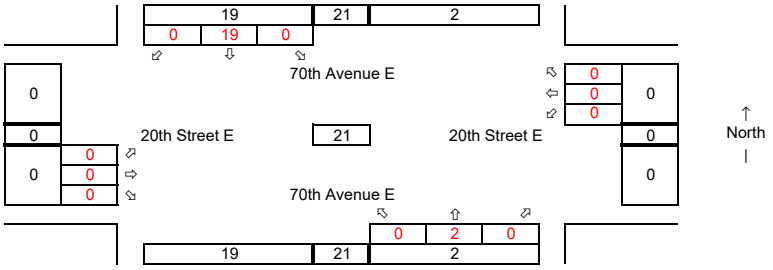
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



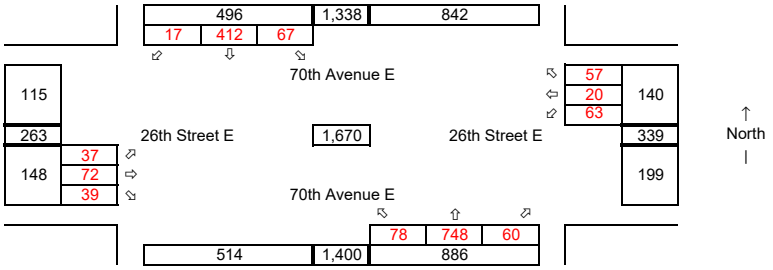
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 9
Existing
Average Weekday
AM Peak Hour

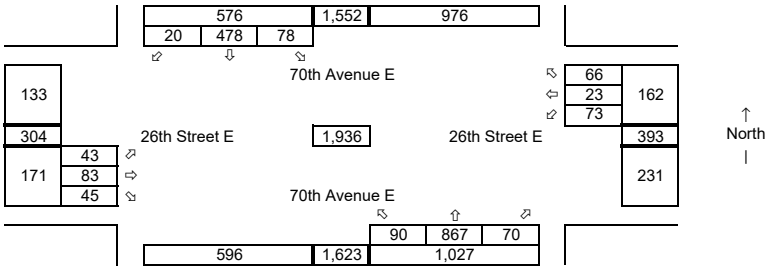
Year: **6/8/2023**

Data Source: IDAX

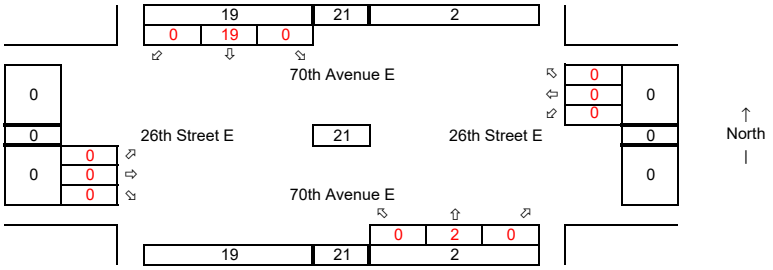


Future without Project
Average Weekday
AM Peak Hour

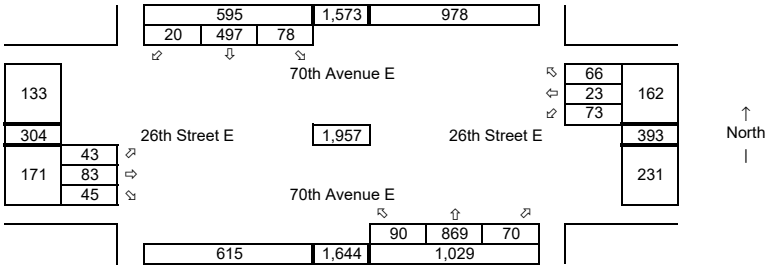
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



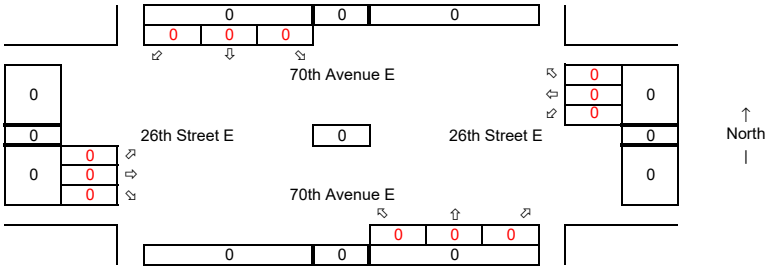
Total Development Trips
Average Weekday
AM Peak Hour



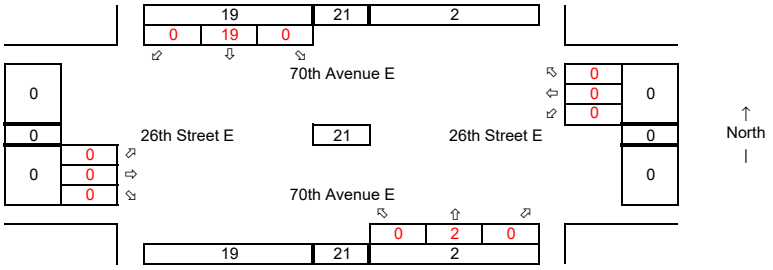
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



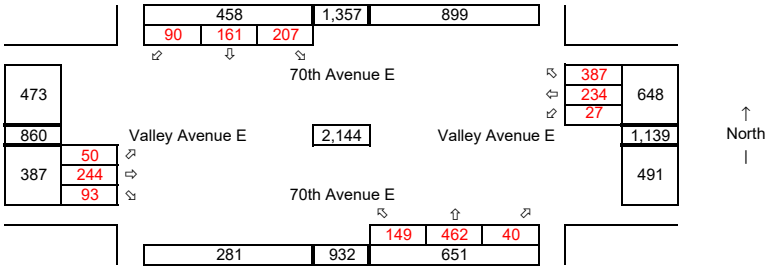
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 10
Existing
Average Weekday
AM Peak Hour

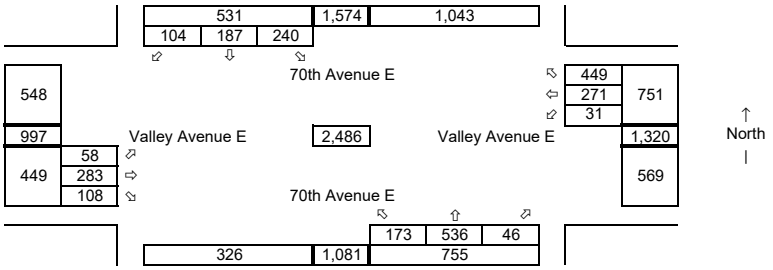
Year: **6/8/2023**

Data Source: IDAX

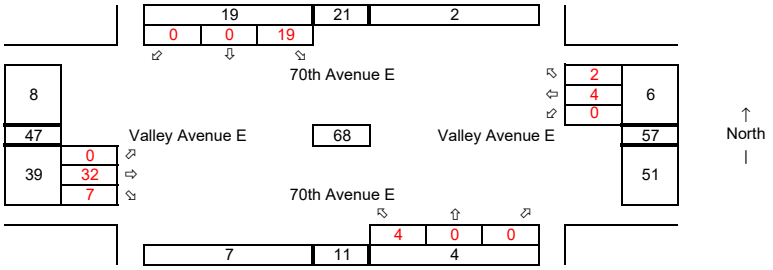


Future without Project
Average Weekday
AM Peak Hour

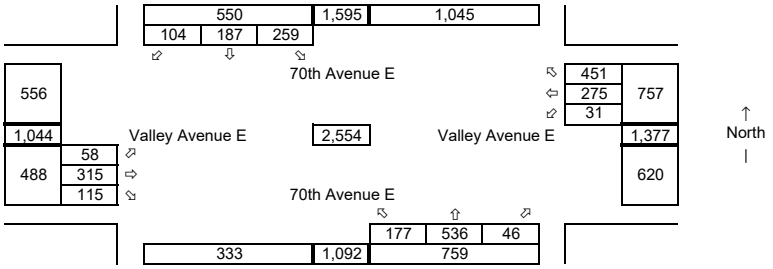
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



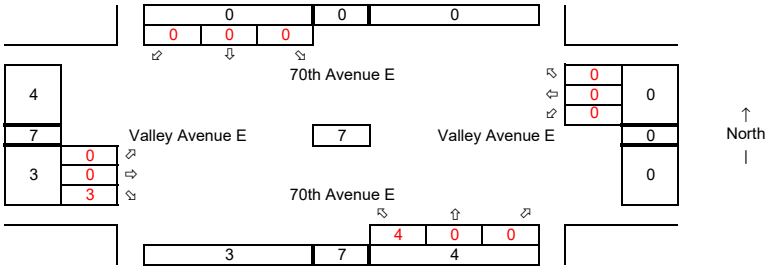
Total Development Trips
Average Weekday
AM Peak Hour



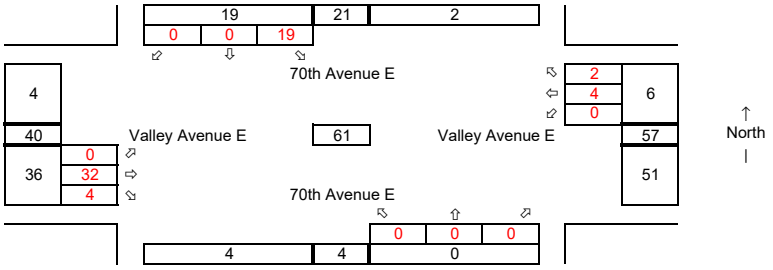
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



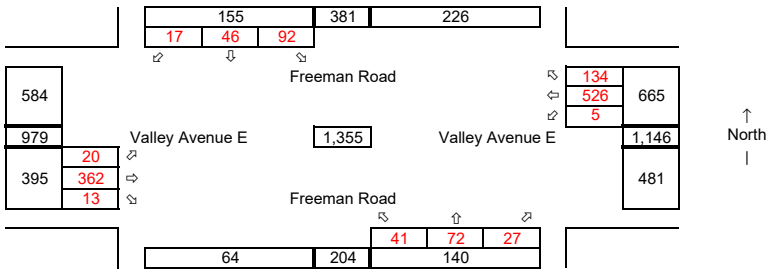
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 11
Existing
Average Weekday
AM Peak Hour

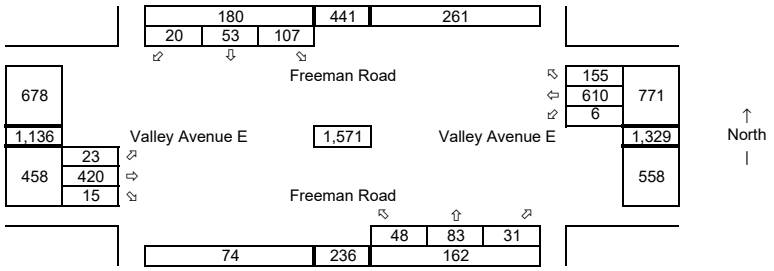
Year: **6/14/2023**

Data Source: IDAX

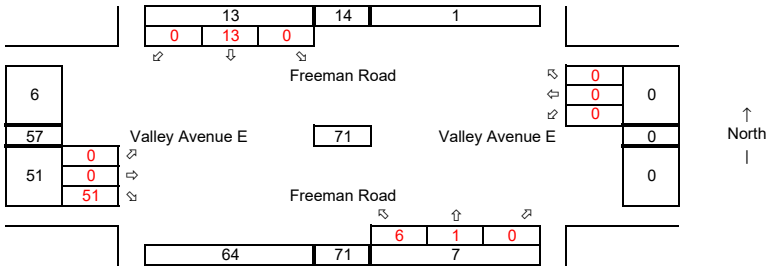


Future without Project
Average Weekday
AM Peak Hour

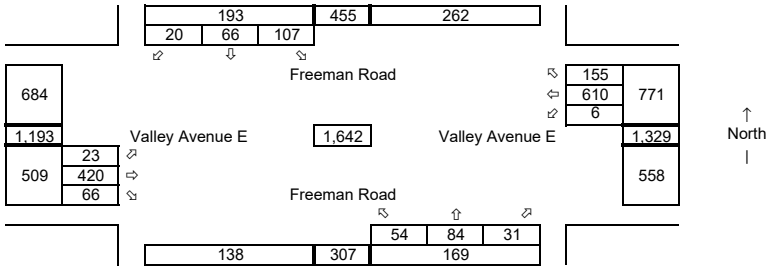
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



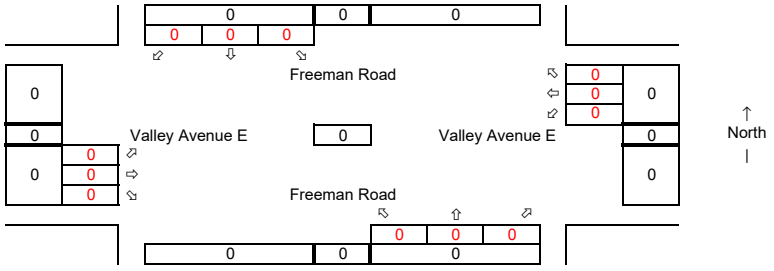
Total Development Trips
Average Weekday
AM Peak Hour



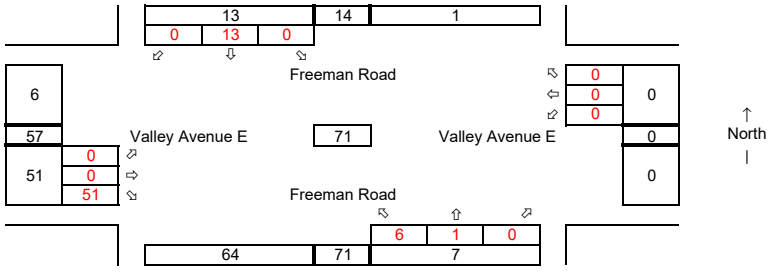
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



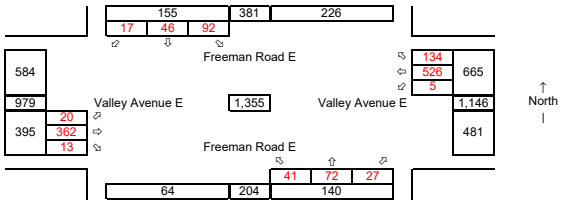
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 11
Existing
Average Weekday
AM Peak Hour

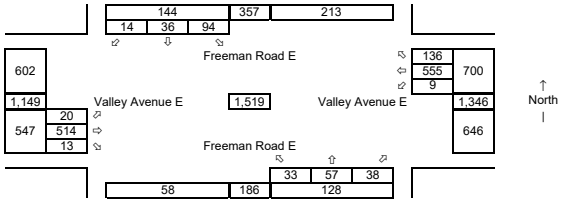
Year: **6/14/23**

Data Source: IDAX

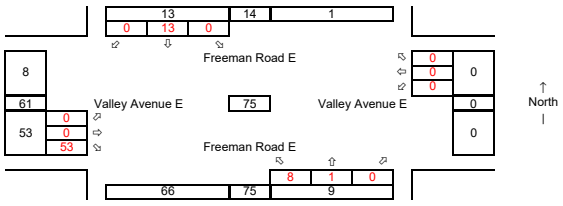


Future without Project
Average Weekday
AM Peak Hour

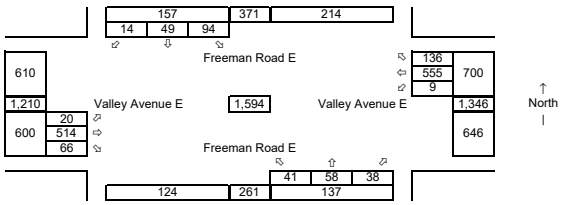
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



Total Development Trips
Average Weekday
AM Peak Hour

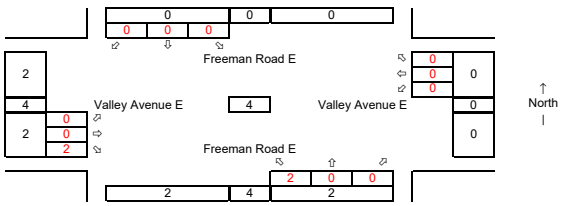


Future with Project
Average Weekday
AM Peak Hour

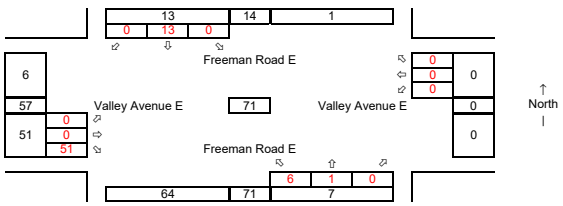


Development Truck Trips
Average Weekday
AM Peak Hour

N/S Diversion % +50%
from 70th Ave E

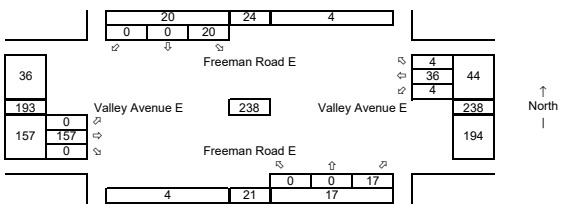


Development Car Trips
Average Weekday
AM Peak Hour



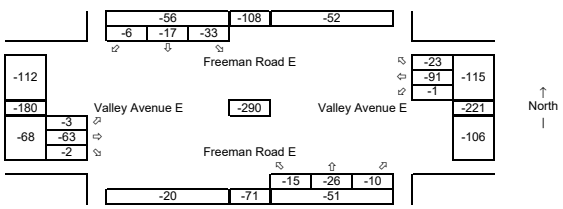
Total Pipeline Project Trips
Average Weekday
AM Peak Hour

Prologis Park Edgewood



SR-167 Extension Diversion
Average Weekday
AM Peak Hour

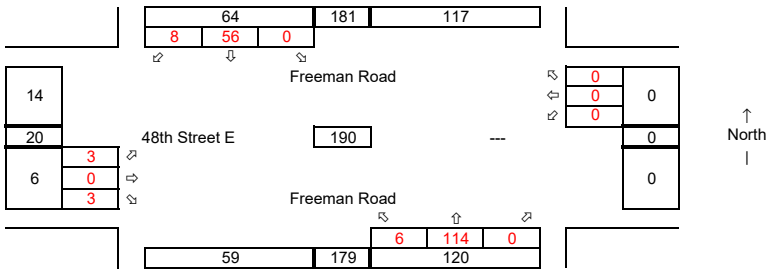
N/S Diversion % -31%
E/W Diversion % -15%



Synchro ID: 12
Existing
Average Weekday
AM Peak Hour

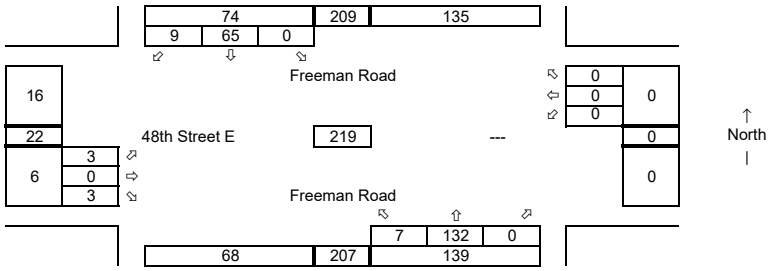
Year: **6/8/2023**

Data Source: IDAX

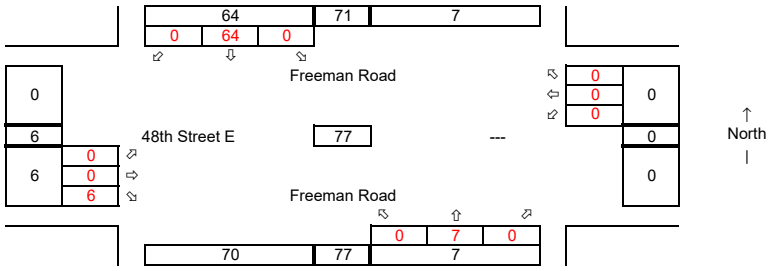


Future without Project
Average Weekday
AM Peak Hour

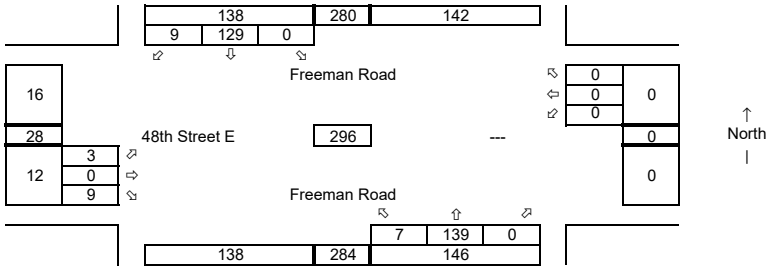
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



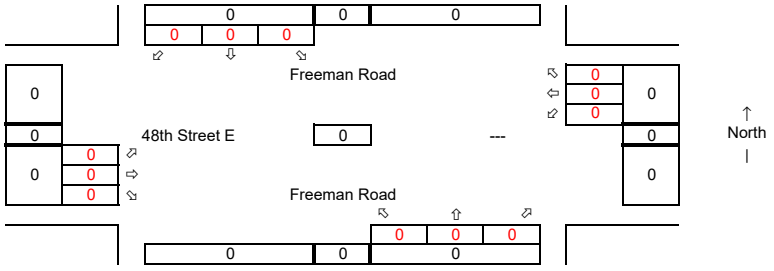
Total Development Trips
Average Weekday
AM Peak Hour



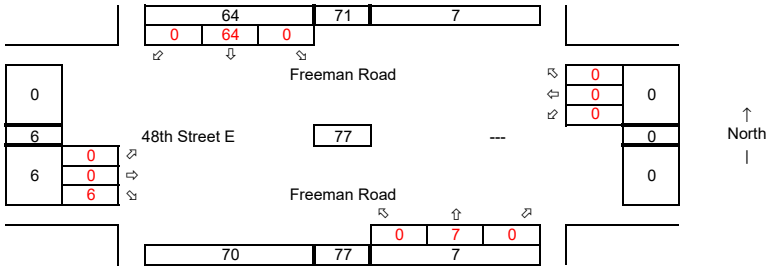
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



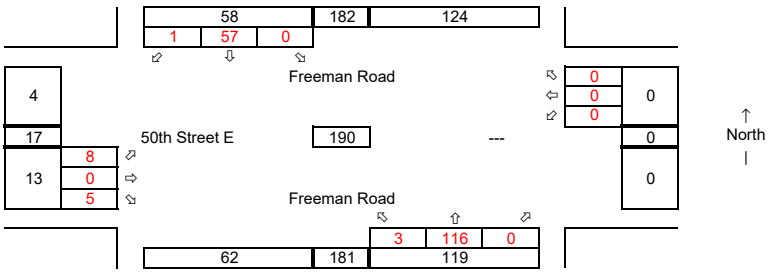
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 13
Existing
Average Weekday
AM Peak Hour

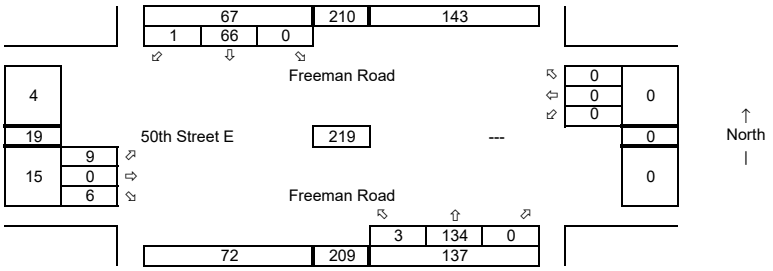
Year: **6/8/2023**

Data Source: IDAX

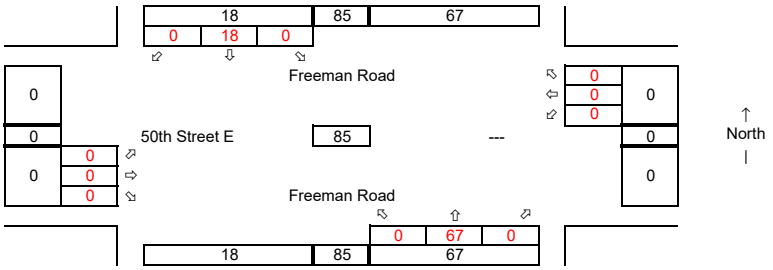


Future without Project
Average Weekday
AM Peak Hour

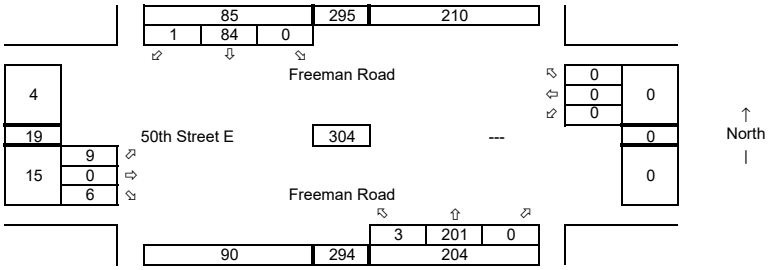
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



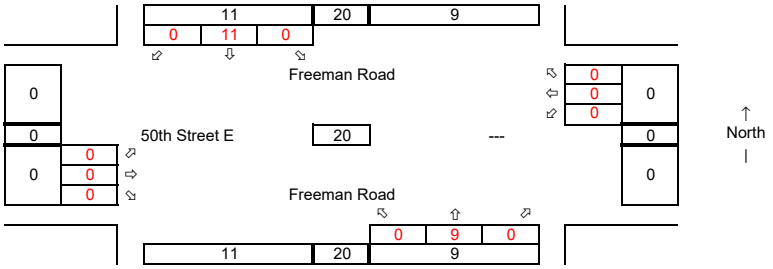
Total Development Trips
Average Weekday
AM Peak Hour



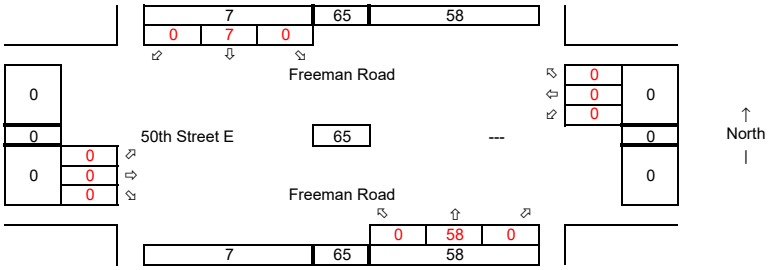
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour

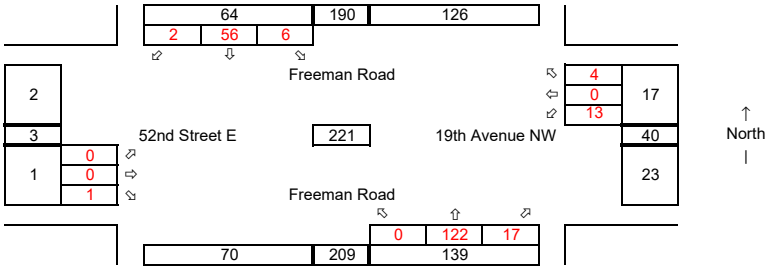


Synchro ID: 14
Existing
Average Weekday
AM Peak Hour

Year: **6/8/2023**

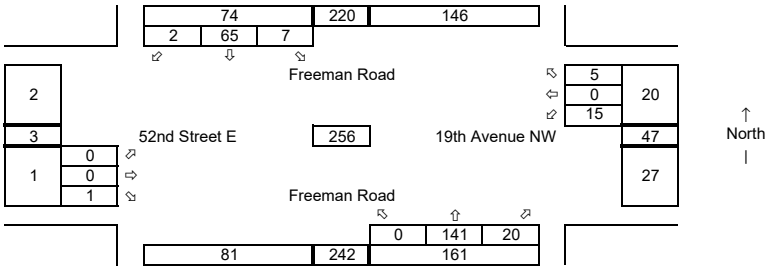
Data Source: IDAX

Two (2) Westbound U-turns added to Westbound Left-turns

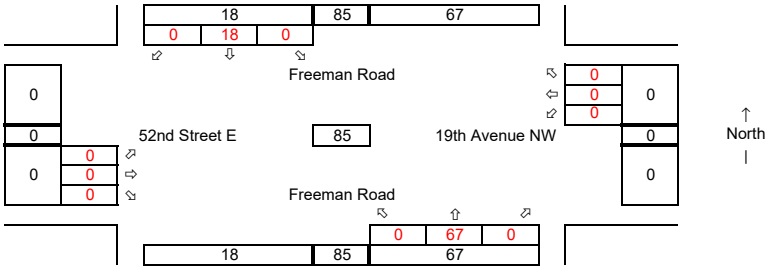


Future without Project
Average Weekday
AM Peak Hour

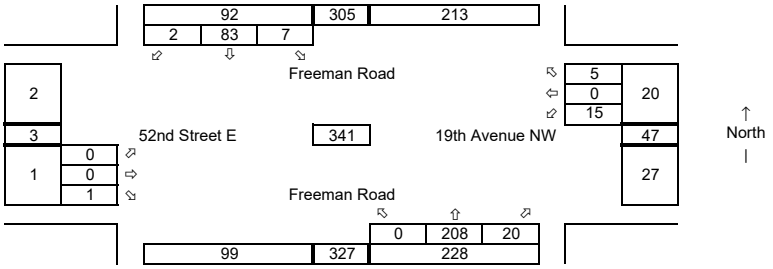
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



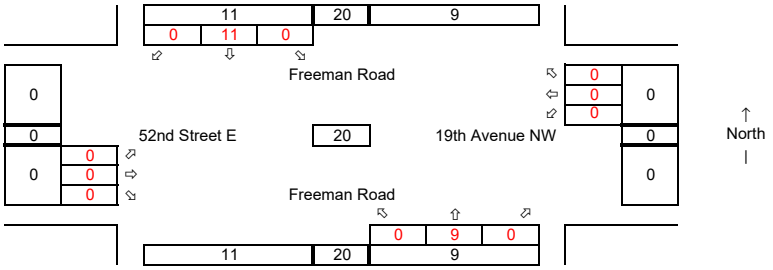
Total Development Trips
Average Weekday
AM Peak Hour



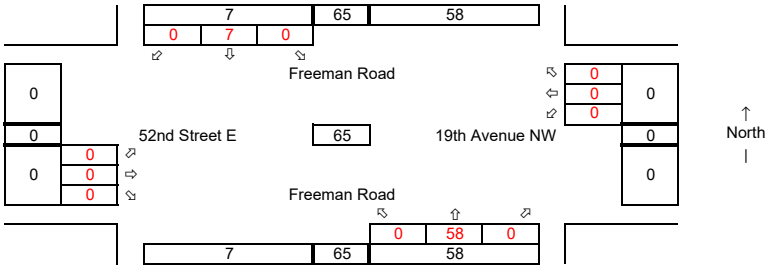
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour

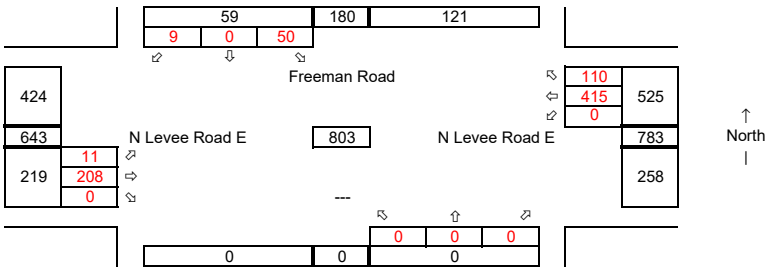


Synchro ID: 15
Existing
Average Weekday
AM Peak Hour

Year: **6/15/2023**

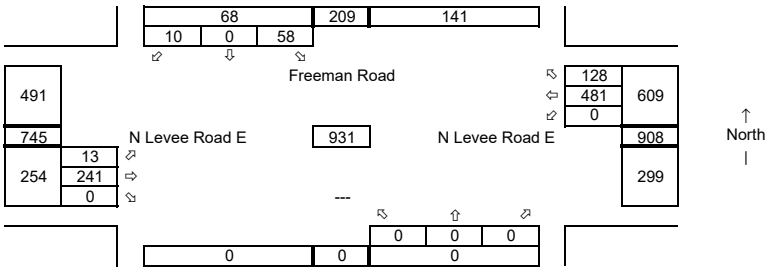
Data Source: IDAX

One (1) Westbound U-turn added to Southbound Left-turns

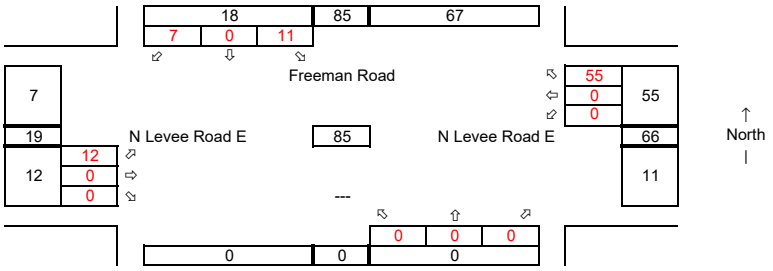


Future without Project
Average Weekday
AM Peak Hour

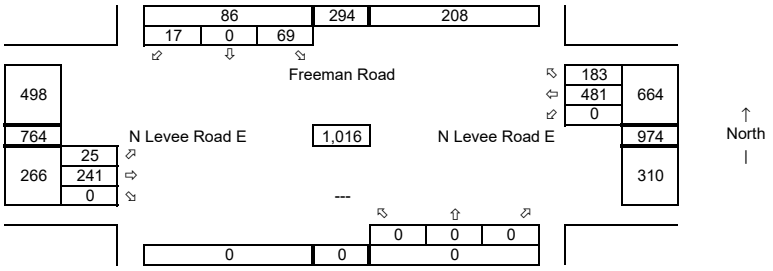
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



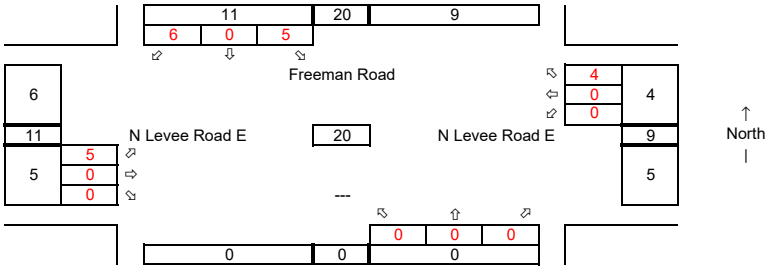
Total Development Trips
Average Weekday
AM Peak Hour



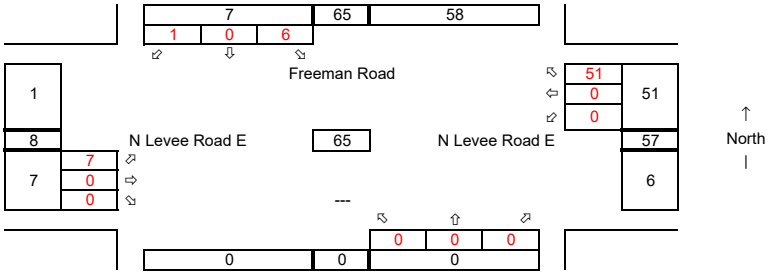
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour



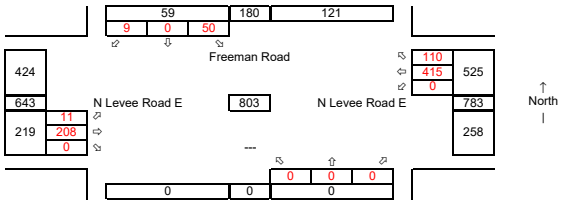
Synchro ID: 15

Existing
Average Weekday
AM Peak Hour

Year: **6/15/2023**

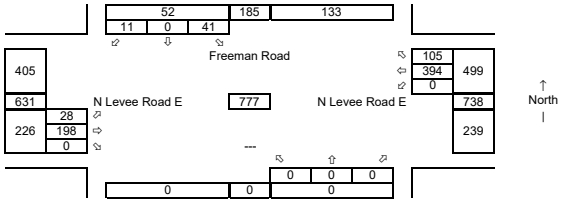
Data Source: IDAX

One (1) Westbound U-turn added to Southbound Left-turns

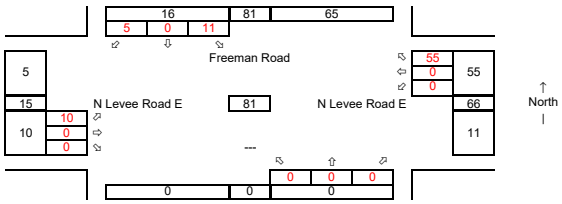


Future without Project
Average Weekday
AM Peak Hour

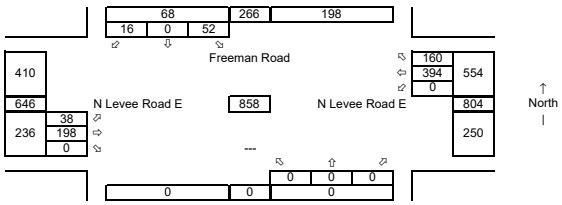
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



Total Development Trips
Average Weekday
AM Peak Hour

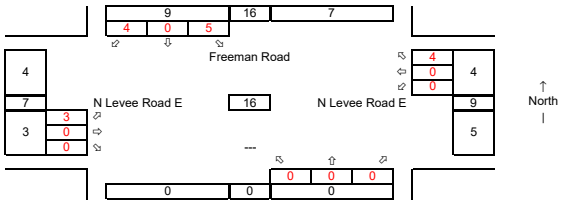


Future with Project
Average Weekday
AM Peak Hour

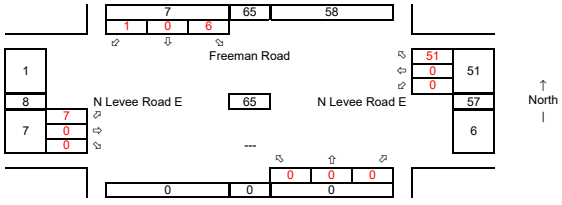


Development Truck Trips
Average Weekday
AM Peak Hour

N/S Diversion % -50%
from 70th Ave E

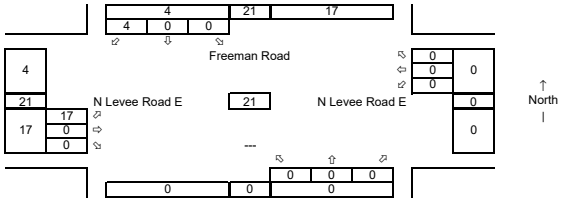


Development Car Trips
Average Weekday
AM Peak Hour



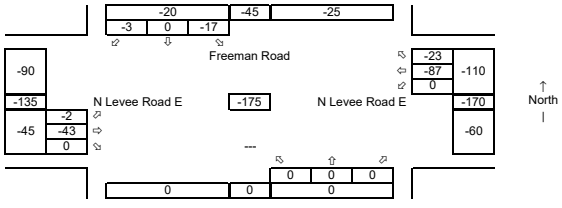
Total Pipeline Project Trips
Average Weekday
AM Peak Hour

Prologis Park Edgewood



SR-167 Extension Diversion
Average Weekday
AM Peak Hour

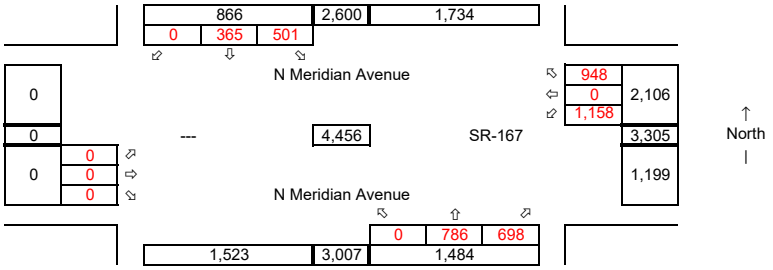
N/S Diversion % -29%
E/W Diversion % -18%



Synchro ID: 16
Existing
Average Weekday
AM Peak Hour

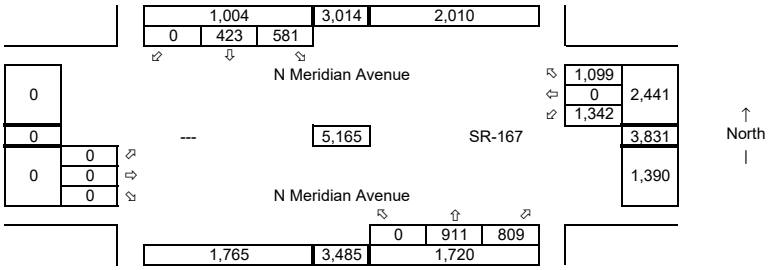
Year: **6/14/2023**

Data Source: IDAX

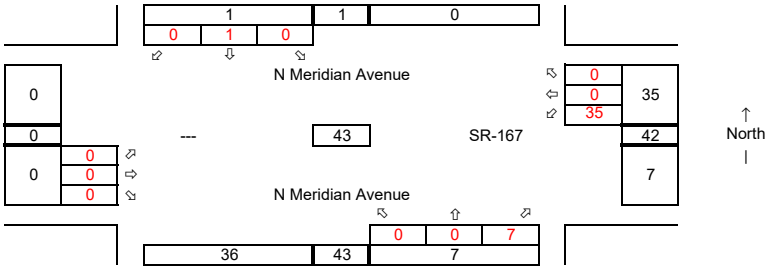


Future without Project
Average Weekday
AM Peak Hour

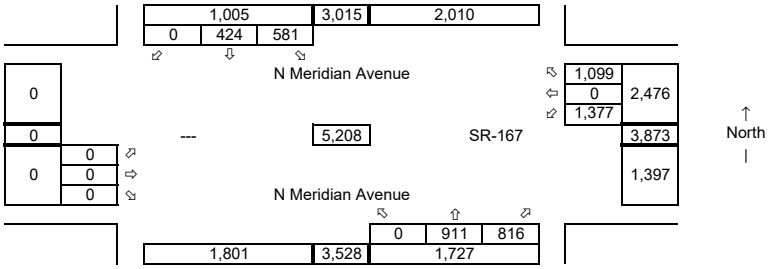
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



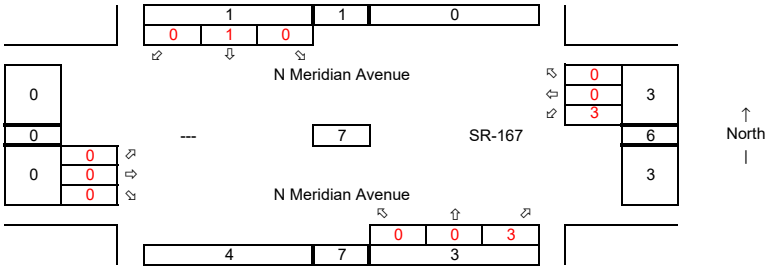
Total Development Trips
Average Weekday
AM Peak Hour



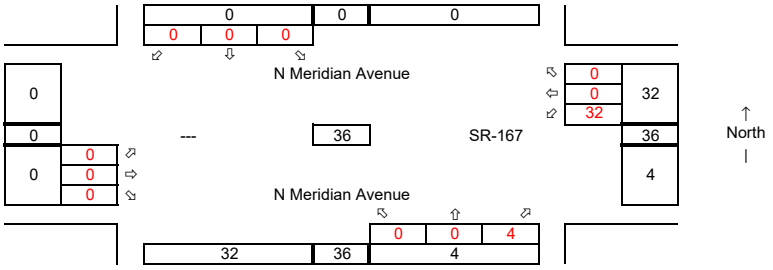
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



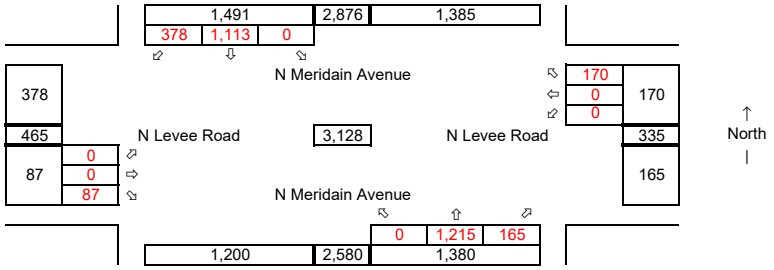
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 17
Existing
Average Weekday
AM Peak Hour

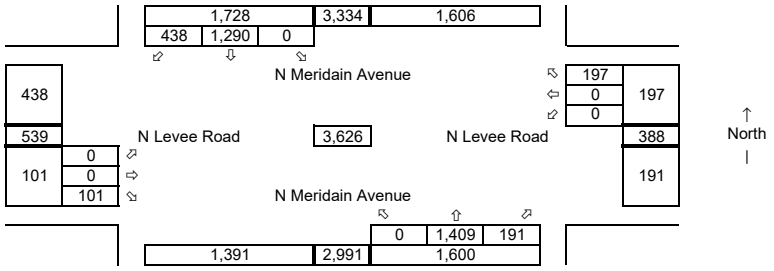
Year: **6/14/2023**

Data Source: IDAX

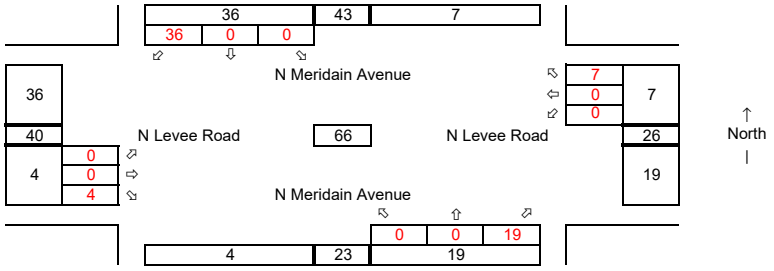


Future without Project
Average Weekday
AM Peak Hour

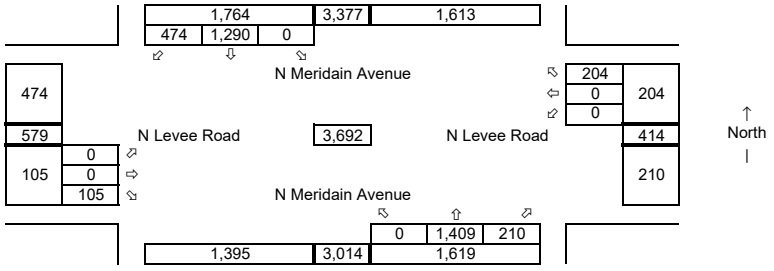
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



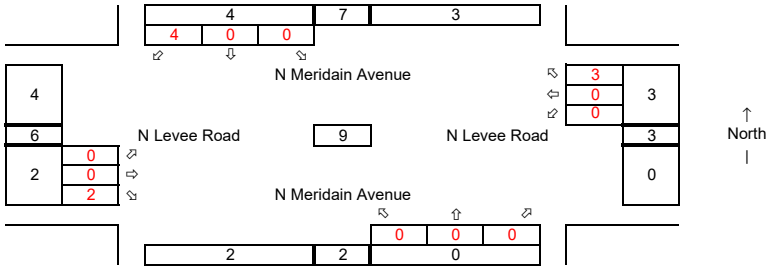
Total Development Trips
Average Weekday
AM Peak Hour



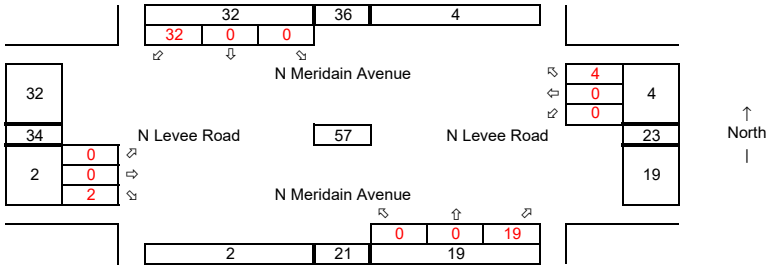
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



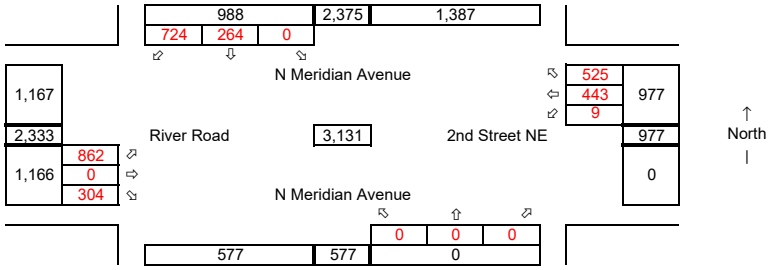
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 18
Existing
Average Weekday
AM Peak Hour

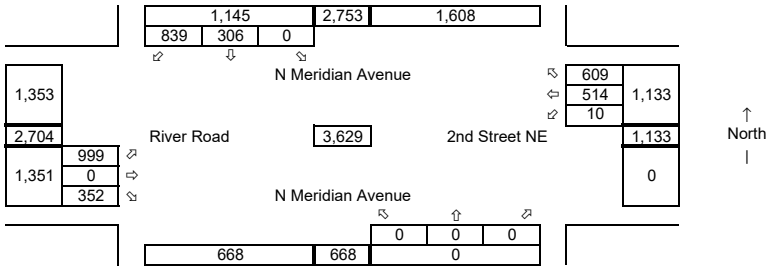
Year: **6/14/2023**

Data Source: IDAX

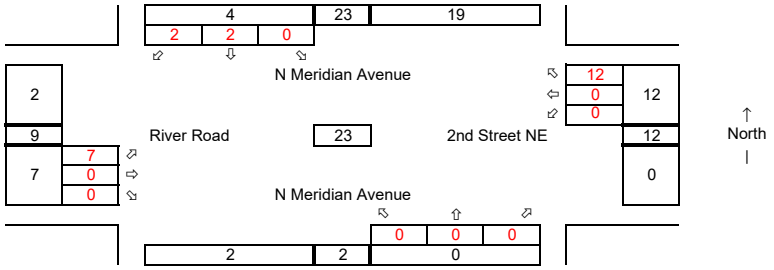


Future without Project
Average Weekday
AM Peak Hour

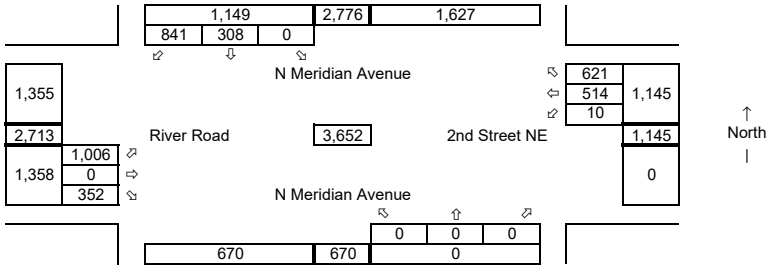
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



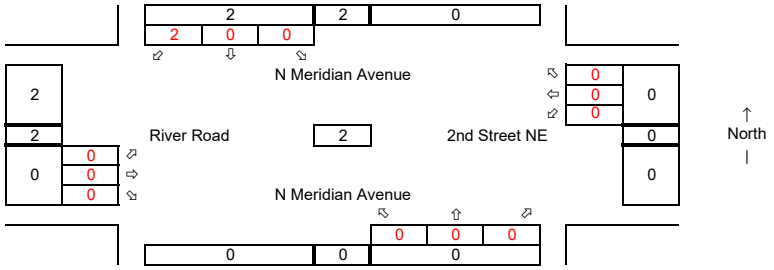
Total Development Trips
Average Weekday
AM Peak Hour



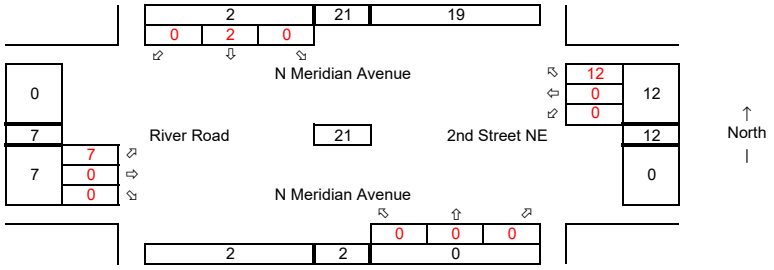
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



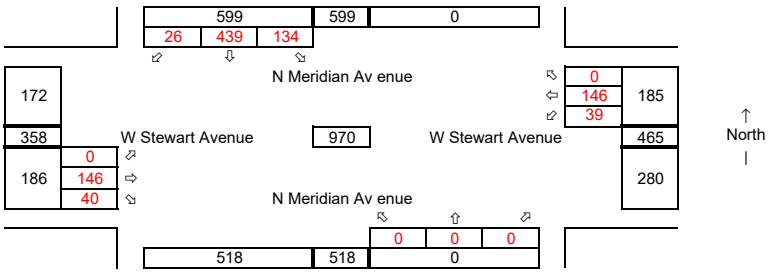
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 19
Existing
Average Weekday
AM Peak Hour

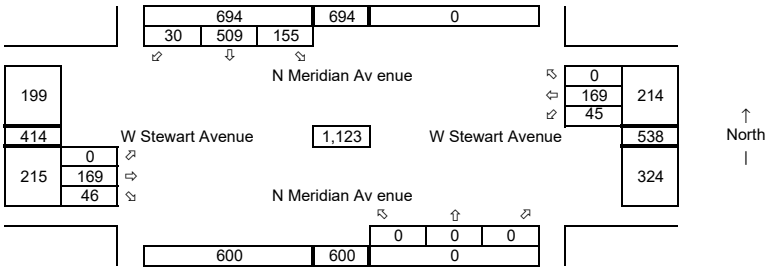
Year: **6/14/2023**

Data Source: IDAX

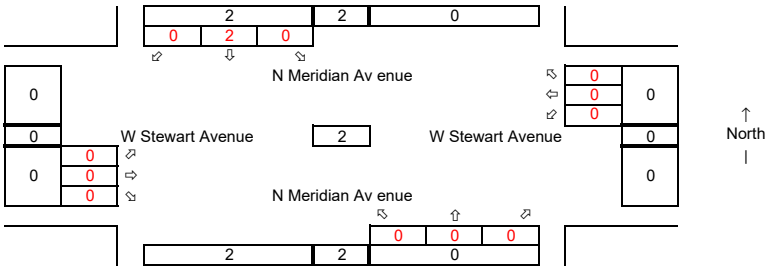


Future without Project
Average Weekday
AM Peak Hour

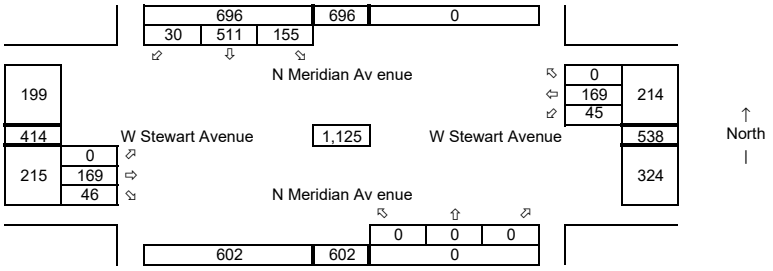
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



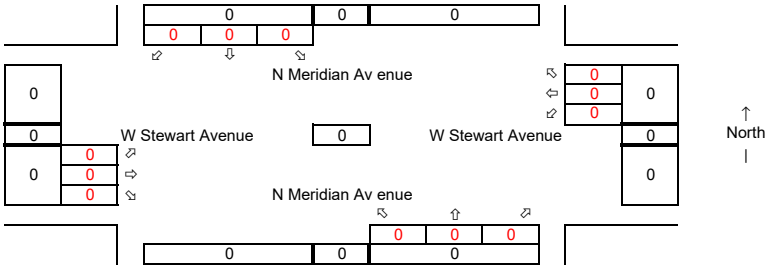
Total Development Trips
Average Weekday
AM Peak Hour



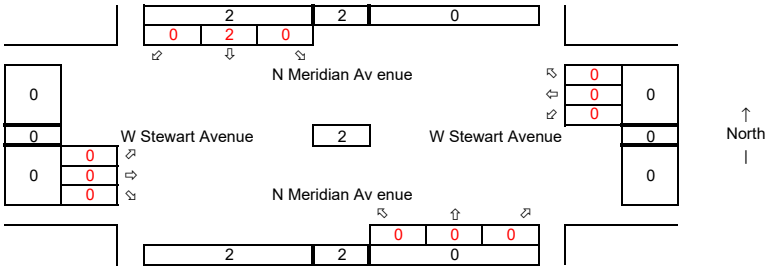
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



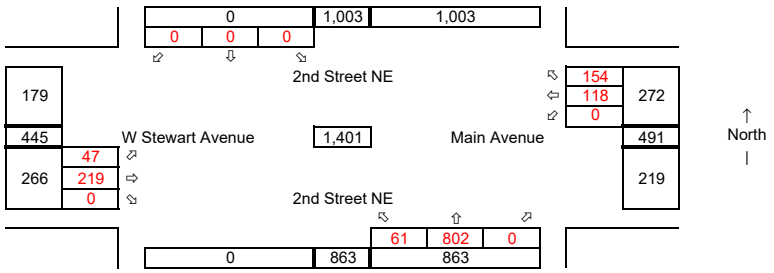
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 20
Existing
Average Weekday
AM Peak Hour

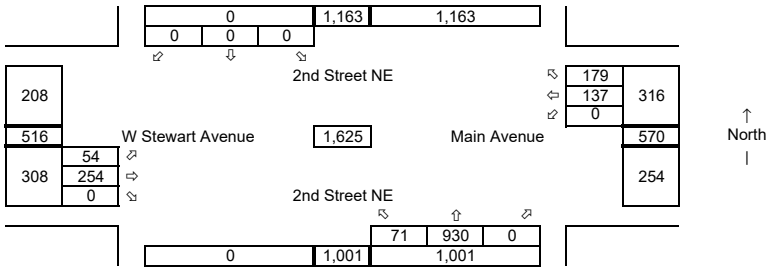
Year: **6/15/2023**

Data Source: IDAX

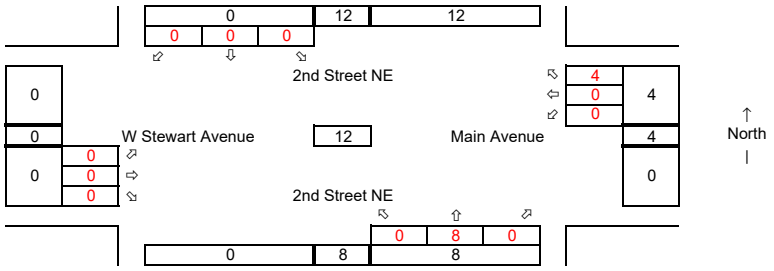


Future without Project
Average Weekday
AM Peak Hour

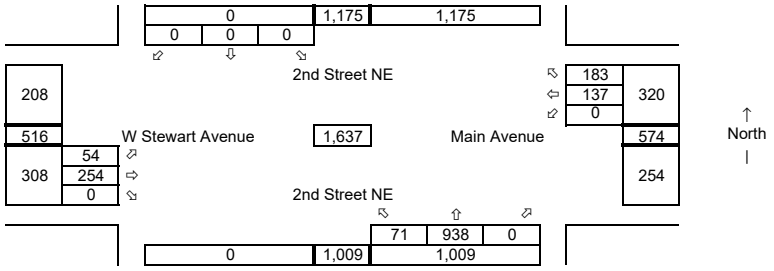
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



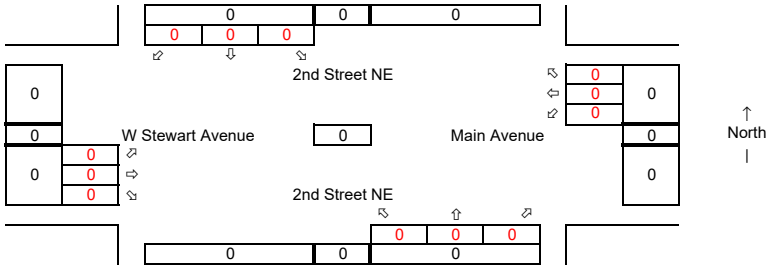
Total Development Trips
Average Weekday
AM Peak Hour



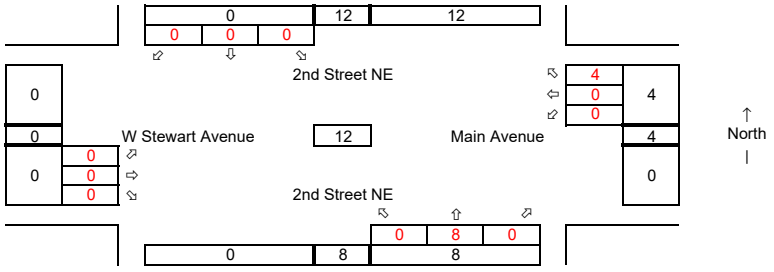
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour

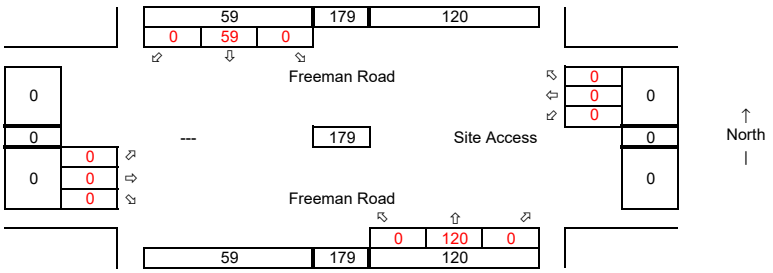


Synchro ID: 21
Existing
Average Weekday
AM Peak Hour

Year: **6/8/2023**

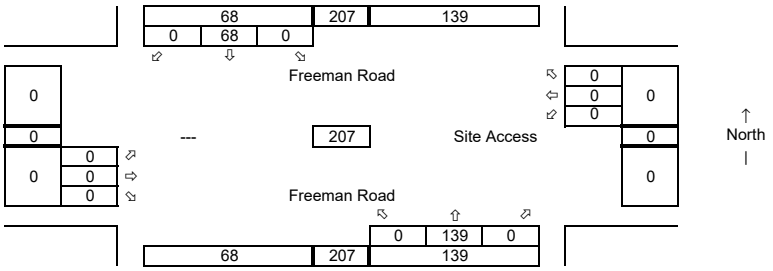
Data Source: IDAX

NB/SB volumes extrapolated
from Freeman at 48th Street E

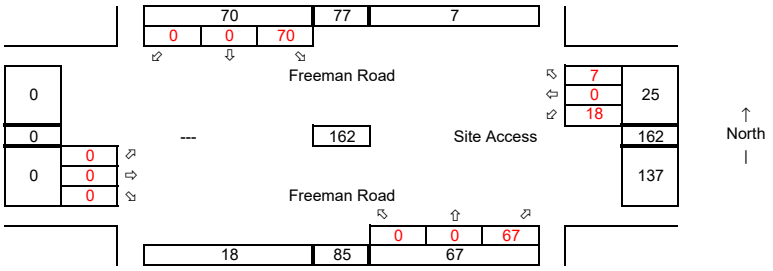


Future without Project
Average Weekday
AM Peak Hour

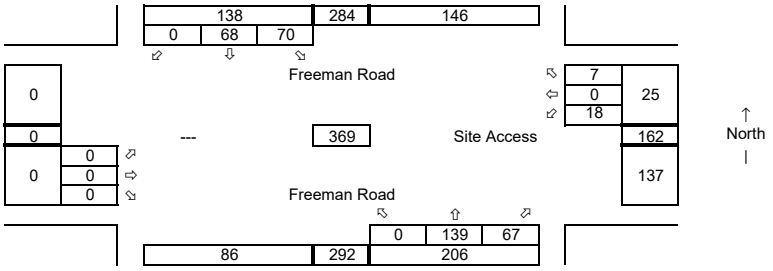
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



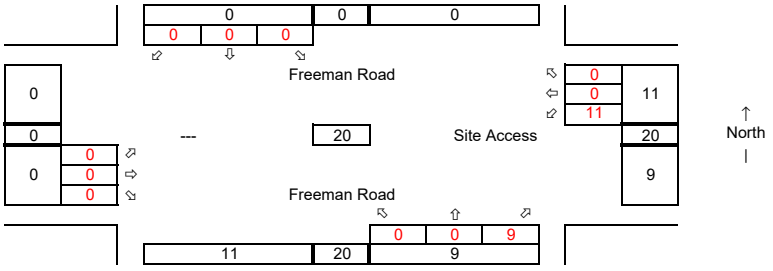
Total Development Trips
Average Weekday
AM Peak Hour



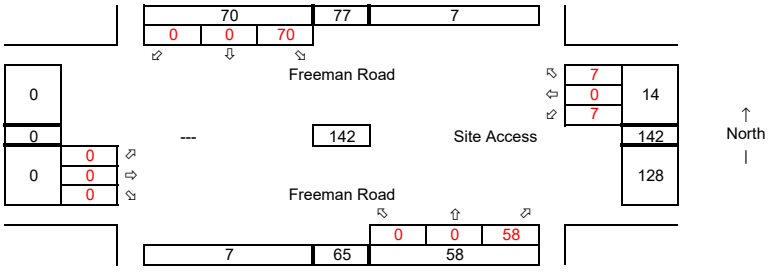
Future with Project
Average Weekday
AM Peak Hour

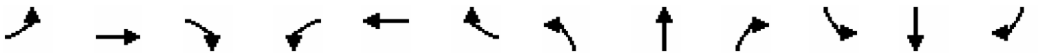


Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour



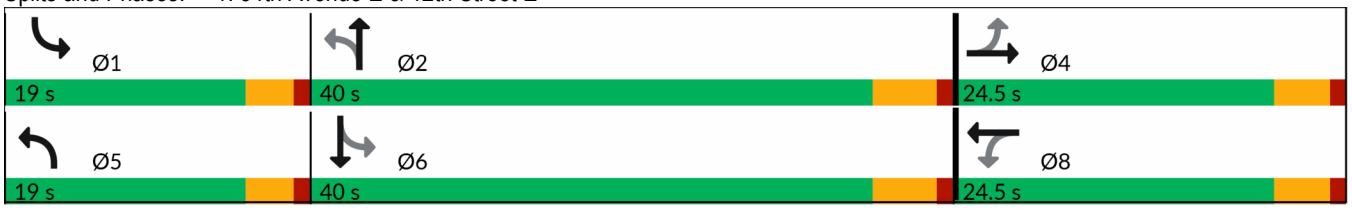


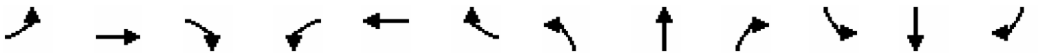
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	138	50	75	77	126	28	482	66	78	386	19
Future Volume (vph)	37	138	50	75	77	126	28	482	66	78	386	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		0	100		0	100		0
Storage Lanes	1		0	1		0	1		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	0.95	0.95	1.00	0.95	0.95
Frt		0.960			0.907			0.982			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1467	1483	0	1467	1401	0	1467	2882	0	1467	2914	0
Flt Permitted	0.449			0.486			0.487			0.358		
Satd. Flow (perm)	694	1483	0	751	1401	0	752	2882	0	553	2914	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			92			22			7	
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		727			778			1175			536	
Travel Time (s)		19.8			15.2			22.9			10.4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	214	0	85	231	0	32	623	0	89	461	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	24.5	24.5		24.5	24.5		10.5	19.0		10.5	17.0	
Total Split (s)	24.5	24.5		24.5	24.5		19.0	40.0		19.0	40.0	
Total Split (%)	29.3%	29.3%		29.3%	29.3%		22.8%	47.9%		22.8%	47.9%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		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		4.0	5.0		4.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Max		None	Max	
Act Effct Green (s)	14.3	14.3		14.3	14.3		41.8	35.9		44.9	40.8	
Actuated g/C Ratio	0.21	0.21		0.21	0.21		0.61	0.52		0.65	0.59	
v/c Ratio	0.29	0.66		0.54	0.63		0.06	0.41		0.19	0.27	
Control Delay (s/veh)	29.1	33.2		38.8	23.7		5.3	12.4		6.0	9.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	29.1	33.2		38.8	23.7		5.3	12.4		6.0	9.0	
LOS	C	C		D	C		A	B		A	A	
Approach Delay (s/veh)		32.5			27.8			12.0			8.5	
Approach LOS		C			C			B			A	
Queue Length 50th (ft)	15	77		33	53		4	81		11	35	
Queue Length 95th (ft)	42	143		76	120		14	142		30	97	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		647			698			1095			456	
Turn Bay Length (ft)	100			200			100			100		
Base Capacity (vph)	205	453		222	479		659	1516		570	1733	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.20	0.47		0.38	0.48		0.05	0.41		0.16	0.27	

Intersection Summary			
Area Type:	Other		
Cycle Length: 83.5			
Actuated Cycle Length: 68.7			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay (s/veh): 16.7		Intersection LOS: B	
Intersection Capacity Utilization 52.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: 54th Avenue E & 12th Street E





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	392	278	467	398	133	344	414	395	123	349	63
Future Volume (vph)	89	392	278	467	398	133	344	414	395	123	349	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	550		0	150		0	125		0
Storage Lanes	1		1	2		0	2		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.962			0.927			0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1517	3034	1357	2943	2918	0	2943	2812	0	1517	2964	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1517	3034	1357	2943	2918	0	2943	2812	0	1517	2964	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			119		32			164			14	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1085			1070			320			1175	
Travel Time (s)		21.1			20.8			6.2			22.9	
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 (%)	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	93	408	290	486	554	0	358	842	0	128	430	0
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		3	3	
Permitted Phases			6									
Detector Phase	1	6	4	5	2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	10.5	38.7	35.7	10.5	37.7		35.7	35.7		38.7	38.7	
Total Split (s)	18.0	40.0	40.0	20.0	42.0		40.0	40.0		40.0	40.0	
Total Split (%)	12.9%	28.6%	28.6%	14.3%	30.0%		28.6%	28.6%		28.6%	28.6%	
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		3.7	3.7		3.7	3.7	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7	4.7	4.5	4.7		4.7	4.7		4.7	4.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	C-Max	None	None		C-Max	C-Max		None	None	
Act Effct Green (s)	12.1	27.6	78.6	15.5	31.0		51.0	51.0		27.3	27.3	
Actuated g/C Ratio	0.09	0.20	0.56	0.11	0.22		0.36	0.36		0.20	0.20	
v/c Ratio	0.71	0.68	0.36	1.50	0.83		0.33	0.75		0.43	0.73	
Control Delay (s/veh)	89.8	57.5	6.7	279.7	59.7		43.5	45.1		53.1	58.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.7	16.8		0.0	0.0	
Total Delay (s/veh)	89.8	57.5	6.7	279.7	59.7		44.2	61.9		53.1	58.2	
LOS	F	E	A	F	E		D	E		D	E	
Approach Delay (s/veh)		42.7			162.5			56.6			57.0	
Approach LOS		D			F			E			E	
Queue Length 50th (ft)	83	181	42	~314	241		141	331		103	188	
Queue Length 95th (ft)	#157	225	93	#428	294		199	#492		159	235	

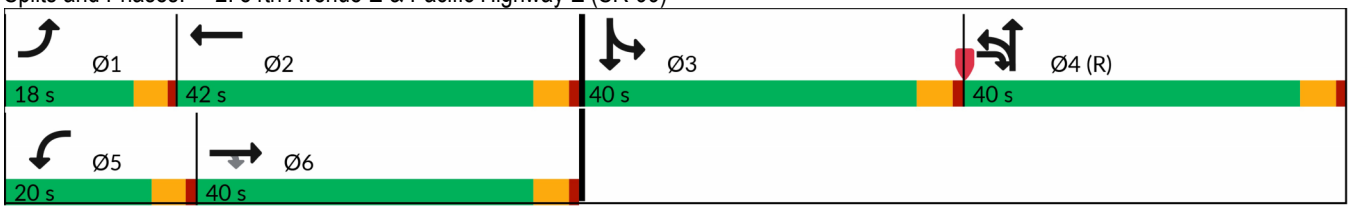
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1005			990			240			1095	
Turn Bay Length (ft)	225			550			150			125		
Base Capacity (vph)	146	765	813	325	800		1072	1128		382	757	
Starvation Cap Reductn	0	0	0	0	0		411	290		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.64	0.53	0.36	1.50	0.69		0.54	1.00		0.34	0.57	

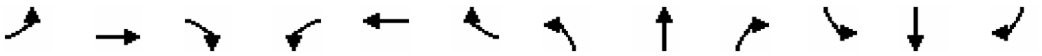
Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 30 (21%), Referenced to phase 4:NBTL, Start of Green			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.50			
Intersection Signal Delay (s/veh): 84.3		Intersection LOS: F	
Intersection Capacity Utilization 70.6%		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: 2: 54th Avenue E & Pacific Highway E (SR-99)



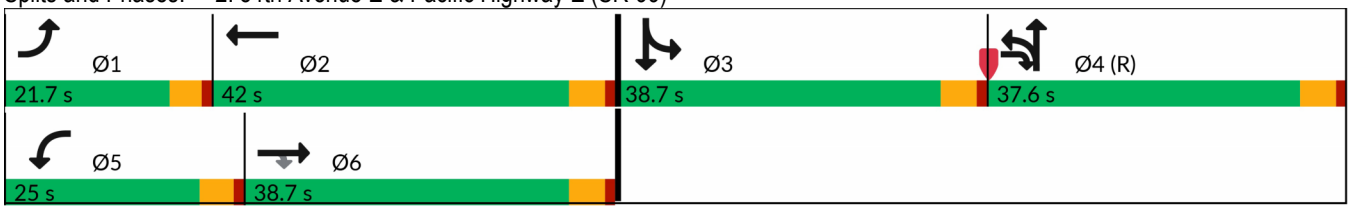


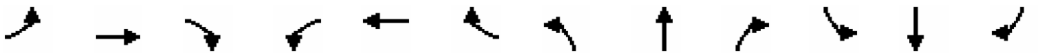
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	392	278	467	398	133	344	414	395	123	349	63
Future Volume (vph)	89	392	278	467	398	133	344	414	395	123	349	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	550		0	150		0	125		0
Storage Lanes	1		1	2		0	2		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.962			0.927			0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1517	3034	1357	2943	2918	0	2943	2812	0	1517	2964	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1517	3034	1357	2943	2918	0	2943	2812	0	1517	2964	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			104		32			161			14	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1085			1070			320			1175	
Travel Time (s)		21.1			20.8			6.2			22.9	
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 (%)	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	93	408	290	486	554	0	358	842	0	128	430	0
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		3	3	
Permitted Phases			6									
Detector Phase	1	6	4	5	2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	10.5	38.7	35.7	10.5	37.7		35.7	35.7		38.7	38.7	
Total Split (s)	21.7	38.7	37.6	25.0	42.0		37.6	37.6		38.7	38.7	
Total Split (%)	15.5%	27.6%	26.9%	17.9%	30.0%		26.9%	26.9%		27.6%	27.6%	
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		3.7	3.7		3.7	3.7	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7	4.7	4.5	4.7		4.7	4.7		4.7	4.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	C-Max	None	None		C-Max	C-Max		None	None	
Act Effct Green (s)	13.4	25.5	73.7	20.5	32.6		48.2	48.2		27.2	27.2	
Actuated g/C Ratio	0.10	0.18	0.53	0.15	0.23		0.34	0.34		0.19	0.19	
v/c Ratio	0.64	0.74	0.38	1.13	0.79		0.35	0.78		0.44	0.73	
Control Delay (s/veh)	80.3	62.0	8.1	136.6	56.1		44.7	46.7		53.3	58.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.9	30.5		0.0	0.0	
Total Delay (s/veh)	80.3	62.0	8.1	136.6	56.1		45.6	77.2		53.3	58.5	
LOS	F	E	A	F	E		D	E		D	E	
Approach Delay (s/veh)		44.4			93.7			67.8			57.3	
Approach LOS		D			F			E			E	
Queue Length 50th (ft)	83	188	47	~263	241		139	324		103	188	
Queue Length 95th (ft)	141	228	98	#377	294		204	#524		160	236	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1005			990			240			1095	
Turn Bay Length (ft)	225			550			150			125		
Base Capacity (vph)	186	736	763	430	800		1013	1074		368	730	
Starvation Cap Reductn	0	0	0	0	0		387	272		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.50	0.55	0.38	1.13	0.69		0.57	1.05		0.35	0.59	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 30 (21%), Referenced to phase 4:NBTL, Start of Green			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.13			
Intersection Signal Delay (s/veh): 68.5		Intersection LOS: E	
Intersection Capacity Utilization 70.6%		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: 2: 54th Avenue E & Pacific Highway E (SR-99)





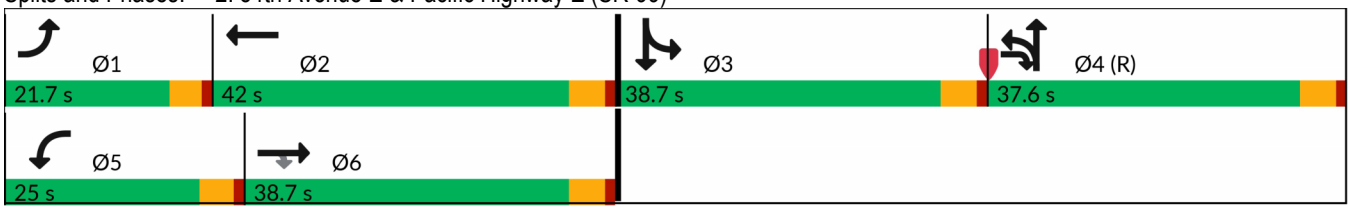
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	292	178	317	298	133	244	314	245	123	249	63
Future Volume (vph)	89	292	178	317	298	133	244	314	245	123	249	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	550		0	150		0	125		0
Storage Lanes	1		1	2		0	2		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.954			0.934			0.970	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1517	3034	1357	2943	2894	0	2943	2833	0	1517	2943	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1517	3034	1357	2943	2894	0	2943	2833	0	1517	2943	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			185		50			132			21	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1085			1070			320			1175	
Travel Time (s)		21.1			20.8			6.2			22.9	
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 (%)	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	93	304	185	330	449	0	254	582	0	128	325	0
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		3	3	
Permitted Phases			6									
Detector Phase	1	6	4	5	2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	10.5	38.7	35.7	10.5	37.7		35.7	35.7		38.7	38.7	
Total Split (s)	21.7	38.7	37.6	25.0	42.0		37.6	37.6		38.7	38.7	
Total Split (%)	15.5%	27.6%	26.9%	17.9%	30.0%		26.9%	26.9%		27.6%	27.6%	
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		3.7	3.7		3.7	3.7	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7	4.7	4.5	4.7		4.7	4.7		4.7	4.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	C-Max	None	None		C-Max	C-Max		None	None	
Act Effct Green (s)	13.4	20.4	80.6	19.2	26.2		60.2	60.2		21.6	21.6	
Actuated g/C Ratio	0.10	0.15	0.58	0.14	0.19		0.43	0.43		0.15	0.15	
v/c Ratio	0.64	0.69	0.22	0.82	0.77		0.20	0.45		0.55	0.69	
Control Delay (s/veh)	80.3	64.4	1.7	75.5	57.1		33.7	30.7		62.7	59.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	1.4		0.0	0.0	
Total Delay (s/veh)	80.3	64.4	1.7	75.5	57.1		33.7	32.2		62.7	59.6	
LOS	F	E	A	E	E		C	C		E	E	
Approach Delay (s/veh)		47.0			64.9			32.6			60.5	
Approach LOS		D			E			C			E	
Queue Length 50th (ft)	83	141	0	151	185		86	180		109	139	
Queue Length 95th (ft)	141	178	19	#208	235		139	260		169	183	

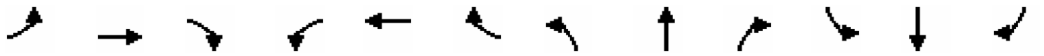
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1005			990			240			1095	
Turn Bay Length (ft)	225			550			150			125		
Base Capacity (vph)	186	736	859	430	807		1264	1292		368	730	
Starvation Cap Reductn	0	0	0	0	0		0	493		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.50	0.41	0.22	0.77	0.56		0.20	0.73		0.35	0.45	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 30 (21%), Referenced to phase 4:NBTL, Start of Green			
Natural Cycle: 125			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay (s/veh): 50.0		Intersection LOS: D	
Intersection Capacity Utilization 56.3%		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: 2: 54th Avenue E & Pacific Highway E (SR-99)





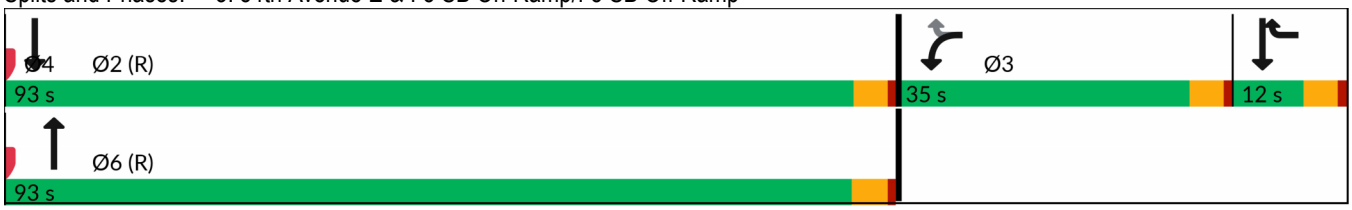
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	278	0	357	0	788	390	0	517	505
Future Volume (vph)	0	0	0	278	0	357	0	788	390	0	517	505
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		25	0		0
Storage Lanes	0		0	1		1	0		1	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	0.95	1.00	1.00	1.00	1.00
Frt						0.850			0.850			0.850
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	1543	0	1380	0	3085	1380	0	1624	1380
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1543	0	1380	0	3085	1380	0	1624	1380
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						195			83			277
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1083			1080			827			320	
Travel Time (s)		21.1			21.0			16.1			6.2	
Peak Hour 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
Heavy Vehicles (%)	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	293	0	376	0	829	411	0	544	532
Turn Type				Prot		custom		NA	Free		NA	Free
Protected Phases				3		4		6			2 4	
Permitted Phases						3			Free			Free
Detector Phase				3		4		6			2 4	
Switch Phase												
Minimum Initial (s)				5.0		3.0		10.0				
Minimum Split (s)				22.5		7.5		22.7				
Total Split (s)				35.0		12.0		93.0				
Total Split (%)				25.0%		8.6%		66.4%				
Yellow Time (s)				3.5		3.5		3.7				
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		4.7				
Lead/Lag				Lead		Lag						
Lead-Lag Optimize?				Yes		Yes						
Recall Mode				None		None		C-Max				
Act Effct Green (s)				29.0		42.5		88.3	140.0		102.0	140.0
Actuated g/C Ratio				0.21		0.30		0.63	1.00		0.73	1.00
v/c Ratio				0.92		0.68		0.43	0.30		0.46	0.39
Control Delay (s/veh)				87.2		26.8		13.9	0.6		4.5	2.5
Queue Delay				0.0		8.1		0.5	0.0		2.4	0.0
Total Delay (s/veh)				87.2		34.9		14.4	0.6		6.8	2.5
LOS				F		C		B	A		A	A
Approach Delay (s/veh)					57.8			9.8			4.7	
Approach LOS					E			A			A	
Queue Length 50th (ft)				260		147		189	0		56	80
Queue Length 95th (ft)				#423		271		233	0		m68	m75

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	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	22.5
Total Split (s)	93.0
Total Split (%)	66%
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	C-Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
LOS	
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1003			1000			747			240	
Turn Bay Length (ft)									25			
Base Capacity (vph)				336		554		1945	1380		1183	1380
Starvation Cap Reductn				0		0		0	0		490	0
Spillback Cap Reductn				0		139		654	0		0	0
Storage Cap Reductn				0		0		0	0		0	0
Reduced v/c Ratio				0.87		0.91		0.64	0.30		0.78	0.39

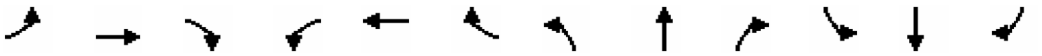
Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 75 (54%), Referenced to phase 2:SBT and 6:NBT, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay (s/veh): 18.7		Intersection LOS: B	
Intersection Capacity Utilization 51.6%		ICU Level of Service A	
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: 3: 54th Avenue E & I-5 SB On-Ramp/I-5 SB Off-Ramp



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

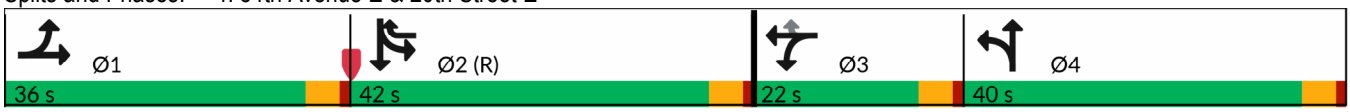


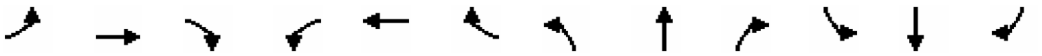
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	319	235	83	38	115	406	147	422	41	466	386	310
Future Volume (vph)	319	235	83	38	115	406	147	422	41	466	386	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	275		0	200		0	175		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.95
Frt		0.971				0.850		0.987			0.940	
Flt Protected	0.950	0.987			0.988		0.950			0.950	0.995	
Satd. Flow (prot)	1356	2736	0	0	1550	1333	1490	2942	0	1356	2670	0
Flt Permitted	0.950	0.987			0.988		0.950			0.950	0.995	
Satd. Flow (perm)	1356	2736	0	0	1550	1333	1490	2942	0	1356	2670	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18				114		7			96	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		738			676			783			335	
Travel Time (s)		14.4			13.2			17.8			7.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Shared Lane Traffic (%)	34%									16%		
Lane Group Flow (vph)	234	473	0	0	170	451	163	515	0	435	856	0
Turn Type	Split	NA		Split	NA	pm+ov	Split	NA		Split	NA	
Protected Phases	1	1		3	3	2	4	4		2	2	
Permitted Phases						3						
Detector Phase	1	1		3	3	2	4	4		2	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	21.5	21.5		10.5	10.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	36.0	36.0		22.0	22.0	42.0	40.0	40.0		42.0	42.0	
Total Split (%)	25.7%	25.7%		15.7%	15.7%	30.0%	28.6%	28.6%		30.0%	30.0%	
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	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	Lead	Lag	Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	C-Max	None	None		C-Max	C-Max	
Act Effct Green (s)	28.2	28.2			16.9	69.2	29.1	29.1		47.9	47.9	
Actuated g/C Ratio	0.20	0.20			0.12	0.49	0.21	0.21		0.34	0.34	
v/c Ratio	0.86	0.84			0.91	0.63	0.53	0.83		0.94	0.88	
Control Delay (s/veh)	81.5	65.1			107.0	25.5	54.9	64.5		74.9	50.5	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	81.5	65.1			107.0	25.5	54.9	64.5		74.9	50.5	
LOS	F	E			F	C	D	E		E	D	
Approach Delay (s/veh)		70.5			47.8			62.2			58.8	
Approach LOS		E			D			E			E	
Queue Length 50th (ft)	225	218			154	230	133	235		435	376	
Queue Length 95th (ft)	#360	284			#291	397	198	287		#760	#585	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		658			596			703			255	
Turn Bay Length (ft)	300						200			175		
Base Capacity (vph)	309	638			193	716	377	751		463	975	
Starvation Cap Reductn	0	0			0	0	0	0		0	0	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.76	0.74			0.88	0.63	0.43	0.69		0.94	0.88	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 48 (34%), Referenced to phase 2:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay (s/veh): 59.9		Intersection LOS: E	
Intersection Capacity Utilization 77.4%		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.			

Splits and Phases: 4: 54th Avenue E & 20th Street E



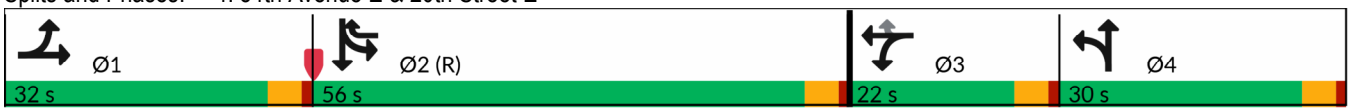


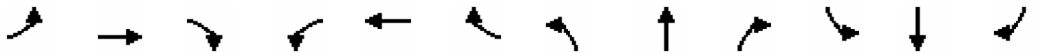
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	319	235	83	38	115	406	147	422	41	466	386	310
Future Volume (vph)	319	235	83	38	115	406	147	422	41	466	386	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	275		0	200		0	175		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.95
Frt		0.971				0.850		0.987			0.940	
Flt Protected	0.950	0.987			0.988		0.950			0.950	0.995	
Satd. Flow (prot)	1356	2736	0	0	1550	1333	1490	2942	0	1356	2670	0
Flt Permitted	0.950	0.987			0.988		0.950			0.950	0.995	
Satd. Flow (perm)	1356	2736	0	0	1550	1333	1490	2942	0	1356	2670	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18				68		6			111	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		738			676			783			335	
Travel Time (s)		14.4			13.2			17.8			7.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Shared Lane Traffic (%)	34%									16%		
Lane Group Flow (vph)	234	473	0	0	170	451	163	515	0	435	856	0
Turn Type	Split	NA		Split	NA	pm+ov	Split	NA		Split	NA	
Protected Phases	1	1		3	3	2	4	4		2	2	
Permitted Phases						3						
Detector Phase	1	1		3	3	2	4	4		2	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	21.5	21.5		10.5	10.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	32.0	32.0		22.0	22.0	56.0	30.0	30.0		56.0	56.0	
Total Split (%)	22.9%	22.9%		15.7%	15.7%	40.0%	21.4%	21.4%		40.0%	40.0%	
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	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	Lead	Lag	Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	C-Max	None	None		C-Max	C-Max	
Act Effct Green (s)	26.1	26.1			16.9	75.1	25.3	25.3		53.7	53.7	
Actuated g/C Ratio	0.19	0.19			0.12	0.54	0.18	0.18		0.38	0.38	
v/c Ratio	0.93	0.90			0.91	0.60	0.61	0.96		0.84	0.78	
Control Delay (s/veh)	96.2	74.8			107.0	23.1	63.3	86.1		55.6	39.5	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	96.2	74.8			107.0	23.1	63.3	86.1		55.6	39.5	
LOS	F	E			F	C	E	F		E	D	
Approach Delay (s/veh)		81.8			46.0			80.6			44.9	
Approach LOS		F			D			F			D	
Queue Length 50th (ft)	229	223			154	239	138	244		403	341	
Queue Length 95th (ft)	#400	#318			#291	358	218	#360		#619	436	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		658			596			703			255	
Turn Bay Length (ft)	300						200			175		
Base Capacity (vph)	266	551			193	746	271	540		520	1092	
Starvation Cap Reductn	0	0			0	0	0	0		0	0	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.88	0.86			0.88	0.60	0.60	0.95		0.84	0.78	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 48 (34%), Referenced to phase 2:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay (s/veh): 60.4		Intersection LOS: E	
Intersection Capacity Utilization 77.4%		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.			

