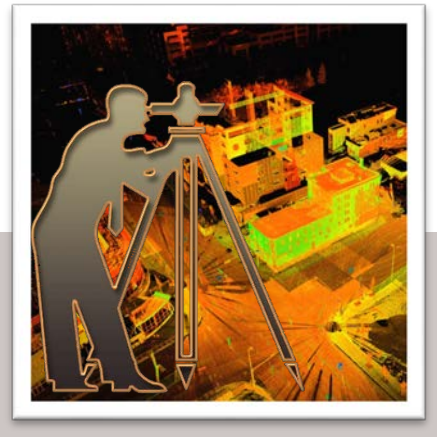
TOWN OF OKOTOKS

TMP UPDATE

Network Analysis

July 3, 2020



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TOWN OF OKOTOKS – TMP UPDATE

TMP Network Analysis

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JULY 6, 2020

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Date JULY 6, 2020
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The Association of Professional Engineers and Geoscientists of Alberta

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1.0 INTRODUCTION

The Town of Okotoks (Town) updated its Transportation Master Plan (TMP) in September 2016[1]. Since this update a number of planning documents as well as the Town's plans for long-term development within its boundaries have changed. Consequently, the Town requested an update of the transportation network analysis to be carried out to account for the most recent Town's land use plans and provide an update to the original TMP.

1.1 PURPOSE OF THE STUDY

The purpose of this study is to identify a long-term improvement strategy for the transportation network, accounting for the updated Okotoks and regional growth plans and the current transportation trends.

1.2 STUDY OBJECTIVES

The objective of this study was to define the transportation network for the Town of Okotoks within its new boundaries following annexation, to identify improvements required to accommodate the future development and the timing of those improvements.

1.3 STUDY SCOPE

The scope requirements for this update were defined as follows.

Carry out the transportation network analysis:

- Including change in density rate from 8 to 10 units per acre as per the draft MDP
- Accounting for the currently planned phasing of growth, and reduction in growth as per;
    - Servicing Strategy Brief to Accommodate the Draft Growth Strategy, June 25, 2019, prepared by ISL, and
    - Town of Okotoks Internal Memo, September 2019
- Accounting for recommendations included in CMRB South & East Calgary Region Transportation Study (S&ECRTS) Draft Functional Plan, prepared by ISL
- Including a high-level guidance towards future integrated mobility master plan and
- Culminating in a memorandum summarizing the results of the study.

The detailed study scope is included in **Appendix A**.

[1] Okotoks TMP – WATT Consulting Group (2016)

2.0 TRANSPORTATION NETWORK

2.1 EXISTING ROAD NETWORK

Okotoks is located just west of Highway 2 approximately 14 km south of the City of Calgary. A brief description of some of the major roads that form the Town's transportation network is provided below.

It should be noted that the Town's network includes transportation facilities located under management and control of two different road authorities namely; the Town of Okotoks and Alberta Transportation (AT).

The roads under the jurisdiction, management and control of AT include;

- **Highway 7:** a 2-lane east/west provincial undivided highway posted at 80 km/h within the Town boundaries

The Town's main street network includes;

- 338 Avenue
- Northridge Drive
- Banister Gate
- Milligan Drive
- Veterans Way
- Robinson Drive
- Okotoks Drive
- Crystal Ridge Drive
- Sandstone Gate
- Elizabeth Street
- Lineham Avenue
- North Railway Street
- Riverside Drive
- Riverside Gate
- Southridge Drive
- Woodhaven Drive
- Big Rock Trail
- Westland Gate
- Centennial Way
- Cimarron Drive
- Cimarron Boulevard
- Cimarron Common
- Cimarron Trail
- 32 Street
- Southbank Boulevard
- Cimarron Estates Gate
- Stockton Avenue
- Crystal Ridge Gate
- Crystal Shores Road

All are constructed to urban standards with most posted speed limits being 40 km/h, the exception being 338 Avenue, where the majority of the roadway is posted as 80 km/h.

The analyzed road network is shown in **Figure 1**.