Splits and Phases: 4: 54th Avenue E & 20th Street E



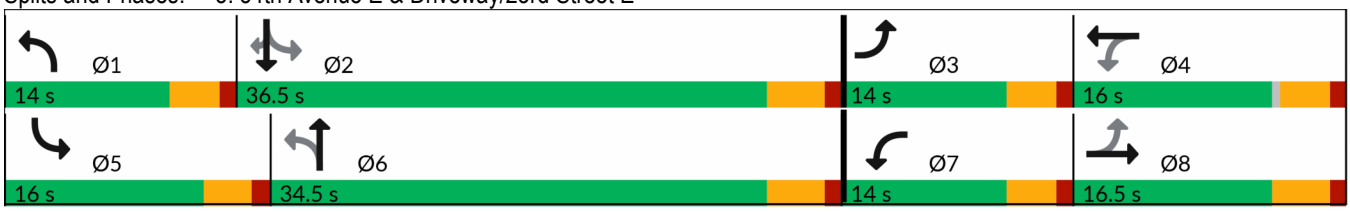


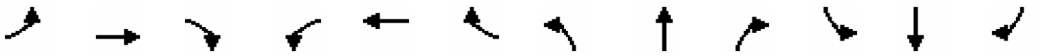
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	50	0	107	0	488	60	97	500	1
Future Volume (vph)	0	0	0	50	0	107	0	488	60	97	500	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	0		0	100		0
Storage Lanes	0		0	1		0	1		0	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	1.00	1.00	1.00	1.00	1.00
Frt					0.850			0.983				0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	1792	0	1703	1524	0	1792	1762	0	1703	1792	1524
Flt Permitted				0.714						0.243		
Satd. Flow (perm)	0	1792	0	1280	1524	0	1792	1762	0	436	1792	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					521			9				128
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		362			838			554			783	
Travel Time (s)		9.9			22.9			12.6			17.8	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	59	126	0	0	645	0	114	588	1
Turn Type				pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6			2		2
Detector Phase	3	8		7	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	6.0
Minimum Split (s)	9.5	24.5		22.5	24.0		9.5	22.5		9.5	22.5	22.5
Total Split (s)	14.0	16.5		14.0	16.0		14.0	34.5		16.0	36.5	36.5
Total Split (%)	17.3%	20.4%		17.3%	19.8%		17.3%	42.6%		19.8%	45.1%	45.1%
Yellow Time (s)	3.0	3.5		3.0	3.0		3.0	3.5		3.0	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		0.0	0.0	0.0
Total Lost Time (s)		4.5		4.0	4.0		4.0	4.5		4.0	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max		None	Max	Max
Act Effct Green (s)				7.4	7.3			34.9		44.1	44.6	44.6
Actuated g/C Ratio				0.13	0.13			0.61		0.77	0.78	0.78
v/c Ratio				0.27	0.19			0.60		0.22	0.42	0.00
Control Delay (s/veh)				26.3	0.7			13.9		3.5	4.3	0.0
Queue Delay				0.0	0.0			0.0		0.0	0.0	0.0
Total Delay (s/veh)				26.3	0.7			13.9		3.5	4.3	0.0
LOS				C	A			B		A	A	A
Approach Delay (s/veh)					8.9			13.9			4.2	
Approach LOS					A			B			A	
Queue Length 50th (ft)				19	0			150		8	60	0
Queue Length 95th (ft)				46	0			278		20	113	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		282			758			474			703	
Turn Bay Length (ft)				100						100		
Base Capacity (vph)				298	740			1076		601	1393	1213
Starvation Cap Reductn				0	0			0		0	0	0
Spillback Cap Reductn				0	0			0		0	0	0
Storage Cap Reductn				0	0			0		0	0	0
Reduced v/c Ratio				0.20	0.17			0.60		0.19	0.42	0.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 81			
Actuated Cycle Length: 57.3			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay (s/veh): 8.8		Intersection LOS: A	
Intersection Capacity Utilization 51.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 5: 54th Avenue E & Driveway/23rd Street E



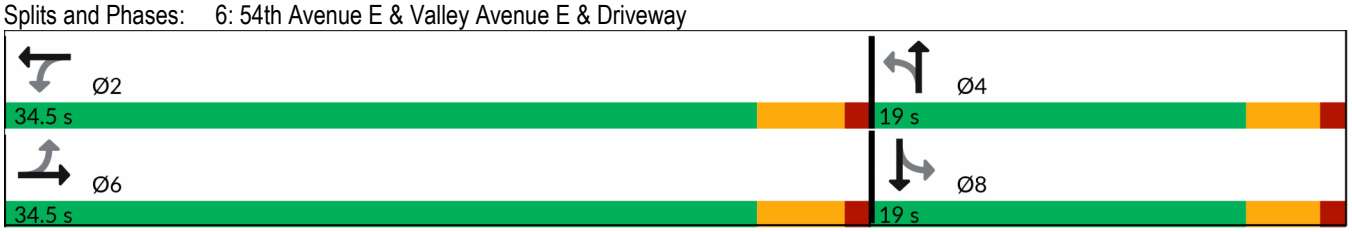


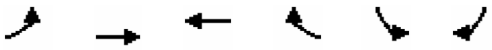
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	277	143	123	394	6	161	1	95	1	1	0
Future Volume (vph)	3	277	143	123	394	6	161	1	95	1	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	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		0.949			0.998			0.950				
Flt Protected	0.950			0.950				0.970			0.976	
Satd. Flow (prot)	1671	1670	0	1671	1756	0	0	1621	0	0	1717	0
Flt Permitted	0.371			0.349				0.808			0.888	
Satd. Flow (perm)	653	1670	0	614	1756	0	0	1350	0	0	1562	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		79			2			55				
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		554			491			578			252	
Travel Time (s)		12.6			11.2			15.8			6.9	
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	4	584	0	171	555	0	0	357	0	0	2	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	30.5	30.5		22.5	22.5		32.0	32.0		32.0	32.0	
Total Split (s)	34.5	34.5		34.5	34.5		19.0	19.0		19.0	19.0	
Total Split (%)	64.5%	64.5%		64.5%	64.5%		35.5%	35.5%		35.5%	35.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		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			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		Max	Max		None	None		None	None	
Act Effct Green (s)	30.2	30.2		30.2	30.2			14.3			14.3	
Actuated g/C Ratio	0.57	0.57		0.57	0.57			0.27			0.27	
v/c Ratio	0.01	0.59		0.49	0.55			0.89			0.00	
Control Delay (s/veh)	5.3	9.6		13.2	10.0			42.8			14.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	5.3	9.6		13.2	10.0			42.8			14.0	
LOS	A	A		B	B			D			B	
Approach Delay (s/veh)		9.5			10.8			42.8			14.0	
Approach LOS		A			B			D			B	
Queue Length 50th (ft)	1	90		29	98			90			1	
Queue Length 95th (ft)	3	110		51	119			#146			3	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		474			411			498			172	
Turn Bay Length (ft)	150			125								
Base Capacity (vph)	372	986		350	1002			422			442	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.01	0.59		0.49	0.55			0.85			0.00	

Intersection Summary			
Area Type:	Other		
Cycle Length: 53.5			
Actuated Cycle Length: 53			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay (s/veh): 17.2		Intersection LOS: B	
Intersection Capacity Utilization 61.2%		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: 6: 54th Avenue E & Valley Avenue E & Driveway



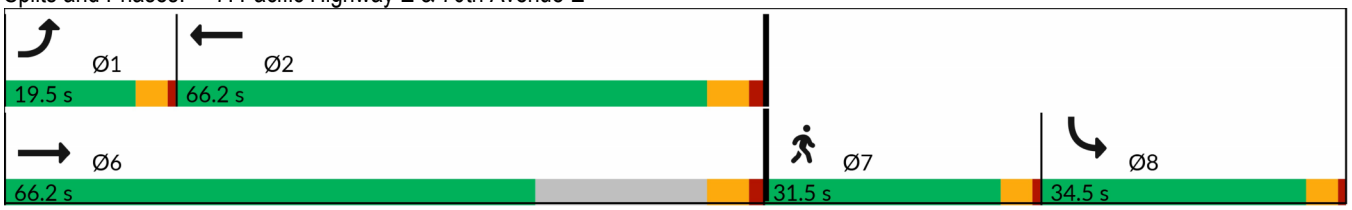


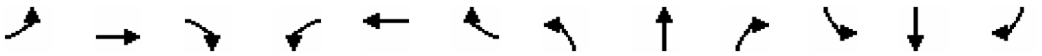
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø7
Lane Configurations							
Traffic Volume (vph)	19	955	703	7	16	64	
Future Volume (vph)	19	955	703	7	16	64	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00	
Frt			0.999		0.892		
Flt Protected	0.950				0.990		
Satd. Flow (prot)	1517	3034	3031	0	1410	0	
Flt Permitted	0.950				0.990		
Satd. Flow (perm)	1517	3034	3031	0	1410	0	
Right Turn on Red				Yes		Yes	
Satd. Flow (RTOR)			1		67		
Link Speed (mph)		30	30		30		
Link Distance (ft)		439	500		370		
Travel Time (s)		10.0	11.4		8.4		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Heavy Vehicles (%)	19%	19%	19%	19%	19%	19%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	20	995	739	0	84	0	
Turn Type	Prot	NA	NA		Prot		
Protected Phases	1	6	2		8		7
Permitted Phases							
Detector Phase	1	6	2		8		
Switch Phase							
Minimum Initial (s)	6.0	10.0	10.0		5.0		5.0
Minimum Split (s)	10.5	23.7	33.7		22.5		31.5
Total Split (s)	19.5	66.2	66.2		34.5		31.5
Total Split (%)	12.9%	43.6%	43.6%		22.7%		21%
Yellow Time (s)	3.5	4.7	4.7		3.5		3.5
All-Red Time (s)	1.0	1.5	1.5		1.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		
Total Lost Time (s)	4.5	6.2	6.2		4.5		
Lead/Lag	Lead		Lag		Lag		Lead
Lead-Lag Optimize?	Yes		Yes		Yes		Yes
Recall Mode	None	Max	None		Max		None
Act Effct Green (s)	7.0	60.0	55.0		30.0		
Actuated g/C Ratio	0.07	0.60	0.55		0.30		
v/c Ratio	0.19	0.55	0.45		0.18		
Control Delay (s/veh)	48.0	13.7	15.9		10.2		
Queue Delay	0.0	0.0	0.0		0.0		
Total Delay (s/veh)	48.0	13.7	15.9		10.2		
LOS	D	B	B		B		
Approach Delay (s/veh)		14.4	15.9		10.2		
Approach LOS		B	B		B		
Queue Length 50th (ft)	12	187	124		8		
Queue Length 95th (ft)	36	243	225		43		
Internal Link Dist (ft)		359	420		290		
Turn Bay Length (ft)							
Base Capacity (vph)	225	2395	1806		467		

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø7
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	0.42	0.41		0.18		

Intersection Summary			
Area Type:	Other		
Cycle Length: 151.7			
Actuated Cycle Length: 100.7			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.55			
Intersection Signal Delay (s/veh): 14.8		Intersection LOS: B	
Intersection Capacity Utilization 40.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 7: Pacific Highway E & 70th Avenue E



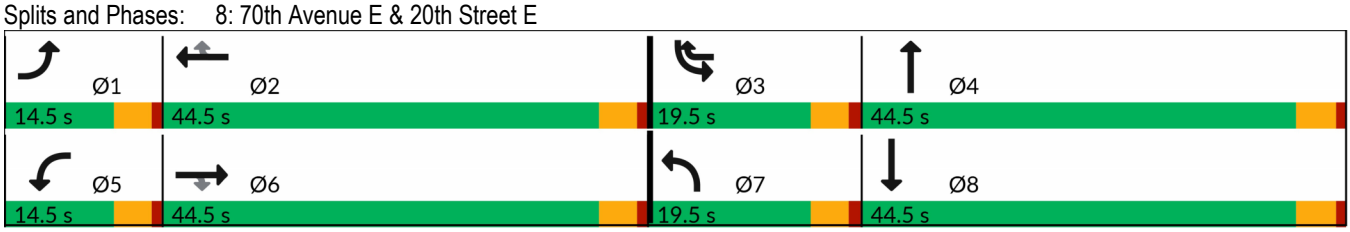


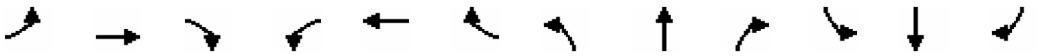
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	403	94	117	503	313	101	796	86	140	448	79
Future Volume (vph)	104	403	94	117	503	313	101	796	86	140	448	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		200	400		400	250		0	225		0
Storage Lanes	1		1	1		1	1		0	2		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	0.95	0.95	0.97	0.95	0.95
Frt			0.850			0.850		0.985			0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1556	1638	1392	1556	1638	1392	1556	3065	0	3019	3044	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1556	1638	1392	1556	1638	1392	1556	3065	0	3019	3044	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			93			68		10			17	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1295			1073			2009			522	
Travel Time (s)		25.2			20.9			39.1			10.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	107	415	97	121	519	323	104	910	0	144	543	0
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2	3	7	4		3	8	
Permitted Phases			6			2						
Detector Phase	1	6	6	5	2	3	7	4		3	8	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	10.0	10.0	10.0	10.0	6.0		10.0	10.0	
Minimum Split (s)	10.5	22.5	22.5	14.5	22.5	14.5	14.5	26.5		14.5	26.5	
Total Split (s)	14.5	44.5	44.5	14.5	44.5	19.5	19.5	44.5		19.5	44.5	
Total Split (%)	11.8%	36.2%	36.2%	11.8%	36.2%	15.9%	15.9%	36.2%		15.9%	36.2%	
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		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	Min	Min	None	Min	None	None	None		None	None	
Act Effct Green (s)	9.9	39.3	39.3	10.0	39.4	55.4	12.8	38.2		11.5	37.0	
Actuated g/C Ratio	0.08	0.34	0.34	0.09	0.34	0.47	0.11	0.33		0.10	0.32	
v/c Ratio	0.81	0.76	0.18	0.91	0.94	0.47	0.62	0.90		0.48	0.56	
Control Delay (s/veh)	94.8	45.5	7.2	111.9	65.6	18.9	66.6	50.8		56.4	35.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	94.8	45.5	7.2	111.9	65.6	18.9	66.6	50.8		56.4	35.1	
LOS	F	D	A	F	E	B	E	D		E	D	
Approach Delay (s/veh)		48.0			55.7			52.4			39.5	
Approach LOS		D			E			D			D	
Queue Length 50th (ft)	82	282	2	94	386	129	77	341		55	175	
Queue Length 95th (ft)	#190	#426	41	#220	#629	209	140	#480		89	237	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1215			993			1929			442	
Turn Bay Length (ft)	250		200	400		400	250			225		
Base Capacity (vph)	133	560	537	133	560	734	199	1055		387	1052	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.80	0.74	0.18	0.91	0.93	0.44	0.52	0.86		0.37	0.52	

Intersection Summary			
Area Type:	Other		
Cycle Length: 123			
Actuated Cycle Length: 117.1			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay (s/veh): 49.8		Intersection LOS: D	
Intersection Capacity Utilization 80.3%		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: 8: 70th Avenue E & 20th Street E



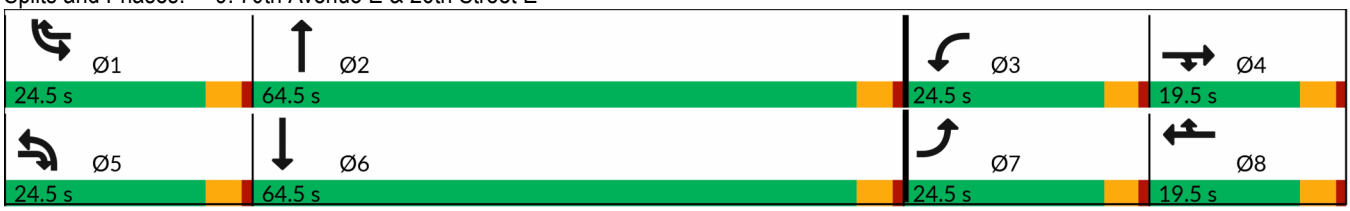


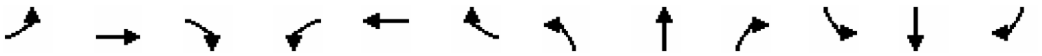
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	83	45	73	23	66	90	869	70	78	497	20
Future Volume (vph)	43	83	45	73	23	66	90	869	70	78	497	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	200		0	225		0
Storage Lanes	1		1	1		1	1		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	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.989			0.994	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1504	1583	1346	1504	1583	1346	1504	2975	0	1504	2990	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1504	1583	1346	1504	1583	1346	1504	2975	0	1504	2990	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			50			73		8			4	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1057			880			2032			2009	
Travel Time (s)		20.6			17.1			39.6			39.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	92	50	81	26	73	100	1044	0	87	574	0
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases	7	4	4 5	3	8	8 1	5	2		1	6	
Permitted Phases												
Detector Phase	7	4	4 5	3	8	8 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	10.0		6.0	10.0	
Minimum Split (s)	10.5	24.5		10.5	24.5		10.5	22.5		10.5	22.5	
Total Split (s)	24.5	19.5		24.5	19.5		24.5	64.5		24.5	64.5	
Total Split (%)	18.4%	14.7%		18.4%	14.7%		18.4%	48.5%		18.4%	48.5%	
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	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		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	10.1	12.1	25.1	12.0	16.2	28.6	13.3	48.9		12.5	48.3	
Actuated g/C Ratio	0.11	0.14	0.29	0.14	0.18	0.33	0.15	0.56		0.14	0.55	
v/c Ratio	0.28	0.42	0.12	0.40	0.09	0.15	0.44	0.63		0.41	0.35	
Control Delay (s/veh)	51.0	51.3	9.2	50.4	42.0	7.7	49.8	23.6		50.1	19.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	51.0	51.3	9.2	50.4	42.0	7.7	49.8	23.6		50.1	19.0	
LOS	D	D	A	D	D	A	D	C		D	B	
Approach Delay (s/veh)		40.2			31.9			25.9			23.1	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	27	51	0	45	13	0	55	265		48	119	
Queue Length 95th (ft)	78	131	31	115	47	35	135	448		121	213	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		977			800			1952			1929	
Turn Bay Length (ft)	150		150	150		150	200			225		
Base Capacity (vph)	430	339	584	430	385	663	430	2051		430	2060	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.11	0.27	0.09	0.19	0.07	0.11	0.23	0.51		0.20	0.28	

Intersection Summary			
Area Type:	Other		
Cycle Length: 133			
Actuated Cycle Length: 87.9			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay (s/veh): 26.8		Intersection LOS: C	
Intersection Capacity Utilization 53.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 9: 70th Avenue E & 26th Street E





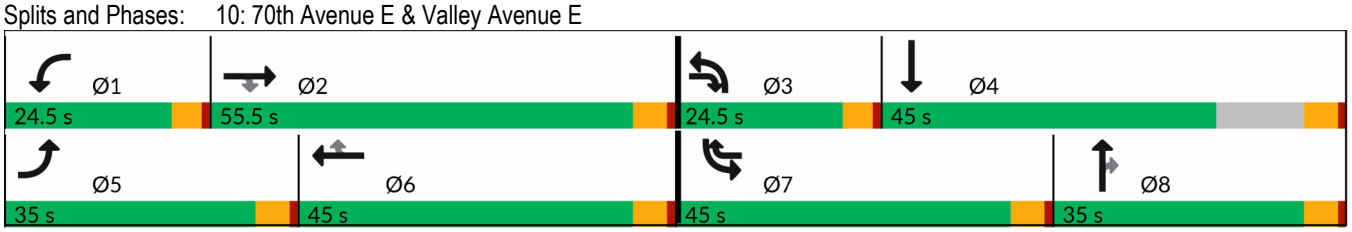
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	315	115	31	275	451	177	536	46	259	187	104
Future Volume (vph)	58	315	115	31	275	451	177	536	46	259	187	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		250	200		0	200		130	350		0
Storage Lanes	1		1	1		1	1		1	2		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	0.95	1.00	0.97	0.95	0.95
Frt			0.850			0.850			0.850		0.947	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1652	1404	1570	1652	1404	1570	3139	1404	3045	2973	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1570	1652	1404	1570	1652	1404	1570	3139	1404	3045	2973	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			120			343			143		70	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		831			1056			750			2032	
Travel Time (s)		18.9			24.0			14.6			39.6	
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 (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	328	120	32	286	470	184	558	48	270	303	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2	3	1	6	7	3	8		7	4	
Permitted Phases			2			6			8			
Detector Phase	5	2	3	1	6	7	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0	6.0	6.0	8.0	8.0	6.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	11.0	31.0	10.5	10.5	31.0	13.0	10.5	31.0	31.0	13.0	31.0	
Total Split (s)	35.0	55.5	24.5	24.5	45.0	45.0	24.5	35.0	35.0	45.0	45.0	
Total Split (%)	21.9%	34.7%	15.3%	15.3%	28.1%	28.1%	15.3%	21.9%	21.9%	28.1%	28.1%	
Yellow Time (s)	4.0	4.0	3.5	3.5	4.0	4.0	3.5	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	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	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.5	4.5	5.0	5.0	4.5	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	Min	None	None	Min	None	None	None	None	None	None	
Act Effct Green (s)	11.5	30.1	55.1	8.5	24.8	47.5	19.6	27.2	27.2	17.4	25.5	
Actuated g/C Ratio	0.12	0.31	0.56	0.09	0.25	0.48	0.20	0.28	0.28	0.18	0.26	
v/c Ratio	0.33	0.65	0.14	0.24	0.69	0.55	0.59	0.64	0.10	0.50	0.37	
Control Delay (s/veh)	51.3	38.8	3.2	53.5	45.3	7.8	49.9	38.1	0.4	42.9	25.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	51.3	38.8	3.2	53.5	45.3	7.8	49.9	38.1	0.4	42.9	25.5	
LOS	D	D	A	D	D	A	D	D	A	D	C	
Approach Delay (s/veh)		31.9			23.3			38.6			33.7	
Approach LOS		C			C			D			C	
Queue Length 50th (ft)	37	195	0	20	173	49	110	163	0	84	63	
Queue Length 95th (ft)	90	331	30	59	302	141	#255	293	0	145	121	

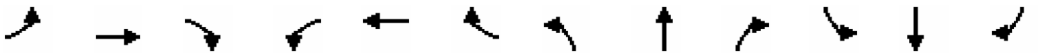
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		751			976			670			1952	
Turn Bay Length (ft)	150		250	200			200		130	350		
Base Capacity (vph)	513	909	864	342	720	1127	342	1027	555	1328	1669	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.12	0.36	0.14	0.09	0.40	0.42	0.54	0.54	0.09	0.20	0.18	

Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 98.1			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay (s/veh): 31.7		Intersection LOS: C	
Intersection Capacity Utilization 60.2%		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: 10: 70th Avenue E & Valley Avenue E



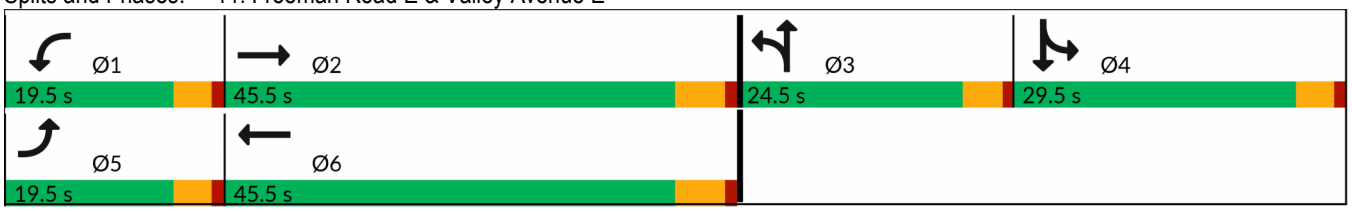


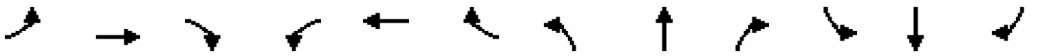
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	420	66	6	610	155	54	84	31	107	66	20
Future Volume (vph)	23	420	66	6	610	155	54	84	31	107	66	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	230		0	50		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.970			0.959			0.965	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1543	3024	0	1543	2993	0	1543	1557	0	1543	1567	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1543	3024	0	1543	2993	0	1543	1557	0	1543	1567	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			29			13			11	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		671			1259			2534			494	
Travel Time (s)		15.3			28.6			69.1			13.5	
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 (%)	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	24	517	0	6	814	0	57	122	0	114	91	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	3		4	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0		4.0	8.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	10.5	26.5		9.5	26.5		22.5	22.5		27.5	27.5	
Total Split (s)	19.5	45.5		19.5	45.5		24.5	24.5		29.5	29.5	
Total Split (%)	16.4%	38.2%		16.4%	38.2%		20.6%	20.6%		24.8%	24.8%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		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	5.5		4.5	5.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	7.9	31.7		7.0	29.3		12.3	12.3		12.5	12.5	
Actuated g/C Ratio	0.11	0.43		0.09	0.39		0.17	0.17		0.17	0.17	
v/c Ratio	0.15	0.40		0.04	0.68		0.22	0.46		0.44	0.33	
Control Delay (s/veh)	41.8	16.1		42.8	22.9		35.3	36.4		39.0	33.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	41.8	16.1		42.8	22.9		35.3	36.4		39.0	33.2	
LOS	D	B		D	C		D	D		D	C	
Approach Delay (s/veh)		17.2			23.0			36.0			36.4	
Approach LOS		B			C			D			D	
Queue Length 50th (ft)	10	73		2	130		21	42		44	30	
Queue Length 95th (ft)	42	174		17	308		71	125		126	96	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		591			1179			2454			414	
Turn Bay Length (ft)	150			230			50			250		
Base Capacity (vph)	344	1884		344	1793		459	472		574	589	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.07	0.27		0.02	0.45		0.12	0.26		0.20	0.15	

Intersection Summary			
Area Type:	Other		
Cycle Length: 119			
Actuated Cycle Length: 74.2			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay (s/veh): 24.1		Intersection LOS: C	
Intersection Capacity Utilization 42.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 11: Freeman Road E & Valley Avenue E



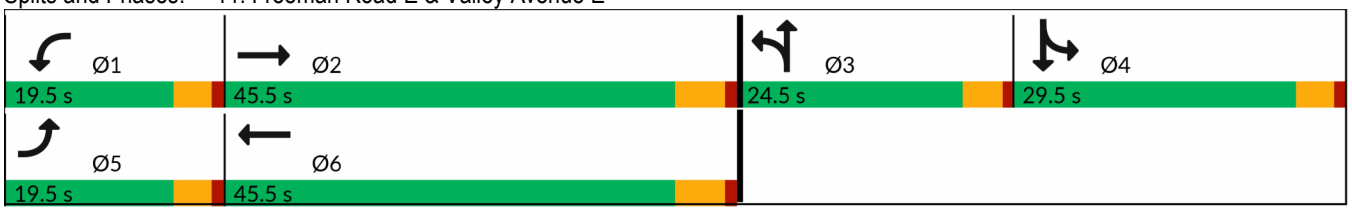


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	514	66	9	555	136	41	58	38	94	49	14
Future Volume (vph)	20	514	66	9	555	136	41	58	38	94	49	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	230		0	50		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.983			0.970			0.941			0.966	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1543	3033	0	1543	2993	0	1543	1528	0	1543	1569	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1543	3033	0	1543	2993	0	1543	1528	0	1543	1569	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			27			23			11	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		671			1259			4678			494	
Travel Time (s)		15.3			28.6			127.6			13.5	
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 (%)	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	21	617	0	10	735	0	44	102	0	100	67	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	3		4	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0		4.0	8.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	10.5	26.5		9.5	26.5		22.5	22.5		27.5	27.5	
Total Split (s)	19.5	45.5		19.5	45.5		24.5	24.5		29.5	29.5	
Total Split (%)	16.4%	38.2%		16.4%	38.2%		20.6%	20.6%		24.8%	24.8%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		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	5.5		4.5	5.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	9.1	34.0		8.6	32.0		11.7	11.7		12.8	12.8	
Actuated g/C Ratio	0.14	0.54		0.14	0.51		0.19	0.19		0.20	0.20	
v/c Ratio	0.09	0.37		0.05	0.48		0.15	0.34		0.32	0.20	
Control Delay (s/veh)	37.5	14.7		38.4	17.9		32.6	28.9		33.5	28.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	37.5	14.7		38.4	17.9		32.6	28.9		33.5	28.0	
LOS	D	B		D	B		C	C		C	C	
Approach Delay (s/veh)		15.4			18.2			30.1			31.3	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	7	78		3	96		13	24		30	16	
Queue Length 95th (ft)	37	201		23	251		58	98		109	71	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		591			1179			4598			414	
Turn Bay Length (ft)	150			230			50			250		
Base Capacity (vph)	498	2081		498	2021		664	670		764	782	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.04	0.30		0.02	0.36		0.07	0.15		0.13	0.09	

Intersection Summary			
Area Type:	Other		
Cycle Length: 119			
Actuated Cycle Length: 62.8			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay (s/veh): 19.5		Intersection LOS: B	
Intersection Capacity Utilization 39.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 11: Freeman Road E & Valley Avenue E



Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	9	7	139	129	9
Future Vol, veh/h	3	9	7	139	129	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	6	6	6	6	6	6
Mvmt Flow	4	11	9	170	157	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	349	163	168	0	-	0
Stage 1	163	-	-	-	-	-
Stage 2	187	-	-	-	-	-
Critical Hdwy	6.46	6.26	4.16	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	2.254	-	-	-
Pot Cap-1 Maneuver	640	872	1385	-	-	-
Stage 1	857	-	-	-	-	-
Stage 2	836	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	635	872	1385	-	-	-
Mov Cap-2 Maneuver	635	-	-	-	-	-
Stage 1	851	-	-	-	-	-
Stage 2	836	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.6	0.37	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	86	-	798	-	-
HCM Lane V/C Ratio	0.006	-	0.018	-	-
HCM Control Delay (s/veh)	7.6	0	9.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	6	3	201	84	1
Future Vol, veh/h	9	6	3	201	84	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	7	7	7	7	7	7
Mvmt Flow	10	7	3	228	95	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	331	96	97	0	-	0
Stage 1	96	-	-	-	-	-
Stage 2	235	-	-	-	-	-
Critical Hdwy	6.47	6.27	4.17	-	-	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.363	2.263	-	-	-
Pot Cap-1 Maneuver	653	947	1466	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	792	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	652	947	1466	-	-	-
Mov Cap-2 Maneuver	652	-	-	-	-	-
Stage 1	913	-	-	-	-	-
Stage 2	792	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.95	0.11	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	26	-	745	-	-
HCM Lane V/C Ratio	0.002	-	0.023	-	-
HCM Control Delay (s/veh)	7.5	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	1	15	0	5	0	208	20	7	83	2
Future Vol, veh/h	0	0	1	15	0	5	0	208	20	7	83	2
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	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	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	0	0	1	18	0	6	0	248	24	8	99	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	364	388	100	375	377	260	101	0	0	271	0	0
Stage 1	117	117	-	260	260	-	-	-	-	-	-	-
Stage 2	248	271	-	115	118	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.6	6.3	7.2	6.6	6.3	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.2	5.6	-	6.2	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.6	-	6.2	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4.09	3.39	3.59	4.09	3.39	2.29	-	-	2.29	-	-
Pot Cap-1 Maneuver	577	534	934	568	542	760	1442	-	-	1247	-	-
Stage 1	869	784	-	728	679	-	-	-	-	-	-	-
Stage 2	739	671	-	870	783	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	569	531	934	563	538	760	1442	-	-	1247	-	-
Mov Cap-2 Maneuver	569	531	-	563	538	-	-	-	-	-	-	-
Stage 1	863	778	-	728	679	-	-	-	-	-	-	-
Stage 2	733	671	-	863	777	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	8.86	11.23	0	0.6
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1442	-	-	934	602	136	-	-
HCM Lane V/C Ratio	-	-	-	0.001	0.04	0.007	-	-
HCM Control Delay (s/veh)	0	-	-	8.9	11.2	7.9	0	-
HCM Lane LOS	A	-	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	25	241	481	183	69	17
Future Vol, veh/h	25	241	481	183	69	17
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	89	89	89	89	89	89
Heavy Vehicles, %	11	11	11	11	11	11
Mvmt Flow	28	271	540	206	78	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	746	0	-	0	970	643
Stage 1	-	-	-	-	643	-
Stage 2	-	-	-	-	327	-
Critical Hdwy	4.21	-	-	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	2.299	-	-	-	3.599	3.399
Pot Cap-1 Maneuver	823	-	-	-	270	458
Stage 1	-	-	-	-	507	-
Stage 2	-	-	-	-	711	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	823	-	-	-	259	458
Mov Cap-2 Maneuver	-	-	-	-	259	-
Stage 1	-	-	-	-	486	-
Stage 2	-	-	-	-	711	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.9	0	24.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	169	-	-	-	284
HCM Lane V/C Ratio	0.034	-	-	-	0.341
HCM Control Delay (s/veh)	9.5	0	-	-	24.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1.5

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	25	241	481	183	69	17
Future Vol, veh/h	25	241	481	183	69	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	11	11	11	11	11	11
Mvmt Flow	28	271	540	206	78	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	746	0	-	0	970	643
Stage 1	-	-	-	-	643	-
Stage 2	-	-	-	-	327	-
Critical Hdwy	4.21	-	-	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	2.299	-	-	-	3.599	3.399
Pot Cap-1 Maneuver	823	-	-	-	270	458
Stage 1	-	-	-	-	507	-
Stage 2	-	-	-	-	711	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	823	-	-	-	261	458
Mov Cap-2 Maneuver	-	-	-	-	433	-
Stage 1	-	-	-	-	489	-
Stage 2	-	-	-	-	711	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.9	0	14.74
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	823	-	-	-	433	458
HCM Lane V/C Ratio	0.034	-	-	-	0.179	0.042
HCM Control Delay (s/veh)	9.5	-	-	-	15.1	13.2
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6	0.1

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	38	198	394	160	52	16
Future Vol, veh/h	38	198	394	160	52	16
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	89	89	89	89	89	89
Heavy Vehicles, %	11	11	11	11	11	11
Mvmt Flow	43	222	443	180	58	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	622	0	-	0	840	533
Stage 1	-	-	-	-	533	-
Stage 2	-	-	-	-	308	-
Critical Hdwy	4.21	-	-	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	2.299	-	-	-	3.599	3.399
Pot Cap-1 Maneuver	916	-	-	-	323	530
Stage 1	-	-	-	-	571	-
Stage 2	-	-	-	-	725	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	916	-	-	-	306	530
Mov Cap-2 Maneuver	-	-	-	-	306	-
Stage 1	-	-	-	-	541	-
Stage 2	-	-	-	-	725	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.47	0	18.63
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	290	-	-	-	340
HCM Lane V/C Ratio	0.047	-	-	-	0.225
HCM Control Delay (s/veh)	9.1	0	-	-	18.6
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.8

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	38	198	394	160	52	16
Future Vol, veh/h	38	198	394	160	52	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	11	11	11	11	11	11
Mvmt Flow	43	222	443	180	58	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	622	0	-	0	840	533
Stage 1	-	-	-	-	533	-
Stage 2	-	-	-	-	308	-
Critical Hdwy	4.21	-	-	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	2.299	-	-	-	3.599	3.399
Pot Cap-1 Maneuver	916	-	-	-	323	530
Stage 1	-	-	-	-	571	-
Stage 2	-	-	-	-	725	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	916	-	-	-	308	530
Mov Cap-2 Maneuver	-	-	-	-	479	-
Stage 1	-	-	-	-	544	-
Stage 2	-	-	-	-	725	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.47	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	916	-	-	-	479	530
HCM Lane V/C Ratio	0.047	-	-	-	0.122	0.034
HCM Control Delay (s/veh)	9.1	-	-	-	13.6	12
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4	0.1

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1377	1099	911	816	581	424
Future Volume (vph)	1377	1099	911	816	581	424
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	2	2		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	0.88	0.95	1.00	0.97	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3155	2561	3252	1455	3155	3252
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3155	2561	3252	1455	3155	3252
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		5		725		
Link Speed (mph)	35		35			35
Link Distance (ft)	522		278			1175
Travel Time (s)	10.2		5.4			22.9
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1449	1157	959	859	612	446
Turn Type	Prot	pm+ov	NA	Perm	Prot	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8		2		
Minimum Split (s)	36.6	10.6	38.9	38.9	10.6	36.9
Total Split (s)	57.0	31.0	32.0	32.0	31.0	63.0
Total Split (%)	47.5%	25.8%	26.7%	26.7%	25.8%	52.5%
Yellow Time (s)	3.6	3.6	3.9	3.9	3.6	3.9
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)	4.6	4.6	4.9	4.9	4.6	4.9
Lead/Lag		Lead	Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Act Effct Green (s)	52.4	83.4	27.1	27.1	26.4	58.1
Actuated g/C Ratio	0.44	0.70	0.23	0.23	0.22	0.48
v/c Ratio	1.05	0.65	1.31	0.97	0.88	0.28
Control Delay (s/veh)	72.8	12.3	185.7	31.6	60.8	19.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	72.8	12.3	185.7	31.6	60.8	19.1
LOS	E	B	F	C	E	B
Approach Delay (s/veh)	45.9		112.9			43.2
Approach LOS	D		F			D
Queue Length 50th (ft)	~631	253	~502	124	238	105
Queue Length 95th (ft)	#768	326	#633	#448	#336	142
Internal Link Dist (ft)	442		198			1095
Turn Bay Length (ft)					250	
Base Capacity (vph)	1377	1781	734	889	694	1574
Starvation Cap Reductn	0	0	0	0	0	0

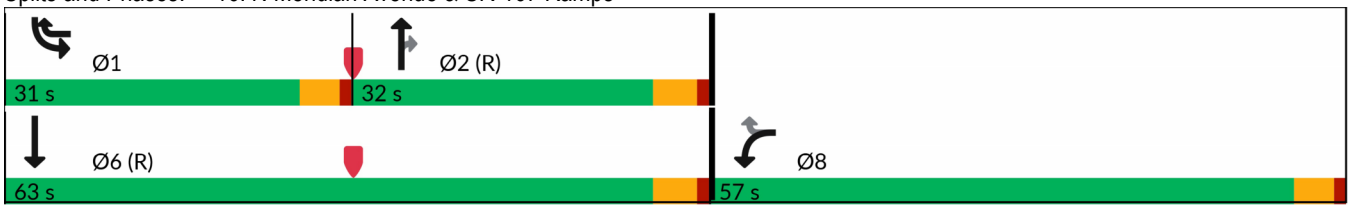
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.05	0.65	1.31	0.97	0.88	0.28

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 130			
Control Type: Pretimed			
Maximum v/c Ratio: 1.31			
Intersection Signal Delay (s/veh): 67.6		Intersection LOS: E	
Intersection Capacity Utilization 92.8%		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.

Splits and Phases: 16: N Meridian Avenue & SR-167 Ramps

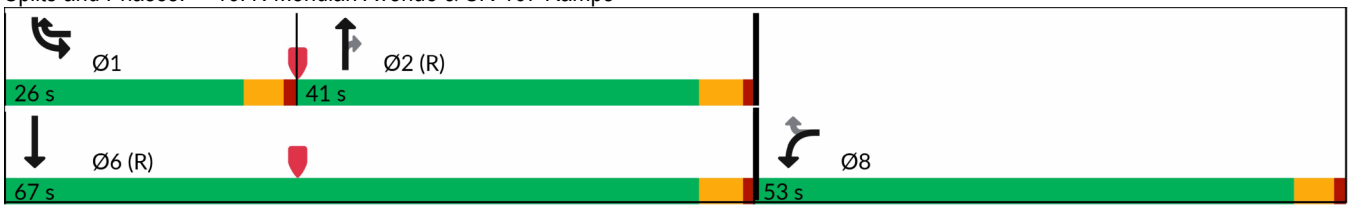


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1377	1099	911	816	581	424
Future Volume (vph)	1377	1099	911	816	581	424
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	2	2		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	0.88	0.95	1.00	0.97	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3155	2561	3252	1455	3155	3252
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3155	2561	3252	1455	3155	3252
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		24		759		
Link Speed (mph)	35		35			35
Link Distance (ft)	522		278			1175
Travel Time (s)	10.2		5.4			22.9
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1449	1157	959	859	612	446
Turn Type	Prot	pm+ov	NA	Perm	Prot	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8		2		
Minimum Split (s)	36.6	10.6	38.9	38.9	10.6	36.9
Total Split (s)	53.0	26.0	41.0	41.0	26.0	67.0
Total Split (%)	44.2%	21.7%	34.2%	34.2%	21.7%	55.8%
Yellow Time (s)	3.6	3.6	3.9	3.9	3.6	3.9
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)	4.6	4.6	4.9	4.9	4.6	4.9
Lead/Lag		Lead	Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Act Effct Green (s)	48.4	74.4	36.1	36.1	21.4	62.1
Actuated g/C Ratio	0.40	0.62	0.30	0.30	0.18	0.52
v/c Ratio	1.14	0.72	0.98	0.89	1.09	0.27
Control Delay (s/veh)	106.6	18.7	66.4	17.9	110.6	16.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	106.6	18.7	66.4	17.9	110.6	16.7
LOS	F	B	E	B	F	B
Approach Delay (s/veh)	67.6		43.5			71.0
Approach LOS	E		D			E
Queue Length 50th (ft)	~675	321	387	58	~274	98
Queue Length 95th (ft)	#811	414	#530	#408	#391	131
Internal Link Dist (ft)	442		198			1095
Turn Bay Length (ft)					250	
Base Capacity (vph)	1272	1596	978	968	562	1682
Starvation Cap Reductn	0	0	0	0	0	0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.14	0.72	0.98	0.89	1.09	0.27

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 130			
Control Type: Pretimed			
Maximum v/c Ratio: 1.14			
Intersection Signal Delay (s/veh): 60.2		Intersection LOS: E	
Intersection Capacity Utilization 92.8%		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.			

Splits and Phases: 16: N Meridian Avenue & SR-167 Ramps



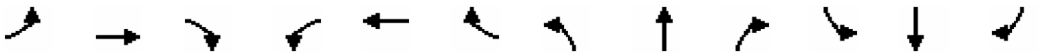
Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	105	0	0	204	0	1409	210	0	1290	474
Future Vol, veh/h	0	0	105	0	0	204	0	1409	210	0	1290	474
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	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Free	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	0	111	0	0	215	0	1483	221	0	1358	499

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	928	-	-	742	-	0	-	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.08	-	-	7.08	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.39	-	-	3.39	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	257	0	0	343	0	-	0	0	-	-
Stage 1	0	0	-	0	0	-	0	-	0	0	-	-
Stage 2	0	0	-	0	0	-	0	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	-	-	257	-	-	343	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	29.24	31.5	0	0
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBT	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	257	343	-	-
HCM Lane V/C Ratio	-	0.431	0.626	-	-
HCM Control Delay (s/veh)	-	29.2	31.5	-	-
HCM Lane LOS	-	D	D	-	-
HCM 95th %tile Q(veh)	-	2	4	-	-



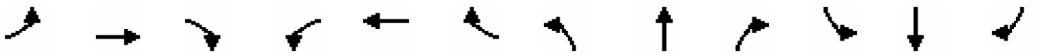
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1006	0	352	10	514	621	0	0	0	0	308	841
Future Volume (vph)	1006	0	352	10	514	621	0	0	0	0	308	841
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	125		0	0		0	0		250
Storage Lanes	2		1	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected	0.950			0.950								
Satd. Flow (prot)	3273	0	1509	1687	3374	1509	0	0	0	0	3374	1509
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	3273	0	1509	1687	3374	1509	0	0	0	0	3374	1509
Right Turn on Red			No	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				90		441						597
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		673			590			2133			1751	
Travel Time (s)		13.1			11.5			58.2			47.8	
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 (%)	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1070	0	374	11	547	661	0	0	0	0	328	895
Turn Type	Prot		Prot	Perm	NA	Perm					NA	Perm
Protected Phases	1		1		2						4	
Permitted Phases				2		2						4
Detector Phase	1		1	2	2	2					4	4
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0					10.0	10.0
Minimum Split (s)	10.1		10.1	35.1	35.1	35.1					30.8	30.8
Total Split (s)	31.0		31.0	31.0	31.0	31.0					22.0	22.0
Total Split (%)	36.9%		36.9%	36.9%	36.9%	36.9%					26.2%	26.2%
Yellow Time (s)	3.6		3.6	3.6	3.6	3.6					3.3	3.3
All-Red Time (s)	1.5		1.5	1.5	1.5	1.5					1.5	1.5
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Lost Time (s)	5.1		5.1	5.1	5.1	5.1					4.8	4.8
Lead/Lag	Lead		Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes						
Recall Mode	None		None	Max	Max	Max					None	None
Act Effct Green (s)	25.9		25.9	30.0	30.0	30.0					17.2	17.2
Actuated g/C Ratio	0.29		0.29	0.34	0.34	0.34					0.20	0.20
v/c Ratio	1.11		0.84	0.02	0.48	0.82					0.50	1.15
Control Delay (s/veh)	96.0		48.4	0.1	24.6	18.7					34.6	97.6
Queue Delay	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Delay (s/veh)	96.0		48.4	0.1	24.6	18.7					34.6	97.6
LOS	F		D	A	C	B					C	F
Approach Delay (s/veh)		83.7			21.2						80.7	
Approach LOS		F			C						F	
Queue Length 50th (ft)	~354		194	0	124	109					86	~302
Queue Length 95th (ft)	#477		#347	0	172	#332					128	#535

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		593			510			2053			1671	
Turn Bay Length (ft)				125								250
Base Capacity (vph)	962		443	633	1148	804					658	775
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	1.11		0.84	0.02	0.48	0.82					0.50	1.15

Intersection Summary			
Area Type:	Other		
Cycle Length: 84			
Actuated Cycle Length: 88.1			
Natural Cycle: 120			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.15			
Intersection Signal Delay (s/veh): 63.2		Intersection LOS: E	
Intersection Capacity Utilization 74.7%		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.

Splits and Phases: 18: N Meridian Avenue & River Road/2nd Street NE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1006	0	352	10	514	621	0	0	0	0	308	841
Future Volume (vph)	1006	0	352	10	514	621	0	0	0	0	308	841
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	125		0	0		0	0		250
Storage Lanes	2		1	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected	0.950			0.950								
Satd. Flow (prot)	3273	0	1509	1687	3374	1509	0	0	0	0	3374	1509
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	3273	0	1509	1687	3374	1509	0	0	0	0	3374	1509
Right Turn on Red			No	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				63		524						636
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		673			590			2133			1751	
Travel Time (s)		13.1			11.5			58.2			47.8	
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 (%)	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1070	0	374	11	547	661	0	0	0	0	328	895
Turn Type	Prot		Prot	Perm	NA	Perm					NA	Perm
Protected Phases	1		1		2						4	
Permitted Phases				2		2						4
Detector Phase	1		1	2	2	2					4	4
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0					10.0	10.0
Minimum Split (s)	10.1		10.1	35.1	35.1	35.1					30.8	30.8
Total Split (s)	44.0		44.0	36.0	36.0	36.0					40.0	40.0
Total Split (%)	36.7%		36.7%	30.0%	30.0%	30.0%					33.3%	33.3%
Yellow Time (s)	3.6		3.6	3.6	3.6	3.6					3.3	3.3
All-Red Time (s)	1.5		1.5	1.5	1.5	1.5					1.5	1.5
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Lost Time (s)	5.1		5.1	5.1	5.1	5.1					4.8	4.8
Lead/Lag	Lead		Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes						
Recall Mode	None		None	Max	Max	Max					None	None
Act Effct Green (s)	38.9		38.9	30.9	30.9	30.9					35.2	35.2
Actuated g/C Ratio	0.32		0.32	0.26	0.26	0.26					0.29	0.29
v/c Ratio	1.01		0.76	0.02	0.63	0.85					0.33	1.00
Control Delay (s/veh)	70.6		48.3	0.1	43.3	20.8					34.4	44.1
Queue Delay	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Delay (s/veh)	70.6		48.3	0.1	43.3	20.8					34.4	44.1
LOS	E		D	A	D	C					C	D
Approach Delay (s/veh)		64.8			30.7						41.5	
Approach LOS		E			C						D	
Queue Length 50th (ft)	~432		259	0	198	102					104	~290
Queue Length 95th (ft)	#580		#387	0	259	#346					146	#602

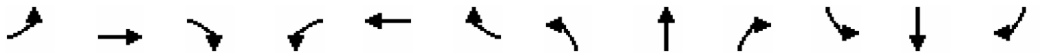
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		593			510			2053			1671	
Turn Bay Length (ft)				125								250
Base Capacity (vph)	1060		489	481	868	777					989	892
Starvation Cap Reductn	0		0	0	0	0					0	0
Spillback Cap Reductn	0		0	0	0	0					0	0
Storage Cap Reductn	0		0	0	0	0					0	0
Reduced v/c Ratio	1.01		0.76	0.02	0.63	0.85					0.33	1.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Natural Cycle: 120			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.01			
Intersection Signal Delay (s/veh): 46.8		Intersection LOS: D	
Intersection Capacity Utilization 74.7%		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.

Splits and Phases: 18: N Meridian Avenue & River Road/2nd Street NE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	169	46	45	169	0	0	0	0	155	511	30
Future Volume (vph)	0	169	46	45	169	0	0	0	0	155	511	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	125		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	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	0.95	0.95	0.95
Frt			0.850								0.994	
Flt Protected				0.950							0.989	
Satd. Flow (prot)	0	1810	1538	1719	1810	0	0	0	0	0	3380	0
Flt Permitted				0.417							0.989	
Satd. Flow (perm)	0	1810	1538	755	1810	0	0	0	0	0	3380	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91								16	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		393			385			1349			2133	
Travel Time (s)		10.7			10.5			36.8			58.2	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	194	53	52	194	0	0	0	0	0	799	0
Turn Type		NA	Perm	pm+pt	NA					Perm	NA	
Protected Phases		8		7	4						2	
Permitted Phases			8	4						2		
Detector Phase		8	8	7	4					2	2	
Switch Phase												
Minimum Initial (s)		5.0	5.0	5.0	5.0					10.0	10.0	
Minimum Split (s)		21.0	21.0	9.0	21.0					23.0	23.0	
Total Split (s)		9.0	9.0	7.0	13.0					44.0	44.0	
Total Split (%)		15.0%	15.0%	11.7%	21.7%					73.3%	73.3%	
Yellow Time (s)		3.0	3.0	3.0	3.0					3.0	3.0	
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)		4.0	4.0	4.0	4.0						4.0	
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		None	None	None	None					Max	Max	
Act Effct Green (s)		5.6	5.6	9.8	9.8						41.7	
Actuated g/C Ratio		0.09	0.09	0.16	0.16						0.70	
v/c Ratio		1.14	0.23	0.30	0.65						0.34	
Control Delay (s/veh)		144.1	5.5	24.8	33.4						4.2	
Queue Delay		0.0	0.0	0.0	0.0						0.0	
Total Delay (s/veh)		144.1	5.5	24.8	33.4						4.2	
LOS		F	A	C	C						A	
Approach Delay (s/veh)		114.4			31.6						4.2	
Approach LOS		F			C						A	
Queue Length 50th (ft)		~92	0	16	63						52	
Queue Length 95th (ft)		#193	13	39	115						72	

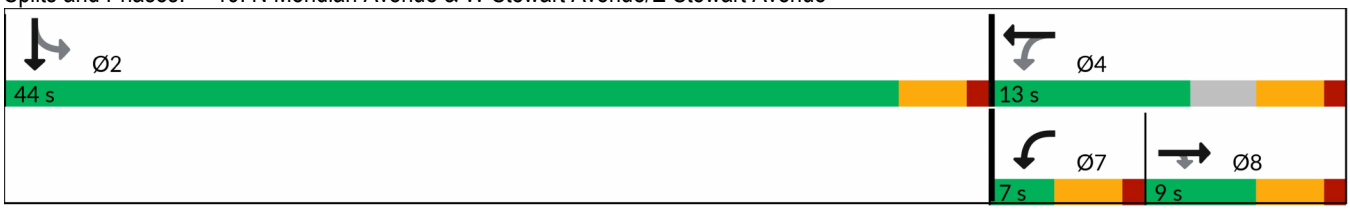
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		313			305			1269			2053	
Turn Bay Length (ft)			50	125								
Base Capacity (vph)		170	227	173	366						2373	
Starvation Cap Reductn		0	0	0	0						0	
Spillback Cap Reductn		0	0	0	0						0	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		1.14	0.23	0.30	0.53						0.34	

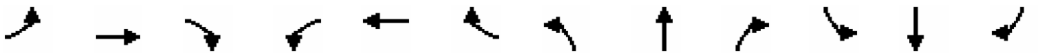
Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 59.5			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.14			
Intersection Signal Delay (s/veh): 30.5		Intersection LOS: C	
Intersection Capacity Utilization 53.5%		ICU Level of Service A	
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: 19: N Meridian Avenue & W Stewart Avenue



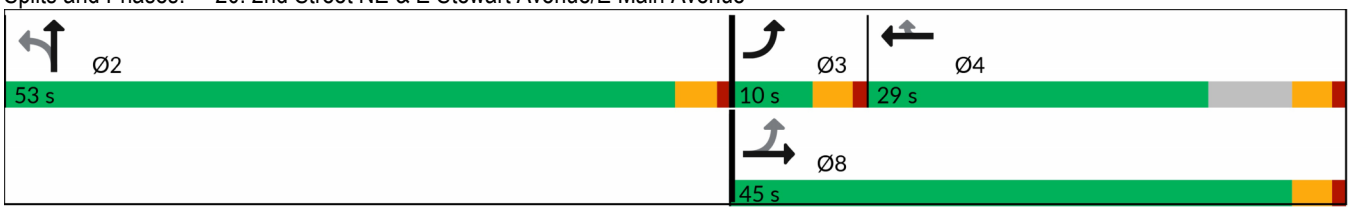


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	254	0	0	137	183	71	938	0	0	0	0
Future Volume (vph)	54	254	0	0	137	183	71	938	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	0		125	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
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	0.95	1.00	1.00	1.00
Frt						0.850						
Flt Protected	0.950							0.996				
Satd. Flow (prot)	1736	1827	0	0	1827	1553	0	3457	0	0	0	0
Flt Permitted	0.452							0.996				
Satd. Flow (perm)	826	1827	0	0	1827	1553	0	3457	0	0	0	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		385			615			394			343	
Travel Time (s)		10.5			16.8			10.7			9.4	
Peak Hour 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
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	267	0	0	144	193	0	1062	0	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA				
Protected Phases	3	8			4			2				
Permitted Phases	8					4	2					
Detector Phase	3	8			4	4	2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	10.0	10.0				
Minimum Split (s)	9.5	28.0			28.0	28.0	26.0	26.0				
Total Split (s)	10.0	45.0			29.0	29.0	53.0	53.0				
Total Split (%)	10.2%	45.9%			29.6%	29.6%	54.1%	54.1%				
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0				
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)	4.0	4.0			4.0	4.0		4.0				
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	None			None	None	Max	Max				
Act Effct Green (s)	19.0	19.0			13.6	13.6		49.6				
Actuated g/C Ratio	0.25	0.25			0.18	0.18		0.65				
v/c Ratio	0.21	0.59			0.45	0.70		0.48				
Control Delay (s/veh)	22.5	30.1			33.4	44.7		9.3				
Queue Delay	0.0	0.0			0.0	0.0		0.0				
Total Delay (s/veh)	22.5	30.1			33.4	44.7		9.3				
LOS	C	C			C	D		A				
Approach Delay (s/veh)		28.8			39.9			9.3				
Approach LOS		C			D			A				
Queue Length 50th (ft)	21	111			66	93		137				
Queue Length 95th (ft)	47	179			119	162		235				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		305			535			314			263	
Turn Bay Length (ft)	50					125						
Base Capacity (vph)	276	988			747	635		2235				
Starvation Cap Reductn	0	0			0	0		0				
Spillback Cap Reductn	0	0			0	0		0				
Storage Cap Reductn	0	0			0	0		0				
Reduced v/c Ratio	0.21	0.27			0.19	0.30		0.48				

Intersection Summary			
Area Type:	Other		
Cycle Length: 98			
Actuated Cycle Length: 76.7			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay (s/veh): 18.9		Intersection LOS: B	
Intersection Capacity Utilization 53.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 20: 2nd Street NE & E Stewart Avenue/E Main Avenue



Intersection	
Int Delay, s/veh	2.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	7	139	67	70	68
Future Vol, veh/h	18	7	139	67	70	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
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	20	8	151	73	76	74

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	414	188	0	0	224	0
Stage 1	188	-	-	-	-	-
Stage 2	226	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	595	855	-	-	1345	-
Stage 1	844	-	-	-	-	-
Stage 2	811	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	561	855	-	-	1345	-
Mov Cap-2 Maneuver	561	-	-	-	-	-
Stage 1	844	-	-	-	-	-
Stage 2	766	-	-	-	-	-

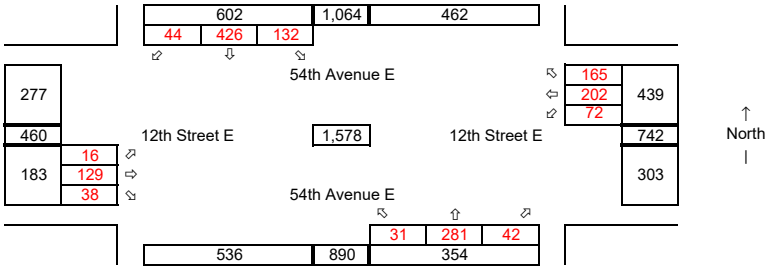
Approach	WB	NB	SB
HCM Control Delay, s/v	11.06	0	3.98
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	621	1345	-
HCM Lane V/C Ratio	-	-	0.044	0.057	-
HCM Control Delay (s/veh)	-	-	11.1	7.8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.2	-

Synchro ID: 1
Existing
Average Weekday
PM Peak Hour

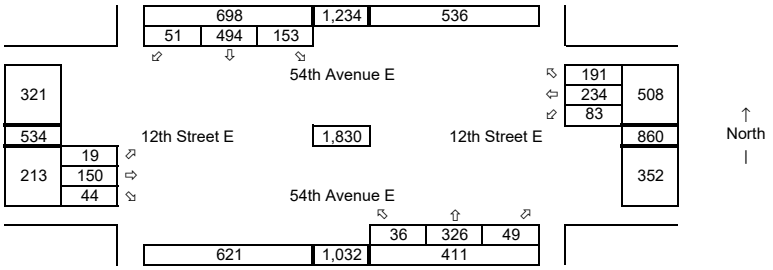
Year: **6/8/2023**

Data Source: IDAX

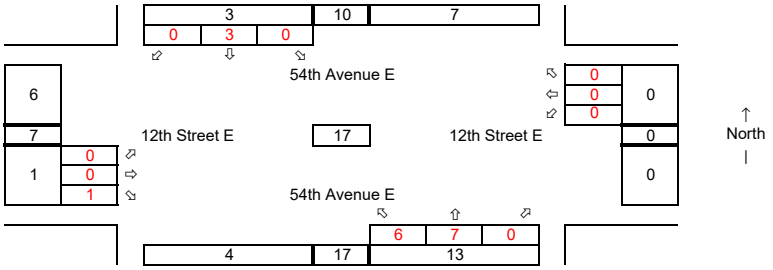


Future without Project
Average Weekday
PM Peak Hour

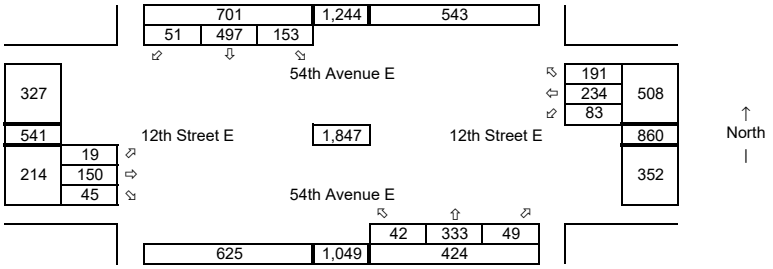
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



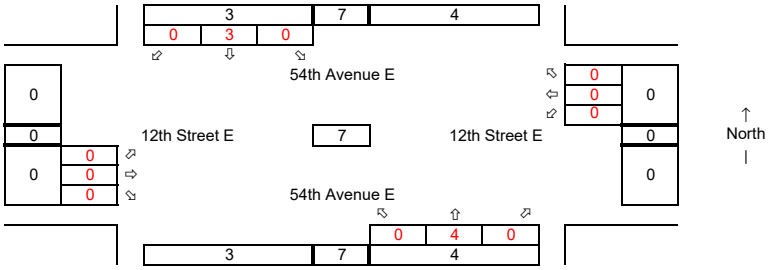
Total Development Trips
Average Weekday
PM Peak Hour



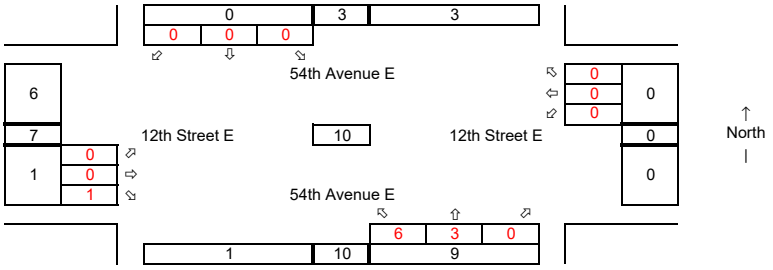
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour

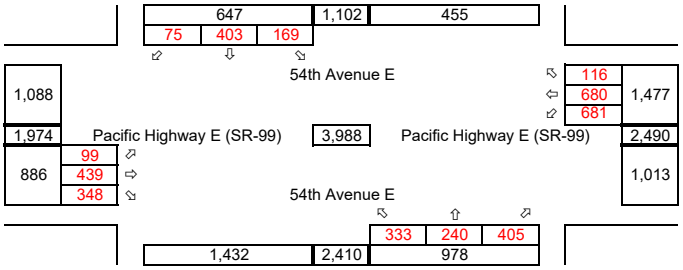


Synchro ID: 2
Existing
Average Weekday
PM Peak Hour

Year: **6/15/2023**

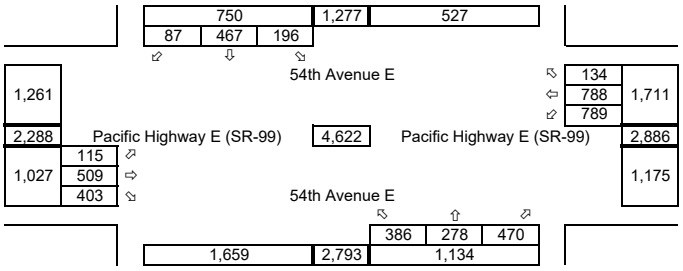
Data Source: IDAX

Two (2) Eastbound U-turns added to Eastbound left-turns

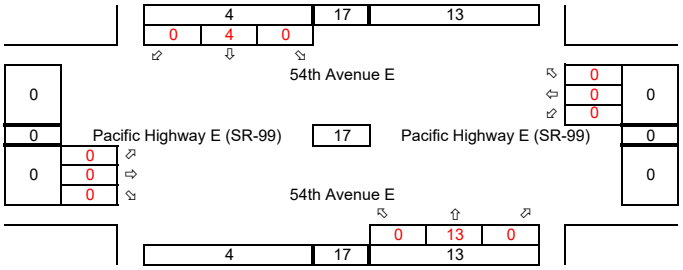


Future without Project
Average Weekday
PM Peak Hour

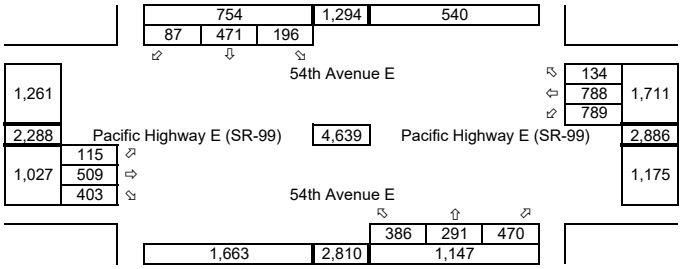
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



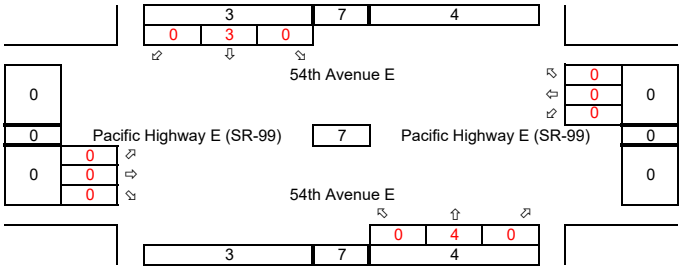
Total Development Trips
Average Weekday
PM Peak Hour



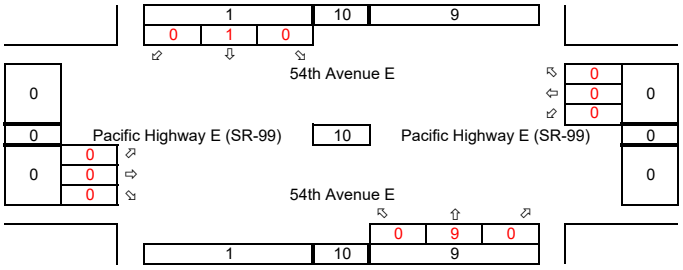
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour

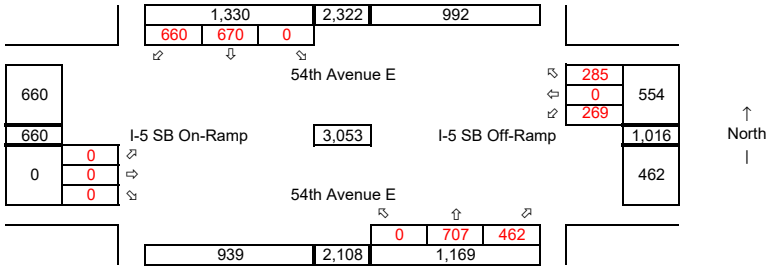


Synchro ID: 3
Existing
Average Weekday
PM Peak Hour

Year: **6/15/2023**

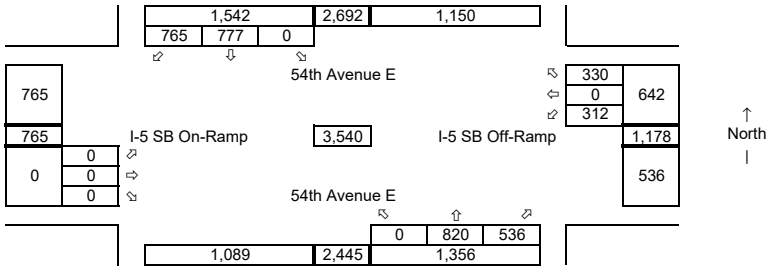
Data Source: IDAX

One (1) NB U-turn added to NBT.
One (1) NBL added to NBR.
One (1) WBT added to WBL

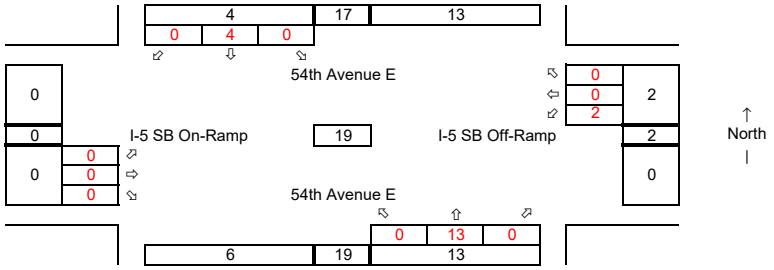


Future without Project
Average Weekday
PM Peak Hour

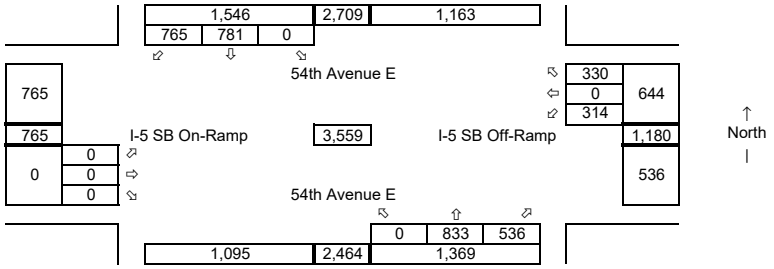
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



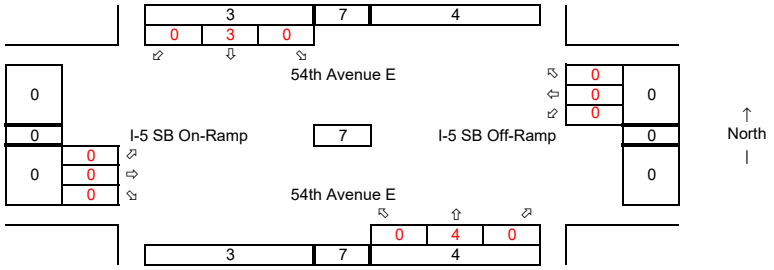
Total Development Trips
Average Weekday
PM Peak Hour



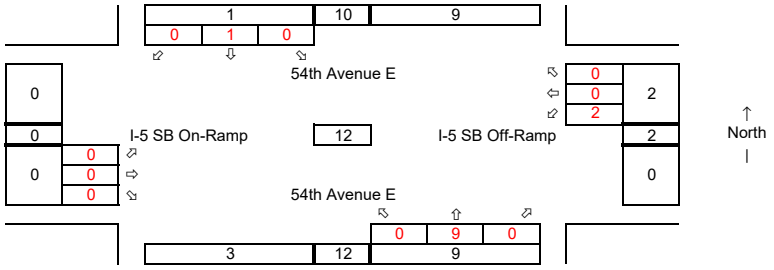
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



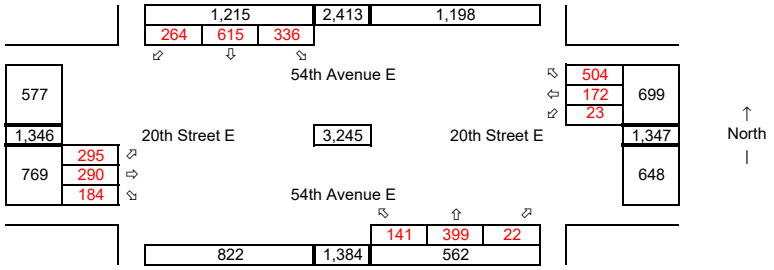
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 4
Existing
Average Weekday
PM Peak Hour

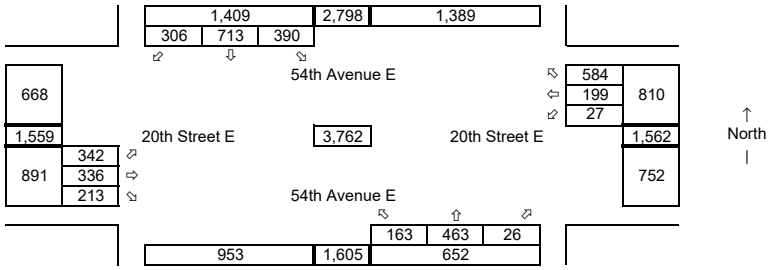
Year: **6/15/2023**

Data Source: IDAX

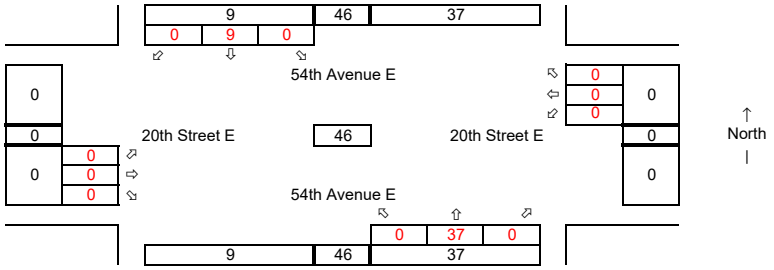


Future without Project
Average Weekday
PM Peak Hour

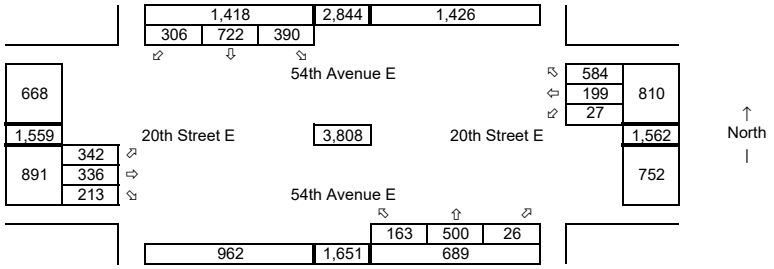
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



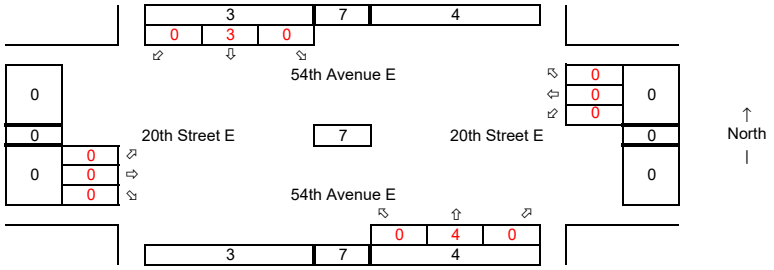
Total Development Trips
Average Weekday
PM Peak Hour



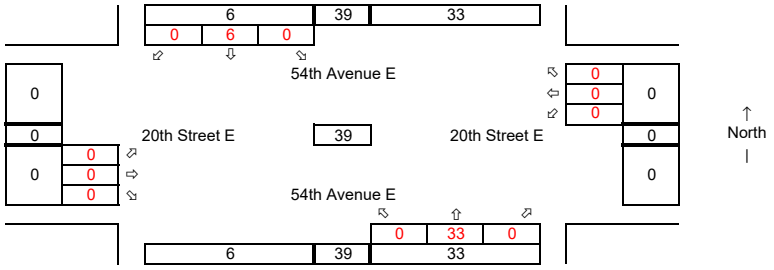
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



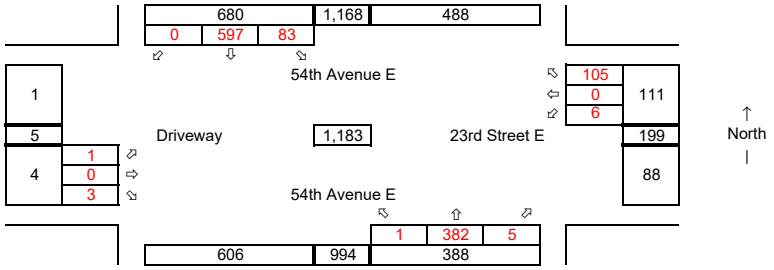
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 5
Existing
Average Weekday
PM Peak Hour

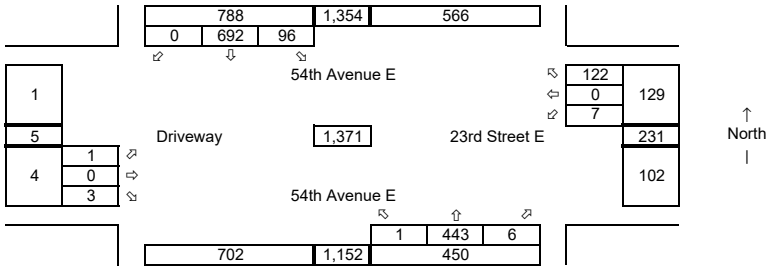
Year: **6/8/2023**

Data Source: IDAX

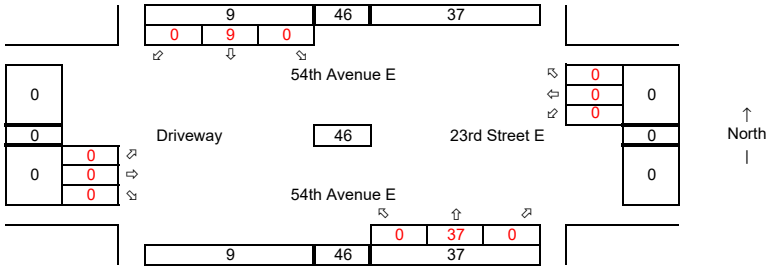


Future without Project
Average Weekday
PM Peak Hour

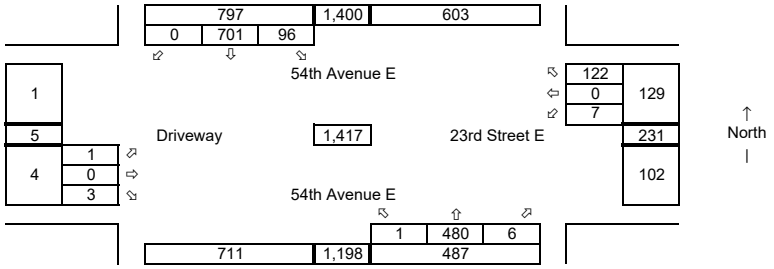
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



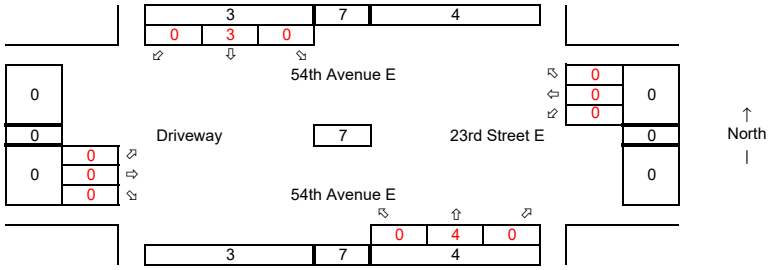
Total Development Trips
Average Weekday
PM Peak Hour



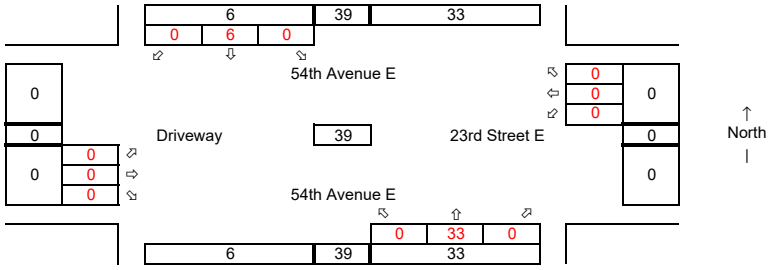
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



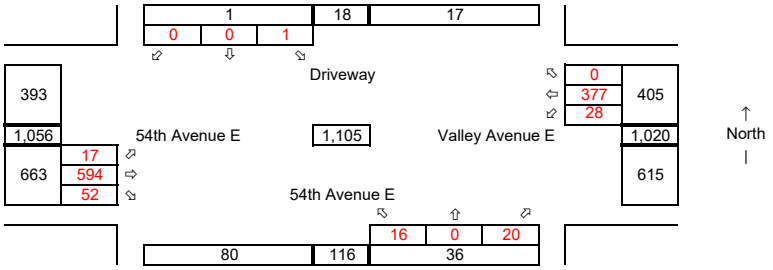
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 6
Existing
Average Weekday
PM Peak Hour

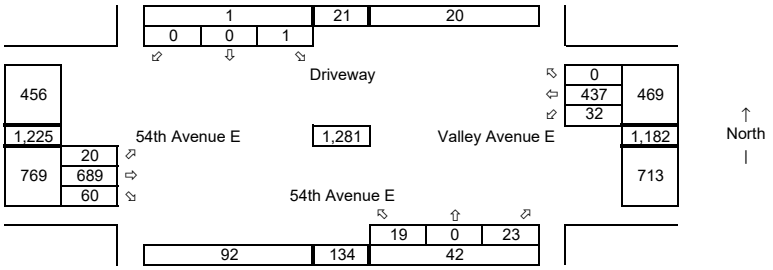
Year: **6/15/2023**

Data Source: IDAX

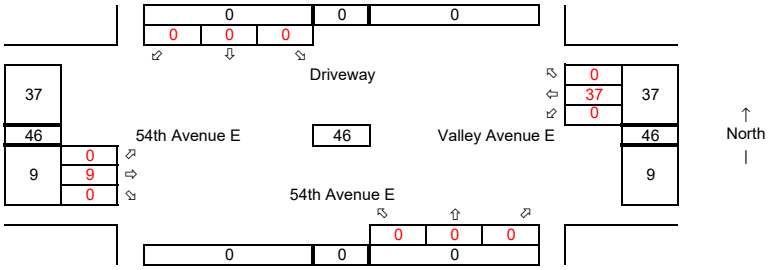


Future without Project
Average Weekday
PM Peak Hour

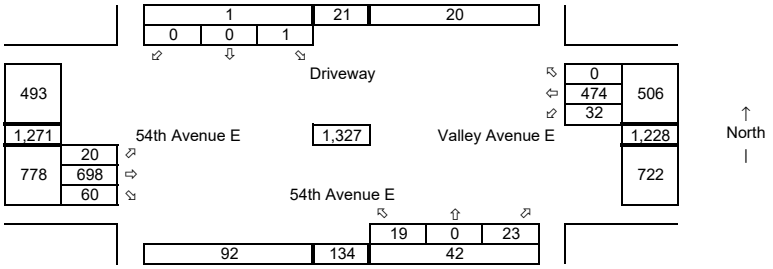
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



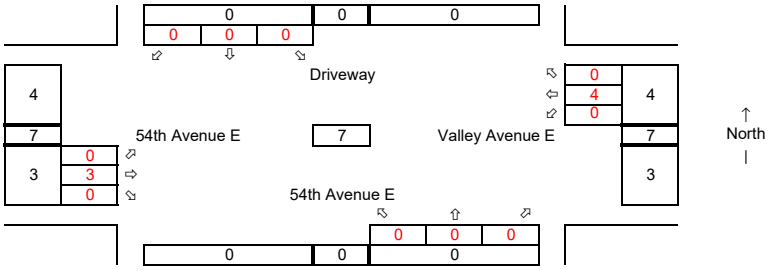
Total Development Trips
Average Weekday
PM Peak Hour



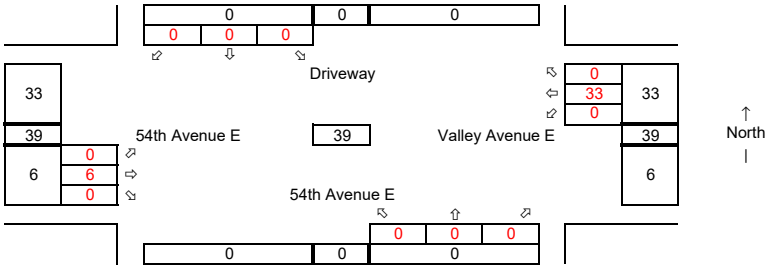
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour

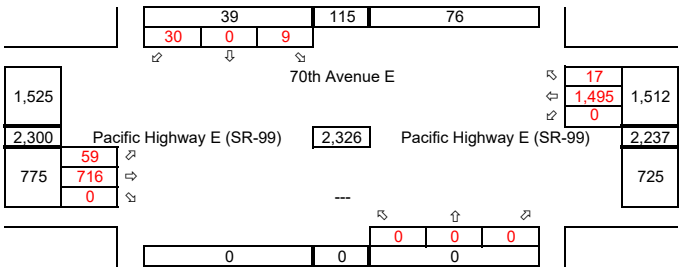


Synchro ID: 7
Existing
Average Weekday
PM Peak Hour

Year: **6/15/2023**

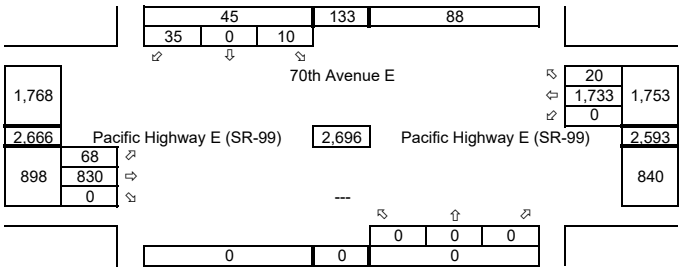
Data Source: IDAX

One (1) Eastbound U-turn
added to Eastbound left-turns

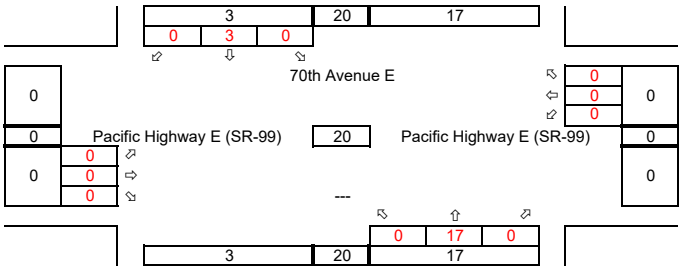


Future without Project
Average Weekday
PM Peak Hour

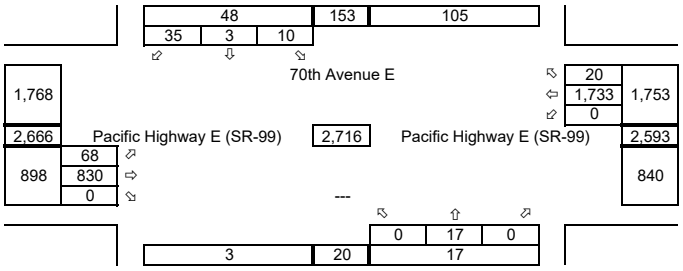
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



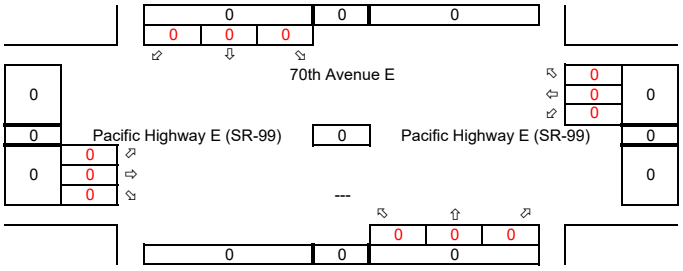
Total Development Trips
Average Weekday
PM Peak Hour



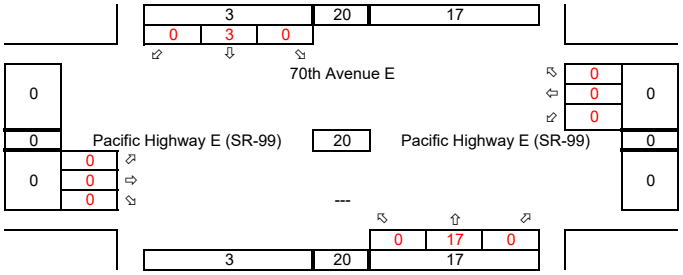
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



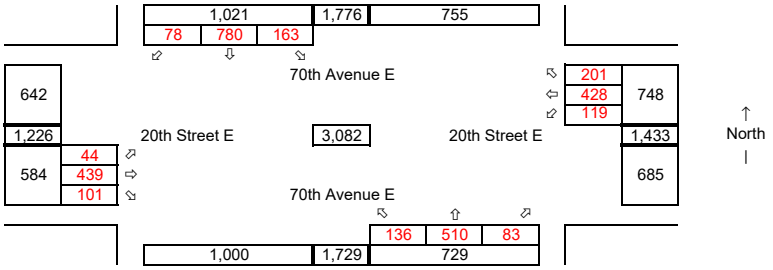
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 8
Existing
Average Weekday
PM Peak Hour

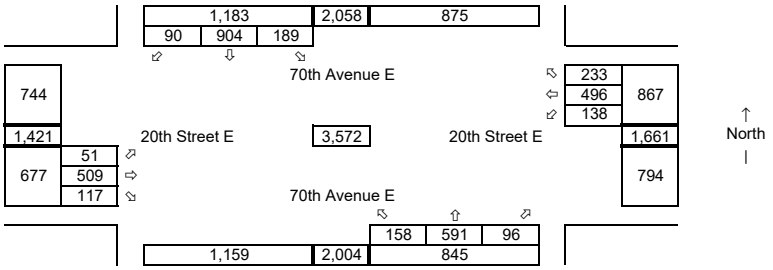
Year: **6/8/2023**

Data Source: IDAX

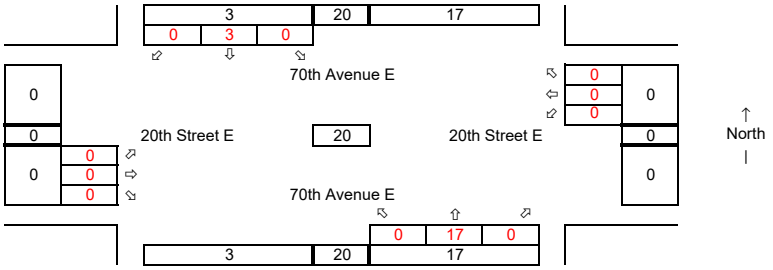


Future without Project
Average Weekday
PM Peak Hour

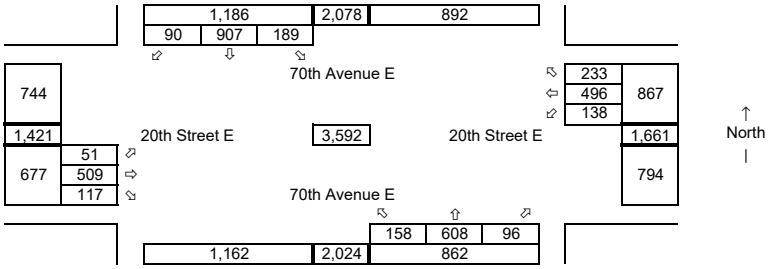
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



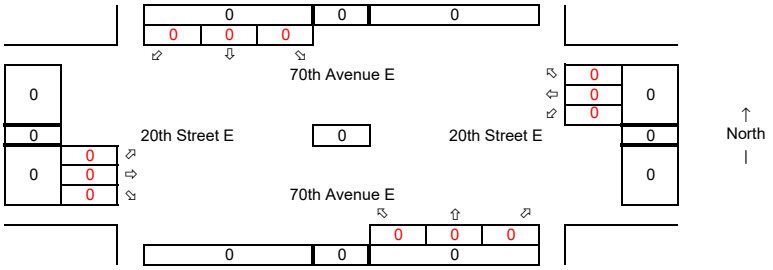
Total Development Trips
Average Weekday
PM Peak Hour



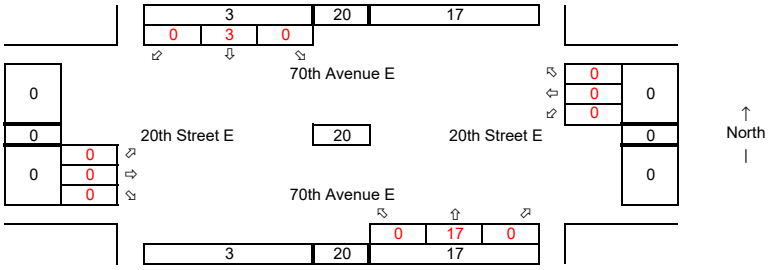
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



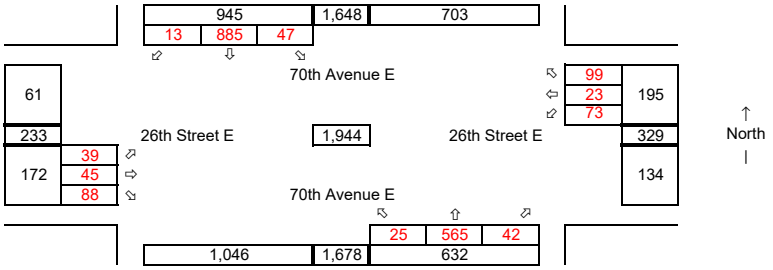
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 9
Existing
Average Weekday
PM Peak Hour

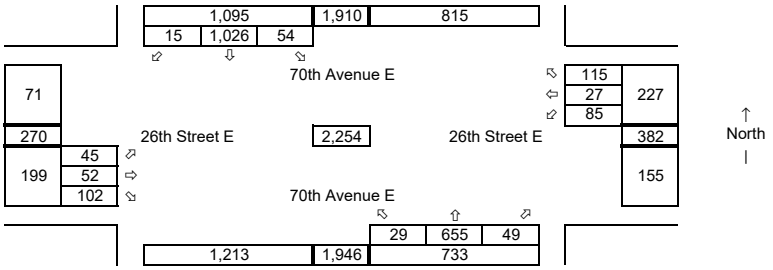
Year: **6/8/2023**

Data Source: IDAX

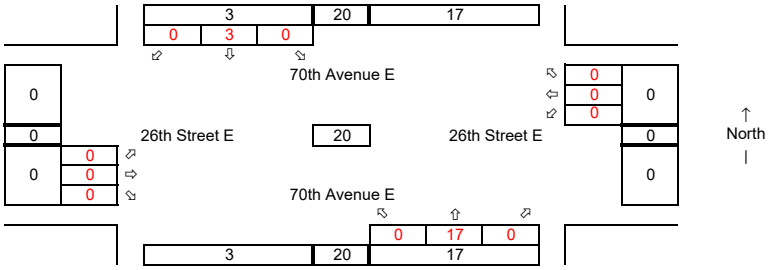


Future without Project
Average Weekday
PM Peak Hour

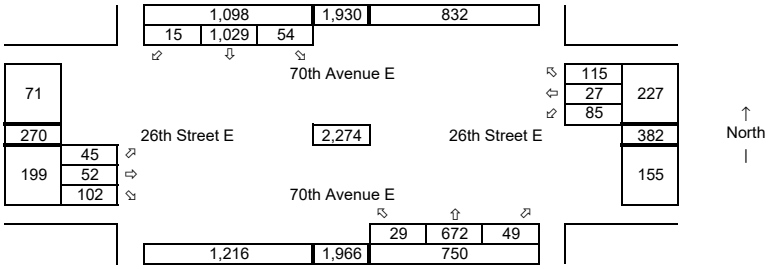
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



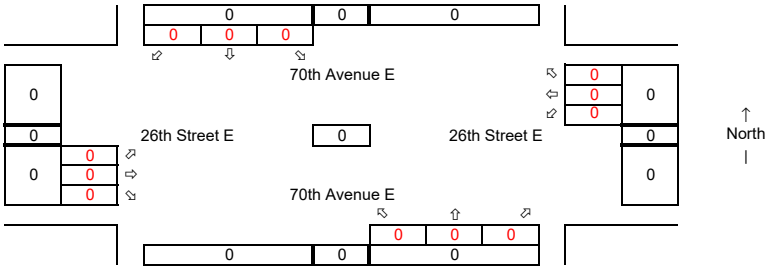
Total Development Trips
Average Weekday
PM Peak Hour



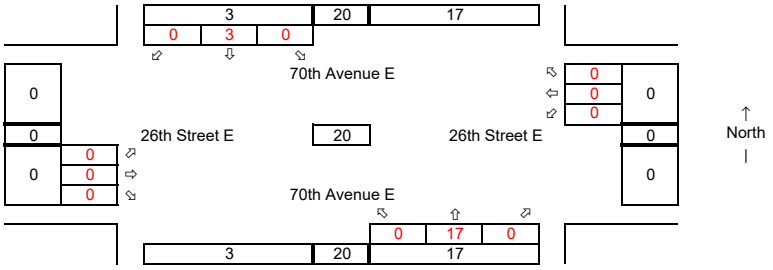
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



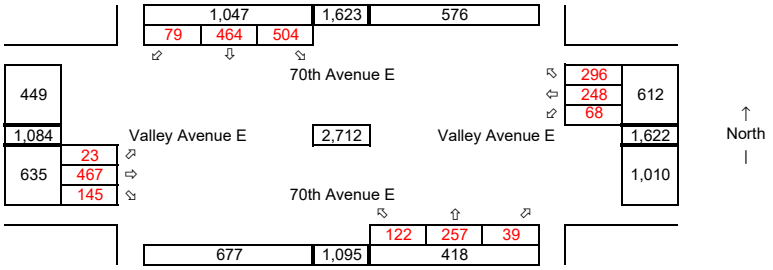
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 10
Existing
Average Weekday
PM Peak Hour

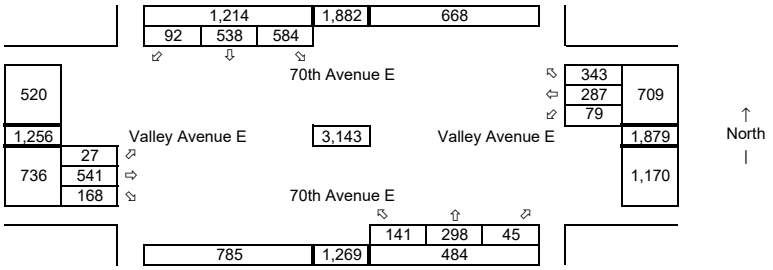
Year: **6/8/2023**

Data Source: IDAX

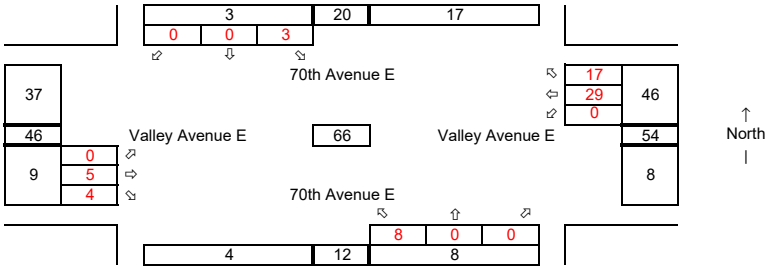


Future without Project
Average Weekday
PM Peak Hour

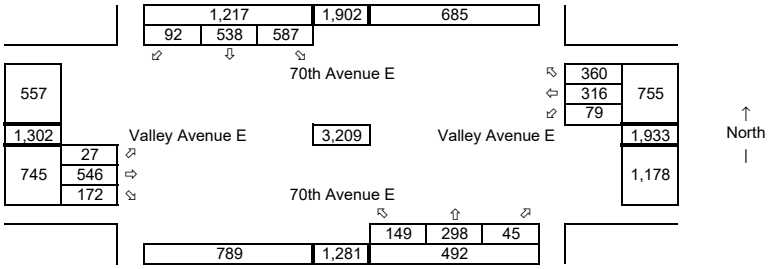
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



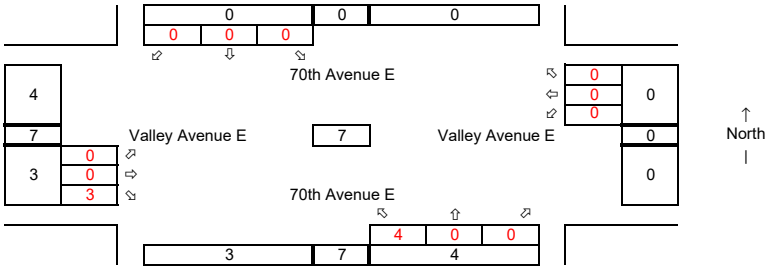
Total Development Trips
Average Weekday
PM Peak Hour



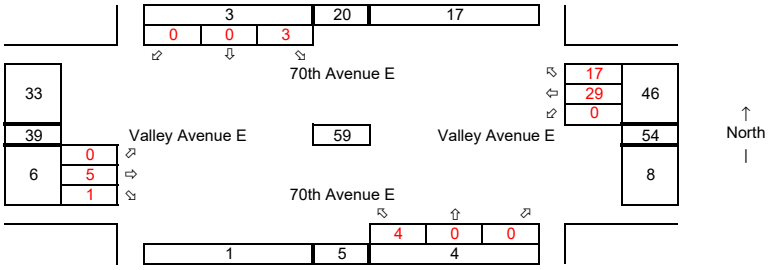
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



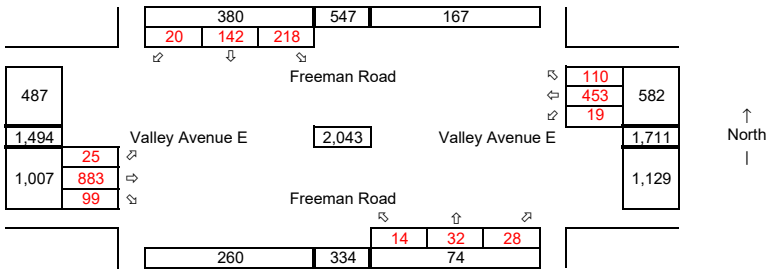
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 11
Existing
Average Weekday
PM Peak Hour

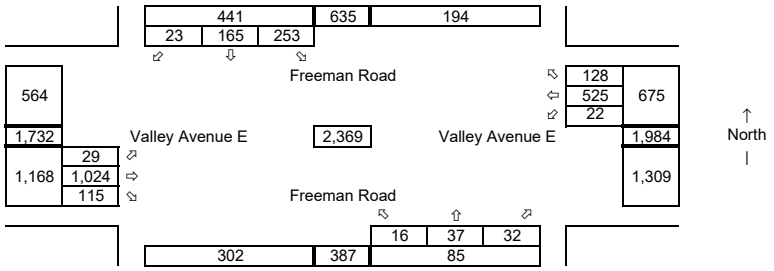
Year: **6/14/2023**

Data Source: IDAX

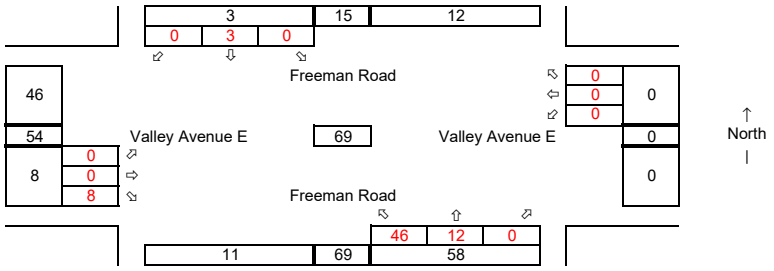


Future without Project
Average Weekday
PM Peak Hour

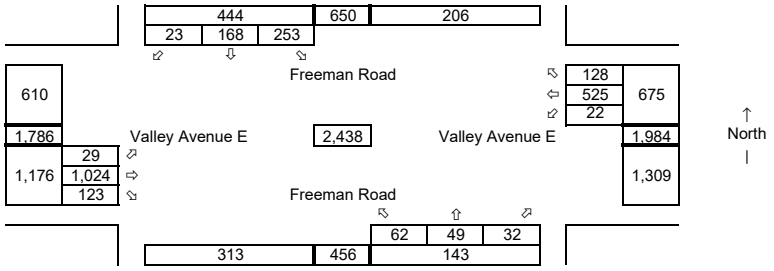
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



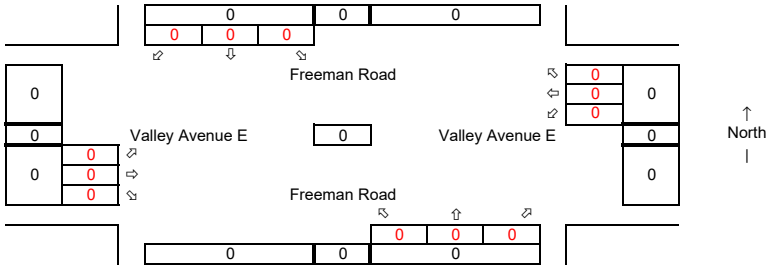
Total Development Trips
Average Weekday
PM Peak Hour



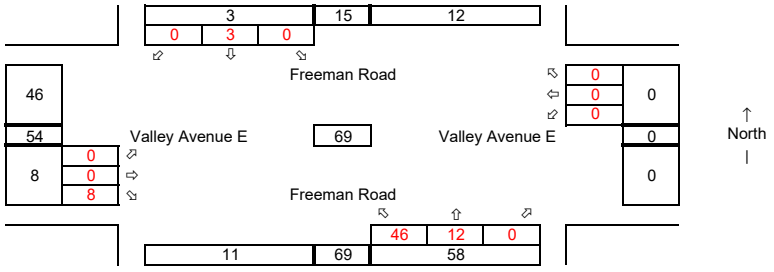
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



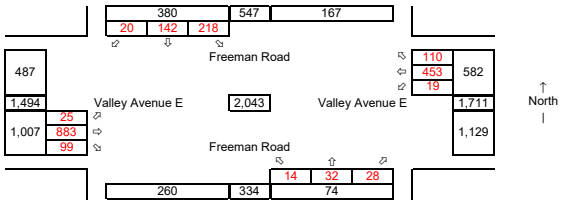
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 11
Existing
Average Weekday
PM Peak Hour

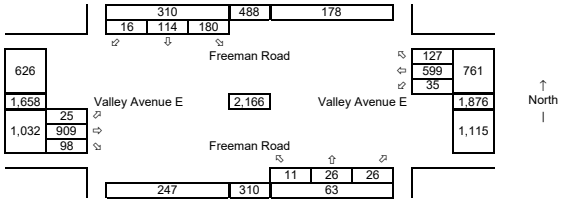
Year: **6/14/2023**

Data Source: IDAX

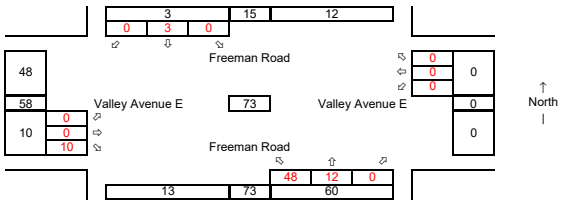


Future without Project
Average Weekday
PM Peak Hour

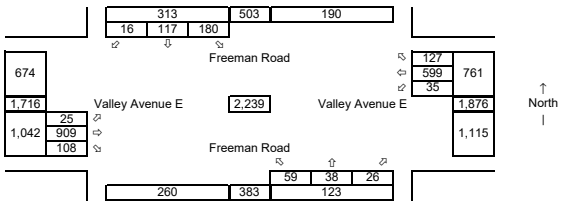
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



Total Development Trips
Average Weekday
PM Peak Hour

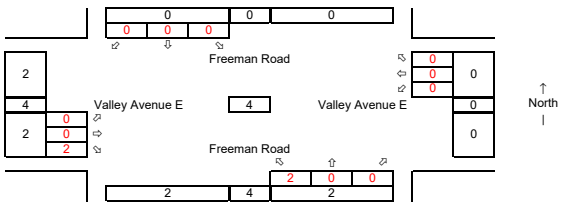


Future with Project
Average Weekday
PM Peak Hour

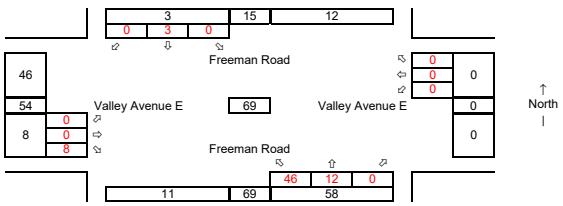


Development Truck Trips
Average Weekday
PM Peak Hour

N/S Diversion % +50%
from 70th Ave E

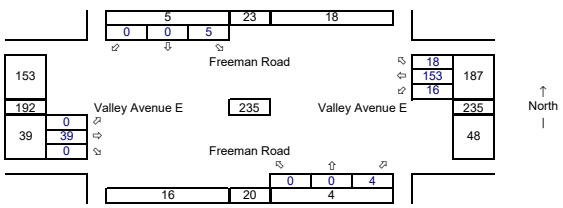


Development Car Trips
Average Weekday
PM Peak Hour



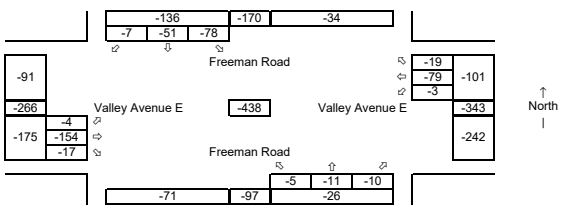
Total Pipeline Project Trips
Average Weekday
PM Peak Hour

Prologis Park Edgewood



SR-167 Extension Diversion
Average Weekday
PM Peak Hour

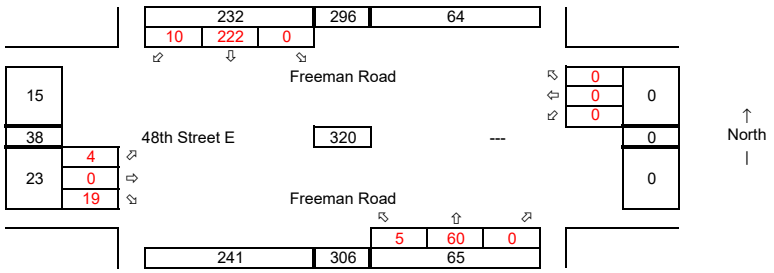
N/S Diversion % -31%
E/W Diversion % -15%



Synchro ID: 12
Existing
Average Weekday
PM Peak Hour

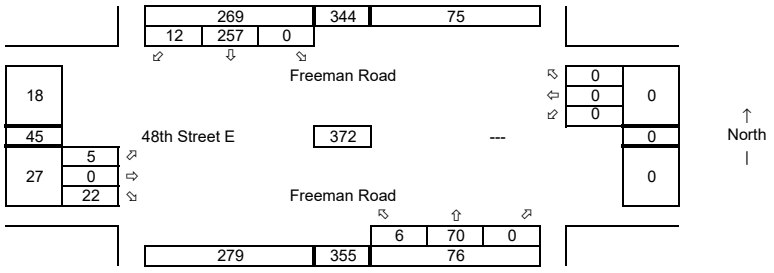
Year: **6/8/2023**

Data Source: IDAX

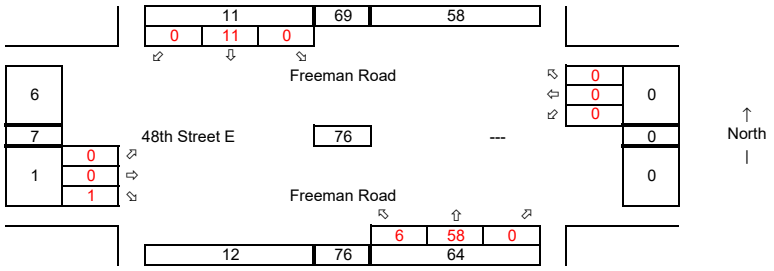


Future without Project
Average Weekday
PM Peak Hour

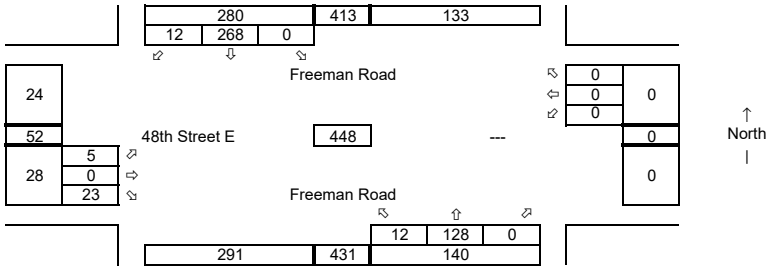
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



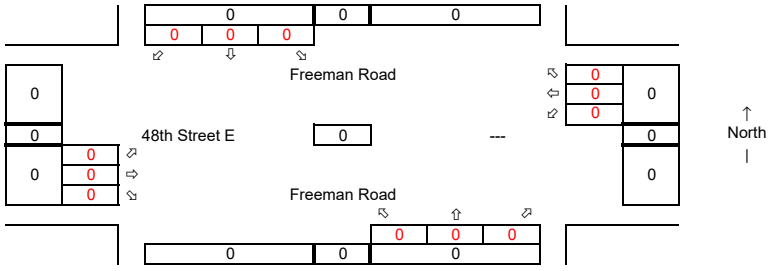
Total Development Trips
Average Weekday
PM Peak Hour



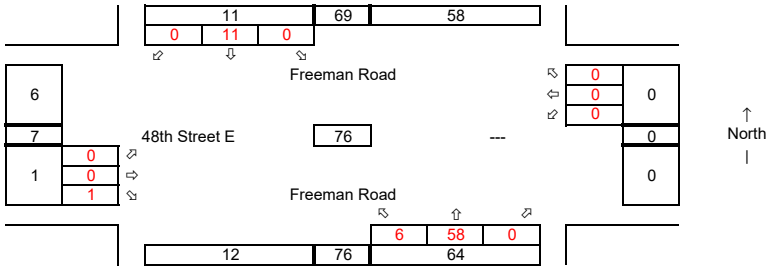
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



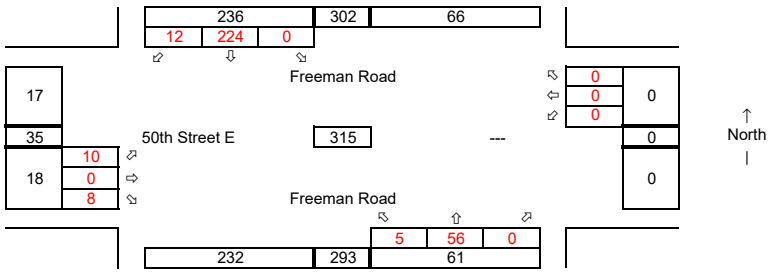
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 13
Existing
Average Weekday
PM Peak Hour

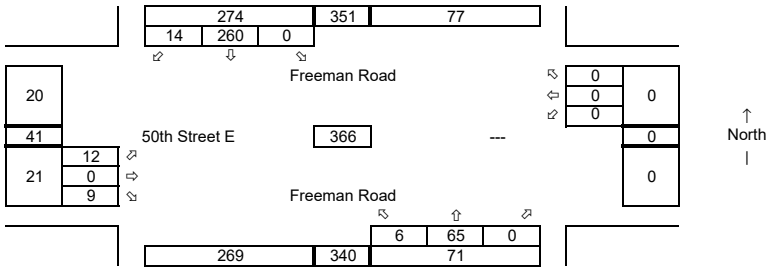
Year: **6/8/2023**

Data Source: IDAX

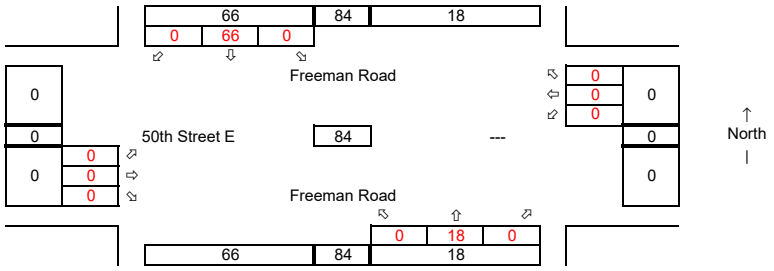


Future without Project
Average Weekday
PM Peak Hour

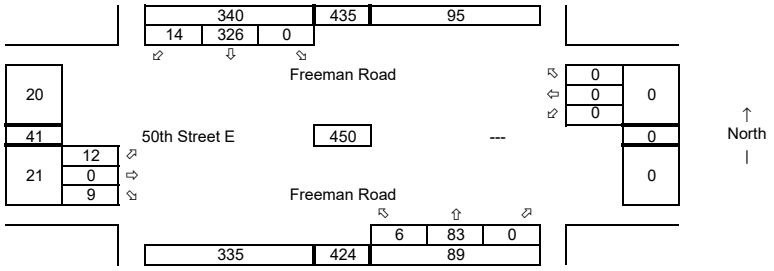
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



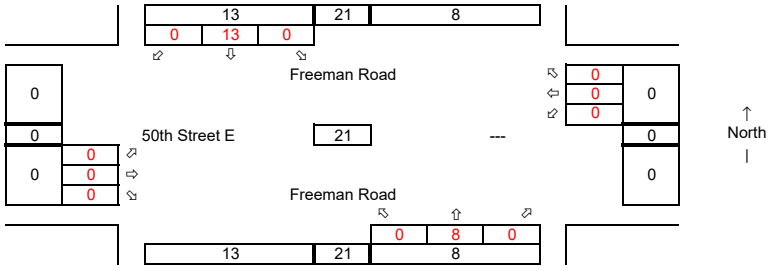
Total Development Trips
Average Weekday
PM Peak Hour



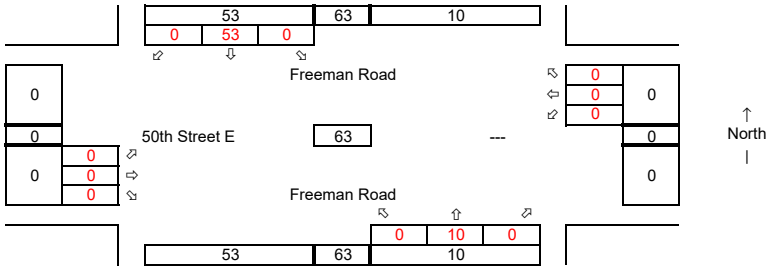
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



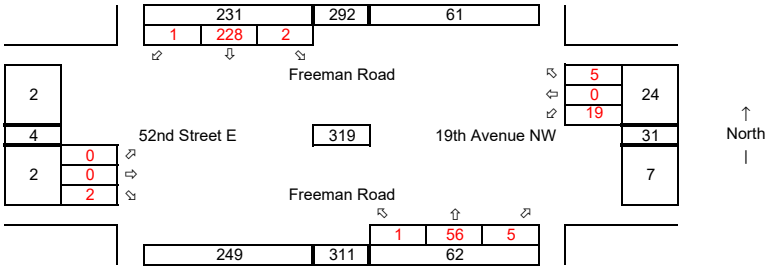
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 14
Existing
Average Weekday
PM Peak Hour

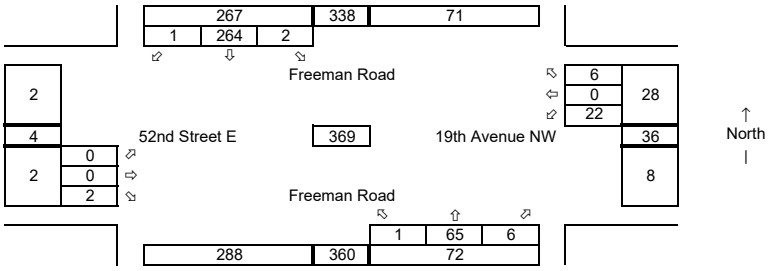
Year: **6/8/2023**

Data Source: IDAX

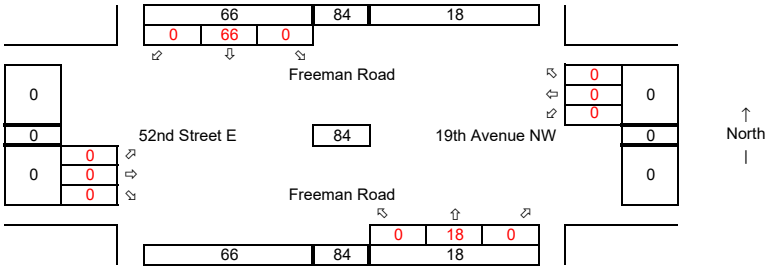


Future without Project
Average Weekday
PM Peak Hour

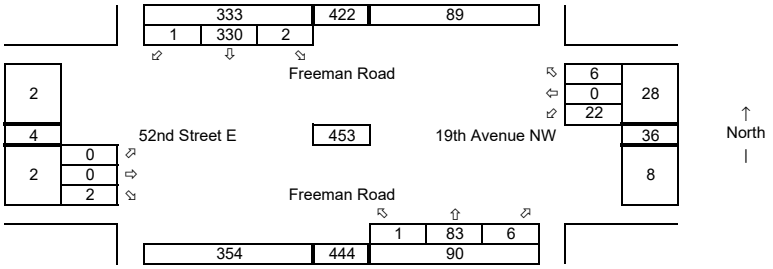
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



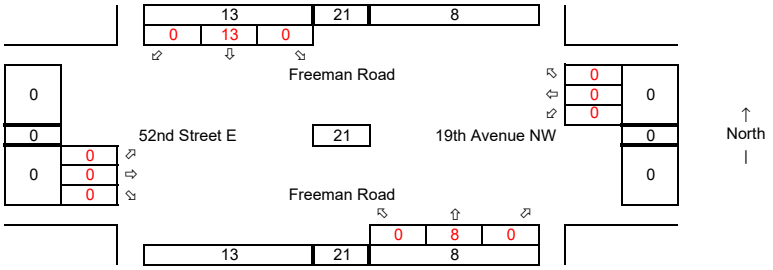
Total Development Trips
Average Weekday
PM Peak Hour



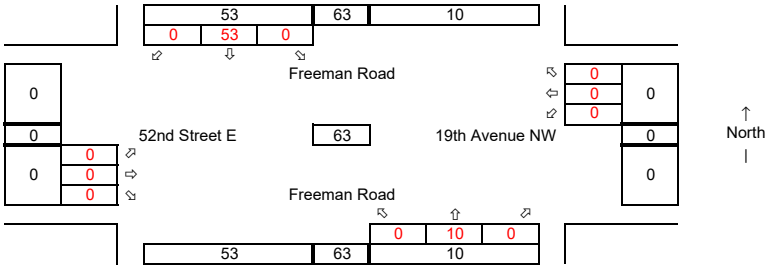
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



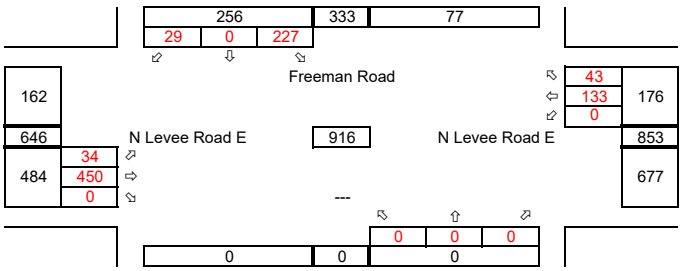
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 15
Existing
Average Weekday
PM Peak Hour

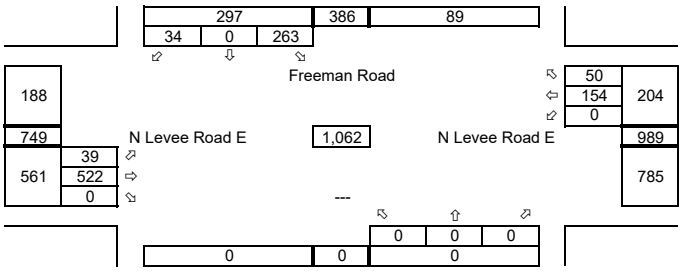
Year: **6/15/2023**

Data Source: IDAX

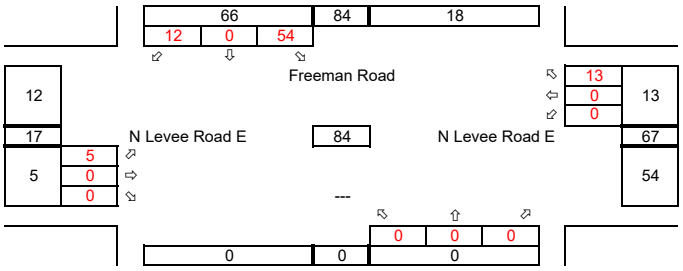


Future without Project
Average Weekday
PM Peak Hour

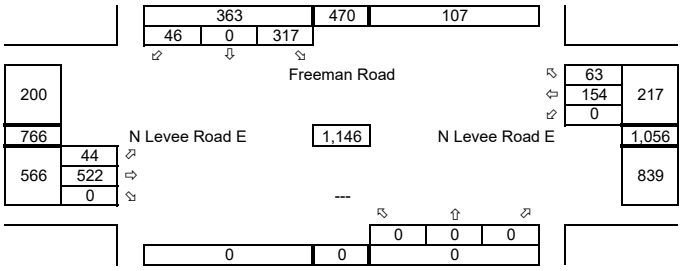
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



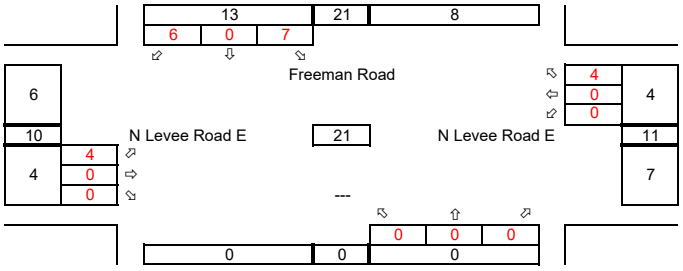
Total Development Trips
Average Weekday
PM Peak Hour



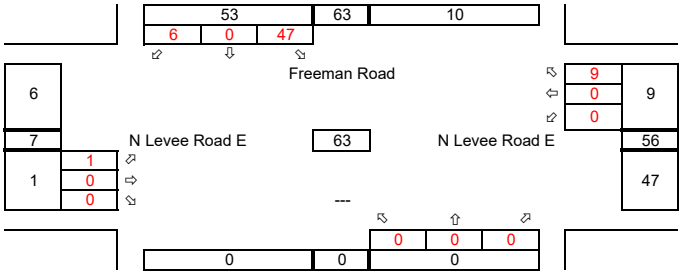
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



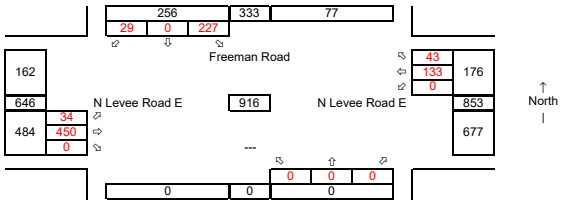
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 15
Existing
Average Weekday
PM Peak Hour

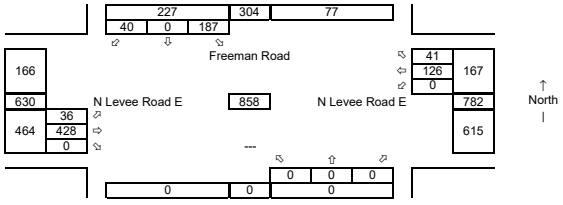
Year: **6/15/2023**

Data Source: IDAX

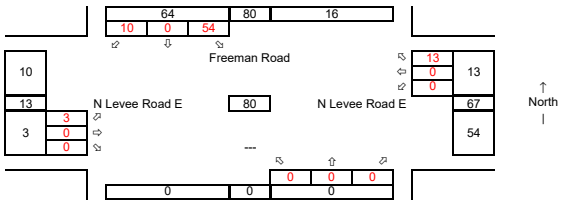


Future without Project
Average Weekday
PM Peak Hour

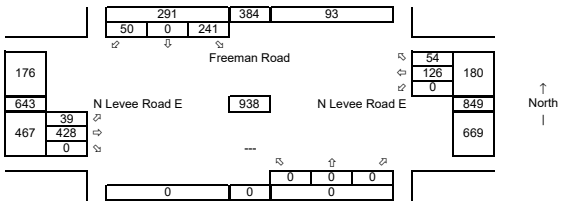
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



Total Development Trips
Average Weekday
PM Peak Hour

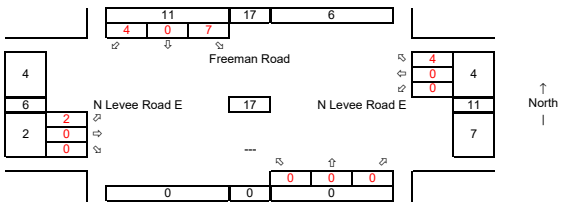


Future with Project
Average Weekday
PM Peak Hour

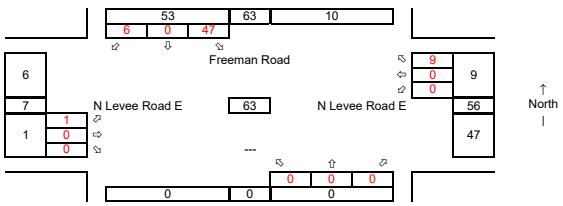


Development Truck Trips
Average Weekday
PM Peak Hour

N/S Diversion % -50%
from 70th Ave E

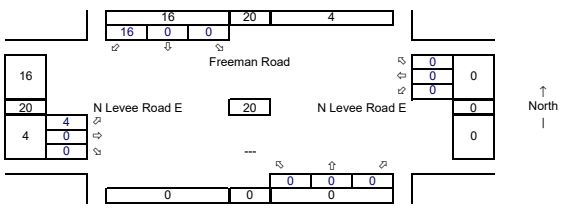


Development Car Trips
Average Weekday
PM Peak Hour



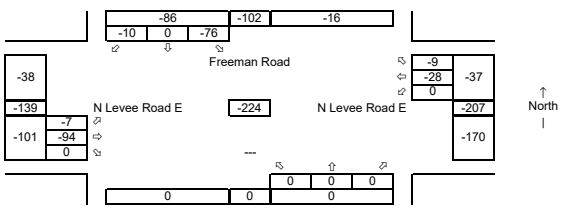
Total Pipeline Project Trips
Average Weekday
PM Peak Hour

Prologis Park Edgewood



SR-167 Extension Diversion
Average Weekday
PM Peak Hour

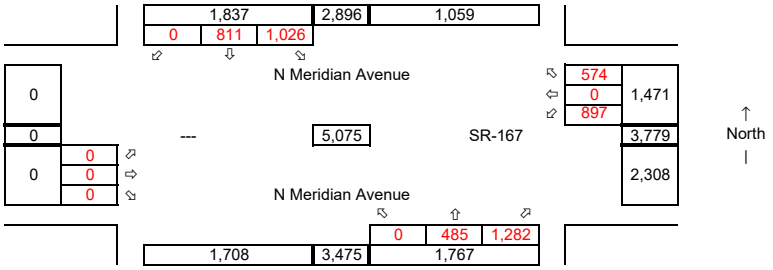
N/S Diversion % -29%
E/W Diversion % -18%



Synchro ID: 16
Existing
Average Weekday
PM Peak Hour

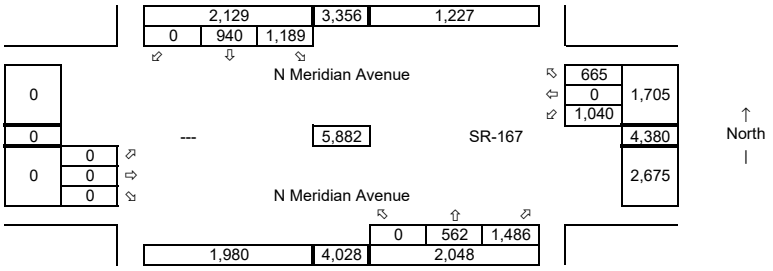
Year: **6/14/2023**

Data Source: IDAX

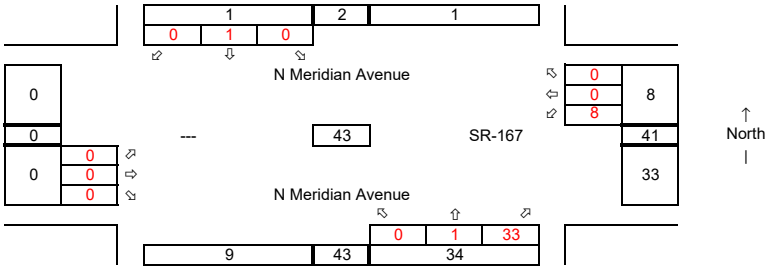


Future without Project
Average Weekday
PM Peak Hour

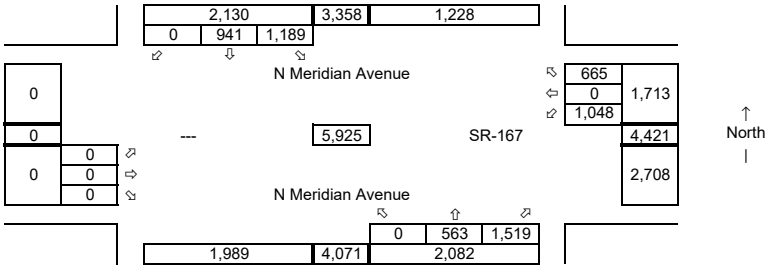
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



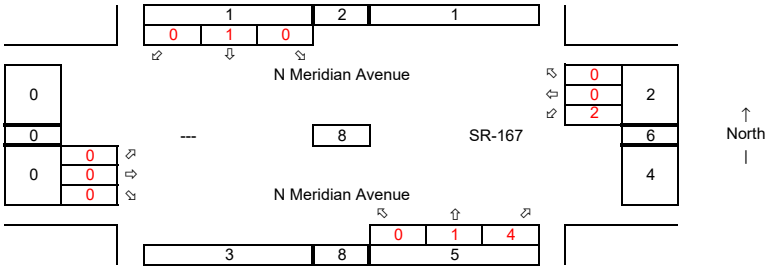
Total Development Trips
Average Weekday
PM Peak Hour



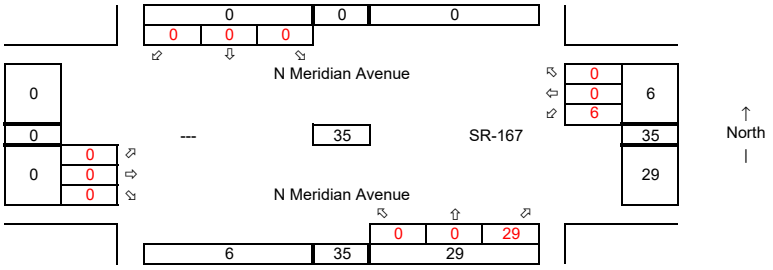
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



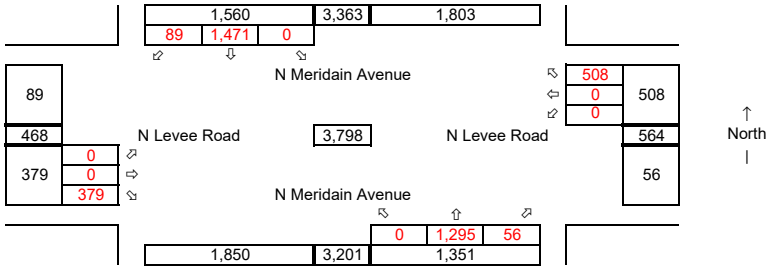
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 17
Existing
Average Weekday
PM Peak Hour

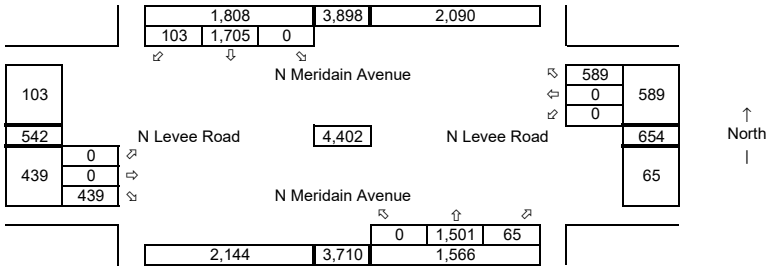
Year: **6/14/2023**

Data Source: IDAX

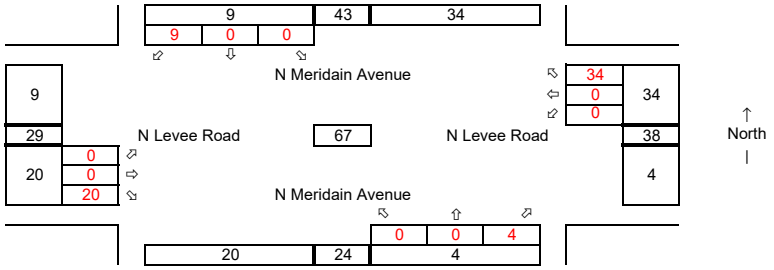


Future without Project
Average Weekday
PM Peak Hour

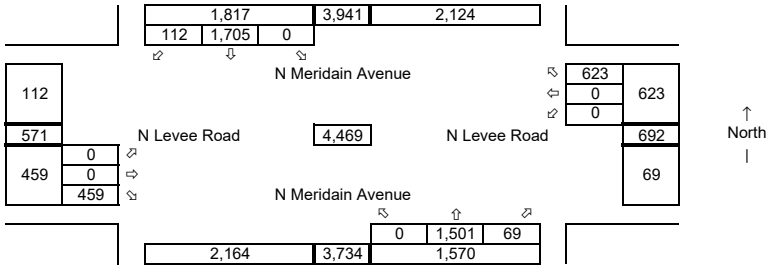
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



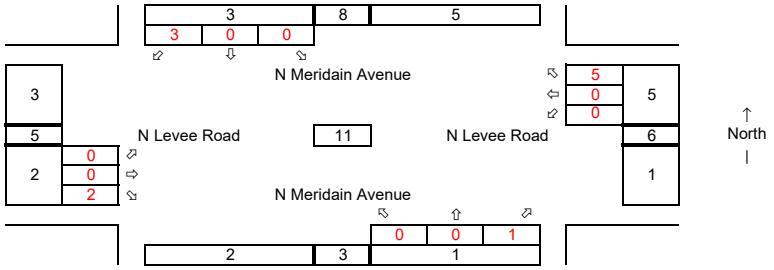
Total Development Trips
Average Weekday
PM Peak Hour



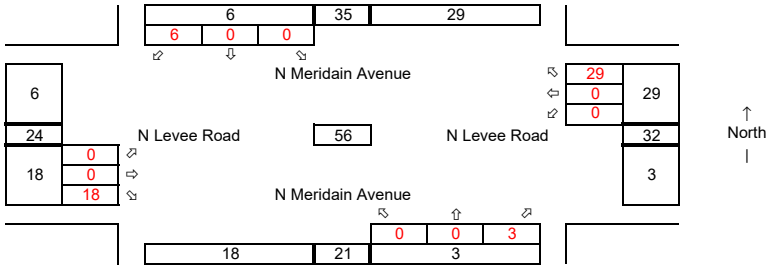
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



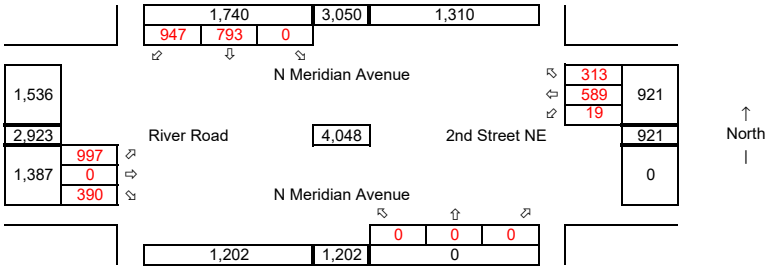
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 18
Existing
Average Weekday
PM Peak Hour

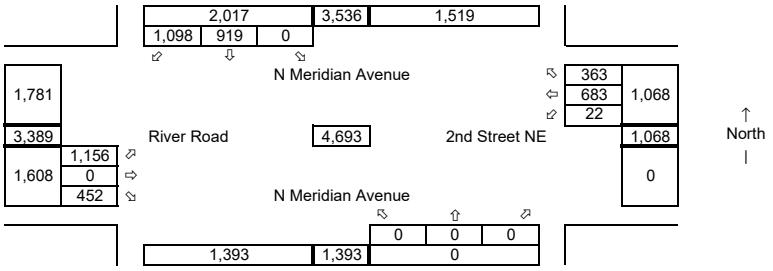
Year: **6/14/2023**

Data Source: IDAX

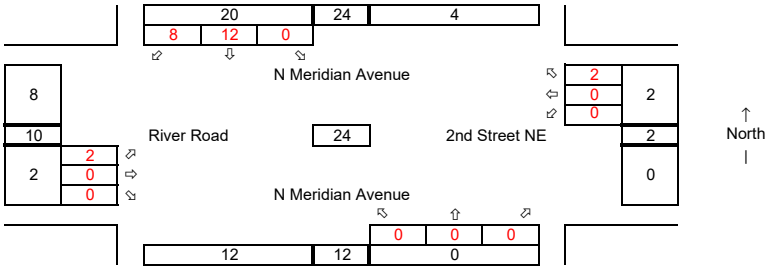


Future without Project
Average Weekday
PM Peak Hour

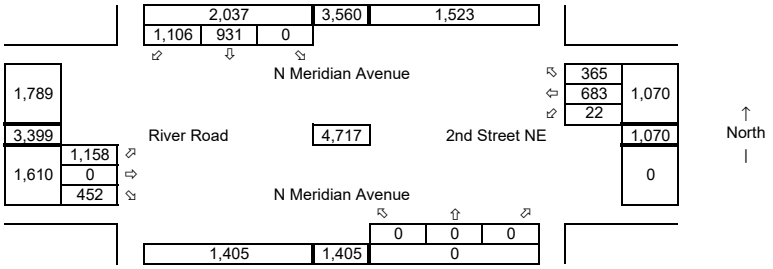
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



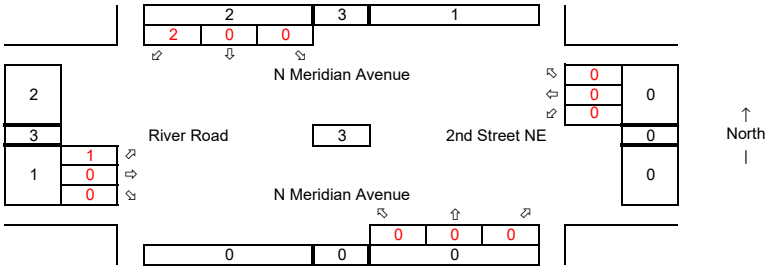
Total Development Trips
Average Weekday
PM Peak Hour



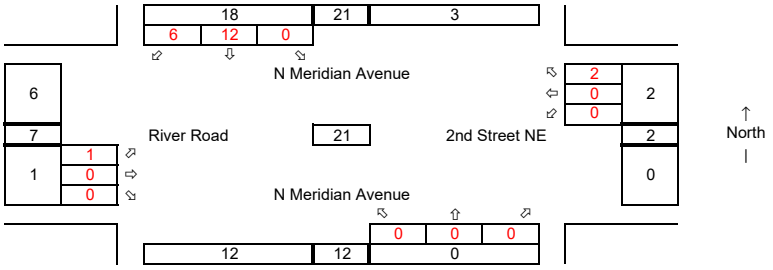
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour

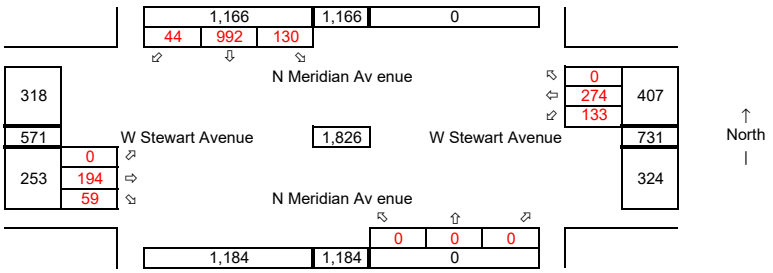


Synchro ID: 19
Existing
Average Weekday
PM Peak Hour

Year: **6/14/2023**

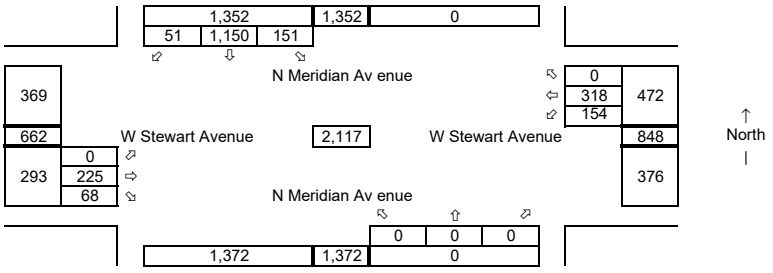
Data Source: IDAX

One (1) Westbound U-turn
added to Westbound left-turns

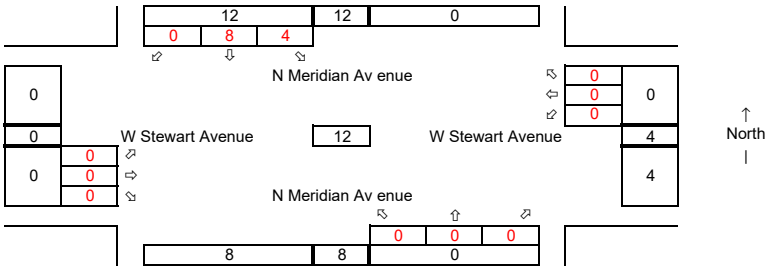


Future without Project
Average Weekday
PM Peak Hour

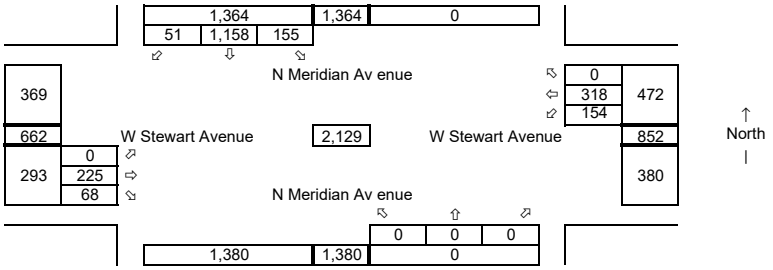
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



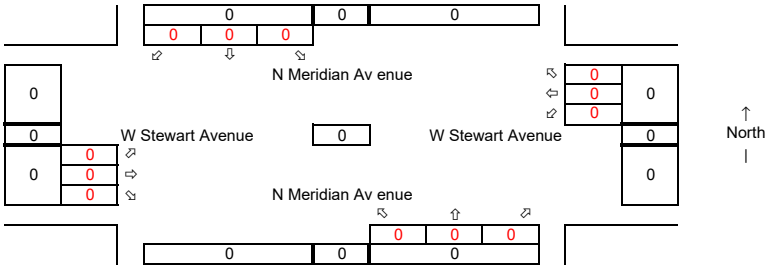
Total Development Trips
Average Weekday
PM Peak Hour



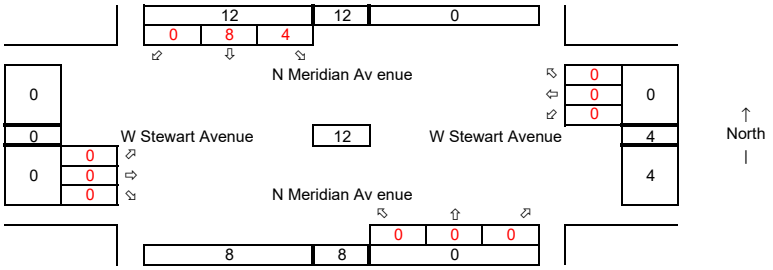
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



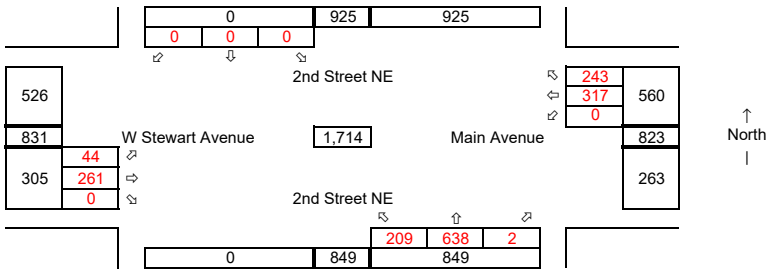
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 20
Existing
Average Weekday
PM Peak Hour

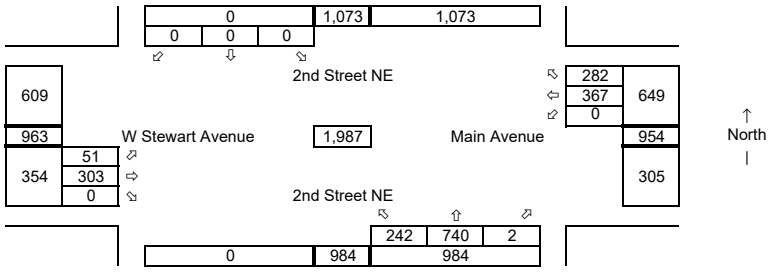
Year: **6/15/2023**

Data Source: IDAX

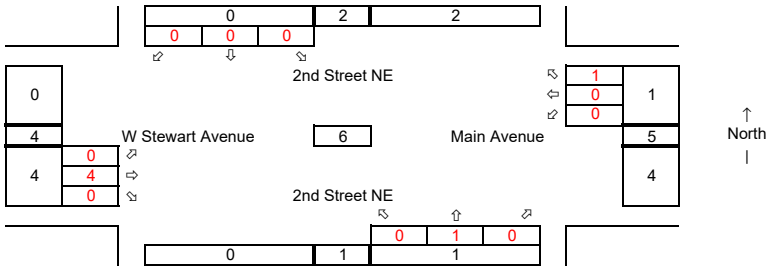


Future without Project
Average Weekday
PM Peak Hour

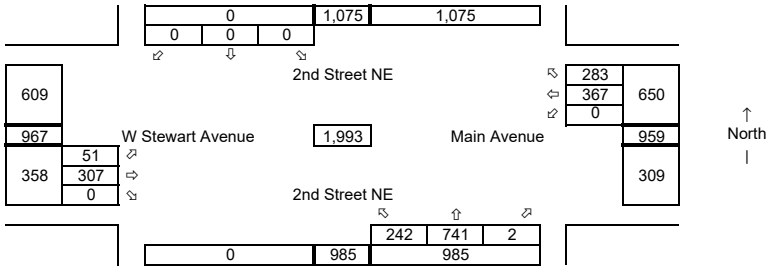
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



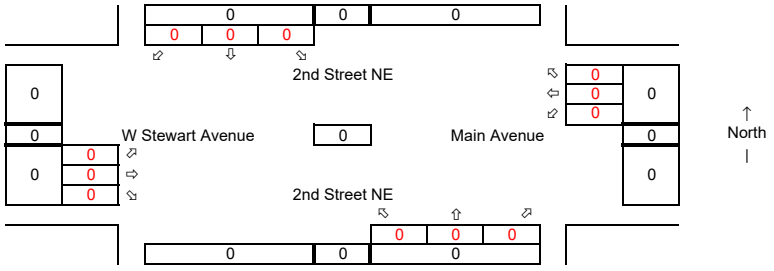
Total Development Trips
Average Weekday
PM Peak Hour



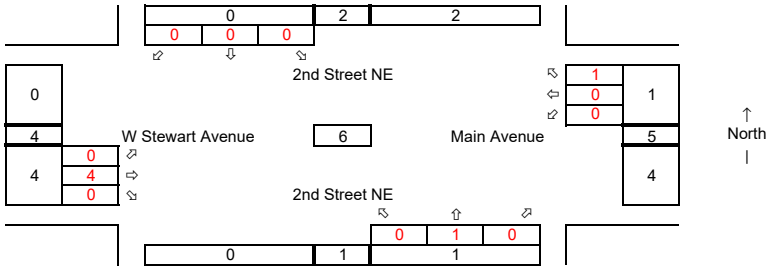
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour

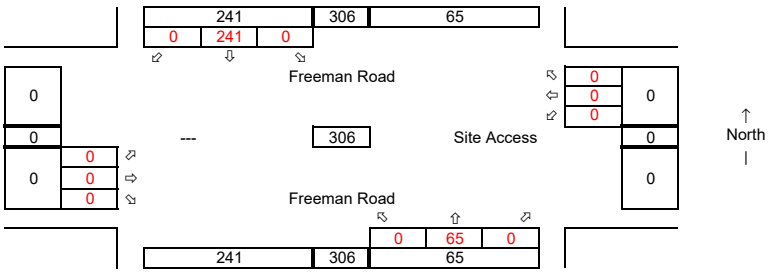


Synchro ID: 21
Existing
Average Weekday
PM Peak Hour

Year: **6/8/2023**

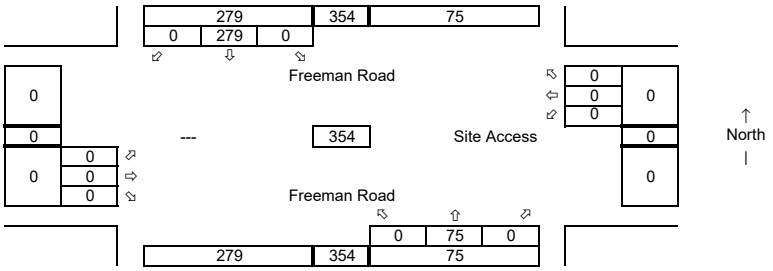
Data Source: IDAX

NB/SB volumes extrapolated from Freeman at 48th Street E

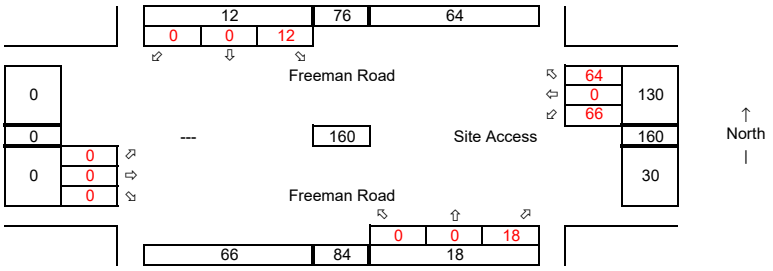


Future without Project
Average Weekday
PM Peak Hour

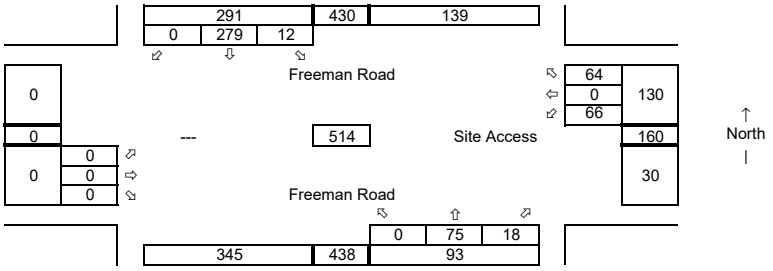
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



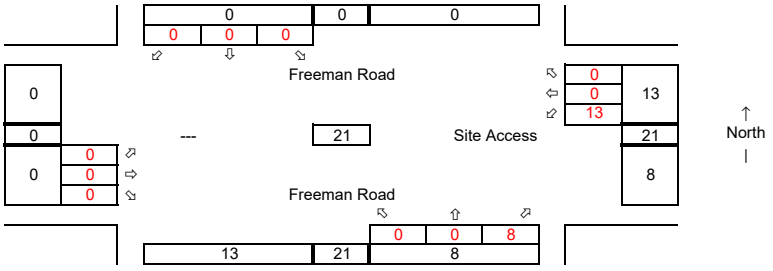
Total Development Trips
Average Weekday
PM Peak Hour



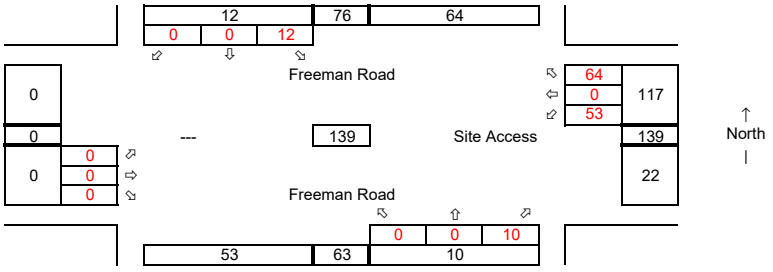
Future with Project
Average Weekday
PM Peak Hour

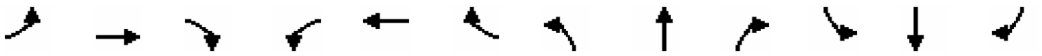


Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour





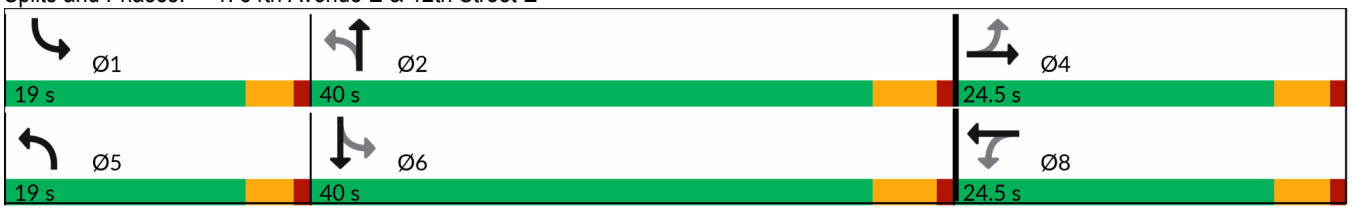
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	150	45	83	234	191	42	333	49	153	497	51
Future Volume (vph)	19	150	45	83	234	191	42	333	49	153	497	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		0	100		0	100		0
Storage Lanes	1		0	1		0	1		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	0.95	0.95	1.00	0.95	0.95
Frt		0.966			0.933			0.981			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1596	0	1570	1541	0	1570	3079	0	1570	3095	0
Flt Permitted	0.200			0.533			0.435			0.456		
Satd. Flow (perm)	330	1596	0	881	1541	0	719	3079	0	753	3095	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			46			24			16	
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		727			778			1175			536	
Travel Time (s)		19.8			15.2			22.9			10.4	
Peak Hour 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
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	20	205	0	87	447	0	44	403	0	161	577	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	24.5	24.5		24.5	24.5		10.5	19.0		10.5	17.0	
Total Split (s)	24.5	24.5		24.5	24.5		19.0	40.0		19.0	40.0	
Total Split (%)	29.3%	29.3%		29.3%	29.3%		22.8%	47.9%		22.8%	47.9%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		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		4.0	5.0		4.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Max		None	Max	
Act Effct Green (s)	20.0	20.0		20.0	20.0		42.5	35.0		48.2	41.4	
Actuated g/C Ratio	0.26	0.26		0.26	0.26		0.55	0.45		0.62	0.54	
v/c Ratio	0.24	0.48		0.38	1.03		0.09	0.29		0.29	0.35	
Control Delay (s/veh)	31.7	27.0		30.1	80.8		6.2	13.4		7.2	11.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	31.7	27.0		30.1	80.8		6.2	13.4		7.2	11.6	
LOS	C	C		C	F		A	B		A	B	
Approach Delay (s/veh)		27.5			72.5			12.7			10.6	
Approach LOS		C			E			B			B	
Queue Length 50th (ft)	8	76		34	~216		7	57		28	84	
Queue Length 95th (ft)	29	145		79	#410		18	92		51	124	

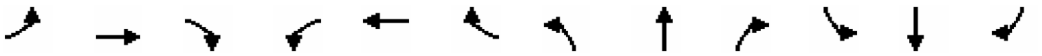
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		647			698			1095			456	
Turn Bay Length (ft)	100			200			100			100		
Base Capacity (vph)	85	425		228	433		618	1408		633	1664	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.24	0.48		0.38	1.03		0.07	0.29		0.25	0.35	

Intersection Summary			
Area Type:	Other		
Cycle Length: 83.5			
Actuated Cycle Length: 77.3			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.03			
Intersection Signal Delay (s/veh): 30.0		Intersection LOS: C	
Intersection Capacity Utilization 64.3%		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: 1: 54th Avenue E & 12th Street E



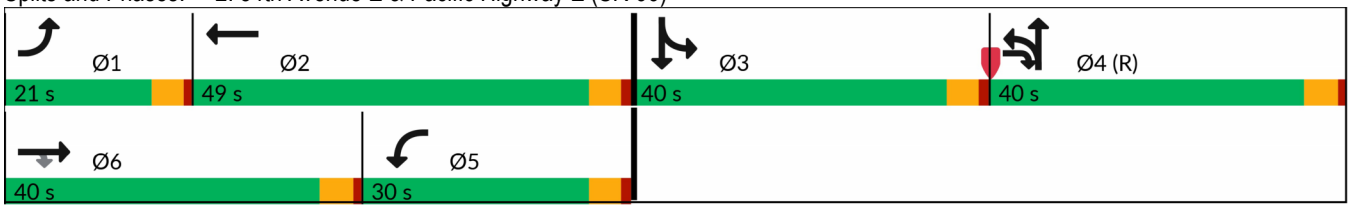


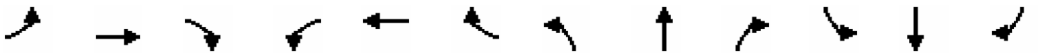
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	115	509	403	789	788	134	386	291	470	196	471	87
Future Volume (vph)	115	509	403	789	788	134	386	291	470	196	471	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	550		0	150		0	125		0
Storage Lanes	1		1	2		0	2		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.978			0.907			0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1626	3252	1455	3155	3181	0	3155	2950	0	1626	3177	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1626	3252	1455	3155	3181	0	3155	2950	0	1626	3177	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			47		13			253			13	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1085			1070			320			1175	
Travel Time (s)		21.1			20.8			6.2			22.9	
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 (%)	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	122	541	429	839	981	0	411	810	0	209	594	0
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		3	3	
Permitted Phases			6									
Detector Phase	1	6	4	5	2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	10.5	38.7	35.7	22.5	37.7		35.7	35.7		38.7	38.7	
Total Split (s)	21.0	40.0	40.0	30.0	49.0		40.0	40.0		40.0	40.0	
Total Split (%)	14.0%	26.7%	26.7%	20.0%	32.7%		26.7%	26.7%		26.7%	26.7%	
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		3.7	3.7		3.7	3.7	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7	4.7	4.5	4.7		4.7	4.7		4.7	4.7	
Lead/Lag	Lead	Lead	Lag	Lag	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	C-Max	None	None		C-Max	C-Max		None	None	
Act Effct Green (s)	14.9	30.0	73.4	29.2	44.3		38.8	38.8		33.5	33.5	
Actuated g/C Ratio	0.10	0.20	0.49	0.19	0.30		0.26	0.26		0.22	0.22	
v/c Ratio	0.76	0.83	0.58	1.37	1.03		0.50	0.89dr		0.58	0.83	
Control Delay (s/veh)	93.6	69.2	27.9	219.0	88.7		58.6	54.9		58.6	64.8	
Queue Delay	0.0	0.0	0.1	0.0	0.0		2.0	29.7		0.0	0.6	
Total Delay (s/veh)	93.6	69.2	28.0	219.0	88.7		60.7	84.6		58.6	65.5	
LOS	F	E	C	F	F		E	F		E	E	
Approach Delay (s/veh)		55.8			148.8			76.5			63.7	
Approach LOS		E			F			E			E	
Queue Length 50th (ft)	117	268	273	~546	~536		197	333		181	283	
Queue Length 95th (ft)	#204	325	366	#728	#675		244	#423		270	356	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1005			990			240			1095	
Turn Bay Length (ft)	225			550			150			125		
Base Capacity (vph)	178	765	736	614	948		815	949		382	757	
Starvation Cap Reductn	0	0	0	0	0		260	178		0	0	
Spillback Cap Reductn	0	0	16	0	0		0	0		0	29	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.69	0.71	0.60	1.37	1.03		0.74	1.05		0.55	0.82	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 10 (7%), Referenced to phase 4:NBTL, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.37			
Intersection Signal Delay (s/veh): 96.5		Intersection LOS: F	
Intersection Capacity Utilization 86.1%		ICU Level of Service E	
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.			
dr Defacto Right Lane. Recode with 1 though lane as a right lane.			

Splits and Phases: 2: 54th Avenue E & Pacific Highway E (SR-99)



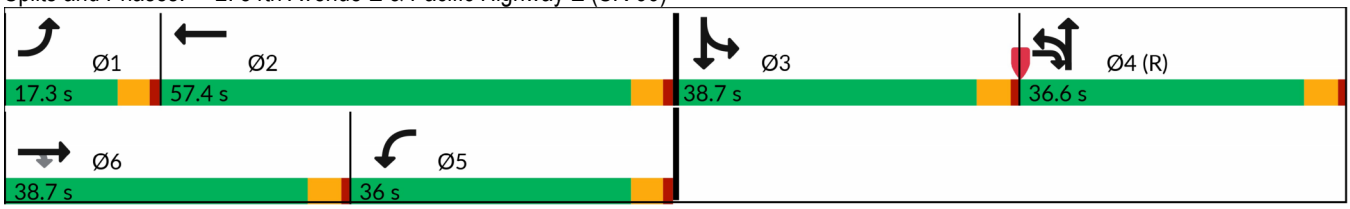


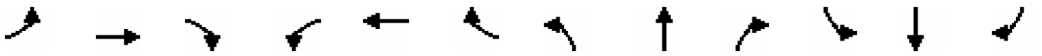
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	115	509	403	789	788	134	386	291	470	196	471	87
Future Volume (vph)	115	509	403	789	788	134	386	291	470	196	471	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	550		0	150		0	125		0
Storage Lanes	1		1	2		0	2		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.978			0.907			0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1626	3252	1455	3155	3181	0	3155	2950	0	1626	3177	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1626	3252	1455	3155	3181	0	3155	2950	0	1626	3177	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			47		14			246			13	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1085			1070			320			1175	
Travel Time (s)		21.1			20.8			6.2			22.9	
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 (%)	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	122	541	429	839	981	0	411	810	0	209	594	0
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		3	3	
Permitted Phases			6									
Detector Phase	1	6	4	5	2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	10.5	38.7	35.7	22.5	37.7		35.7	35.7		38.7	38.7	
Total Split (s)	17.3	38.7	36.6	36.0	57.4		36.6	36.6		38.7	38.7	
Total Split (%)	11.5%	25.8%	24.4%	24.0%	38.3%		24.4%	24.4%		25.8%	25.8%	
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		3.7	3.7		3.7	3.7	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7	4.7	4.5	4.7		4.7	4.7		4.7	4.7	
Lead/Lag	Lead	Lead	Lag	Lag	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	C-Max	None	None		C-Max	C-Max		None	None	
Act Effct Green (s)	12.7	29.7	70.0	33.3	50.2		35.7	35.7		32.8	32.8	
Actuated g/C Ratio	0.08	0.20	0.47	0.22	0.33		0.24	0.24		0.22	0.22	
v/c Ratio	0.89	0.84	0.61	1.20	0.91		0.55	0.94dr		0.59	0.84	
Control Delay (s/veh)	118.3	70.3	30.8	151.6	60.2		60.2	59.9		59.9	66.8	
Queue Delay	0.0	0.0	0.1	0.0	0.0		2.0	35.1		0.0	0.0	
Total Delay (s/veh)	118.3	70.3	30.9	151.6	60.2		62.2	95.0		59.9	66.8	
LOS	F	E	C	F	E		E	F		E	E	
Approach Delay (s/veh)		60.2			102.3			84.0			65.0	
Approach LOS		E			F			F			E	
Queue Length 50th (ft)	120	268	286	~493	466		198	336		183	286	
Queue Length 95th (ft)	#245	330	392	#662	561		250	#457		273	361	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1005			990			240			1095	
Turn Bay Length (ft)	225			550			150			125		
Base Capacity (vph)	138	737	704	700	1126		750	889		368	730	
Starvation Cap Reductn	0	0	0	0	0		200	133		0	0	
Spillback Cap Reductn	0	0	14	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.88	0.73	0.62	1.20	0.87		0.75	1.07		0.57	0.81	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 10 (7%), Referenced to phase 4:NBTL, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.20			
Intersection Signal Delay (s/veh): 82.4		Intersection LOS: F	
Intersection Capacity Utilization 86.1%		ICU Level of Service E	
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.			
dr Defacto Right Lane. Recode with 1 though lane as a right lane.			

Splits and Phases: 2: 54th Avenue E & Pacific Highway E (SR-99)





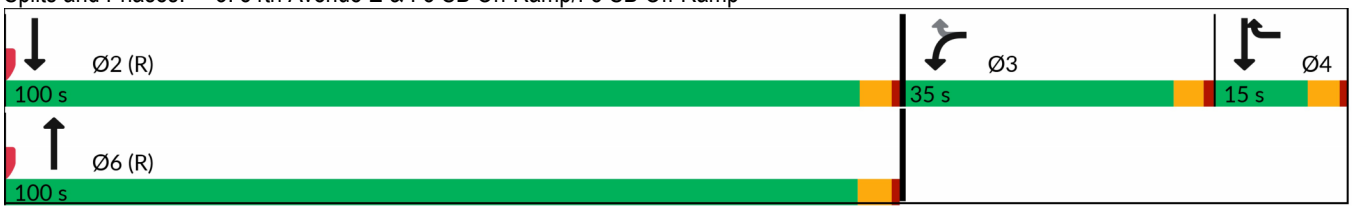
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	314	0	330	0	833	536	0	781	765
Future Volume (vph)	0	0	0	314	0	330	0	833	536	0	781	765
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		25	0		0
Storage Lanes	0		0	1		1	0		1	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	0.95	1.00	1.00	1.00	1.00
Frt						0.850			0.850			0.850
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	1720	0	1539	0	3490	1539	0	1811	1539
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1720	0	1539	0	3490	1539	0	1811	1539
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						178			78			259
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1083			1080			827			320	
Travel Time (s)		24.6			24.5			18.8			7.3	
Peak Hour 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
Bus Blockages (#/hr)	7	7	7	7	7	7	7	7	7	7	7	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	331	0	347	0	877	564	0	822	805
Turn Type				Prot		custom		NA	Free		NA	Free
Protected Phases				3		4		6			2 4	
Permitted Phases						3			Free			Free
Detector Phase				3		4		6			2 4	
Switch Phase												
Minimum Initial (s)				5.0		3.0		10.0				
Minimum Split (s)				22.5		7.5		22.7				
Total Split (s)				35.0		15.0		100.0				
Total Split (%)				23.3%		10.0%		66.7%				
Yellow Time (s)				3.5		3.5		3.7				
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		4.7				
Lead/Lag				Lead		Lag						
Lead-Lag Optimize?				Yes		Yes						
Recall Mode				None		None		C-Max				
Act Effct Green (s)				30.1		45.1		95.7	150.0		110.9	150.0
Actuated g/C Ratio				0.20		0.30		0.64	1.00		0.74	1.00
v/c Ratio				0.96		0.59		0.39	0.37		0.61	0.52
Control Delay (s/veh)				97.8		25.4		13.8	0.7		6.6	3.8
Queue Delay				0.0		7.1		0.2	0.0		8.5	0.0
Total Delay (s/veh)				97.8		32.4		14.0	0.7		15.1	3.8
LOS				F		C		B	A		B	A
Approach Delay (s/veh)					64.4			8.8			9.5	
Approach LOS					E			A			A	
Queue Length 50th (ft)				323		140		208	0		160	83
Queue Length 95th (ft)				#518		249		251	0		m166	m115

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	
Bus Blockages (#/hr)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	22.5
Total Split (s)	100.0
Total Split (%)	67%
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	C-Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
LOS	
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1003			1000			747			240	
Turn Bay Length (ft)									25			
Base Capacity (vph)				349		587		2225	1539		1338	1539
Starvation Cap Reductn				0		0		0	0		477	0
Spillback Cap Reductn				0		191		485	0		0	0
Storage Cap Reductn				0		0		0	0		0	0
Reduced v/c Ratio				0.95		0.88		0.50	0.37		0.95	0.52

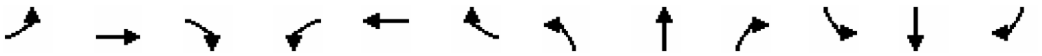
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 60 (40%), Referenced to phase 2:SBT and 6:NBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay (s/veh): 19.2		Intersection LOS: B	
Intersection Capacity Utilization 65.6%		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.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 3: 54th Avenue E & I-5 SB On-Ramp/I-5 SB Off-Ramp



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

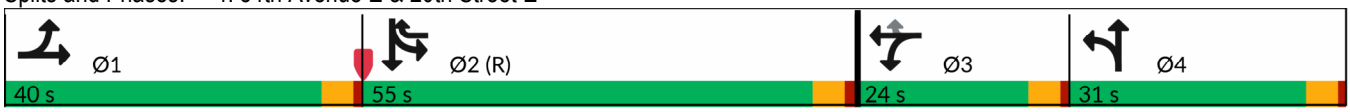


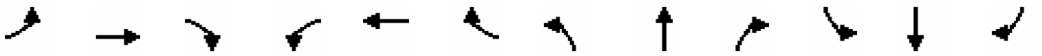
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	342	336	213	27	199	584	163	500	26	390	722	306
Future Volume (vph)	342	336	213	27	199	584	163	500	26	390	722	306
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	275		0	200		0	175		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.95
Frt		0.946				0.850		0.992			0.957	
Flt Protected	0.950	0.997			0.994		0.950			0.950	0.998	
Satd. Flow (prot)	1421	2822	0	0	1634	1398	1562	3099	0	1421	2858	0
Flt Permitted	0.950	0.997			0.994		0.950			0.950	0.998	
Satd. Flow (perm)	1421	2822	0	0	1634	1398	1562	3099	0	1421	2858	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		60				99		3			39	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		738			676			783			335	
Travel Time (s)		14.4			13.2			17.8			7.6	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Shared Lane Traffic (%)	12%									10%		
Lane Group Flow (vph)	307	602	0	0	231	596	166	537	0	358	1089	0
Turn Type	Split	NA		Split	NA	pm+ov	Split	NA		Split	NA	
Protected Phases	1	1		3	3	2	4	4		2	2	
Permitted Phases						3						
Detector Phase	1	1		3	3	2	4	4		2	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	24.5	24.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	40.0	40.0		24.0	24.0	55.0	31.0	31.0		55.0	55.0	
Total Split (%)	26.7%	26.7%		16.0%	16.0%	36.7%	20.7%	20.7%		36.7%	36.7%	
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	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	Lead	Lag	Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	C-Max	None	None		C-Max	C-Max	
Act Effct Green (s)	34.3	34.3			19.5	75.7	26.5	26.5		51.7	51.7	
Actuated g/C Ratio	0.23	0.23			0.13	0.50	0.18	0.18		0.34	0.34	
v/c Ratio	0.94	0.87			1.09	0.79	0.60	0.98		0.73	1.08	
Control Delay (s/veh)	94.1	64.1			146.3	34.6	67.2	93.8		53.8	96.2	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	94.1	64.1			146.3	34.6	67.2	93.8		53.8	96.2	
LOS	F	E			F	C	E	F		D	F	
Approach Delay (s/veh)		74.2			65.8			87.5			85.8	
Approach LOS		E			E			F			F	
Queue Length 50th (ft)	324	283			~253	411	152	277		341	~650	
Queue Length 95th (ft)	#523	#370			#430	598	235	#402		483	#797	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		658			596			703			255	
Turn Bay Length (ft)	300						200			175		
Base Capacity (vph)	336	713			212	754	275	549		489	1010	
Starvation Cap Reductn	0	0			0	0	0	0		0	0	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.91	0.84			1.09	0.79	0.60	0.98		0.73	1.08	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 20 (13%), Referenced to phase 2:SBTL, Start of Green			
Natural Cycle: 135			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.09			
Intersection Signal Delay (s/veh): 79.1		Intersection LOS: E	
Intersection Capacity Utilization 94.3%		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.			

Splits and Phases: 4: 54th Avenue E & 20th Street E





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	342	336	213	27	199	584	163	500	26	390	722	306
Future Volume (vph)	342	336	213	27	199	584	163	500	26	390	722	306
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	275		0	200		0	175		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.95
Frt		0.946				0.850		0.992			0.957	
Flt Protected	0.950	0.997			0.994		0.950			0.950	0.998	
Satd. Flow (prot)	1421	2822	0	0	1634	1398	1562	3099	0	1421	2858	0
Flt Permitted	0.950	0.997			0.994		0.950			0.950	0.998	
Satd. Flow (perm)	1421	2822	0	0	1634	1398	1562	3099	0	1421	2858	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		58				75		3			42	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		738			676			783			335	
Travel Time (s)		14.4			13.2			17.8			7.6	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Shared Lane Traffic (%)	12%									10%		
Lane Group Flow (vph)	307	602	0	0	231	596	166	537	0	358	1089	0
Turn Type	Split	NA		Split	NA	pm+ov	Split	NA		Split	NA	
Protected Phases	1	1		3	3	2	4	4		2	2	
Permitted Phases						3						
Detector Phase	1	1		3	3	2	4	4		2	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	24.5	24.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	36.0	36.0		25.0	25.0	60.0	29.0	29.0		60.0	60.0	
Total Split (%)	24.0%	24.0%		16.7%	16.7%	40.0%	19.3%	19.3%		40.0%	40.0%	
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	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	Lead	Lag	Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	C-Max	None	None		C-Max	C-Max	
Act Effct Green (s)	31.5	31.5			20.5	80.5	24.5	24.5		55.5	55.5	
Actuated g/C Ratio	0.21	0.21			0.14	0.54	0.16	0.16		0.37	0.37	
v/c Ratio	1.03	0.94			1.04	0.76	0.65	1.06		0.68	1.01	
Control Delay (s/veh)	116.8	76.5			131.1	31.0	71.8	114.1		47.7	73.5	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	116.8	76.5			131.1	31.0	71.8	114.1		47.7	73.5	
LOS	F	E			F	C	E	F		D	E	
Approach Delay (s/veh)		90.1			59.0			104.1			67.1	
Approach LOS		F			E			F			E	
Queue Length 50th (ft)	~351	295			~242	395	154	~301		323	~574	
Queue Length 95th (ft)	#565	#421			#419	570	239	#425		458	#742	

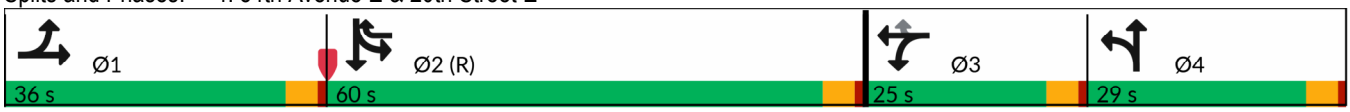
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		658			596			703			255	
Turn Bay Length (ft)	300						200			175		
Base Capacity (vph)	298	638			223	785	255	508		525	1083	
Starvation Cap Reductn	0	0			0	0	0	0		0	0	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	1.03	0.94			1.04	0.76	0.65	1.06		0.68	1.01	

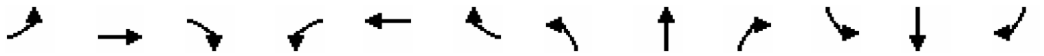
Intersection Summary			
Area Type:	CBD		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 20 (13%), Referenced to phase 2:SBTL, Start of Green			
Natural Cycle: 135			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.06			
Intersection Signal Delay (s/veh): 77.5		Intersection LOS: E	
Intersection Capacity Utilization 94.3%		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.

Splits and Phases: 4: 54th Avenue E & 20th Street E





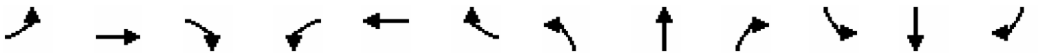
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	3	7	0	122	1	480	6	96	701	0
Future Volume (vph)	1	0	3	7	0	122	1	480	6	96	701	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	0		0	100		0
Storage Lanes	0		0	1		0	1		0	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	1.00	1.00	1.00	1.00	1.00
Frt		0.899			0.850			0.998				
Flt Protected		0.988		0.950			0.950			0.950		
Satd. Flow (prot)	0	1638	0	1752	1568	0	1752	1841	0	1752	1845	1845
Flt Permitted		0.874		0.672			0.315			0.349		
Satd. Flow (perm)	0	1449	0	1240	1568	0	581	1841	0	644	1845	1845
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		74			545			1				
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		362			838			554			783	
Travel Time (s)		9.9			22.9			12.6			17.8	
Peak Hour 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
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	4	0	7	128	0	1	511	0	101	738	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6			2		2
Detector Phase	3	8		7	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	6.0
Minimum Split (s)	9.5	24.5		22.5	24.0		9.5	22.5		9.5	22.5	22.5
Total Split (s)	14.0	16.5		14.0	16.0		14.0	34.5		16.0	36.5	36.5
Total Split (%)	17.3%	20.4%		17.3%	19.8%		17.3%	42.6%		19.8%	45.1%	45.1%
Yellow Time (s)	3.0	3.5		3.0	3.0		3.0	3.5		3.0	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		0.0	0.0	0.0
Total Lost Time (s)		4.5		4.0	4.0		4.0	4.5		4.0	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max		None	Max	Max
Act Effct Green (s)		5.5		7.7	7.7		39.3	35.1		43.7	42.6	
Actuated g/C Ratio		0.10		0.13	0.13		0.68	0.61		0.76	0.74	
v/c Ratio		0.02		0.03	0.19		0.00	0.46		0.16	0.54	
Control Delay (s/veh)		0.3		21.4	0.6		4.0	11.5		3.6	9.4	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)		0.3		21.4	0.6		4.0	11.5		3.6	9.4	
LOS		A		C	A		A	B		A	A	
Approach Delay (s/veh)		0.3			1.7			11.5			8.7	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)		0		2	0		0	98		6	73	
Queue Length 95th (ft)		0		11	0		2	254		29	#456	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		282			758			474			703	
Turn Bay Length (ft)				100						100		
Base Capacity (vph)		363		331	781		634	1123		724	1367	
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		0.01		0.02	0.16		0.00	0.46		0.14	0.54	

Intersection Summary			
Area Type:	Other		
Cycle Length: 81			
Actuated Cycle Length: 57.5			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay (s/veh): 9.0		Intersection LOS: A	
Intersection Capacity Utilization 58.2%		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: 5: 54th Avenue E & Driveway/23rd Street E

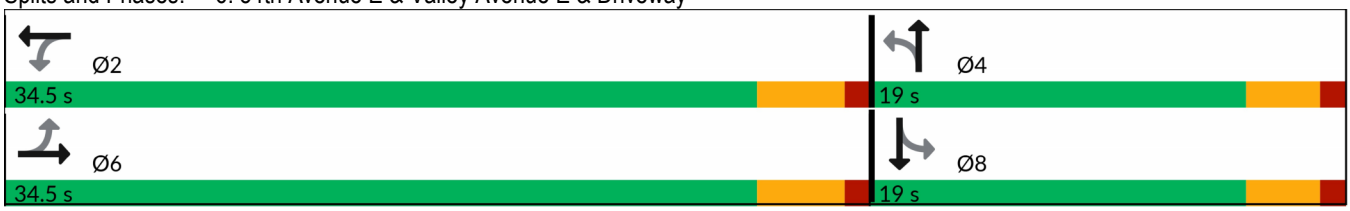


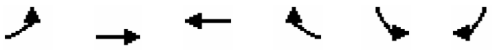
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	698	60	32	474	0	19	0	23	1	0	0
Future Volume (vph)	20	698	60	32	474	0	19	0	23	1	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	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		0.988						0.927				
Flt Protected	0.950			0.950				0.978			0.950	
Satd. Flow (prot)	1770	1840	0	1770	1863	0	0	1689	0	0	1770	0
Flt Permitted	0.473			0.313								
Satd. Flow (perm)	881	1840	0	583	1863	0	0	1727	0	0	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13						31				
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		554			491			578			252	
Travel Time (s)		12.6			11.2			15.8			6.9	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	22	824	0	35	515	0	0	46	0	0	1	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	30.5	30.5		22.5	22.5		32.0	32.0		32.0	32.0	
Total Split (s)	34.5	34.5		34.5	34.5		19.0	19.0		19.0	19.0	
Total Split (%)	64.5%	64.5%		64.5%	64.5%		35.5%	35.5%		35.5%	35.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		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			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		Max	Max		None	None		None	None	
Act Effct Green (s)	45.9	45.9		45.9	45.9			6.4			6.3	
Actuated g/C Ratio	0.88	0.88		0.88	0.88			0.12			0.12	
v/c Ratio	0.03	0.51		0.07	0.31			0.19			0.00	
Control Delay (s/veh)	2.3	3.9		2.5	2.6			13.5			20.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	2.3	3.9		2.5	2.6			13.5			20.0	
LOS	A	A		A	A			B			B	
Approach Delay (s/veh)		3.9			2.5			13.5			20.0	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	0	0		0	0			4			0	
Queue Length 95th (ft)	6	198		9	91			26			4	
Internal Link Dist (ft)		474			411			498			172	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	150			125								
Base Capacity (vph)	778	1627		515	1646			522			540	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.03	0.51		0.07	0.31			0.09			0.00	

Intersection Summary			
Area Type:	Other		
Cycle Length: 53.5			
Actuated Cycle Length: 52			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.51			
Intersection Signal Delay (s/veh): 3.7		Intersection LOS: A	
Intersection Capacity Utilization 50.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 6: 54th Avenue E & Valley Avenue E & Driveway





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø7
Lane Configurations							
Traffic Volume (vph)	68	830	1733	20	10	35	
Future Volume (vph)	68	830	1733	20	10	35	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00	
Frt			0.998		0.894		
Flt Protected	0.950				0.989		
Satd. Flow (prot)	1719	3438	3431	0	1600	0	
Flt Permitted	0.950				0.989		
Satd. Flow (perm)	1719	3438	3431	0	1600	0	
Right Turn on Red				Yes		Yes	
Satd. Flow (RTOR)			1		36		
Link Speed (mph)		30	30		30		
Link Distance (ft)		439	500		370		
Travel Time (s)		10.0	11.4		8.4		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	71	865	1826	0	46	0	
Turn Type	Prot	NA	NA		Prot		
Protected Phases	1	6	2		8		7
Permitted Phases							
Detector Phase	1	6	2		8		
Switch Phase							
Minimum Initial (s)	6.0	10.0	10.0		5.0		5.0
Minimum Split (s)	10.5	23.7	33.7		22.5		31.5
Total Split (s)	19.5	66.2	66.2		34.5		31.5
Total Split (%)	12.9%	43.6%	43.6%		22.7%		21%
Yellow Time (s)	3.5	4.7	4.7		3.5		3.5
All-Red Time (s)	1.0	1.5	1.5		1.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		
Total Lost Time (s)	4.5	6.2	6.2		4.5		
Lead/Lag	Lead		Lag		Lag		Lead
Lead-Lag Optimize?	Yes		Yes		Yes		Yes
Recall Mode	None	Max	None		Max		None
Act Effct Green (s)	10.0	72.3	60.2		30.1		
Actuated g/C Ratio	0.09	0.64	0.53		0.27		
v/c Ratio	0.47	0.39	1.00		0.10		
Control Delay (s/veh)	60.1	10.3	48.8		14.7		
Queue Delay	0.0	0.0	0.0		0.0		
Total Delay (s/veh)	60.1	10.3	48.8		14.7		
LOS	E	B	D		B		
Approach Delay (s/veh)		14.1	48.8		14.7		
Approach LOS		B	D		B		
Queue Length 50th (ft)	51	146	~760		6		
Queue Length 95th (ft)	98	183	#951		36		
Internal Link Dist (ft)		359	420		290		
Turn Bay Length (ft)							
Base Capacity (vph)	228	2424	1826		452		

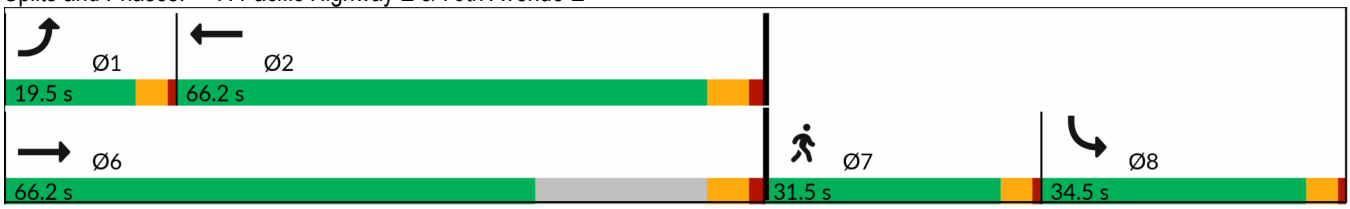
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø7
Starvation Cap Reductn	0	0	0		0		
Spillback Cap Reductn	0	0	0		0		
Storage Cap Reductn	0	0	0		0		
Reduced v/c Ratio	0.31	0.36	1.00		0.10		

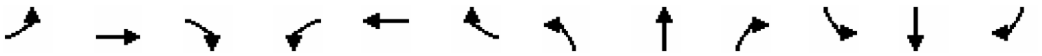
Intersection Summary			
Area Type:	Other		
Cycle Length: 151.7			
Actuated Cycle Length: 113.1			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.00			
Intersection Signal Delay (s/veh): 36.7		Intersection LOS: D	
Intersection Capacity Utilization 69.6%		ICU Level of 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: 7: Pacific Highway E & 70th Avenue E





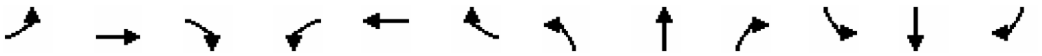
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	509	117	138	496	233	158	608	96	189	907	90
Future Volume (vph)	51	509	117	138	496	233	158	608	96	189	907	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		200	400		400	250		0	225		0
Storage Lanes	1		1	1		1	1		0	2		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	0.95	0.95	0.97	0.95	0.95
Frt			0.850			0.850		0.980			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1641	1727	1468	1641	1727	1468	1641	3216	0	3183	3236	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	1727	1468	1641	1727	1468	1641	3216	0	3183	3236	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			93			161		15			9	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1295			1073			2009			522	
Travel Time (s)		25.2			20.9			39.1			10.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	525	121	142	511	240	163	726	0	195	1028	0
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2	3	7	4		3	8	
Permitted Phases			6			2						
Detector Phase	1	6	6	5	2	3	7	4		3	8	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	10.0	10.0	10.0	10.0	6.0		10.0	10.0	
Minimum Split (s)	10.5	22.5	22.5	14.5	22.5	14.5	14.5	26.5		14.5	26.5	
Total Split (s)	14.5	44.5	44.5	14.5	44.5	19.5	19.5	44.5		19.5	44.5	
Total Split (%)	11.8%	36.2%	36.2%	11.8%	36.2%	15.9%	15.9%	36.2%		15.9%	36.2%	
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		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	Min	Min	None	Min	None	None	None		None	None	
Act Effct Green (s)	8.6	38.5	38.5	10.0	42.2	59.4	14.3	41.3		12.6	39.6	
Actuated g/C Ratio	0.07	0.32	0.32	0.08	0.35	0.49	0.12	0.34		0.10	0.33	
v/c Ratio	0.46	0.95	0.23	1.04	0.84	0.30	0.84	0.65		0.58	0.96	
Control Delay (s/veh)	67.1	68.9	10.4	143.4	51.9	7.6	85.9	36.7		59.2	59.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	67.1	68.9	10.4	143.4	51.9	7.6	85.9	36.7		59.2	59.5	
LOS	E	E	B	F	D	A	F	D		E	E	
Approach Delay (s/veh)		58.6			54.5			45.7			59.4	
Approach LOS		E			D			D			E	
Queue Length 50th (ft)	41	403	15	~125	385	34	128	250		77	420	
Queue Length 95th (ft)	84	#620	60	#258	#596	84	#246	328		115	#567	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1215			993			1929			442	
Turn Bay Length (ft)	250		200	400		400	250			225		
Base Capacity (vph)	136	574	550	136	605	830	204	1113		397	1081	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.39	0.91	0.22	1.04	0.84	0.29	0.80	0.65		0.49	0.95	

Intersection Summary			
Area Type:	Other		
Cycle Length: 123			
Actuated Cycle Length: 120.5			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.04			
Intersection Signal Delay (s/veh): 54.8		Intersection LOS: D	
Intersection Capacity Utilization 86.8%		ICU Level of Service E	
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: 8: 70th Avenue E & 20th Street E

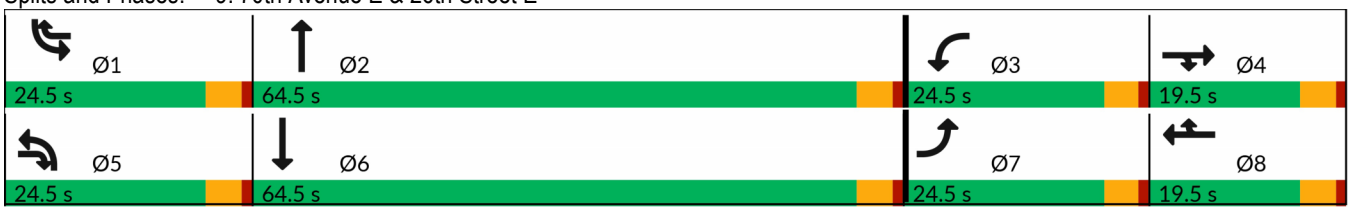


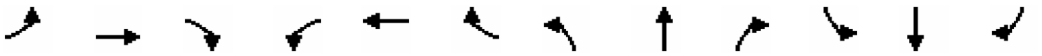
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	52	102	85	27	115	29	672	49	54	1029	15
Future Volume (vph)	45	52	102	85	27	115	29	672	49	54	1029	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	200		0	225		0
Storage Lanes	1		1	1		1	1		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	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.990			0.998	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1652	1404	1570	1652	1404	1570	3108	0	1570	3133	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1570	1652	1404	1570	1652	1404	1570	3108	0	1570	3133	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109			122		7			1	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1057			880			2032			2009	
Travel Time (s)		20.6			17.1			39.6			39.1	
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 (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	55	109	90	29	122	31	767	0	57	1111	0
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases	7	4	4 5	3	8	8 1	5	2		1	6	
Permitted Phases												
Detector Phase	7	4	4 5	3	8	8 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	10.0		6.0	10.0	
Minimum Split (s)	10.5	24.5		10.5	24.5		10.5	22.5		10.5	22.5	
Total Split (s)	24.5	19.5		24.5	19.5		24.5	64.5		24.5	64.5	
Total Split (%)	18.4%	14.7%		18.4%	14.7%		18.4%	48.5%		18.4%	48.5%	
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	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		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	9.3	9.5	22.8	11.9	14.5	29.2	8.4	40.2		9.9	41.7	
Actuated g/C Ratio	0.11	0.11	0.26	0.14	0.17	0.34	0.10	0.46		0.11	0.48	
v/c Ratio	0.29	0.31	0.24	0.42	0.11	0.22	0.21	0.53		0.32	0.74	
Control Delay (s/veh)	47.6	47.3	8.5	46.8	39.9	6.8	47.8	19.5		47.4	23.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	47.6	47.3	8.5	46.8	39.9	6.8	47.8	19.5		47.4	23.0	
LOS	D	D	A	D	D	A	D	B		D	C	
Approach Delay (s/veh)		27.4			25.7			20.6			24.2	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	25	28	0	46	14	0	16	155		29	255	
Queue Length 95th (ft)	74	82	46	118	49	45	55	266		84	420	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		977			800			1952			1929	
Turn Bay Length (ft)	150		150	150		150	200			225		
Base Capacity (vph)	391	308	639	391	345	713	391	2226		391	2242	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.12	0.18	0.17	0.23	0.08	0.17	0.08	0.34		0.15	0.50	

Intersection Summary			
Area Type:	Other		
Cycle Length: 133			
Actuated Cycle Length: 87			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay (s/veh): 23.4		Intersection LOS: C	
Intersection Capacity Utilization 56.5%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 9: 70th Avenue E & 26th Street E





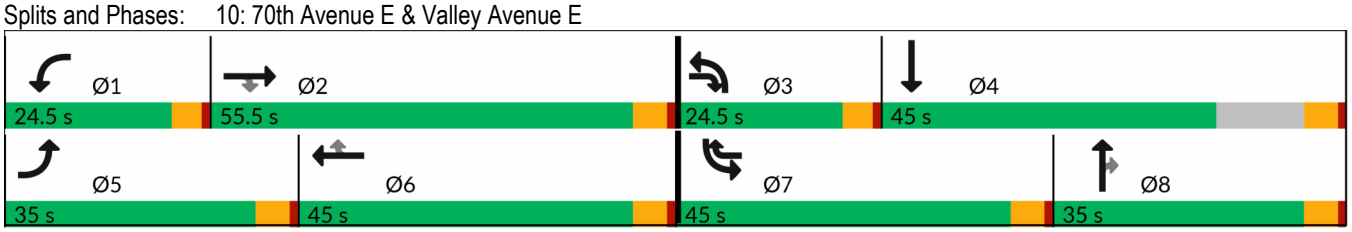
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	546	172	79	316	360	149	298	45	587	538	92
Future Volume (vph)	27	546	172	79	316	360	149	298	45	587	538	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		250	200		0	200		130	350		0
Storage Lanes	1		1	1		1	1		1	2		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	0.95	1.00	0.97	0.95	0.95
Frt			0.850			0.850			0.850		0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1641	1727	1468	1641	1727	1468	1641	3282	1468	3183	3210	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	1727	1468	1641	1727	1468	1641	3282	1468	3183	3210	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			147			375			143		13	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		831			1056			750			2032	
Travel Time (s)		18.9			24.0			14.6			39.6	
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 (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	569	179	82	329	375	155	310	47	611	656	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2	3	1	6	7	3	8		7	4	
Permitted Phases			2			6			8			
Detector Phase	5	2	3	1	6	7	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0	6.0	6.0	8.0	8.0	6.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	11.0	31.0	10.5	10.5	31.0	13.0	10.5	31.0	31.0	13.0	31.0	
Total Split (s)	35.0	55.5	24.5	24.5	45.0	45.0	24.5	35.0	35.0	45.0	45.0	
Total Split (%)	21.9%	34.7%	15.3%	15.3%	28.1%	28.1%	15.3%	21.9%	21.9%	28.1%	28.1%	
Yellow Time (s)	4.0	4.0	3.5	3.5	4.0	4.0	3.5	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	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	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.5	4.5	5.0	5.0	4.5	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	Min	None	None	Min	None	None	None	None	None	None	
Act Effct Green (s)	9.4	51.1	73.7	12.8	59.6	98.1	17.5	19.4	19.4	33.4	35.8	
Actuated g/C Ratio	0.07	0.37	0.54	0.09	0.44	0.72	0.13	0.14	0.14	0.24	0.26	
v/c Ratio	0.25	0.88	0.21	0.54	0.44	0.32	0.74	0.66	0.14	0.79	0.77	
Control Delay (s/veh)	69.9	57.9	5.4	74.3	33.0	1.6	79.8	63.7	0.9	56.7	52.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	69.9	57.9	5.4	74.3	33.0	1.6	79.8	63.7	0.9	56.7	52.5	
LOS	E	E	A	E	C	A	E	E	A	E	D	
Approach Delay (s/veh)		46.2			22.4			62.8			54.5	
Approach LOS		D			C			E			D	
Queue Length 50th (ft)	24	475	13	71	219	0	132	139	0	260	283	
Queue Length 95th (ft)	62	#842	61	138	366	36	#259	206	0	367	373	

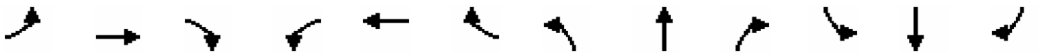
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		751			976			670			1952	
Turn Bay Length (ft)	150		250	200			200		130	350		
Base Capacity (vph)	365	646	886	243	754	1217	243	730	437	944	1210	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.08	0.88	0.20	0.34	0.44	0.31	0.64	0.42	0.11	0.65	0.54	

Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 136.4			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay (s/veh): 46.3		Intersection LOS: D	
Intersection Capacity Utilization 75.6%		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: 10: 70th Avenue E & Valley Avenue E



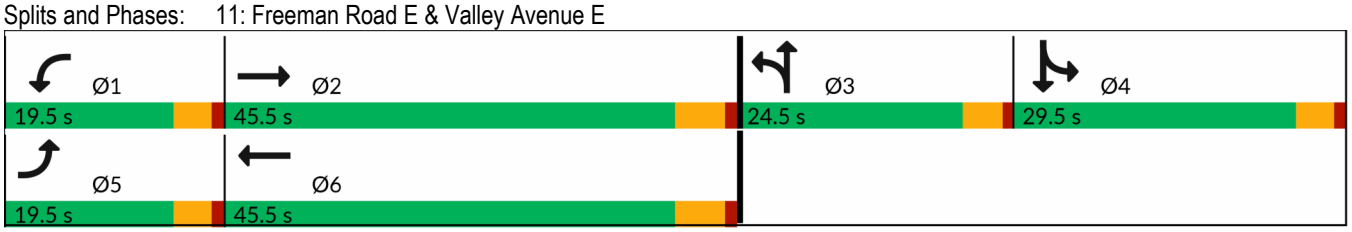


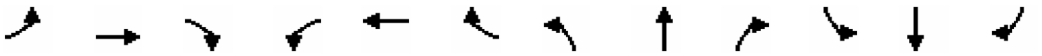
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	1024	123	22	525	128	62	49	32	253	168	23
Future Volume (vph)	29	1024	123	22	525	128	62	49	32	253	168	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	230		0	50		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.984			0.971			0.941			0.982	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1656	3259	0	1656	3216	0	1656	1640	0	1656	1712	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1656	3259	0	1656	3216	0	1656	1640	0	1656	1712	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			27			24			5	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		671			1259			2534			494	
Travel Time (s)		15.3			28.6			69.1			13.5	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	33	1289	0	25	734	0	70	91	0	284	215	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	3		4	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0		4.0	8.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	10.5	26.5		9.5	26.5		22.5	22.5		27.5	27.5	
Total Split (s)	19.5	45.5		19.5	45.5		24.5	24.5		29.5	29.5	
Total Split (%)	16.4%	38.2%		16.4%	38.2%		20.6%	20.6%		24.8%	24.8%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		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	5.5		4.5	5.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	8.0	41.0		7.6	38.2		10.1	10.1		21.4	21.4	
Actuated g/C Ratio	0.09	0.45		0.08	0.42		0.11	0.11		0.23	0.23	
v/c Ratio	0.23	0.88		0.18	0.54		0.39	0.45		0.74	0.54	
Control Delay (s/veh)	47.2	34.5		47.1	23.9		47.4	39.1		46.8	37.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	47.2	34.5		47.1	23.9		47.4	39.1		46.8	37.2	
LOS	D	C		D	C		D	D		D	D	
Approach Delay (s/veh)		34.8			24.7			42.7			42.7	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	18	333		13	185		37	36		141	98	
Queue Length 95th (ft)	52	#645		43	272		89	93		#301	206	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		591			1179			2454			414	
Turn Bay Length (ft)	150			230			50			250		
Base Capacity (vph)	275	1460		275	1441		367	382		459	478	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.12	0.88		0.09	0.51		0.19	0.24		0.62	0.45	

Intersection Summary			
Area Type:	Other		
Cycle Length: 119			
Actuated Cycle Length: 92			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay (s/veh): 33.9		Intersection LOS: C	
Intersection Capacity Utilization 63.3%		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: 11: Freeman Road E & Valley Avenue E



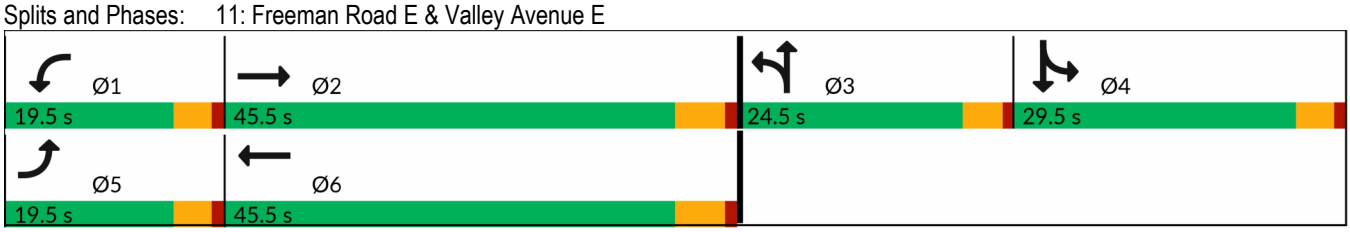


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	909	108	35	599	127	59	38	26	180	117	16
Future Volume (vph)	25	909	108	35	599	127	59	38	26	180	117	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	230		0	50		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.984			0.974			0.940			0.982	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1656	3259	0	1656	3226	0	1656	1639	0	1656	1712	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1656	3259	0	1656	3226	0	1656	1639	0	1656	1712	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			23			25			5	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		671			1259			4678			494	
Travel Time (s)		15.3			28.6			127.6			13.5	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	1142	0	39	816	0	66	72	0	202	149	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	3		4	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0		4.0	8.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	10.5	26.5		9.5	26.5		22.5	22.5		27.5	27.5	
Total Split (s)	19.5	45.5		19.5	45.5		24.5	24.5		29.5	29.5	
Total Split (%)	16.4%	38.2%		16.4%	38.2%		20.6%	20.6%		24.8%	24.8%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		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	5.5		4.5	5.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	7.8	42.0		8.3	42.4		9.7	9.7		16.7	16.7	
Actuated g/C Ratio	0.09	0.48		0.09	0.48		0.11	0.11		0.19	0.19	
v/c Ratio	0.19	0.73		0.25	0.52		0.36	0.35		0.64	0.45	
Control Delay (s/veh)	46.5	26.5		46.6	20.7		46.8	34.5		45.0	37.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	46.5	26.5		46.6	20.7		46.8	34.5		45.0	37.4	
LOS	D	C		D	C		D	C		D	D	
Approach Delay (s/veh)		27.0			21.9			40.4			41.8	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	16	304		22	183		37	26		113	77	
Queue Length 95th (ft)	47	#535		59	304		85	73		198	144	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		591			1179			4598			414	
Turn Bay Length (ft)	150			230			50			250		
Base Capacity (vph)	297	1565		297	1572		396	411		495	515	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.09	0.73		0.13	0.52		0.17	0.18		0.41	0.29	

Intersection Summary			
Area Type:	Other		
Cycle Length: 119			
Actuated Cycle Length: 87.7			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay (s/veh): 28.0		Intersection LOS: C	
Intersection Capacity Utilization 56.1%		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: 11: Freeman Road E & Valley Avenue E



Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	23	12	128	268	12
Future Vol, veh/h	5	23	12	128	268	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	6	27	14	151	315	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	501	322	329	0	-	0
Stage 1	322	-	-	-	-	-
Stage 2	179	-	-	-	-	-
Critical Hdwy	6.44	6.24	4.14	-	-	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	2.236	-	-	-
Pot Cap-1 Maneuver	526	714	1219	-	-	-
Stage 1	730	-	-	-	-	-
Stage 2	847	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	519	714	1219	-	-	-
Mov Cap-2 Maneuver	519	-	-	-	-	-
Stage 1	721	-	-	-	-	-
Stage 2	847	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.66	0.68	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	154	-	669	-	-
HCM Lane V/C Ratio	0.012	-	0.049	-	-
HCM Control Delay (s/veh)	8	0	10.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	12	9	6	83	326	14
Future Vol, veh/h	12	9	6	83	326	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	14	11	7	98	384	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	504	392	400	0	-	0
Stage 1	392	-	-	-	-	-
Stage 2	112	-	-	-	-	-
Critical Hdwy	6.45	6.25	4.15	-	-	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	2.245	-	-	-
Pot Cap-1 Maneuver	523	650	1143	-	-	-
Stage 1	676	-	-	-	-	-
Stage 2	905	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	519	650	1143	-	-	-
Mov Cap-2 Maneuver	519	-	-	-	-	-
Stage 1	672	-	-	-	-	-
Stage 2	905	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	11.62	0.55	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	121	-	568	-	-
HCM Lane V/C Ratio	0.006	-	0.043	-	-
HCM Control Delay (s/veh)	8.2	0	11.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	2	22	0	6	1	83	6	2	330	1
Future Vol, veh/h	0	0	2	22	0	6	1	83	6	2	330	1
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	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	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	0	0	2	27	0	7	1	100	7	2	398	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	505	513	398	508	510	104	399	0	0	107	0	0
Stage 1	403	403	-	106	106	-	-	-	-	-	-	-
Stage 2	102	110	-	402	404	-	-	-	-	-	-	-
Critical Hdwy	7.16	6.56	6.26	7.16	6.56	6.26	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.16	5.56	-	6.16	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.16	5.56	-	6.16	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.554	4.054	3.354	3.554	4.054	3.354	2.254	-	-	2.254	-	-
Pot Cap-1 Maneuver	471	459	643	469	461	940	1138	-	-	1459	-	-
Stage 1	616	593	-	890	800	-	-	-	-	-	-	-
Stage 2	894	797	-	617	592	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	466	458	643	465	460	940	1138	-	-	1459	-	-
Mov Cap-2 Maneuver	466	458	-	465	460	-	-	-	-	-	-	-
Stage 1	615	592	-	889	799	-	-	-	-	-	-	-
Stage 2	886	796	-	613	591	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	10.62	12.37	0.09	0.04
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	20	-	-	643	522	11	-	-
HCM Lane V/C Ratio	0.001	-	-	0.004	0.065	0.002	-	-
HCM Control Delay (s/veh)	8.2	0	-	10.6	12.4	7.5	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0	-	-

Intersection	
Int Delay, s/veh	13.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	44	522	154	63	317	46
Future Vol, veh/h	44	522	154	63	317	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	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	46	544	160	66	330	48

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	226	0	-	0	829	193
Stage 1	-	-	-	-	193	-
Stage 2	-	-	-	-	635	-
Critical Hdwy	4.14	-	-	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.236	-	-	-	3.536	3.336
Pot Cap-1 Maneuver	1331	-	-	-	338	843
Stage 1	-	-	-	-	835	-
Stage 2	-	-	-	-	524	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1331	-	-	-	~ 321	843
Mov Cap-2 Maneuver	-	-	-	-	423	-
Stage 1	-	-	-	-	794	-
Stage 2	-	-	-	-	524	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.61	0	42.39
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	140	-	-	-	451
HCM Lane V/C Ratio	0.034	-	-	-	0.838
HCM Control Delay (s/veh)	7.8	0	-	-	42.4
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0.1	-	-	-	8.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	8.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	44	522	154	63	317	46
Future Vol, veh/h	44	522	154	63	317	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	100	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	46	544	160	66	330	48

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	226	0	-	0	829	193
Stage 1	-	-	-	-	193	-
Stage 2	-	-	-	-	635	-
Critical Hdwy	4.14	-	-	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.236	-	-	-	3.536	3.336
Pot Cap-1 Maneuver	1331	-	-	-	338	843
Stage 1	-	-	-	-	835	-
Stage 2	-	-	-	-	524	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1331	-	-	-	~ 326	843
Mov Cap-2 Maneuver	-	-	-	-	477	-
Stage 1	-	-	-	-	806	-
Stage 2	-	-	-	-	524	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.61	0	25.5
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1331	-	-	-	477	843
HCM Lane V/C Ratio	0.034	-	-	-	0.692	0.057
HCM Control Delay (s/veh)	7.8	-	-	-	27.8	9.5
HCM Lane LOS	A	-	-	-	D	A
HCM 95th %tile Q(veh)	0.1	-	-	-	5.2	0.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	39	428	126	54	241	50
Future Vol, veh/h	39	428	126	54	241	50
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	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	41	446	131	56	251	52

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	188	0	-	0	686	159
Stage 1	-	-	-	-	159	-
Stage 2	-	-	-	-	527	-
Critical Hdwy	4.14	-	-	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.236	-	-	-	3.536	3.336
Pot Cap-1 Maneuver	1375	-	-	-	410	881
Stage 1	-	-	-	-	864	-
Stage 2	-	-	-	-	588	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1375	-	-	-	394	881
Mov Cap-2 Maneuver	-	-	-	-	482	-
Stage 1	-	-	-	-	831	-
Stage 2	-	-	-	-	588	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.64	0	20.95
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	150	-	-	-	523
HCM Lane V/C Ratio	0.03	-	-	-	0.58
HCM Control Delay (s/veh)	7.7	0	-	-	20.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	3.7

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	39	428	126	54	241	50
Future Vol, veh/h	39	428	126	54	241	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	41	446	131	56	251	52

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	188	0	-	0	686	159
Stage 1	-	-	-	-	159	-
Stage 2	-	-	-	-	527	-
Critical Hdwy	4.14	-	-	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.236	-	-	-	3.536	3.336
Pot Cap-1 Maneuver	1375	-	-	-	410	881
Stage 1	-	-	-	-	864	-
Stage 2	-	-	-	-	588	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1375	-	-	-	398	881
Mov Cap-2 Maneuver	-	-	-	-	537	-
Stage 1	-	-	-	-	839	-
Stage 2	-	-	-	-	588	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.64	0	16.04
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1375	-	-	-	537	881
HCM Lane V/C Ratio	0.03	-	-	-	0.467	0.059
HCM Control Delay (s/veh)	7.7	-	-	-	17.4	9.3
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.1	-	-	-	2.5	0.2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1048	665	563	1519	1189	941
Future Volume (vph)	1048	665	563	1519	1189	941
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	2	2		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	0.88	0.95	1.00	0.97	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3367	2733	3471	1553	3367	3471
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3367	2733	3471	1553	3367	3471
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		68		557		
Link Speed (mph)	35		35			35
Link Distance (ft)	522		278			1175
Travel Time (s)	10.2		5.4			22.9
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1069	679	574	1550	1213	960
Turn Type	Prot	pm+ov	NA	Perm	Prot	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8		2		
Minimum Split (s)	36.6	10.6	38.9	38.9	10.6	36.9
Total Split (s)	48.0	47.0	35.0	35.0	47.0	82.0
Total Split (%)	36.9%	36.2%	26.9%	26.9%	36.2%	63.1%
Yellow Time (s)	3.6	3.6	3.9	3.9	3.6	3.9
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)	4.6	4.6	4.9	4.9	4.6	4.9
Lead/Lag		Lag	Lead	Lead	Lag	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Act Effct Green (s)	43.4	90.4	30.1	30.1	42.4	77.1
Actuated g/C Ratio	0.33	0.70	0.23	0.23	0.33	0.59
v/c Ratio	0.95	0.35	0.71	1.97	1.10	0.47
Control Delay (s/veh)	59.9	7.7	51.8	459.6	101.6	15.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	59.9	7.7	51.8	459.6	101.6	15.8
LOS	E	A	D	F	F	B
Approach Delay (s/veh)	39.6		349.4			63.7
Approach LOS	D		F			E
Queue Length 50th (ft)	452	105	235	~1659	~598	227
Queue Length 95th (ft)	#591	139	302	#1929	#734	277
Internal Link Dist (ft)	442		198			1095
Turn Bay Length (ft)					250	
Base Capacity (vph)	1124	1921	803	787	1098	2058
Starvation Cap Reductn	0	0	0	0	0	0

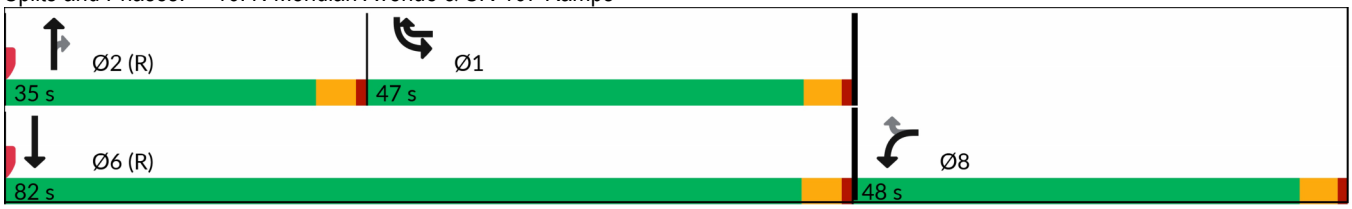
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.35	0.71	1.97	1.10	0.47

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 125 (96%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 150			
Control Type: Pretimed			
Maximum v/c Ratio: 1.97			
Intersection Signal Delay (s/veh): 157.1		Intersection LOS: F	
Intersection Capacity Utilization 135.9%		ICU Level of Service H	
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: 16: N Meridian Avenue & SR-167 Ramps



Intersection	
Int Delay, s/veh	109.1

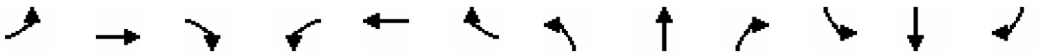
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	459	0	0	623	0	1501	69	0	1705	112
Future Vol, veh/h	0	0	459	0	0	623	0	1501	69	0	1705	112
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Free	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	478	0	0	649	0	1564	72	0	1776	117

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	946	-	-	782	-	0	-	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.96	-	-	6.96	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.33	-	-	3.33	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	~ 260	0	0	~ 335	0	-	0	0	-	-
Stage 1	0	0	-	0	0	-	0	-	0	0	-	-
Stage 2	0	0	-	0	0	-	0	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	-	-	~ 260	-	-	~ 335	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, $/+	$ 423.45	$ 458.6	0	0
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBT	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	260	335	-	-
HCM Lane V/C Ratio	-	1.836	1.937	-	-
HCM Control Delay (s/veh)	-	$ 423.5	$ 458.6	-	-
HCM Lane LOS	-	F	F	-	-
HCM 95th %tile Q(veh)	-	32.7	44.7	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1158	0	452	22	683	365	0	0	0	0	931	1106
Future Volume (vph)	1158	0	452	22	683	365	0	0	0	0	931	1106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	125		0	0		0	0		250
Storage Lanes	2		1	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected	0.950			0.950								
Satd. Flow (prot)	3400	0	1568	1752	3505	1568	0	0	0	0	3505	1568
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	3400	0	1568	1752	3505	1568	0	0	0	0	3505	1568
Right Turn on Red			No	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				72		380						668
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		673			590			2133			1751	
Travel Time (s)		13.1			11.5			58.2			47.8	
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 (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1206	0	471	23	711	380	0	0	0	0	970	1152
Turn Type	Prot		Prot	Perm	NA	Perm					NA	Perm
Protected Phases	1		1		2						4	
Permitted Phases				2		2						4
Detector Phase	1		1	2	2	2					4	4
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0					10.0	10.0
Minimum Split (s)	10.1		10.1	35.1	35.1	35.1					30.8	30.8
Total Split (s)	42.0		42.0	29.0	29.0	29.0					34.0	34.0
Total Split (%)	40.0%		40.0%	27.6%	27.6%	27.6%					32.4%	32.4%
Yellow Time (s)	3.6		3.6	3.6	3.6	3.6					3.3	3.3
All-Red Time (s)	1.5		1.5	1.5	1.5	1.5					1.5	1.5
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Lost Time (s)	5.1		5.1	5.1	5.1	5.1					4.8	4.8
Lead/Lag	Lead		Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes						
Recall Mode	None		None	Max	Max	Max					None	None
Act Effct Green (s)	36.9		36.9	30.0	30.0	30.0					29.2	29.2
Actuated g/C Ratio	0.33		0.33	0.27	0.27	0.27					0.26	0.26
v/c Ratio	1.07		0.91	0.04	0.75	0.54					1.05	1.27
Control Delay (s/veh)	83.3		58.4	0.1	43.0	6.5					84.8	148.8
Queue Delay	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Delay (s/veh)	83.3		58.4	0.1	43.0	6.5					84.8	148.8
LOS	F		E	A	D	A					F	F
Approach Delay (s/veh)		76.3			29.7						119.5	
Approach LOS		E			C						F	
Queue Length 50th (ft)	~492		319	0	244	0					~398	~668
Queue Length 95th (ft)	#623		#516	0	315	75					#528	#927

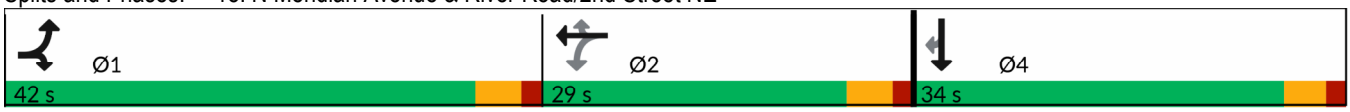
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		593			510			2053			1671	
Turn Bay Length (ft)				125								250
Base Capacity (vph)	1129		520	525	946	700					921	904
Starvation Cap Reductn	0		0	0	0	0					0	0
Spillback Cap Reductn	0		0	0	0	0					0	0
Storage Cap Reductn	0		0	0	0	0					0	0
Reduced v/c Ratio	1.07		0.91	0.04	0.75	0.54					1.05	1.27

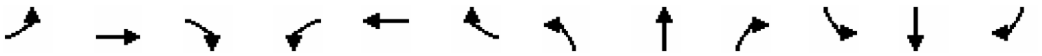
Intersection Summary			
Area Type:	Other		
Cycle Length: 105			
Actuated Cycle Length: 111.1			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.27			
Intersection Signal Delay (s/veh): 84.4		Intersection LOS: F	
Intersection Capacity Utilization 95.6%		ICU Level of 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.

Splits and Phases: 18: N Meridian Avenue & River Road/2nd Street NE





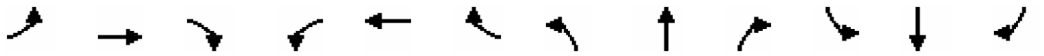
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1158	0	452	22	683	365	0	0	0	0	931	1106
Future Volume (vph)	1158	0	452	22	683	365	0	0	0	0	931	1106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	125		0	0		0	0		250
Storage Lanes	2		1	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected	0.950			0.950								
Satd. Flow (prot)	3400	0	1568	1752	3505	1568	0	0	0	0	3505	1568
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	3400	0	1568	1752	3505	1568	0	0	0	0	3505	1568
Right Turn on Red			No	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				50		341						654
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		673			590			2133			1751	
Travel Time (s)		13.1			11.5			58.2			47.8	
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 (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1206	0	471	23	711	380	0	0	0	0	970	1152
Turn Type	Prot		Prot	Perm	NA	Perm					NA	Perm
Protected Phases	1		1		2						4	
Permitted Phases				2		2						4
Detector Phase	1		1	2	2	2					4	4
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0					10.0	10.0
Minimum Split (s)	10.1		10.1	35.1	35.1	35.1					30.8	30.8
Total Split (s)	52.0		52.0	37.0	37.0	37.0					61.0	61.0
Total Split (%)	34.7%		34.7%	24.7%	24.7%	24.7%					40.7%	40.7%
Yellow Time (s)	3.6		3.6	3.6	3.6	3.6					3.3	3.3
All-Red Time (s)	1.5		1.5	1.5	1.5	1.5					1.5	1.5
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Lost Time (s)	5.1		5.1	5.1	5.1	5.1					4.8	4.8
Lead/Lag	Lead		Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes						
Recall Mode	None		None	Max	Max	Max					None	None
Act Effct Green (s)	46.9		46.9	31.9	31.9	31.9					56.2	56.2
Actuated g/C Ratio	0.31		0.31	0.21	0.21	0.21					0.37	0.37
v/c Ratio	1.13		0.96	0.06	0.95	0.63					0.74	1.16
Control Delay (s/veh)	118.6		82.5	1.4	81.5	12.9					44.7	100.9
Queue Delay	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Delay (s/veh)	118.6		82.5	1.4	81.5	12.9					44.7	100.9
LOS	F		F	A	F	B					D	F
Approach Delay (s/veh)		108.5			56.4						75.2	
Approach LOS		F			E						E	
Queue Length 50th (ft)	~705		454	0	365	31					430	~904
Queue Length 95th (ft)	#842		#681	5	#491	140					514	#1174

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		593			510			2053			1671	
Turn Bay Length (ft)				125								250
Base Capacity (vph)	1063		490	411	745	601					1313	996
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	1.13		0.96	0.06	0.95	0.63					0.74	1.16

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.16			
Intersection Signal Delay (s/veh): 82.3		Intersection LOS: F	
Intersection Capacity Utilization 95.6%		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.

Splits and Phases: 18: N Meridian Avenue & River Road/2nd Street NE



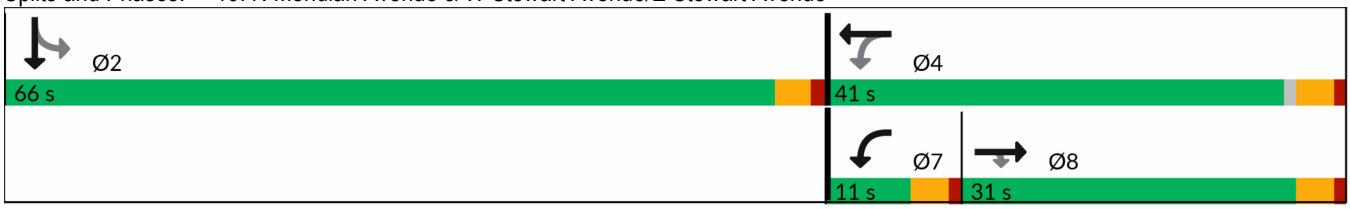
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	225	68	154	318	0	0	0	0	155	1158	51
Future Volume (vph)	0	225	68	154	318	0	0	0	0	155	1158	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	125		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	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	0.95	0.95	0.95
Frt			0.850								0.994	
Flt Protected				0.950							0.994	
Satd. Flow (prot)	0	1863	1583	1770	1863	0	0	0	0	0	3497	0
Flt Permitted				0.228							0.994	
Satd. Flow (perm)	0	1863	1583	425	1863	0	0	0	0	0	3497	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			51								6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		393			385			1349			2133	
Travel Time (s)		10.7			10.5			36.8			58.2	
Peak Hour 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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	237	72	162	335	0	0	0	0	0	1436	0
Turn Type		NA	Perm	pm+pt	NA					Perm	NA	
Protected Phases		8		7	4						2	
Permitted Phases			8	4						2		
Detector Phase		8	8	7	4					2	2	
Switch Phase												
Minimum Initial (s)		5.0	5.0	5.0	5.0					10.0	10.0	
Minimum Split (s)		21.0	21.0	9.0	21.0					23.0	23.0	
Total Split (s)		31.0	31.0	11.0	41.0					66.0	66.0	
Total Split (%)		28.7%	28.7%	10.2%	38.0%					61.1%	61.1%	
Yellow Time (s)		3.0	3.0	3.0	3.0					3.0	3.0	
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)		4.0	4.0	4.0	4.0						4.0	
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		None	None	None	None					Max	Max	
Act Effct Green (s)		15.6	15.6	26.5	26.5						62.1	
Actuated g/C Ratio		0.16	0.16	0.27	0.27						0.64	
v/c Ratio		0.79	0.24	0.76	0.66						0.64	
Control Delay (s/veh)		57.6	16.6	52.3	37.5						12.8	
Queue Delay		0.0	0.0	0.0	0.3						0.0	
Total Delay (s/veh)		57.6	16.6	52.3	37.8						12.8	
LOS		E	B	D	D						B	
Approach Delay (s/veh)		48.0			42.5						12.8	
Approach LOS		D			D						B	
Queue Length 50th (ft)		141	11	79	182						254	
Queue Length 95th (ft)		222	49	#155	272						395	
Internal Link Dist (ft)		313			305			1269			2053	

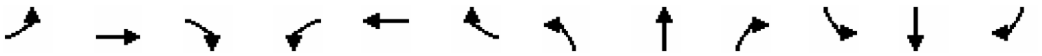
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)			50	125								
Base Capacity (vph)		521	479	214	733						2249	
Starvation Cap Reductn		0	0	0	83						0	
Spillback Cap Reductn		0	0	0	0						0	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		0.45	0.15	0.76	0.52						0.64	

Intersection Summary			
Area Type:	Other		
Cycle Length: 108			
Actuated Cycle Length: 96.7			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay (s/veh): 24.2		Intersection LOS: C	
Intersection Capacity Utilization 68.5%		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: 19: N Meridian Avenue & W Stewart Avenue





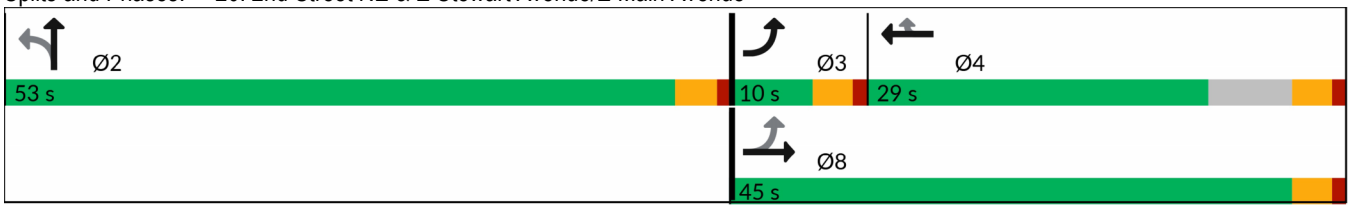
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	307	0	0	367	283	242	741	2	0	0	0
Future Volume (vph)	51	307	0	0	367	283	242	741	2	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	0		125	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
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	0.95	1.00	1.00	1.00
Frt						0.850						
Flt Protected	0.950							0.988				
Satd. Flow (prot)	1770	1863	0	0	1863	1583	0	3497	0	0	0	0
Flt Permitted	0.166							0.988				
Satd. Flow (perm)	309	1863	0	0	1863	1583	0	3497	0	0	0	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		385			615			394			343	
Travel Time (s)		10.5			16.8			10.7			9.4	
Peak Hour 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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	323	0	0	386	298	0	1037	0	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA				
Protected Phases	3	8			4			2				
Permitted Phases	8					4	2					
Detector Phase	3	8			4	4	2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	10.0	10.0				
Minimum Split (s)	9.5	28.0			28.0	28.0	26.0	26.0				
Total Split (s)	10.0	45.0			29.0	29.0	53.0	53.0				
Total Split (%)	10.2%	45.9%			29.6%	29.6%	54.1%	54.1%				
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0				
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)	4.0	4.0			4.0	4.0		4.0				
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	None			None	None	Max	Max				
Act Effct Green (s)	27.4	27.4			20.1	20.1		49.6				
Actuated g/C Ratio	0.32	0.32			0.24	0.24		0.58				
v/c Ratio	0.28	0.54			0.88	0.80		0.51				
Control Delay (s/veh)	22.4	26.4			53.2	47.3		13.1				
Queue Delay	0.0	0.2			0.0	0.0		0.0				
Total Delay (s/veh)	22.4	26.6			53.2	47.3		13.1				
LOS	C	C			D	D		B				
Approach Delay (s/veh)		26.0			50.6			13.1				
Approach LOS		C			D			B				
Queue Length 50th (ft)	20	139			204	153		181				
Queue Length 95th (ft)	44	215			#337	249		257				
Internal Link Dist (ft)		305			535			314			263	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	50					125						
Base Capacity (vph)	203	908			686	583		2037				
Starvation Cap Reductn	0	157			0	0		0				
Spillback Cap Reductn	0	0			0	0		0				
Storage Cap Reductn	0	0			0	0		0				
Reduced v/c Ratio	0.27	0.43			0.56	0.51		0.51				

Intersection Summary			
Area Type:	Other		
Cycle Length: 98			
Actuated Cycle Length: 85.1			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay (s/veh): 27.6		Intersection LOS: C	
Intersection Capacity Utilization 68.5%		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: 20: 2nd Street NE & E Stewart Avenue/E Main Avenue



Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	66	64	75	18	12	279
Future Vol, veh/h	66	64	75	18	12	279
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
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	72	70	82	20	13	303

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	421	91	0	0	101	0
Stage 1	91	-	-	-	-	-
Stage 2	329	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	589	966	-	-	1491	-
Stage 1	932	-	-	-	-	-
Stage 2	729	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	584	966	-	-	1491	-
Mov Cap-2 Maneuver	584	-	-	-	-	-
Stage 1	932	-	-	-	-	-
Stage 2	723	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	11.16	0	0.31
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	725	1491	-
HCM Lane V/C Ratio	-	-	0.195	0.009	-
HCM Control Delay (s/veh)	-	-	11.2	7.4	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.7	0	-

APPENDIX G

LUC 140 – MANUFACTURING ANALYSIS

LUC - 140
Manufacturing

Freeman Road Logistics
KH 090222083

Trip Generation for: Development Peak Weekday
(a.k.a.): Average Weekday Daily Trips (AWDT)

									NET EXTERNAL TRIPS BY TYPE											
									IN BOTH DIRECTIONS						DIRECTIONAL ASSIGNMENTS					
			Gross Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
Manufacturing Building A (Total)	238.525 KSF	140	4.75	50%	50%	1,132.99	0%	0.00	1,132.99	0%	0.00	0%	0.00	1,132.99	0.00	0.00	0.00	0.00	566.50	566.49
Manufacturing Building B (Total)	266.911 KSF	140	4.75	50%	50%	1,267.83	0%	0.00	1,267.83	0%	0.00	0%	0.00	1,267.83	0.00	0.00	0.00	0.00	633.92	633.91
Single-Family Detached	-14 Units	210	9.43	50%	50%	-132.02	0%	0.00	-132.02	0%	0.00	0%	0.00	-132.02	0.00	0.00	0.00	0.00	-66.01	-66.01
Total Vehicle Trips						2,268.80		0.00	2,268.80		0.00		0.00	2,268.80	0.00	0.00	0.00	0.00	1,134.41	1,134.39

			Gross Truck Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Truck Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
Manufacturing Building A (Truck)	238.525 KSF	140	0.45	50%	50%	107.34	0%	0.00	107.34	0%	0.00	0%	0.00	107.34	0.00	0.00	0.00	0.00	53.67	53.67
Manufacturing Building B (Truck)	266.911 KSF	140	0.45	50%	50%	120.11	0%	0.00	120.11	0%	0.00	0%	0.00	120.11	0.00	0.00	0.00	0.00	60.06	60.05
Total Truck Trips						227.45		0.00	227.45		0.00		0.00	227.45	0.00	0.00	0.00	0.00	113.73	113.72

Total Passenger Car Trips:	**2,041.35**	**1,020.68**	**1,020.67**

Trip Generation for: **Development Peak Weekday, Peak Hour of Adjacent Street Traffic, One Hour between 7 and 9 AM**
(a.k.a.): **Weekday AM Peak Hour**

									NET EXTERNAL TRIPS BY TYPE											
									IN BOTH DIRECTIONS						DIRECTIONAL ASSIGNMENTS					
			Gross Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
Manufacturing Building A (Total)	238.525 KSF	140	0.68	76%	24%	162.20	0%	0.00	162.20	0%	0.00	0%	0.00	162.20	0.00	0.00	0.00	0.00	123.27	38.93
Manufacturing Building B (Total)	266.911 KSF	140	0.68	76%	24%	181.50	0%	0.00	181.50	0%	0.00	0%	0.00	181.50	0.00	0.00	0.00	0.00	137.94	43.56
Single-Family Detached	-14 Units	210	0.70	26%	74%	-9.80	0%	0.00	-9.80	0%	0.00	0%	0.00	-9.80	0.00	0.00	0.00	0.00	-2.55	-7.25
Total Vehicle Trips						333.90		0.00	333.90		0.00		0.00	333.90	0.00	0.00	0.00	0.00	258.66	75.24

			Gross Truck Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Truck Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
Manufacturing Building A (Truck)	238.525 KSF	140	0.03	56%	44%	7.16	0%	0.00	7.16	0%	0.00	0%	0.00	7.16	0.00	0.00	0.00	0.00	4.01	3.15
Manufacturing Building B (Truck)	266.911 KSF	140	0.03	56%	44%	8.01	0%	0.00	8.01	0%	0.00	0%	0.00	8.01	0.00	0.00	0.00	0.00	4.49	3.52
Total Truck Trips						15.17		0.00	15.17		0.00		0.00	15.17	0.00	0.00	0.00	0.00	8.50	6.67

Total Passenger Car Trips:	**318.73**	**250.16**	**68.57**

Trip Generation for: **Development Peak Weekday, Peak Hour of Adjacent Street Traffic, One Hour between 4 and 6 PM**
(a.k.a.): **Weekday PM Peak Hour**

									NET EXTERNAL TRIPS BY TYPE											
									IN BOTH DIRECTIONS						DIRECTIONAL ASSIGNMENTS					
			Gross Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
Manufacturing Building A (Total)	238.525 KSF	140	0.74	31%	69%	176.51	0%	0.00	176.51	0%	0.00	0%	0.00	176.51	0.00	0.00	0.00	0.00	54.72	121.79
Manufacturing Building B (Total)	266.911 KSF	140	0.74	31%	69%	197.51	0%	0.00	197.51	0%	0.00	0%	0.00	197.51	0.00	0.00	0.00	0.00	61.23	136.28
Single-Family Detached	-14 Units	210	0.94	63%	37%	-13.16	0%	0.00	-13.16	0%	0.00	0%	0.00	-13.16	0.00	0.00	0.00	0.00	-8.29	-4.87
Total Vehicle Trips						360.86		0.00	360.86		0.00		0.00	360.86	0.00	0.00	0.00	0.00	107.66	253.20

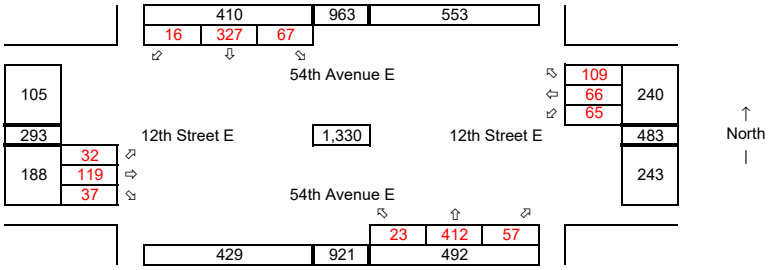
			Gross Truck Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Truck Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
Manufacturing Building A (Truck)	238.525 KSF	140	0.03	41%	59%	7.16	0%	0.00	7.16	0%	0.00	0%	0.00	7.16	0.00	0.00	0.00	0.00	2.94	4.22
Manufacturing Building B (Truck)	266.911 KSF	140	0.03	41%	59%	8.01	0%	0.00	8.01	0%	0.00	0%	0.00	8.01	0.00	0.00	0.00	0.00	3.28	4.73
Total Truck Trips						15.17		0.00	15.17		0.00		0.00	15.17	0.00	0.00	0.00	0.00	6.22	8.95

Total Passenger Car Trips:	**345.69**	**101.44**	**244.25**

Synchro ID: 1
Existing
Average Weekday
AM Peak Hour

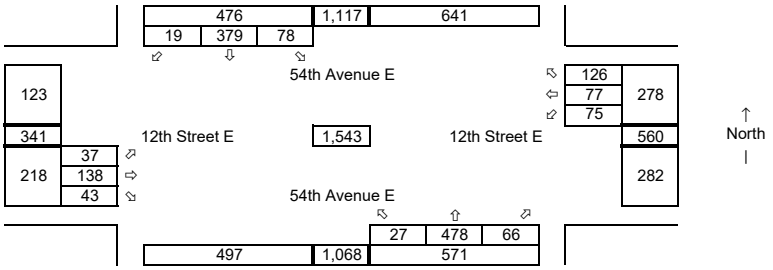
Year: **6/8/2023**

Data Source: IDAX

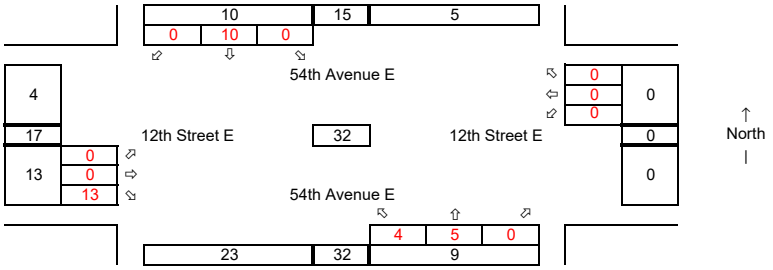


Future without Project
Average Weekday
AM Peak Hour

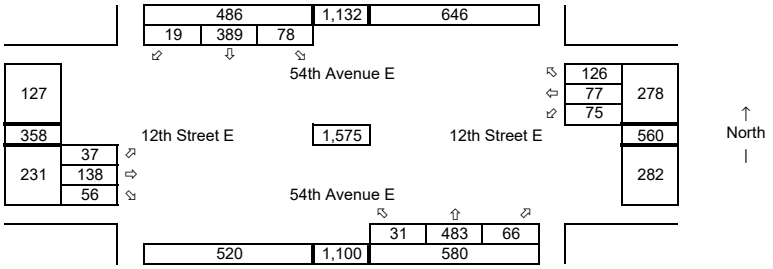
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



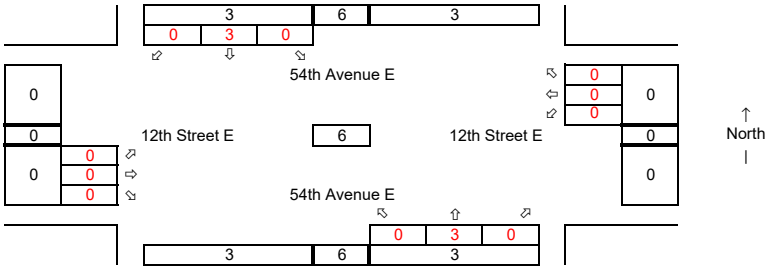
Total Development Trips
Average Weekday
AM Peak Hour



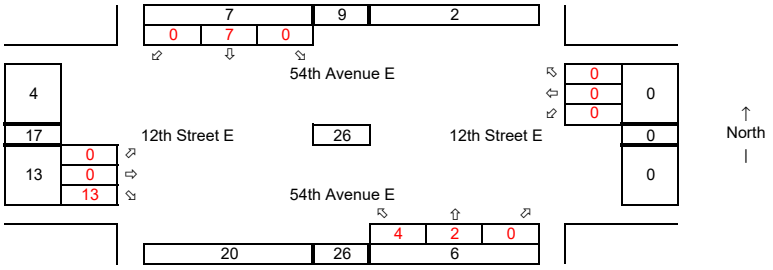
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour

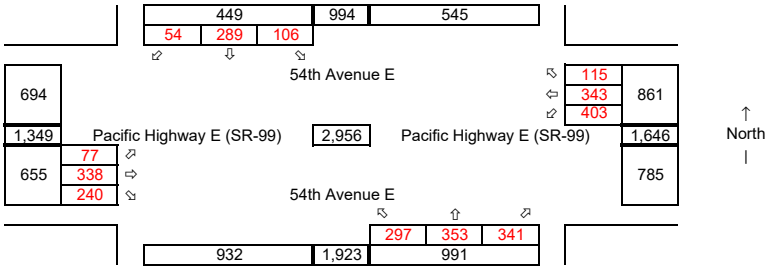


Synchro ID: 2
Existing
Average Weekday
AM Peak Hour

Year: **6/15/2023**

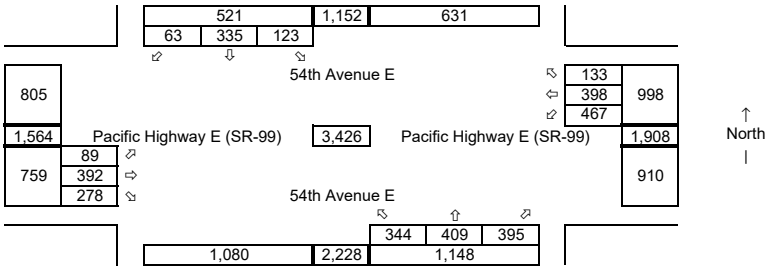
Data Source: IDAX

Two (2) Eastbound U-turns added to Eastbound left-turns

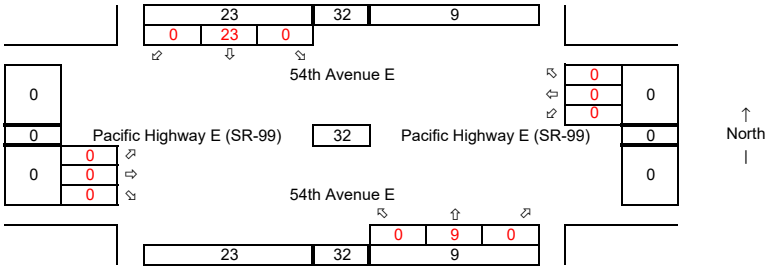


Future without Project
Average Weekday
AM Peak Hour

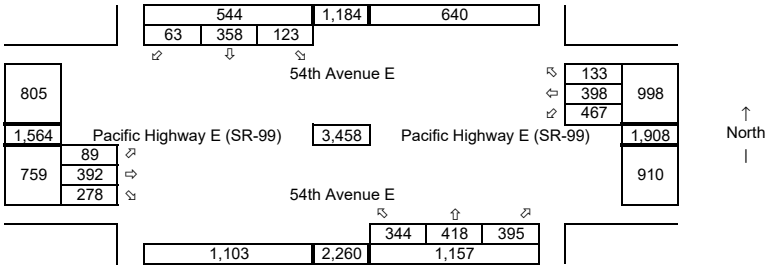
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



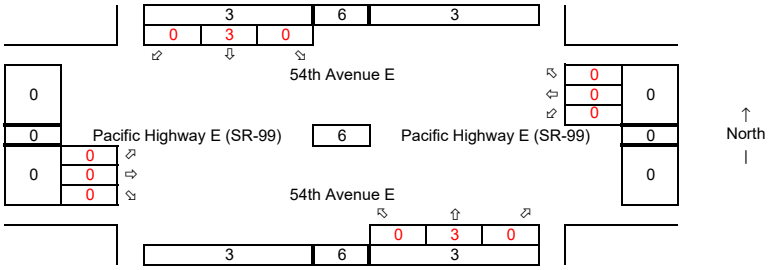
Total Development Trips
Average Weekday
AM Peak Hour



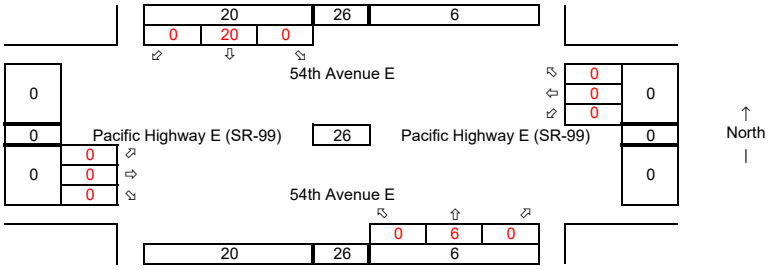
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour

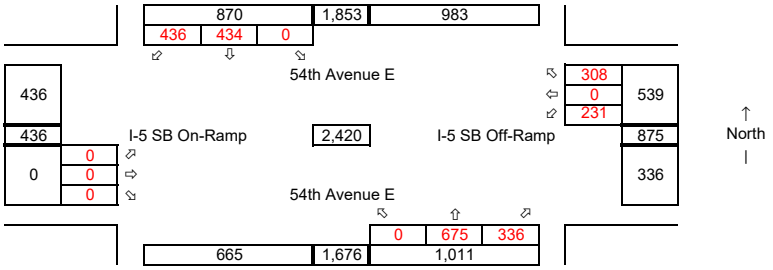


Synchro ID: 3
Existing
Average Weekday
AM Peak Hour

Year: **6/15/2023**

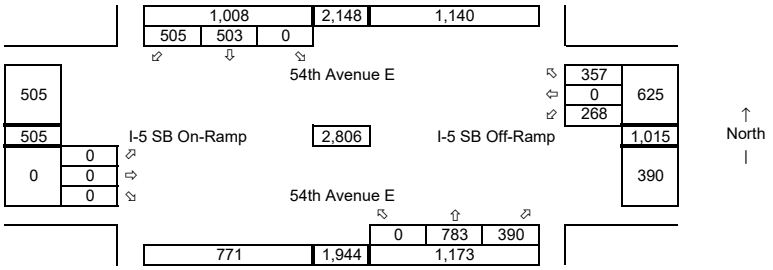
Data Source: IDAX

One (1) Northbound U-turn added to Northbound Thru

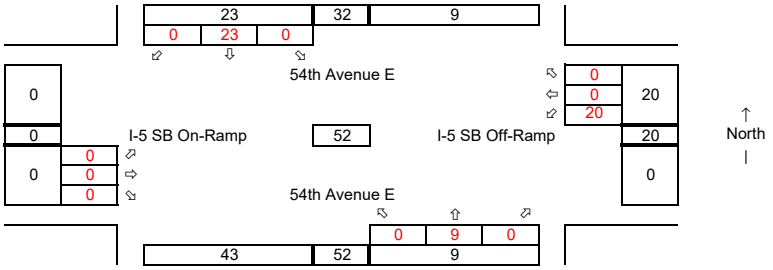


Future without Project
Average Weekday
AM Peak Hour

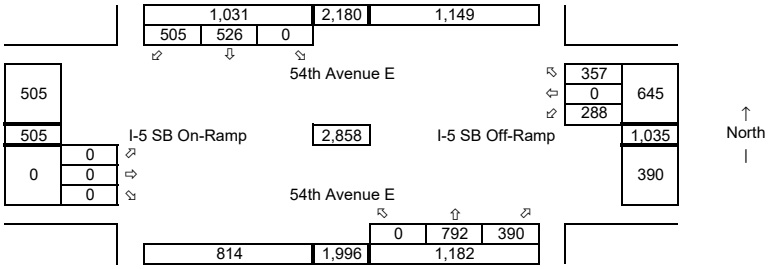
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



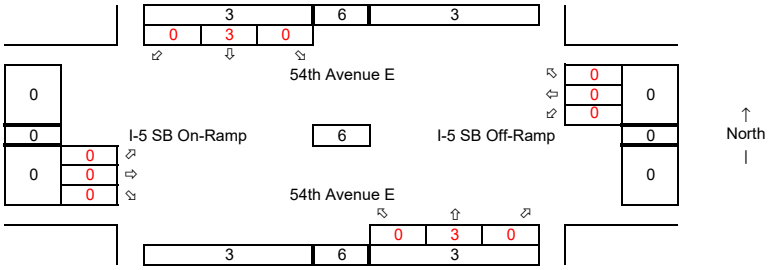
Total Development Trips
Average Weekday
AM Peak Hour



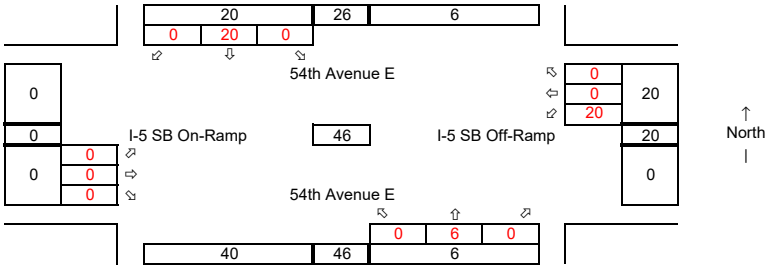
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



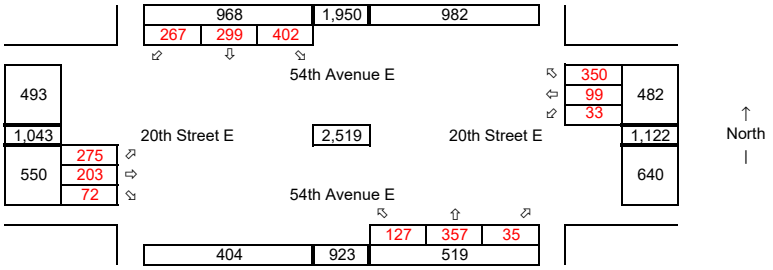
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 4
Existing
Average Weekday
AM Peak Hour

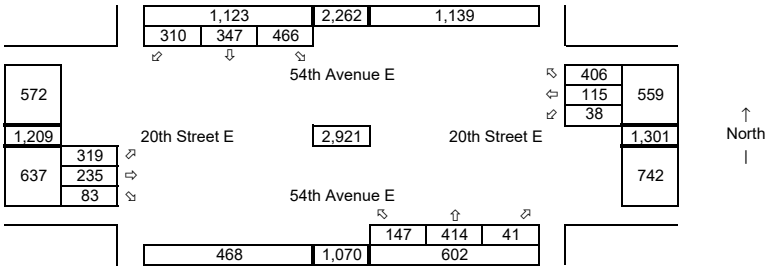
Year: **6/15/2023**

Data Source: IDAX

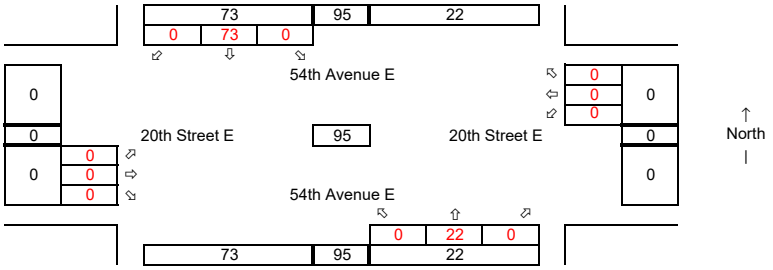


Future without Project
Average Weekday
AM Peak Hour

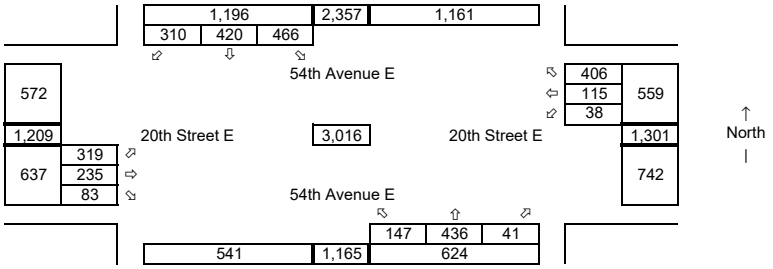
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



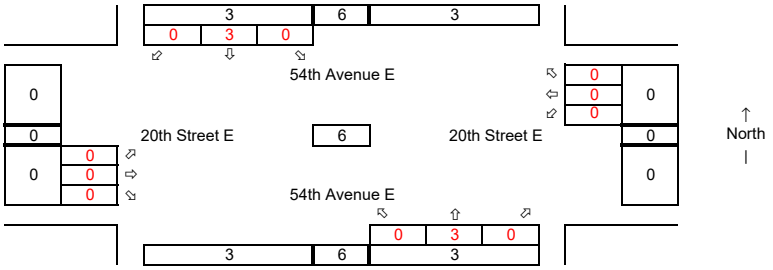
Total Development Trips
Average Weekday
AM Peak Hour



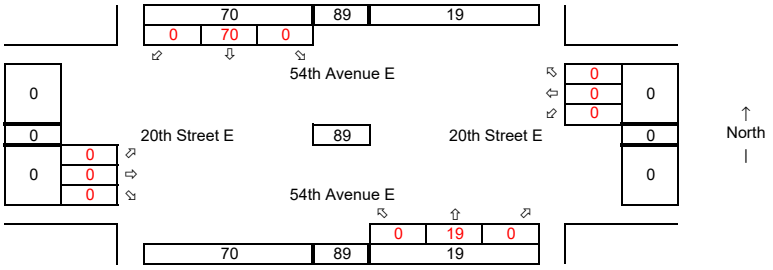
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



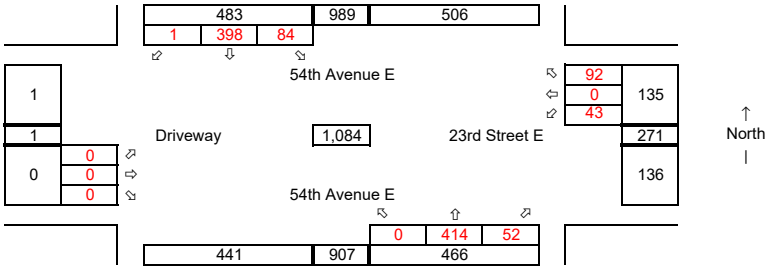
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 5
Existing
Average Weekday
AM Peak Hour

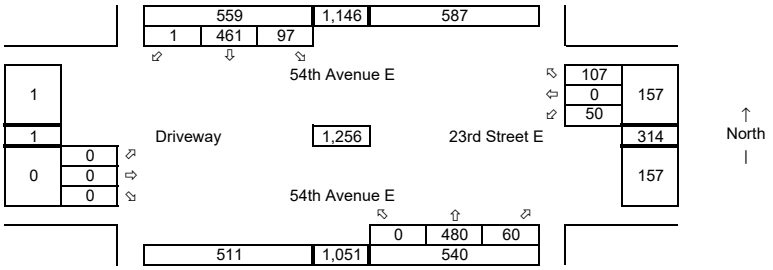
Year: **6/8/2023**

Data Source: IDAX

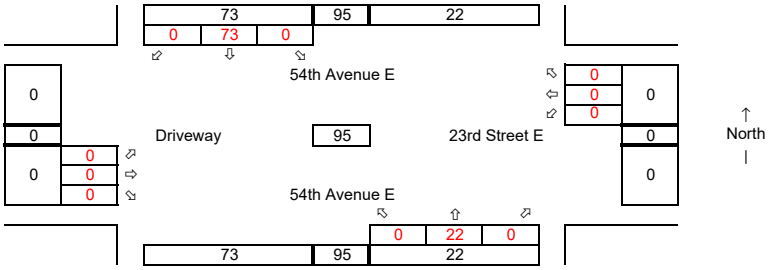


Future without Project
Average Weekday
AM Peak Hour

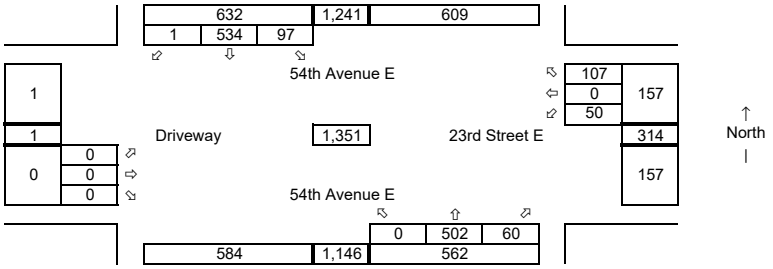
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



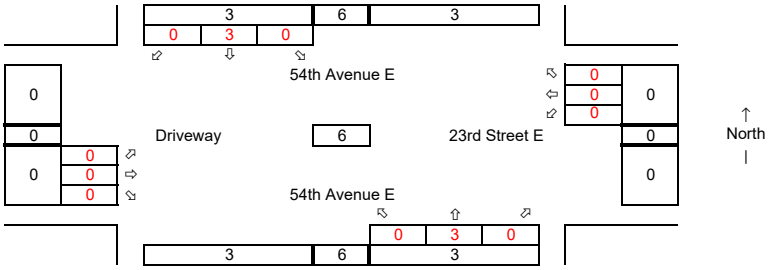
Total Development Trips
Average Weekday
AM Peak Hour



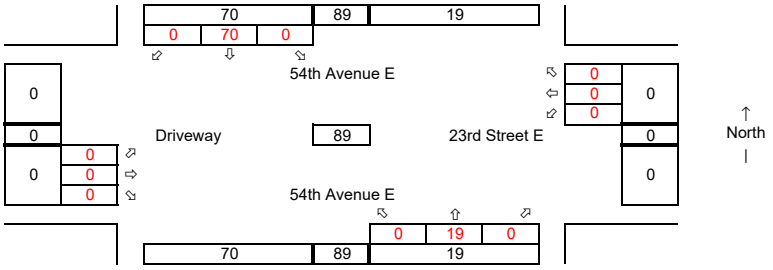
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



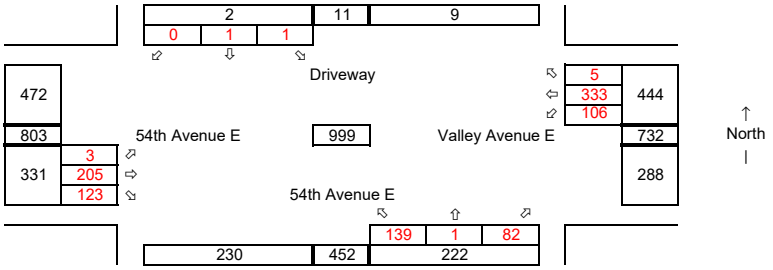
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 6
Existing
Average Weekday
AM Peak Hour

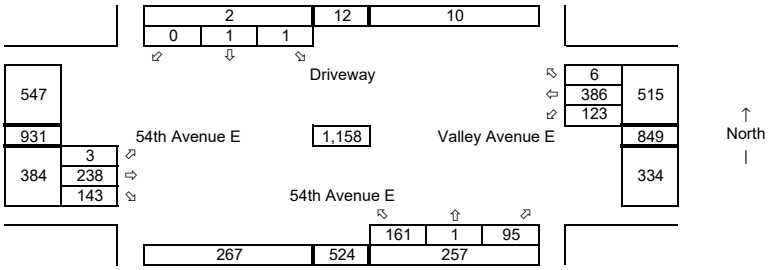
Year: **6/15/2023**

Data Source: IDAX

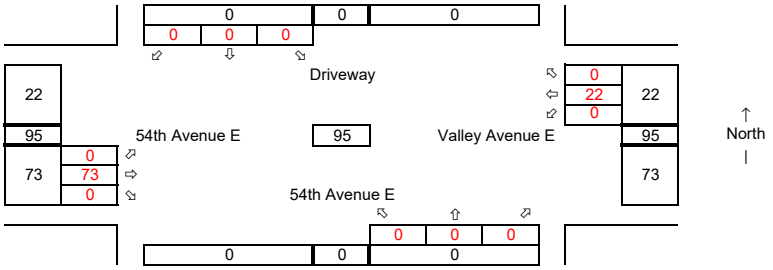


Future without Project
Average Weekday
AM Peak Hour

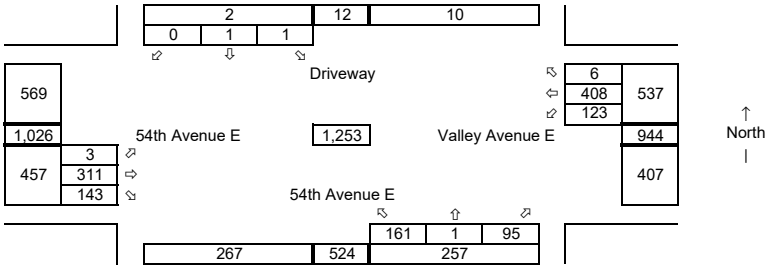
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



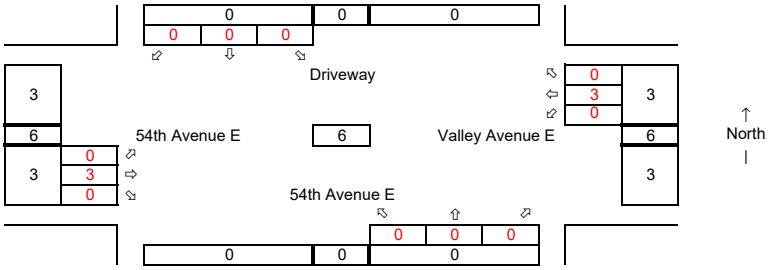
Total Development Trips
Average Weekday
AM Peak Hour



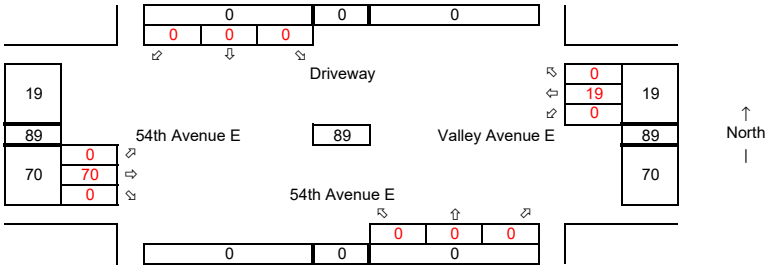
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



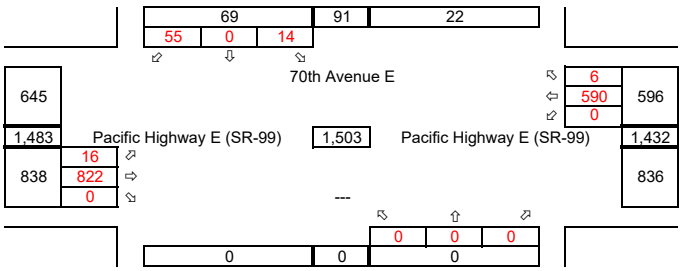
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 7
Existing
Average Weekday
AM Peak Hour

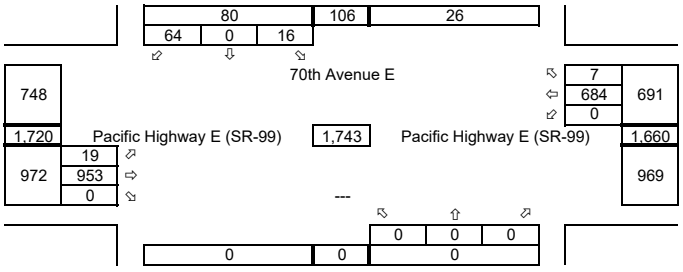
Year: **6/15/2023**

Data Source: IDAX

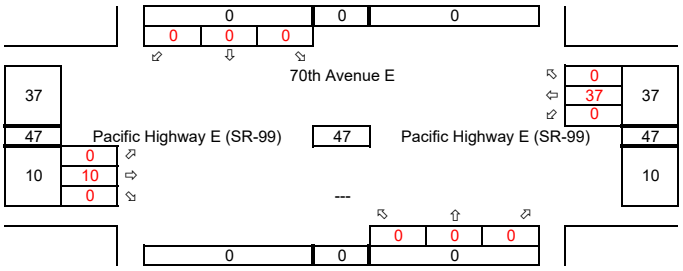


Future without Project
Average Weekday
AM Peak Hour

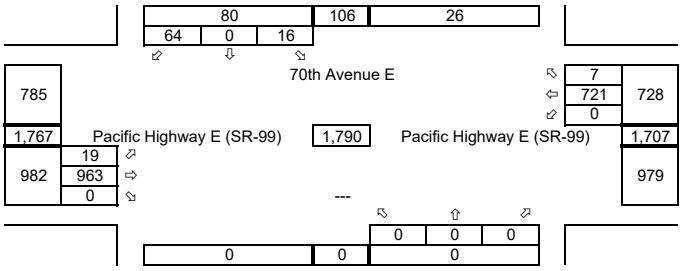
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



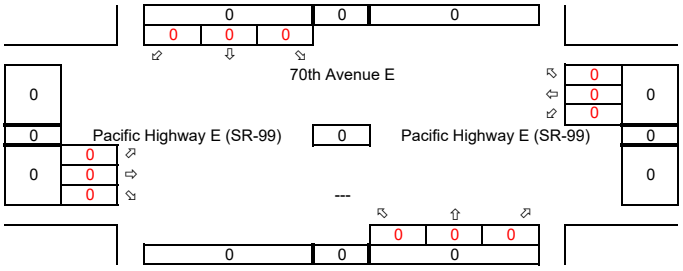
Total Development Trips
Average Weekday
AM Peak Hour



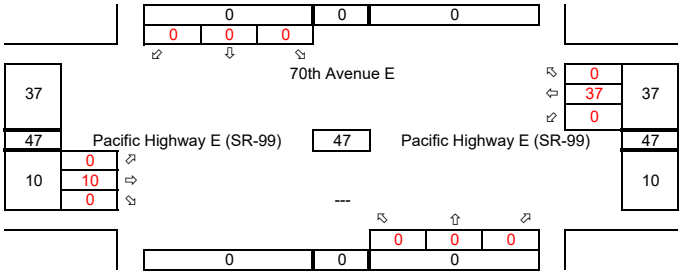
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



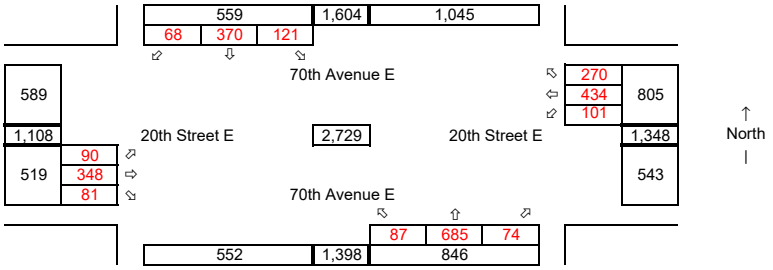
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 8
Existing
Average Weekday
AM Peak Hour

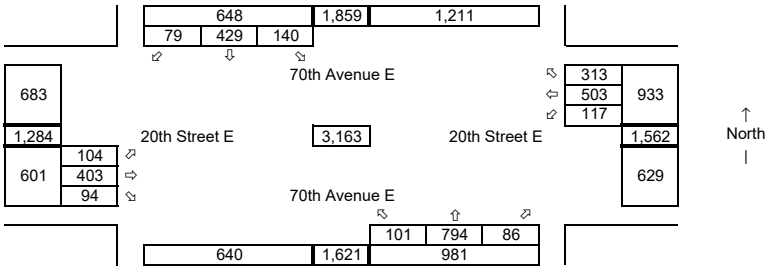
Year: **6/8/2023**

Data Source: IDAX

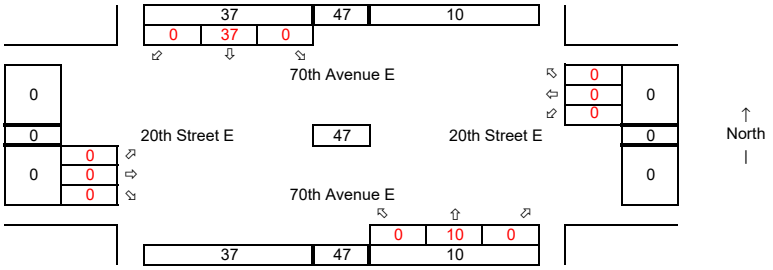


Future without Project
Average Weekday
AM Peak Hour

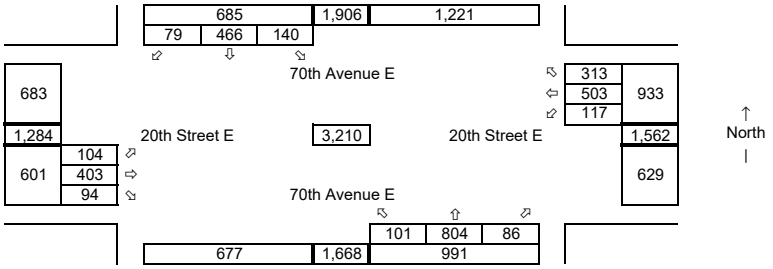
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



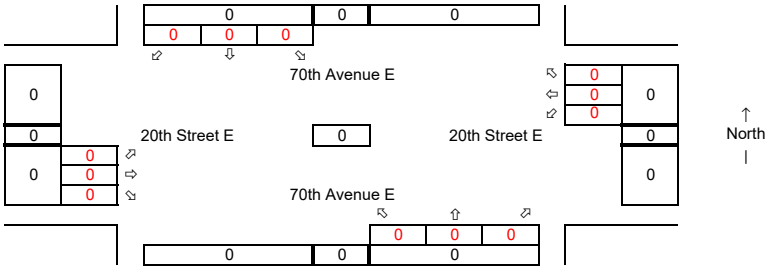
Total Development Trips
Average Weekday
AM Peak Hour



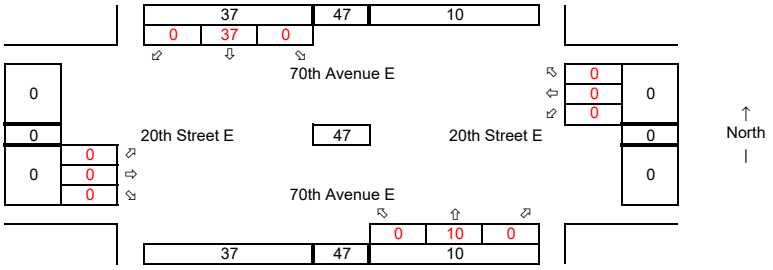
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



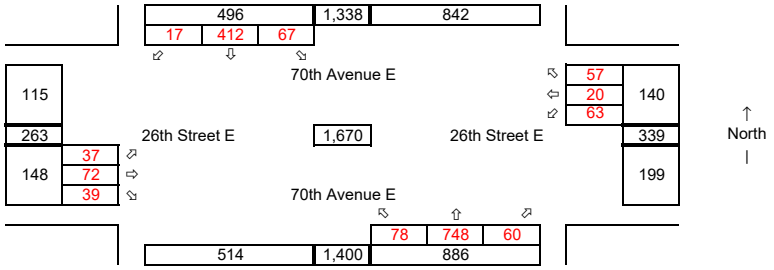
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 9
Existing
Average Weekday
AM Peak Hour

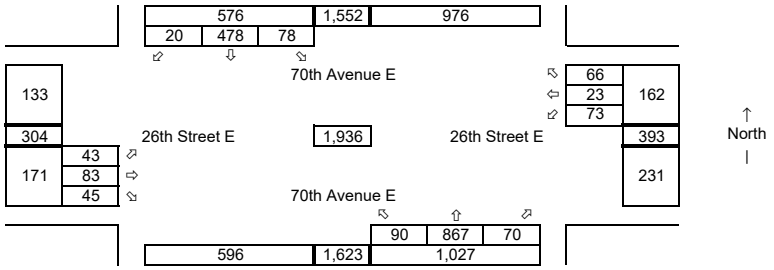
Year: **6/8/2023**

Data Source: IDAX

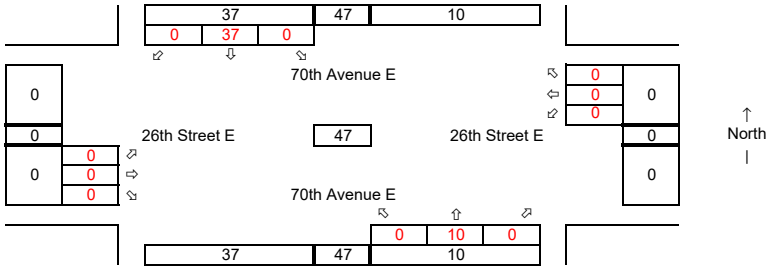


Future without Project
Average Weekday
AM Peak Hour

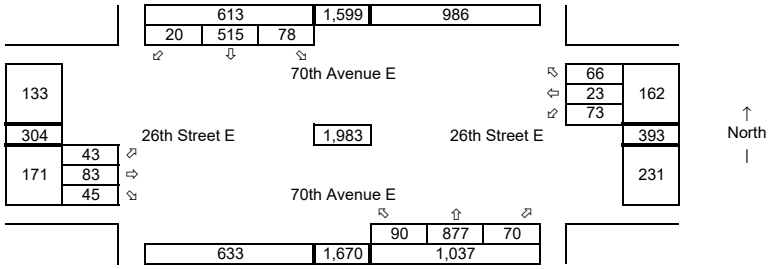
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



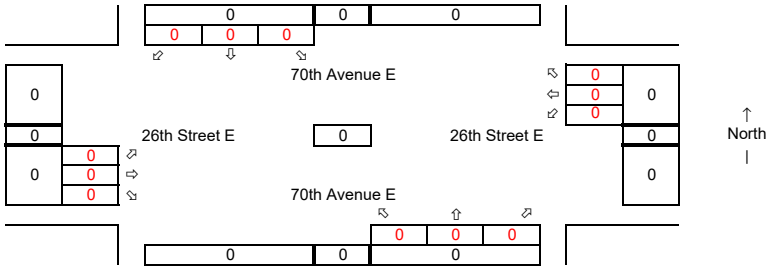
Total Development Trips
Average Weekday
AM Peak Hour



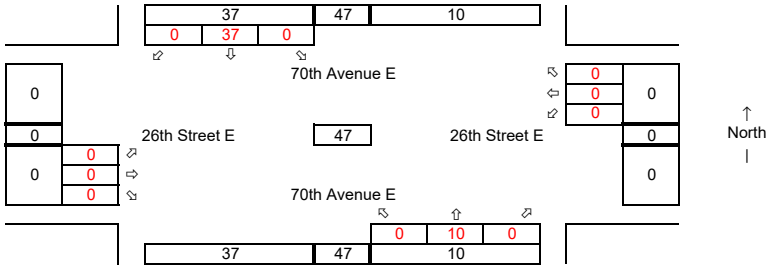
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



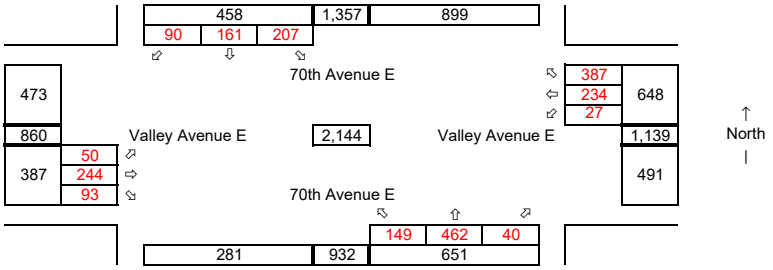
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 10
Existing
Average Weekday
AM Peak Hour

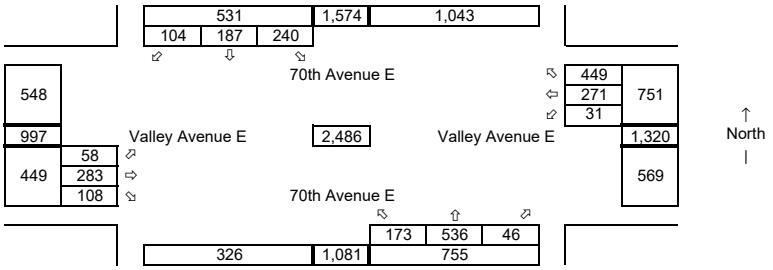
Year: **6/8/2023**

Data Source: IDAX

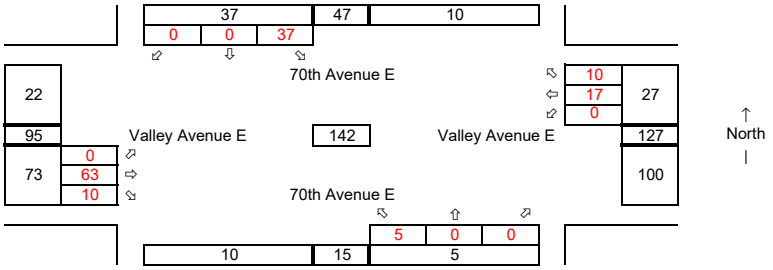


Future without Project
Average Weekday
AM Peak Hour

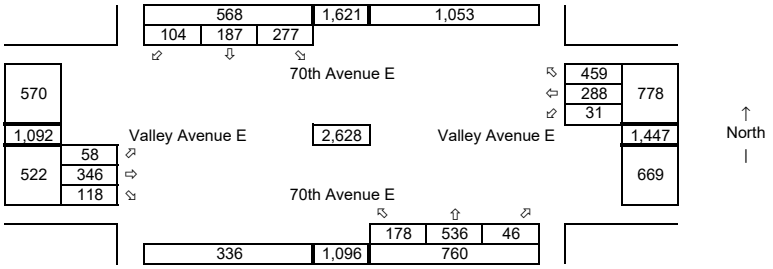
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



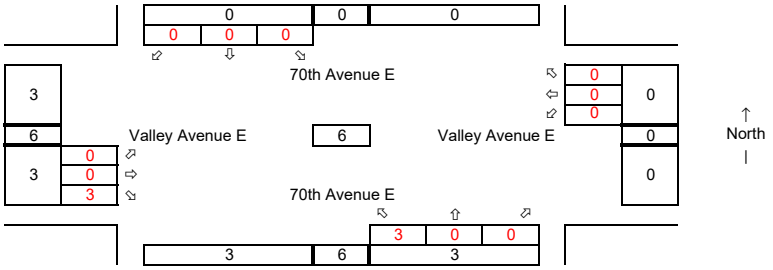
Total Development Trips
Average Weekday
AM Peak Hour



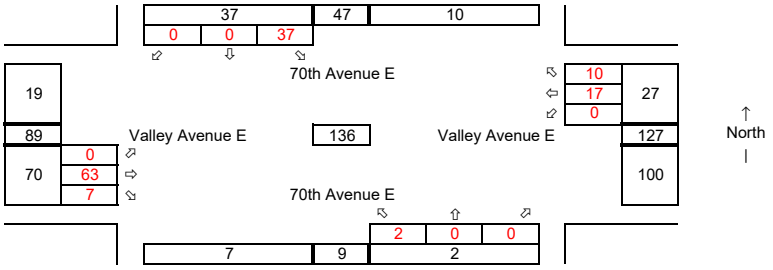
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



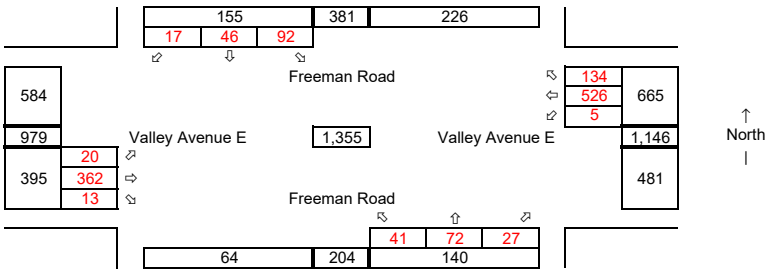
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 11
Existing
Average Weekday
AM Peak Hour

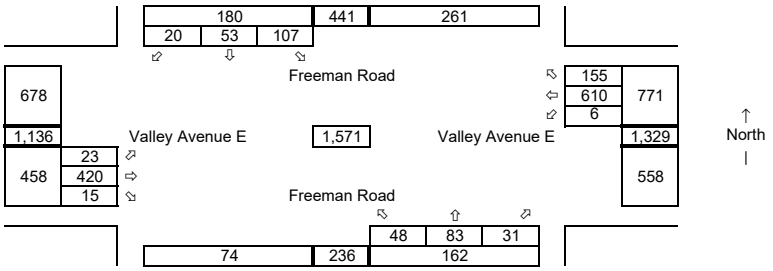
Year: **6/14/2023**

Data Source: IDAX

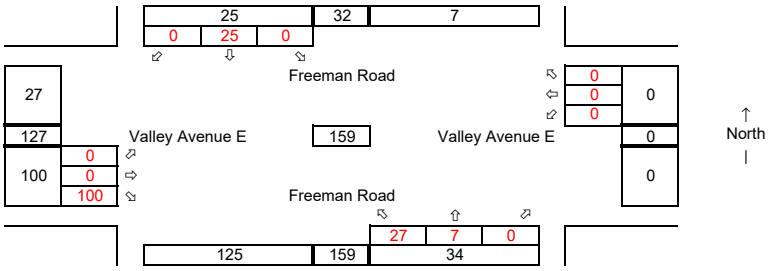


Future without Project
Average Weekday
AM Peak Hour

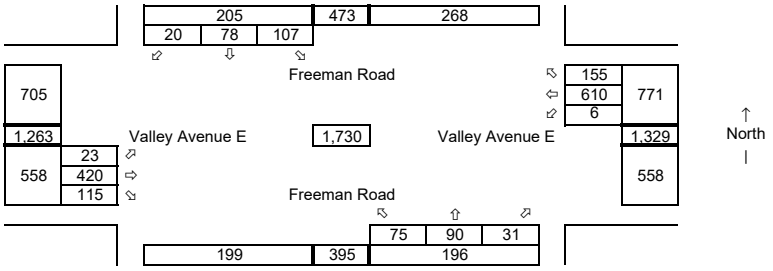
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



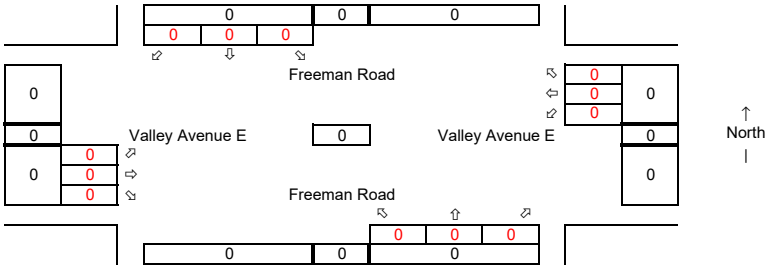
Total Development Trips
Average Weekday
AM Peak Hour



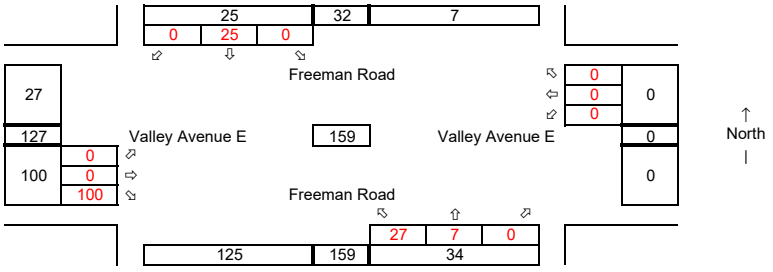
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



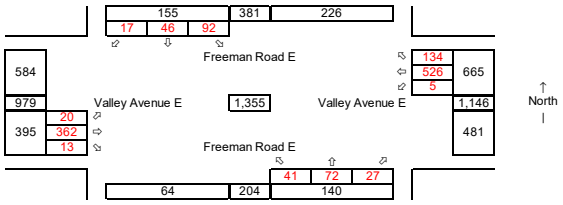
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 11
Existing
Average Weekday
AM Peak Hour

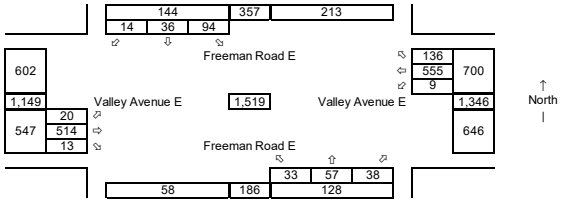
Year: **6/14/23**

Data Source: IDAX

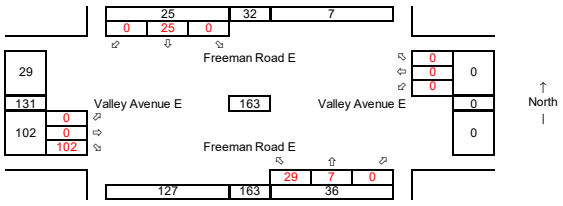


Future without Project
Average Weekday
AM Peak Hour

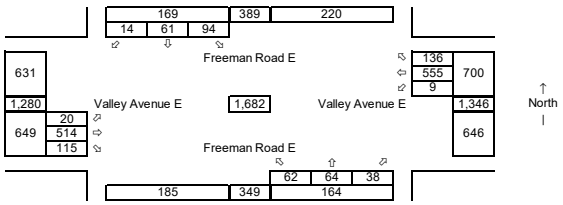
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



Total Development Trips
Average Weekday
AM Peak Hour

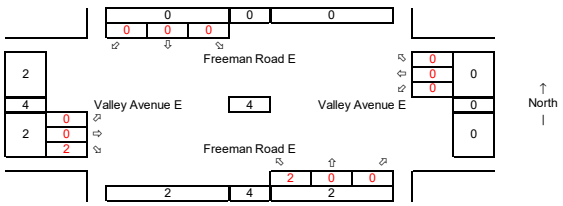


Future with Project
Average Weekday
AM Peak Hour

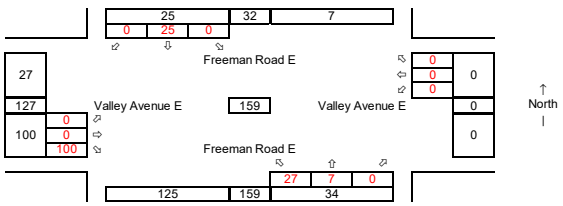


Development Truck Trips
Average Weekday
AM Peak Hour

N/S Diversion % +50%
from 70th Ave E

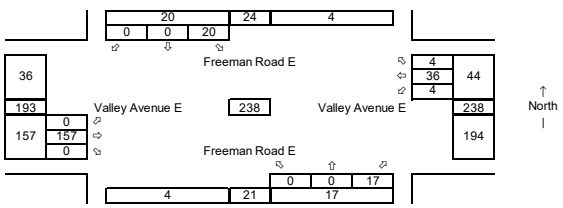


Development Car Trips
Average Weekday
AM Peak Hour



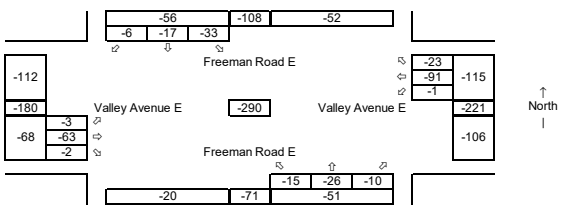
Total Pipeline Project Trips
Average Weekday
AM Peak Hour

Prologis Park Edgewood



SR-167 Extension Diversion
Average Weekday
AM Peak Hour

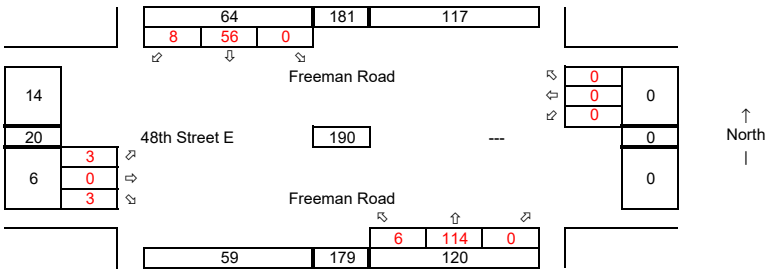
N/S Diversion % -31%
E/W Diversion % -15%



Synchro ID: 12
Existing
Average Weekday
AM Peak Hour

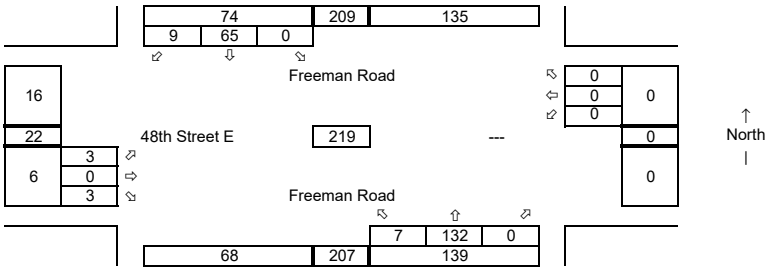
Year: **6/8/2023**

Data Source: IDAX

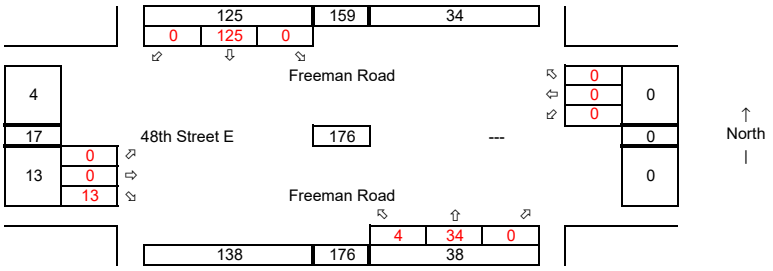


Future without Project
Average Weekday
AM Peak Hour

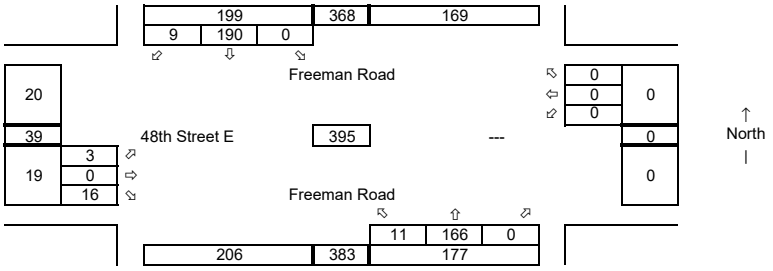
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



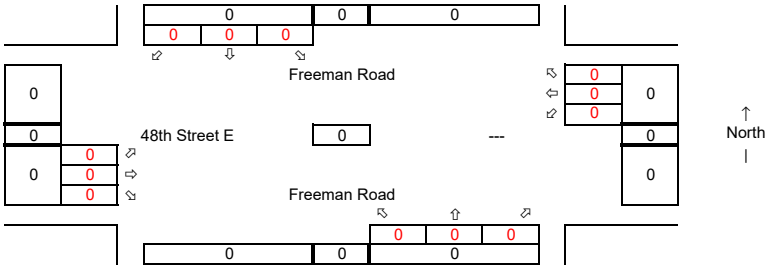
Total Development Trips
Average Weekday
AM Peak Hour



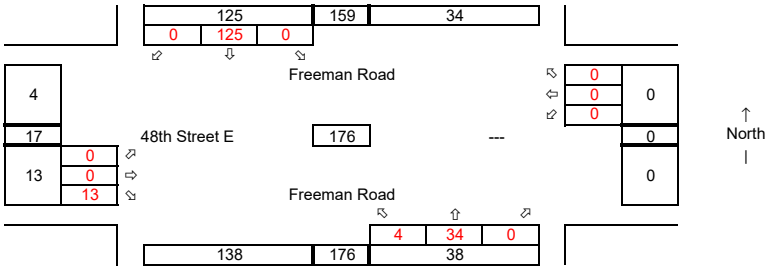
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



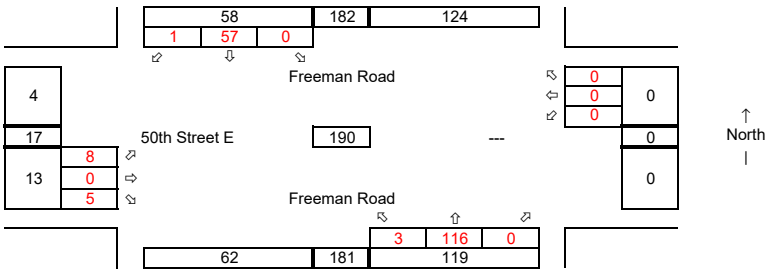
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 13
Existing
Average Weekday
AM Peak Hour

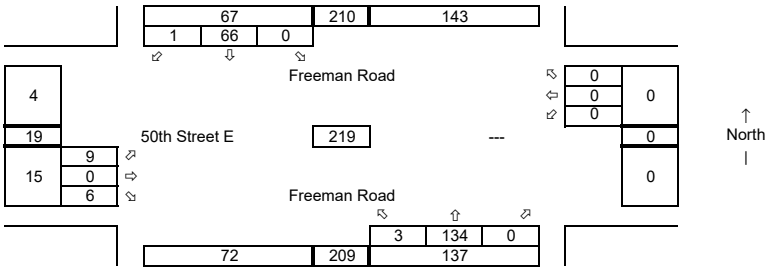
Year: **6/8/2023**

Data Source: IDAX

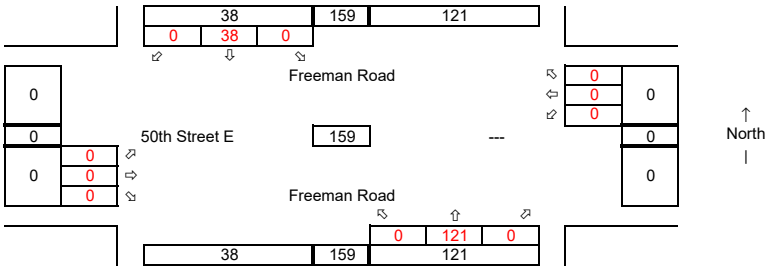


Future without Project
Average Weekday
AM Peak Hour

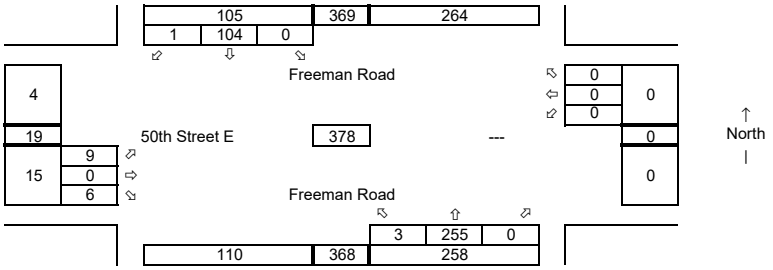
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



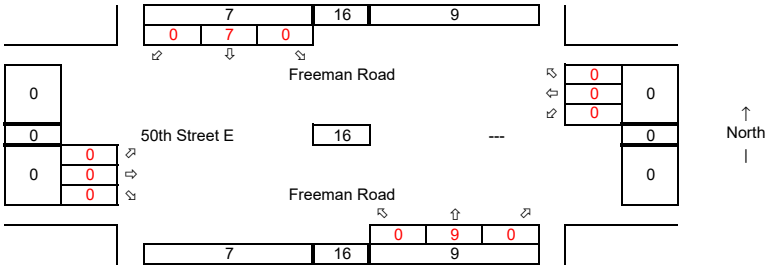
Total Development Trips
Average Weekday
AM Peak Hour



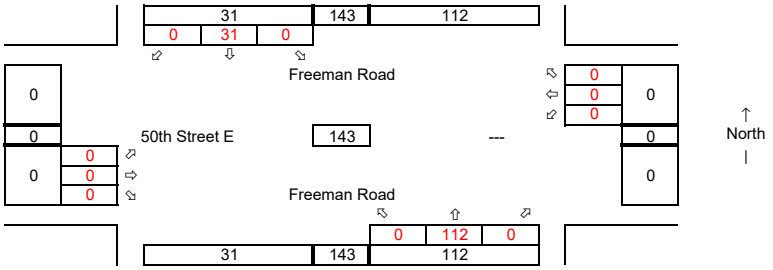
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour

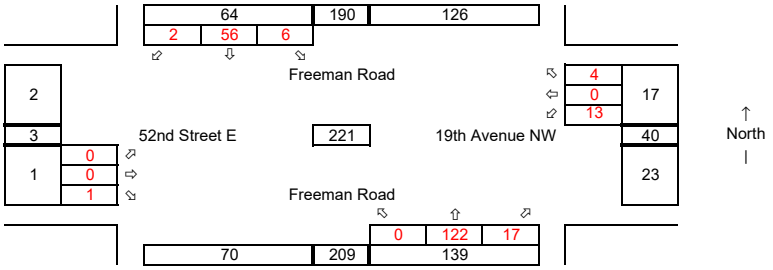


Synchro ID: 14
Existing
Average Weekday
AM Peak Hour

Year: **6/8/2023**

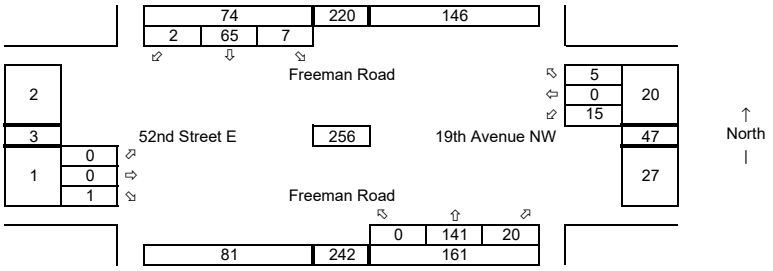
Data Source: IDAX

Two (2) Westbound U-turns added to Westbound Left-turns

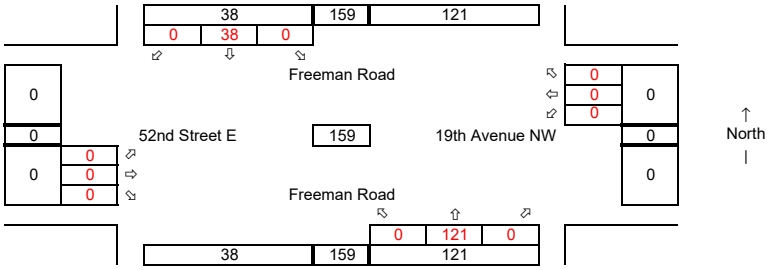


Future without Project
Average Weekday
AM Peak Hour

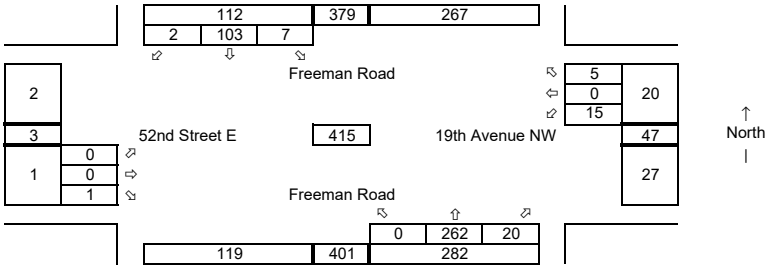
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



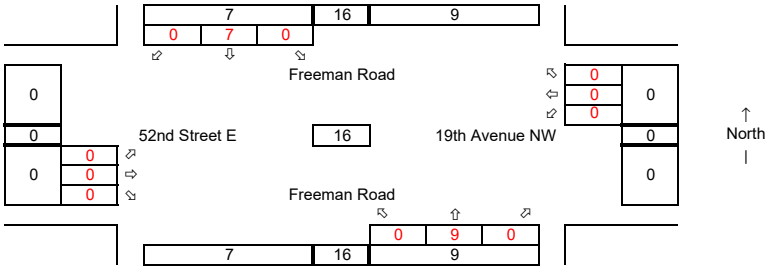
Total Development Trips
Average Weekday
AM Peak Hour



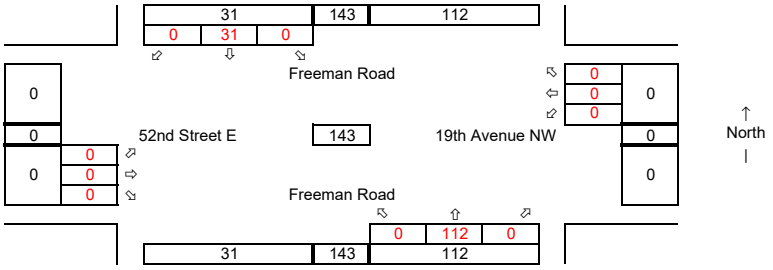
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour

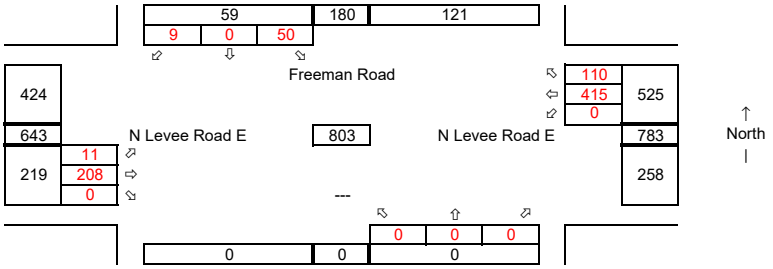


Synchro ID: 15
Existing
Average Weekday
AM Peak Hour

Year: **6/15/2023**

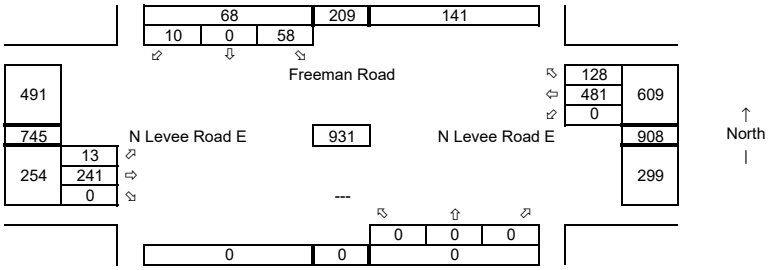
Data Source: IDAX

One (1) Westbound U-turn added to Southbound Left-turns

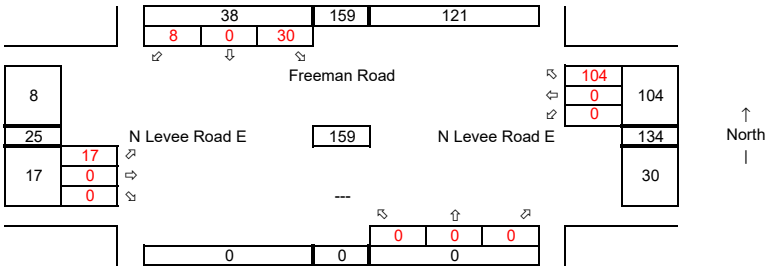


Future without Project
Average Weekday
AM Peak Hour

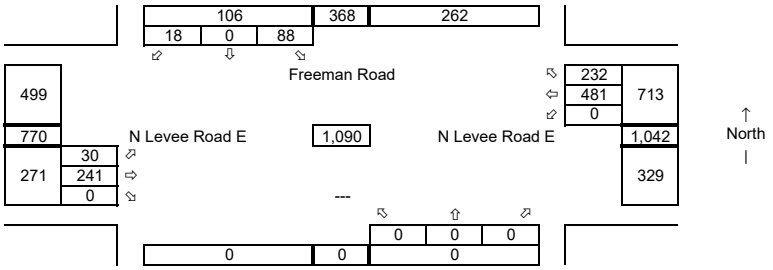
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



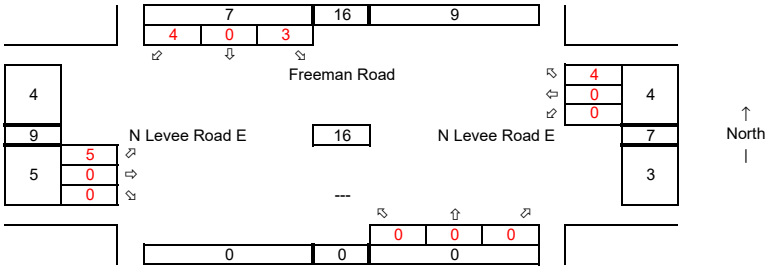
Total Development Trips
Average Weekday
AM Peak Hour



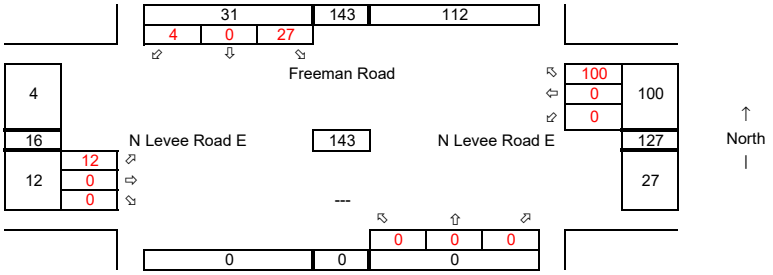
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour

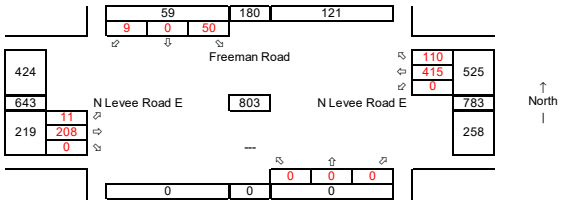


Synchro ID: 15
Existing
Average Weekday
AM Peak Hour

Year: **6/15/2023**

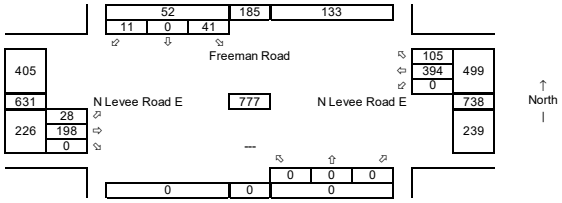
Data Source: IDAX

One (1) Westbound U-turn added to Southbound Left-turns

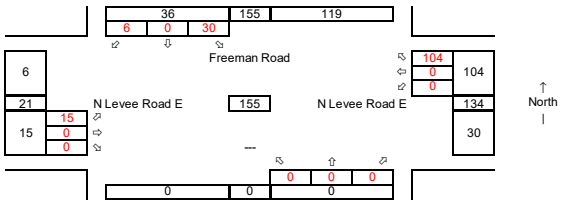


Future without Project
Average Weekday
AM Peak Hour

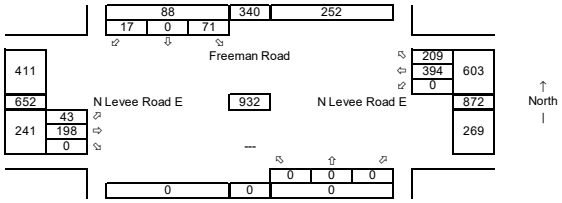
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



Total Development Trips
Average Weekday
AM Peak Hour

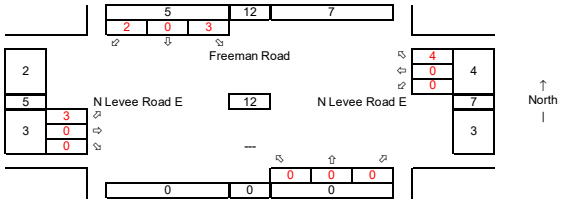


Future with Project
Average Weekday
AM Peak Hour

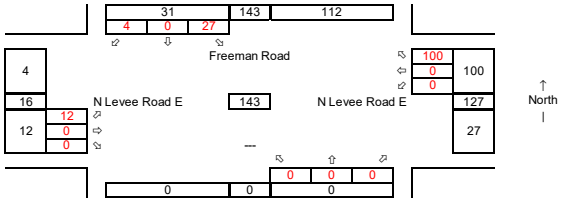


Development Truck Trips
Average Weekday
AM Peak Hour

N/S Diversion % -50%
from 70th Ave E

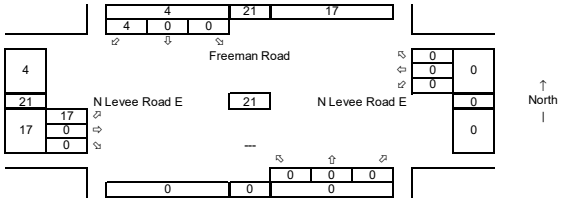


Development Car Trips
Average Weekday
AM Peak Hour



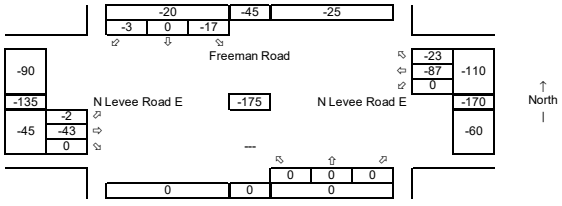
Total Pipeline Project Trips
Average Weekday
AM Peak Hour

Prologis Park Edgewood



SR-167 Extension Diversion
Average Weekday
AM Peak Hour

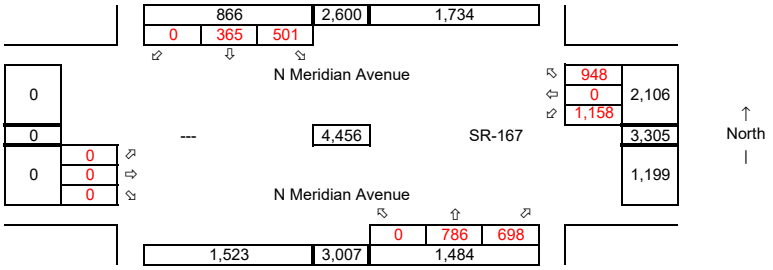
N/S Diversion % -29%
E/W Diversion % -18%



Synchro ID: 16
Existing
Average Weekday
AM Peak Hour

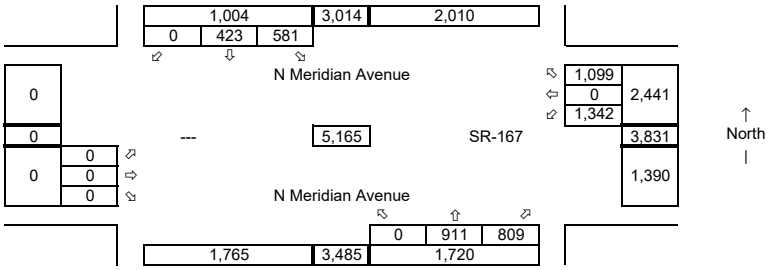
Year: **6/14/2023**

Data Source: IDAX

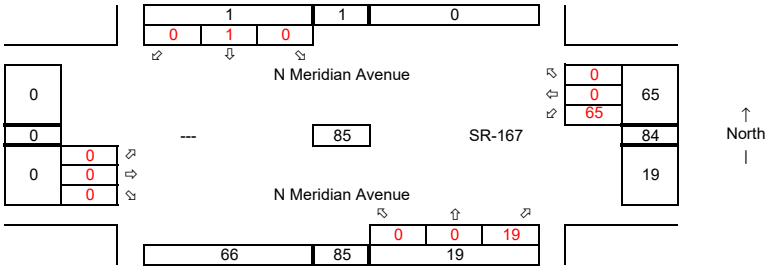


Future without Project
Average Weekday
AM Peak Hour

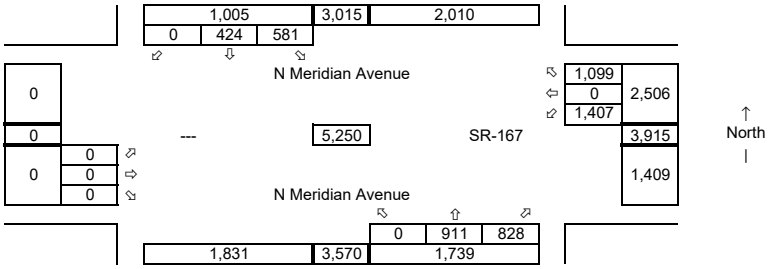
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



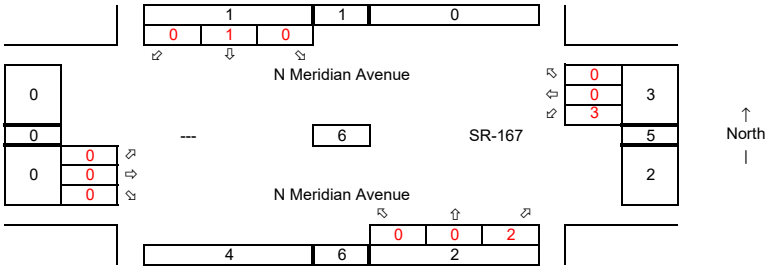
Total Development Trips
Average Weekday
AM Peak Hour



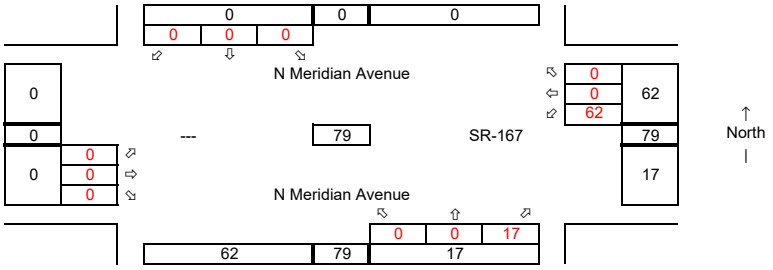
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



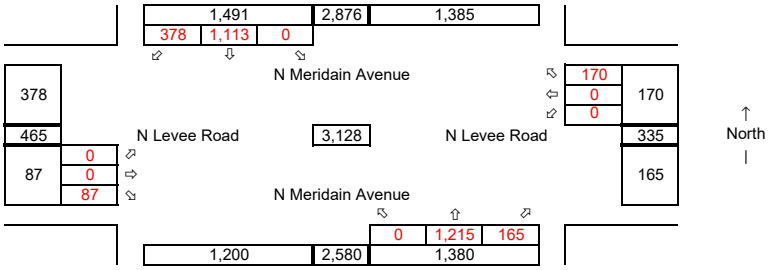
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 17
Existing
Average Weekday
AM Peak Hour

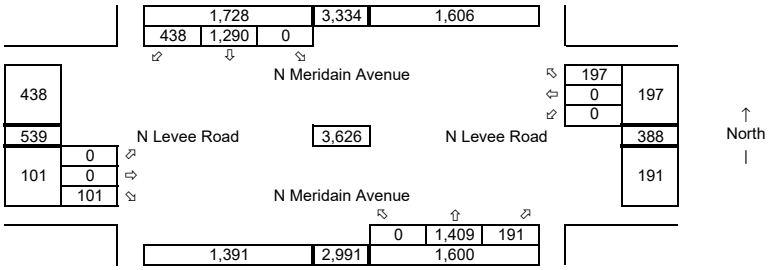
Year: **6/14/2023**

Data Source: IDAX

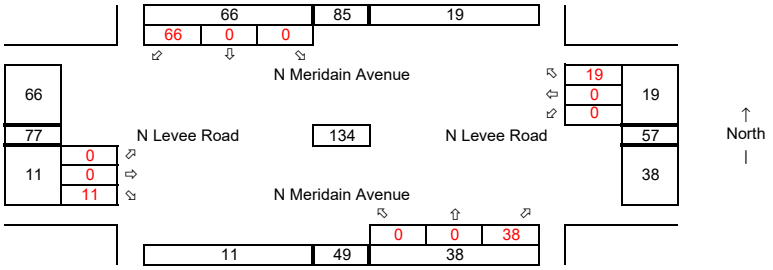


Future without Project
Average Weekday
AM Peak Hour

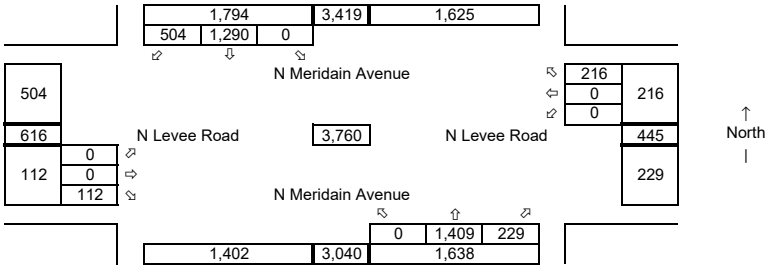
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



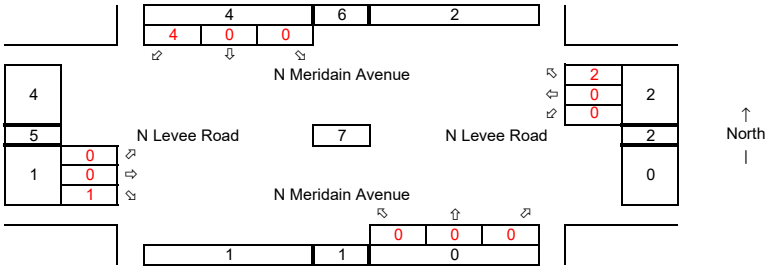
Total Development Trips
Average Weekday
AM Peak Hour



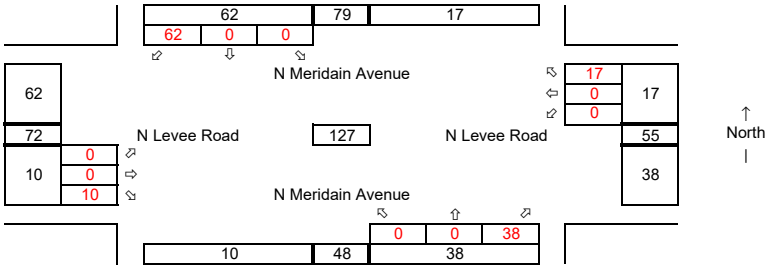
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



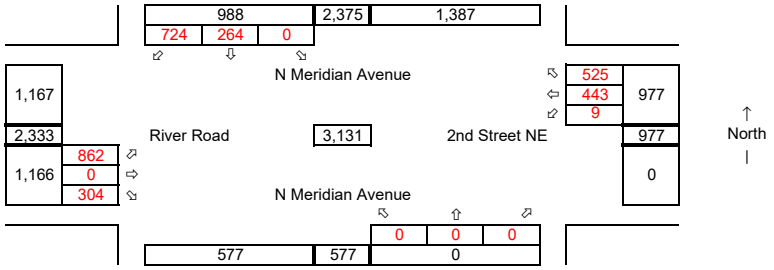
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 18
Existing
Average Weekday
AM Peak Hour

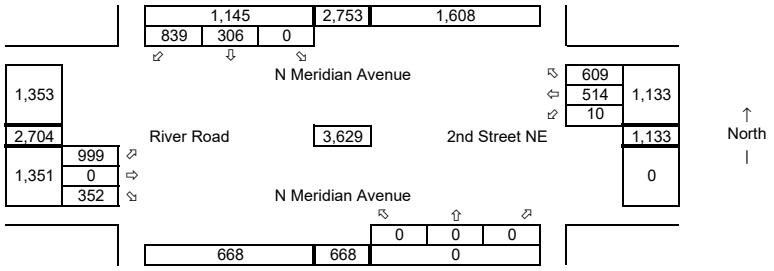
Year: **6/14/2023**

Data Source: IDAX

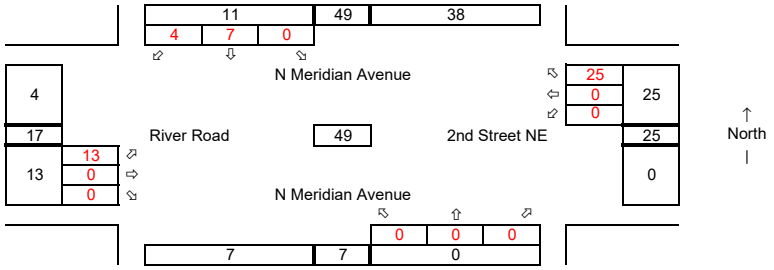


Future without Project
Average Weekday
AM Peak Hour

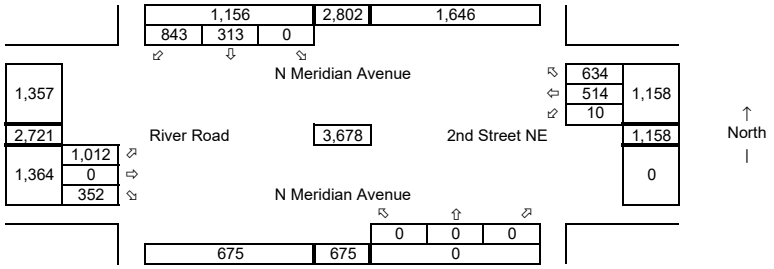
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



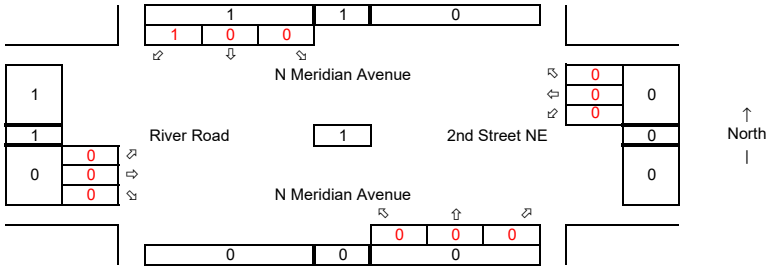
Total Development Trips
Average Weekday
AM Peak Hour



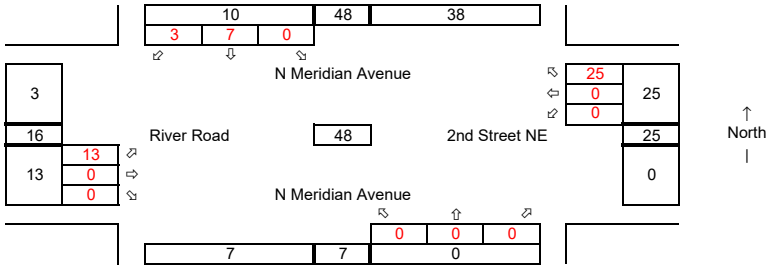
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



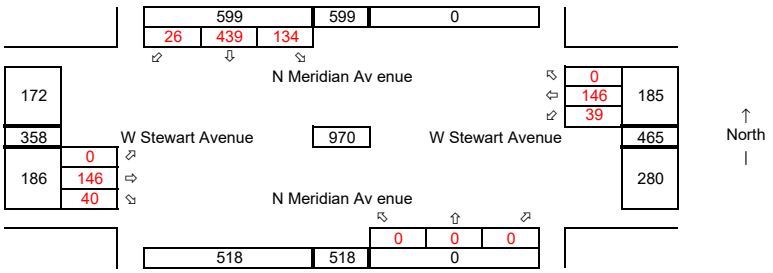
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 19
Existing
Average Weekday
AM Peak Hour

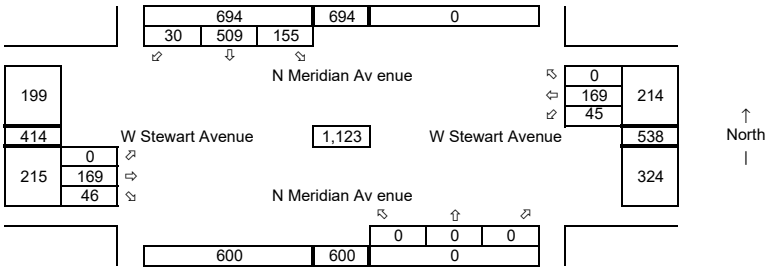
Year: **6/14/2023**

Data Source: IDAX

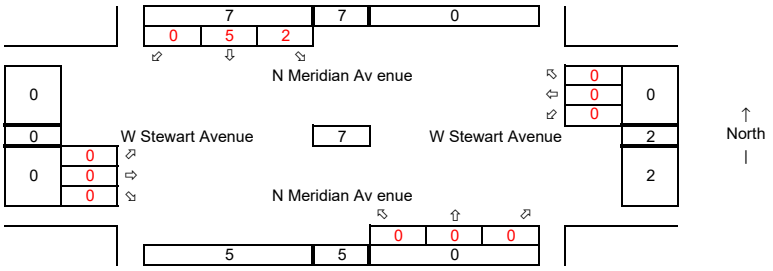


Future without Project
Average Weekday
AM Peak Hour

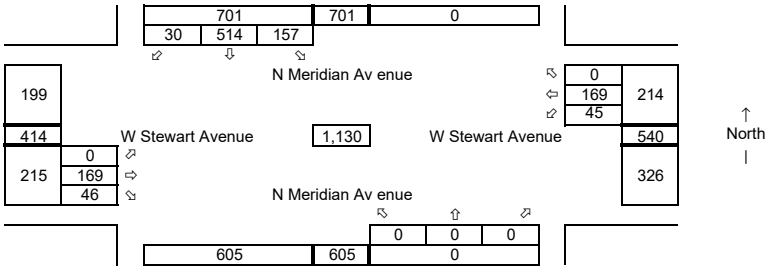
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



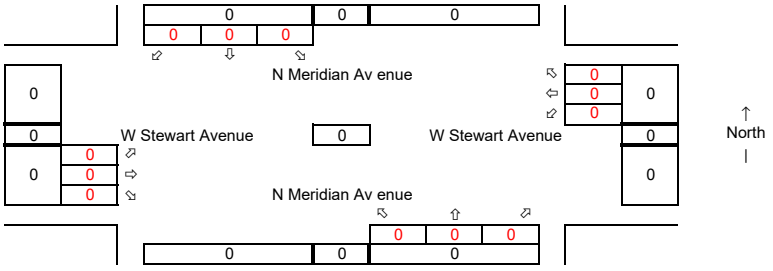
Total Development Trips
Average Weekday
AM Peak Hour



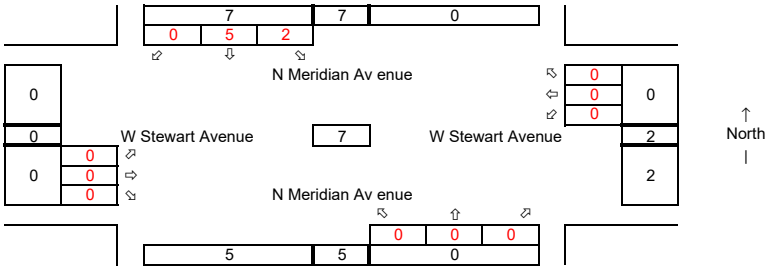
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



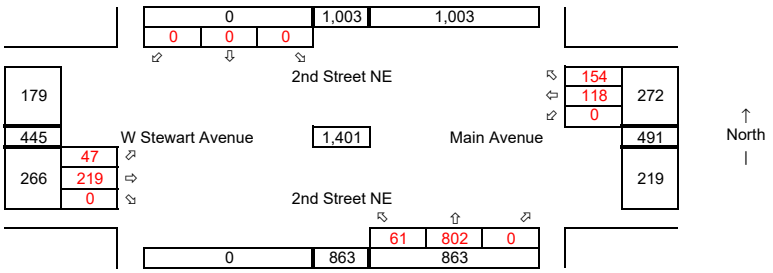
Development Car Trips
Average Weekday
AM Peak Hour



Synchro ID: 20
Existing
Average Weekday
AM Peak Hour

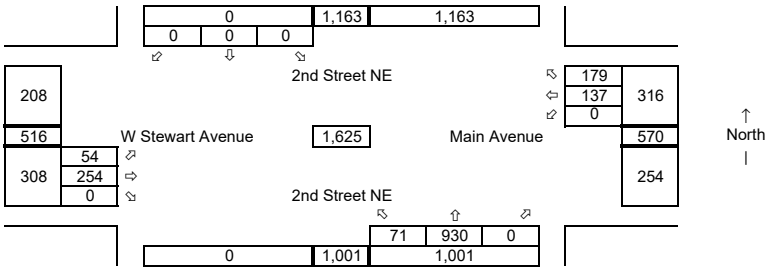
Year: **6/15/2023**

Data Source: IDAX

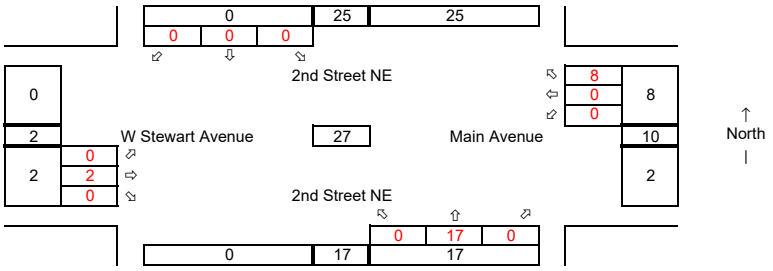


Future without Project
Average Weekday
AM Peak Hour

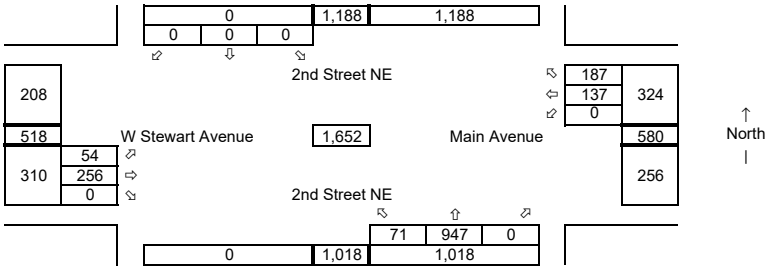
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



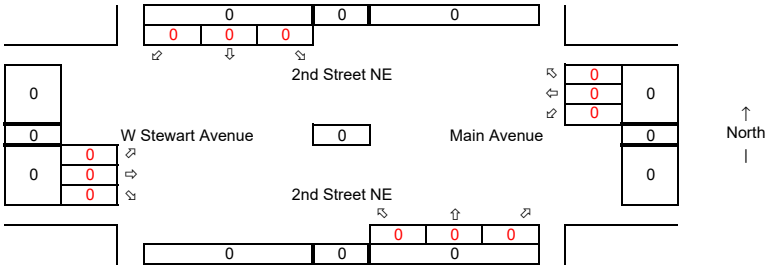
Total Development Trips
Average Weekday
AM Peak Hour



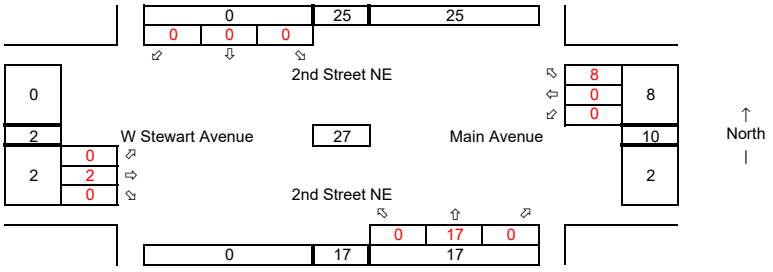
Future with Project
Average Weekday
AM Peak Hour



Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour

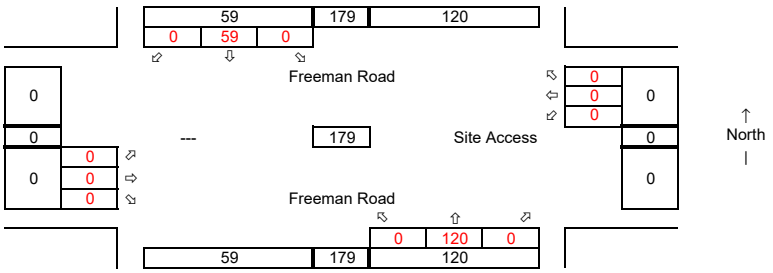


Synchro ID: 21
Existing
Average Weekday
AM Peak Hour

Year: **6/8/2023**

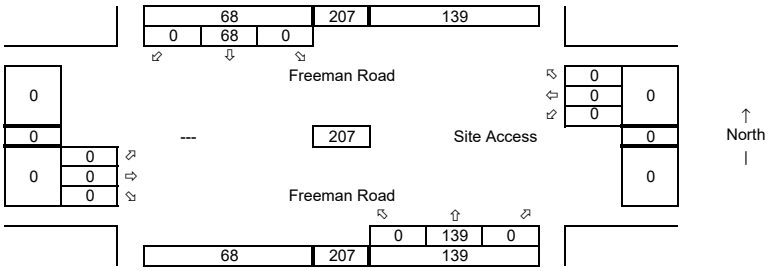
Data Source: IDAX

NB/SB volumes extrapolated
from Freeman at 48th Street E

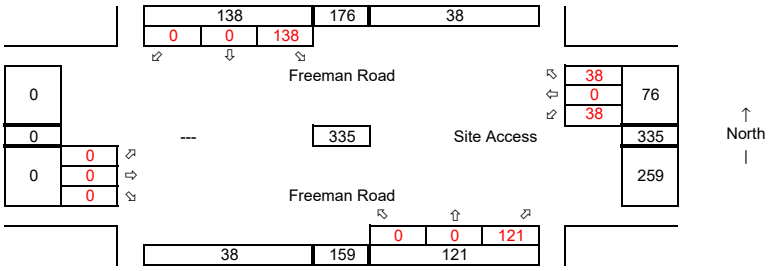


Future without Project
Average Weekday
AM Peak Hour

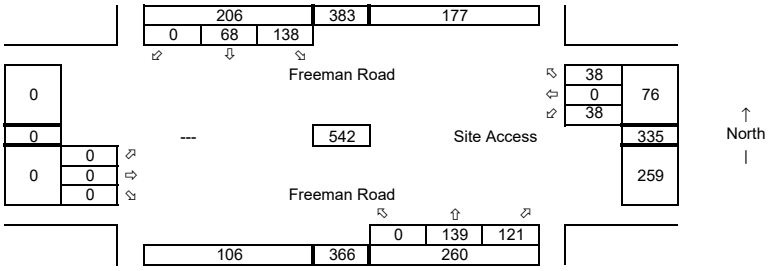
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



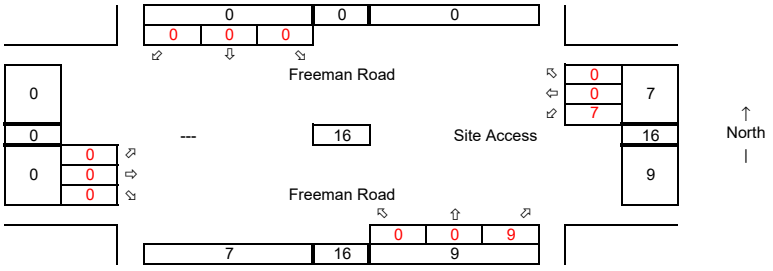
Total Development Trips
Average Weekday
AM Peak Hour



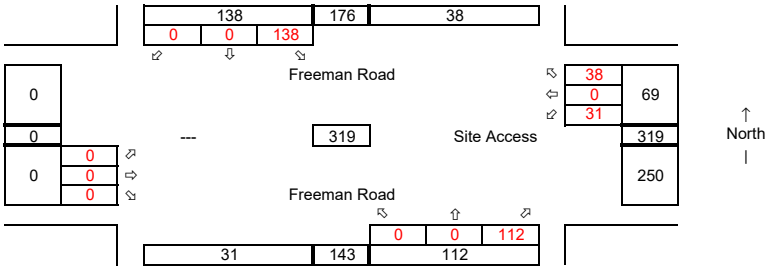
Future with Project
Average Weekday
AM Peak Hour

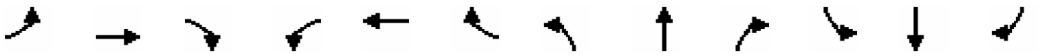


Development Truck Trips
Average Weekday
AM Peak Hour



Development Car Trips
Average Weekday
AM Peak Hour



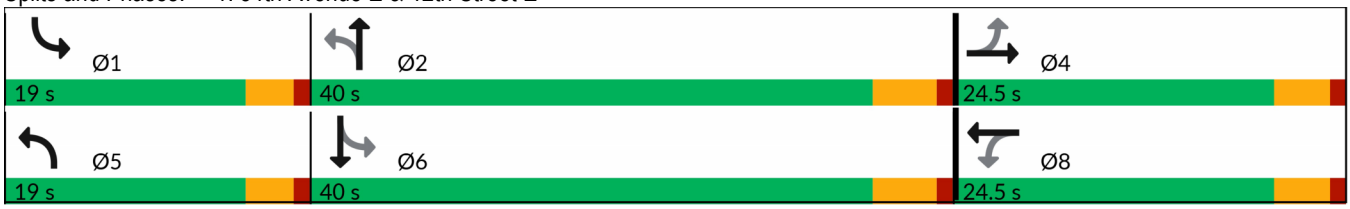


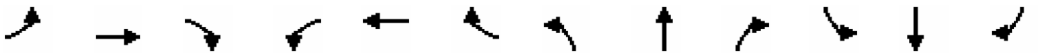
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	138	56	75	77	126	31	483	66	78	389	19
Future Volume (vph)	37	138	56	75	77	126	31	483	66	78	389	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		0	100		0	100		0
Storage Lanes	1		0	1		0	1		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	0.95	0.95	1.00	0.95	0.95
Frt		0.957			0.907			0.982			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1467	1478	0	1467	1401	0	1467	2882	0	1467	2914	0
Flt Permitted	0.451			0.473			0.485			0.356		
Satd. Flow (perm)	697	1478	0	731	1401	0	749	2882	0	550	2914	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			92			22			7	
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		727			778			1175			536	
Travel Time (s)		19.8			15.2			22.9			10.4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	221	0	85	231	0	35	624	0	89	464	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	24.5	24.5		24.5	24.5		10.5	19.0		10.5	17.0	
Total Split (s)	24.5	24.5		24.5	24.5		19.0	40.0		19.0	40.0	
Total Split (%)	29.3%	29.3%		29.3%	29.3%		22.8%	47.9%		22.8%	47.9%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		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		4.0	5.0		4.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Max		None	Max	
Act Effct Green (s)	14.5	14.5		14.5	14.5		41.7	35.8		44.8	40.7	
Actuated g/C Ratio	0.21	0.21		0.21	0.21		0.61	0.52		0.65	0.59	
v/c Ratio	0.29	0.67		0.55	0.63		0.07	0.41		0.20	0.27	
Control Delay (s/veh)	28.9	33.5		39.5	23.5		5.4	12.5		6.0	9.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	28.9	33.5		39.5	23.5		5.4	12.5		6.0	9.1	
LOS	C	C		D	C		A	B		A	A	
Approach Delay (s/veh)		32.7			27.8			12.1			8.6	
Approach LOS		C			C			B			A	
Queue Length 50th (ft)	15	79		33	53		4	83		12	36	
Queue Length 95th (ft)	42	147		76	120		15	142		30	98	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		647			698			1095			456	
Turn Bay Length (ft)	100			200			100			100		
Base Capacity (vph)	205	452		215	478		655	1510		567	1726	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.20	0.49		0.40	0.48		0.05	0.41		0.16	0.27	

Intersection Summary			
Area Type:	Other		
Cycle Length: 83.5			
Actuated Cycle Length: 68.8			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay (s/veh): 16.8		Intersection LOS: B	
Intersection Capacity Utilization 52.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: 54th Avenue E & 12th Street E





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	392	278	467	398	133	344	418	395	123	358	63
Future Volume (vph)	89	392	278	467	398	133	344	418	395	123	358	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	550		0	150		0	125		0
Storage Lanes	1		1	2		0	2		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.962			0.927			0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1517	3034	1357	2943	2918	0	2943	2812	0	1517	2964	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1517	3034	1357	2943	2918	0	2943	2812	0	1517	2964	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			113		32			162			14	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1085			1070			320			1175	
Travel Time (s)		21.1			20.8			6.2			22.9	
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 (%)	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	93	408	290	486	554	0	358	846	0	128	439	0
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		3	3	
Permitted Phases			6									
Detector Phase	1	6	4	5	2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	10.5	38.7	35.7	10.5	37.7		35.7	35.7		38.7	38.7	
Total Split (s)	18.0	40.0	40.0	20.0	42.0		40.0	40.0		40.0	40.0	
Total Split (%)	12.9%	28.6%	28.6%	14.3%	30.0%		28.6%	28.6%		28.6%	28.6%	
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		3.7	3.7		3.7	3.7	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7	4.7	4.5	4.7		4.7	4.7		4.7	4.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	C-Max	None	None		C-Max	C-Max		None	None	
Act Effct Green (s)	12.1	27.6	78.1	15.5	31.0		50.5	50.5		27.8	27.8	
Actuated g/C Ratio	0.09	0.20	0.56	0.11	0.22		0.36	0.36		0.20	0.20	
v/c Ratio	0.71	0.68	0.36	1.50	0.83		0.34	0.76		0.43	0.73	
Control Delay (s/veh)	89.8	57.5	7.0	279.7	59.7		43.9	45.8		52.4	58.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.7	18.9		0.0	0.0	
Total Delay (s/veh)	89.8	57.5	7.0	279.7	59.7		44.6	64.7		52.4	58.0	
LOS	F	E	A	F	E		D	E		D	E	
Approach Delay (s/veh)		42.8			162.5			58.7			56.7	
Approach LOS		D			F			E			E	
Queue Length 50th (ft)	83	181	45	~314	241		141	335		103	192	
Queue Length 95th (ft)	#157	225	97	#428	294		201	#505		158	238	

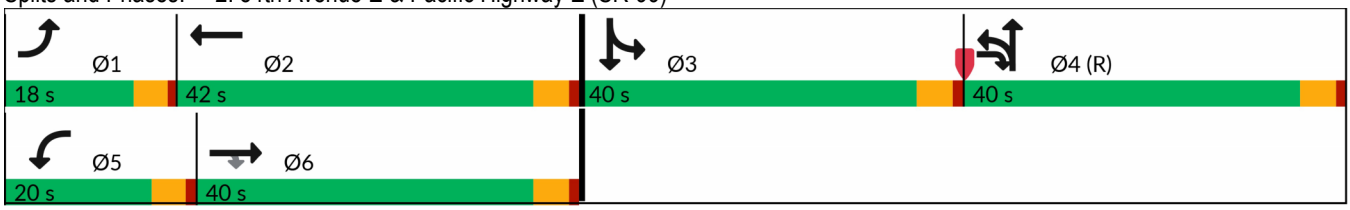
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1005			990			240			1095	
Turn Bay Length (ft)	225			550			150			125		
Base Capacity (vph)	146	765	807	325	800		1062	1118		382	757	
Starvation Cap Reductn	0	0	0	0	0		402	283		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.64	0.53	0.36	1.50	0.69		0.54	1.01		0.34	0.58	

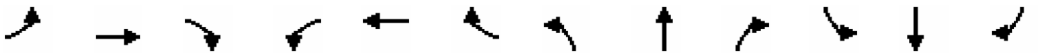
Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 30 (21%), Referenced to phase 4:NBTL, Start of Green			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.50			
Intersection Signal Delay (s/veh): 84.9		Intersection LOS: F	
Intersection Capacity Utilization 70.7%		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: 2: 54th Avenue E & Pacific Highway E (SR-99)



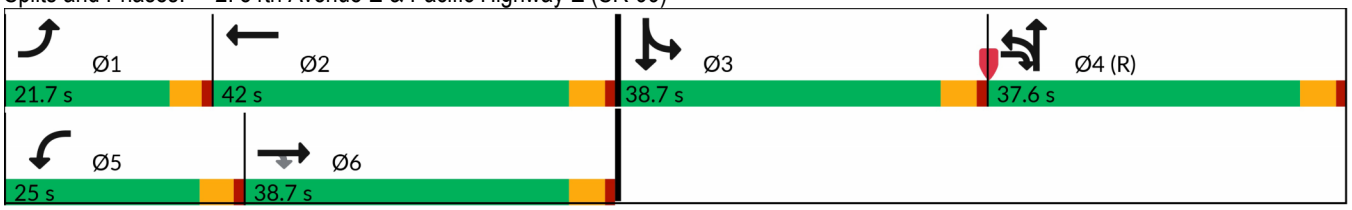


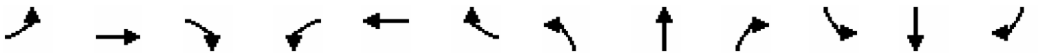
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	392	278	467	398	133	344	418	395	123	358	63
Future Volume (vph)	89	392	278	467	398	133	344	418	395	123	358	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	550		0	150		0	125		0
Storage Lanes	1		1	2		0	2		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.962			0.927			0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1517	3034	1357	2943	2918	0	2943	2812	0	1517	2964	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1517	3034	1357	2943	2918	0	2943	2812	0	1517	2964	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			99		32			159			14	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1085			1070			320			1175	
Travel Time (s)		21.1			20.8			6.2			22.9	
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 (%)	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	93	408	290	486	554	0	358	846	0	128	439	0
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		3	3	
Permitted Phases			6									
Detector Phase	1	6	4	5	2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	10.5	38.7	35.7	10.5	37.7		35.7	35.7		38.7	38.7	
Total Split (s)	21.7	38.7	37.6	25.0	42.0		37.6	37.6		38.7	38.7	
Total Split (%)	15.5%	27.6%	26.9%	17.9%	30.0%		26.9%	26.9%		27.6%	27.6%	
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		3.7	3.7		3.7	3.7	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7	4.7	4.5	4.7		4.7	4.7		4.7	4.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	C-Max	None	None		C-Max	C-Max		None	None	
Act Effct Green (s)	13.4	25.5	73.4	20.5	32.6		47.9	47.9		27.5	27.5	
Actuated g/C Ratio	0.10	0.18	0.52	0.15	0.23		0.34	0.34		0.20	0.20	
v/c Ratio	0.64	0.74	0.38	1.13	0.79		0.36	0.79		0.43	0.74	
Control Delay (s/veh)	80.3	62.0	8.4	136.6	56.1		44.9	47.4		52.9	58.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.9	34.1		0.0	0.0	
Total Delay (s/veh)	80.3	62.0	8.4	136.6	56.1		45.8	81.5		52.9	58.7	
LOS	F	E	A	F	E		D	F		D	E	
Approach Delay (s/veh)		44.5			93.7			70.9			57.4	
Approach LOS		D			F			E			E	
Queue Length 50th (ft)	83	188	49	~263	241		139	329		103	192	
Queue Length 95th (ft)	141	228	100	#377	294		205	#529		160	241	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1005			990			240			1095	
Turn Bay Length (ft)	225			550			150			125		
Base Capacity (vph)	186	736	758	430	800		1007	1067		368	730	
Starvation Cap Reductn	0	0	0	0	0		383	269		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.50	0.55	0.38	1.13	0.69		0.57	1.06		0.35	0.60	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 30 (21%), Referenced to phase 4:NBTL, Start of Green			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.13			
Intersection Signal Delay (s/veh): 69.6		Intersection LOS: E	
Intersection Capacity Utilization 70.7%		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: 2: 54th Avenue E & Pacific Highway E (SR-99)





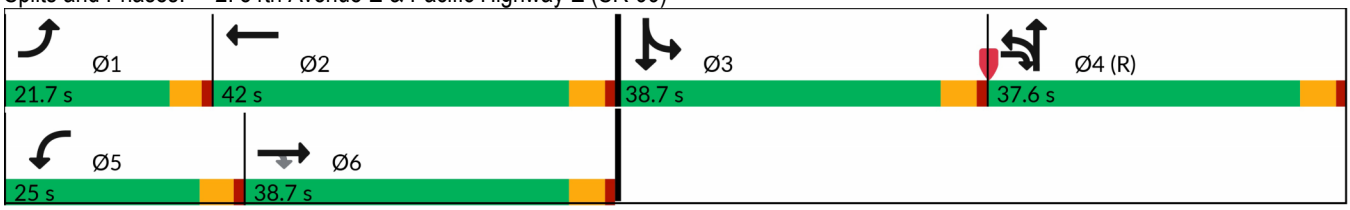
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	292	178	317	298	133	244	318	245	123	258	63
Future Volume (vph)	89	292	178	317	298	133	244	318	245	123	258	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	550		0	150		0	125		0
Storage Lanes	1		1	2		0	2		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.954			0.935			0.970	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1517	3034	1357	2943	2894	0	2943	2836	0	1517	2943	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1517	3034	1357	2943	2894	0	2943	2836	0	1517	2943	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			185		50			130			20	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1085			1070			320			1175	
Travel Time (s)		21.1			20.8			6.2			22.9	
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 (%)	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	93	304	185	330	449	0	254	586	0	128	335	0
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		3	3	
Permitted Phases			6									
Detector Phase	1	6	4	5	2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	10.5	38.7	35.7	10.5	37.7		35.7	35.7		38.7	38.7	
Total Split (s)	21.7	38.7	37.6	25.0	42.0		37.6	37.6		38.7	38.7	
Total Split (%)	15.5%	27.6%	26.9%	17.9%	30.0%		26.9%	26.9%		27.6%	27.6%	
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		3.7	3.7		3.7	3.7	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7	4.7	4.5	4.7		4.7	4.7		4.7	4.7	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	C-Max	None	None		C-Max	C-Max		None	None	
Act Effct Green (s)	13.4	20.4	80.1	19.2	26.2		59.7	59.7		22.1	22.1	
Actuated g/C Ratio	0.10	0.15	0.57	0.14	0.19		0.43	0.43		0.16	0.16	
v/c Ratio	0.64	0.69	0.22	0.82	0.77		0.20	0.46		0.54	0.70	
Control Delay (s/veh)	80.3	64.4	1.7	75.5	57.1		34.1	31.3		61.7	59.8	
Queue Delay	0.0	0.0	0.0	0.1	0.0		0.0	1.5		0.0	0.0	
Total Delay (s/veh)	80.3	64.4	1.7	75.6	57.1		34.1	32.8		61.7	59.8	
LOS	F	E	A	E	E		C	C		E	E	
Approach Delay (s/veh)		47.0			64.9			33.2			60.3	
Approach LOS		D			E			C			E	
Queue Length 50th (ft)	83	141	0	151	185		86	183		109	144	
Queue Length 95th (ft)	141	178	20	#208	235		140	264		169	188	

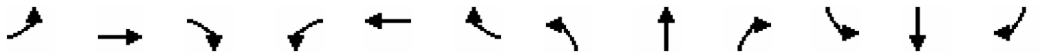
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1005			990			240			1095	
Turn Bay Length (ft)	225			550			150			125		
Base Capacity (vph)	186	736	855	430	807		1254	1283		368	729	
Starvation Cap Reductn	0	0	0	0	0		0	489		0	0	
Spillback Cap Reductn	0	0	0	2	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.50	0.41	0.22	0.77	0.56		0.20	0.74		0.35	0.46	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 30 (21%), Referenced to phase 4:NBTL, Start of Green			
Natural Cycle: 125			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay (s/veh): 50.2		Intersection LOS: D	
Intersection Capacity Utilization 56.5%		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: 2: 54th Avenue E & Pacific Highway E (SR-99)





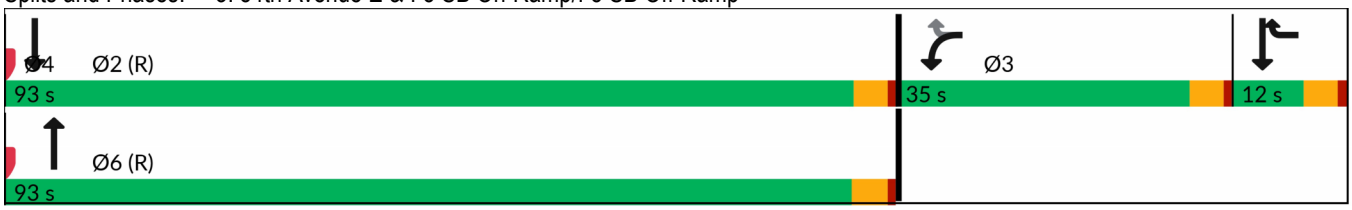
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	288	0	357	0	792	390	0	526	505
Future Volume (vph)	0	0	0	288	0	357	0	792	390	0	526	505
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		25	0		0
Storage Lanes	0		0	1		1	0		1	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	0.95	1.00	1.00	1.00	1.00
Frt						0.850			0.850			0.850
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	1543	0	1380	0	3085	1380	0	1624	1380
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1543	0	1380	0	3085	1380	0	1624	1380
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						193			83			272
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1083			1080			827			320	
Travel Time (s)		21.1			21.0			16.1			6.2	
Peak Hour 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
Heavy Vehicles (%)	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	303	0	376	0	834	411	0	554	532
Turn Type				Prot		custom		NA	Free		NA	Free
Protected Phases				3		4		6			2 4	
Permitted Phases						3			Free			Free
Detector Phase				3		4		6			2 4	
Switch Phase												
Minimum Initial (s)				5.0		3.0		10.0				
Minimum Split (s)				22.5		7.5		22.7				
Total Split (s)				35.0		12.0		93.0				
Total Split (%)				25.0%		8.6%		66.4%				
Yellow Time (s)				3.5		3.5		3.7				
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		4.7				
Lead/Lag				Lead		Lag						
Lead-Lag Optimize?				Yes		Yes						
Recall Mode				None		None		C-Max				
Act Effct Green (s)				29.4		42.5		88.3	140.0		101.6	140.0
Actuated g/C Ratio				0.21		0.30		0.63	1.00		0.73	1.00
v/c Ratio				0.94		0.68		0.43	0.30		0.47	0.39
Control Delay (s/veh)				89.8		27.1		13.9	0.6		4.6	2.4
Queue Delay				0.0		9.2		0.6	0.0		2.6	0.0
Total Delay (s/veh)				89.8		36.2		14.5	0.6		7.1	2.4
LOS				F		D		B	A		A	A
Approach Delay (s/veh)					60.2			9.9			4.8	
Approach LOS					E			A			A	
Queue Length 50th (ft)				271		149		191	0		59	78
Queue Length 95th (ft)				#444		273		235	0		m71	m74

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	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	22.5
Total Split (s)	93.0
Total Split (%)	66%
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	C-Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
LOS	
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1003			1000			747			240	
Turn Bay Length (ft)									25			
Base Capacity (vph)				336		553		1945	1380		1177	1380
Starvation Cap Reductn				0		0		0	0		483	0
Spillback Cap Reductn				0		143		669	0		0	0
Storage Cap Reductn				0		0		0	0		0	0
Reduced v/c Ratio				0.90		0.92		0.65	0.30		0.80	0.39

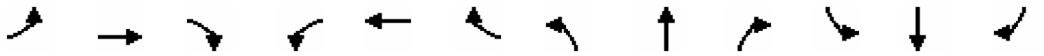
Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 75 (54%), Referenced to phase 2:SBT and 6:NBT, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay (s/veh): 19.4		Intersection LOS: B	
Intersection Capacity Utilization 51.7%		ICU Level of Service A	
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: 3: 54th Avenue E & I-5 SB On-Ramp/I-5 SB Off-Ramp



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

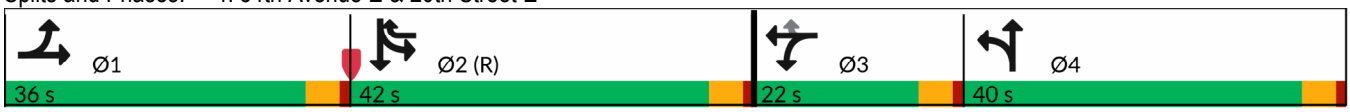


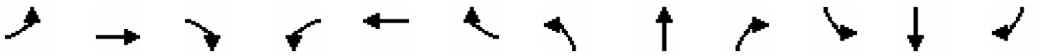
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	319	235	83	38	115	406	147	436	41	466	420	310
Future Volume (vph)	319	235	83	38	115	406	147	436	41	466	420	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	275		0	200		0	175		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.95
Frt		0.971				0.850		0.987			0.941	
Flt Protected	0.950	0.987			0.988		0.950			0.950	0.996	
Satd. Flow (prot)	1356	2736	0	0	1550	1333	1490	2942	0	1356	2676	0
Flt Permitted	0.950	0.987			0.988		0.950			0.950	0.996	
Satd. Flow (perm)	1356	2736	0	0	1550	1333	1490	2942	0	1356	2676	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18				110		7			88	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		738			676			783			335	
Travel Time (s)		14.4			13.2			17.8			7.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Shared Lane Traffic (%)	34%									13%		
Lane Group Flow (vph)	234	473	0	0	170	451	163	530	0	451	878	0
Turn Type	Split	NA		Split	NA	pm+ov	Split	NA		Split	NA	
Protected Phases	1	1		3	3	2	4	4		2	2	
Permitted Phases						3						
Detector Phase	1	1		3	3	2	4	4		2	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	21.5	21.5		10.5	10.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	36.0	36.0		22.0	22.0	42.0	40.0	40.0		42.0	42.0	
Total Split (%)	25.7%	25.7%		15.7%	15.7%	30.0%	28.6%	28.6%		30.0%	30.0%	
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	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	Lead	Lag	Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	C-Max	None	None		C-Max	C-Max	
Act Effct Green (s)	28.2	28.2			16.9	68.7	29.6	29.6		47.4	47.4	
Actuated g/C Ratio	0.20	0.20			0.12	0.49	0.21	0.21		0.34	0.34	
v/c Ratio	0.86	0.84			0.91	0.64	0.52	0.84		0.98	0.91	
Control Delay (s/veh)	81.5	65.1			107.0	26.2	54.1	64.9		84.6	54.9	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	81.5	65.1			107.0	26.2	54.1	64.9		84.6	54.9	
LOS	F	E			F	C	D	E		F	D	
Approach Delay (s/veh)		70.5			48.3			62.4			65.0	
Approach LOS		E			D			E			E	
Queue Length 50th (ft)	225	218			154	235	132	242		~489	398	
Queue Length 95th (ft)	#360	284			#291	401	198	296		#796	#615	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		658			596			703			255	
Turn Bay Length (ft)	300						200			175		
Base Capacity (vph)	309	638			193	710	377	751		458	963	
Starvation Cap Reductn	0	0			0	0	0	0		0	0	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.76	0.74			0.88	0.64	0.43	0.71		0.98	0.91	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 48 (34%), Referenced to phase 2:SBTL, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.98			
Intersection Signal Delay (s/veh): 62.5		Intersection LOS: E	
Intersection Capacity Utilization 78.5%		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.			

Splits and Phases: 4: 54th Avenue E & 20th Street E



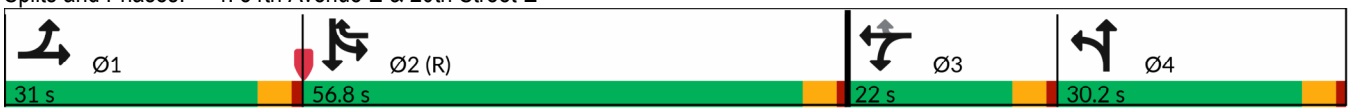


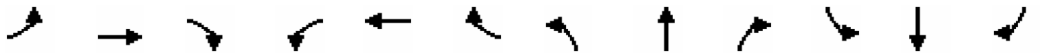
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	319	235	83	38	115	406	147	436	41	466	420	310
Future Volume (vph)	319	235	83	38	115	406	147	436	41	466	420	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	275		0	200		0	175		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.95
Frt		0.971				0.850		0.987			0.941	
Flt Protected	0.950	0.987			0.988		0.950			0.950	0.996	
Satd. Flow (prot)	1356	2736	0	0	1550	1333	1490	2942	0	1356	2676	0
Flt Permitted	0.950	0.987			0.988		0.950			0.950	0.996	
Satd. Flow (perm)	1356	2736	0	0	1550	1333	1490	2942	0	1356	2676	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17				61		6			102	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		738			676			783			335	
Travel Time (s)		14.4			13.2			17.8			7.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Shared Lane Traffic (%)	34%									13%		
Lane Group Flow (vph)	234	473	0	0	170	451	163	530	0	451	878	0
Turn Type	Split	NA		Split	NA	pm+ov	Split	NA		Split	NA	
Protected Phases	1	1		3	3	2	4	4		2	2	
Permitted Phases						3						
Detector Phase	1	1		3	3	2	4	4		2	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	21.5	21.5		10.5	10.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	31.0	31.0		22.0	22.0	56.8	30.2	30.2		56.8	56.8	
Total Split (%)	22.1%	22.1%		15.7%	15.7%	40.6%	21.6%	21.6%		40.6%	40.6%	
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	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	Lead	Lag	Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	C-Max	None	None		C-Max	C-Max	
Act Effct Green (s)	25.6	25.6			16.9	75.0	25.9	25.9		53.7	53.7	
Actuated g/C Ratio	0.18	0.18			0.12	0.54	0.19	0.19		0.38	0.38	
v/c Ratio	0.94	0.92			0.91	0.61	0.59	0.97		0.87	0.81	
Control Delay (s/veh)	100.7	78.1			107.0	23.4	62.3	87.0		58.8	41.1	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	100.7	78.1			107.0	23.4	62.3	87.0		58.8	41.1	
LOS	F	E			F	C	E	F		E	D	
Approach Delay (s/veh)		85.6			46.3			81.2			47.1	
Approach LOS		F			D			F			D	
Queue Length 50th (ft)	231	225			154	241	138	253		421	356	
Queue Length 95th (ft)	#410	#329			#291	358	217	#374		#647	453	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		658			596			703			255	
Turn Bay Length (ft)	300						200			175		
Base Capacity (vph)	256	531			193	742	275	547		519	1088	
Starvation Cap Reductn	0	0			0	0	0	0		0	0	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.91	0.89			0.88	0.61	0.59	0.97		0.87	0.81	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 48 (34%), Referenced to phase 2:SBTL, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay (s/veh): 62.1		Intersection LOS: E	
Intersection Capacity Utilization 78.5%		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: 4: 54th Avenue E & 20th Street E



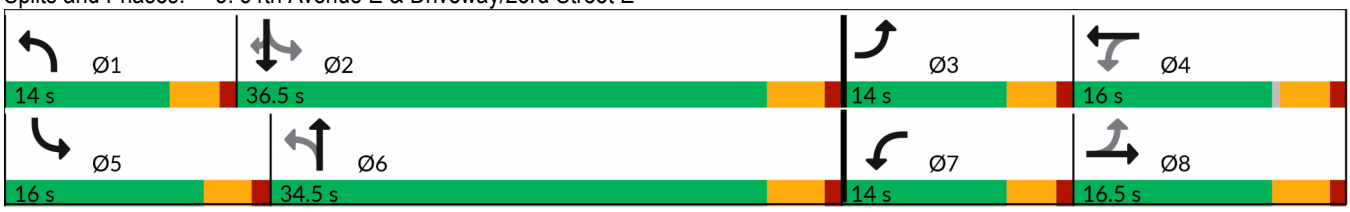


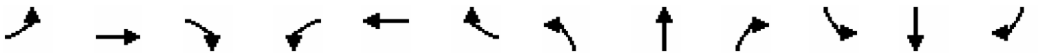
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	50	0	107	0	502	60	97	534	1
Future Volume (vph)	0	0	0	50	0	107	0	502	60	97	534	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	0		0	100		0
Storage Lanes	0		0	1		0	1		0	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	1.00	1.00	1.00	1.00	1.00
Frt					0.850			0.984				0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	1792	0	1703	1524	0	1792	1764	0	1703	1792	1524
Flt Permitted				0.714						0.232		
Satd. Flow (perm)	0	1792	0	1280	1524	0	1792	1764	0	416	1792	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					516			8				128
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		362			838			554			783	
Travel Time (s)		9.9			22.9			12.6			17.8	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	59	126	0	0	662	0	114	628	1
Turn Type				pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6			2		2
Detector Phase	3	8		7	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	6.0
Minimum Split (s)	9.5	24.5		22.5	24.0		9.5	22.5		9.5	22.5	22.5
Total Split (s)	14.0	16.5		14.0	16.0		14.0	34.5		16.0	36.5	36.5
Total Split (%)	17.3%	20.4%		17.3%	19.8%		17.3%	42.6%		19.8%	45.1%	45.1%
Yellow Time (s)	3.0	3.5		3.0	3.0		3.0	3.5		3.0	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		0.0	0.0	0.0
Total Lost Time (s)		4.5		4.0	4.0		4.0	4.5		4.0	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max		None	Max	Max
Act Effct Green (s)				7.4	7.3			34.9		44.1	44.6	44.6
Actuated g/C Ratio				0.13	0.13			0.61		0.77	0.78	0.78
v/c Ratio				0.27	0.20			0.61		0.23	0.45	0.00
Control Delay (s/veh)				26.3	0.7			14.4		3.6	4.6	0.0
Queue Delay				0.0	0.0			0.0		0.0	0.0	0.0
Total Delay (s/veh)				26.3	0.7			14.4		3.6	4.6	0.0
LOS				C	A			B		A	A	A
Approach Delay (s/veh)					8.9			14.4			4.4	
Approach LOS					A			B			A	
Queue Length 50th (ft)				19	0			156		8	66	0
Queue Length 95th (ft)				46	0			289		20	125	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		282			758			474			703	
Turn Bay Length (ft)				100						100		
Base Capacity (vph)				298	736			1077		590	1393	1213
Starvation Cap Reductn				0	0			0		0	0	0
Spillback Cap Reductn				0	0			0		0	0	0
Storage Cap Reductn				0	0			0		0	0	0
Reduced v/c Ratio				0.20	0.17			0.61		0.19	0.45	0.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 81			
Actuated Cycle Length: 57.3			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay (s/veh): 9.1		Intersection LOS: A	
Intersection Capacity Utilization 52.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 5: 54th Avenue E & Driveway/23rd Street E



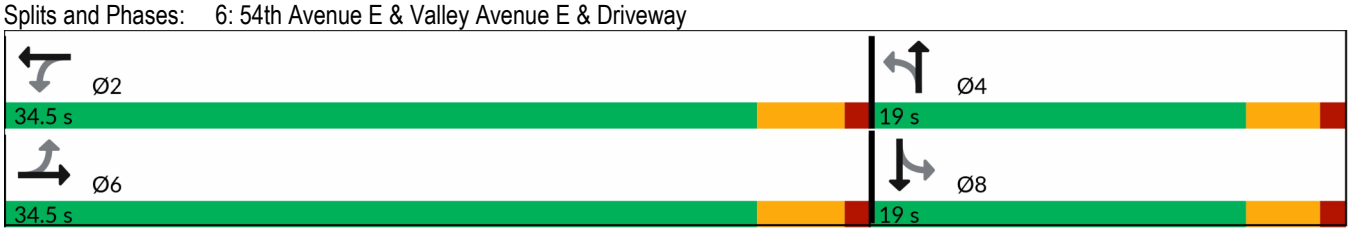


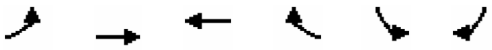
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	311	143	123	408	6	161	1	95	1	1	0
Future Volume (vph)	3	311	143	123	408	6	161	1	95	1	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	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		0.953			0.998			0.950				
Flt Protected	0.950			0.950				0.970			0.976	
Satd. Flow (prot)	1671	1677	0	1671	1756	0	0	1621	0	0	1717	0
Flt Permitted	0.356			0.315				0.808			0.888	
Satd. Flow (perm)	626	1677	0	554	1756	0	0	1350	0	0	1562	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		71			2			55				
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		554			491			578			252	
Travel Time (s)		12.6			11.2			15.8			6.9	
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	4	631	0	171	575	0	0	357	0	0	2	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	30.5	30.5		22.5	22.5		32.0	32.0		32.0	32.0	
Total Split (s)	34.5	34.5		34.5	34.5		19.0	19.0		19.0	19.0	
Total Split (%)	64.5%	64.5%		64.5%	64.5%		35.5%	35.5%		35.5%	35.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		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			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		Max	Max		None	None		None	None	
Act Effct Green (s)	30.2	30.2		30.2	30.2			14.3			14.3	
Actuated g/C Ratio	0.57	0.57		0.57	0.57			0.27			0.27	
v/c Ratio	0.01	0.64		0.54	0.57			0.89			0.00	
Control Delay (s/veh)	5.3	10.7		15.6	10.4			42.8			14.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	5.3	10.7		15.6	10.4			42.8			14.0	
LOS	A	B		B	B			D			B	
Approach Delay (s/veh)		10.7			11.6			42.8			14.0	
Approach LOS		B			B			D			B	
Queue Length 50th (ft)	1	104		30	104			90			1	
Queue Length 95th (ft)	3	126		55	124			#146			3	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		474			411			498			172	
Turn Bay Length (ft)	150			125								
Base Capacity (vph)	357	987		315	1002			422			442	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.01	0.64		0.54	0.57			0.85			0.00	

Intersection Summary			
Area Type:	Other		
Cycle Length: 53.5			
Actuated Cycle Length: 53			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay (s/veh): 17.6		Intersection LOS: B	
Intersection Capacity Utilization 63.0%		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: 6: 54th Avenue E & Valley Avenue E & Driveway



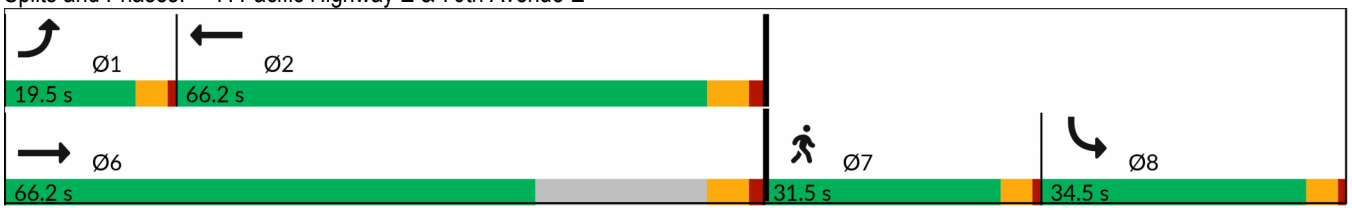


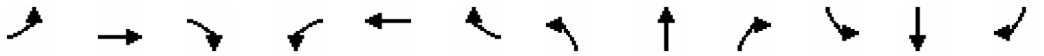
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø7
Lane Configurations							
Traffic Volume (vph)	19	963	721	7	16	64	
Future Volume (vph)	19	963	721	7	16	64	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00	
Frt			0.999		0.892		
Flt Protected	0.950				0.990		
Satd. Flow (prot)	1517	3034	3031	0	1410	0	
Flt Permitted	0.950				0.990		
Satd. Flow (perm)	1517	3034	3031	0	1410	0	
Right Turn on Red				Yes		Yes	
Satd. Flow (RTOR)			1		67		
Link Speed (mph)		30	30		30		
Link Distance (ft)		439	500		370		
Travel Time (s)		10.0	11.4		8.4		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Heavy Vehicles (%)	19%	19%	19%	19%	19%	19%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	20	1003	758	0	84	0	
Turn Type	Prot	NA	NA		Prot		
Protected Phases	1	6	2		8		7
Permitted Phases							
Detector Phase	1	6	2		8		
Switch Phase							
Minimum Initial (s)	6.0	10.0	10.0		5.0		5.0
Minimum Split (s)	10.5	23.7	33.7		22.5		31.5
Total Split (s)	19.5	66.2	66.2		34.5		31.5
Total Split (%)	12.9%	43.6%	43.6%		22.7%		21%
Yellow Time (s)	3.5	4.7	4.7		3.5		3.5
All-Red Time (s)	1.0	1.5	1.5		1.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		
Total Lost Time (s)	4.5	6.2	6.2		4.5		
Lead/Lag	Lead		Lag		Lag		Lead
Lead-Lag Optimize?	Yes		Yes		Yes		Yes
Recall Mode	None	Max	None		Max		None
Act Effct Green (s)	7.0	60.0	55.0		30.0		
Actuated g/C Ratio	0.07	0.60	0.55		0.30		
v/c Ratio	0.19	0.56	0.46		0.18		
Control Delay (s/veh)	47.9	13.8	16.1		10.2		
Queue Delay	0.0	0.0	0.0		0.0		
Total Delay (s/veh)	47.9	13.8	16.1		10.2		
LOS	D	B	B		B		
Approach Delay (s/veh)		14.4	16.1		10.2		
Approach LOS		B	B		B		
Queue Length 50th (ft)	12	190	127		8		
Queue Length 95th (ft)	36	246	233		43		
Internal Link Dist (ft)		359	420		290		
Turn Bay Length (ft)							
Base Capacity (vph)	225	2395	1806		467		

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø7
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	0.42	0.42		0.18		

Intersection Summary			
Area Type:	Other		
Cycle Length: 151.7			
Actuated Cycle Length: 100.7			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.56			
Intersection Signal Delay (s/veh): 14.9		Intersection LOS: B	
Intersection Capacity Utilization 40.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 7: Pacific Highway E & 70th Avenue E



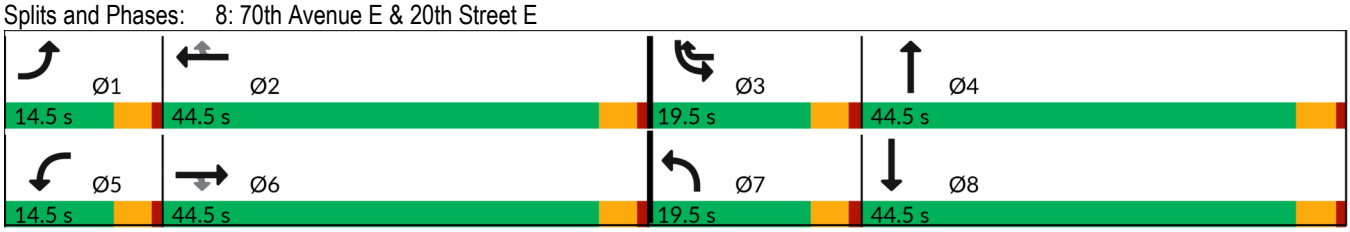


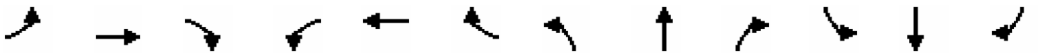
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	403	94	117	503	313	101	804	86	140	466	79
Future Volume (vph)	104	403	94	117	503	313	101	804	86	140	466	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		200	400		400	250		0	225		0
Storage Lanes	1		1	1		1	1		0	2		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	0.95	0.95	0.97	0.95	0.95
Frt			0.850			0.850		0.985			0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1556	1638	1392	1556	1638	1392	1556	3065	0	3019	3044	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1556	1638	1392	1556	1638	1392	1556	3065	0	3019	3044	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			93			67		10			16	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1295			1073			2009			522	
Travel Time (s)		25.2			20.9			39.1			10.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	107	415	97	121	519	323	104	918	0	144	561	0
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2	3	7	4		3	8	
Permitted Phases			6			2						
Detector Phase	1	6	6	5	2	3	7	4		3	8	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	10.0	10.0	10.0	10.0	6.0		10.0	10.0	
Minimum Split (s)	10.5	22.5	22.5	14.5	22.5	14.5	14.5	26.5		14.5	26.5	
Total Split (s)	14.5	44.5	44.5	14.5	44.5	19.5	19.5	44.5		19.5	44.5	
Total Split (%)	11.8%	36.2%	36.2%	11.8%	36.2%	15.9%	15.9%	36.2%		15.9%	36.2%	
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		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	Min	Min	None	Min	None	None	None		None	None	
Act Effct Green (s)	10.0	39.4	39.4	10.0	39.4	55.5	12.8	38.5		11.5	37.3	
Actuated g/C Ratio	0.09	0.34	0.34	0.09	0.34	0.47	0.11	0.33		0.10	0.32	
v/c Ratio	0.82	0.76	0.18	0.92	0.95	0.47	0.62	0.91		0.49	0.57	
Control Delay (s/veh)	95.0	45.6	7.2	113.0	66.0	19.0	66.8	51.2		56.5	35.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	95.0	45.6	7.2	113.0	66.0	19.0	66.8	51.2		56.5	35.5	
LOS	F	D	A	F	E	B	E	D		E	D	
Approach Delay (s/veh)		48.1			56.2			52.8			39.8	
Approach LOS		D			E			D			D	
Queue Length 50th (ft)	82	282	2	94	386	130	77	345		55	183	
Queue Length 95th (ft)	#190	#426	41	#220	#629	210	140	#486		89	246	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1215			993			1929			442	
Turn Bay Length (ft)	250		200	400		400	250			225		
Base Capacity (vph)	132	559	536	132	559	732	198	1052		386	1048	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.81	0.74	0.18	0.92	0.93	0.44	0.53	0.87		0.37	0.54	

Intersection Summary			
Area Type:	Other		
Cycle Length: 123			
Actuated Cycle Length: 117.5			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay (s/veh): 50.1		Intersection LOS: D	
Intersection Capacity Utilization 80.5%		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: 8: 70th Avenue E & 20th Street E



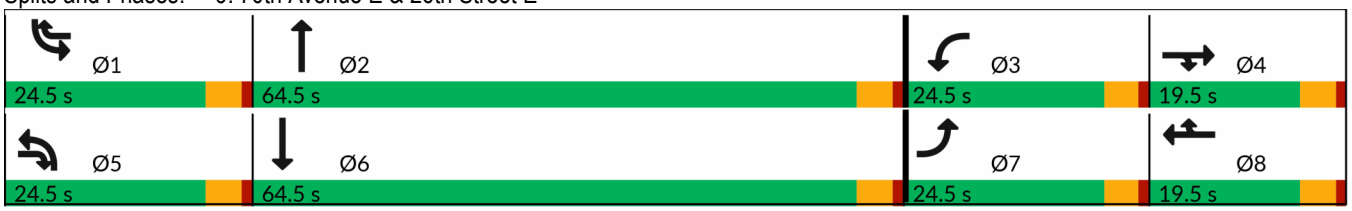


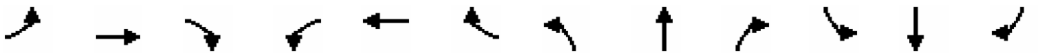
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	83	45	73	23	66	90	877	70	78	515	20
Future Volume (vph)	43	83	45	73	23	66	90	877	70	78	515	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	200		0	225		0
Storage Lanes	1		1	1		1	1		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	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.989			0.994	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1504	1583	1346	1504	1583	1346	1504	2975	0	1504	2990	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1504	1583	1346	1504	1583	1346	1504	2975	0	1504	2990	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			50			73		8			4	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1057			880			2032			2009	
Travel Time (s)		20.6			17.1			39.6			39.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	92	50	81	26	73	100	1052	0	87	594	0
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases	7	4	4 5	3	8	8 1	5	2		1	6	
Permitted Phases												
Detector Phase	7	4	4 5	3	8	8 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	10.0		6.0	10.0	
Minimum Split (s)	10.5	24.5		10.5	24.5		10.5	22.5		10.5	22.5	
Total Split (s)	24.5	19.5		24.5	19.5		24.5	64.5		24.5	64.5	
Total Split (%)	18.4%	14.7%		18.4%	14.7%		18.4%	48.5%		18.4%	48.5%	
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	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		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	10.1	12.1	25.1	12.0	13.6	26.0	13.3	49.2		12.4	48.5	
Actuated g/C Ratio	0.11	0.14	0.28	0.14	0.15	0.29	0.15	0.56		0.14	0.55	
v/c Ratio	0.28	0.43	0.12	0.40	0.11	0.16	0.44	0.63		0.41	0.36	
Control Delay (s/veh)	51.2	51.5	9.2	50.5	43.0	7.9	50.0	23.7		50.4	19.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	51.2	51.5	9.2	50.5	43.0	7.9	50.0	23.7		50.4	19.2	
LOS	D	D	A	D	D	A	D	C		D	B	
Approach Delay (s/veh)		40.3			32.1			25.9			23.2	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	27	51	0	45	13	0	55	268		48	124	
Queue Length 95th (ft)	78	131	31	115	47	35	135	454		121	221	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		977			800			1952			1929	
Turn Bay Length (ft)	150		150	150		150	200			225		
Base Capacity (vph)	428	338	581	428	353	622	428	2045		428	2054	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.11	0.27	0.09	0.19	0.07	0.12	0.23	0.51		0.20	0.29	

Intersection Summary			
Area Type:	Other		
Cycle Length: 133			
Actuated Cycle Length: 88.2			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay (s/veh): 26.8		Intersection LOS: C	
Intersection Capacity Utilization 53.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 9: 70th Avenue E & 26th Street E



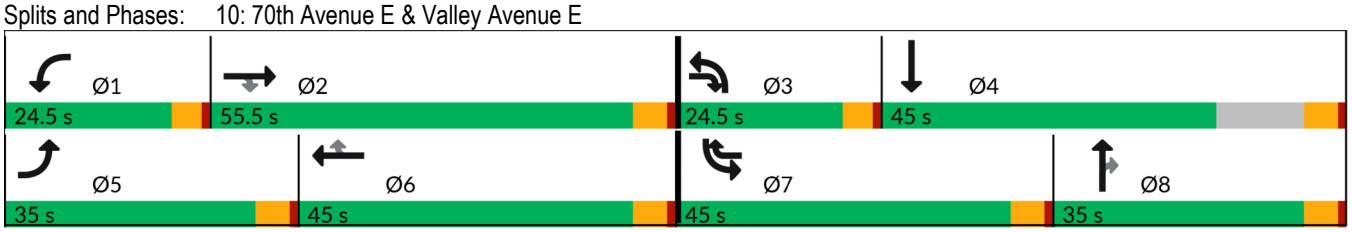


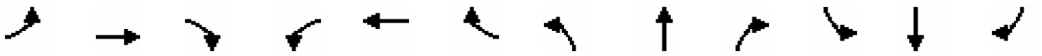
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	346	118	31	288	459	178	536	46	277	187	104
Future Volume (vph)	58	346	118	31	288	459	178	536	46	277	187	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		250	200		0	200		130	350		0
Storage Lanes	1		1	1		1	1		1	2		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	0.95	1.00	0.97	0.95	0.95
Frt			0.850			0.850			0.850		0.947	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1652	1404	1570	1652	1404	1570	3139	1404	3045	2973	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1570	1652	1404	1570	1652	1404	1570	3139	1404	3045	2973	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			123			343			143		70	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		831			1056			750			2032	
Travel Time (s)		18.9			24.0			14.6			39.6	
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 (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	360	123	32	300	478	185	558	48	289	303	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2	3	1	6	7	3	8		7	4	
Permitted Phases			2			6			8			
Detector Phase	5	2	3	1	6	7	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0	6.0	6.0	8.0	8.0	6.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	11.0	31.0	10.5	10.5	31.0	13.0	10.5	31.0	31.0	13.0	31.0	
Total Split (s)	35.0	55.5	24.5	24.5	45.0	45.0	24.5	35.0	35.0	45.0	45.0	
Total Split (%)	21.9%	34.7%	15.3%	15.3%	28.1%	28.1%	15.3%	21.9%	21.9%	28.1%	28.1%	
Yellow Time (s)	4.0	4.0	3.5	3.5	4.0	4.0	3.5	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	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	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.5	4.5	5.0	5.0	4.5	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	Min	None	None	Min	None	None	None	None	None	None	
Act Effct Green (s)	11.5	32.3	57.5	8.6	27.0	50.9	19.8	27.5	27.5	18.5	26.7	
Actuated g/C Ratio	0.11	0.32	0.56	0.08	0.27	0.50	0.19	0.27	0.27	0.18	0.26	
v/c Ratio	0.34	0.69	0.15	0.24	0.69	0.55	0.61	0.66	0.10	0.52	0.36	
Control Delay (s/veh)	53.8	40.5	3.1	56.0	45.2	7.7	52.7	40.6	0.4	44.2	26.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	53.8	40.5	3.1	56.0	45.2	7.7	52.7	40.6	0.4	44.2	26.2	
LOS	D	D	A	E	D	A	D	D	A	D	C	
Approach Delay (s/veh)		33.5			23.5			41.0			35.0	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	39	226	0	21	188	52	117	173	0	92	65	
Queue Length 95th (ft)	94	373	30	61	321	146	#273	307	0	160	125	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		751			976			670			1952	
Turn Bay Length (ft)	150		250	200			200		130	350		
Base Capacity (vph)	495	876	865	329	694	1125	329	989	540	1280	1610	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.12	0.41	0.14	0.10	0.43	0.42	0.56	0.56	0.09	0.23	0.19	

Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 101.8			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay (s/veh): 33.0		Intersection LOS: C	
Intersection Capacity Utilization 62.2%		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: 10: 70th Avenue E & Valley Avenue E



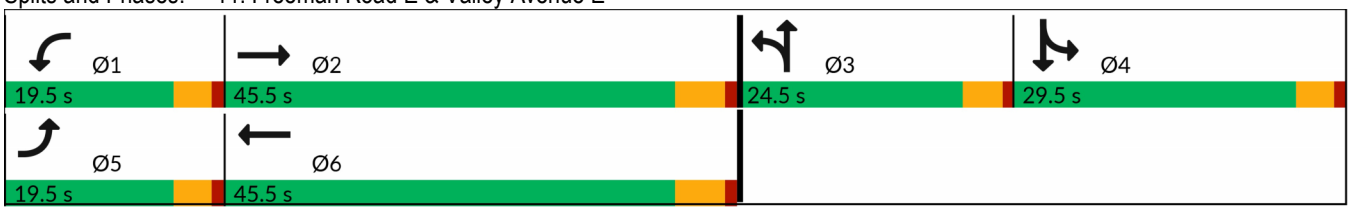


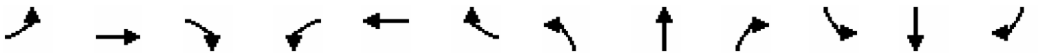
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	420	115	6	610	155	75	90	31	107	78	20
Future Volume (vph)	23	420	115	6	610	155	75	90	31	107	78	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	230		0	50		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.968			0.970			0.962			0.970	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1543	2987	0	1543	2993	0	1543	1562	0	1543	1575	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1543	2987	0	1543	2993	0	1543	1562	0	1543	1575	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		31			29			12			10	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		671			1259			2534			494	
Travel Time (s)		15.3			28.6			69.1			13.5	
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 (%)	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	24	569	0	6	814	0	80	129	0	114	104	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	3		4	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0		4.0	8.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	10.5	26.5		9.5	26.5		22.5	22.5		27.5	27.5	
Total Split (s)	19.5	45.5		19.5	45.5		24.5	24.5		29.5	29.5	
Total Split (%)	16.4%	38.2%		16.4%	38.2%		20.6%	20.6%		24.8%	24.8%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		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	5.5		4.5	5.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	7.9	31.8		7.0	29.4		12.7	12.7		12.6	12.6	
Actuated g/C Ratio	0.11	0.43		0.09	0.39		0.17	0.17		0.17	0.17	
v/c Ratio	0.15	0.44		0.04	0.68		0.31	0.47		0.44	0.38	
Control Delay (s/veh)	42.2	16.4		43.3	23.2		36.3	36.9		39.4	35.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	42.2	16.4		43.3	23.2		36.3	36.9		39.4	35.0	
LOS	D	B		D	C		D	D		D	D	
Approach Delay (s/veh)		17.5			23.4			36.7			37.3	
Approach LOS		B			C			D			D	
Queue Length 50th (ft)	10	81		2	132		30	46		45	36	
Queue Length 95th (ft)	42	192		17	313		94	132		127	110	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		591			1179			2454			414	
Turn Bay Length (ft)	150			230			50			250		
Base Capacity (vph)	341	1854		341	1778		455	469		569	587	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.07	0.31		0.02	0.46		0.18	0.28		0.20	0.18	

Intersection Summary			
Area Type:	Other		
Cycle Length: 119			
Actuated Cycle Length: 74.8			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay (s/veh): 24.6		Intersection LOS: C	
Intersection Capacity Utilization 46.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 11: Freeman Road E & Valley Avenue E



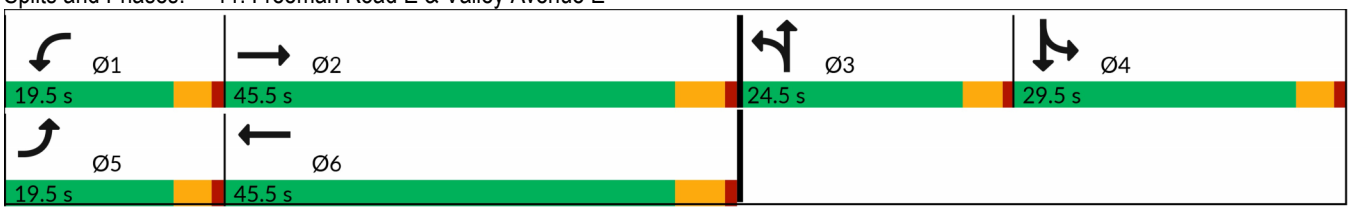


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	514	115	9	555	136	62	64	38	94	61	14
Future Volume (vph)	20	514	115	9	555	136	62	64	38	94	61	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	230		0	50		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.970			0.944			0.972	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1543	3002	0	1543	2993	0	1543	1533	0	1543	1578	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1543	3002	0	1543	2993	0	1543	1533	0	1543	1578	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			27			21			9	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		671			1259			4678			494	
Travel Time (s)		15.3			28.6			127.6			13.5	
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 (%)	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	21	669	0	10	735	0	66	108	0	100	80	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	3		4	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0		4.0	8.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	10.5	26.5		9.5	26.5		22.5	22.5		27.5	27.5	
Total Split (s)	19.5	45.5		19.5	45.5		24.5	24.5		29.5	29.5	
Total Split (%)	16.4%	38.2%		16.4%	38.2%		20.6%	20.6%		24.8%	24.8%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		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	5.5		4.5	5.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	9.1	34.2		8.6	32.2		12.1	12.1		12.9	12.9	
Actuated g/C Ratio	0.14	0.54		0.14	0.51		0.19	0.19		0.20	0.20	
v/c Ratio	0.09	0.41		0.05	0.48		0.22	0.35		0.32	0.24	
Control Delay (s/veh)	37.9	15.0		38.8	18.2		33.1	29.7		33.8	29.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	37.9	15.0		38.8	18.2		33.1	29.7		33.8	29.9	
LOS	D	B		D	B		C	C		C	C	
Approach Delay (s/veh)		15.7			18.5			31.0			32.1	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	7	86		3	98		20	26		30	21	
Queue Length 95th (ft)	37	221		23	254		79	105		110	85	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		591			1179			4598			414	
Turn Bay Length (ft)	150			230			50			250		
Base Capacity (vph)	495	2051		495	2008		660	668		760	781	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.04	0.33		0.02	0.37		0.10	0.16		0.13	0.10	

Intersection Summary			
Area Type:	Other		
Cycle Length: 119			
Actuated Cycle Length: 63.3			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay (s/veh): 20.0		Intersection LOS: B	
Intersection Capacity Utilization 39.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 11: Freeman Road E & Valley Avenue E



Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	16	11	166	190	9
Future Vol, veh/h	3	16	11	166	190	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	6	6	6	6	6	6
Mvmt Flow	4	20	13	202	232	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	466	237	243	0	-	0
Stage 1	237	-	-	-	-	-
Stage 2	229	-	-	-	-	-
Critical Hdwy	6.46	6.26	4.16	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	2.254	-	-	-
Pot Cap-1 Maneuver	547	792	1301	-	-	-
Stage 1	793	-	-	-	-	-
Stage 2	799	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	541	792	1301	-	-	-
Mov Cap-2 Maneuver	541	-	-	-	-	-
Stage 1	784	-	-	-	-	-
Stage 2	799	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.04	0.48	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	112	-	738	-	-
HCM Lane V/C Ratio	0.01	-	0.031	-	-
HCM Control Delay (s/veh)	7.8	0	10	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	6	3	255	104	1
Future Vol, veh/h	9	6	3	255	104	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	7	7	7	7	7	7
Mvmt Flow	10	7	3	290	118	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	415	119	119	0	-	0
Stage 1	119	-	-	-	-	-
Stage 2	297	-	-	-	-	-
Critical Hdwy	6.47	6.27	4.17	-	-	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.363	2.263	-	-	-
Pot Cap-1 Maneuver	584	920	1438	-	-	-
Stage 1	894	-	-	-	-	-
Stage 2	743	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	582	920	1438	-	-	-
Mov Cap-2 Maneuver	582	-	-	-	-	-
Stage 1	892	-	-	-	-	-
Stage 2	743	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	10.41	0.09	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	21	-	683	-	-
HCM Lane V/C Ratio	0.002	-	0.025	-	-
HCM Control Delay (s/veh)	7.5	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	1	15	0	5	0	262	20	7	103	2
Future Vol, veh/h	0	0	1	15	0	5	0	262	20	7	103	2
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	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	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	0	0	1	18	0	6	0	312	24	8	123	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	452	476	124	463	465	324	125	0	0	336	0	0
Stage 1	140	140	-	324	324	-	-	-	-	-	-	-
Stage 2	312	336	-	139	142	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.6	6.3	7.2	6.6	6.3	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.2	5.6	-	6.2	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.6	-	6.2	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4.09	3.39	3.59	4.09	3.39	2.29	-	-	2.29	-	-
Pot Cap-1 Maneuver	504	476	906	496	483	699	1413	-	-	1180	-	-
Stage 1	844	765	-	672	636	-	-	-	-	-	-	-
Stage 2	682	628	-	845	764	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	496	472	906	491	479	699	1413	-	-	1180	-	-
Mov Cap-2 Maneuver	496	472	-	491	479	-	-	-	-	-	-	-
Stage 1	837	760	-	672	636	-	-	-	-	-	-	-
Stage 2	676	628	-	837	759	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	8.98	12.1	0	0.5
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1413	-	-	906	531	112	-	-
HCM Lane V/C Ratio	-	-	-	0.001	0.045	0.007	-	-
HCM Control Delay (s/veh)	0	-	-	9	12.1	8.1	0	-
HCM Lane LOS	A	-	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	30	241	481	232	88	18
Future Vol, veh/h	30	241	481	232	88	18
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	89	89	89	89	89	89
Heavy Vehicles, %	11	11	11	11	11	11
Mvmt Flow	34	271	540	261	99	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	801	0	-	0	1009	671
Stage 1	-	-	-	-	671	-
Stage 2	-	-	-	-	338	-
Critical Hdwy	4.21	-	-	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	2.299	-	-	-	3.599	3.399
Pot Cap-1 Maneuver	784	-	-	-	256	441
Stage 1	-	-	-	-	492	-
Stage 2	-	-	-	-	703	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	784	-	-	-	243	441
Mov Cap-2 Maneuver	-	-	-	-	243	-
Stage 1	-	-	-	-	467	-
Stage 2	-	-	-	-	703	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.08	0	29.5
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	199	-	-	-	263
HCM Lane V/C Ratio	0.043	-	-	-	0.452
HCM Control Delay (s/veh)	9.8	0	-	-	29.5
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	2.2

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	30	241	481	232	88	18
Future Vol, veh/h	30	241	481	232	88	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	11	11	11	11	11	11
Mvmt Flow	34	271	540	261	99	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	801	0	-	0	1009	671
Stage 1	-	-	-	-	671	-
Stage 2	-	-	-	-	338	-
Critical Hdwy	4.21	-	-	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	2.299	-	-	-	3.599	3.399
Pot Cap-1 Maneuver	784	-	-	-	256	441
Stage 1	-	-	-	-	492	-
Stage 2	-	-	-	-	703	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	784	-	-	-	245	441
Mov Cap-2 Maneuver	-	-	-	-	417	-
Stage 1	-	-	-	-	471	-
Stage 2	-	-	-	-	703	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.08	0	15.84
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	784	-	-	-	417	441
HCM Lane V/C Ratio	0.043	-	-	-	0.237	0.046
HCM Control Delay (s/veh)	9.8	-	-	-	16.3	13.6
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9	0.1

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	43	198	394	209	71	17
Future Vol, veh/h	43	198	394	209	71	17
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	89	89	89	89	89	89
Heavy Vehicles, %	11	11	11	11	11	11
Mvmt Flow	48	222	443	235	80	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	678	0	-	0	879	560
Stage 1	-	-	-	-	560	-
Stage 2	-	-	-	-	319	-
Critical Hdwy	4.21	-	-	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	2.299	-	-	-	3.599	3.399
Pot Cap-1 Maneuver	873	-	-	-	307	511
Stage 1	-	-	-	-	554	-
Stage 2	-	-	-	-	717	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	873	-	-	-	287	511
Mov Cap-2 Maneuver	-	-	-	-	287	-
Stage 1	-	-	-	-	519	-
Stage 2	-	-	-	-	717	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.67	0	21.66
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	321	-	-	-	314
HCM Lane V/C Ratio	0.055	-	-	-	0.315
HCM Control Delay (s/veh)	9.4	0	-	-	21.7
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	1.3

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	43	198	394	209	71	17
Future Vol, veh/h	43	198	394	209	71	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	11	11	11	11	11	11
Mvmt Flow	48	222	443	235	80	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	678	0	-	0	879	560
Stage 1	-	-	-	-	560	-
Stage 2	-	-	-	-	319	-
Critical Hdwy	4.21	-	-	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	2.299	-	-	-	3.599	3.399
Pot Cap-1 Maneuver	873	-	-	-	307	511
Stage 1	-	-	-	-	554	-
Stage 2	-	-	-	-	717	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	873	-	-	-	290	511
Mov Cap-2 Maneuver	-	-	-	-	461	-
Stage 1	-	-	-	-	524	-
Stage 2	-	-	-	-	717	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.67	0	14.03
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	873	-	-	-	461	511
HCM Lane V/C Ratio	0.055	-	-	-	0.173	0.037
HCM Control Delay (s/veh)	9.4	-	-	-	14.4	12.3
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.6	0.1

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1407	1099	911	828	581	424
Future Volume (vph)	1407	1099	911	828	581	424
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	2	2		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	0.88	0.95	1.00	0.97	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3155	2561	3252	1455	3155	3252
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3155	2561	3252	1455	3155	3252
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		5		734		
Link Speed (mph)	35		35			35
Link Distance (ft)	522		278			1175
Travel Time (s)	10.2		5.4			22.9
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1481	1157	959	872	612	446
Turn Type	Prot	pm+ov	NA	Perm	Prot	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8		2		
Minimum Split (s)	36.6	10.6	38.9	38.9	10.6	36.9
Total Split (s)	57.0	31.0	32.0	32.0	31.0	63.0
Total Split (%)	47.5%	25.8%	26.7%	26.7%	25.8%	52.5%
Yellow Time (s)	3.6	3.6	3.9	3.9	3.6	3.9
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)	4.6	4.6	4.9	4.9	4.6	4.9
Lead/Lag		Lead	Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Act Effct Green (s)	52.4	83.4	27.1	27.1	26.4	58.1
Actuated g/C Ratio	0.44	0.70	0.23	0.23	0.22	0.48
v/c Ratio	1.08	0.65	1.31	0.97	0.88	0.28
Control Delay (s/veh)	80.6	12.3	185.7	32.9	60.8	19.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	80.6	12.3	185.7	32.9	60.8	19.1
LOS	F	B	F	C	E	B
Approach Delay (s/veh)	50.6		112.9			43.2
Approach LOS	D		F			D
Queue Length 50th (ft)	~658	253	~502	132	238	105
Queue Length 95th (ft)	#794	326	#633	#458	#336	142
Internal Link Dist (ft)	442		198			1095
Turn Bay Length (ft)					250	
Base Capacity (vph)	1377	1781	734	896	694	1574
Starvation Cap Reductn	0	0	0	0	0	0

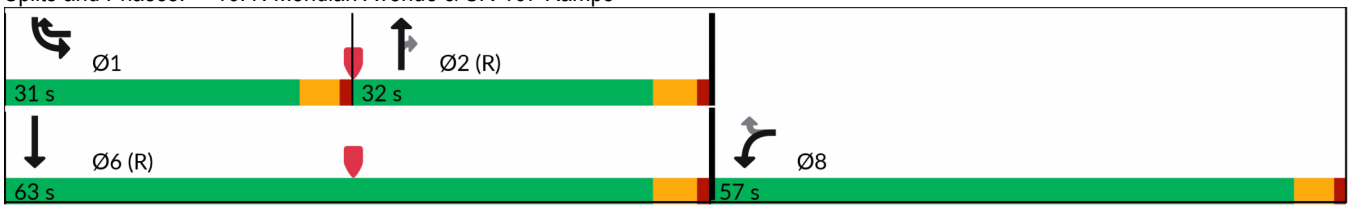
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.08	0.65	1.31	0.97	0.88	0.28

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 130			
Control Type: Pretimed			
Maximum v/c Ratio: 1.31			
Intersection Signal Delay (s/veh): 69.8		Intersection LOS: E	
Intersection Capacity Utilization 93.6%		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.

Splits and Phases: 16: N Meridian Avenue & SR-167 Ramps



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1407	1099	911	828	581	424
Future Volume (vph)	1407	1099	911	828	581	424
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	2	2		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	0.88	0.95	1.00	0.97	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3155	2561	3252	1455	3155	3252
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3155	2561	3252	1455	3155	3252
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		24		774		
Link Speed (mph)	35		35			35
Link Distance (ft)	522		278			1175
Travel Time (s)	10.2		5.4			22.9
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1481	1157	959	872	612	446
Turn Type	Prot	pm+ov	NA	Perm	Prot	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8		2		
Minimum Split (s)	36.6	10.6	38.9	38.9	10.6	36.9
Total Split (s)	54.0	25.0	41.0	41.0	25.0	66.0
Total Split (%)	45.0%	20.8%	34.2%	34.2%	20.8%	55.0%
Yellow Time (s)	3.6	3.6	3.9	3.9	3.6	3.9
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)	4.6	4.6	4.9	4.9	4.6	4.9
Lead/Lag		Lead	Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Act Effct Green (s)	49.4	74.4	36.1	36.1	20.4	61.1
Actuated g/C Ratio	0.41	0.62	0.30	0.30	0.17	0.51
v/c Ratio	1.14	0.72	0.98	0.89	1.14	0.27
Control Delay (s/veh)	106.8	18.7	66.4	18.0	129.0	17.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	106.8	18.7	66.4	18.0	129.0	17.3
LOS	F	B	E	B	F	B
Approach Delay (s/veh)	68.2		43.3			81.9
Approach LOS	E		D			F
Queue Length 50th (ft)	~690	321	387	57	~285	100
Queue Length 95th (ft)	#827	414	#530	#412	#402	134
Internal Link Dist (ft)	442		198			1095
Turn Bay Length (ft)					250	
Base Capacity (vph)	1298	1596	978	978	536	1655
Starvation Cap Reductn	0	0	0	0	0	0

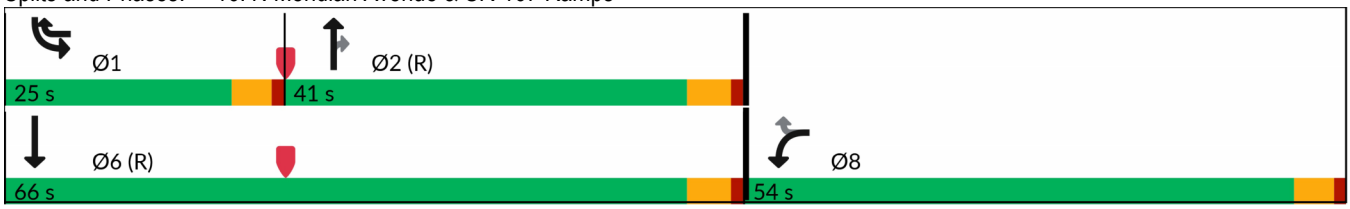
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.14	0.72	0.98	0.89	1.14	0.27

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 130			
Control Type: Pretimed			
Maximum v/c Ratio: 1.14			
Intersection Signal Delay (s/veh): 62.6		Intersection LOS: E	
Intersection Capacity Utilization 93.6%		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.

Splits and Phases: 16: N Meridian Avenue & SR-167 Ramps



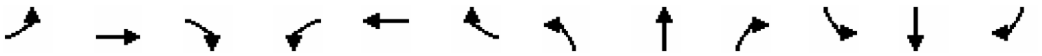
Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	112	0	0	216	0	1409	229	0	1290	504
Future Vol, veh/h	0	0	112	0	0	216	0	1409	229	0	1290	504
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	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Free	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	0	118	0	0	227	0	1483	241	0	1358	531

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	944	-	-	742	-	0	-	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.08	-	-	7.08	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.39	-	-	3.39	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	250	0	0	343	0	-	0	0	-	-
Stage 1	0	0	-	0	0	-	0	-	0	0	-	-
Stage 2	0	0	-	0	0	-	0	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	-	-	250	-	-	343	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	31.56	33.86	0	0
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBT	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	250	343	-	-
HCM Lane V/C Ratio	-	0.471	0.662	-	-
HCM Control Delay (s/veh)	-	31.6	33.9	-	-
HCM Lane LOS	-	D	D	-	-
HCM 95th %tile Q(veh)	-	2.3	4.5	-	-



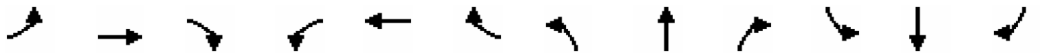
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1012	0	352	10	514	634	0	0	0	0	313	843
Future Volume (vph)	1012	0	352	10	514	634	0	0	0	0	313	843
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	125		0	0		0	0		250
Storage Lanes	2		1	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected	0.950			0.950								
Satd. Flow (prot)	3273	0	1509	1687	3374	1509	0	0	0	0	3374	1509
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	3273	0	1509	1687	3374	1509	0	0	0	0	3374	1509
Right Turn on Red			No	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				90		441						597
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		673			590			2133			1751	
Travel Time (s)		13.1			11.5			58.2			47.8	
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 (%)	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1077	0	374	11	547	674	0	0	0	0	333	897
Turn Type	Prot		Prot	Perm	NA	Perm					NA	Perm
Protected Phases	1		1		2						4	
Permitted Phases				2		2						4
Detector Phase	1		1	2	2	2					4	4
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0					10.0	10.0
Minimum Split (s)	10.1		10.1	35.1	35.1	35.1					30.8	30.8
Total Split (s)	31.0		31.0	31.0	31.0	31.0					22.0	22.0
Total Split (%)	36.9%		36.9%	36.9%	36.9%	36.9%					26.2%	26.2%
Yellow Time (s)	3.6		3.6	3.6	3.6	3.6					3.3	3.3
All-Red Time (s)	1.5		1.5	1.5	1.5	1.5					1.5	1.5
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Lost Time (s)	5.1		5.1	5.1	5.1	5.1					4.8	4.8
Lead/Lag	Lead		Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes						
Recall Mode	None		None	Max	Max	Max					None	None
Act Effct Green (s)	25.9		25.9	30.0	30.0	30.0					17.2	17.2
Actuated g/C Ratio	0.29		0.29	0.34	0.34	0.34					0.20	0.20
v/c Ratio	1.12		0.84	0.02	0.48	0.84					0.51	1.16
Control Delay (s/veh)	98.7		48.4	0.1	24.6	20.2					34.8	98.7
Queue Delay	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Delay (s/veh)	98.7		48.4	0.1	24.6	20.2					34.8	98.7
LOS	F		D	A	C	C					C	F
Approach Delay (s/veh)		85.7			21.9						81.4	
Approach LOS		F			C						F	
Queue Length 50th (ft)	~358		194	0	124	120					87	~305
Queue Length 95th (ft)	#481		#347	0	172	#349					130	#537

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		593			510			2053			1671	
Turn Bay Length (ft)				125								250
Base Capacity (vph)	962		443	633	1148	804					658	775
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	1.12		0.84	0.02	0.48	0.84					0.51	1.16

Intersection Summary			
Area Type:	Other		
Cycle Length: 84			
Actuated Cycle Length: 88.1			
Natural Cycle: 120			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.16			
Intersection Signal Delay (s/veh): 64.3		Intersection LOS: E	
Intersection Capacity Utilization 75.7%		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.

Splits and Phases: 18: N Meridian Avenue & River Road/2nd Street NE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	169	46	45	169	0	0	0	0	157	514	30
Future Volume (vph)	0	169	46	45	169	0	0	0	0	157	514	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	125		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	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	0.95	0.95	0.95
Frt			0.850								0.994	
Flt Protected				0.950							0.989	
Satd. Flow (prot)	0	1810	1538	1719	1810	0	0	0	0	0	3380	0
Flt Permitted				0.417							0.989	
Satd. Flow (perm)	0	1810	1538	755	1810	0	0	0	0	0	3380	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91								16	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		393			385			1349			2133	
Travel Time (s)		10.7			10.5			36.8			58.2	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	194	53	52	194	0	0	0	0	0	805	0
Turn Type		NA	Perm	pm+pt	NA					Perm	NA	
Protected Phases		8		7	4						2	
Permitted Phases			8	4						2		
Detector Phase		8	8	7	4					2	2	
Switch Phase												
Minimum Initial (s)		5.0	5.0	5.0	5.0					10.0	10.0	
Minimum Split (s)		21.0	21.0	9.0	21.0					23.0	23.0	
Total Split (s)		9.0	9.0	7.0	13.0					44.0	44.0	
Total Split (%)		15.0%	15.0%	11.7%	21.7%					73.3%	73.3%	
Yellow Time (s)		3.0	3.0	3.0	3.0					3.0	3.0	
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)		4.0	4.0	4.0	4.0						4.0	
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		None	None	None	None					Max	Max	
Act Effct Green (s)		5.6	5.6	9.8	9.8						41.7	
Actuated g/C Ratio		0.09	0.09	0.16	0.16						0.70	
v/c Ratio		1.14	0.23	0.30	0.65						0.34	
Control Delay (s/veh)		144.1	5.5	24.8	33.4						4.2	
Queue Delay		0.0	0.0	0.0	0.0						0.0	
Total Delay (s/veh)		144.1	5.5	24.8	33.4						4.2	
LOS		F	A	C	C						A	
Approach Delay (s/veh)		114.4			31.6						4.2	
Approach LOS		F			C						A	
Queue Length 50th (ft)		~92	0	16	63						53	
Queue Length 95th (ft)		#193	13	39	115						72	

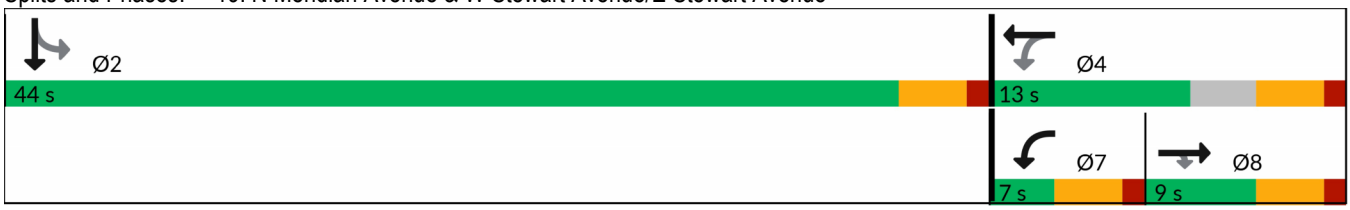
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		313			305			1269			2053	
Turn Bay Length (ft)			50	125								
Base Capacity (vph)		170	227	173	366						2373	
Starvation Cap Reductn		0	0	0	0						0	
Spillback Cap Reductn		0	0	0	0						0	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		1.14	0.23	0.30	0.53						0.34	

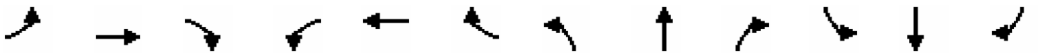
Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 59.5			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.14			
Intersection Signal Delay (s/veh): 30.4		Intersection LOS: C	
Intersection Capacity Utilization 54.0%		ICU Level of Service A	
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: 19: N Meridian Avenue & W Stewart Avenue



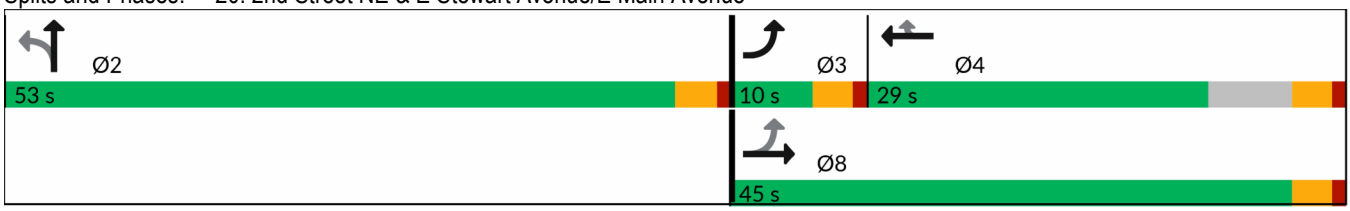


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	256	0	0	137	187	71	947	0	0	0	0
Future Volume (vph)	54	256	0	0	137	187	71	947	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	0		125	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
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	0.95	1.00	1.00	1.00
Frt						0.850						
Flt Protected	0.950							0.997				
Satd. Flow (prot)	1736	1827	0	0	1827	1553	0	3461	0	0	0	0
Flt Permitted	0.455							0.997				
Satd. Flow (perm)	831	1827	0	0	1827	1553	0	3461	0	0	0	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		385			615			394			343	
Travel Time (s)		10.5			16.8			10.7			9.4	
Peak Hour 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
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	269	0	0	144	197	0	1072	0	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA				
Protected Phases	3	8			4			2				
Permitted Phases	8					4	2					
Detector Phase	3	8			4	4	2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	10.0	10.0				
Minimum Split (s)	9.5	28.0			28.0	28.0	26.0	26.0				
Total Split (s)	10.0	45.0			29.0	29.0	53.0	53.0				
Total Split (%)	10.2%	45.9%			29.6%	29.6%	54.1%	54.1%				
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0				
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)	4.0	4.0			4.0	4.0		4.0				
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	None			None	None	Max	Max				
Act Effct Green (s)	19.2	19.2			13.8	13.8		49.6				
Actuated g/C Ratio	0.25	0.25			0.18	0.18		0.64				
v/c Ratio	0.21	0.59			0.44	0.71		0.48				
Control Delay (s/veh)	22.4	30.0			33.2	44.9		9.4				
Queue Delay	0.0	0.0			0.0	0.0		0.0				
Total Delay (s/veh)	22.4	30.0			33.2	44.9		9.4				
LOS	C	C			C	D		A				
Approach Delay (s/veh)		28.7			39.9			9.4				
Approach LOS		C			D			A				
Queue Length 50th (ft)	21	112			66	95		141				
Queue Length 95th (ft)	47	180			119	165		240				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		305			535			314			263	
Turn Bay Length (ft)	50					125						
Base Capacity (vph)	278	986			745	633		2232				
Starvation Cap Reductn	0	0			0	0		0				
Spillback Cap Reductn	0	0			0	0		0				
Storage Cap Reductn	0	0			0	0		0				
Reduced v/c Ratio	0.21	0.27			0.19	0.31		0.48				

Intersection Summary			
Area Type:	Other		
Cycle Length: 98			
Actuated Cycle Length: 76.9			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay (s/veh): 19.0		Intersection LOS: B	
Intersection Capacity Utilization 54.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 20: 2nd Street NE & E Stewart Avenue/E Main Avenue



Intersection	
Int Delay, s/veh	3.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	38	38	139	121	138	68
Future Vol, veh/h	38	38	139	121	138	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
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	41	41	151	132	150	74

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	591	217	0	0	283	0
Stage 1	217	-	-	-	-	-
Stage 2	374	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	470	823	-	-	1280	-
Stage 1	819	-	-	-	-	-
Stage 2	696	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	415	823	-	-	1280	-
Mov Cap-2 Maneuver	415	-	-	-	-	-
Stage 1	819	-	-	-	-	-
Stage 2	614	-	-	-	-	-

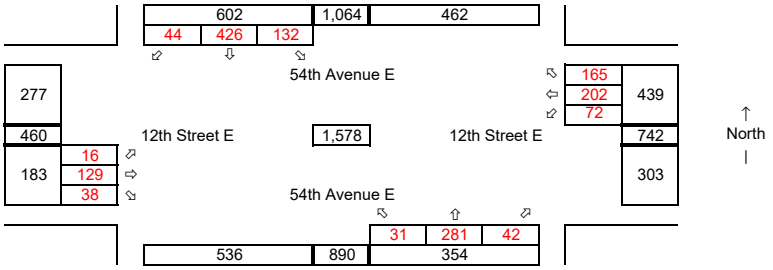
Approach	WB	NB	SB
HCM Control Delay, s/v	12.68	0	5.48
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	551	1280	-
HCM Lane V/C Ratio	-	-	0.15	0.117	-
HCM Control Delay (s/veh)	-	-	12.7	8.2	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0.4	-

Synchro ID: 1
Existing
Average Weekday
PM Peak Hour

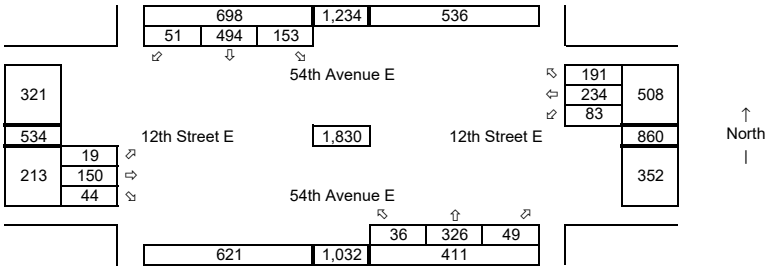
Year: **6/8/2023**

Data Source: IDAX

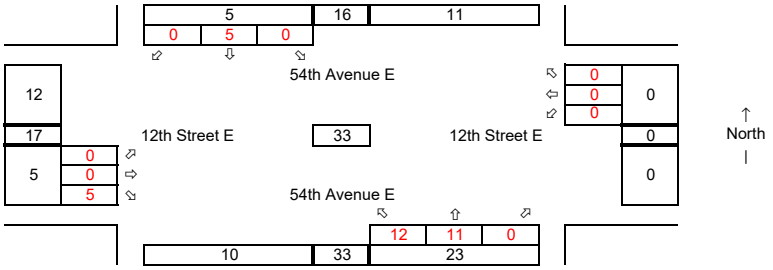


Future without Project
Average Weekday
PM Peak Hour

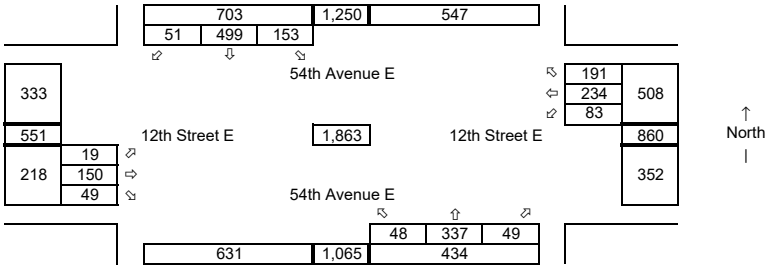
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



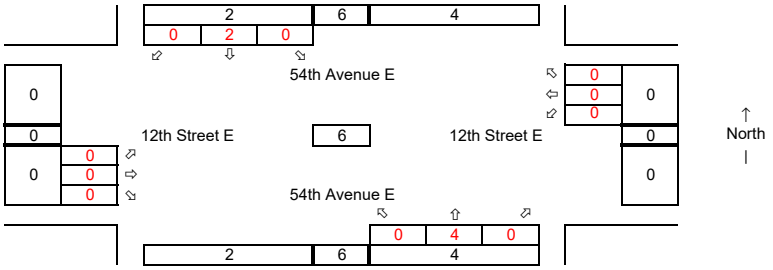
Total Development Trips
Average Weekday
PM Peak Hour



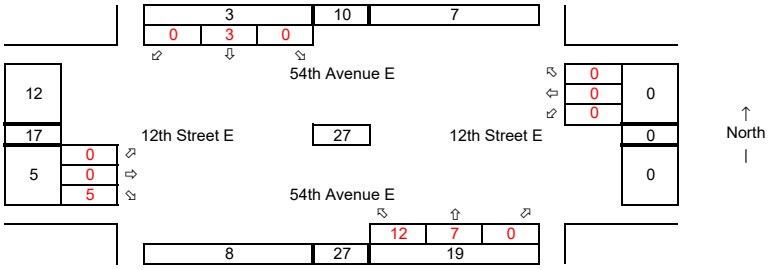
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour

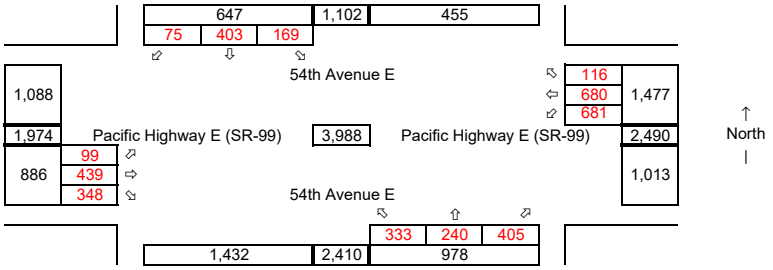


Synchro ID: 2
Existing
Average Weekday
PM Peak Hour

Year: **6/15/2023**

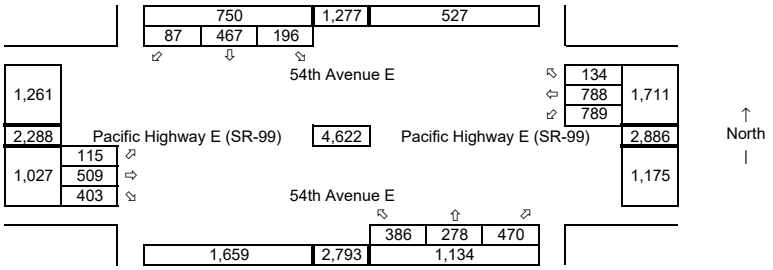
Data Source: IDAX

Two (2) Eastbound U-turns added to Eastbound left-turns

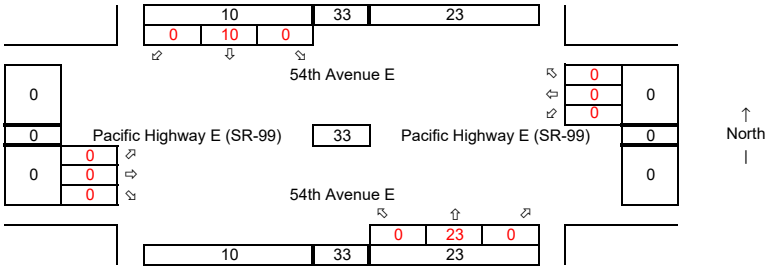


Future without Project
Average Weekday
PM Peak Hour

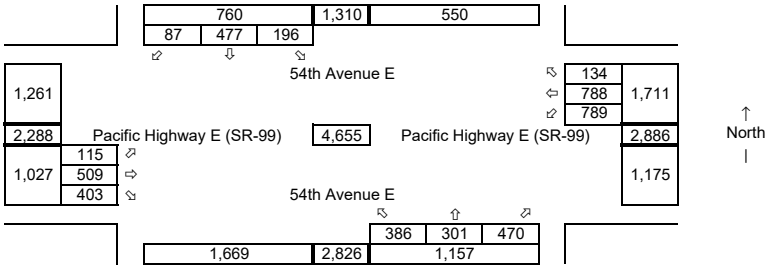
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



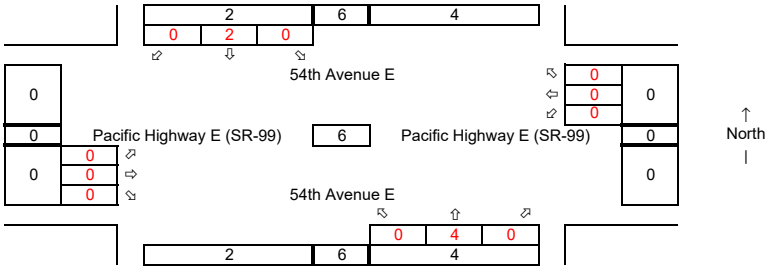
Total Development Trips
Average Weekday
PM Peak Hour



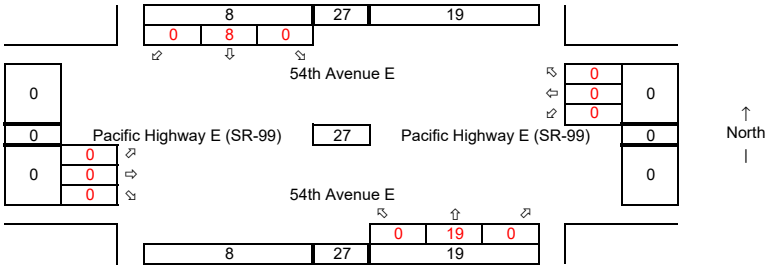
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour

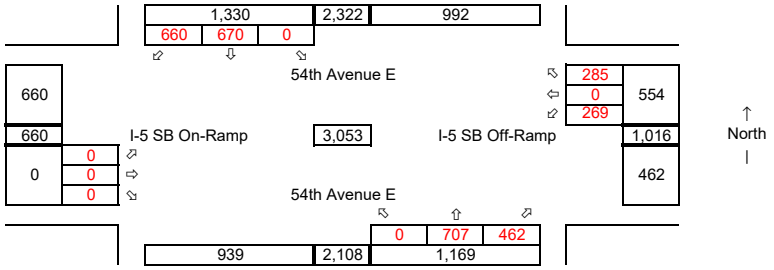


Synchro ID: 3
Existing
Average Weekday
PM Peak Hour

Year: **6/15/2023**

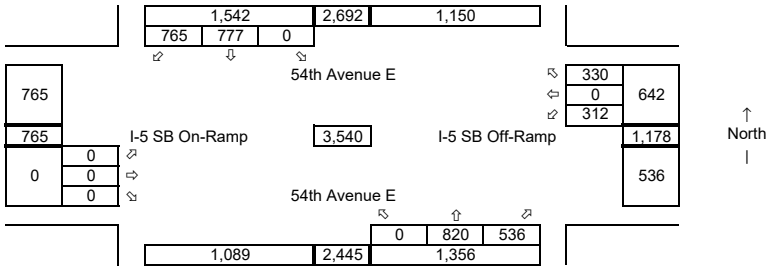
Data Source: IDAX

One (1) NB U-turn added to NBT.
One (1) NBL added to NBR.
One (1) WBT added to WBL

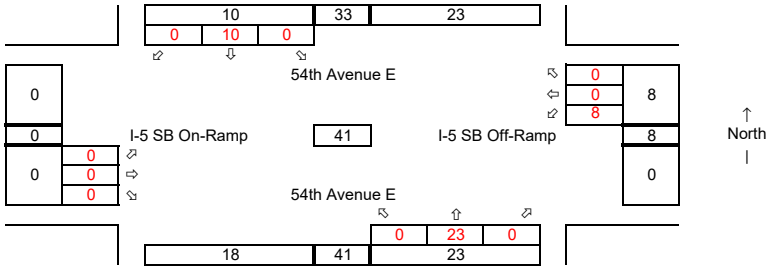


Future without Project
Average Weekday
PM Peak Hour

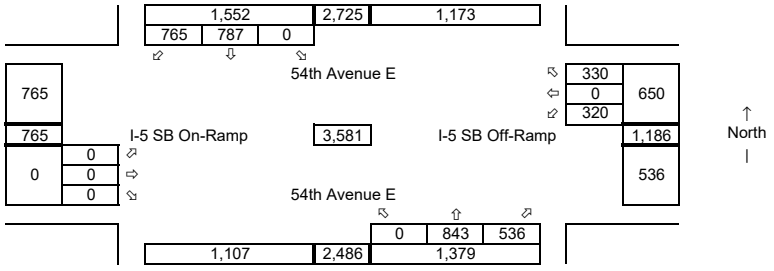
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



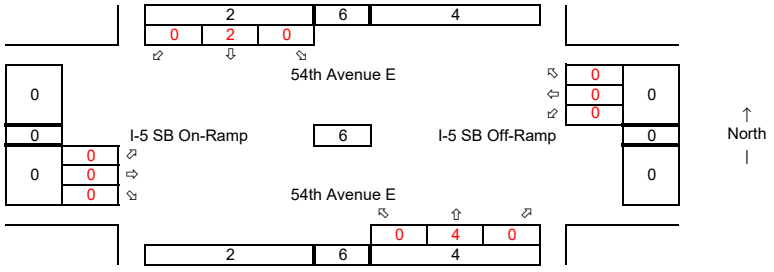
Total Development Trips
Average Weekday
PM Peak Hour



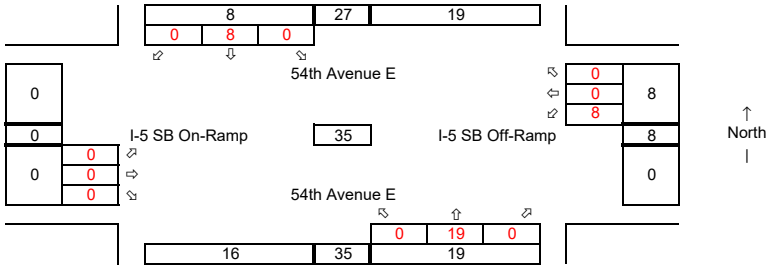
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



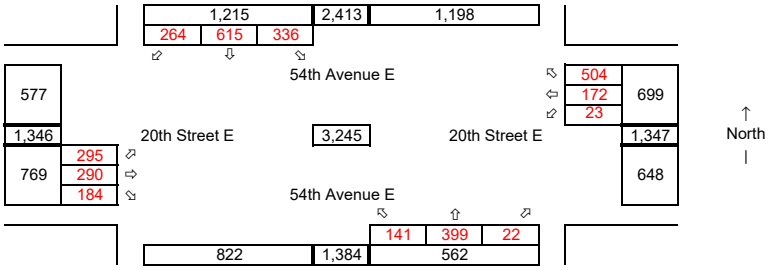
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 4
Existing
Average Weekday
PM Peak Hour

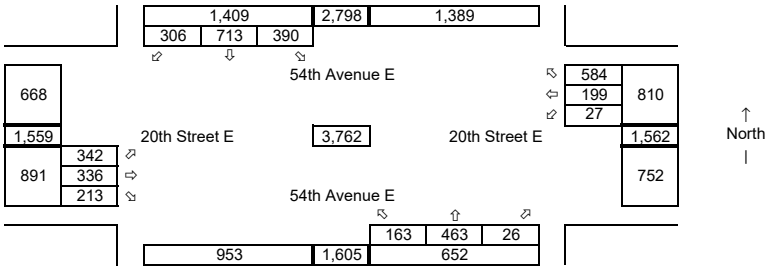
Year: **6/15/2023**

Data Source: IDAX

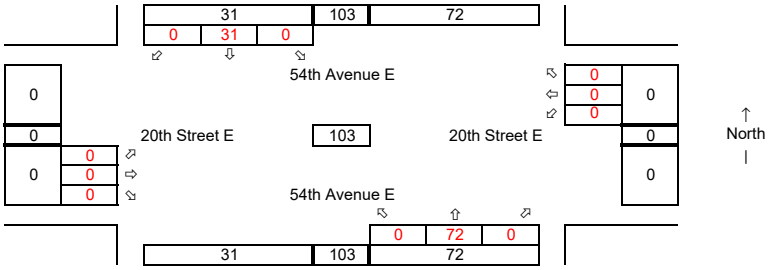


Future without Project
Average Weekday
PM Peak Hour

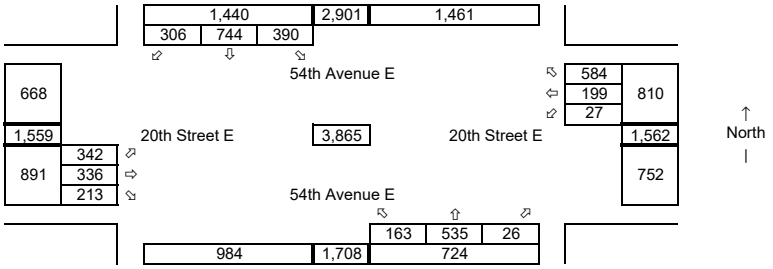
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



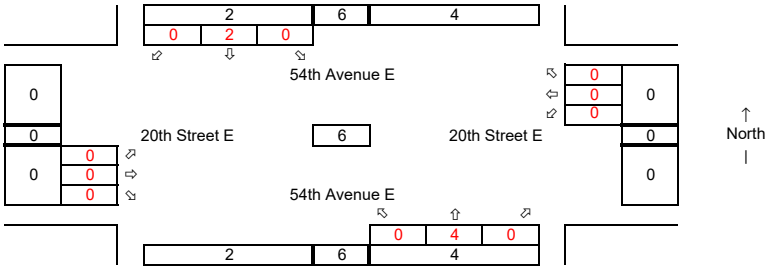
Total Development Trips
Average Weekday
PM Peak Hour



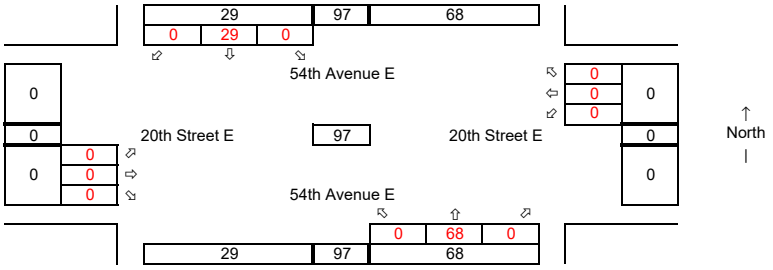
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



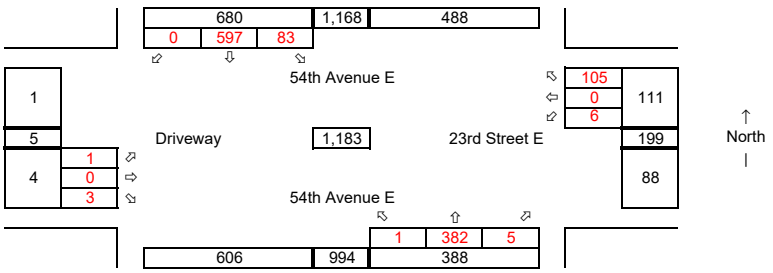
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 5
Existing
Average Weekday
PM Peak Hour

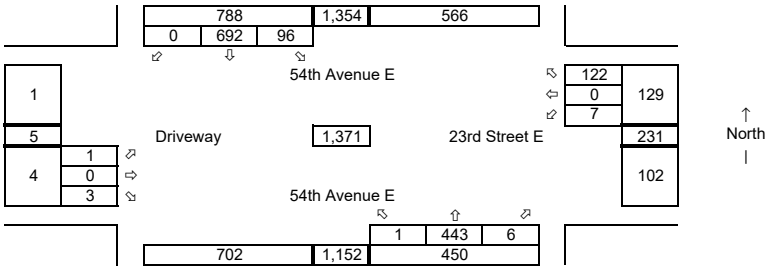
Year: **6/8/2023**

Data Source: IDAX

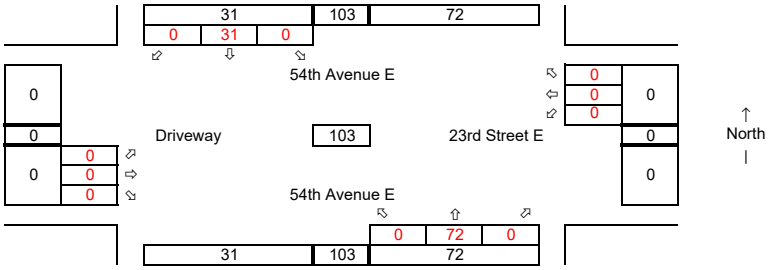


Future without Project
Average Weekday
PM Peak Hour

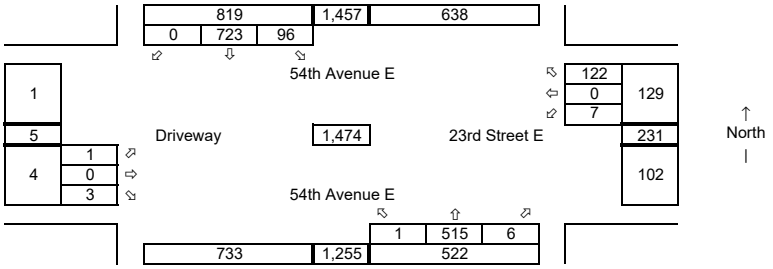
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



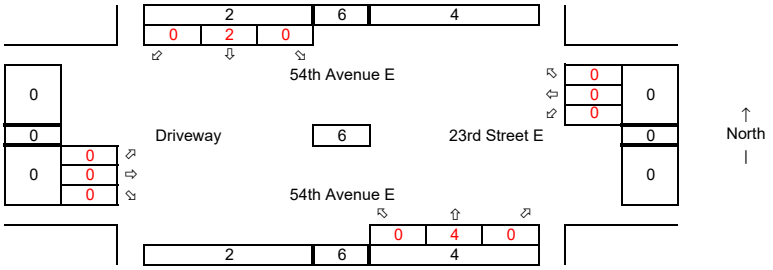
Total Development Trips
Average Weekday
PM Peak Hour



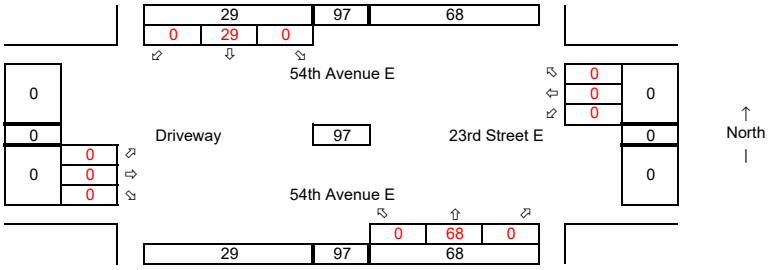
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



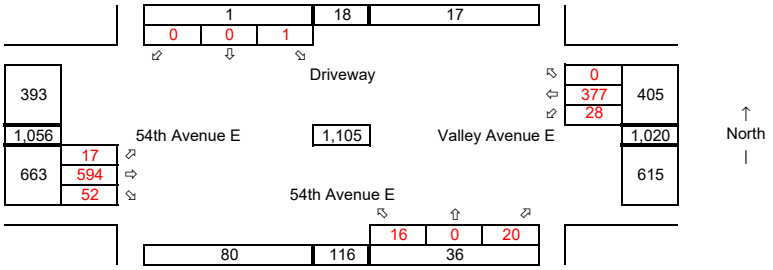
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 6
Existing
Average Weekday
PM Peak Hour

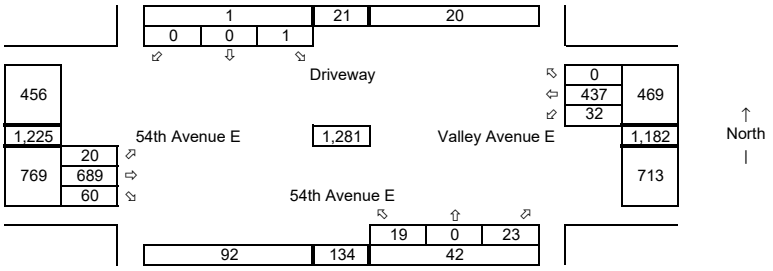
Year: **6/15/2023**

Data Source: IDAX

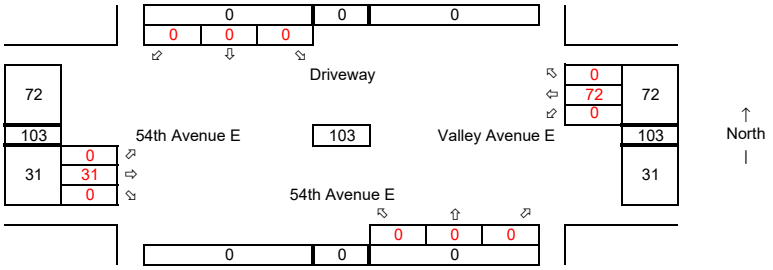


Future without Project
Average Weekday
PM Peak Hour

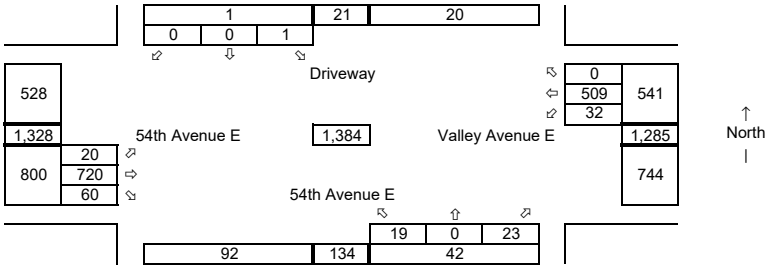
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



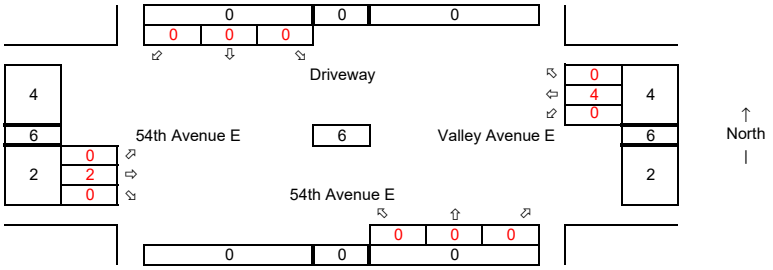
Total Development Trips
Average Weekday
PM Peak Hour



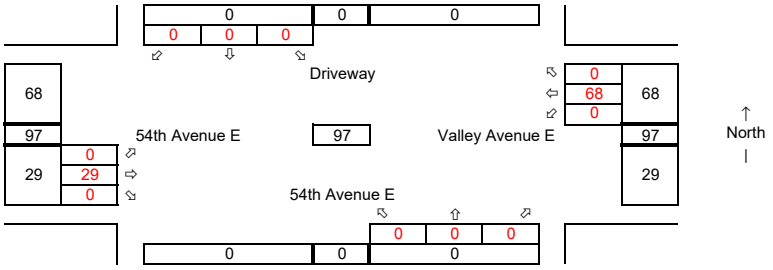
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour

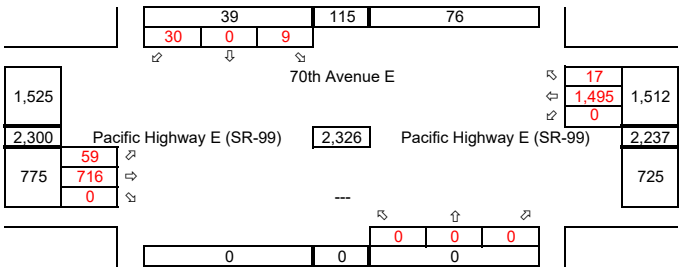


Synchro ID: 7
Existing
Average Weekday
PM Peak Hour

Year: **6/15/2023**

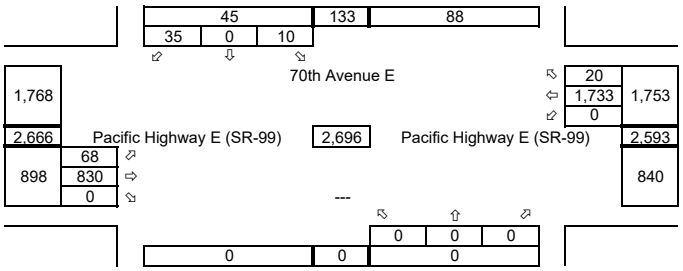
Data Source: IDAX

One (1) Eastbound U-turn
added to Eastbound left-turns

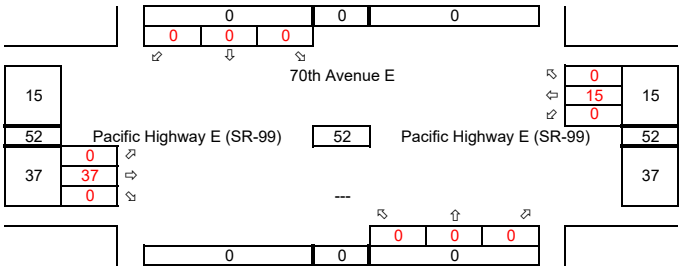


Future without Project
Average Weekday
PM Peak Hour

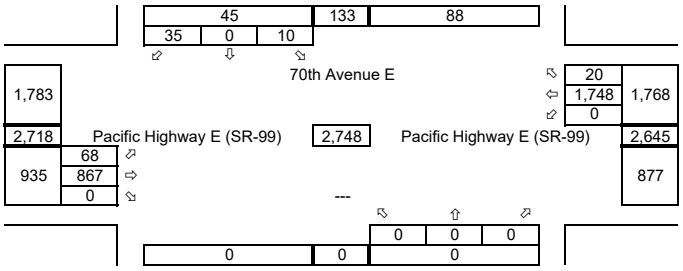
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



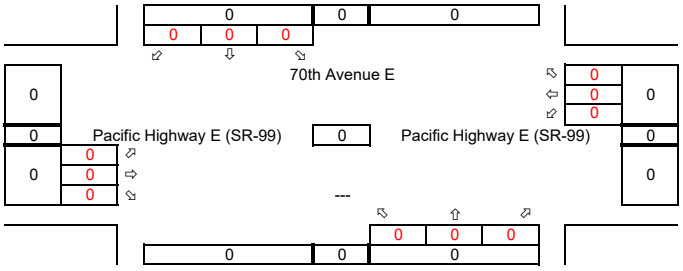
Total Development Trips
Average Weekday
PM Peak Hour



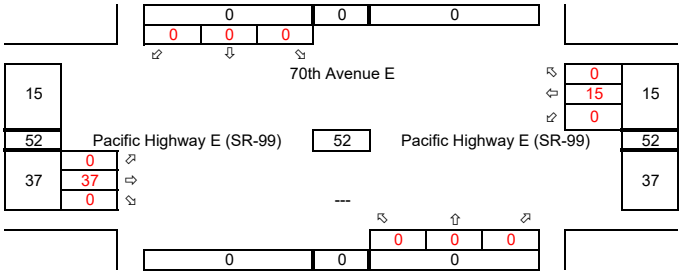
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



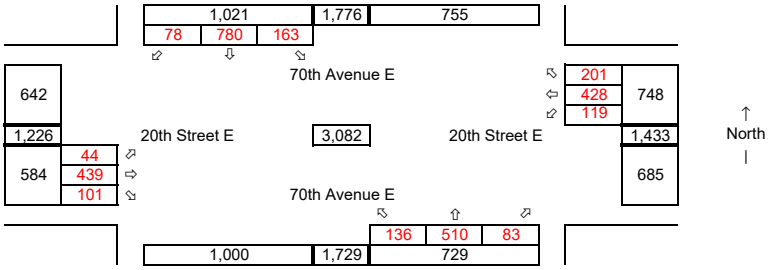
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 8
Existing
Average Weekday
PM Peak Hour

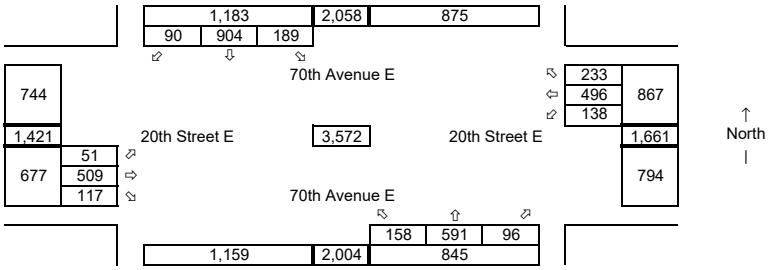
Year: **6/8/2023**

Data Source: IDAX

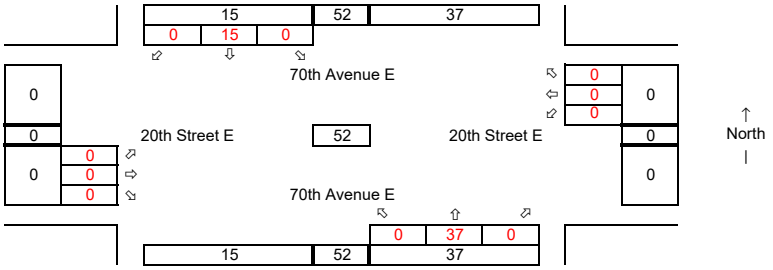


Future without Project
Average Weekday
PM Peak Hour

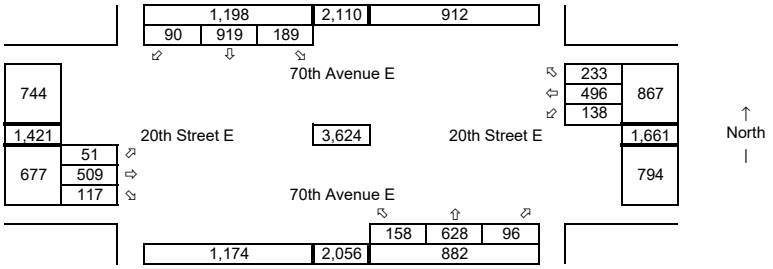
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



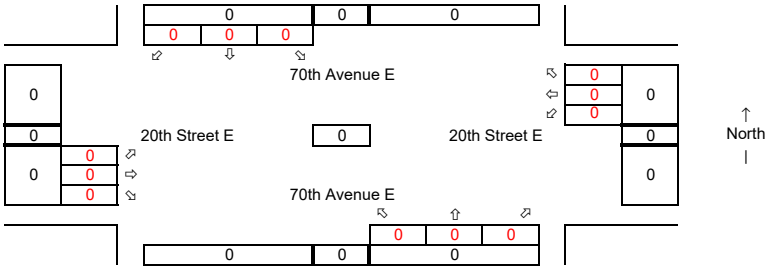
Total Development Trips
Average Weekday
PM Peak Hour



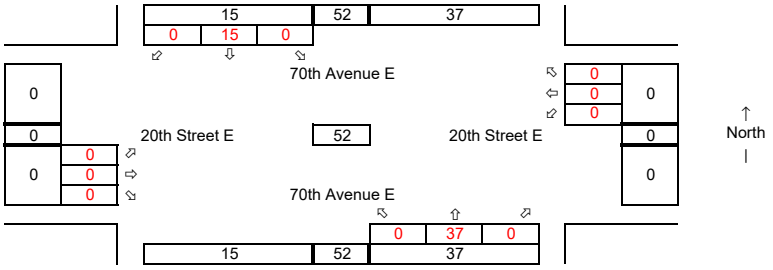
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



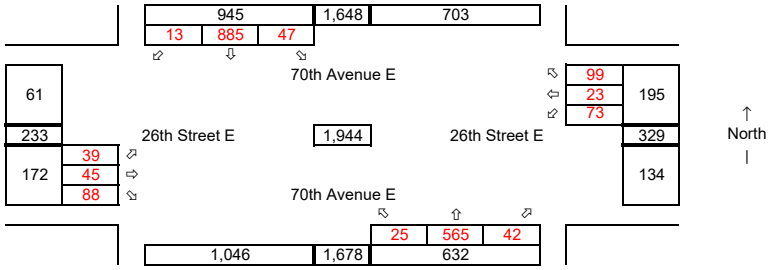
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 9
Existing
Average Weekday
PM Peak Hour

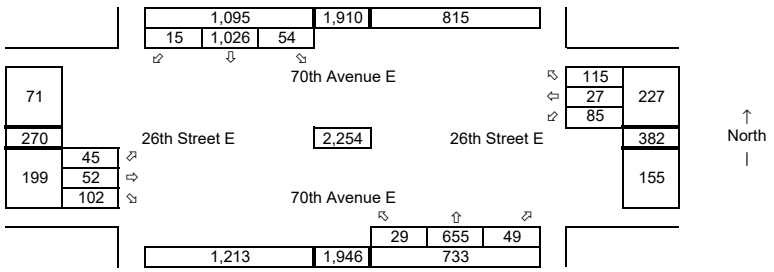
Year: **6/8/2023**

Data Source: IDAX

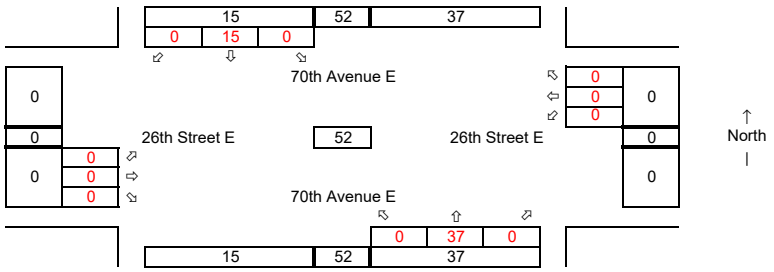


Future without Project
Average Weekday
PM Peak Hour

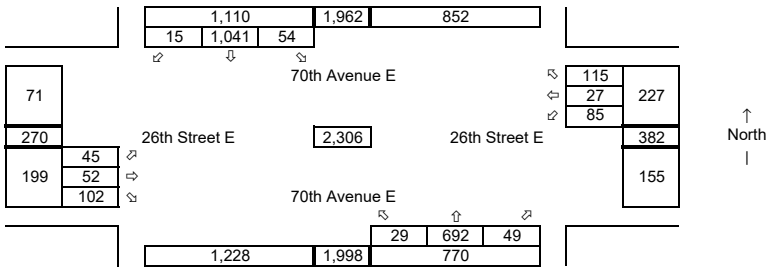
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



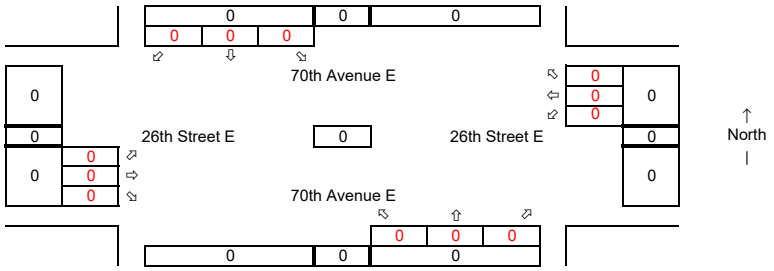
Total Development Trips
Average Weekday
PM Peak Hour



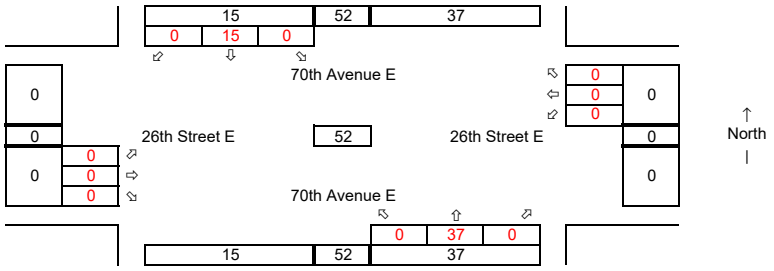
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



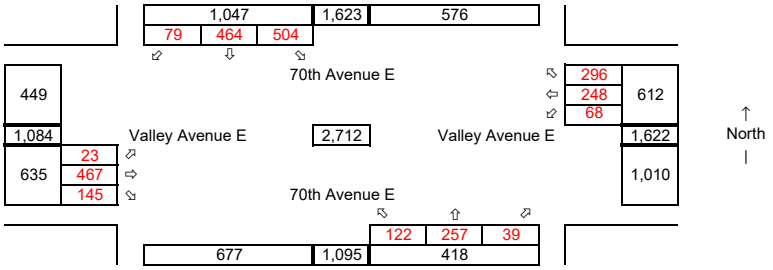
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 10
Existing
Average Weekday
PM Peak Hour

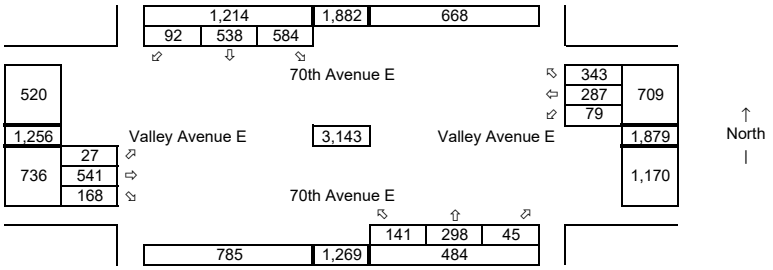
Year: **6/8/2023**

Data Source: IDAX

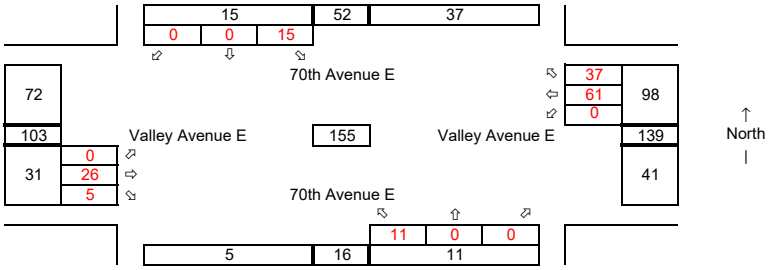


Future without Project
Average Weekday
PM Peak Hour

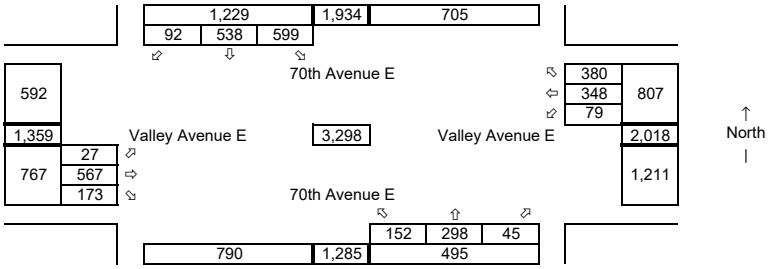
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



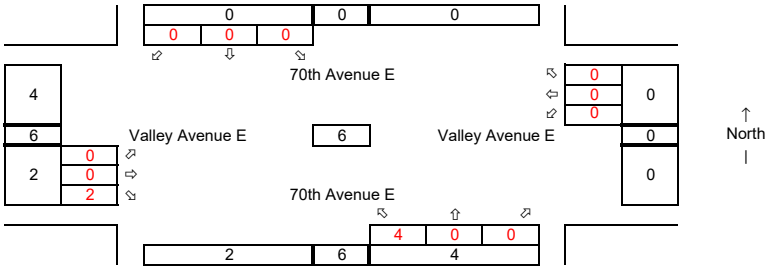
Total Development Trips
Average Weekday
PM Peak Hour



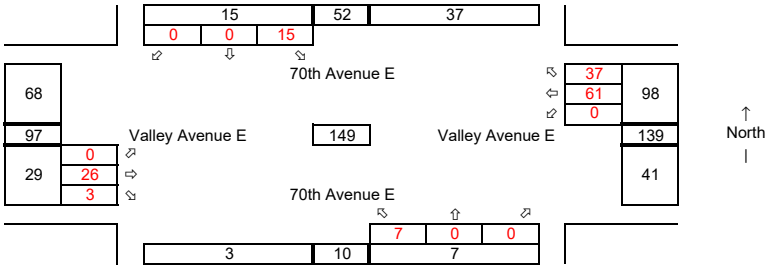
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



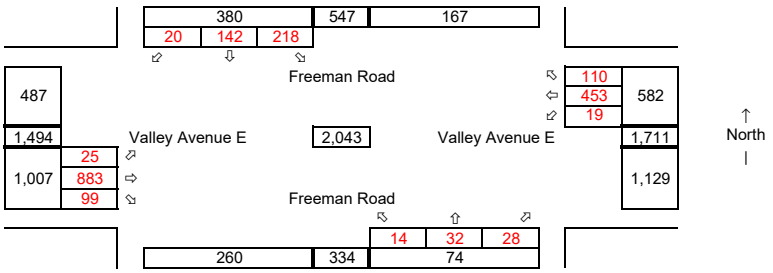
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 11
Existing
Average Weekday
PM Peak Hour

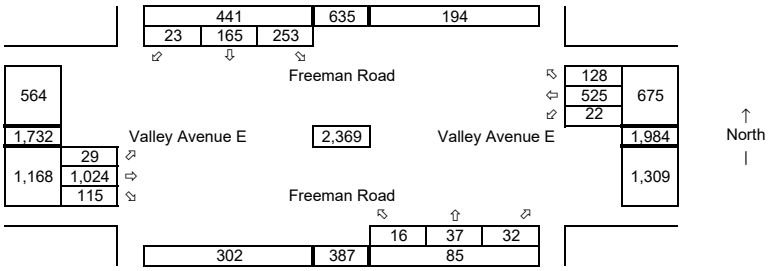
Year: **6/14/2023**

Data Source: IDAX

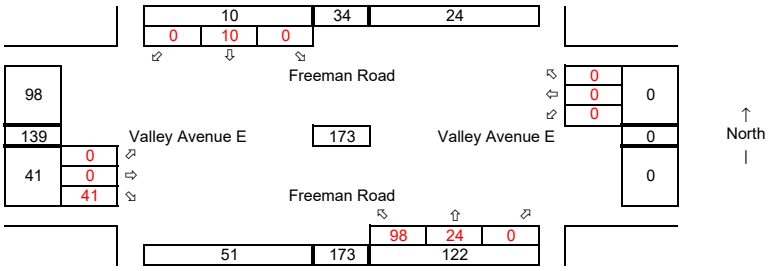


Future without Project
Average Weekday
PM Peak Hour

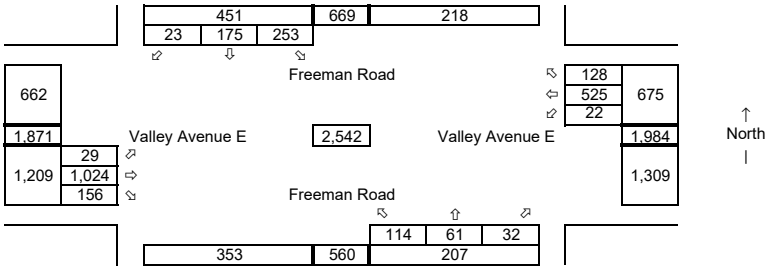
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



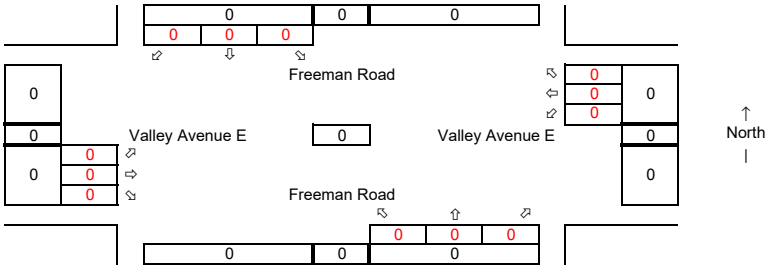
Total Development Trips
Average Weekday
PM Peak Hour



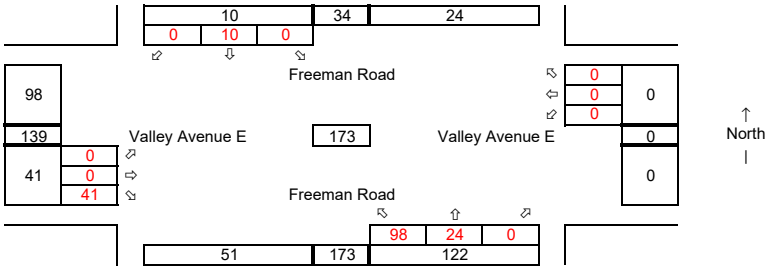
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



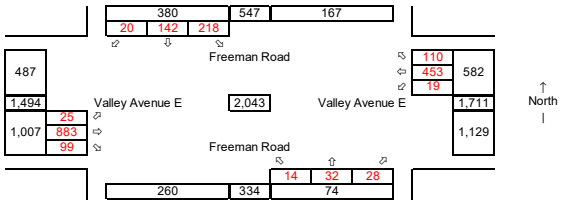
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 11
Existing
Average Weekday
PM Peak Hour

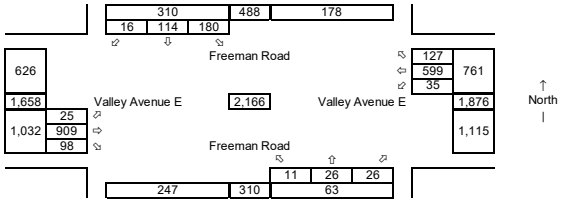
Year: **6/14/2023**

Data Source: IDAX

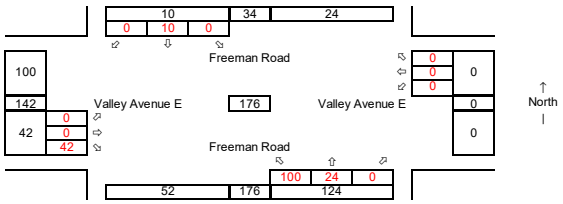


Future without Project
Average Weekday
PM Peak Hour

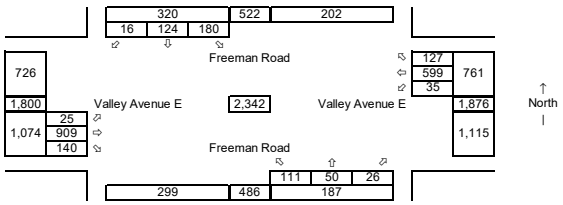
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



Total Development Trips
Average Weekday
PM Peak Hour

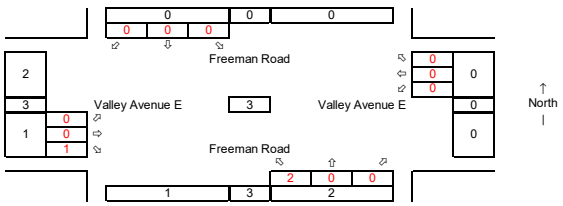


Future with Project
Average Weekday
PM Peak Hour

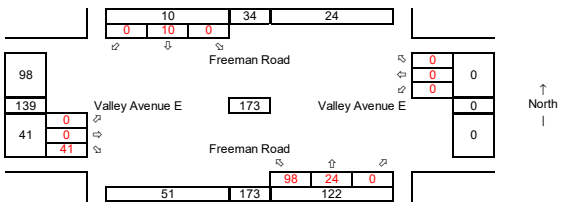


Development Truck Trips
Average Weekday
PM Peak Hour

N/S Diversion % +50%
from 70th Ave E

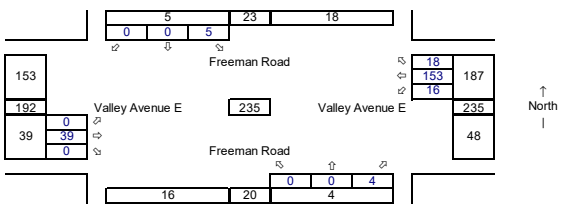


Development Car Trips
Average Weekday
PM Peak Hour



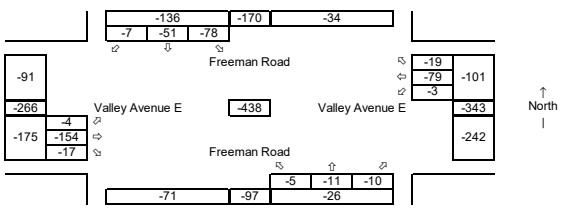
Total Pipeline Project Trips
Average Weekday
PM Peak Hour

Prologis Park Edgewood



SR-167 Extension Diversion
Average Weekday
PM Peak Hour

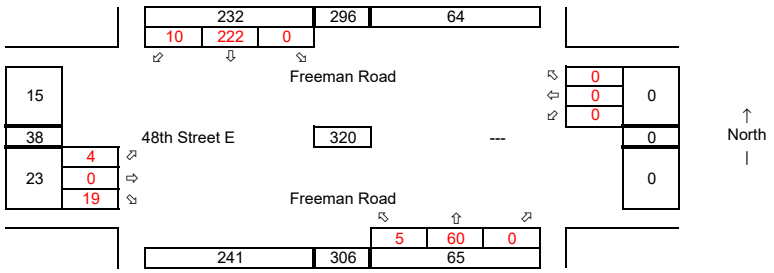
N/S Diversion % -31%
E/W Diversion % -15%



Synchro ID: 12
Existing
Average Weekday
PM Peak Hour

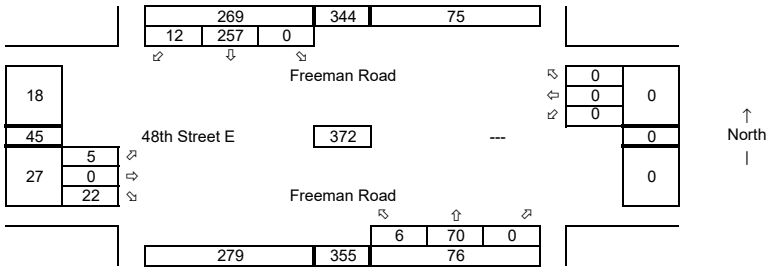
Year: **6/8/2023**

Data Source: IDAX

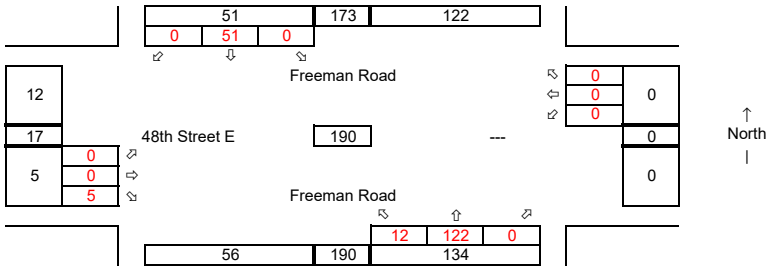


Future without Project
Average Weekday
PM Peak Hour

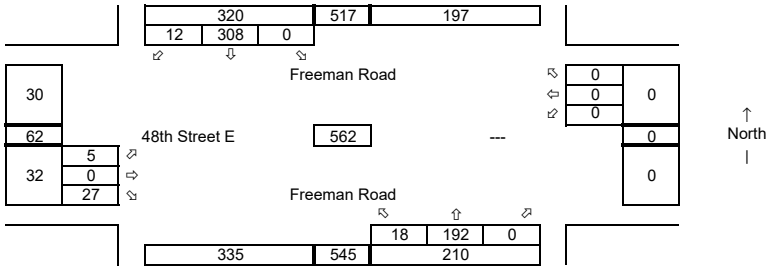
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



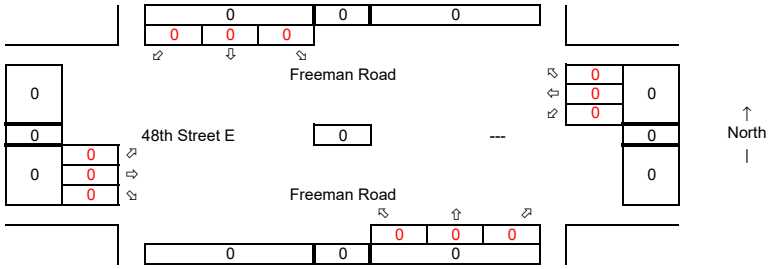
Total Development Trips
Average Weekday
PM Peak Hour



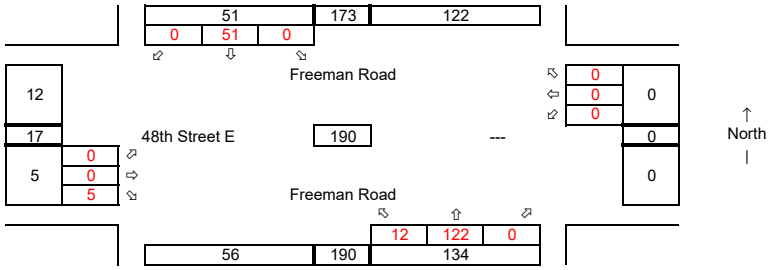
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



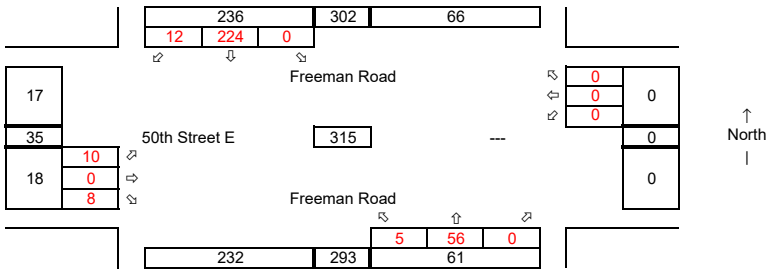
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 13
Existing
Average Weekday
PM Peak Hour

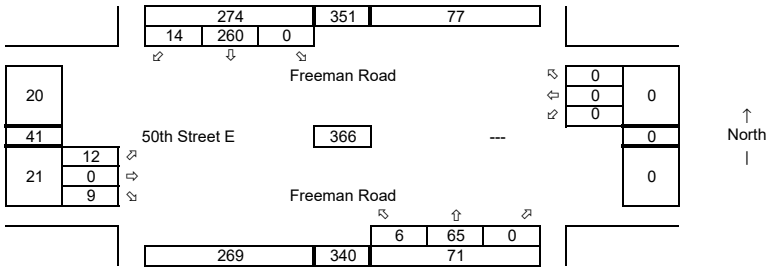
Year: **6/8/2023**

Data Source: IDAX

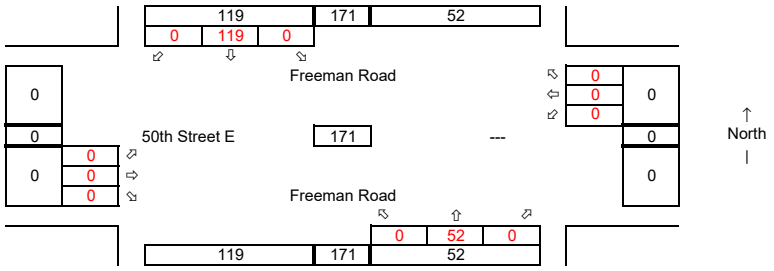


Future without Project
Average Weekday
PM Peak Hour

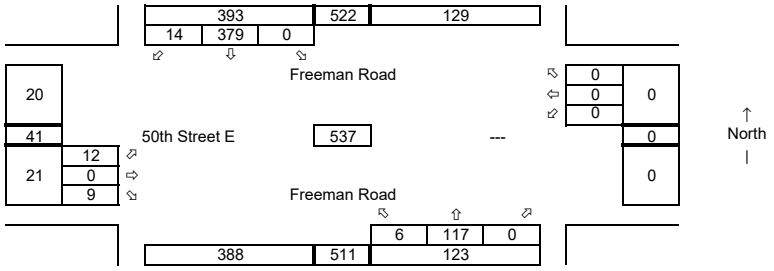
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



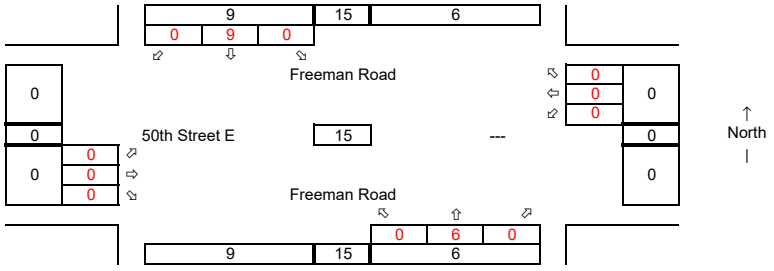
Total Development Trips
Average Weekday
PM Peak Hour



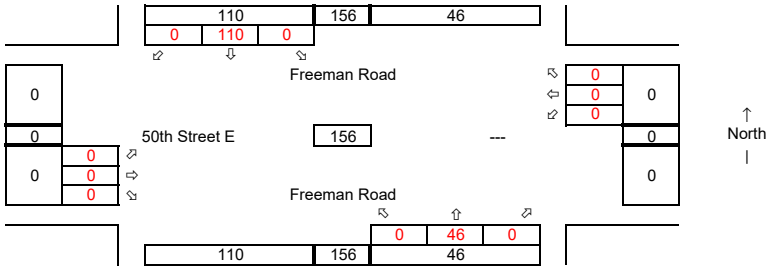
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



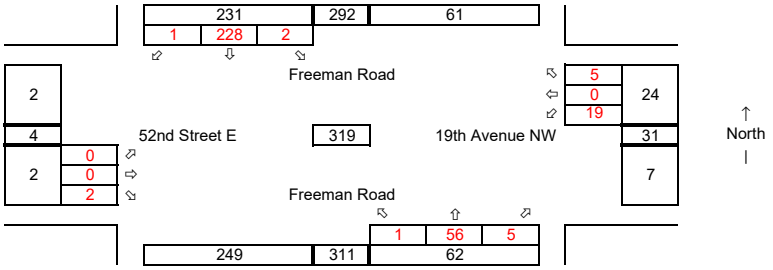
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 14
Existing
Average Weekday
PM Peak Hour

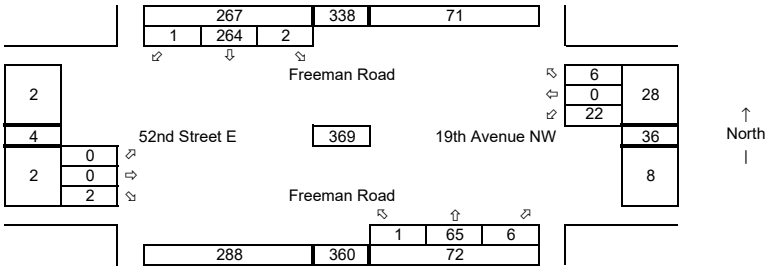
Year: **6/8/2023**

Data Source: IDAX

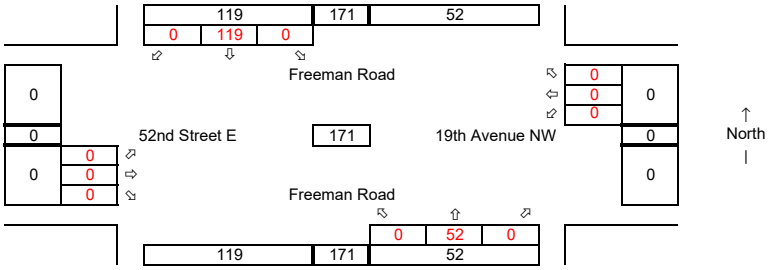


Future without Project
Average Weekday
PM Peak Hour

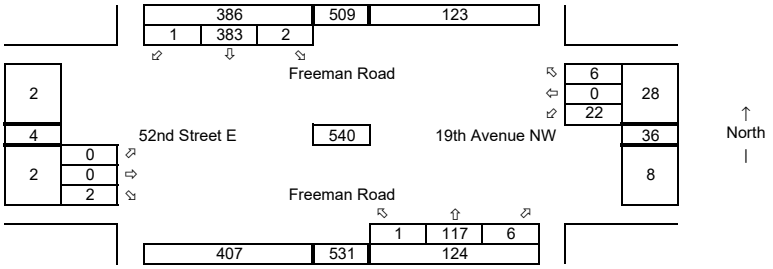
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



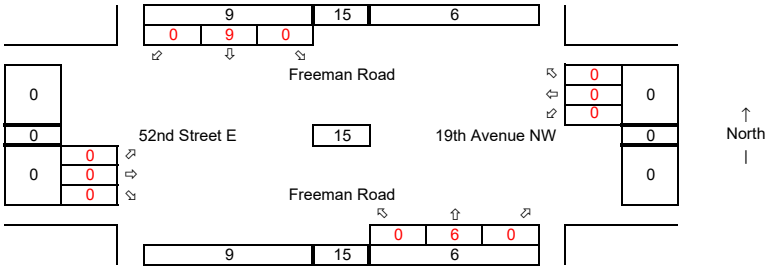
Total Development Trips
Average Weekday
PM Peak Hour



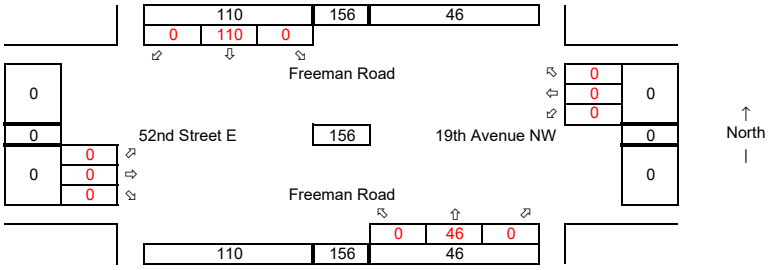
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



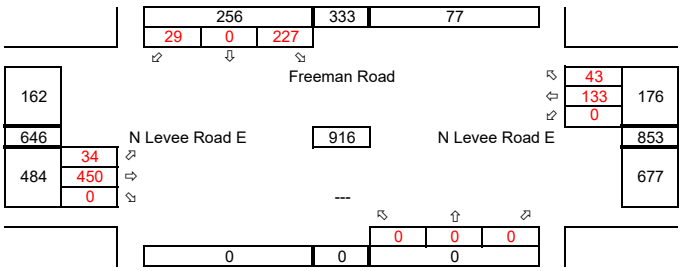
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 15
Existing
Average Weekday
PM Peak Hour

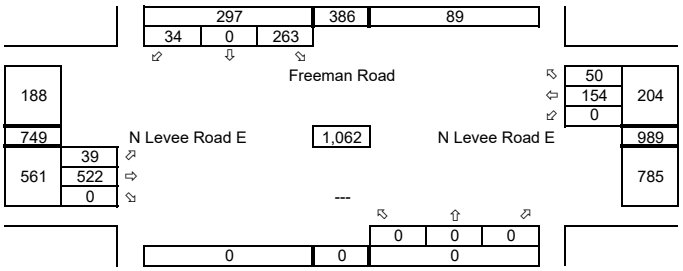
Year: **6/15/2023**

Data Source: IDAX

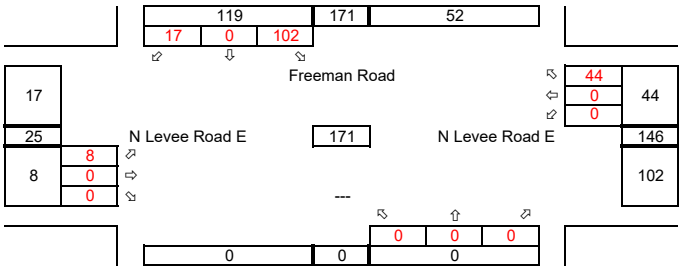


Future without Project
Average Weekday
PM Peak Hour

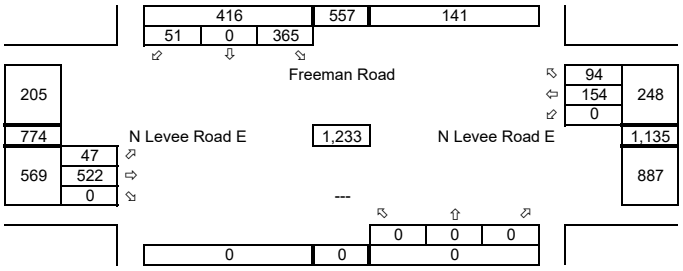
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



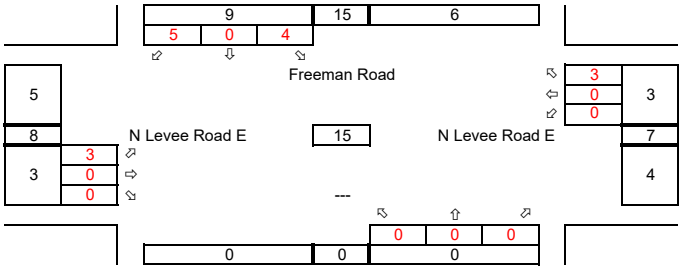
Total Development Trips
Average Weekday
PM Peak Hour



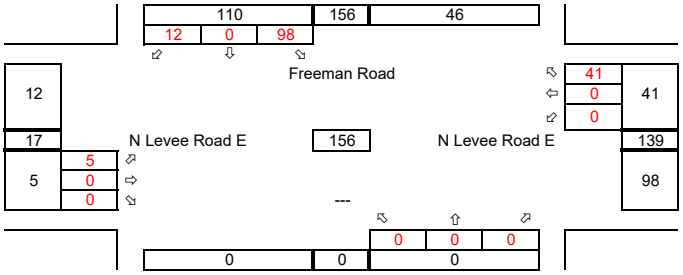
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



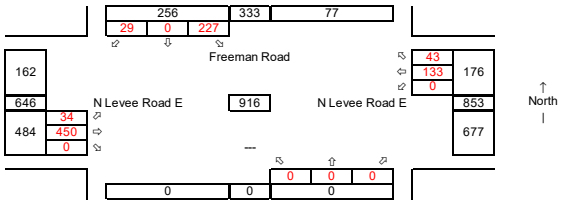
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 15
Existing
Average Weekday
PM Peak Hour

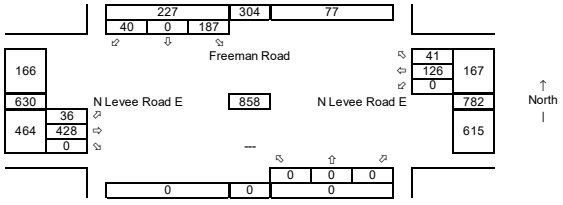
Year: **6/15/2023**

Data Source: IDAX

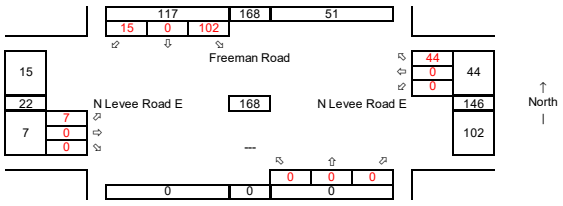


Future without Project
Average Weekday
PM Peak Hour

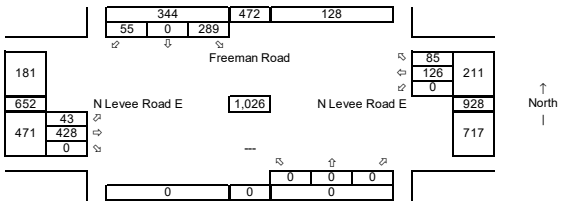
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



Total Development Trips
Average Weekday
PM Peak Hour

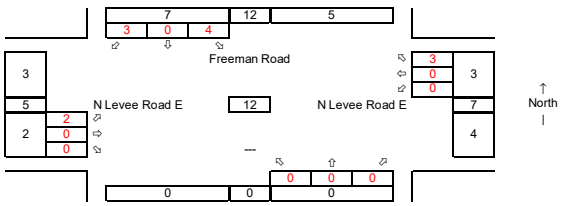


Future with Project
Average Weekday
PM Peak Hour

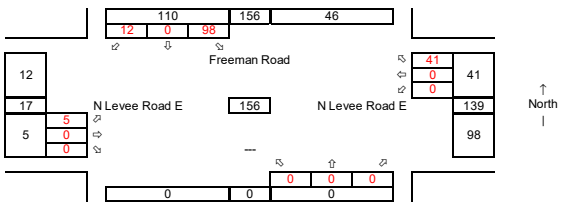


Development Truck Trips
Average Weekday
PM Peak Hour

N/S Diversion % -50%
from 70th Ave E

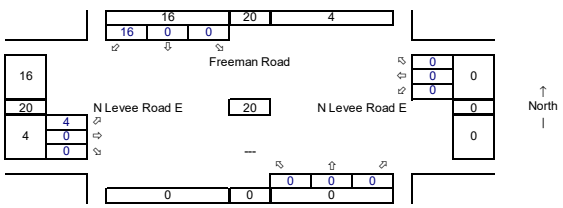


Development Car Trips
Average Weekday
PM Peak Hour



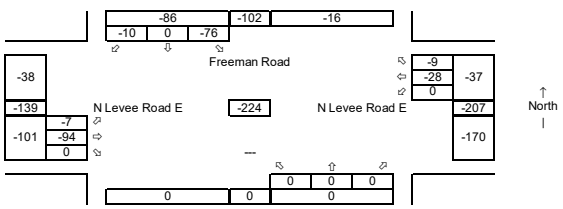
Total Pipeline Project Trips
Average Weekday
PM Peak Hour

Prologis Park Edgewood



SR-167 Extension Diversion
Average Weekday
PM Peak Hour

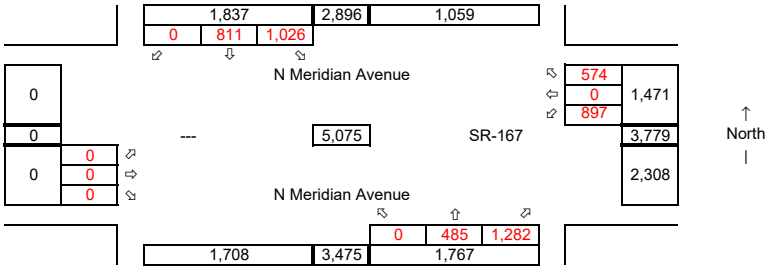
N/S Diversion % -29%
E/W Diversion % -18%



Synchro ID: 16
Existing
Average Weekday
PM Peak Hour

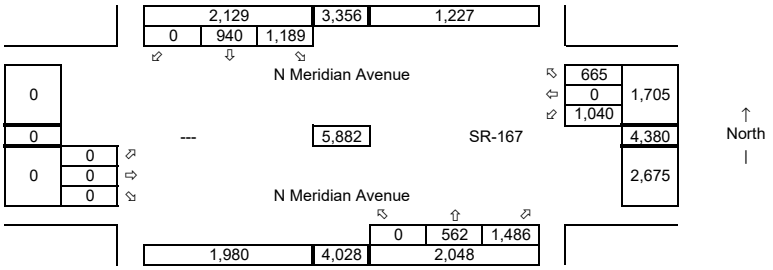
Year: **6/14/2023**

Data Source: IDAX

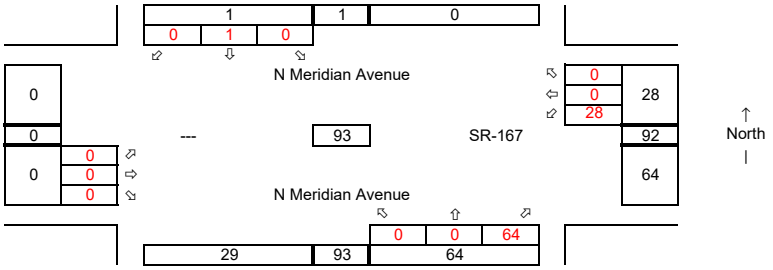


Future without Project
Average Weekday
PM Peak Hour

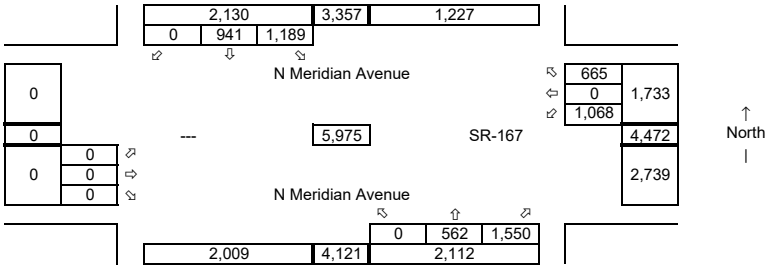
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



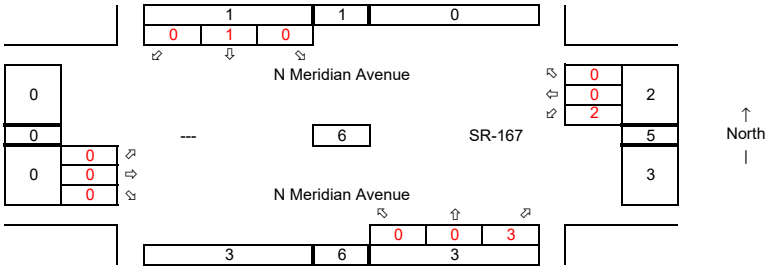
Total Development Trips
Average Weekday
PM Peak Hour



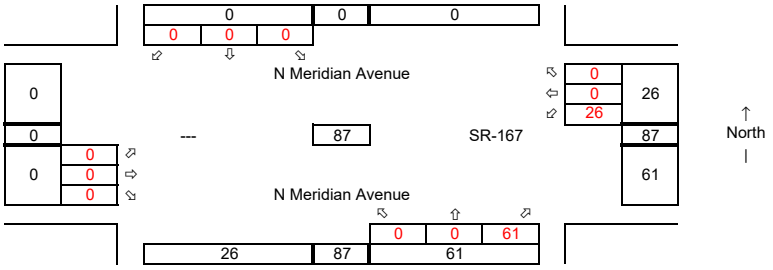
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



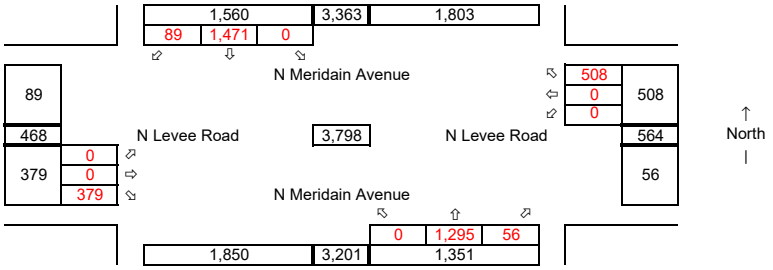
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 17
Existing
Average Weekday
PM Peak Hour

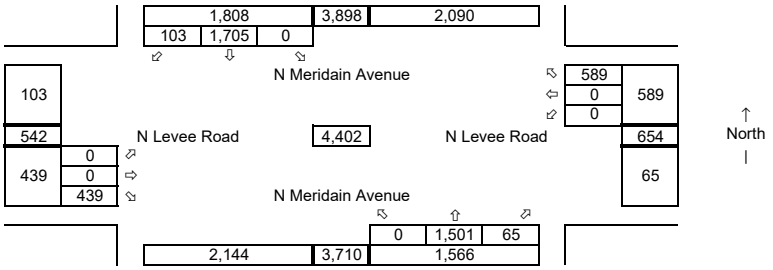
Year: **6/14/2023**

Data Source: IDAX

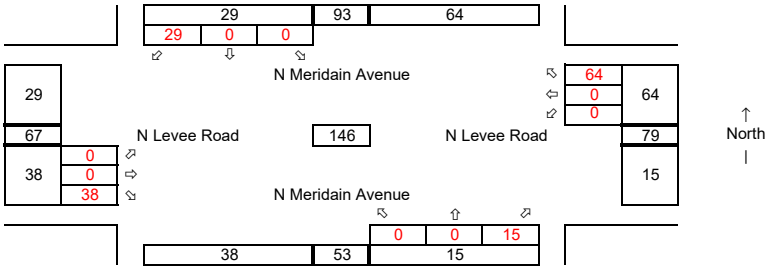


Future without Project
Average Weekday
PM Peak Hour

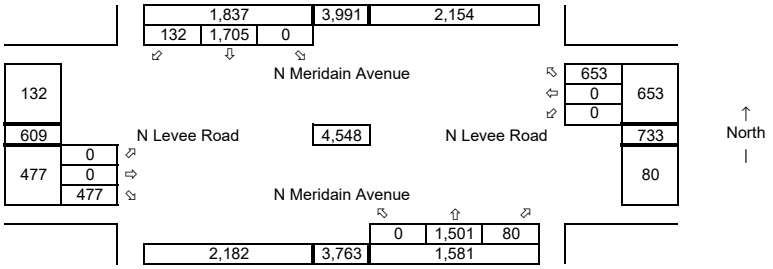
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



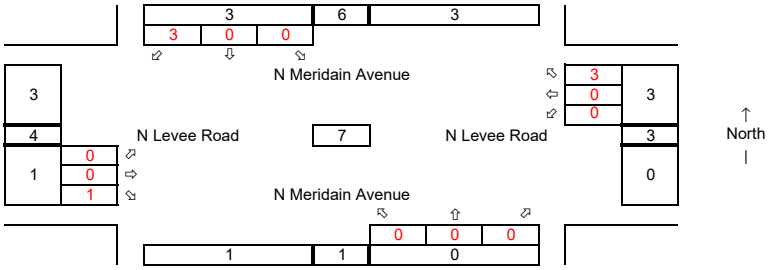
Total Development Trips
Average Weekday
PM Peak Hour



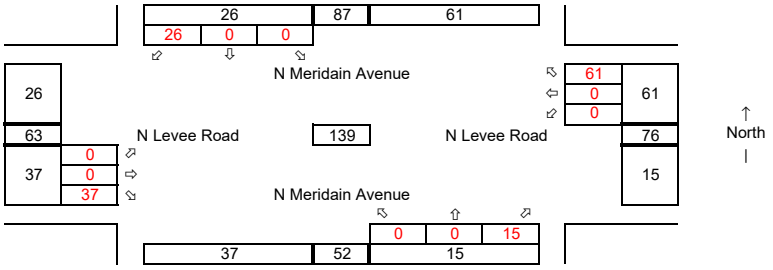
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



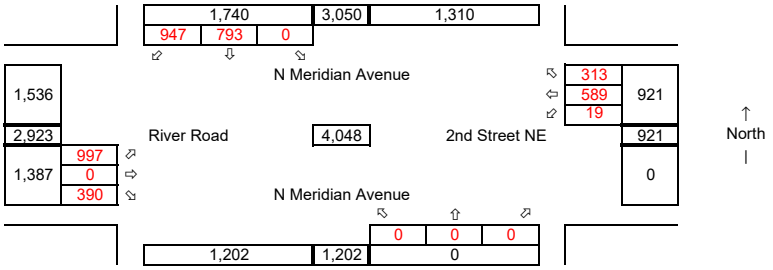
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 18
Existing
Average Weekday
PM Peak Hour

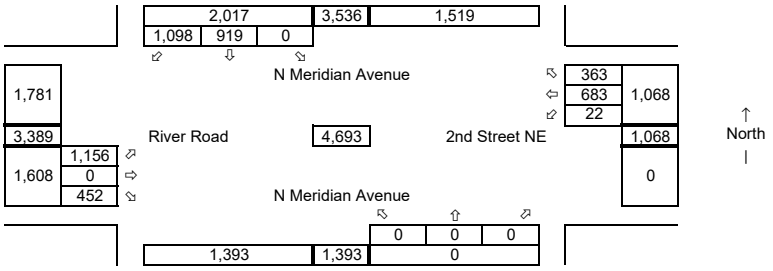
Year: **6/14/2023**

Data Source: IDAX

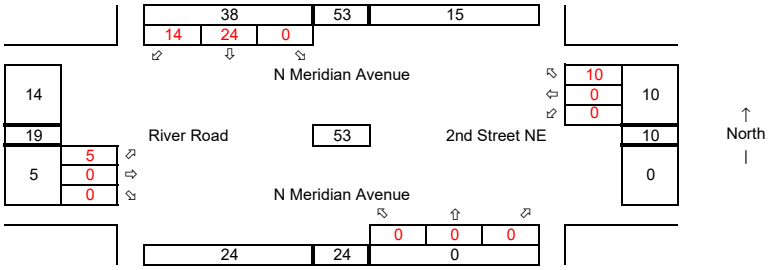


Future without Project
Average Weekday
PM Peak Hour

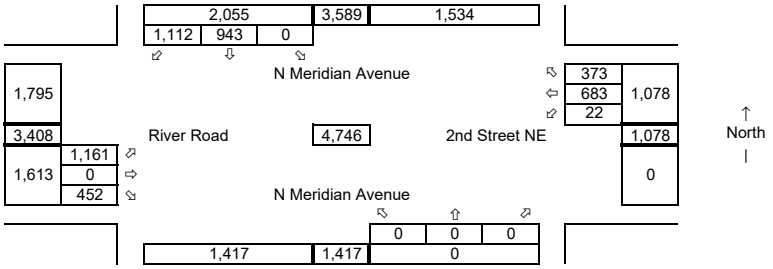
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



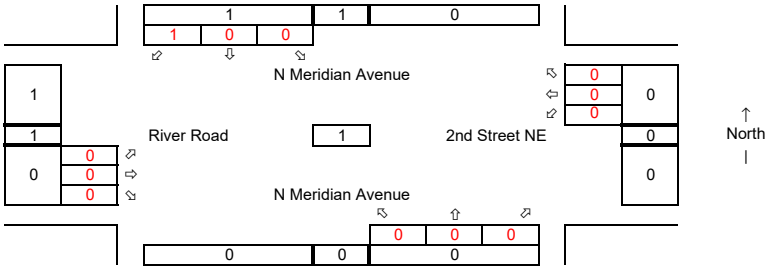
Total Development Trips
Average Weekday
PM Peak Hour



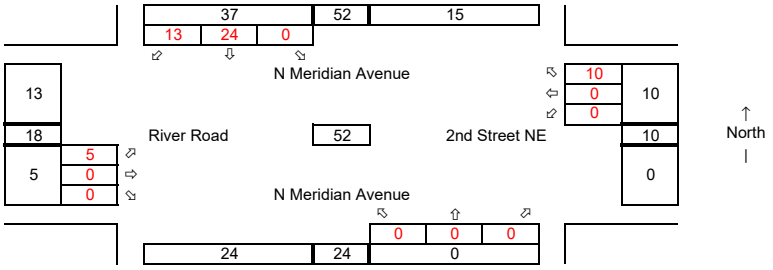
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour

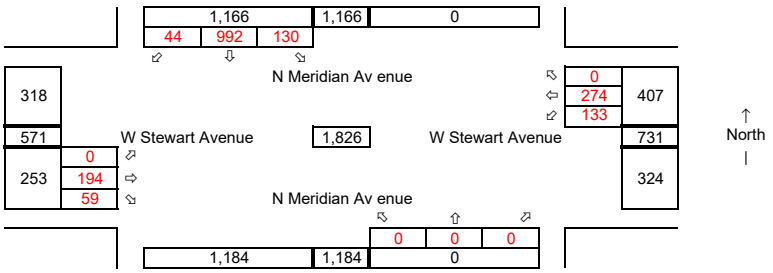


Synchro ID: 19
Existing
Average Weekday
PM Peak Hour

Year: **6/14/2023**

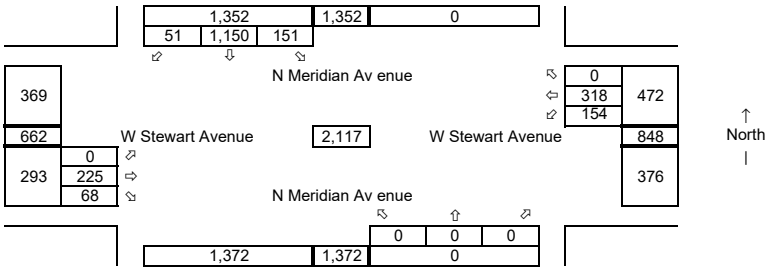
Data Source: IDAX

One (1) Westbound U-turn
added to Westbound left-turns

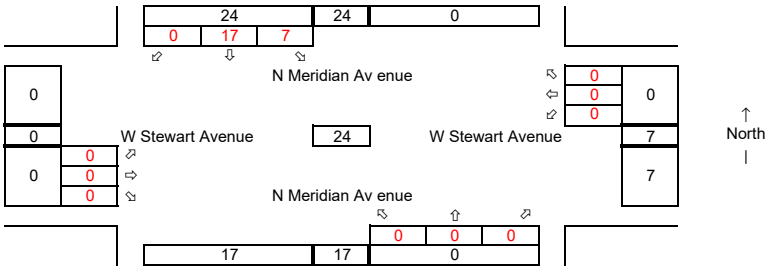


Future without Project
Average Weekday
PM Peak Hour

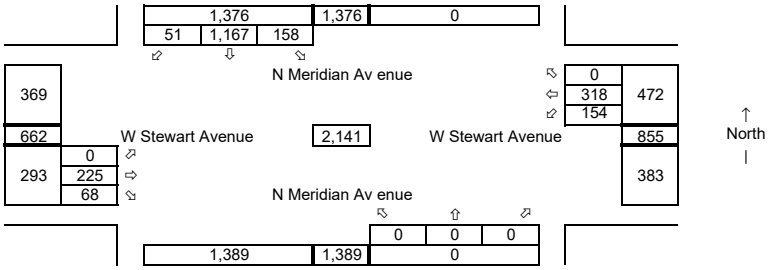
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



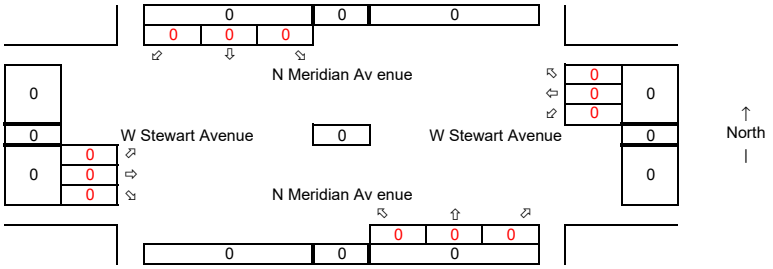
Total Development Trips
Average Weekday
PM Peak Hour



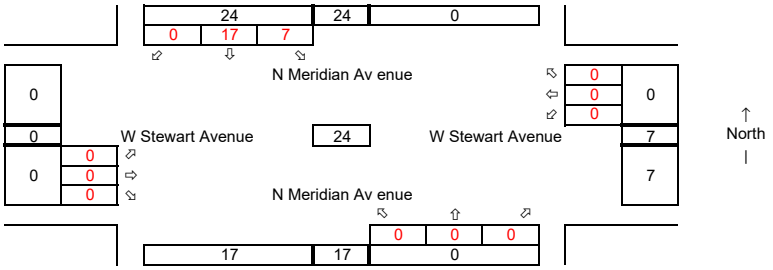
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



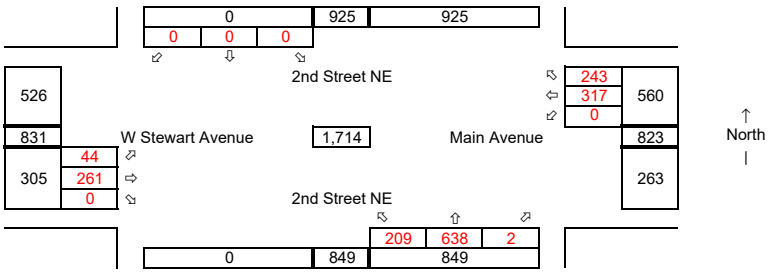
Development Car Trips
Average Weekday
PM Peak Hour



Synchro ID: 20
Existing
Average Weekday
PM Peak Hour

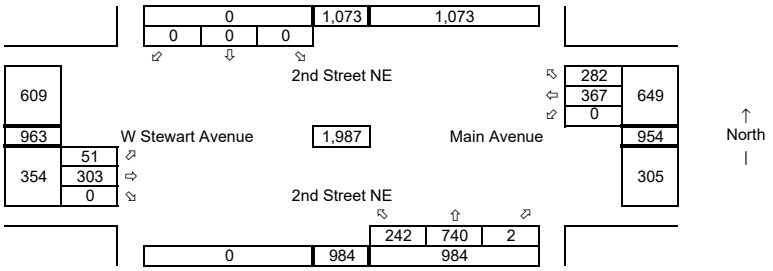
Year: **6/15/2023**

Data Source: IDAX

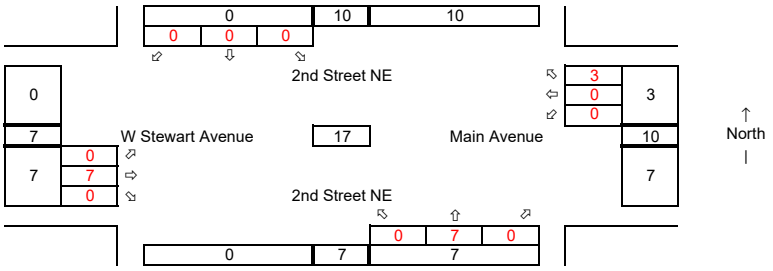


Future without Project
Average Weekday
PM Peak Hour

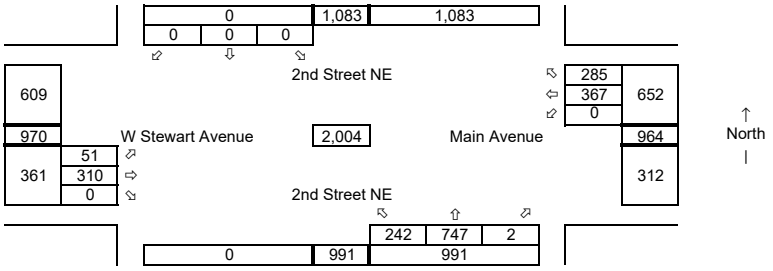
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



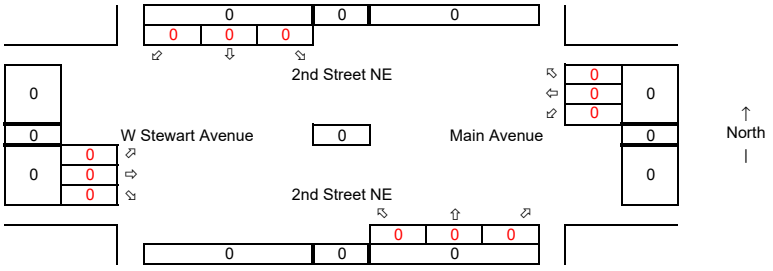
Total Development Trips
Average Weekday
PM Peak Hour



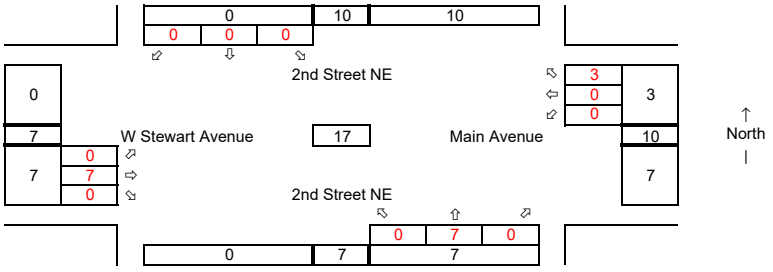
Future with Project
Average Weekday
PM Peak Hour



Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour

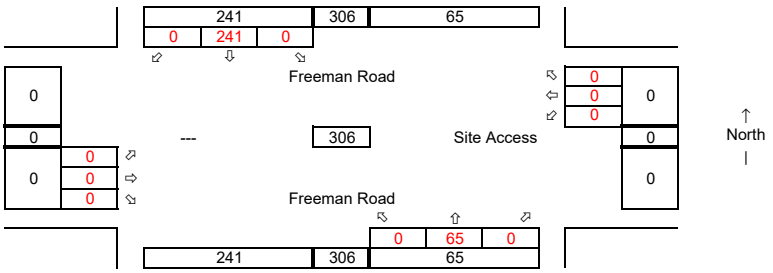


Synchro ID: 21
Existing
Average Weekday
PM Peak Hour

Year: **6/8/2023**

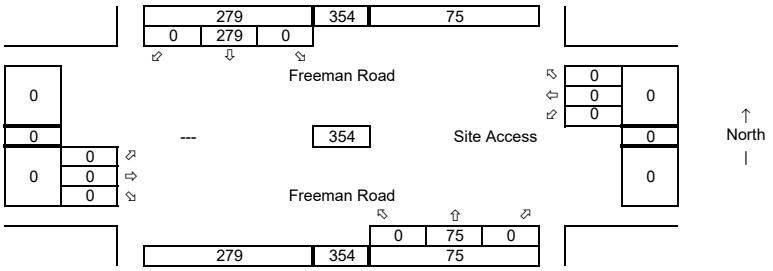
Data Source: IDAX

NB/SB volumes extrapolated from Freeman at 48th Street E

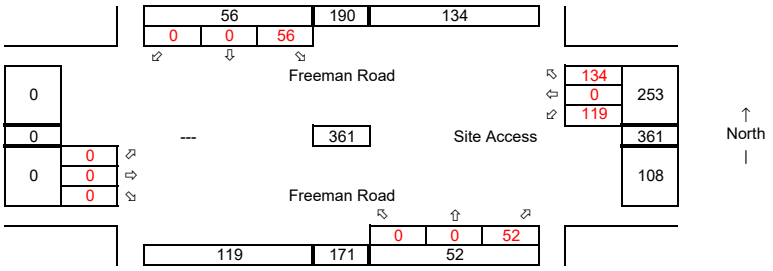


Future without Project
Average Weekday
PM Peak Hour

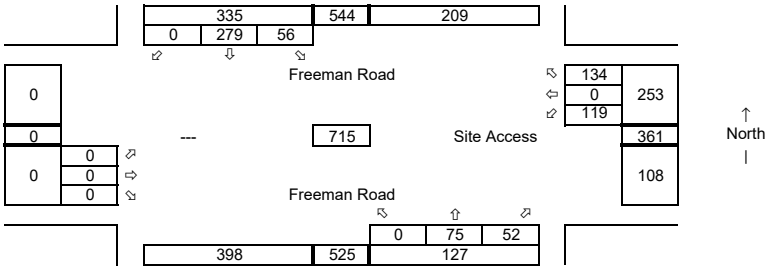
Year: 2028
Growth Rate = 3.0%
Years of Growth = 5
Total Growth = 1.1593



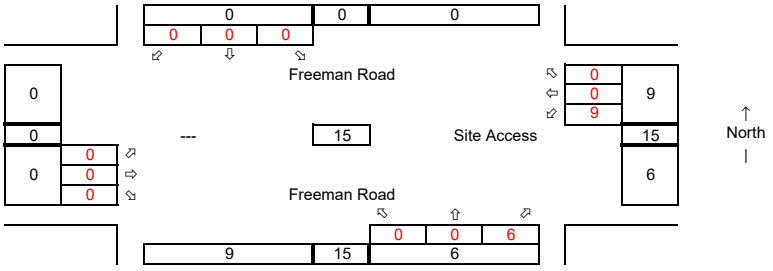
Total Development Trips
Average Weekday
PM Peak Hour



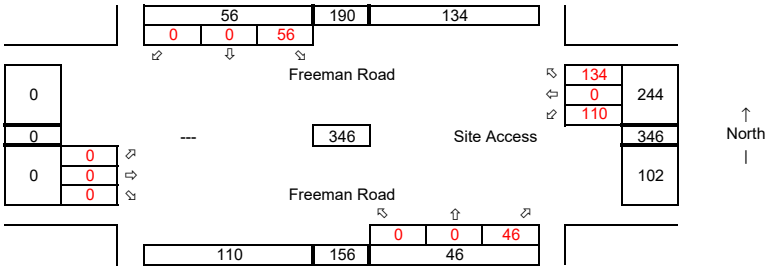
Future with Project
Average Weekday
PM Peak Hour

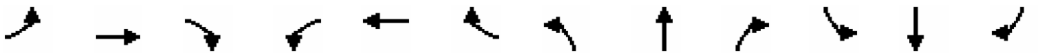


Development Truck Trips
Average Weekday
PM Peak Hour



Development Car Trips
Average Weekday
PM Peak Hour





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	150	49	83	234	191	48	337	49	153	499	51
Future Volume (vph)	19	150	49	83	234	191	48	337	49	153	499	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		0	100		0	100		0
Storage Lanes	1		0	1		0	1		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	0.95	0.95	1.00	0.95	0.95
Frt		0.963			0.933			0.981			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1591	0	1570	1541	0	1570	3079	0	1570	3095	0
Flt Permitted	0.200			0.524			0.434			0.454		
Satd. Flow (perm)	330	1591	0	866	1541	0	717	3079	0	750	3095	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19			46			24			16	
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		727			778			1175			536	
Travel Time (s)		19.8			15.2			22.9			10.4	
Peak Hour 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
Heavy Vehicles (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	20	210	0	87	447	0	51	407	0	161	579	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	24.5	24.5		24.5	24.5		10.5	19.0		10.5	17.0	
Total Split (s)	24.5	24.5		24.5	24.5		19.0	40.0		19.0	40.0	
Total Split (%)	29.3%	29.3%		29.3%	29.3%		22.8%	47.9%		22.8%	47.9%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		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		4.0	5.0		4.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Max		None	Max	
Act Effct Green (s)	20.0	20.0		20.0	20.0		42.6	35.0		48.1	41.3	
Actuated g/C Ratio	0.26	0.26		0.26	0.26		0.55	0.45		0.62	0.53	
v/c Ratio	0.24	0.49		0.39	1.03		0.11	0.29		0.29	0.35	
Control Delay (s/veh)	31.7	27.1		30.4	80.8		6.3	13.4		7.2	11.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	31.7	27.1		30.4	80.8		6.3	13.4		7.2	11.7	
LOS	C	C		C	F		A	B		A	B	
Approach Delay (s/veh)		27.5			72.6			12.6			10.7	
Approach LOS		C			E			B			B	
Queue Length 50th (ft)	8	77		34	~216		8	57		28	85	
Queue Length 95th (ft)	29	147		80	#410		20	93		51	126	

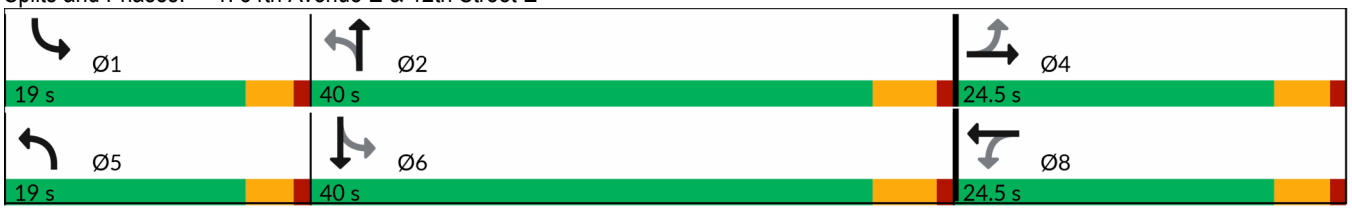
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		647			698			1095			456	
Turn Bay Length (ft)	100			200			100			100		
Base Capacity (vph)	85	426		224	433		617	1408		632	1660	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.24	0.49		0.39	1.03		0.08	0.29		0.25	0.35	

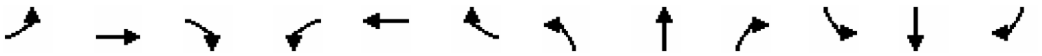
Intersection Summary			
Area Type:	Other		
Cycle Length: 83.5			
Actuated Cycle Length: 77.3			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.03			
Intersection Signal Delay (s/veh): 30.0		Intersection LOS: C	
Intersection Capacity Utilization 64.4%		ICU Level of Service 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: 1: 54th Avenue E & 12th Street E



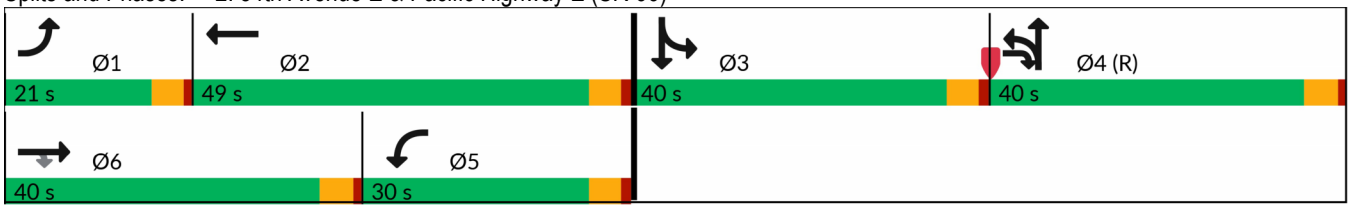


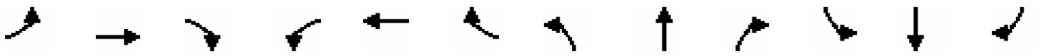
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	115	509	403	789	788	134	386	301	470	196	477	87
Future Volume (vph)	115	509	403	789	788	134	386	301	470	196	477	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	550		0	150		0	125		0
Storage Lanes	1		1	2		0	2		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.978			0.909			0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1626	3252	1455	3155	3181	0	3155	2956	0	1626	3177	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1626	3252	1455	3155	3181	0	3155	2956	0	1626	3177	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			47		13			245			13	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1085			1070			320			1175	
Travel Time (s)		21.1			20.8			6.2			22.9	
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 (%)	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	122	541	429	839	981	0	411	820	0	209	600	0
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		3	3	
Permitted Phases			6									
Detector Phase	1	6	4	5	2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	10.5	38.7	35.7	22.5	37.7		35.7	35.7		38.7	38.7	
Total Split (s)	21.0	40.0	40.0	30.0	49.0		40.0	40.0		40.0	40.0	
Total Split (%)	14.0%	26.7%	26.7%	20.0%	32.7%		26.7%	26.7%		26.7%	26.7%	
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		3.7	3.7		3.7	3.7	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7	4.7	4.5	4.7		4.7	4.7		4.7	4.7	
Lead/Lag	Lead	Lead	Lag	Lag	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	C-Max	None	None		C-Max	C-Max		None	None	
Act Effct Green (s)	14.9	30.0	73.3	29.2	44.3		38.7	38.7		33.6	33.6	
Actuated g/C Ratio	0.10	0.20	0.49	0.19	0.30		0.26	0.26		0.22	0.22	
v/c Ratio	0.76	0.83	0.58	1.37	1.03		0.51	0.90dr		0.58	0.83	
Control Delay (s/veh)	93.6	69.2	28.0	219.0	88.7		58.6	56.6		58.5	65.2	
Queue Delay	0.0	0.0	0.1	0.0	0.0		2.1	37.7		0.0	0.7	
Total Delay (s/veh)	93.6	69.2	28.0	219.0	88.7		60.7	94.3		58.5	65.9	
LOS	F	E	C	F	F		E	F		E	E	
Approach Delay (s/veh)		55.8			148.8			83.1			64.0	
Approach LOS		E			F			F			E	
Queue Length 50th (ft)	117	268	273	~546	~536		196	342		181	287	
Queue Length 95th (ft)	#204	325	366	#728	#675		245	#441		270	361	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1005			990			240			1095	
Turn Bay Length (ft)	225			550			150			125		
Base Capacity (vph)	178	765	735	614	948		813	943		382	757	
Starvation Cap Reductn	0	0	0	0	0		261	179		0	0	
Spillback Cap Reductn	0	0	18	0	0		0	0		0	30	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.69	0.71	0.60	1.37	1.03		0.74	1.07		0.55	0.83	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 10 (7%), Referenced to phase 4:NBTL, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.37			
Intersection Signal Delay (s/veh): 98.1		Intersection LOS: F	
Intersection Capacity Utilization 86.4%		ICU Level of Service E	
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.			
dr Defacto Right Lane. Recode with 1 though lane as a right lane.			

Splits and Phases: 2: 54th Avenue E & Pacific Highway E (SR-99)



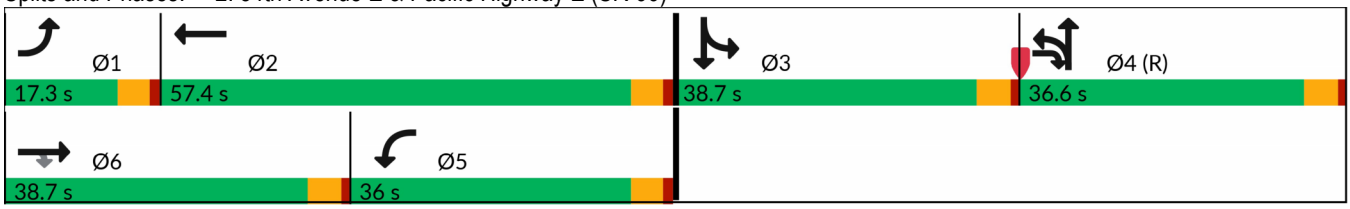


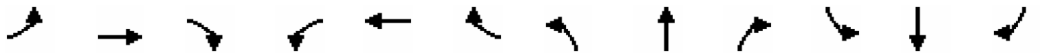
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	115	509	403	789	788	134	386	301	470	196	477	87
Future Volume (vph)	115	509	403	789	788	134	386	301	470	196	477	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	550		0	150		0	125		0
Storage Lanes	1		1	2		0	2		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.978			0.909			0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1626	3252	1455	3155	3181	0	3155	2956	0	1626	3177	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1626	3252	1455	3155	3181	0	3155	2956	0	1626	3177	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			47		14			238			13	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1085			1070			320			1175	
Travel Time (s)		21.1			20.8			6.2			22.9	
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 (%)	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	122	541	429	839	981	0	411	820	0	209	600	0
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		3	3	
Permitted Phases			6									
Detector Phase	1	6	4	5	2		4	4		3	3	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	6.0	10.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	10.5	38.7	35.7	22.5	37.7		35.7	35.7		38.7	38.7	
Total Split (s)	17.3	38.7	36.6	36.0	57.4		36.6	36.6		38.7	38.7	
Total Split (%)	11.5%	25.8%	24.4%	24.0%	38.3%		24.4%	24.4%		25.8%	25.8%	
Yellow Time (s)	3.5	3.7	3.7	3.5	3.7		3.7	3.7		3.7	3.7	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.7	4.7	4.5	4.7		4.7	4.7		4.7	4.7	
Lead/Lag	Lead	Lead	Lag	Lag	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	C-Max	None	None		C-Max	C-Max		None	None	
Act Effct Green (s)	12.7	29.7	69.9	33.3	50.2		35.6	35.6		32.9	32.9	
Actuated g/C Ratio	0.08	0.20	0.47	0.22	0.33		0.24	0.24		0.22	0.22	
v/c Ratio	0.89	0.84	0.61	1.20	0.91		0.55	0.95dr		0.59	0.85	
Control Delay (s/veh)	118.3	70.3	30.9	151.6	60.2		60.3	62.8		59.7	67.2	
Queue Delay	0.0	0.0	0.1	0.0	0.0		2.1	44.3		0.0	0.0	
Total Delay (s/veh)	118.3	70.3	31.0	151.6	60.2		62.3	107.1		59.7	67.2	
LOS	F	E	C	F	E		E	F		E	E	
Approach Delay (s/veh)		60.2			102.3			92.1			65.2	
Approach LOS		E			F			F			E	
Queue Length 50th (ft)	120	268	286	~493	466		198	~346		183	290	
Queue Length 95th (ft)	#245	330	392	#662	561		250	#475		273	365	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1005			990			240			1095	
Turn Bay Length (ft)	225			550			150			125		
Base Capacity (vph)	138	737	703	700	1126		747	882		368	730	
Starvation Cap Reductn	0	0	0	0	0		201	135		0	0	
Spillback Cap Reductn	0	0	15	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.88	0.73	0.62	1.20	0.87		0.75	1.10		0.57	0.82	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 10 (7%), Referenced to phase 4:NBTL, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.20			
Intersection Signal Delay (s/veh): 84.5		Intersection LOS: F	
Intersection Capacity Utilization 86.4%		ICU Level of Service E	
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.			
dr Defacto Right Lane. Recode with 1 though lane as a right lane.			

Splits and Phases: 2: 54th Avenue E & Pacific Highway E (SR-99)





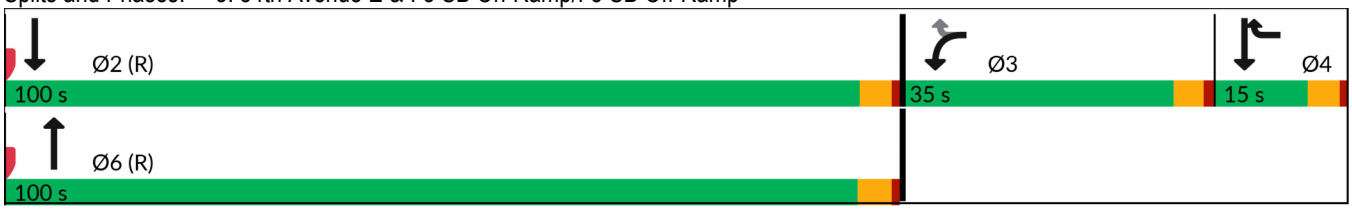
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	320	0	330	0	843	536	0	787	765
Future Volume (vph)	0	0	0	320	0	330	0	843	536	0	787	765
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		25	0		0
Storage Lanes	0		0	1		1	0		1	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	0.95	1.00	1.00	1.00	1.00
Frt						0.850			0.850			0.850
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	1720	0	1539	0	3490	1539	0	1811	1539
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1720	0	1539	0	3490	1539	0	1811	1539
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						175			78			257
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1083			1080			827			320	
Travel Time (s)		24.6			24.5			18.8			7.3	
Peak Hour 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
Bus Blockages (#/hr)	7	7	7	7	7	7	7	7	7	7	7	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	337	0	347	0	887	564	0	828	805
Turn Type				Prot		custom		NA	Free		NA	Free
Protected Phases				3		4		6			2 4	
Permitted Phases						3			Free			Free
Detector Phase				3		4		6			2 4	
Switch Phase												
Minimum Initial (s)				5.0		3.0		10.0				
Minimum Split (s)				22.5		7.5		22.7				
Total Split (s)				35.0		15.0		100.0				
Total Split (%)				23.3%		10.0%		66.7%				
Yellow Time (s)				3.5		3.5		3.7				
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		4.7				
Lead/Lag				Lead		Lag						
Lead-Lag Optimize?				Yes		Yes						
Recall Mode				None		None		C-Max				
Act Effct Green (s)				30.5		45.5		95.3	150.0		110.5	150.0
Actuated g/C Ratio				0.20		0.30		0.64	1.00		0.74	1.00
v/c Ratio				0.97		0.59		0.40	0.37		0.62	0.52
Control Delay (s/veh)				99.1		25.7		14.0	0.7		6.8	3.8
Queue Delay				0.0		7.2		0.2	0.0		9.5	0.0
Total Delay (s/veh)				99.1		32.9		14.2	0.7		16.2	3.8
LOS				F		C		B	A		B	A
Approach Delay (s/veh)					65.5			9.0			10.1	
Approach LOS					E			A			B	
Queue Length 50th (ft)				330		143		212	0		161	82
Queue Length 95th (ft)				#532		252		254	0		m170	m112

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	
Bus Blockages (#/hr)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	22.5
Total Split (s)	100.0
Total Split (%)	67%
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	C-Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
LOS	
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1003			1000			747			240	
Turn Bay Length (ft)									25			
Base Capacity (vph)				349		588		2218	1539		1334	1539
Starvation Cap Reductn				0		0		0	0		474	0
Spillback Cap Reductn				0		193		543	0		0	0
Storage Cap Reductn				0		0		0	0		0	0
Reduced v/c Ratio				0.97		0.88		0.53	0.37		0.96	0.52

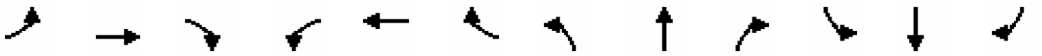
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 60 (40%), Referenced to phase 2:SBT and 6:NBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay (s/veh): 19.7		Intersection LOS: B	
Intersection Capacity Utilization 66.2%		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.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 3: 54th Avenue E & I-5 SB On-Ramp/I-5 SB Off-Ramp



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

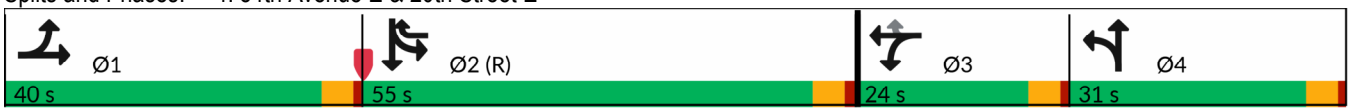


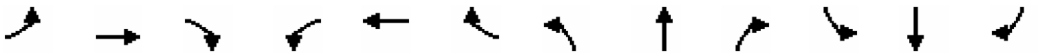
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	342	336	213	27	199	584	163	535	26	390	744	306
Future Volume (vph)	342	336	213	27	199	584	163	535	26	390	744	306
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	275		0	200		0	175		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.95
Frt		0.946				0.850		0.993			0.958	
Flt Protected	0.950	0.997			0.994		0.950			0.950	0.998	
Satd. Flow (prot)	1421	2822	0	0	1634	1398	1562	3102	0	1421	2861	0
Flt Permitted	0.950	0.997			0.994		0.950			0.950	0.998	
Satd. Flow (perm)	1421	2822	0	0	1634	1398	1562	3102	0	1421	2861	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		60				97		3			38	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		738			676			783			335	
Travel Time (s)		14.4			13.2			17.8			7.6	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Shared Lane Traffic (%)	12%									10%		
Lane Group Flow (vph)	307	602	0	0	231	596	166	573	0	358	1111	0
Turn Type	Split	NA		Split	NA	pm+ov	Split	NA		Split	NA	
Protected Phases	1	1		3	3	2	4	4		2	2	
Permitted Phases						3						
Detector Phase	1	1		3	3	2	4	4		2	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	24.5	24.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	40.0	40.0		24.0	24.0	55.0	31.0	31.0		55.0	55.0	
Total Split (%)	26.7%	26.7%		16.0%	16.0%	36.7%	20.7%	20.7%		36.7%	36.7%	
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	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	Lead	Lag	Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	C-Max	None	None		C-Max	C-Max	
Act Effct Green (s)	34.3	34.3			19.5	75.7	26.5	26.5		51.7	51.7	
Actuated g/C Ratio	0.23	0.23			0.13	0.50	0.18	0.18		0.34	0.34	
v/c Ratio	0.94	0.87			1.09	0.79	0.60	1.04		0.73	1.10	
Control Delay (s/veh)	94.1	64.1			146.3	34.8	67.2	107.9		53.8	103.4	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	94.1	64.1			146.3	34.8	67.2	107.9		53.8	103.4	
LOS	F	E			F	C	E	F		D	F	
Approach Delay (s/veh)		74.2			66.0			98.7			91.4	
Approach LOS		E			E			F			F	
Queue Length 50th (ft)	324	283			~253	413	152	~316		341	~674	
Queue Length 95th (ft)	#523	#370			#430	601	235	#442		483	#823	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		658			596			703			255	
Turn Bay Length (ft)	300						200			175		
Base Capacity (vph)	336	713			212	753	275	550		489	1010	
Starvation Cap Reductn	0	0			0	0	0	0		0	0	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.91	0.84			1.09	0.79	0.60	1.04		0.73	1.10	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 20 (13%), Referenced to phase 2:SBTL, Start of Green			
Natural Cycle: 135			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.10			
Intersection Signal Delay (s/veh): 83.5		Intersection LOS: F	
Intersection Capacity Utilization 95.8%		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.			

Splits and Phases: 4: 54th Avenue E & 20th Street E



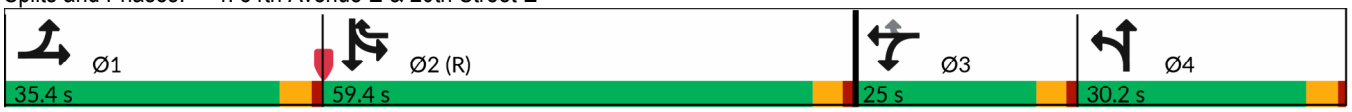


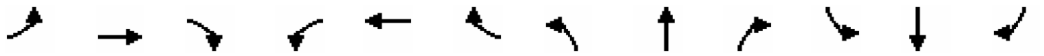
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	342	336	213	27	199	584	163	535	26	390	744	306
Future Volume (vph)	342	336	213	27	199	584	163	535	26	390	744	306
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	275		0	200		0	175		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.95
Frt		0.946				0.850		0.993			0.958	
Flt Protected	0.950	0.997			0.994		0.950			0.950	0.998	
Satd. Flow (prot)	1421	2822	0	0	1634	1398	1562	3102	0	1421	2861	0
Flt Permitted	0.950	0.997			0.994		0.950			0.950	0.998	
Satd. Flow (perm)	1421	2822	0	0	1634	1398	1562	3102	0	1421	2861	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		58				69		3			40	
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		738			676			783			335	
Travel Time (s)		14.4			13.2			17.8			7.6	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Shared Lane Traffic (%)	12%									10%		
Lane Group Flow (vph)	307	602	0	0	231	596	166	573	0	358	1111	0
Turn Type	Split	NA		Split	NA	pm+ov	Split	NA		Split	NA	
Protected Phases	1	1		3	3	2	4	4		2	2	
Permitted Phases						3						
Detector Phase	1	1		3	3	2	4	4		2	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	24.5	24.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	35.4	35.4		25.0	25.0	59.4	30.2	30.2		59.4	59.4	
Total Split (%)	23.6%	23.6%		16.7%	16.7%	39.6%	20.1%	20.1%		39.6%	39.6%	
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	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	Lead	Lag	Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	C-Max	None	None		C-Max	C-Max	
Act Effct Green (s)	30.9	30.9			20.5	79.9	25.7	25.7		54.9	54.9	
Actuated g/C Ratio	0.21	0.21			0.14	0.53	0.17	0.17		0.37	0.37	
v/c Ratio	1.05	0.96			1.04	0.77	0.62	1.08		0.69	1.04	
Control Delay (s/veh)	122.6	80.1			131.1	32.2	68.9	117.5		48.5	81.6	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	122.6	80.1			131.1	32.2	68.9	117.5		48.5	81.6	
LOS	F	F			F	C	E	F		D	F	
Approach Delay (s/veh)		94.5			59.9			106.6			73.5	
Approach LOS		F			E			F			E	
Queue Length 50th (ft)	~358	296			~242	404	153	~325		325	~626	
Queue Length 95th (ft)	#572	#428			#419	582	236	#451		461	#774	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		658			596			703			255	
Turn Bay Length (ft)	300						200			175		
Base Capacity (vph)	292	627			223	776	267	533		520	1072	
Starvation Cap Reductn	0	0			0	0	0	0		0	0	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	1.05	0.96			1.04	0.77	0.62	1.08		0.69	1.04	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 20 (13%), Referenced to phase 2:SBTL, Start of Green			
Natural Cycle: 135			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.08			
Intersection Signal Delay (s/veh): 81.7		Intersection LOS: F	
Intersection Capacity Utilization 95.8%		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.			

Splits and Phases: 4: 54th Avenue E & 20th Street E





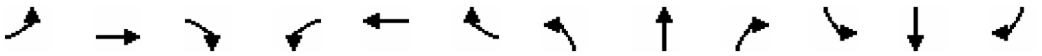
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	3	7	0	122	1	515	6	96	723	0
Future Volume (vph)	1	0	3	7	0	122	1	515	6	96	723	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	0		0	100		0
Storage Lanes	0		0	1		0	1		0	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	1.00	1.00	1.00	1.00	1.00
Frt		0.899			0.850			0.998				
Flt Protected		0.988		0.950			0.950			0.950		
Satd. Flow (prot)	0	1638	0	1752	1568	0	1752	1841	0	1752	1845	1845
Flt Permitted		0.874		0.672			0.299			0.324		
Satd. Flow (perm)	0	1449	0	1240	1568	0	552	1841	0	598	1845	1845
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		74			531			1				
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		362			838			554			783	
Travel Time (s)		9.9			22.9			12.6			17.8	
Peak Hour 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
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	4	0	7	128	0	1	548	0	101	761	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6			2		2
Detector Phase	3	8		7	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	6.0
Minimum Split (s)	9.5	24.5		22.5	24.0		9.5	22.5		9.5	22.5	22.5
Total Split (s)	14.0	16.5		14.0	16.0		14.0	34.5		16.0	36.5	36.5
Total Split (%)	17.3%	20.4%		17.3%	19.8%		17.3%	42.6%		19.8%	45.1%	45.1%
Yellow Time (s)	3.0	3.5		3.0	3.0		3.0	3.5		3.0	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		0.0	0.0	0.0
Total Lost Time (s)		4.5		4.0	4.0		4.0	4.5		4.0	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max		None	Max	Max
Act Effct Green (s)		5.5		7.7	7.7		39.3	35.1		43.7	42.6	
Actuated g/C Ratio		0.10		0.13	0.13		0.68	0.61		0.76	0.74	
v/c Ratio		0.02		0.03	0.19		0.00	0.49		0.17	0.56	
Control Delay (s/veh)		0.3		21.4	0.6		4.0	12.0		3.7	9.8	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)		0.3		21.4	0.6		4.0	12.0		3.7	9.8	
LOS		A		C	A		A	B		A	A	
Approach Delay (s/veh)		0.3			1.7			11.9			9.1	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)		0		2	0		0	108		6	77	
Queue Length 95th (ft)		0		11	0		2	280		29	#478	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		282			758			474			703	
Turn Bay Length (ft)				100						100		
Base Capacity (vph)		363		331	770		617	1123		698	1367	
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		0.01		0.02	0.17		0.00	0.49		0.14	0.56	

Intersection Summary			
Area Type:	Other		
Cycle Length: 81			
Actuated Cycle Length: 57.5			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.56			
Intersection Signal Delay (s/veh): 9.4		Intersection LOS: A	
Intersection Capacity Utilization 59.4%		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: 5: 54th Avenue E & Driveway/23rd Street E

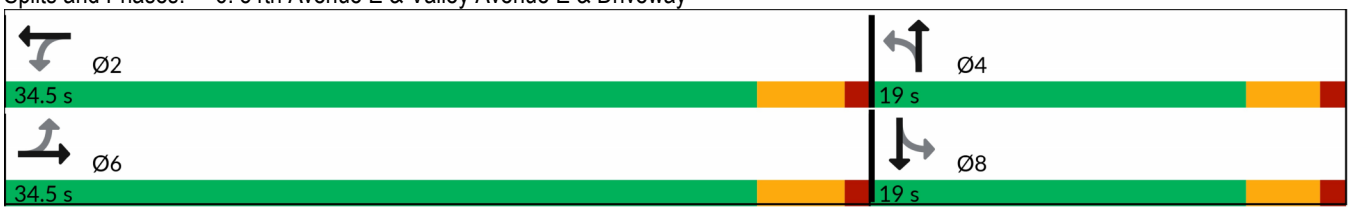


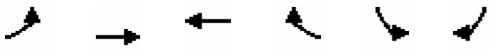
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	720	60	32	509	0	19	0	23	1	0	0
Future Volume (vph)	20	720	60	32	509	0	19	0	23	1	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	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		0.989						0.927				
Flt Protected	0.950			0.950				0.978			0.950	
Satd. Flow (prot)	1770	1842	0	1770	1863	0	0	1689	0	0	1770	0
Flt Permitted	0.451			0.302								
Satd. Flow (perm)	840	1842	0	563	1863	0	0	1727	0	0	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13						31				
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		554			491			578			252	
Travel Time (s)		12.6			11.2			15.8			6.9	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	22	848	0	35	553	0	0	46	0	0	1	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	30.5	30.5		22.5	22.5		32.0	32.0		32.0	32.0	
Total Split (s)	34.5	34.5		34.5	34.5		19.0	19.0		19.0	19.0	
Total Split (%)	64.5%	64.5%		64.5%	64.5%		35.5%	35.5%		35.5%	35.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		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			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		Max	Max		None	None		None	None	
Act Effct Green (s)	45.9	45.9		45.9	45.9			6.4			6.3	
Actuated g/C Ratio	0.88	0.88		0.88	0.88			0.12			0.12	
v/c Ratio	0.03	0.52		0.07	0.34			0.19			0.00	
Control Delay (s/veh)	2.3	4.1		2.5	2.7			13.5			20.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	2.3	4.1		2.5	2.7			13.5			20.0	
LOS	A	A		A	A			B			B	
Approach Delay (s/veh)		4.1			2.7			13.5			20.0	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	0	0		0	0			4			0	
Queue Length 95th (ft)	6	210		10	102			26			4	
Internal Link Dist (ft)		474			411			498			172	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	150			125								
Base Capacity (vph)	742	1629		497	1646			522			540	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.03	0.52		0.07	0.34			0.09			0.00	

Intersection Summary			
Area Type:	Other		
Cycle Length: 53.5			
Actuated Cycle Length: 52			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay (s/veh): 3.8		Intersection LOS: A	
Intersection Capacity Utilization 51.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 6: 54th Avenue E & Valley Avenue E & Driveway





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø7
Lane Configurations							
Traffic Volume (vph)	68	867	1748	20	10	35	
Future Volume (vph)	68	867	1748	20	10	35	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00	
Frt			0.998		0.894		
Flt Protected	0.950				0.989		
Satd. Flow (prot)	1719	3438	3431	0	1600	0	
Flt Permitted	0.950				0.989		
Satd. Flow (perm)	1719	3438	3431	0	1600	0	
Right Turn on Red				Yes		Yes	
Satd. Flow (RTOR)			1		36		
Link Speed (mph)		30	30		30		
Link Distance (ft)		439	500		370		
Travel Time (s)		10.0	11.4		8.4		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	71	903	1842	0	46	0	
Turn Type	Prot	NA	NA		Prot		
Protected Phases	1	6	2		8		7
Permitted Phases							
Detector Phase	1	6	2		8		
Switch Phase							
Minimum Initial (s)	6.0	10.0	10.0		5.0		5.0
Minimum Split (s)	10.5	23.7	33.7		22.5		31.5
Total Split (s)	19.5	66.2	66.2		34.5		31.5
Total Split (%)	12.9%	43.6%	43.6%		22.7%		21%
Yellow Time (s)	3.5	4.7	4.7		3.5		3.5
All-Red Time (s)	1.0	1.5	1.5		1.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		
Total Lost Time (s)	4.5	6.2	6.2		4.5		
Lead/Lag	Lead		Lag		Lag		Lead
Lead-Lag Optimize?	Yes		Yes		Yes		Yes
Recall Mode	None	Max	None		Max		None
Act Effct Green (s)	10.0	72.3	60.2		30.1		
Actuated g/C Ratio	0.09	0.64	0.53		0.27		
v/c Ratio	0.47	0.41	1.01		0.10		
Control Delay (s/veh)	60.1	10.5	50.9		14.7		
Queue Delay	0.0	0.0	0.0		0.0		
Total Delay (s/veh)	60.1	10.5	50.9		14.7		
LOS	E	B	D		B		
Approach Delay (s/veh)		14.1	50.9		14.7		
Approach LOS		B	D		B		
Queue Length 50th (ft)	51	155	~773		6		
Queue Length 95th (ft)	98	193	#964		36		
Internal Link Dist (ft)		359	420		290		
Turn Bay Length (ft)							
Base Capacity (vph)	228	2424	1826		452		

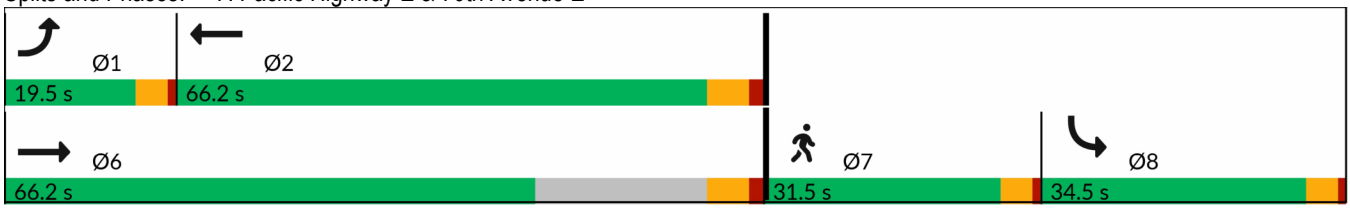
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø7
Starvation Cap Reductn	0	0	0		0		
Spillback Cap Reductn	0	0	0		0		
Storage Cap Reductn	0	0	0		0		
Reduced v/c Ratio	0.31	0.37	1.01		0.10		

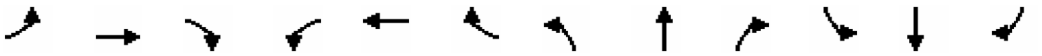
Intersection Summary			
Area Type:	Other		
Cycle Length: 151.7			
Actuated Cycle Length: 113.1			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.01			
Intersection Signal Delay (s/veh): 37.8		Intersection LOS: D	
Intersection Capacity Utilization 69.6%		ICU Level of 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: 7: Pacific Highway E & 70th Avenue E





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	509	117	138	496	233	158	628	96	189	919	90
Future Volume (vph)	51	509	117	138	496	233	158	628	96	189	919	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		200	400		400	250		0	225		0
Storage Lanes	1		1	1		1	1		0	2		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	0.95	0.95	0.97	0.95	0.95
Frt			0.850			0.850		0.980			0.987	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1641	1727	1468	1641	1727	1468	1641	3216	0	3183	3239	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	1727	1468	1641	1727	1468	1641	3216	0	3183	3239	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			93			156		15			9	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1295			1073			2009			522	
Travel Time (s)		25.2			20.9			39.1			10.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	525	121	142	511	240	163	746	0	195	1040	0
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2	3	7	4		3	8	
Permitted Phases			6			2						
Detector Phase	1	6	6	5	2	3	7	4		3	8	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	10.0	10.0	10.0	10.0	6.0		10.0	10.0	
Minimum Split (s)	10.5	22.5	22.5	14.5	22.5	14.5	14.5	26.5		14.5	26.5	
Total Split (s)	14.5	44.5	44.5	14.5	44.5	19.5	19.5	44.5		19.5	44.5	
Total Split (%)	11.8%	36.2%	36.2%	11.8%	36.2%	15.9%	15.9%	36.2%		15.9%	36.2%	
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		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	Min	Min	None	Min	None	None	None		None	None	
Act Effct Green (s)	8.6	38.5	38.5	10.0	42.2	59.4	14.3	41.7		12.6	40.0	
Actuated g/C Ratio	0.07	0.32	0.32	0.08	0.35	0.49	0.12	0.34		0.10	0.33	
v/c Ratio	0.46	0.95	0.23	1.05	0.85	0.30	0.84	0.67		0.59	0.96	
Control Delay (s/veh)	67.2	69.7	10.4	144.7	52.3	7.9	86.4	37.1		59.3	60.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	67.2	69.7	10.4	144.7	52.3	7.9	86.4	37.1		59.3	60.1	
LOS	E	E	B	F	D	A	F	D		E	E	
Approach Delay (s/veh)		59.2			55.1			45.9			60.0	
Approach LOS		E			E			D			E	
Queue Length 50th (ft)	41	403	15	~125	385	36	128	260		77	427	
Queue Length 95th (ft)	84	#620	60	#258	#596	87	#246	340		115	#577	

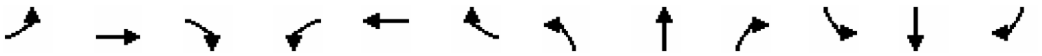
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1215			993			1929			442	
Turn Bay Length (ft)	250		200	400		400	250			225		
Base Capacity (vph)	135	571	548	135	602	825	204	1119		395	1078	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.39	0.92	0.22	1.05	0.85	0.29	0.80	0.67		0.49	0.96	

Intersection Summary			
Area Type:	Other		
Cycle Length: 123			
Actuated Cycle Length: 120.9			
Natural Cycle: 110			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.05			
Intersection Signal Delay (s/veh): 55.3		Intersection LOS: E	
Intersection Capacity Utilization 87.1%		ICU Level of Service E	
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: 8: 70th Avenue E & 20th Street E

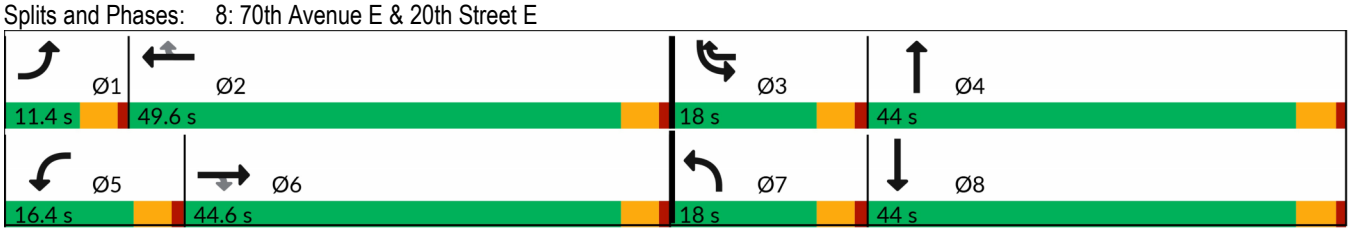


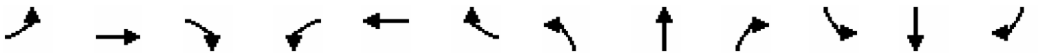
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	509	117	138	496	233	158	628	96	189	919	90
Future Volume (vph)	51	509	117	138	496	233	158	628	96	189	919	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		200	400		400	250		0	225		0
Storage Lanes	1		1	1		1	1		0	2		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	0.95	0.95	0.97	0.95	0.95
Frt			0.850			0.850		0.980			0.987	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1641	1727	1468	1641	1727	1468	1641	3216	0	3183	3239	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	1727	1468	1641	1727	1468	1641	3216	0	3183	3239	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			133			111		15			9	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1295			1073			2009			522	
Travel Time (s)		25.2			20.9			39.1			10.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	525	121	142	511	240	163	746	0	195	1040	0
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2	3	7	4		3	8	
Permitted Phases			6			2						
Detector Phase	1	6	6	5	2	3	7	4		3	8	
Switch Phase												
Minimum Initial (s)	6.0	10.0	10.0	10.0	10.0	10.0	10.0	6.0		10.0	10.0	
Minimum Split (s)	10.5	22.5	22.5	14.5	22.5	14.5	14.5	26.5		14.5	26.5	
Total Split (s)	11.4	44.6	44.6	16.4	49.6	18.0	18.0	44.0		18.0	44.0	
Total Split (%)	9.3%	36.3%	36.3%	13.3%	40.3%	14.6%	14.6%	35.8%		14.6%	35.8%	
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		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	Min	Min	None	Min	None	None	None		None	None	
Act Effct Green (s)	6.7	38.7	38.7	11.9	46.1	62.8	13.5	40.8		12.2	39.5	
Actuated g/C Ratio	0.06	0.32	0.32	0.10	0.38	0.52	0.11	0.34		0.10	0.32	
v/c Ratio	0.59	0.95	0.22	0.89	0.78	0.30	0.90	0.69		0.61	0.98	
Control Delay (s/veh)	82.2	69.8	4.9	101.4	43.9	10.0	98.8	38.6		61.2	64.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	82.2	69.8	4.9	101.4	43.9	10.0	98.8	38.6		61.2	64.7	
LOS	F	E	A	F	D	A	F	D		E	E	
Approach Delay (s/veh)		59.5			43.9			49.4			64.1	
Approach LOS		E			D			D			E	
Queue Length 50th (ft)	42	403	0	113	363	54	130	266		77	430	
Queue Length 95th (ft)	#99	#619	36	#237	#519	106	#263	342		117	#583	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		1215			993			1929			442	
Turn Bay Length (ft)	250		200	400		400	250			225		
Base Capacity (vph)	93	570	573	160	654	826	182	1088		353	1058	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.57	0.92	0.21	0.89	0.78	0.29	0.90	0.69		0.55	0.98	

Intersection Summary			
Area Type:	Other		
Cycle Length: 123			
Actuated Cycle Length: 121.6			
Natural Cycle: 110			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.98			
Intersection Signal Delay (s/veh): 54.8		Intersection LOS: D	
Intersection Capacity Utilization 87.1%		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: 8: 70th Avenue E & 20th Street E



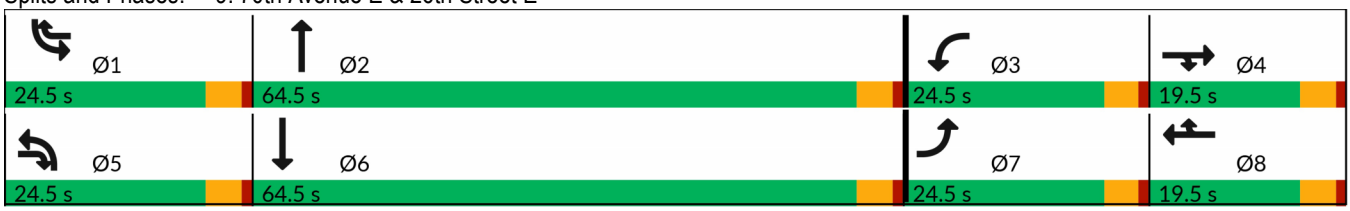


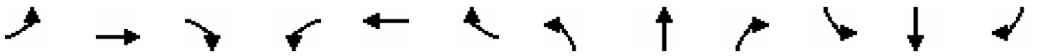
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	52	102	85	27	115	29	692	49	54	1041	15
Future Volume (vph)	45	52	102	85	27	115	29	692	49	54	1041	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	200		0	225		0
Storage Lanes	1		1	1		1	1		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	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.990			0.998	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1652	1404	1570	1652	1404	1570	3108	0	1570	3133	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1570	1652	1404	1570	1652	1404	1570	3108	0	1570	3133	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109			122		7			1	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1057			880			2032			2009	
Travel Time (s)		20.6			17.1			39.6			39.1	
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 (%)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	55	109	90	29	122	31	788	0	57	1123	0
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases	7	4	4 5	3	8	8 1	5	2		1	6	
Permitted Phases												
Detector Phase	7	4	4 5	3	8	8 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	10.0		6.0	10.0	
Minimum Split (s)	10.5	24.5		10.5	24.5		10.5	22.5		10.5	22.5	
Total Split (s)	24.5	19.5		24.5	19.5		24.5	64.5		24.5	64.5	
Total Split (%)	18.4%	14.7%		18.4%	14.7%		18.4%	48.5%		18.4%	48.5%	
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	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		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	9.3	9.5	22.8	11.9	14.5	29.3	8.4	40.5		9.9	42.0	
Actuated g/C Ratio	0.11	0.11	0.26	0.14	0.17	0.34	0.10	0.46		0.11	0.48	
v/c Ratio	0.29	0.31	0.24	0.42	0.11	0.22	0.21	0.55		0.32	0.75	
Control Delay (s/veh)	47.8	47.5	8.5	47.0	40.0	6.8	47.9	19.6		47.6	23.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	47.8	47.5	8.5	47.0	40.0	6.8	47.9	19.6		47.6	23.2	
LOS	D	D	A	D	D	A	D	B		D	C	
Approach Delay (s/veh)		27.5			25.8			20.7			24.4	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	25	29	0	46	14	0	16	162		30	261	
Queue Length 95th (ft)	74	82	46	118	49	45	55	275		84	427	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		977			800			1952			1929	
Turn Bay Length (ft)	150		150	150		150	200			225		
Base Capacity (vph)	389	307	636	389	344	710	389	2218		389	2234	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.12	0.18	0.17	0.23	0.08	0.17	0.08	0.36		0.15	0.50	

Intersection Summary			
Area Type:	Other		
Cycle Length: 133			
Actuated Cycle Length: 87.4			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay (s/veh): 23.6		Intersection LOS: C	
Intersection Capacity Utilization 56.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 9: 70th Avenue E & 26th Street E





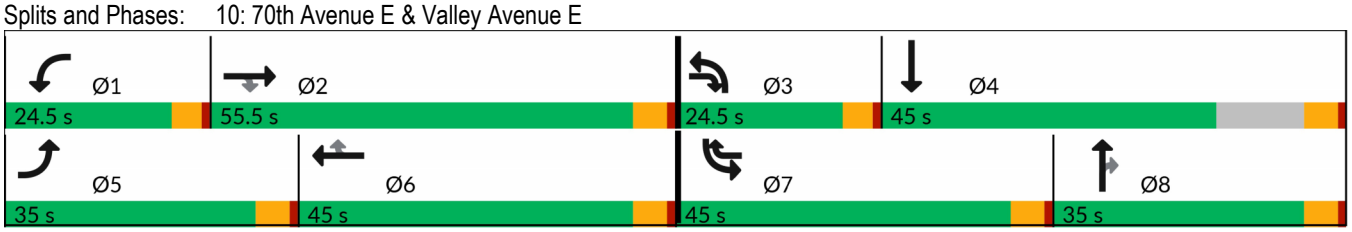
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	567	173	79	348	380	152	298	45	599	538	92
Future Volume (vph)	27	567	173	79	348	380	152	298	45	599	538	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		250	200		0	200		130	350		0
Storage Lanes	1		1	1		1	1		1	2		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	0.95	1.00	0.97	0.95	0.95
Frt			0.850			0.850			0.850		0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1641	1727	1468	1641	1727	1468	1641	3282	1468	3183	3210	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	1727	1468	1641	1727	1468	1641	3282	1468	3183	3210	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			143			396			143		13	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		831			1056			750			2032	
Travel Time (s)		18.9			24.0			14.6			39.6	
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 (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	591	180	82	363	396	158	310	47	624	656	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2	3	1	6	7	3	8		7	4	
Permitted Phases			2			6			8			
Detector Phase	5	2	3	1	6	7	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0	6.0	6.0	8.0	8.0	6.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	11.0	31.0	10.5	10.5	31.0	13.0	10.5	31.0	31.0	13.0	31.0	
Total Split (s)	35.0	55.5	24.5	24.5	45.0	45.0	24.5	35.0	35.0	45.0	45.0	
Total Split (%)	21.9%	34.7%	15.3%	15.3%	28.1%	28.1%	15.3%	21.9%	21.9%	28.1%	28.1%	
Yellow Time (s)	4.0	4.0	3.5	3.5	4.0	4.0	3.5	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	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	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	4.5	4.5	5.0	5.0	4.5	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	Min	None	None	Min	None	None	None	None	None	None	
Act Effct Green (s)	9.4	51.0	73.8	12.8	59.6	98.4	17.7	19.5	19.5	33.7	36.0	
Actuated g/C Ratio	0.07	0.37	0.54	0.09	0.44	0.72	0.13	0.14	0.14	0.25	0.26	
v/c Ratio	0.25	0.92	0.21	0.54	0.48	0.34	0.75	0.66	0.14	0.80	0.77	
Control Delay (s/veh)	70.0	62.9	5.7	74.4	34.3	1.7	80.3	63.9	0.9	57.2	52.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	70.0	62.9	5.7	74.4	34.3	1.7	80.3	63.9	0.9	57.2	52.5	
LOS	E	E	A	E	C	A	F	E	A	E	D	
Approach Delay (s/veh)		50.3			22.8			63.2			54.8	
Approach LOS		D			C			E			D	
Queue Length 50th (ft)	24	507	15	71	249	0	136	140	0	268	284	
Queue Length 95th (ft)	62	#893	64	138	409	37	#265	206	0	376	373	

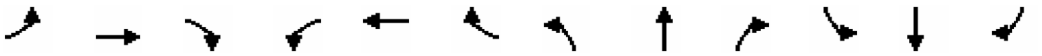
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		751			976			670			1952	
Turn Bay Length (ft)	150		250	200			200		130	350		
Base Capacity (vph)	363	644	882	242	752	1219	242	727	436	940	1206	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.08	0.92	0.20	0.34	0.48	0.32	0.65	0.43	0.11	0.66	0.54	

Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 136.8			
Natural Cycle: 110			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay (s/veh): 47.2		Intersection LOS: D	
Intersection Capacity Utilization 76.9%		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: 10: 70th Avenue E & Valley Avenue E



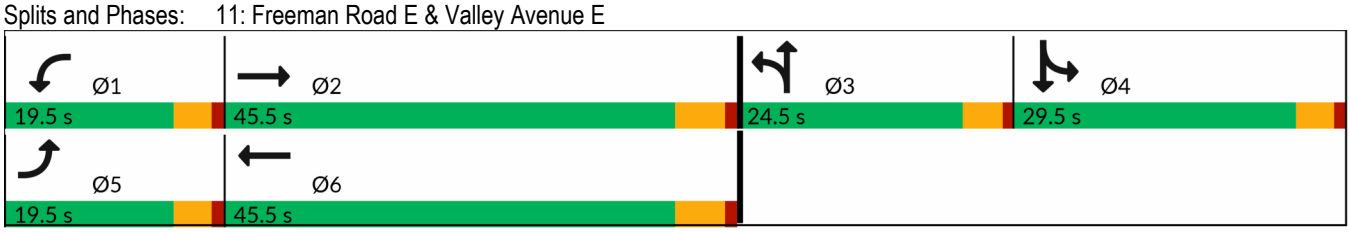


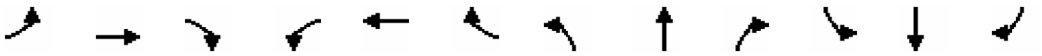
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	1024	156	22	525	128	114	61	32	253	175	23
Future Volume (vph)	29	1024	156	22	525	128	114	61	32	253	175	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	230		0	50		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.971			0.949			0.983	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1656	3246	0	1656	3216	0	1656	1654	0	1656	1713	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1656	3246	0	1656	3216	0	1656	1654	0	1656	1713	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			27			19			5	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		671			1259			2534			494	
Travel Time (s)		15.3			28.6			69.1			13.5	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	33	1326	0	25	734	0	128	105	0	284	223	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	3		4	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0		4.0	8.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	10.5	26.5		9.5	26.5		22.5	22.5		27.5	27.5	
Total Split (s)	19.5	45.5		19.5	45.5		24.5	24.5		29.5	29.5	
Total Split (%)	16.4%	38.2%		16.4%	38.2%		20.6%	20.6%		24.8%	24.8%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		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	5.5		4.5	5.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	8.1	41.4		7.6	38.6		13.5	13.5		21.7	21.7	
Actuated g/C Ratio	0.08	0.43		0.08	0.40		0.14	0.14		0.23	0.23	
v/c Ratio	0.24	0.94		0.19	0.56		0.55	0.42		0.76	0.57	
Control Delay (s/veh)	49.9	42.8		49.7	26.2		49.9	38.4		50.8	40.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	49.9	42.8		49.7	26.2		49.9	38.4		50.8	40.6	
LOS	D	D		D	C		D	D		D	D	
Approach Delay (s/veh)		43.0			27.0			44.7			46.3	
Approach LOS		D			C			D			D	
Queue Length 50th (ft)	19	382		14	199		72	47		152	111	
Queue Length 95th (ft)	55	#725		45	292		145	108		#324	226	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		591			1179			2454			414	
Turn Bay Length (ft)	150			230			50			250		
Base Capacity (vph)	264	1406		264	1384		352	367		440	459	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.13	0.94		0.09	0.53		0.36	0.29		0.65	0.49	

Intersection Summary			
Area Type:	Other		
Cycle Length: 119			
Actuated Cycle Length: 96.1			
Natural Cycle: 110			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay (s/veh): 39.5		Intersection LOS: D	
Intersection Capacity Utilization 64.5%		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: Freeman Road E & Valley Avenue E



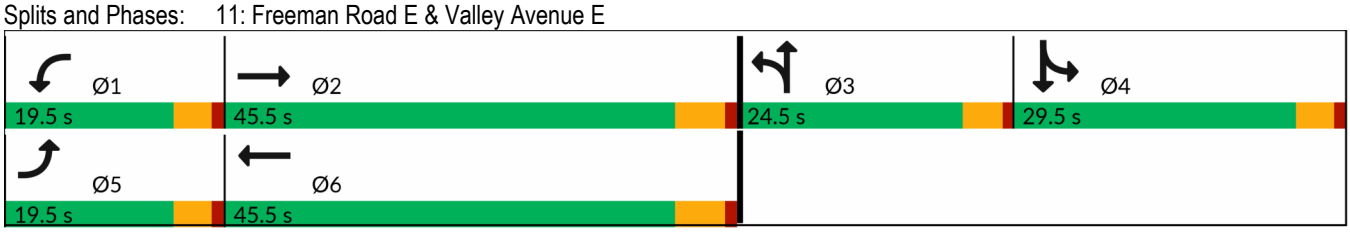


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	909	140	35	599	127	111	50	26	180	124	16
Future Volume (vph)	25	909	140	35	599	127	111	50	26	180	124	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	230		0	50		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.974			0.949			0.983	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1656	3246	0	1656	3226	0	1656	1654	0	1656	1713	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1656	3246	0	1656	3226	0	1656	1654	0	1656	1713	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			23			19			5	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		671			1259			4678			494	
Travel Time (s)		15.3			28.6			127.6			13.5	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	1178	0	39	816	0	125	85	0	202	157	0
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	3		4	4	
Switch Phase												
Minimum Initial (s)	6.0	8.0		4.0	8.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	10.5	26.5		9.5	26.5		22.5	22.5		27.5	27.5	
Total Split (s)	19.5	45.5		19.5	45.5		24.5	24.5		29.5	29.5	
Total Split (%)	16.4%	38.2%		16.4%	38.2%		20.6%	20.6%		24.8%	24.8%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		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	5.5		4.5	5.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	7.8	41.3		8.4	41.7		13.1	13.1		17.2	17.2	
Actuated g/C Ratio	0.08	0.44		0.09	0.44		0.14	0.14		0.18	0.18	
v/c Ratio	0.20	0.82		0.27	0.57		0.54	0.35		0.67	0.50	
Control Delay (s/veh)	49.5	32.5		49.7	24.0		49.7	36.2		48.9	40.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	49.5	32.5		49.7	24.0		49.7	36.2		48.9	40.9	
LOS	D	C		D	C		D	D		D	D	
Approach Delay (s/veh)		32.9			25.1			44.2			45.4	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	17	346		23	198		74	38		119	86	
Queue Length 95th (ft)	49	#617		61	331		144	90		211	161	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		591			1179			4598			414	
Turn Bay Length (ft)	150			230			50			250		
Base Capacity (vph)	272	1431		272	1443		362	377		453	473	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.10	0.82		0.14	0.57		0.35	0.23		0.45	0.33	

Intersection Summary			
Area Type:	Other		
Cycle Length: 119			
Actuated Cycle Length: 94.1			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay (s/veh): 33.0		Intersection LOS: C	
Intersection Capacity Utilization 56.6%		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: 11: Freeman Road E & Valley Avenue E



Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	27	18	192	308	12
Future Vol, veh/h	5	27	18	192	308	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	6	32	21	226	362	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	638	369	376	0	-	0
Stage 1	369	-	-	-	-	-
Stage 2	268	-	-	-	-	-
Critical Hdwy	6.44	6.24	4.14	-	-	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	2.236	-	-	-
Pot Cap-1 Maneuver	438	672	1171	-	-	-
Stage 1	695	-	-	-	-	-
Stage 2	772	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	429	672	1171	-	-	-
Mov Cap-2 Maneuver	429	-	-	-	-	-
Stage 1	680	-	-	-	-	-
Stage 2	772	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	11.21	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	154	-	617	-	-
HCM Lane V/C Ratio	0.018	-	0.061	-	-
HCM Control Delay (s/veh)	8.1	0	11.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	12	9	6	117	379	14
Future Vol, veh/h	12	9	6	117	379	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	14	11	7	138	446	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	606	454	462	0	-	0
Stage 1	454	-	-	-	-	-
Stage 2	152	-	-	-	-	-
Critical Hdwy	6.45	6.25	4.15	-	-	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	2.245	-	-	-
Pot Cap-1 Maneuver	455	600	1083	-	-	-
Stage 1	633	-	-	-	-	-
Stage 2	869	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	452	600	1083	-	-	-
Mov Cap-2 Maneuver	452	-	-	-	-	-
Stage 1	629	-	-	-	-	-
Stage 2	869	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	12.49	0.41	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	88	-	505	-	-
HCM Lane V/C Ratio	0.007	-	0.049	-	-
HCM Control Delay (s/veh)	8.3	0	12.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	2	22	0	6	1	117	6	2	383	1
Future Vol, veh/h	0	0	2	22	0	6	1	117	6	2	383	1
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	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	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	0	0	2	27	0	7	1	141	7	2	461	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	610	617	462	613	614	145	463	0	0	148	0	0
Stage 1	467	467	-	147	147	-	-	-	-	-	-	-
Stage 2	143	151	-	466	467	-	-	-	-	-	-	-
Critical Hdwy	7.16	6.56	6.26	7.16	6.56	6.26	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.16	5.56	-	6.16	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.16	5.56	-	6.16	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.554	4.054	3.354	3.554	4.054	3.354	2.254	-	-	2.254	-	-
Pot Cap-1 Maneuver	401	400	591	399	402	892	1078	-	-	1409	-	-
Stage 1	569	555	-	846	768	-	-	-	-	-	-	-
Stage 2	850	765	-	569	555	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	396	399	591	396	400	892	1078	-	-	1409	-	-
Mov Cap-2 Maneuver	396	399	-	396	400	-	-	-	-	-	-	-
Stage 1	567	554	-	845	767	-	-	-	-	-	-	-
Stage 2	842	764	-	566	554	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	11.11	13.66	0.07	0.04
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	14	-	-	591	449	9	-	-
HCM Lane V/C Ratio	0.001	-	-	0.004	0.075	0.002	-	-
HCM Control Delay (s/veh)	8.3	0	-	11.1	13.7	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0	-	-

Intersection	
Int Delay, s/veh	23.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	47	522	154	94	365	51
Future Vol, veh/h	47	522	154	94	365	51
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	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	49	544	160	98	380	53

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	258	0	-	0	851	209
Stage 1	-	-	-	-	209	-
Stage 2	-	-	-	-	642	-
Critical Hdwy	4.14	-	-	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.236	-	-	-	3.536	3.336
Pot Cap-1 Maneuver	1295	-	-	-	~ 328	826
Stage 1	-	-	-	-	821	-
Stage 2	-	-	-	-	520	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1295	-	-	-	~ 310	826
Mov Cap-2 Maneuver	-	-	-	-	415	-
Stage 1	-	-	-	-	776	-
Stage 2	-	-	-	-	520	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.65	0	68.66
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	149	-	-	-	442
HCM Lane V/C Ratio	0.038	-	-	-	0.98
HCM Control Delay (s/veh)	7.9	0	-	-	68.7
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.1	-	-	-	12.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	11.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	47	522	154	94	365	51
Future Vol, veh/h	47	522	154	94	365	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	49	544	160	98	380	53

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	258	0	-	0	851	209
Stage 1	-	-	-	-	209	-
Stage 2	-	-	-	-	642	-
Critical Hdwy	4.14	-	-	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.236	-	-	-	3.536	3.336
Pot Cap-1 Maneuver	1295	-	-	-	~ 328	826
Stage 1	-	-	-	-	821	-
Stage 2	-	-	-	-	520	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1295	-	-	-	~ 315	826
Mov Cap-2 Maneuver	-	-	-	-	471	-
Stage 1	-	-	-	-	790	-
Stage 2	-	-	-	-	520	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.65	0	34
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1295	-	-	-	471	826
HCM Lane V/C Ratio	0.038	-	-	-	0.806	0.064
HCM Control Delay (s/veh)	7.9	-	-	-	37.4	9.7
HCM Lane LOS	A	-	-	-	E	A
HCM 95th %tile Q(veh)	0.1	-	-	-	7.5	0.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	9.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	43	428	126	85	289	55
Future Vol, veh/h	43	428	126	85	289	55
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	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	45	446	131	89	301	57

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	220	0	-	0	711	176
Stage 1	-	-	-	-	176	-
Stage 2	-	-	-	-	535	-
Critical Hdwy	4.14	-	-	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.236	-	-	-	3.536	3.336
Pot Cap-1 Maneuver	1338	-	-	-	397	863
Stage 1	-	-	-	-	850	-
Stage 2	-	-	-	-	583	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	1338	-	-	-	379	863
Mov Cap-2 Maneuver	-	-	-	-	472	-
Stage 1	-	-	-	-	812	-
Stage 2	-	-	-	-	583	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.71	0	27.14
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	164	-	-	-	509
HCM Lane V/C Ratio	0.033	-	-	-	0.704
HCM Control Delay (s/veh)	7.8	0	-	-	27.1
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	5.5

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	43	428	126	85	289	55
Future Vol, veh/h	43	428	126	85	289	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	150
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	45	446	131	89	301	57

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	220	0	-	0	711	176
Stage 1	-	-	-	-	176	-
Stage 2	-	-	-	-	535	-
Critical Hdwy	4.14	-	-	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.236	-	-	-	3.536	3.336
Pot Cap-1 Maneuver	1338	-	-	-	397	863
Stage 1	-	-	-	-	850	-
Stage 2	-	-	-	-	583	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1338	-	-	-	383	863
Mov Cap-2 Maneuver	-	-	-	-	530	-
Stage 1	-	-	-	-	822	-
Stage 2	-	-	-	-	583	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.71	0	18.63
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1338	-	-	-	530	863
HCM Lane V/C Ratio	0.033	-	-	-	0.568	0.066
HCM Control Delay (s/veh)	7.8	-	-	-	20.4	9.5
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.1	-	-	-	3.5	0.2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1068	665	562	1550	1189	941
Future Volume (vph)	1068	665	562	1550	1189	941
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	2	2		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	0.88	0.95	1.00	0.97	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3367	2733	3471	1553	3367	3471
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3367	2733	3471	1553	3367	3471
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		68		557		
Link Speed (mph)	35		35			35
Link Distance (ft)	522		278			1175
Travel Time (s)	10.2		5.4			22.9
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1090	679	573	1582	1213	960
Turn Type	Prot	pm+ov	NA	Perm	Prot	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8		2		
Minimum Split (s)	36.6	10.6	38.9	38.9	10.6	36.9
Total Split (s)	48.0	47.0	35.0	35.0	47.0	82.0
Total Split (%)	36.9%	36.2%	26.9%	26.9%	36.2%	63.1%
Yellow Time (s)	3.6	3.6	3.9	3.9	3.6	3.9
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)	4.6	4.6	4.9	4.9	4.6	4.9
Lead/Lag		Lag	Lead	Lead	Lag	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Act Effct Green (s)	43.4	90.4	30.1	30.1	42.4	77.1
Actuated g/C Ratio	0.33	0.70	0.23	0.23	0.33	0.59
v/c Ratio	0.97	0.35	0.71	2.01	1.10	0.47
Control Delay (s/veh)	63.3	7.7	51.7	477.7	101.6	15.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	63.3	7.7	51.7	477.7	101.6	15.8
LOS	E	A	D	F	F	B
Approach Delay (s/veh)	41.9		364.4			63.7
Approach LOS	D		F			E
Queue Length 50th (ft)	465	105	235	~1716	~598	227
Queue Length 95th (ft)	#609	139	302	#1984	#734	277
Internal Link Dist (ft)	442		198			1095
Turn Bay Length (ft)					250	
Base Capacity (vph)	1124	1921	803	787	1098	2058
Starvation Cap Reductn	0	0	0	0	0	0

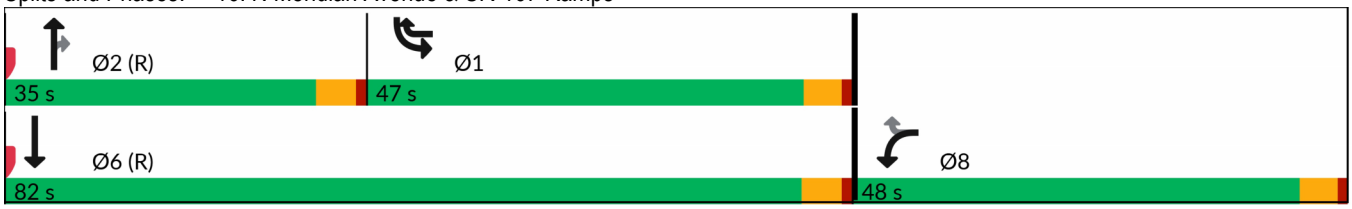
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.35	0.71	2.01	1.10	0.47

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 125 (96%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 150			
Control Type: Pretimed			
Maximum v/c Ratio: 2.01			
Intersection Signal Delay (s/veh): 163.7		Intersection LOS: F	
Intersection Capacity Utilization 137.8%		ICU Level of Service H	
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: 16: N Meridian Avenue & SR-167 Ramps



Intersection	
Int Delay, s/veh	123.1

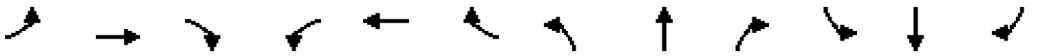
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	477	0	0	653	0	1501	80	0	1705	132
Future Vol, veh/h	0	0	477	0	0	653	0	1501	80	0	1705	132
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Free	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	497	0	0	680	0	1564	83	0	1776	138

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	957	-	-	782	-	0	-	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.96	-	-	6.96	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.33	-	-	3.33	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	~ 256	0	0	~ 335	0	-	0	0	-	-
Stage 1	0	0	-	0	0	-	0	-	0	0	-	-
Stage 2	0	0	-	0	0	-	0	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	-	-	~ 256	-	-	~ 335	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, $/+	468.96	$ 499.71	0	0
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBT	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	256	335	-	-
HCM Lane V/C Ratio	-	1.939	2.03	-	-
HCM Control Delay (s/veh)	-	$ 469	$ 499.7	-	-
HCM Lane LOS	-	F	F	-	-
HCM 95th %tile Q(veh)	-	35.4	48.4	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1161	0	452	22	683	373	0	0	0	0	943	1112
Future Volume (vph)	1161	0	452	22	683	373	0	0	0	0	943	1112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	125		0	0		0	0		250
Storage Lanes	2		1	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected	0.950			0.950								
Satd. Flow (prot)	3400	0	1568	1752	3505	1568	0	0	0	0	3505	1568
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	3400	0	1568	1752	3505	1568	0	0	0	0	3505	1568
Right Turn on Red			No	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				72		389						668
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		673			590			2133			1751	
Travel Time (s)		13.1			11.5			58.2			47.8	
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 (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1209	0	471	23	711	389	0	0	0	0	982	1158
Turn Type	Prot		Prot	Perm	NA	Perm					NA	Perm
Protected Phases	1		1		2						4	
Permitted Phases				2		2						4
Detector Phase	1		1	2	2	2					4	4
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0					10.0	10.0
Minimum Split (s)	10.1		10.1	35.1	35.1	35.1					30.8	30.8
Total Split (s)	42.0		42.0	29.0	29.0	29.0					34.0	34.0
Total Split (%)	40.0%		40.0%	27.6%	27.6%	27.6%					32.4%	32.4%
Yellow Time (s)	3.6		3.6	3.6	3.6	3.6					3.3	3.3
All-Red Time (s)	1.5		1.5	1.5	1.5	1.5					1.5	1.5
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Lost Time (s)	5.1		5.1	5.1	5.1	5.1					4.8	4.8
Lead/Lag	Lead		Lead	Lag	Lag	Lag						
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes						
Recall Mode	None		None	Max	Max	Max					None	None
Act Effct Green (s)	36.9		36.9	30.0	30.0	30.0					29.2	29.2
Actuated g/C Ratio	0.33		0.33	0.27	0.27	0.27					0.26	0.26
v/c Ratio	1.07		0.91	0.04	0.75	0.55					1.07	1.28
Control Delay (s/veh)	84.2		58.4	0.1	43.0	6.5					88.7	151.7
Queue Delay	0.0		0.0	0.0	0.0	0.0					0.0	0.0
Total Delay (s/veh)	84.2		58.4	0.1	43.0	6.5					88.7	151.7
LOS	F		E	A	D	A					F	F
Approach Delay (s/veh)		77.0			29.5						122.8	
Approach LOS		E			C						F	
Queue Length 50th (ft)	~494		319	0	244	0					~408	~677
Queue Length 95th (ft)	#626		#516	0	315	76					#538	#937

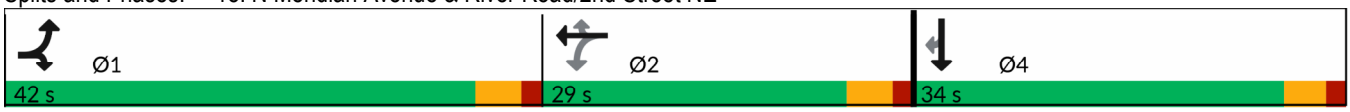
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		593			510			2053			1671	
Turn Bay Length (ft)				125								250
Base Capacity (vph)	1129		520	525	946	707					921	904
Starvation Cap Reductn	0		0	0	0	0					0	0
Spillback Cap Reductn	0		0	0	0	0					0	0
Storage Cap Reductn	0		0	0	0	0					0	0
Reduced v/c Ratio	1.07		0.91	0.04	0.75	0.55					1.07	1.28

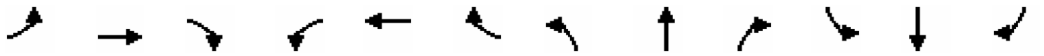
Intersection Summary			
Area Type:	Other		
Cycle Length: 105			
Actuated Cycle Length: 111.1			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.28			
Intersection Signal Delay (s/veh): 86.0		Intersection LOS: F	
Intersection Capacity Utilization 96.0%		ICU Level of 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.

Splits and Phases: 18: N Meridian Avenue & River Road/2nd Street NE





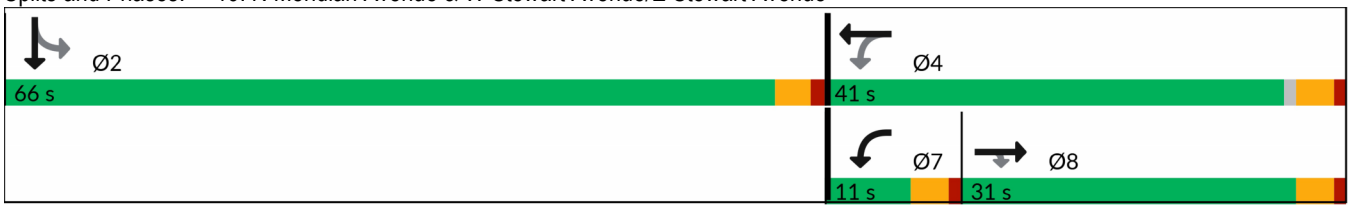
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	225	68	154	318	0	0	0	0	158	1167	51
Future Volume (vph)	0	225	68	154	318	0	0	0	0	158	1167	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	125		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	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	0.95	0.95	0.95
Frt			0.850								0.994	
Flt Protected				0.950							0.994	
Satd. Flow (prot)	0	1863	1583	1770	1863	0	0	0	0	0	3497	0
Flt Permitted				0.228							0.994	
Satd. Flow (perm)	0	1863	1583	425	1863	0	0	0	0	0	3497	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			51								6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		393			385			1349			2133	
Travel Time (s)		10.7			10.5			36.8			58.2	
Peak Hour 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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	237	72	162	335	0	0	0	0	0	1448	0
Turn Type		NA	Perm	pm+pt	NA					Perm	NA	
Protected Phases		8		7	4						2	
Permitted Phases			8	4						2		
Detector Phase		8	8	7	4					2	2	
Switch Phase												
Minimum Initial (s)		5.0	5.0	5.0	5.0					10.0	10.0	
Minimum Split (s)		21.0	21.0	9.0	21.0					23.0	23.0	
Total Split (s)		31.0	31.0	11.0	41.0					66.0	66.0	
Total Split (%)		28.7%	28.7%	10.2%	38.0%					61.1%	61.1%	
Yellow Time (s)		3.0	3.0	3.0	3.0					3.0	3.0	
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)		4.0	4.0	4.0	4.0						4.0	
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		None	None	None	None					Max	Max	
Act Effct Green (s)		15.6	15.6	26.5	26.5						62.1	
Actuated g/C Ratio		0.16	0.16	0.27	0.27						0.64	
v/c Ratio		0.79	0.24	0.76	0.66						0.64	
Control Delay (s/veh)		57.6	16.6	52.3	37.5						12.9	
Queue Delay		0.0	0.0	0.0	0.3						0.0	
Total Delay (s/veh)		57.6	16.6	52.3	37.8						12.9	
LOS		E	B	D	D						B	
Approach Delay (s/veh)		48.0			42.5						12.9	
Approach LOS		D			D						B	
Queue Length 50th (ft)		141	11	79	182						257	
Queue Length 95th (ft)		222	49	#155	272						400	
Internal Link Dist (ft)		313			305			1269			2053	

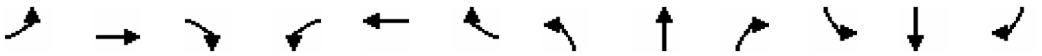
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)			50	125								
Base Capacity (vph)		521	479	214	733						2249	
Starvation Cap Reductn		0	0	0	83						0	
Spillback Cap Reductn		0	0	0	0						0	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		0.45	0.15	0.76	0.52						0.64	

Intersection Summary			
Area Type:	Other		
Cycle Length: 108			
Actuated Cycle Length: 96.7			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay (s/veh): 24.2		Intersection LOS: C	
Intersection Capacity Utilization 68.8%		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: 19: N Meridian Avenue & W Stewart Avenue





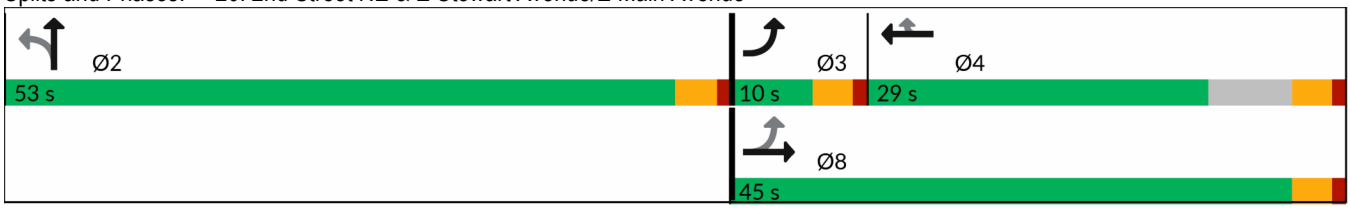
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	310	0	0	367	285	242	747	2	0	0	0
Future Volume (vph)	51	310	0	0	367	285	242	747	2	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	0		125	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
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	0.95	1.00	1.00	1.00
Frt						0.850						
Flt Protected	0.950							0.988				
Satd. Flow (prot)	1770	1863	0	0	1863	1583	0	3497	0	0	0	0
Flt Permitted	0.166							0.988				
Satd. Flow (perm)	309	1863	0	0	1863	1583	0	3497	0	0	0	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		385			615			394			343	
Travel Time (s)		10.5			16.8			10.7			9.4	
Peak Hour 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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	326	0	0	386	300	0	1043	0	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA				
Protected Phases	3	8			4			2				
Permitted Phases	8					4	2					
Detector Phase	3	8			4	4	2	2				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	10.0	10.0				
Minimum Split (s)	9.5	28.0			28.0	28.0	26.0	26.0				
Total Split (s)	10.0	45.0			29.0	29.0	53.0	53.0				
Total Split (%)	10.2%	45.9%			29.6%	29.6%	54.1%	54.1%				
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0				
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)	4.0	4.0			4.0	4.0		4.0				
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	None			None	None	Max	Max				
Act Effct Green (s)	27.4	27.4			20.1	20.1		49.6				
Actuated g/C Ratio	0.32	0.32			0.24	0.24		0.58				
v/c Ratio	0.28	0.54			0.88	0.80		0.51				
Control Delay (s/veh)	22.4	26.5			53.2	47.8		13.1				
Queue Delay	0.0	0.2			0.0	0.0		0.0				
Total Delay (s/veh)	22.4	26.8			53.2	47.8		13.1				
LOS	C	C			D	D		B				
Approach Delay (s/veh)		26.1			50.8			13.1				
Approach LOS		C			D			B				
Queue Length 50th (ft)	20	140			204	155		182				
Queue Length 95th (ft)	44	217			#337	250		258				
Internal Link Dist (ft)		305			535			314			263	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	50					125						
Base Capacity (vph)	203	908			686	583		2037				
Starvation Cap Reductn	0	156			0	0		0				
Spillback Cap Reductn	0	0			0	0		0				
Storage Cap Reductn	0	0			0	0		0				
Reduced v/c Ratio	0.27	0.43			0.56	0.51		0.51				

Intersection Summary			
Area Type:	Other		
Cycle Length: 98			
Actuated Cycle Length: 85.1			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay (s/veh): 27.7		Intersection LOS: C	
Intersection Capacity Utilization 68.8%		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: 20: 2nd Street NE & E Stewart Avenue/E Main Avenue



Intersection	
Int Delay, s/veh	5.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	119	134	75	52	56	279
Future Vol, veh/h	119	134	75	52	56	279
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
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	129	146	82	57	61	303

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	535	110	0	0	138	0
Stage 1	110	-	-	-	-	-
Stage 2	425	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	506	944	-	-	1446	-
Stage 1	915	-	-	-	-	-
Stage 2	659	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	485	944	-	-	1446	-
Mov Cap-2 Maneuver	485	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	632	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	14.46	0	1.27
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	653	1446	-
HCM Lane V/C Ratio	-	-	0.421	0.042	-
HCM Control Delay (s/veh)	-	-	14.5	7.6	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	2.1	0.1	-

APPENDIX H

PUGET SOUND GATEWAY PROGRAM – PHASE 1

Puget Sound Gateway Program – Phase 1 of the SR 167 Completion Project

23 CFR §771.129
Washington State Department of Transportation/Federal Highway Administration

REGION/MODE	SR	PROJECT PROGRAM#	FEDERAL AID #	PROJECT#
HQ/ Mega Projects	I-5/SR 167	M00600R	N/A	316708T, 316707T, 316706T

PROJECT TITLE, ENVIRONMENTAL DOCUMENT TYPE & DATE APPROVED:

1) SR 167 Puyallup to SR 509, Tier II Final Environmental Impact Statement and Section 4(f) Evaluation, November 2006. Approved by signatory agencies Federal Highway Administration, Washington State Department of Transportation, and cooperating agencies U.S. Army Corps of Engineers, and City of Fife on November 9, 2006.
2) Record of Decision for State Route 167 Extension Project Puyallup to SR 509, October 2007. Approved by signatory agency Federal Highway Administration on October 2, 2007.
3) SR 167 Puyallup to SR 509, SR 167 Puyallup River Bridge Replacement Final Supplemental Environmental Impact Statement and Record of Decision. Approved by signatory agencies Federal Highway Administration, Washington State Department of Transportation, and cooperating agencies U.S. Army Corps of Engineers, and City of Fife on November 16, 2013.

REASON FOR RE-EVALUATION:

The purpose of this re-evaluation is to determine whether the first phase of the State Route (SR) 167 Completion Project will have the potential to result in any new significant environmental impacts that were not previously evaluated in the 2006 Final EIS (FEIS) and 2007 Record of Decision (ROD). With the passing of the Connecting Washington Transportation Package in 2015 by the State Legislature, funding has become available for the first phase of the SR 167 Completion Project (Phase 1 Improvements) to proceed through environmental review, design, and into construction. The Phase 1 Improvements include approximately four miles of new limited-access highway with four-general purpose (GP) lanes on the new SR 167 extension (compared to six lanes as analyzed in the 2006 FEIS) from its current terminus in Puyallup at SR 161 to Interstate 5 (I-5), and assumes that all lanes will be tolled using two electronic toll points. The Phase 1 Improvements also include an approximately two-mile "SR 509 Spur" highway section from SR 509 near the Port of Tacoma to the I-5 and SR 167 interchange near 70th Avenue.

The Phase 1 Improvements assume that all lanes will be tolled using two electronic toll points. One toll point will be located on SR 167 between I-5 and the proposed Valley Avenue interchange, the other toll point will be located on the SR 509 Spur between I-5 and the proposed 54th Avenue interchange. Both toll points will be located such that any user of the new Phase 1 Improvements will be charged a toll. The effects related to tolling (which were not previously evaluated) are a key consideration in the re-evaluation, particularly as it relates to transportation and environmental justice effects. Before tolling can begin, a toll authorization bill must be passed by the Legislature. The rate-setting process will be overseen by the Washington State Transportation Committee (WSTC) in advance of completion of the Phase 1 Improvements.

The SR 167 Completion Project is based on nearly three decades of project planning and development. The use of a tiered environmental documentation process was determined to be appropriate at project inception in 1990. In 1993, the Washington State Department of Transportation (WSDOT) released the SR 167 Corridor Adoption Puyallup to SR 509 Tier I Draft Environmental Impact Statement (DEIS). The DEIS identified and analyzed significant impacts along several proposed corridors, and a preferred corridor. Subsequent to release of the DEIS, it was determined by FHWA that the project was required to have a Major Metropolitan Transportation Investment Study (MIS). A steering committee of interested agencies was established, and the committee, utilizing public involvement, evaluated a No Action Alternative, a Transportation Demand Management/Transportation System Management (TDM/TSM) Alternative, the Preferred Freeway Corridor Alternative (Corridor 2 from the DEIS), and a Strategic Arterial Alternative. After extensive evaluation of the cost-effectiveness of a wide array of alternatives, the MIS concluded that construction of a freeway to complete SR 167 would remove one of the major missing links in the freeway system in the region. Considering the findings of the MIS, and following distribution of the Tier I FEIS in April 1999 and consideration of further comments, the FHWA issued a ROD in June 1999 documenting the selection of Corridor 2 as the least environmentally damaging practicable alternative.

Within the selected SR 167 corridor, a No Build Alternative, and a Build Alternative mainline alignment identified in the Tier I FEIS along with various interchange options were evaluated in a project level Tier II Draft EIS, published in 2003. The Tier II FEIS and Section 4(f) Evaluation issued in November 2006, and ROD in October 2007 identified the Preferred Build Alternative. The 2006

Existing Intersection Level of Service

Surface Streets

Exhibit 4.1-7 lists existing (year 2016) AM and PM peak hour operations at 36 key intersections in the study area whose locations are shown in Exhibit 4.1-8. Existing traffic counts determined that the actual peak hour differed between intersection locations, but was generally around 7:00 to 8:00 a.m. for the morning peak, and 4:30 to 5:30 p.m. for the afternoon peak. The LOS threshold below which operations are not considered acceptable is LOS D for all of the jurisdictions in which these intersections are located.

As shown, the majority of the intersections are operating above the LOS standard (27 intersections during the AM peak hour and 24 intersections during the PM peak hour). In the AM peak hour, six intersections operate at the LOS standard and three intersections operate below the LOS standard.

Overall operations are generally worse in the PM peak hour, with four intersections operating at the LOS D standard and eight operating below the LOS standard.

Exhibit 4.1-7. Intersection Peak Hour Level-of-Service—Existing Conditions

Int. #	Location		Intersection Type	Existing Conditions	
				AM	PM
1	Port of Tacoma Rd	20th Ave	Stop-controlled	A	A
2	Port of Tacoma Rd	NB I-5 on/off ramp	Yield-controlled	A	A
3	Port of Tacoma Rd	SB I-5 on/off ramp	Signalized	B	B
4	Port of Tacoma Rd	SR 99 (Pacific Hwy)	Signalized	E	F
5	Port of Tacoma Rd	NB SR 509/12th Street E	Signalized	B	B
6	Port of Tacoma Rd	N Frontage Rd (SB SR 509)	Signalized	B	B
7	Alexander Ave	SR 99 (Pacific Hwy)	Signalized	B	B
8	Alexander Ave	NB SR 509	Signalized	C	C
9	Alexander Ave	SB SR 509	Signalized	C	F
10	54th Ave	Valley Ave	Signalized	B	A
11	54th Ave	23rd St	Signalized	A	A
12	54th Ave	20th St	Signalized	D	D
13	54th Ave	NB I-5 on/off ramp	Yield-controlled	E	E
14	54th Ave	SB I-5 on/off ramp	Signalized	C	C
15	54th Ave	SR 99 (Pacific Hwy)	Signalized	D	E
16	54th Ave	12th St	Signalized	A	A
17	54th Ave	8th St	Signalized	A	A
18	54th Ave	4th St	Stop-controlled	A	A
19	54th Ave	SR 509/Taylor Way	Signalized	D	E
20	SR 99 (Pacific Hwy)	Porter Way	Signalized	C	C
21	SR 99 (Pacific Hwy)	70th Ave	Signalized	D	C
22	70th Ave	20th Ave	Signalized	C	E
23	70th Ave	Valley Ave	Signalized	C	D
24	70th Ave	North Levee Rd	Stop-controlled	A	E
25	Pioneer Way	WB SR 512	Signalized	B	B
26	Pioneer Way	EB SR 512	Signalized	A	A
27	66th St	River Rd E (SR 167)	Signalized	F	E
28	66th St	North Levee Rd	Stop-controlled	D	B

Exhibit 4.1-7. Intersection Peak Hour Level-of-Service—Existing Conditions

Int. #	Location		Intersection Type	Existing Conditions	
				AM	PM
29	Freeman Rd	20th Ave/Yuma St	Signalized	B	C
30	Freeman Rd	Valley Ave	Signalized	B	C
31	82nd Ave	North Levee Rd	Stop-controlled	A	A
32	N Meridian Ave	River Rd E (SR 167)	Signalized	C	C
33	N Meridian Ave	4th Street NE	Stop-controlled	A	A
34	N Meridian Ave	North Levee Rd	Stop-controlled	A	A
35	N Meridian Ave	SR 167	Signalized	D	D
36	N Meridian Ave	Valley Ave	Signalized	C	D

Yellow shading indicates intersection operates at LOS standard (LOS D), while red shading indicates intersection operates below LOS standard (LOS E or F).

Exhibit 4.1-8. Locations of Intersections Analyzed

during the peak periods in the peak directions (AM northbound and PM southbound), though the proposed Phase 1 Improvements are expected to improve PM southbound speeds from 19 mph to 31 mph. Other peak direction I-5 speeds are expected to be slightly degraded with the proposed Phase 1 Improvements.

Intersection Level of Service

Exhibit 4.1-16 summarizes the future 2045 intersection LOS for the AM and PM peak hours, respectively, including both the No Build and Build conditions. The locations of these intersections are shown in Exhibit 4.1-17.

Exhibit 4.1-16. Future (2045) AM and PM Peak Hour Intersection Level of Service

Int#	Location		Intersection Type	AM Peak Hour		PM Peak Hour	
				No Build	Build	No Build	Build
1	Port of Tacoma Rd	20th Ave	Signalized	B	B	B	B
2	Port of Tacoma Rd	NB I-5 on/off ramp	Signalized	A	A	A	A
3	Port of Tacoma Rd	SB I-5 on/off ramp	Signalized	A	B	B	B
4	Port of Tacoma Rd	SR 99 (Pacific Hwy)	Signalized	C	C	D	C
5	Port of Tacoma Rd	NB SR 509/12th Street E	Signalized	B	A	C	B
6	Port of Tacoma Rd	SB SR 509	Signalized	B	A	C	C
7	Alexander Ave	SR 99 (Pacific Hwy)	Signalized	E	C	B	B
8	Alexander Ave	NB SR 509	Signalized	F	C	C	D
9	Alexander Ave	SB SR 509	Signalized	F	D	F	E
10	54th Ave	Valley Ave	Signalized	C	B	A	A
11	54th Ave	23rd St	Signalized	B	A	A	A
12	54th Ave	20th St	Signalized	E	D	E	D
13	54th Ave	NB I-5 on/off ramp	Yield-controlled	F	A	E	D
14	54th Ave	SB I-5 on/off ramp	Signalized	C	C	B	B
15	54th Ave	SR 99 (Pacific Hwy)	Signalized	E	E	E	D
16	54th Ave	12th St	Signalized	A	A	B	B
17	54th Ave	8th St	Signalized	A	A	B	B
18	54th Ave	4th St	Stop-controlled	A	A	A	A
19	54th Ave	SR 509/Taylor Way	Signalized	E	D	F	E
20	SR 99 (Pacific Hwy)	Porter Way	Signalized	F	B	F	C
21	SR 99 (Pacific Hwy)	70th Ave	Signalized	F	A	F	B
22	70th Ave	20th Ave	Signalized	D	C	F	C
23	70th Ave	Valley Ave	Signalized	D	C	D	C

Exhibit 4.1-16. Future (2045) AM and PM Peak Hour Intersection Level of Service

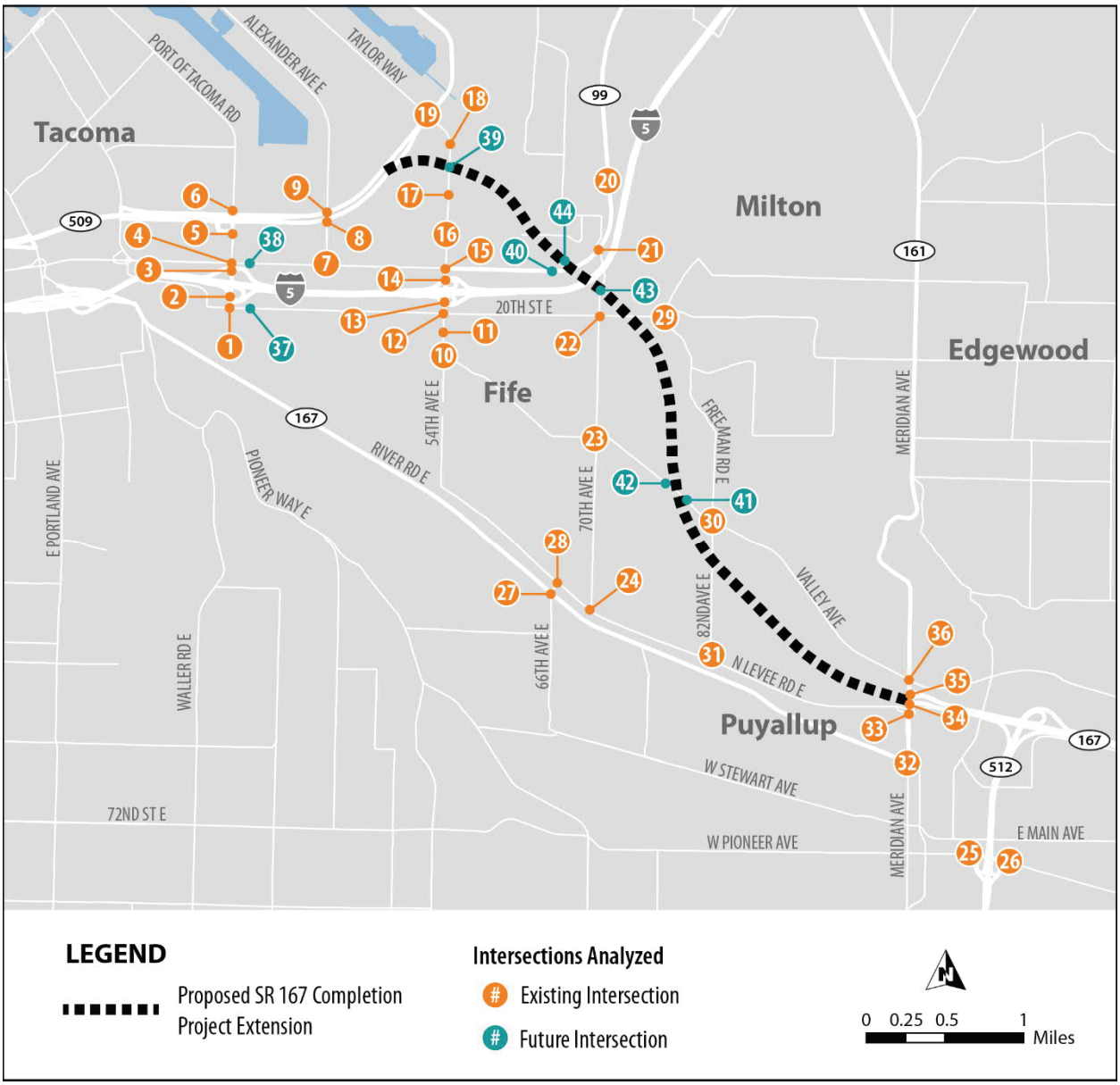
Int#	Location		Intersection Type	AM Peak Hour		PM Peak Hour	
				No Build	Build	No Build	Build
24	70th Ave	North Levee Rd	Stop-controlled	F	B	F	A
25	Pioneer Way	WB SR 512	Signalized	B	B	B	A
26	Pioneer Way	EB SR 512	Signalized	E	D	C	D
27	66th St	River Rd E (SR 167)	Signalized	E	E	E	E
28	66th St	North Levee Rd	Stop-controlled	D	D	B	A
29	Freeman Rd	20th Ave/Yuma St	Signalized	D	C	D	B
30	Freeman Rd	Valley Ave	Signalized	C	A	E	B
31	82nd Ave	North Levee Rd	Stop-controlled	A	A	A	A
32	N Meridian Ave	River Rd E SR 167	Signalized	E	D	F	C
33	N Meridian Ave	4th Street NE	Stop-controlled	A	A	A	A
34	N Meridian Ave	North Levee Rd	Stop-controlled	D	A	B	A
35	N Meridian Ave	SR 167	Signalized	E	D	D	D
36	N Meridian Ave	Valley Ave	Signalized	E	D	F	D
37	34th Ave	20th Ave	Future Intersection	A	A	A	A
38	34th Ave	SR 99 (Pacific Hwy)	Future Intersection	B	B	B	B
39	54th Ave	SR 167	Future Intersection	N/A	B	N/A	B
40	SR 99 (Pacific Hwy)	70th Ave	Future Intersection	N/A	C	N/A[a]	D
41	Valley Ave	SR 167 NB Ramps	Future Intersection	N/A	B	N/A	B
42	Valley Ave	SR 167 SB Ramps	Future Intersection	N/A	A	N/A	B
43	SR 167	NB I-5 Ramp	Future Intersection	N/A	C	N/A	B
44	SR 167	SB I-5 Ramp	Future Intersection	N/A	B	N/A	C

Yellow shading indicates intersection operates at LOS standard (LOS D), while red shading indicates intersection operates below LOS standard (LOS E or F).

[a] In the No Build, the original location of the SR 99/70th Avenue intersection is projected to operate at LOS F (intersection 21).

N/A = not applicable

Exhibit 4.1-17. Locations of Intersections Analyzed (2045)



AM Peak Hour

In the 2045 AM peak hour, 20 of the 38 study intersections in the No Build condition are forecast to operate at or below the current standard of LOS D, compared to 10 out of 44 intersections in Build conditions. In the No Build condition, six intersections operate at LOS F, whereas, in the Build condition, all the intersections operate at LOS E or better. This is due to forecasted redistribution in traffic demand volumes and selected intersection improvements under the Build conditions.

The following two intersections are projected to operate below their respective LOS standards—LOS E, in the 2045 AM No Build and AM Build condition:

- 54th Avenue E/SR 99-Pacific Highway would operate at LOS E due to high delays at the westbound approach.
- 48th Street E/66th Avenue E/ River Road E would operate at LOS E because of longer delays caused by northbound and southbound traffic along 66th Avenue E.

All of the new intersections created by the Phase 1 Improvements are projected to operate at LOS C or better in the AM peak hour.

PM Peak Hour

As shown in Exhibit 4.1-16, 17 of the 38 study intersections in the No Build condition are forecast to operate at or below the LOS D standard in the 2045 PM peak hour, compared to only 11 of the 44 intersections in the Build condition. In the No Build condition eight intersections operate at LOS F, whereas, in the Build condition no intersections operate at LOS F and only three are expected to operate at LOS E.

The following intersections are projected to operate below their respective LOS standard in the 2045 PM Build condition:

- Alexander Avenue E/SR 509 (southbound) would operate at LOS E due in large part to the high delay at the northbound approach.
- 48th Street E/66th Avenue E/ River Road E would operate at LOS E due to high delays caused by northbound and southbound traffic along 66th Avenue E.
- 54th Avenue E/SR 509 would operate at LOS E due to heavy traffic from all approaches.

One intersection, Alexander Avenue E/SR 509 (northbound), would operate at LOS D in the Build condition, though it would operate at LOS C in the No Build condition. The slight degradation in operations is due to a higher redistribution of trips to the area in the Build versus the No Build condition. However, the intersection meets the LOS D threshold and does not require mitigation.

All of the new intersections created by the Phase 1 Improvements are projected to operate at LOS C or better in the PM peak hour with the exception of the relocated SR 99/70th Avenue intersection, which is projected to operate at LOS D. This compares to LOS F for the SR 99/70th Avenue intersection under the No Build conditions.

Comparison to 2006 FEIS

The 2006 FEIS considered intersection operations for the PM peak hour only. The current analysis assesses operations for both the AM and PM peak hours. Of the 32 intersections analyzed in the 2006 FEIS No Build conditions for the future horizon year of 2030, 26 were projected to operate at or below the LOS D standard, with 25 at LOS E or F. This was expected to be reduced in the 2006 FEIS Build Alternative to 18 out of 38 intersections at LOS D or worse with 16 of those being at LOS E or worse. This compares to 20 of the 38 intersections in the current assessment being at LOS D or worse in the 2045

AM peak hour and 17 intersections in the PM peak hour under No Build conditions. Conditions improve in the proposed Phase 1 Build condition where 11 of the 44 intersections being at LOS D or worse for both the AM and PM peak hours. No specific adverse substantial impacts on intersection operations were identified in the 2006 FEIS for the Build Alternative, and the current analysis results in the same overall conclusion for the proposed Phase 1 Improvements.

Transportation Safety Performance Impacts

In the 2045 No Build condition, higher traffic volumes and levels of congestion are anticipated on the major roadways in the study area, including I-5, SR 509, SR 167, SR 161, SR 99, and other nearby arterials. As traffic volumes and congestion increases, the potential number of crashes may increase as well, although the crash rate may not change because the volumes may increase at the same rate as crashes.

The Phase 1 Improvements would draw traffic demand away from nearby facilities, including SR 167 north of Puyallup, SR 161 north of Puyallup, River Road, Valley Avenue E, 20th Street E, and 54th Avenue south of I-5. In general, the reduction of traffic demand on these facilities and lower level of congestion would potentially cause a reduction in the number of crashes on those facilities, even though the crash rate may not change compared to No Build.

On the segment of I-5 through the project area, traffic volumes in the off-peak directions (southbound AM and northbound PM) are expected to increase compared to No Build, the potential number of crashes may increase as well, although the crash rate may not change because the volumes may increase at the same rate as crashes. However, volume increases are minimal to none in the northbound AM peak direction; and are expected to decrease some for southbound PM peak hour traffic. These changes would likely result in similar to fewer number of crashes for the Build even though the crash rate may not change compared to No Build.

The SR 167 extension segment between Meridian Avenue and I-5 would provide a new access-controlled facility with improved safety performance conditions. Research over the past several decades has consistently shown that crash rates increase as driveway density increases on a roadway (i.e., number of driveways per mile). The benefits of a limited access facility like the SR 167 extension include improved movement of traffic, reduced crashes, and fewer vehicle conflicts (FHWA 2014). In addition, the facility would be tolled in order to manage traffic demand and congestion levels. The resulting lower levels of congestion of a managed toll facility will likely result in fewer number of crashes in comparison to a nontolled facility.

Lower levels of congestion on arterials that include bicycle and pedestrian facilities could also possibly lead to fewer conflicts, even if the facilities may provide minimal improvements.

Comparison to 2006 FEIS

Safety performance effects of the proposed Phase 1 Improvements are expected to be similar to what was presented in the 2006 FEIS, which stated:

"Construction of the Build Alternative is expected to reduce the number of accidents within the corridor by providing a safer facility with full-access control. Year 2030 congestion levels at many key intersections will be lower than the No Build Alternative, which should result in a reduced number of accidents occurring at these intersections."

Impacts on Port, Railroad, and Transit Facilities

The Build Alternative would greatly improve traffic traveling to and from the Port of Tacoma. Truck traffic would have a direct connection to SR 167 providing an alternative to I-5 north of the project area

current assessment indicates that in 2045 with both the No Build and Phase 1 Build condition I-5 is expected to operate at LOS F during the peak periods in the peak directions (AM northbound and PM southbound), though the proposed Phase 1 Improvements are expected to improve PM southbound speeds from 19 mph to 31 mph. Other peak direction I-5 speeds are expected to be slightly degraded with the proposed Phase 1 Improvements.

Intersection Level of Service (LOS)

Table 17 summarizes the future 2045 intersection LOS for the AM and PM peak hours, respectively, including both the No Build and Build conditions. The locations of these intersections are shown in Figure 19. More detailed intersection results are presented in Attachment H.

Table 17. Future (2045) AM & PM Peak Hour Intersection Level of Service

Int #	Location		Intersection Type	AM Peak Hour		PM Peak Hour	
				No Build	Build	No Build	Build
1	Port of Tacoma Rd	20th Ave	Signalized	B	B	B	B
2	Port of Tacoma Rd	NB I-5 on/off ramp	Signalized	A	A	A	A
3	Port of Tacoma Rd	SB I-5 on/off ramp	Signalized	A	B	B	B
4	Port of Tacoma Rd	SR 99 (Pacific Hwy)	Signalized	C	C	D	C
5	Port of Tacoma Rd	NB SR 509/12th St E	Signalized	B	A	C	B
6	Port of Tacoma Rd	SB SR 509	Signalized	B	A	C	C
7	Alexander Ave	SR 99 (Pacific Hwy)	Signalized	E	C	B	B
8	Alexander Ave	NB SR 509	Signalized	F	C	C	D
9	Alexander Ave	SB SR 509	Signalized	F	D	F	E
10	54th Ave	Valley Ave	Signalized	C	B	A	A
11	54th Ave	23rd St	Signalized	B	A	A	A
12	54th Ave	20th St	Signalized	E	D	E	D
13	54th Ave	NB I-5 on/off ramp	Yield-controlled	F	A	E	D
14	54th Ave	SB I-5 on/off ramp	Signalized	C	C	B	B
15	54th Ave	SR 99 (Pacific Hwy)	Signalized	E	E	E	D
16	54th Ave	12th St	Signalized	A	A	B	B
17	54th Ave	8th St	Signalized	A	A	B	B
18	54th Ave	4th St	Stop-controlled	A	A	A	A
19	54th Ave	SR 509/Taylor Way	Signalized	E	D	F	E
20	SR 99 (Pacific Hwy)	Porter Way	Signalized	F	B	F	C
21	SR 99 (Pacific Hwy)	70th Ave	Signalized	F	A	F	B
22	70th Ave	20th Ave	Signalized	D	C	F	C
23	70th Ave	Valley Ave	Signalized	D	C	D	C
24	70th Ave	North Levee Rd	Stop-controlled	F	B	F	A
25	Pioneer Way	WB SR 512	Signalized	B	B	B	A
26	Pioneer Way	EB SR 512	Signalized	E	D	C	D

Int #	Location		Intersection Type	AM Peak Hour		PM Peak Hour	
				No Build	Build	No Build	Build
27	66th St	River Rd E (SR 167)	Signalized	E	E	E	E
28	66th St	North Levee Rd	Stop-controlled	D	D	B	A
29	Freeman Rd	20th Ave/Yuma St	Signalized	D	C	D	B
30	Freeman Rd	Valley Ave	Signalized	C	A	E	B
31	82nd Ave	North Levee Rd	Stop-controlled	A	A	A	A
32	N Meridian Ave	River Rd E SR 167	Signalized	E	D	F	C
33	N Meridian Ave	4th St NE	Stop-controlled	A	A	A	A
34	N Meridian Ave	North Levee Rd	Stop-controlled	D	A	B	A
35	N Meridian Ave	SR 167	Signalized	E	D	D	D
36	N Meridian Ave	Valley Ave	Signalized	E	D	F	D
37	34th Ave	20th Ave	Future Intersection	A	A	A	A
38	34th Ave	SR 99 (Pacific Hwy)	Future Intersection	B	B	B	B
39	54th Ave	SR 167	Future Intersection	N/A	B	N/A	B
40	SR 99 (Pacific Hwy)	70th Ave	Future Intersection	N/A	C	N/A*	D
41	Valley Ave	SR 167 NB Ramps	Future Intersection	N/A	B	N/A	B
42	Valley Ave	SR 167 SB Ramps	Future Intersection	N/A	A	N/A	B
43	SR 167	NB I-5 Ramp	Future Intersection	N/A	C	N/A	B
44	SR 167	SB I-5 Ramp	Future Intersection	N/A	B	N/A	C

Notes: Yellow shading indicates intersection operates at LOS standard (LOS D), while red shading indicates intersection operates below LOS standard (LOS E or F). *In the No Build, the original location of the SR 99/70th Avenue intersection is projected to operate at LOS F (see intersection 21)

AM Peak Hour

In the 2045 AM peak hour, 20 of the 38 study intersections in the No Build condition are forecast to operate at or below the current standard of LOS D, compared to 10 out of 44 intersections in Build conditions. In the No Build condition, six intersections operate at LOS F, whereas, in Build condition, all the intersections operate at LOS E or better. This is due to forecasted redistribution in traffic demand volumes and selected intersection improvements under the Build conditions. The following two intersections are projected to operate below their respective LOS standards – LOS E, in the 2045 AM No Build and AM Build condition:

- 54th Avenue E/SR 99-Pacific Highway would operate at LOS E due to high delays at the westbound approach
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All of the new intersections created by the Phase 1 Improvements are projected to operate at LOS C or better in the AM peak hour.

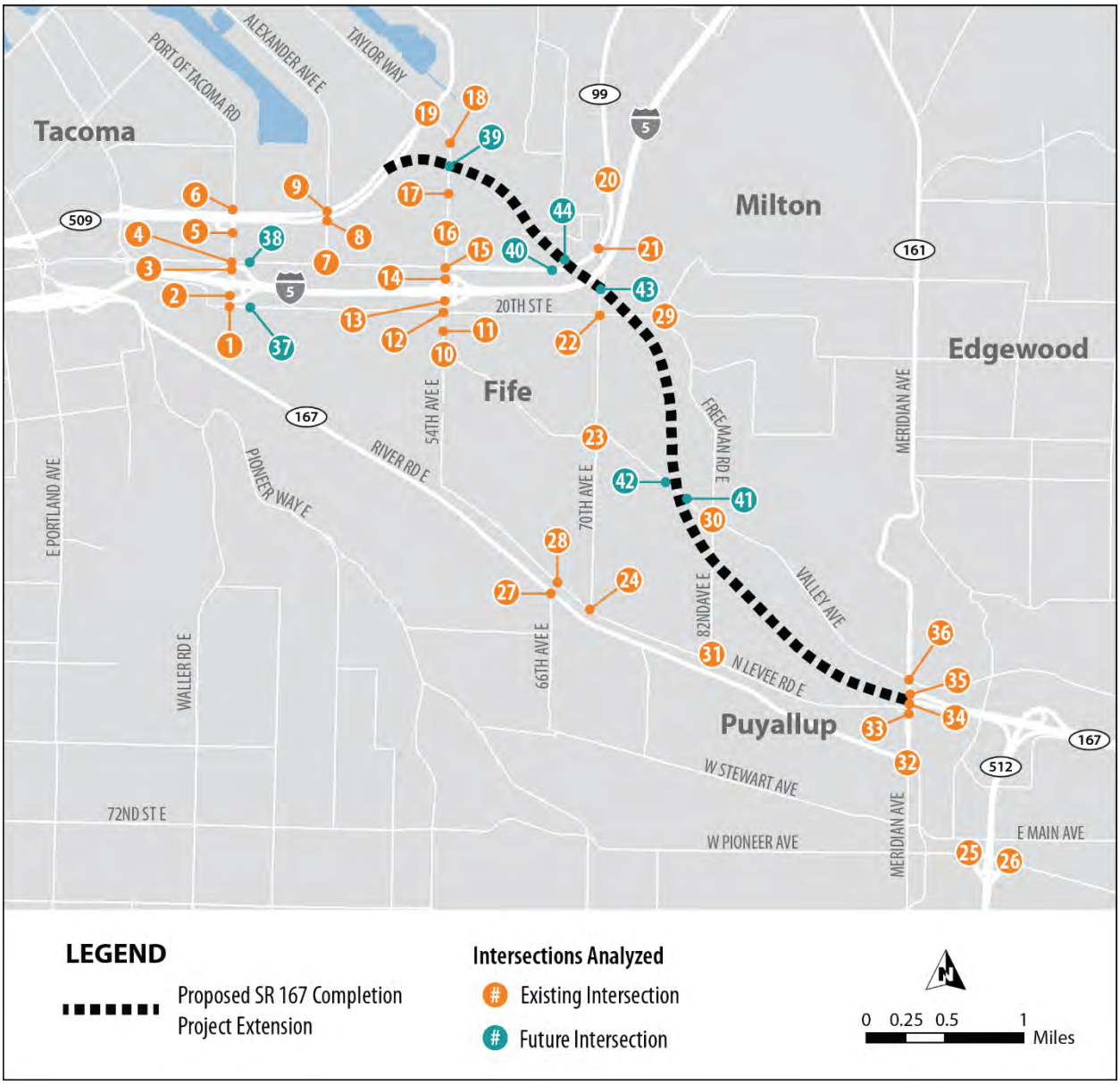

Figure 19. Locations of Intersections Analyzed (2045)

PM Peak Hour

As shown in Table 17, 17 of the 38 study intersections in the No Build condition are forecast to operate at or below the LOS D standard in the 2045 PM peak hour, compared to only 11 of the 44 intersections in the Build condition. In the No Build condition eight intersections operate at LOS F, whereas, in the Build condition no intersections operate at LOS F and only three are expected to operate at LOS E. The following intersections are projected to operate below their respective LOS standard in the 2045 PM Build condition:

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- 54th Ave E/SR 509 would operate at LOS E due to heavy traffic from all approaches

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Comparison to 2006 FEIS

The 2006 FEIS considered intersection operations for the PM peak hour only. The current analysis assesses operations for both the AM and PM peak hours. Of the 32 intersections analyzed in the 2006 FEIS No Build conditions for the future horizon year of 2030, 26 were projected to operate at or below the LOS D standard—with 25 at LOS E or F. This was expected to be reduced in the 2006 FEIS Build Alternative to 18 out of 38 intersections at LOS D or worse with 16 of those being at LOS E or worse. This compares to 20 of the 38 intersections in the current assessment being at LOS D or worse in the 2045 AM peak hour and 17 intersections in the PM peak hour under No Build conditions. Conditions improve in the proposed Phase 1 Build condition where 11 of the 44 intersections being at LOS D or worse for both the AM and PM peak hours. No specific adverse impacts to intersection operations were identified in the 2006 FEIS for the Build Alternative, and the current analysis results in the same overall conclusion for the proposed Phase 1 Improvements.

Transportation Safety Performance Impacts

In the 2045 No Build condition, higher traffic volumes and levels of congestion are anticipated on the major roadways in the study area, including I-5, SR 509, SR 167, SR 161, SR 99, and other nearby arterials. As traffic volumes and congestion increases, the potential number of crashes may increase as well, although the crash rate may not change because the volumes may increase at the same rate as crashes.

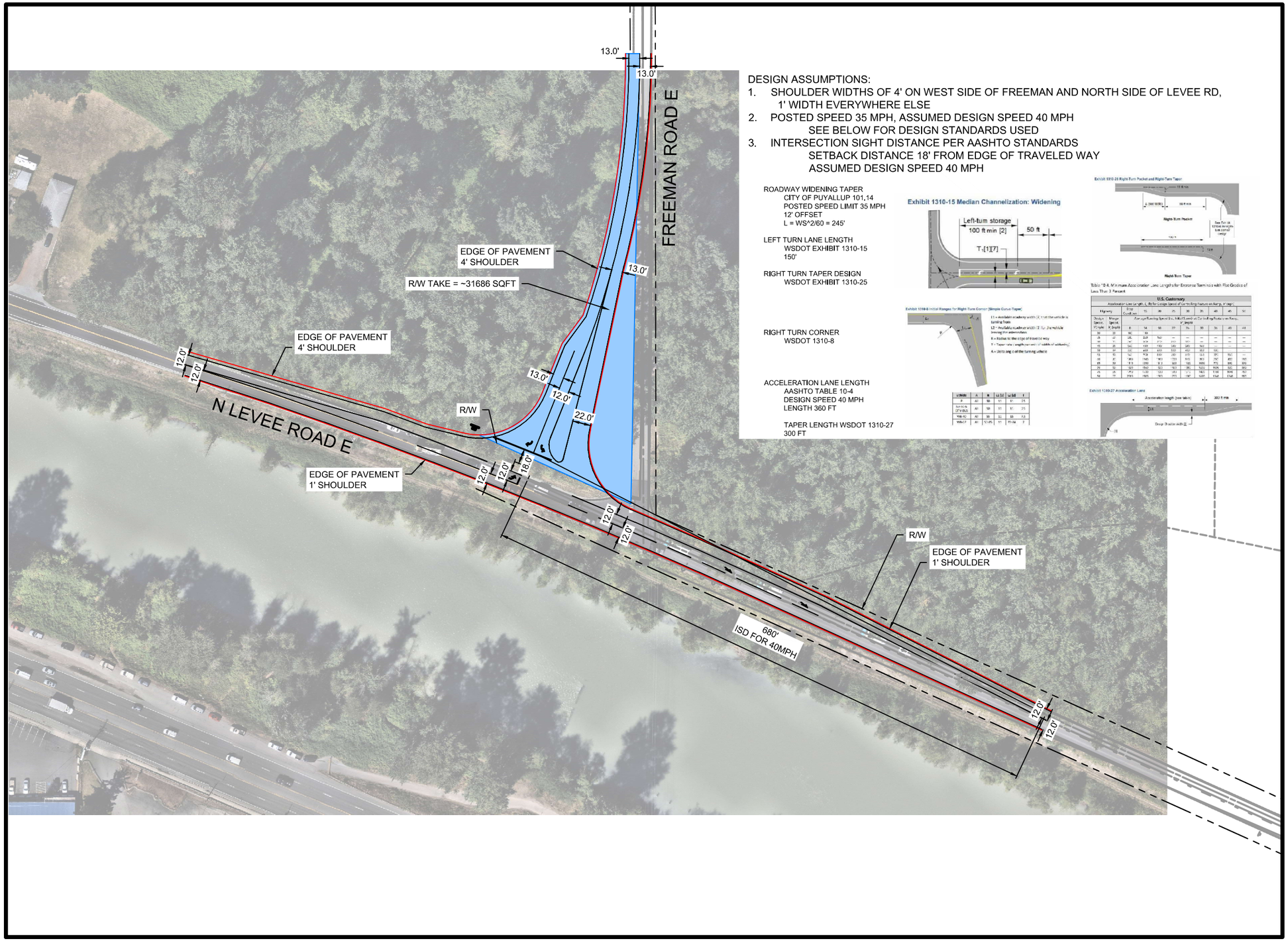
The Phase 1 Improvements would draw traffic demand away from nearby facilities, including SR 167 north of Puyallup, SR 161 north of Puyallup, River Road, Valley Avenue, 20th Street E, and 54th Avenue south of I-5. In general, the reduction of traffic demand on these facilities and lower level of congestion would potentially cause a reduction in the number of crashes on those facilities, even though the crash rate may not change compared to No Build.

On the segment of I-5 through the project area, traffic volumes in the off-peak directions (southbound AM and northbound PM) are expected to increase compared to No Build, the potential number of crashes may increase as well, although the crash rate may not change because the volumes may increase at the same rate as crashes. However, volume increases are minimal to none in the northbound AM peak direction; and are expected to decrease some for southbound PM peak hour traffic. These changes will likely result in similar to fewer number of crashes for the Build even though the crash rate may not change compared to No Build.

The SR 167 extension segment between Meridian Avenue and I-5 would provide a new access-controlled facility with improved safety performance conditions. Research over the past several decades has consistently shown that crash rates increase as driveway density increases on a roadway (i.e., number of driveways per mile). The benefits of a limited access facility like the SR 167 extension include improved movement of traffic, reduced crashes, and fewer vehicle conflicts (FHWA, 2014). In addition, the facility would be tolled in order to manage traffic demand and congestion levels. The resulting lower levels of congestion of a managed toll facility will likely result in fewer number of crashes in comparison to a non-tolled facility.

APPENDIX I

FREEMAN ROAD AT N LEVEE ROAD E CONCEPT IMPROVEMENT PLAN



DESIGN ASSUMPTIONS:

1. SHOULDER WIDTHS OF 4' ON WEST SIDE OF FREEMAN AND NORTH SIDE OF LEVEE RD, 1' WIDTH EVERYWHERE ELSE
2. POSTED SPEED 35 MPH, ASSUMED DESIGN SPEED 40 MPH
   SEE BELOW FOR DESIGN STANDARDS USED
3. INTERSECTION SIGHT DISTANCE PER AASHTO STANDARDS
   SETBACK DISTANCE 18' FROM EDGE OF TRAVELED WAY
   ASSUMED DESIGN SPEED 40 MPH

ROADWAY WIDENING TAPER
CITY OF PUYALLUP 101.14
POSTED SPEED LIMIT 35 MPH
12' OFFSET
L = WS^2/60 = 245'

LEFT TURN LANE LENGTH
WSDOT EXHIBIT 1310-15
150'

RIGHT TURN TAPER DESIGN
WSDOT EXHIBIT 1310-25

RIGHT TURN CORNER
WSDOT 1310-8

ACCELERATION LANE LENGTH
AASHTO TABLE 10-4
DESIGN SPEED 40 MPH
LENGTH 360 FT

TAPER LENGTH WSDOT 1310-27
300 FT

Exhibit 1310-15 Median Channelization: Widening

NORTH

60 30 0 60 120
SCALE IN FEET

Kimley»Horn
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PHONE: 602-944-5500
WWW.KIMLEY-HORN.COM

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Kimley-Horn and Associates, Inc.

NO	REVISIONS	BY	DATE

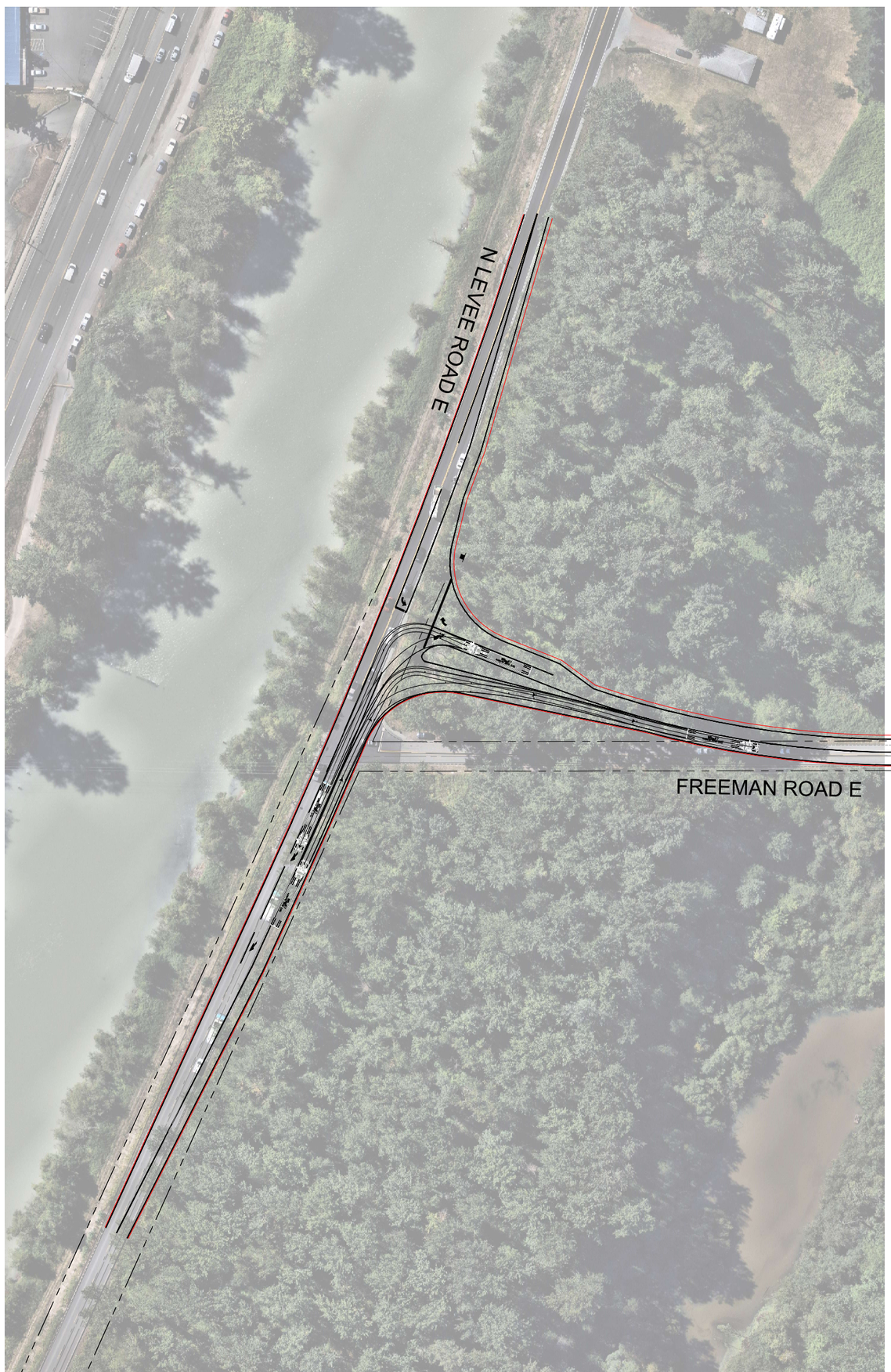
FREEMAN LOGISTICS
N LEVEE ROAD - ISLAND
WITHOUT SR 167 EXTENSION
SIGHT DISTANCE EXHIBIT

DATE:	DESIGNED BY:	DRAWN BY:	REVIEWED BY:	KH PROJECT NO:

DWG NO

SHEET OF
1 - 1

Plotted By:Seidman, Hadly Sheet Set:CHANDLER HEIGHTS RD IMPROVEMENTS Layout:Widened Minor Stop – Lt – Accel April 17, 2025 11:28:42am K:\SNO_TPTO\2022\22-083 Freeman Rd Logistics\CAD\Exhibits\2025-4009 Exhibits\Exh_LeveeSight-Island.dwg



SCALE IN FEET
60 30 0 60 120

NORTH

SHEET 1 OF 2

DWG NO

DATE:	
DESIGNED BY:	
DRAWN BY:	
REVIEWED BY:	
KH PROJECT NO:	

FREEMAN LOGISTICS
N LEVEE ROAD - ISLAND
WITHOUT SR 167 EXTENSION
AUTOTURN EXHIBIT
SB LEFT & WB RIGHT

NO	REVISIONS	DATE	BY

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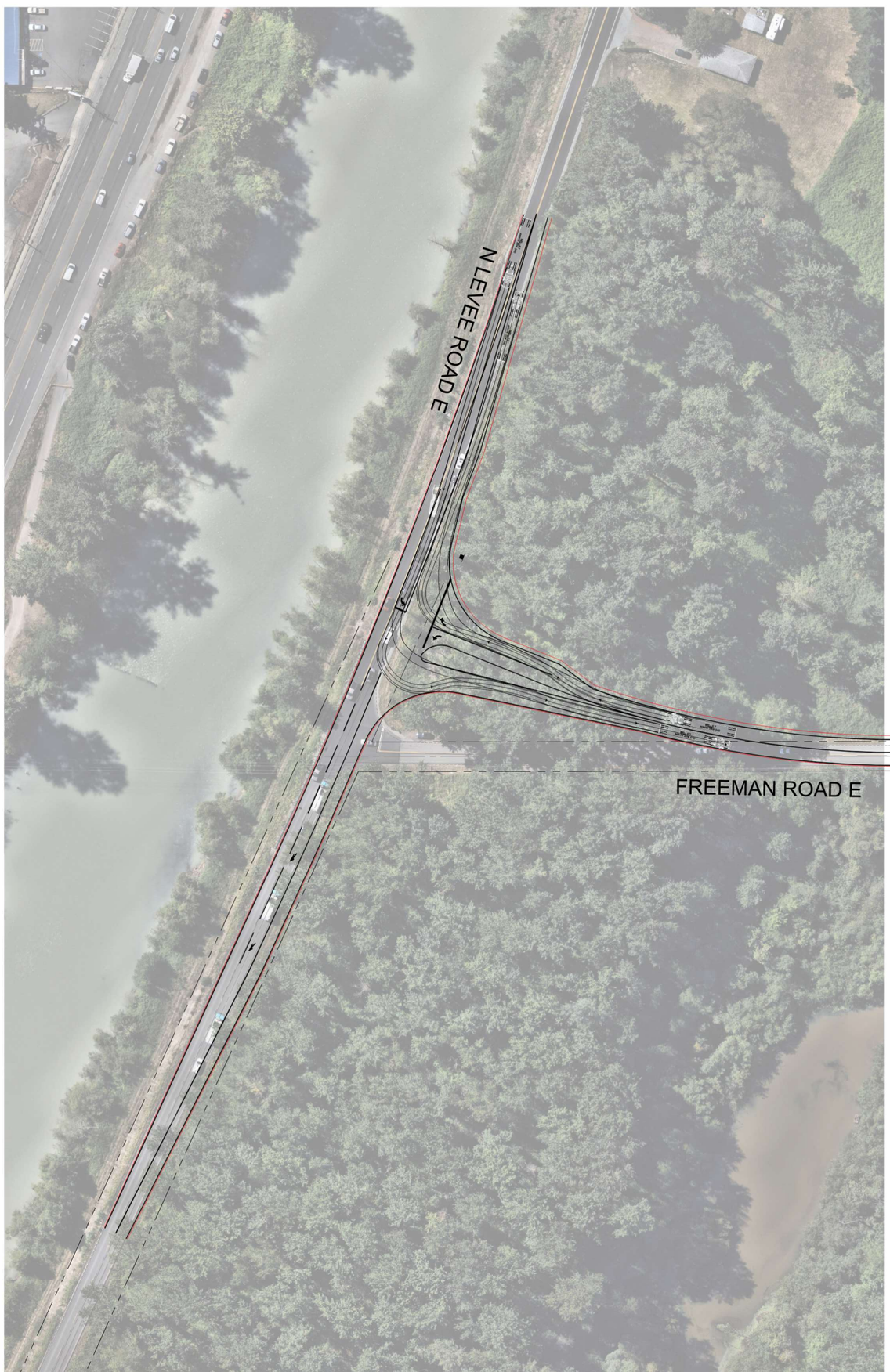
Plotted By: Seidman, Hadly Sheet Set: CHANDLER HEIGHTS RD IMPROVEMENTS Layout: Widened Minor Stop – Lt – Accel AT2 April 17, 2025 10:15:11am K:\SNO_TPTO\2022\22-083 Freeman Rd Logistics\CAD\Exhibits\2025-4009 Exhibits\Exh_LeveeSight-Island.dwg



SCALE IN FEET
60 30 0 60 120

NORTH

SHEET OF

DWG NO

DATE:	
DESIGNED BY:	
DRAWN BY:	
REVIEWED BY:	
KH PROJECT NO:	

FREEMAN LOGISTICS
N LEVEE ROAD - ISLAND
WITHOUT SR 167 EXTENSION
AUTOTURN EXHIBIT
EB LEFT & SB RIGHT

NO	REVISIONS	DATE	BY

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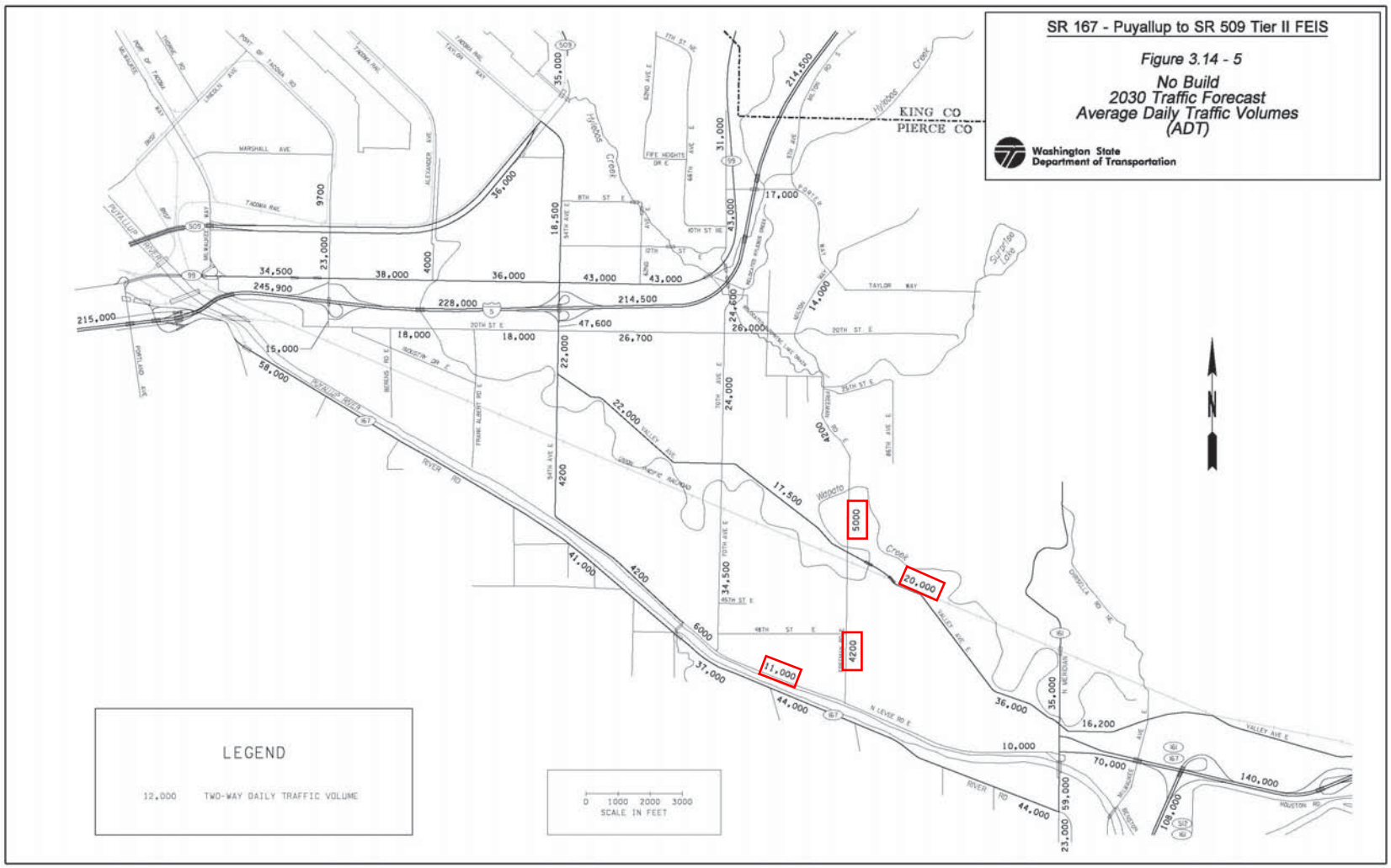
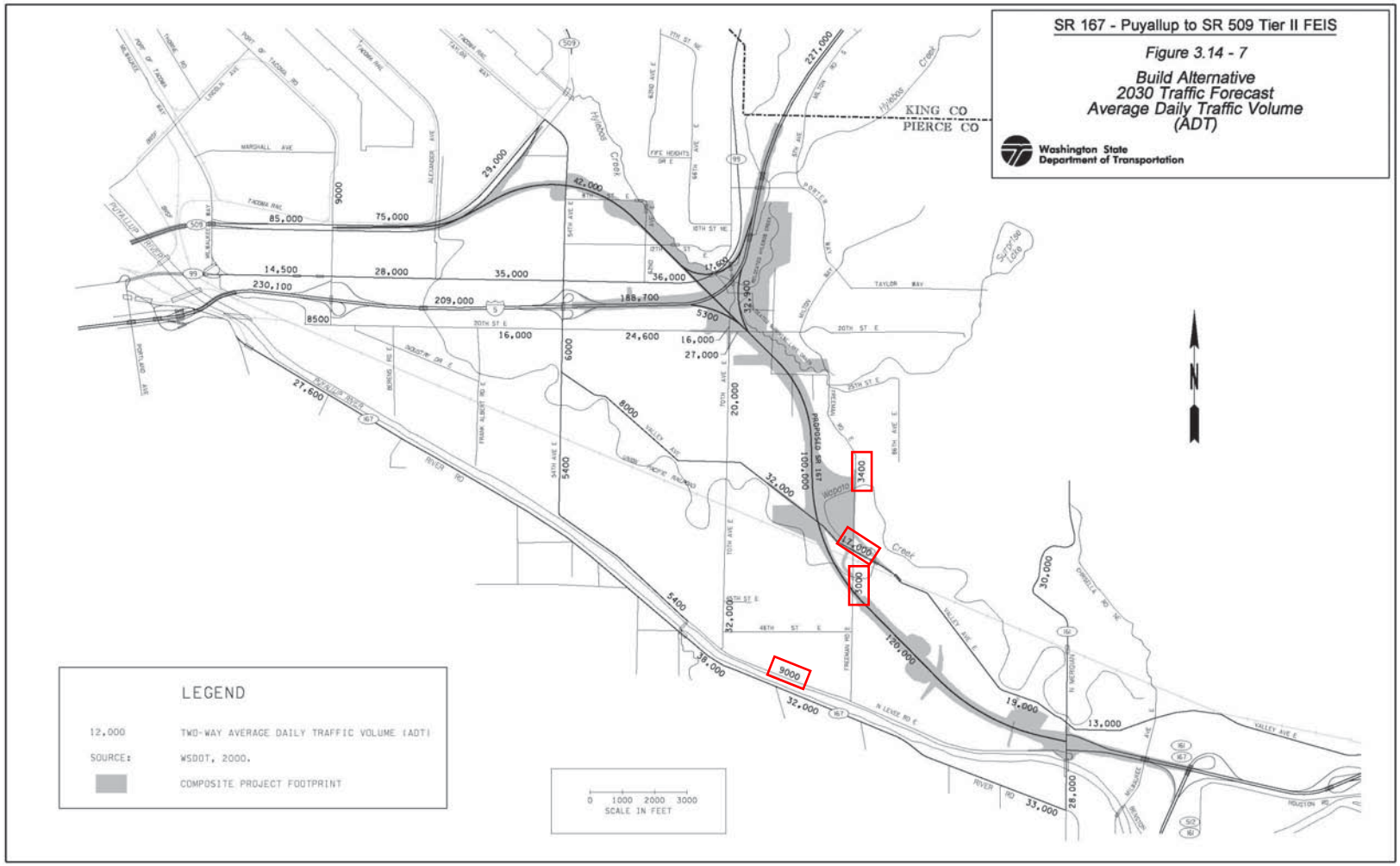
APPENDIX J

SR 167 – PUYALLUP TO SR 509 TIER II FEIS 2030 TRAFFIC FORECAST ADT VOLUMES


SR 167 - Puyallup to SR 509 Tier II FEIS
Figure 3.14 - 5
No Build
2030 Traffic Forecast
Average Daily Traffic Volumes
(ADT)
Washington State
Department of Transportation
KING CO
PIERCE CO
LEGEND
12,000 TWO-WAY DAILY TRAFFIC VOLUME
0 1000 2000 3000
SCALE IN FEET
N


SR 167 - Puyallup to SR 509 Tier II FEIS
Figure 3.14 - 7
Build Alternative
2030 Traffic Forecast
Average Daily Traffic Volume
(ADT)
Washington State Department of Transportation
KING CO
PIERCE CO
LEGEND
12,000 TWO-WAY AVERAGE DAILY TRAFFIC VOLUME (ADT)
SOURCE: WSDOT, 2000.
COMPOSITE PROJECT FOOTPRINT
0 1000 2000 3000
SCALE IN FEET
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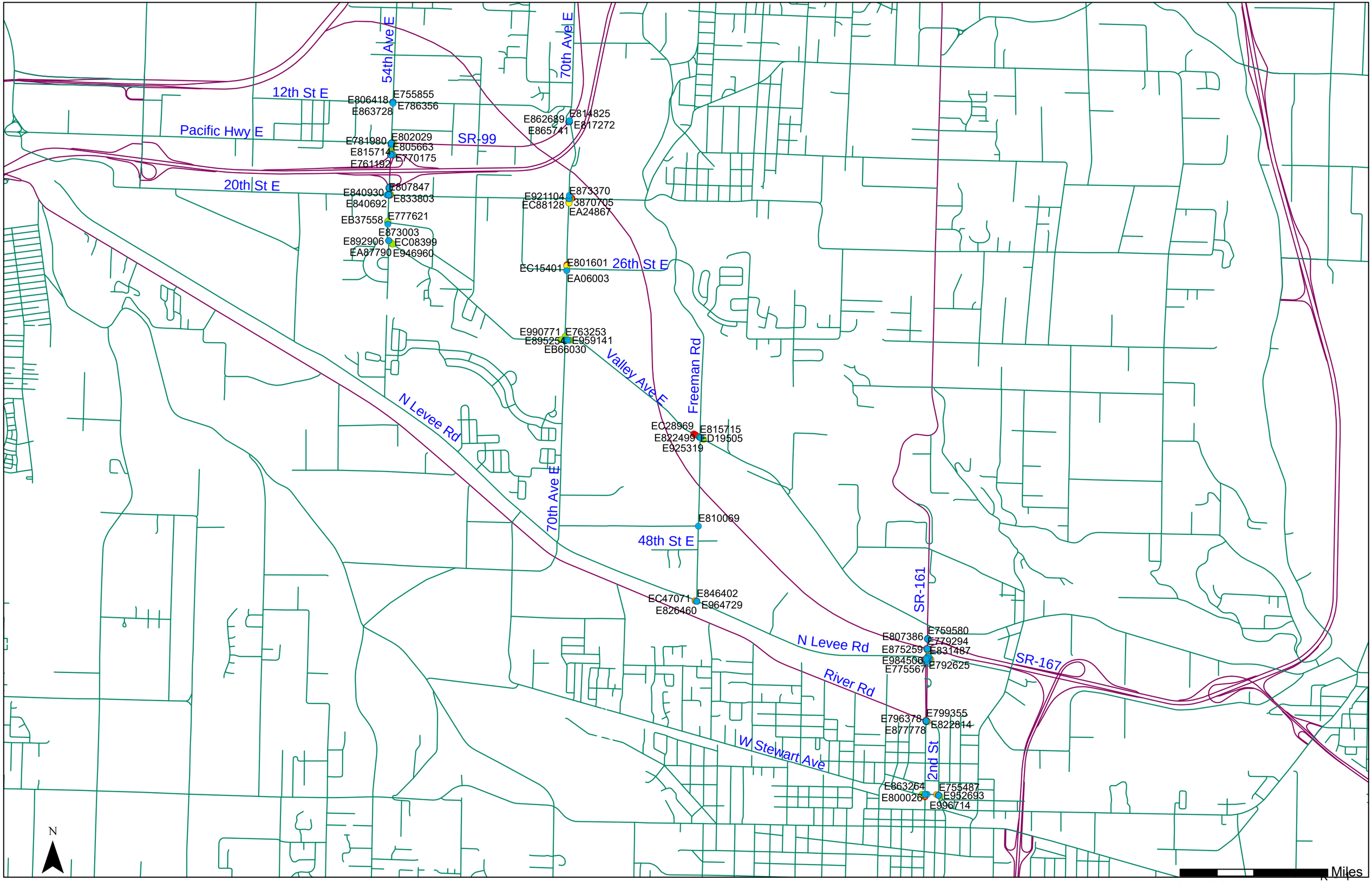
APPENDIX K

COLLISION DATA



ALL THE COLLISIONS ARE REPRESENTED ON THIS MAP. REPORT NUMBERS ARE REDUCED FOR CLARITY.

PRIMARY TRAFFICWAY	INTERSECTING TRAFFICWAY/ REFERENCE POINT NAME	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PED	# BIKE	JUNCTION RELATIONSHIP	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION	VEHICLE 2 ACTION
12TH ST E	54TH AVE E	EC53078	2022-06-05	11:55	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Slowing	Stopped at Signal or Stop Sign
12TH ST E	54TH AVE E	E806418	2018-06-08	16:03	No Apparent Injury	0	0	3	0	0	At Intersection and Related	From same direction - both going straight - both moving - sideswipe	Changing Lanes	Going Straight Ahead
12TH ST E	54TH AVE E	EB47060	2021-07-08	18:31	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
12TH ST E	54TH AVE E	EB90709	2021-11-08	11:11	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
12TH ST E	54TH AVE E	EB33877	2021-05-16	20:12	Suspected Serious Injury	2	0	3	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
54TH AVE E	12TH ST E	E777617	2018-02-22	5:39	Suspected Minor Injury	2	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
54TH AVE E	12TH ST E	E787531	2018-04-09	20:31	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Right Turn	Going Straight Ahead
54TH AVE E	12TH ST E	E812400	2018-06-25	16:50	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Right Turn	Stopped at Signal or Stop Sign
54TH AVE E	12TH ST E	E863730	2018-11-21	13:12	Suspected Minor Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
54TH AVE E	12TH ST E	E994335	2019-12-16	12:42	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making U-Turn	Making Left Turn
54TH AVE E	12TH ST E	E948732	2019-08-10	6:04	Possible Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
54TH AVE E	12TH ST E	EA18925	2020-02-27	8:00	Possible Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
54TH AVE E	12TH ST E	EB30275	2021-05-11	22:05	Possible Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
54TH AVE E	12TH ST E	EB30274	2021-03-02	20:00	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Right Turn	Going Straight Ahead
54TH AVE E	12TH ST E	EB26995	2021-04-27	08:16	Possible Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
54TH AVE E	12TH ST E	EB44260	2021-04-29	23:53	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Making Left Turn
54TH AVE E	12TH ST E	EB22805	2021-04-17	19:12	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
54TH AVE E	12TH ST E	EB13249	2021-03-11	10:20	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
54TH AVE E	12TH ST E	EC49930	2022-05-13	15:24	Possible Injury	2	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Starting in Traffic Lane
54TH AVE E	12TH ST E	EC65608	2022-07-17	16:05	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Making Left Turn
12TH ST E	54TH AVE E	E755855	2018-01-05	16:35	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
12TH ST E	54TH AVE E	E863728	2018-11-21	15:49	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
12TH ST E	54TH AVE E	E984786	2019-11-14	7:25	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
12TH ST E	54TH AVE E	E981776	2019-10-16	7:10	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
12TH ST E	54TH AVE E	EA81176	2020-11-15	12:51	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
54TH AVE E	12TH ST E	E786356	2018-04-03	14:10	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
54TH AVE E	12TH ST E	E989332	2019-12-03	16:18	Possible Injury	2	0	3	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
54TH AVE E	12TH ST E	E946543	2019-08-02	15:06	Possible Injury	2	0	3	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
54TH AVE E	12TH ST E	EA40285	2020-06-16	6:56	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
54TH AVE E	12TH ST E	EB76326	2021-10-08	13:32	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	54TH AVE E	E802029	2018-05-23	16:01	Possible Injury	1	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- one stopped -- rear end	Making Left Turn	Stopped for Traffic
PACIFIC HWY (SR-99)	54TH AVE E	EC50094	2022-05-24	12:31	Possible Injury	2	0	2	0	0	At Intersection and Related	Same direction -- both turning right -- one stopped -- rear end	Making Right Turn	Stopped for Traffic
PACIFIC HWY (SR-99)	54TH AVE E	E788516	2018-04-12	16:42	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
PACIFIC HWY (SR-99)	54TH AVE E	E789531	2018-04-16	14:10	Possible Injury	1	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
PACIFIC HWY (SR-99)	54TH AVE E	E771524	2018-02-20	13:15	No Apparent Injury	0	0	3	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Changing Lanes	Stopped at Signal or Stop Sign
PACIFIC HWY (SR-99)	54TH AVE E	E772876	2018-02-02	11:25	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
PACIFIC HWY (SR-99)	54TH AVE E	E818761	2018-07-17	19:17	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
PACIFIC HWY (SR-99)	54TH AVE E	E763252	2018-01-26	18:28	Possible Injury	1	0	2	0	0	Intersection Related but Not at Intersection	From same direction - both going straight - both moving - rear-end	Going Straight Ahead	Slowing
PACIFIC HWY (SR-99)	54TH AVE E	E904327	2019-03-21	16:45	Possible Injury	1	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
PACIFIC HWY (SR-99)	54TH AVE E	EA91907	2020-12-21	18:38	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
PACIFIC HWY (SR-99)	54TH AVE E	EA41991	2020-06-22	17:05	Possible Injury	2	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
PACIFIC HWY (SR-99)	54TH AVE E	EA64793	2020-09-12	7:43	Suspected Minor Injury	1	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
PACIFIC HWY (SR-99)	54TH AVE E	EC07402	2021-12-25	22:56	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
PACIFIC HWY (SR-99)	54TH AVE E	EC02027	2021-12-17	23:35	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
PACIFIC HWY (SR-99)	54TH AVE E	EB96884	2021-11-03	20:16	Suspected Minor Injury	2	0	2	0	0	At Intersection and Related	From same direction - both going straight - both moving - rear-end	Going Straight Ahead	Slowing
PACIFIC HWY (SR-99)	54TH AVE E	EC49989	2022-05-26	18:25	Possible Injury	1	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
PACIFIC HWY (SR-99)	54TH AVE E	E844969	2018-10-03	22:20	Unknown	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
PACIFIC HWY (SR-99)	54TH AVE E	E907471	2019-03-28	11:27	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
PACIFIC HWY (SR-99)	54TH AVE E	E992564	2019-11-13	18:00	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
PACIFIC HWY (SR-99)	54TH AVE E	EC26425	2022-03-02	10:12	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
PACIFIC HWY (SR-99)	54TH AVE E	ED17701	2022-12-15	11:24	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
PACIFIC HWY (SR-99)	54TH AVE E	EA66291	2020-09-21	19:40	Possible Injury	1	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - sideswipe	Going Straight Ahead	Stopped at Signal or Stop Sign
PACIFIC HWY (SR-99)	54TH AVE E	EA78687	2020-11-07	17:40	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - sideswipe	Changing Lanes	Stopped at Signal or Stop Sign
PACIFIC HWY (SR-99)	54TH AVE E	E882089	2019-01-09	17:35	No Apparent Injury	0	0	2	0	0	Intersection Related but Not at Intersection	From same direction - both going straight - both moving - sideswipe	Changing Lanes	Going Straight Ahead
PACIFIC HWY (SR-99)	54TH AVE E	E929401	2019-06-09	7:10	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - both moving - sideswipe	Going Straight Ahead	Going Straight Ahead
PACIFIC HWY (SR-99)	54TH AVE E	E947543	2019-08-05	12:35	Possible Injury	1	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - sideswipe	Changing Lanes	Stopped for Traffic
PACIFIC HWY (SR-99)	54TH AVE E	E904325	2019-03-21	8:15	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - both moving - sideswipe	Changing Lanes	Going Straight Ahead
PACIFIC HWY (SR-99)	54TH AVE E	EB20304	2021-04-02	17:57	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - both moving - sideswipe	Changing Lanes	Going Straight Ahead
PACIFIC HWY (SR-99)	54TH AVE E	E781980	2018-03-24	5:14	Possible Injury	4	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
PACIFIC HWY (SR-99)	54TH AVE E	EC22758	2021-12-01	20:49	Suspected Minor Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
PACIFIC HWY (SR-99)	54TH AVE E	EB26541	2021-04-29	16:51	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Stopped at Signal or Stop Sign
PACIFIC HWY (SR-99)	54TH AVE E	EA47491	2020-07-10	6:21	Suspected Minor Injury	4	0	4	0	0	At Intersection and Related	Entering at angle		Going Straight Ahead
PACIFIC HWY (SR-99)	54TH AVE E	EA57780	2020-08-17	20:16	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Stopped at Signal or Stop Sign
PACIFIC HWY (SR-99)	54TH AVE E	EA64794	2020-09-13	4:40	Suspected Minor Injury	2	0	2	1	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Making Left Turn
PACIFIC HWY (SR-99)	54TH AVE E	E909000	2019-04-07	18:54	Suspected Serious Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Making Right Turn	Slowing
PACIFIC HWY (SR-99)	54TH AVE E	E910907	2019-04-14	15:00	Possible Injury	2	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
PACIFIC HWY (SR-99)	54TH AVE E	EA02417	2020-01-12	11:00	Possible Injury	4	0	4	0	0	At Intersection and Related	Entering at angle	Making Right Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	54TH AVE E	EA09798	2020-01-28	16:50	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle		Stopped at Signal or Stop Sign
PACIFIC HWY (SR-99)	54TH AVE E	EA21648	2020-02-26	5:28	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Starting in Traffic Lane	Starting in Traffic Lane
PACIFIC HWY (SR-99)	54TH AVE E	E861656	2018-11-16	17:00	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Changing Lanes
PACIFIC HWY (SR-99)	54TH AVE E	E858985	2018-11-03	2:55	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
PACIFIC HWY (SR-99)	54TH AVE E	EA38176	2020-06-01	3:30	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead

PRIMARY TRAFFICWAY	INTERSECTING TRAFFICWAY/ REFERENCE POINT NAME	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PED S	# BIKES	JUNCTION RELATIONSHIP	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION	VEHICLE 2 ACTION
PACIFIC HWY (SR-99)	54TH AVE E	EC39911	2022-04-19	14:21	Suspected Minor Injury	1	0	4	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Going Straight Ahead	Making Left Turn
PACIFIC HWY (SR-99)	54TH AVE E	EC08752	2022-01-04	19:22	Suspected Minor Injury	1	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Going Straight Ahead	Making Left Turn
PACIFIC HWY (SR-99)	54TH AVE E	E764308	2018-01-29	19:22	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one right turn	Making Left Turn	Making Right Turn
PACIFIC HWY (SR-99)	54TH AVE E	E771523	2018-02-19	19:01	Suspected Minor Injury	1	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	54TH AVE E	E991022	2019-12-04	20:50	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Going Straight Ahead	Making Left Turn
PACIFIC HWY (SR-99)	54TH AVE E	E950980	2019-08-16	13:37	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Right Turn	Making Left Turn
PACIFIC HWY (SR-99)	54TH AVE E	EB99213	2021-11-24	00:38	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - one right turn - one straight	Making Right Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	54TH AVE E	EC33810	2022-04-01	13:00	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - one right turn - one straight	Going Straight Ahead	Making Right Turn
PACIFIC HWY (SR-99)	54TH AVE E	E874283	2018-12-19	14:02	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - one left turn - one straight	Making Left Turn	Stopped at Signal or Stop Sign
PACIFIC HWY (SR-99)	54TH AVE E	E859859	2018-11-11	21:30	Possible Injury	1	0	1	1	0	At Intersection and Related	Vehicle turning right hits pedestrian	Making Right Turn	
PACIFIC HWY (SR-99)	54TH AVE E	E805211	2018-06-05	14:28	No Apparent Injury	0	0	1	0	0	At Intersection and Related	Vehicle overturned	Making Left Turn	
PACIFIC HWY (SR-99)	54TH AVE E	EA33647	2020-05-09	13:35	Suspected Minor Injury	1	0	2	0	0	At Intersection and Related	Linear Curb	Making Left Turn	
PACIFIC HWY (SR-99)	54TH AVE E	E933639	2019-06-16	5:32	No Apparent Injury	0	0	1	0	0	At Intersection and Related	Signal Pole	Making Right Turn	
PACIFIC HWY (SR-99)	54TH AVE E	EA38177	2020-06-05	23:22	No Apparent Injury	0	0	1	0	0	At Intersection and Related	Signal Pole	Going Straight Ahead	
54TH AVE E	I-5 SB OFF-RAMP	E754783	2018-01-01	1:54	Possible Injury	1	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
54TH AVE E	I-5 SB OFF-RAMP	E805663	2018-06-06	6:24	No Apparent Injury	0	0	2	0	0	Intersection Related but Not at Intersection	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic
54TH AVE E	I-5 SB OFF-RAMP	E809151	2018-06-16	8:52	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
54TH AVE E	I-5 SB OFF-RAMP	EA24594	2020-03-11	11:11	Possible Injury	1	0	2	0	0	Intersection Related but Not at Intersection	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic
54TH AVE E	I-5 SB OFF-RAMP	EA25415	2020-02-29	17:06	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
54TH AVE E	I-5 SB OFF-RAMP	EA26367	2020-03-05	5:40	No Apparent Injury	0	0	2	0	0	Intersection Related but Not at Intersection	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic
54TH AVE E	I-5 SB OFF-RAMP	EB16132	2021-03-16	11:08	Possible Injury	1	0	2	0	0	Intersection Related but Not at Intersection	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
54TH AVE E	I-5 SB OFF-RAMP	EA98427	2021-01-13	15:08	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
54TH AVE E	I-5 SB OFF-RAMP	ED17299	2022-12-22	6:50	No Apparent Injury	0	0	2	0	0	Intersection Related but Not at Intersection	From same direction - both going straight - both moving - rear-end	Slowing	Slowing
54TH AVE E	I-5 SB OFF-RAMP	E810068	2018-06-18	14:22	Possible Injury	1	0	2	0	0	At Intersection and Related	Same direction -- both turning right -- both moving -- sideswipe	Making Right Turn	Making Right Turn
54TH AVE E	I-5 SB OFF-RAMP	E919774	2019-05-01	9:20	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning right -- both moving -- sideswipe	Overtaking and Passing	Making Right Turn
54TH AVE E	I-5 SB OFF-RAMP	E929757	2019-06-10	7:42	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning right -- one stopped -- sideswipe	Overtaking and Passing	Stopped at Signal or Stop Sign
54TH AVE E	I-5 SB OFF-RAMP	ED10081	2022-11-01	10:56	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning right -- both moving -- sideswipe	Making Right Turn	Making Right Turn
54TH AVE E	I-5 SB OFF-RAMP	EC01652	2021-12-13	14:53	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - sideswipe	Stopped at Signal or Stop Sign	Overtaking and Passing
54TH AVE E	I-5 SB OFF-RAMP	E788066	2018-04-13	7:08	Possible Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Making Left Turn
54TH AVE E	I-5 SB OFF-RAMP	E980614	2019-11-06	13:17	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Going Straight Ahead
54TH AVE E	I-5 SB OFF-RAMP	E895555	2019-02-17	20:15	Possible Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Making Left Turn
54TH AVE E	I-5 SB OFF-RAMP	E929397	2019-05-30	14:43	Possible Injury	1	0	4	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Stopped at Signal or Stop Sign
54TH AVE E	I-5 SB OFF-RAMP	EA05741	2019-12-22	22:26	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
54TH AVE E	I-5 SB OFF-RAMP	E980868	2019-11-11	12:41	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Making Left Turn
54TH AVE E	I-5 SB OFF-RAMP	E961176	2019-09-09	23:50	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Making Left Turn
54TH AVE E	I-5 SB OFF-RAMP	E902784	2019-03-11	20:17	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Right Turn	Stopped for Traffic
54TH AVE E	I-5 SB OFF-RAMP	E907280	2019-04-02	8:17	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Right Turn	Going Straight Ahead
54TH AVE E	I-5 SB OFF-RAMP	E961862	2019-09-18	9:58	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Making Left Turn
54TH AVE E	I-5 SB OFF-RAMP	E922999	2019-05-19	23:29	Possible Injury	2	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Making Left Turn
54TH AVE E	I-5 SB OFF-RAMP	EA08997	2020-01-28	20:25	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Going Straight Ahead
54TH AVE E	I-5 SB OFF-RAMP	EA32162	2020-05-03	17:58	Possible Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Making Left Turn
54TH AVE E	I-5 SB OFF-RAMP	EA64392	2020-09-11	19:05	Suspected Minor Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Going Straight Ahead
54TH AVE E	I-5 SB OFF-RAMP	EA65674	2020-09-15	20:51	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Making Left Turn
54TH AVE E	I-5 SB OFF-RAMP	EB57881	2021-08-06	11:32	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Right Turn	Going Straight Ahead
54TH AVE E	I-5 SB OFF-RAMP	EB63370	2021-09-01	06:29	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Right Turn	Stopped for Traffic
54TH AVE E	I-5 SB OFF-RAMP	EC73778	2022-08-06	20:46	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Making Left Turn
54TH AVE E	I-5 SB OFF-RAMP	EC11815	2022-01-12	12:20	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Right Turn	Going Straight Ahead
54TH AVE E	I-5 SB OFF-RAMP	EC73386	2022-08-09	11:03	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Making Left Turn
54TH AVE E	I-5 SB OFF-RAMP	ED09919	2022-11-05	22:32	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Right Turn	Stopped for Traffic
54TH AVE E	I-5 SB OFF-RAMP	EC62635	2022-06-30	5:15	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Making Left Turn
54TH AVE E	I-5 SB OFF-RAMP	E770175	2018-02-08	18:37	Possible Injury	1	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
54TH AVE E	I-5 SB OFF-RAMP	E786662	2018-03-31	14:46	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - one right turn - one straight	Going Straight Ahead	Making Right Turn
54TH AVE E	I-5 SB OFF-RAMP	EB29616	2021-05-09	23:39	Possible Injury	1	0	1	0	1	At Intersection and Related	Vehicle Strikes Pedalcyclist	Making Right Turn	
54TH AVE E	I-5 SB OFF-RAMP	E761192	2018-01-19	20:58	Possible Injury	1	0	1	0	0	At Intersection and Related	Signal Pole	Making Left Turn	
54TH AVE E	20TH ST E	E895369	2019-02-15	7:20	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- rear end	Making Left Turn	Making Left Turn
20TH ST E	54TH AVE E	E807847	2018-06-13	19:26	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
20TH ST E	54TH AVE E	EA32876	2020-05-10	11:45	Possible Injury	1	0	2	0	0	Intersection Related but Not at Intersection	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic
20TH ST E	54TH AVE E	EC67151	2022-07-18	14:55	No Apparent Injury	0	0	2	0	0	Intersection Related but Not at Intersection	From same direction - both going straight - one stopped - rear-end	Slowing	Stopped for Traffic
54TH AVE E	20TH ST E	E974810	2019-10-19	8:35	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Starting in Traffic Lane	Stopped at Signal or Stop Sign
20TH ST E	54TH AVE E	E914598	2019-04-25	9:15	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
20TH ST E	54TH AVE E	E924291	2019-05-26	15:57	Possible Injury	1	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
20TH ST E	54TH AVE E	E918863	2019-05-03	7:55	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
54TH AVE E	20TH ST E	ED04544	2022-10-30	20:55	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
54TH AVE E	20TH ST E	EC76722	2022-08-20	5:45	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
54TH AVE E	20TH ST E	EA64397	2020-09-16	13:50	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
20TH ST E	54TH AVE E	EB07596	2021-02-18	09:45	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
54TH AVE E	20TH ST E	E826461	2018-08-04	23:45	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
54TH AVE E	20TH ST E	E904432	2019-03-18	16:04	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
54TH AVE E	20TH ST E	E904322	2019-03-06	9:13	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
54TH AVE E	20TH ST E	E833803	2018-08-31	8:39	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning right -- both moving -- sideswipe	Making Right Turn	Making Right Turn
20TH ST E	54TH AVE E	EB04013	2021-02-05	10:30	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - both moving - sideswipe	Changing Lanes	Going Straight Ahead
54TH AVE E	20TH ST E	E944606	2019-07-25	15:18	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - both moving - sideswipe	Changing Lanes	Going Straight Ahead

PRIMARY TRAFFICWAY	INTERSECTING TRAFFICWAY/ REFERENCE POINT NAME	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PED S	# BIKES	JUNCTION RELATIONSHIP	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION	VEHICLE 2 ACTION
54TH AVE E	20TH ST E	EA90750	2020-12-15	14:40	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - both going straight - one stopped - sideswipe	Going Straight Ahead	Stopped at Signal or Stop Sign
20TH ST E	54TH AVE E	E954772	2019-08-24	15:58	Possible Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
20TH ST E	54TH AVE E	E902664	2019-03-12	7:22	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Making Left Turn
20TH ST E	54TH AVE E	E918859	2019-04-17	17:50	No Apparent Injury	0	0	3	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Stopped at Signal or Stop Sign
20TH ST E	54TH AVE E	EC35650	2022-04-07	23:11	Possible Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
20TH ST E	54TH AVE E	EC78225	2022-08-27	15:05	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
54TH AVE E	20TH ST E	E910342	2019-04-11	5:55	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Going Straight Ahead
54TH AVE E	20TH ST E	E937047	2019-06-30	15:32	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
54TH AVE E	20TH ST E	E984850	2019-11-16	9:18	Possible Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Making Right Turn	Stopped at Signal or Stop Sign
54TH AVE E	20TH ST E	EA68329	2020-09-25	11:22	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Stopped at Signal or Stop Sign
54TH AVE E	20TH ST E	EB00406	2020-12-29	22:20	Suspected Minor Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
54TH AVE E	20TH ST E	EB84963	2021-11-02	14:43	Suspected Minor Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Making Left Turn
54TH AVE E	20TH ST E	EC98283	2022-10-27	13:27	No Apparent Injury	0	0	3	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
54TH AVE E	20TH ST E	EC58746	2022-06-04	23:40	Possible Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
54TH AVE E	20TH ST E	E840930	2018-09-21	12:00	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
54TH AVE E	20TH ST E	ED04537	2022-11-02	5:05	Suspected Minor Injury	1	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Going Straight Ahead	Making Left Turn
20TH ST E	54TH AVE E	E817602	2018-07-13	17:10	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - all others	Backing	Stopped at Signal or Stop Sign
20TH ST E	54TH AVE E	E840692	2018-09-19	14:07	No Apparent Injury	0	0	2	0	0	Intersection Related but Not at Intersection	From same direction - all others	Backing	Stopped for Traffic
54TH AVE E	20TH ST E	E781974	2018-03-15	7:55	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - one right turn - one straight	Making Right Turn	Stopped at Signal or Stop Sign
54TH AVE E	20TH ST E	EA05742	2019-12-19	4:21	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - one right turn - one straight		Going Straight Ahead
54TH AVE E	20TH ST E	EA85748	2020-11-23	21:00	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - one right turn - one straight	Going Straight Ahead	Making Right Turn
54TH AVE E	20TH ST E	ED11013	2022-11-30	15:50	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - one right turn - one straight	Stopped in Roadway	Making Right Turn
54TH AVE E	20TH ST E	EA30614	2020-04-24	14:38	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - one right turn - one straight	Overtaking and Passing	
54TH AVE E	20TH ST E	EA21626	2020-03-05	18:25	Possible Injury	1	0	2	0	0	At Intersection and Related	From same direction - one left turn - one straight	Going Straight Ahead	Making Left Turn
54TH AVE E	20TH ST E	EB07595	2021-02-11	10:46	No Apparent Injury	0	0	1	0	0	At Intersection and Related	Vehicle overturned	Making Left Turn	
54TH AVE E	23RD ST E	E898370	2019-02-27	7:38	Possible Injury	1	0	2	0	0	Intersection Related but Not at Intersection	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic
54TH AVE E	23RD ST E	EC50745	2022-05-26	11:45	Possible Injury	2	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
54TH AVE E	23RD ST E	EB37558	2021-05-24	22:10	Suspected Minor Injury	2	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
VALLEY AVE E	54TH AVE E	E873003	2018-12-12	8:00	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic
VALLEY AVE E	54TH AVE E	EA87790	2020-11-27	10:10	Possible Injury	1	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end		Stopped at Signal or Stop Sign
VALLEY AVE E	54TH AVE E	EC08399	2021-12-31	12:00	Possible Injury	2	0	3	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
54TH AVE E	VALLEY AVE E	E892906	2019-02-11	13:57	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
PACIFIC HWY (SR-99)	70TH AVE E	E874137	2018-12-14	5:32	Possible Injury	2	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
PACIFIC HWY (SR-99)	70TH AVE E	E890045	2019-02-04	8:53	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
PACIFIC HWY (SR-99)	70TH AVE E	E824407	2018-08-02	8:25	Suspected Minor Injury	2	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	70TH AVE E	E826782	2018-08-09	15:50	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Stopped at Signal or Stop Sign
PACIFIC HWY (SR-99)	70TH AVE E	E978607	2019-11-02	9:15	No Apparent Injury	0	0	3	0	0	At Intersection and Related	Entering at angle	Making Right Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	70TH AVE E	E815195	2018-05-31	10:20	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Right Turn	Making Left Turn
PACIFIC HWY (SR-99)	70TH AVE E	E956636	2019-09-03	15:45	Possible Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	70TH AVE E	EA65042	2020-09-15	12:06	Possible Injury	2	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	70TH AVE E	EA84364	2020-11-23	6:00	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
PACIFIC HWY (SR-99)	70TH AVE E	EA90512	2020-12-10	17:55	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	70TH AVE E	E999278	2019-11-19	9:46	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Making Left Turn
PACIFIC HWY (SR-99)	70TH AVE E	EA10046	2020-01-28	20:40	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Making Right Turn
PACIFIC HWY (SR-99)	70TH AVE E	EA11380	2020-02-04	16:09	Possible Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	70TH AVE E	EB57292	2021-07-29	13:17	Suspected Serious Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	70TH AVE E	EB45664	2021-04-15	15:25	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Right Turn	Stopped at Signal or Stop Sign
PACIFIC HWY (SR-99)	70TH AVE E	E814825	2018-06-30	22:10	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	70TH AVE E	E865741	2018-11-27	12:17	Possible Injury	2	0	3	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	70TH AVE E	E862689	2018-11-09	19:40	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Going Straight Ahead	Making Left Turn
PACIFIC HWY (SR-99)	70TH AVE E	E852915	2018-08-29	7:05	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	70TH AVE E	E817272	2018-07-10	15:55	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	70TH AVE E	E817766	2018-07-14	16:04	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	70TH AVE E	E782374	2018-03-13	16:00	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Stopped for Traffic
PACIFIC HWY (SR-99)	70TH AVE E	E831018	2018-08-03	8:04	Suspected Minor Injury	3	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	70TH AVE E	E869544	2018-11-01	15:39	Possible Injury	1	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	70TH AVE E	E788143	2018-04-11	11:06	Suspected Minor Injury	1	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	70TH AVE E	E987804	2019-11-19	19:15	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	70TH AVE E	E950781	2019-08-16	16:50	Suspected Minor Injury	1	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	70TH AVE E	E968738	2019-09-27	17:51	Possible Injury	1	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	70TH AVE E	EA39940	2020-06-09	5:39	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	70TH AVE E	EA91701	2020-12-21	19:16	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	70TH AVE E	EA96495	2020-12-19	20:10	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	70TH AVE E	EB45665	2021-04-13	07:18	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
PACIFIC HWY (SR-99)	70TH AVE E	E925479	2019-05-29	6:30	Suspected Serious Injury	3	0	3	0	0	At Intersection and Related	From opposite direction - all others	Going Straight Ahead	Backing
PACIFIC HWY (SR-99)	70TH AVE E	E861750	2018-11-16	7:10	Suspected Minor Injury	1	0	3	0	0	At Intersection and Related	From opposite direction - all others	Going Straight Ahead	Stopped at Signal or Stop Sign
PACIFIC HWY (SR-99)	70TH AVE E	EB36117	2021-05-20	16:25	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - one right turn - one straight	Overtaking and Passing	Making Right Turn
PACIFIC HWY (SR-99)	70TH AVE E	E877379	2018-12-20	15:25	Possible Injury	2	0	2	0	0	Intersection Related but Not at Intersection	From same direction - all others	Backing	Starting in Traffic Lane
PACIFIC HWY (SR-99)	70TH AVE E	E925108	2019-05-28	8:55	No Apparent Injury	0	0	1	0	0	At Intersection and Related	Vehicle overturned	Making Left Turn	
PACIFIC HWY (SR-99)	70TH AVE E	EB14916	2021-03-08	14:37	No Apparent Injury	0	0	1	0	0	At Intersection and Related	Vehicle overturned	Making Left Turn	
70TH AVE E	20TH ST E	EA08988	2020-01-15	21:05	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
70TH AVE E	20TH ST E	EC88128	2022-09-28	16:25	Suspected Minor Injury	2	0	2	0	0	Intersection Related but Not at Intersection	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic

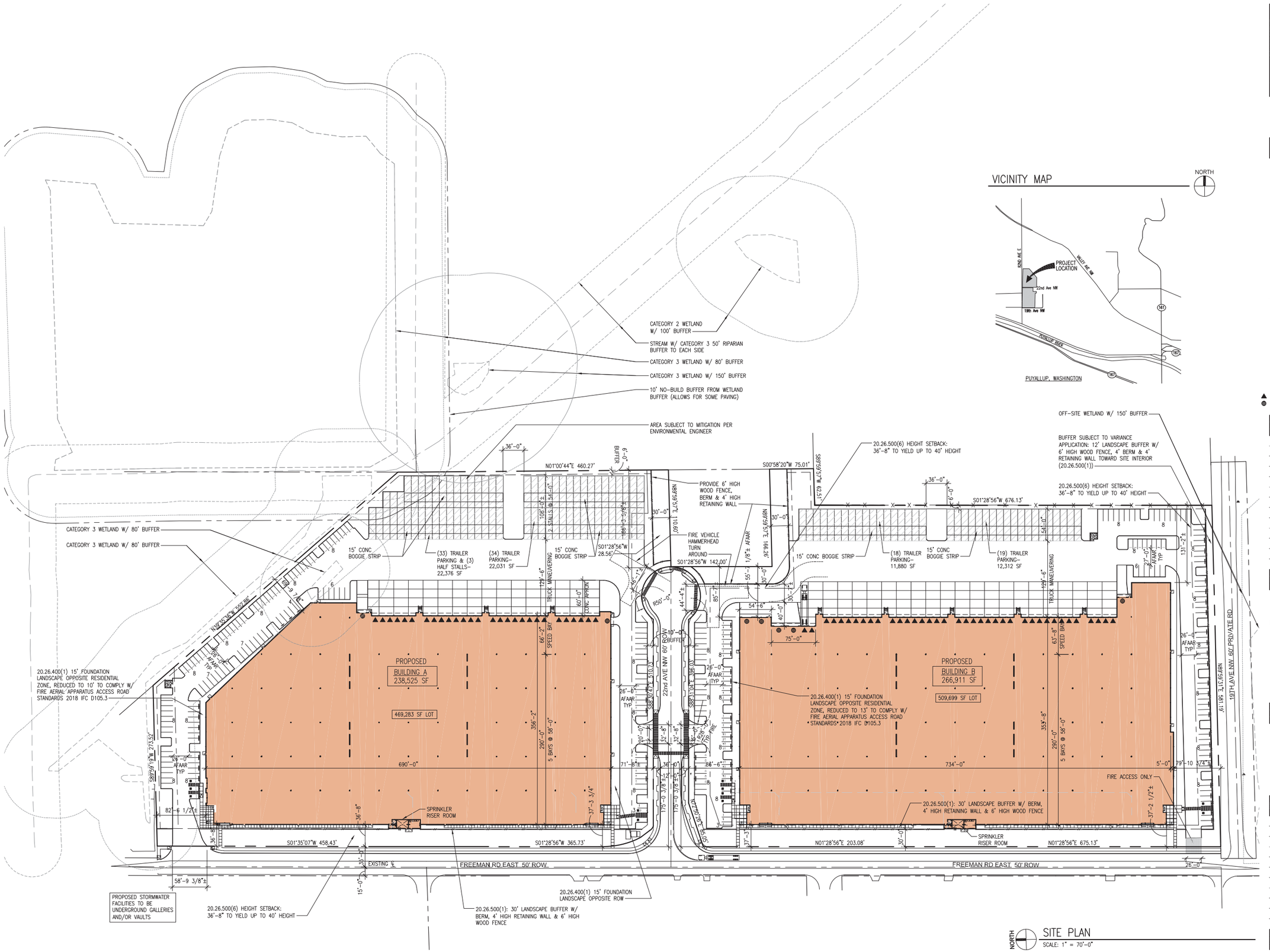
PRIMARY TRAFFICWAY	INTERSECTING TRAFFICWAY/ REFERENCE POINT NAME	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PED	# BIKES	JUNCTION RELATIONSHIP	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION	VEHICLE 2 ACTION
70TH AVE E	20TH ST E	EC38431	2022-04-10	17:46	Possible Injury	1	0	3	0	0	Intersection Related but Not at Intersection	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic
20TH ST E	70TH AVE E	EC44278	2022-05-07	12:45	Possible Injury	1	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Slowing	Stopped at Signal or Stop Sign
20TH ST E	70TH AVE E	EB47771	2021-07-12	12:08	No Apparent Injury	0	0	2	0	0	Intersection Related but Not at Intersection	From same direction - both going straight - both moving - sideswipe	Changing Lanes	Going Straight Ahead
20TH ST E	70TH AVE E	3870705	2021-08-03	16:32	No Apparent Injury	0	0	3	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
70TH AVE E	20TH ST E	EC23761	2022-02-22	21:38	Possible Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
20TH ST E	70TH AVE E	E873370	2018-12-14	18:00	Possible Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Starting in Traffic Lane	Starting in Traffic Lane
20TH ST E	70TH AVE E	EB85386	2021-11-03	21:41	Suspected Serious Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
70TH AVE E	20TH ST E	EB69370	2021-09-20	07:12	Possible Injury	1	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Going Straight Ahead	Making Left Turn
70TH AVE E	20TH ST E	E921104	2019-05-10	16:00	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - one right turn - one straight	Going Straight Ahead	Making Right Turn
20TH ST E	70TH AVE E	EA38175	2020-06-04	15:33	No Apparent Injury	0	0	1	0	0	At Intersection and Related	Other Objects	Making Right Turn	
70TH AVE E	26TH ST E	E801601	2018-05-17	9:04	Suspected Minor Injury	1	0	2	0	0	Intersection Related but Not at Intersection	From same direction - both going straight - both moving - rear-end	Going Straight Ahead	Slowing
26TH ST E	70TH AVE E	EA06003	2020-01-03	10:40	No Apparent Injury	0	0	1	0	0	At Intersection and Related	Vehicle overturned		
70TH AVE E	VALLEY AVE E	E763253	2018-01-26	20:28	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
70TH AVE E	VALLEY AVE E	E947542	2019-08-04	13:08	No Apparent Injury	0	0	2	0	0	Intersection Related but Not at Intersection	From same direction - both going straight - one stopped - rear-end	Starting in Traffic Lane	Stopped for Traffic
VALLEY AVE E	70TH AVE E	E990771	2019-11-19	15:25	No Apparent Injury	0	0	3	0	0	Intersection Related but Not at Intersection	From same direction - both going straight - one stopped - rear-end	Starting in Traffic Lane	Stopped for Traffic
VALLEY AVE E	70TH AVE E	E976142	2019-10-26	20:33	No Apparent Injury	0	0	2	0	0	Intersection Related but Not at Intersection	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic
VALLEY AVE E	70TH AVE E	E770289	2018-02-16	8:37	Possible Injury	1	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Starting in Traffic Lane	Stopped at Signal or Stop Sign
70TH AVE E	VALLEY AVE E	EB94405	2021-11-24	13:42	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - both moving - sideswipe	Changing Lanes	Slowing
70TH AVE E	VALLEY AVE E	EA66806	2020-09-21	22:45	Possible Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
VALLEY AVE E	70TH AVE E	EB60821	2021-08-23	08:08	Possible Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
VALLEY DR E	70TH AVE E	EA08985	2020-01-03	16:15	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle		Making Right Turn
70TH AVE E	VALLEY AVE E	EC75943	2022-08-17	18:45	Possible Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Stopped at Signal or Stop Sign	Making Right Turn
70TH AVE E	VALLEY AVE E	EB66030	2021-09-08	07:20	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Starting in Traffic Lane	Making Left Turn
VALLEY AVE E	70TH AVE E	E787469	2018-04-11	11:56	Possible Injury	1	0	2	0	0	Intersection Related but Not at Intersection	From same direction - all others	Going Straight Ahead	Starting in Traffic Lane
VALLEY AVE E	70TH AVE E	E800724	2018-05-22	1:00	Unknown	0	0	1	0	0	At Intersection and Related	Metal Sign Post	Making Right Turn	
FREEMAN RD E	VALLEY AVE E	E889319	2019-02-04	7:30	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
FREEMAN RD E	VALLEY AVE E	EA97533	2021-01-06	07:05	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
VALLEY AVE E	FREEMAN RD E	ED10815	2022-11-14	17:45	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
VALLEY AVE E	FREEMAN RD E	E822499	2018-07-26	14:25	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic
VALLEY AVE E	FREEMAN RD E	E925319	2019-05-29	15:26	No Apparent Injury	0	0	2	0	0	Intersection Related but Not at Intersection	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic
VALLEY AVE E	FREEMAN RD E	E890196	2019-02-05	11:50	Possible Injury	1	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Starting in Traffic Lane	Stopped at Signal or Stop Sign
VALLEY AVE E	FREEMAN RD E	EB68780	2021-09-02	18:30	No Apparent Injury	0	0	3	0	0	Intersection Related but Not at Intersection	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
VALLEY AVE E	FREEMAN RD E	E815715	2018-07-06	20:44	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Making Left Turn
VALLEY AVE E	FREEMAN RD E	EB62223	2021-08-05	09:29	Possible Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Making Left Turn
VALLEY AVE E	FREEMAN RD E	EB44462	2021-06-25	20:11	Possible Injury	2	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Making Left Turn
VALLEY AVE E	FREEMAN RD E	EC61575	2022-06-26	20:34	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Starting in Traffic Lane
VALLEY AVE E	FREEMAN RD E	EC77231	2022-08-22	17:17	No Apparent Injury	0	0	3	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
FREEMAN RD E	48TH ST E	E810069	2018-06-19	7:40	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Backing	Stopped for Traffic
N LEVEE RD	FREEMAN RD E	E826460	2018-08-02	15:52	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic
N LEVEE RD	FREEMAN RD E	EB62222	2021-08-23	08:25	No Apparent Injury	0	0	2	0	0	Intersection Related but Not at Intersection	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic
N LEVEE RD	FREEMAN RD E	EC98282	2022-10-28	7:15	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic
FREEMAN RD E	N LEVEE RD	E846402	2018-10-04	17:53	Possible Injury	2	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Going Straight Ahead
FREEMAN RD E	N LEVEE RD	ED10163	2022-11-30	8:48	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Going Straight Ahead
FREEMAN RD E	N LEVEE RD E	E964729	2019-09-20	20:27	Suspected Serious Injury	3	0	2	1	0	At Intersection and Related	Guardrail - Face	Going Straight Ahead	Slowing
N LEVEE RD	FREEMAN RD E	EC47071	2022-05-17	5:45	No Apparent Injury	0	0	1	0	0	Intersection Related but Not at Intersection	Guardrail - Face	Going Straight Ahead	
N MERIDIAN (SR-161)	SR-167 ON-RAMP	E875259	2018-12-16	16:20	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
N MERIDIAN (SR-161)	SR-167 ON-RAMP	E763548	2018-01-26	17:32	Possible Injury	1	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
N MERIDIAN (SR-161)	SR-167 ON-RAMP	E919926	2019-05-13	16:07	No Apparent Injury	0	0	2	0	0	Intersection Related but Not at Intersection	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic
N MERIDIAN (SR-161)	SR-167 ON-RAMP	EB47316	2021-07-11	18:30	Possible Injury	1	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
N MERIDIAN (SR-161)	SR-167 OFF-RAMP	E759580	2018-01-17	16:08	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
N MERIDIAN (SR-161)	SR-167 OFF-RAMP	EA84225	2020-11-25	13:19	Possible Injury	1	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic
N MERIDIAN (SR-161)	SR-167 OFF-RAMP	E785677	2018-03-29	20:41	Possible Injury	1	0	3	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
N MERIDIAN (SR-161)	SR-167 OFF-RAMP	E806240	2018-06-01	4:58	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
N MERIDIAN (SR-161)	SR-167 OFF-RAMP	EB75624	2021-10-07	17:26	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Stopped at Signal or Stop Sign	Stopped at Signal or Stop Sign
N MERIDIAN (SR-161)	SR-167 OFF-RAMP	EC99733	2022-10-28	4:15	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
SR-167	N MERIDIAN (SR-161)	EB88938	2021-11-12	13:05	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
SR-167	N MERIDIAN (SR-161)	E934408	2019-06-26	18:33	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
SR-167	N MERIDIAN (SR-161)	E886744	2019-01-25	15:18	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning right -- one stopped -- rear end	Making Right Turn	Stopped at Signal or Stop Sign
SR-167	N MERIDIAN (SR-161)	E886499	2019-01-25	17:00	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning right -- one stopped -- rear end	Making Right Turn	Stopped for Traffic
N MERIDIAN (SR-161)	SR-167 ON-RAMP	E884915	2019-01-18	15:25	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - both moving - sideswipe	Changing Lanes	Changing Lanes
N MERIDIAN (SR-161)	SR-167 OFF-RAMP	E907744	2019-04-03	12:33	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - sideswipe	Making Right Turn	Stopped at Signal or Stop Sign
N MERIDIAN (SR-161)	SR-167 ON-RAMP	E821336	2018-07-19	19:21	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - sideswipe	Making Left Turn	Stopped at Signal or Stop Sign
N MERIDIAN (SR-161)	SR-167 ON-RAMP	EB98192	2021-12-07	18:46	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - sideswipe	Slowing	Stopped at Signal or Stop Sign
N MERIDIAN (SR-161)	SR-167 OFF-RAMP	E986318	2019-11-25	17:48	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning right -- both moving -- sideswipe	Making Right Turn	Making Right Turn
N MERIDIAN (SR-161)	SR-167 OFF-RAMP	E863259	2018-11-21	9:54	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning right -- both moving -- sideswipe	Making Right Turn	Making Right Turn
N MERIDIAN (SR-161)	SR-167 OFF-RAMP	EC83336	2022-09-07	8:20	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning right -- both moving -- sideswipe	Making Right Turn	Making Right Turn
N MERIDIAN (SR-161)	SR-167 OFF-RAMP	EC26815	2022-03-07	7:50	Possible Injury	1	0	2	0	0	At Intersection and Related	Same direction -- both turning right -- both moving -- sideswipe	Making Right Turn	Making Right Turn
N MERIDIAN (SR-161)	SR-167 ON-RAMP	E879668	2018-12-20	17:02	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
N MERIDIAN (SR-161)	SR-167 ON-RAMP	E986357	2019-11-25	15:55	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
N MERIDIAN (SR-161)	SR-167 ON-RAMP	EB02463	2021-01-25	06:50	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
SR-167	N MERIDIAN (SR-161)	E816471	2018-07-10	18:09	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
SR-167	N MERIDIAN (SR-161)	E866744	2018-11-29	15:08	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn

PRIMARY TRAFFICWAY	INTERSECTING TRAFFICWAY/ REFERENCE POINT NAME	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PED S	# BIKES	JUNCTION RELATIONSHIP	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION	VEHICLE 2 ACTION
SR-167	N MERIDIAN (SR-161)	E753787	2018-01-01	2:14	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
SR-167	N MERIDIAN (SR-161)	EA13021	2020-02-06	11:45	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
SR-167	N MERIDIAN (SR-161)	E943867	2019-07-12	20:23	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
N MERIDIAN (SR-161)	SR-167 ON-RAMP	EA46884	2020-06-29	18:01	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Making Left Turn
N MERIDIAN (SR-161)	SR-167 ON-RAMP	ED09418	2022-11-18	22:15	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Making Left Turn
N MERIDIAN (SR-161)	SR-167 ON-RAMP	EC61411	2022-07-03	20:09	No Apparent Injury	0	0	3	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
N MERIDIAN (SR-161)	SR-167 OFF-RAMP	E857731	2018-11-06	22:38	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Going Straight Ahead
N MERIDIAN (SR-161)	SR-167 OFF-RAMP	E760421	2018-01-09	5:54	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Making Left Turn
N MERIDIAN (SR-161)	SR-167 OFF-RAMP	E941473	2019-07-18	6:32	Possible Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Making Right Turn
N MERIDIAN (SR-161)	SR-167 OFF-RAMP	EA41074	2020-06-19	2:41	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Changing Lanes
N MERIDIAN (SR-161)	SR-167 OFF-RAMP	EC01000	2021-12-11	16:01	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Making Right Turn
N MERIDIAN (SR-161)	SR-167 OFF-RAMP	EB59703	2021-08-16	16:27	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Right Turn	Going Straight Ahead
N MERIDIAN (SR-161)	SR-167 OFF-RAMP	ED10635	2022-12-03	10:11	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Right Turn	Going Straight Ahead
N MERIDIAN (SR-161)	SR-167 OFF-RAMP	EC48865	2022-05-21	20:02	Possible Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Making Right Turn	Going Straight Ahead
SR-167	N MERIDIAN (SR-161)	E884183	2019-01-15	10:19	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Going Straight Ahead
SR-167	N MERIDIAN (SR-161)	EA71685	2020-10-12	18:45	Suspected Serious Injury	2	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
N MERIDIAN (SR-161)	SR-167 ON-RAMP	EC31219	2022-03-22	19:52	Possible Injury	1	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Going Straight Ahead	Making Left Turn
SR-167	N MERIDIAN (SR-161)	EC42326	2022-05-02	7:30	Possible Injury	1	0	2	0	0	At Intersection and Related	From same direction - all others	Stopped at Signal or Stop Sign	Stopped for Traffic
N MERIDIAN (SR-161)	SR-167 ON-RAMP	EB65670	2021-09-06	14:29	Possible Injury	2	0	2	0	0	At Intersection and Related	From same direction - all others	Making U-Turn	Going Straight Ahead
N MERIDIAN (SR-161)	SR-167 ON-RAMP	E807386	2018-06-12	13:20	No Apparent Injury	0	0	2	0	0	Intersection Related but Not at Intersection	From same direction - all others	Making Right Turn	Going Straight Ahead
SR-167	N MERIDIAN (SR-161)	E794236	2018-04-15	14:08	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - all others	Making U-Turn	Making Left Turn
SR-167	N MERIDIAN (SR-161)	E819456	2018-07-13	9:18	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - all others	Making U-Turn	Making Left Turn
SR-167	N MERIDIAN (SR-161)	EA95890	2021-01-05	21:25	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - all others	Making U-Turn	Making Left Turn
SR-167	N MERIDIAN (SR-161)	EB86021	2021-11-05	03:08	Suspected Serious Injury	1	0	1	0	1	At Intersection and Related	Vehicle Strikes Pedalcyclist		Making Left Turn
SR-167	N MERIDIAN (SR-161)	E898987	2019-03-04	1:56	No Apparent Injury	0	0	2	0	0	At Intersection and Related	One parked--one moving	Making Left Turn	Illegally Parked, Unoccupied
N MERIDIAN (SR-161)	SR-167 OFF-RAMP	EB95056	2021-11-28	02:37	Unknown	0	0	1	0	0	At Intersection and Related	Roadway Ditch	Going Straight Ahead	
N MERIDIAN (SR-161)	SR-167 ON-RAMP	EC78895	2022-08-23	15:56	Suspected Minor Injury	1	0	1	0	0	At Intersection and Related	Vehicle overturned	Making Left Turn	
SR-167	N MERIDIAN (SR-161)	EB59365	2021-08-13	05:38	Suspected Minor Injury	1	0	1	0	0	At Intersection and Related	Vehicle overturned	Making Left Turn	
N LEVEE RD	N LEVEE RD	E831487	2018-08-23	16:50	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Merging (Entering Traffic)	Stopped for Traffic
N LEVEE RD	ACCESS RAMP	ED10423	2022-11-28	15:24	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic
N LEVEE RD	SR-167	EC94854	2022-10-17	17:09	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
SR-167	N LEVEE RD	E930964	2019-06-16	18:46	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic
SR-167	N LEVEE RD	E907906	2019-03-30	15:21	Possible Injury	1	0	2	0	0	At Intersection and Related	From same direction - both going straight - both moving - rear-end	Starting in Traffic Lane	Changing Lanes
N MERIDIAN (SR-161)	N LEVEE RD	E840444	2018-09-16	16:27	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
SR-167	N LEVEE RD	EB26032	2021-04-29	10:39	Possible Injury	1	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic
SR-167	N LEVEE RD	EB32046	2021-05-19	16:43	Possible Injury	1	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
SR-167	N LEVEE RD	EC21370	2022-02-16	14:18	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Starting in Traffic Lane	Stopped for Traffic
SR-167	N LEVEE RD	EC20399	2022-02-10	7:44	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Slowing	Stopped at Signal or Stop Sign
SR-167	N LEVEE RD	EC45620	2022-05-03	16:21	Suspected Minor Injury	1	0	2	0	0	At Intersection and Related	Same direction -- both turning right -- one stopped -- rear end	Making Right Turn	Stopped for Traffic
SR-167	N LEVEE RD	ED20548	2022-12-16	12:40	Possible Injury	1	0	2	0	0	At Intersection and Related	Same direction -- both turning right -- one stopped -- rear end	Making Right Turn	Stopped at Signal or Stop Sign
SR-167	N LEVEE RD	E977306	2019-10-31	7:19	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning right -- one stopped -- rear end	Making Right Turn	Stopped for Traffic
N MERIDIAN (SR-161)	N LEVEE RD	E922395	2019-05-17	15:03	Possible Injury	1	0	2	0	0	At Intersection and Related	Same direction -- both turning right -- one stopped -- rear end	Making Right Turn	Making Right Turn
SR-167	N LEVEE RD	EA68783	2020-09-28	15:51	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning right -- both moving -- rear end	Making Right Turn	Stopped for Traffic
SR-167	N LEVEE RD	E984506	2019-11-19	16:56	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning right -- both moving -- sideswipe	Making Right Turn	Making Right Turn
N MERIDIAN (SR-161)	N LEVEE RD	E910965	2019-04-14	15:07	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
SR-167	N LEVEE RD	E941005	2019-07-17	15:13	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Right Turn	Stopped at Signal or Stop Sign
SR-167	N LEVEE RD	E993251	2019-12-13	17:28	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Right Turn	Going Straight Ahead
SR-167	N LEVEE RD	E995211	2019-12-18	16:21	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Right Turn	Going Straight Ahead
SR-167	N LEVEE RD	EC27800	2022-03-09	14:41	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Right Turn	Going Straight Ahead
SR-167	N LEVEE RD	EA79869	2020-11-10	14:16	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - one right turn - one straight	Going Straight Ahead	Stopped for Traffic
SR-167	N LEVEE RD	EC79622	2022-09-01	14:49	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - one right turn - one straight	Going Straight Ahead	Stopped for Traffic
SR-167	N LEVEE RD	EC71504	2022-07-31	19:25	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - one right turn - one straight	Going Straight Ahead	Making Right Turn
SR-167	N LEVEE RD	EA51021	2020-07-29	7:20	Possible Injury	1	0	1	0	1	At Intersection and Related	Vehicle Strikes Pedalcyclist	Making Right Turn	
N MERIDIAN (SR-161)	N LEVEE RD	E781115	2018-03-21	3:10	Unknown	0	0	1	0	0	At Intersection and Related	Guardrail - Through, Over or Under	Going Straight Ahead	
SR-167	N LEVEE RD	EC17983	2022-02-04	22:15	No Apparent Injury	0	0	1	0	0	At Intersection and Related	Linear Curb	Making Right Turn	
RIVER ROAD	N MERIDIAN (SR-161)	E877778	2018-12-28	14:47	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
RIVER ROAD	N MERIDIAN (SR-161)	E822814	2018-07-27	12:50	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
RIVER ROAD	N MERIDIAN (SR-161)	E921331	2019-05-17	14:14	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
RIVER ROAD	N MERIDIAN (SR-161)	EA40123	2020-06-13	8:11	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
RIVER ROAD	N MERIDIAN (SR-161)	EA55043	2020-08-13	20:51	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
RIVER ROAD	N MERIDIAN (SR-161)	EA83442	2020-11-20	22:11	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
RIVER ROAD	N MERIDIAN (SR-161)	EA95467	2020-12-31	10:15	Possible Injury	2	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
RIVER ROAD	N MERIDIAN (SR-161)	EA13933	2020-02-11	5:27	Possible Injury	3	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
RIVER ROAD	N MERIDIAN (SR-161)	EC38730	2022-03-02	14:29	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
RIVER ROAD	N MERIDIAN (SR-161)	ED05316	2022-11-17	7:18	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning right -- one stopped -- rear end	Making Right Turn	Stopped for Traffic
RIVER ROAD	N MERIDIAN (SR-161)	E801590	2018-05-24	7:43	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning right -- both moving -- rear end	Making Right Turn	Making Right Turn
RIVER ROAD	N MERIDIAN (SR-161)	EB96188	2021-12-01	07:16	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning right -- both moving -- rear end	Making Right Turn	Making Right Turn
RIVER ROAD	N MERIDIAN (SR-161)	E966918	2019-10-03	7:00	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- one stopped -- sideswipe	Making Left Turn	Stopped for Traffic
RIVER ROAD	N MERIDIAN (SR-161)	EB53064	2021-07-29	12:28	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
RIVER ROAD	N MERIDIAN (SR-161)	EB50749	2021-05-07	15:20	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
RIVER ROAD	N MERIDIAN (SR-161)	EB59959	2021-08-20	05:35	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn
RIVER ROAD	N MERIDIAN (SR-161)	EC13101	2022-01-17	19:45	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe	Making Left Turn	Making Left Turn

PRIMARY TRAFFICWAY	INTERSECTING TRAFFICWAY/ REFERENCE POINT NAME	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PED	# BIKES	JUNCTION RELATIONSHIP	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION	VEHICLE 2 ACTION
RIVER ROAD	N MERIDIAN (SR-161)	E799355	2018-05-09	20:30	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Making Right Turn
RIVER ROAD	N MERIDIAN (SR-161)	E759286	2018-01-16	10:26	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Stopped at Signal or Stop Sign
RIVER ROAD	N MERIDIAN (SR-161)	E853645	2018-10-27	9:07	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Starting in Traffic Lane
RIVER ROAD	N MERIDIAN (SR-161)	E951827	2019-08-19	22:28	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
RIVER ROAD	N MERIDIAN (SR-161)	E989612	2019-12-03	20:02	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
RIVER ROAD	N MERIDIAN (SR-161)	E997525	2019-12-25	15:46	Died in Hospital	0	1	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
RIVER ROAD	N MERIDIAN (SR-161)	EA35895	2020-05-23	6:41	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
RIVER ROAD	N MERIDIAN (SR-161)	EB54374	2021-08-02	00:21	Possible Injury	2	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
RIVER ROAD	N MERIDIAN (SR-161)	EB12629	2021-03-09	22:23	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
RIVER ROAD	N MERIDIAN (SR-161)	EC17445	2022-01-20	21:53	Possible Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
RIVER ROAD	N MERIDIAN (SR-161)	EC28963	2022-03-11	1:20	Suspected Serious Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Going Straight Ahead
RIVER ROAD	N MERIDIAN (SR-161)	EC64175	2022-07-08	9:21	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Left Turn	Going Straight Ahead
RIVER ROAD	N MERIDIAN (SR-161)	EB41946	2021-06-22	15:45	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Merging (Entering Traffic)	Going Straight Ahead
RIVER ROAD	N MERIDIAN (SR-161)	EA11280	2020-02-02	10:46	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Going Straight Ahead	Making Left Turn
RIVER ROAD	N MERIDIAN (SR-161)	EB64088	2021-09-03	08:24	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
RIVER ROAD	N MERIDIAN (SR-161)	E938876	2019-07-10	20:10	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - all others	Making Left Turn	Making Left Turn
RIVER ROAD	N MERIDIAN (SR-161)	E796378	2018-04-30	7:30	No Apparent Injury	0	0	3	0	0	Intersection Related but Not at Intersection	From same direction - all others	Stopped in Roadway	Starting in Traffic Lane
RIVER ROAD	N MERIDIAN (SR-161)	ED16007	2022-12-18	2:34	No Apparent Injury	0	0	1	0	0	At Intersection and Related	Signal Pole	Going Straight Ahead	
RIVER ROAD	N MERIDIAN (SR-161)	EB66350	2021-09-09	11:34	Possible Injury	1	0	1	0	0	At Intersection and Related	Street Light Pole or Base	Making Left Turn	
W STEWART	N MERIDIAN (SR-161)	EC38250	2022-04-15	13:15	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
W STEWART	N MERIDIAN (SR-161)	EA76277	2020-10-28	17:44	Unknown	0	0	2	0	0	Intersection Related but Not at Intersection	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic
W STEWART	N MERIDIAN (SR-161)	EA21436	2020-03-06	23:57	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
N MERIDIAN (SR-161)	W STEWART	EA05121	2020-01-20	14:07	No Apparent Injury	0	0	2	0	0	Intersection Related but Not at Intersection	From same direction - both going straight - both moving - sideswipe	Changing Lanes	Going Straight Ahead
N MERIDIAN (SR-161)	E STEWART AVE	EC61697	2022-06-29	0:47	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
N MERIDIAN (SR-161)	E STEWART AVE	E922127	2019-05-19	13:38	Possible Injury	2	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
N MERIDIAN (SR-161)	W STEWART	EB17987	2021-03-30	21:15	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
N MERIDIAN (SR-161)	W STEWART	EC65546	2022-07-18	5:00	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
W STEWART	N MERIDIAN (SR-161)	EC71206	2022-08-05	12:56	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Making Right Turn	Going Straight Ahead
E STEWART AVE	N MERIDIAN (SR-161)	EC45408	2022-05-11	0:34	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
E STEWART AVE	N MERIDIAN (SR-161)	EB31190	2021-05-17	05:38	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
N MERIDIAN (SR-161)	W STEWART	EA74835	2020-10-25	10:57	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
N MERIDIAN (SR-161)	E STEWART AVE	E893993	2019-02-15	19:25	Possible Injury	1	0	1	1	0	At Intersection and Related	Vehicle turning left hits pedestrian	Making Left Turn	
N MERIDIAN (SR-161)	E STEWART AVE	ED10621	2022-12-03	18:55	Suspected Minor Injury	1	0	1	1	0	At Intersection and Related	Vehicle turning left hits pedestrian	Making Left Turn	
N MERIDIAN (SR-161)	E STEWART AVE	EA52183	2020-08-02	8:03	No Apparent Injury	0	0	1	0	0	At Intersection and Related	Linear Curb	Going Straight Ahead	
N MERIDIAN (SR-161)	E STEWART AVE	E863264	2018-11-21	9:45	No Apparent Injury	0	0	2	0	0	At Intersection and Related	One parked--one moving	Making Left Turn	Legally Parked, Unoccupied
2ND ST NE	E STEWART AVE	E952693	2019-08-21	17:43	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign
2ND ST NE	E STEWART AVE	E794457	2018-05-03	4:18	Possible Injury	1	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
2ND ST NE	E STEWART AVE	EA28686	2020-04-06	17:30	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
2ND ST NE	E STEWART AVE	EC01099	2021-12-14	22:00	No Apparent Injury	0	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Going Straight Ahead
2ND ST NE	E STEWART AVE	ED11575	2022-11-04	18:22	Possible Injury	2	0	2	0	0	At Intersection and Related	Entering at angle	Going Straight Ahead	Starting in Traffic Lane
2ND ST NE	E STEWART AVE	E933273	2019-06-21	12:40	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
2ND ST NE	E STEWART AVE	EA87704	2020-12-08	18:52	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
2ND ST NE	E STEWART AVE	EB37475	2021-06-09	07:42	Possible Injury	2	0	2	0	0	At Intersection and Related	From same direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
2ND ST NE	E STEWART AVE	EB70885	2021-09-21	18:29	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
2ND ST NE	E STEWART AVE	EC51289	2022-05-31	17:54	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
2ND ST NE	E STEWART AVE	EC79621	2022-08-31	16:46	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - one left turn - one straight	Going Straight Ahead	Making Left Turn
2ND ST NE	E STEWART AVE	EC37164	2022-04-13	12:23	No Apparent Injury	0	0	2	0	0	At Intersection and Related	From same direction - one left turn - one straight	Making Left Turn	Going Straight Ahead
E STEWART AVE	2ND ST NE	E996714	2019-12-20	16:39	Suspected Minor Injury	1	0	1	1	0	Intersection Related but Not at Intersection	Vehicle going straight hits pedestrian	Going Straight Ahead	
E STEWART AVE	2ND ST NE	E920855	2019-05-15	21:10	Suspected Minor Injury	2	0	1	2	0	At Intersection and Related	Vehicle turning left hits pedestrian	Making Left Turn	
2ND ST NE	E STEWART AVE	E770934	2018-02-16	7:03	Possible Injury	1	0	1	1	0	At Intersection and Related	Vehicle turning left hits pedestrian	Making Left Turn	
2ND ST NE	E STEWART AVE	EB89724	2021-11-12	19:09	Suspected Serious Injury	4	0	1	4	0	At Intersection and Related	Vehicle turning left hits pedestrian	Making Left Turn	
2ND ST NE	E STEWART AVE	E755487	2018-01-05	4:19	No Apparent Injury	0	0	1	0	0	At Intersection and Related	Signal Pole	Making Right Turn	

APPENDIX L

SITE PLAN



SYNTHESIS PLLC
THE FUSION OF ARCHITECTURE, DESIGN TECHNOLOGY & PEOPLE
12503 Bel-Red Road, Suite 100
Bellevue, WA 98005
p 425 646 1818 f 425 646 4141

VECTOR
Development Company
11411 NE 124th Street
Suite 190
Kirkland, WA 98034

PROJECT DATA

SITE AREA	978,982	SF
BUILDING AREA	505,436	SF
COVERAGE	51.4%	
BUILDING A PARKING REQUIRED	115.5	
12,000 SF OFFICE @ 1:300	40.0	
226,525 SF WHSE @ 1:3000	75.5	
PARKING PROVIDED	123	
BUILDING B PARKING REQUIRED	127.9	
13,000 SF OFFICE @ 1:300	43.3	
253,911 SF WHSE @ 1:3000	84.6	
PARKING PROVIDED	137	
▲ 9'x10' DOCK DOOR	66	
● GRADE ACCESS DOORS (SIZE VARIES)	7	

REVISIONS

ISSUE NO.	DATE	ITEM
3	06 14 24	SEPA RESUBMITTAL
2	11 27 23	SEPA RESUBMITTAL
1	10 14 22	SEPA RESUBMITTAL
D	11 01 21	DESIGN REVIEW APPLICATION
C	09 15 21	PRELIMINARY BID
B	03 19 21	SEPA APPLICATION
A	01 05 21	PRE-APPLICATION

PROFESSIONAL STAMP

715# REGISTERED ARCHITECT
RANDALL LEE BROWN
STATE OF WASHINGTON

Digitally signed by Randy Brown
Date: 2024.06.14 10:12:01 -07'00'

PROJECT INFORMATION

BUILDING A & B
Freeman Road Logistics
Puyallup, WA

SHEET INFORMATION

RELEASE FOR: PERMIT SUBMITTAL
TITLE: SITE PLAN
DESIGNED BY:
DRAWN BY:
REVIEWED BY:
APPROVED BY:
DATE: 01 05 21
SHEET NO: A1.1
PROJECT NO: 201401.13.031

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