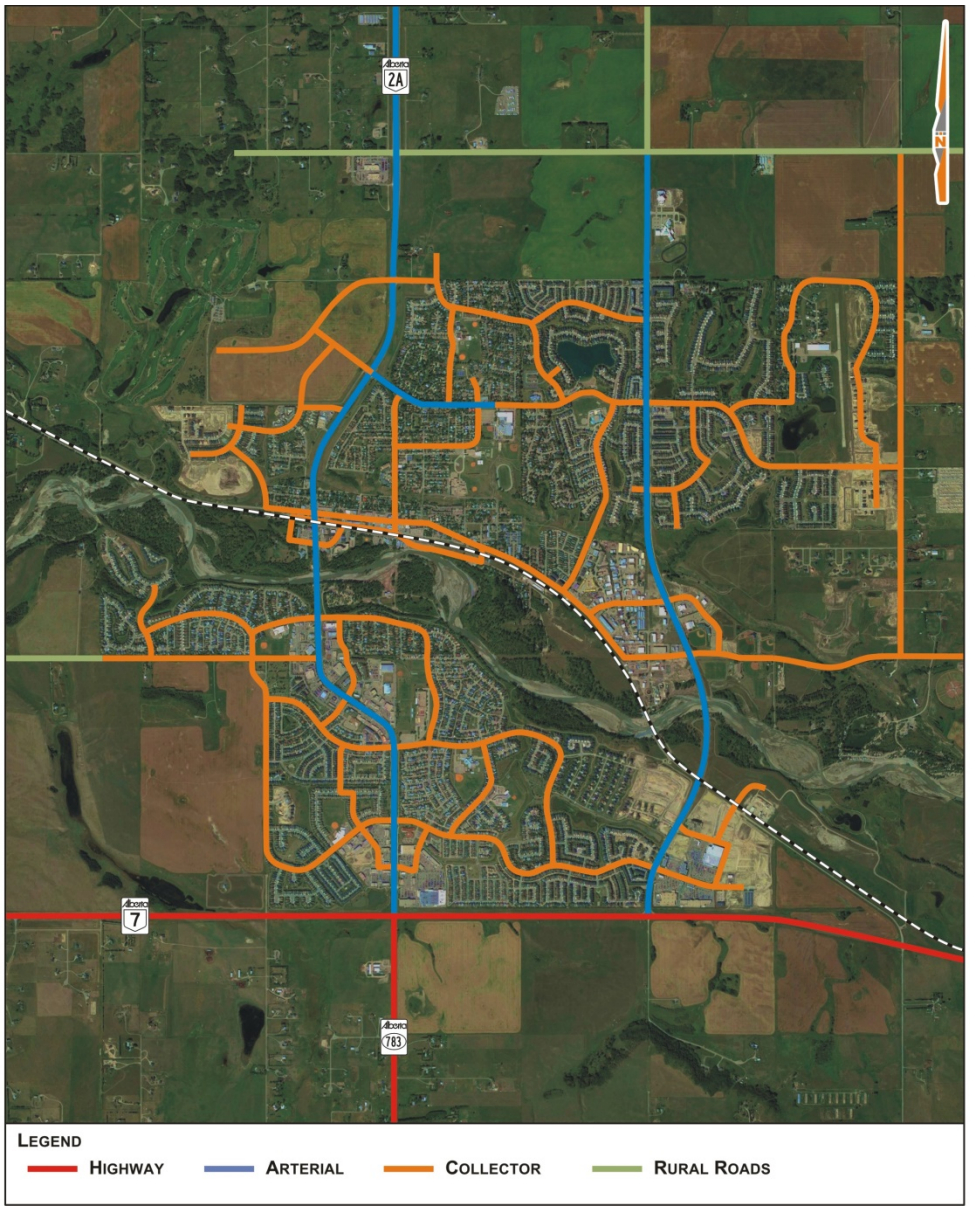


Figure 1: Existing Road Network

2.2 FUTURE ROAD NETWORK

The Town plans further development along Northridge Drive in the vicinity of 338 Avenue, which includes additional intersections. Additionally, the S&ECRTS report identified the interchange at the intersection of Highway 2 / 338 Avenue as a priority project for the region and recommended it be constructed by 2028. Consequently this interchange was included in the 2035 and 2045 horizons. These areas have been identified in **Figure 2** below. Consequently, these planned improvements were included in the analysis.

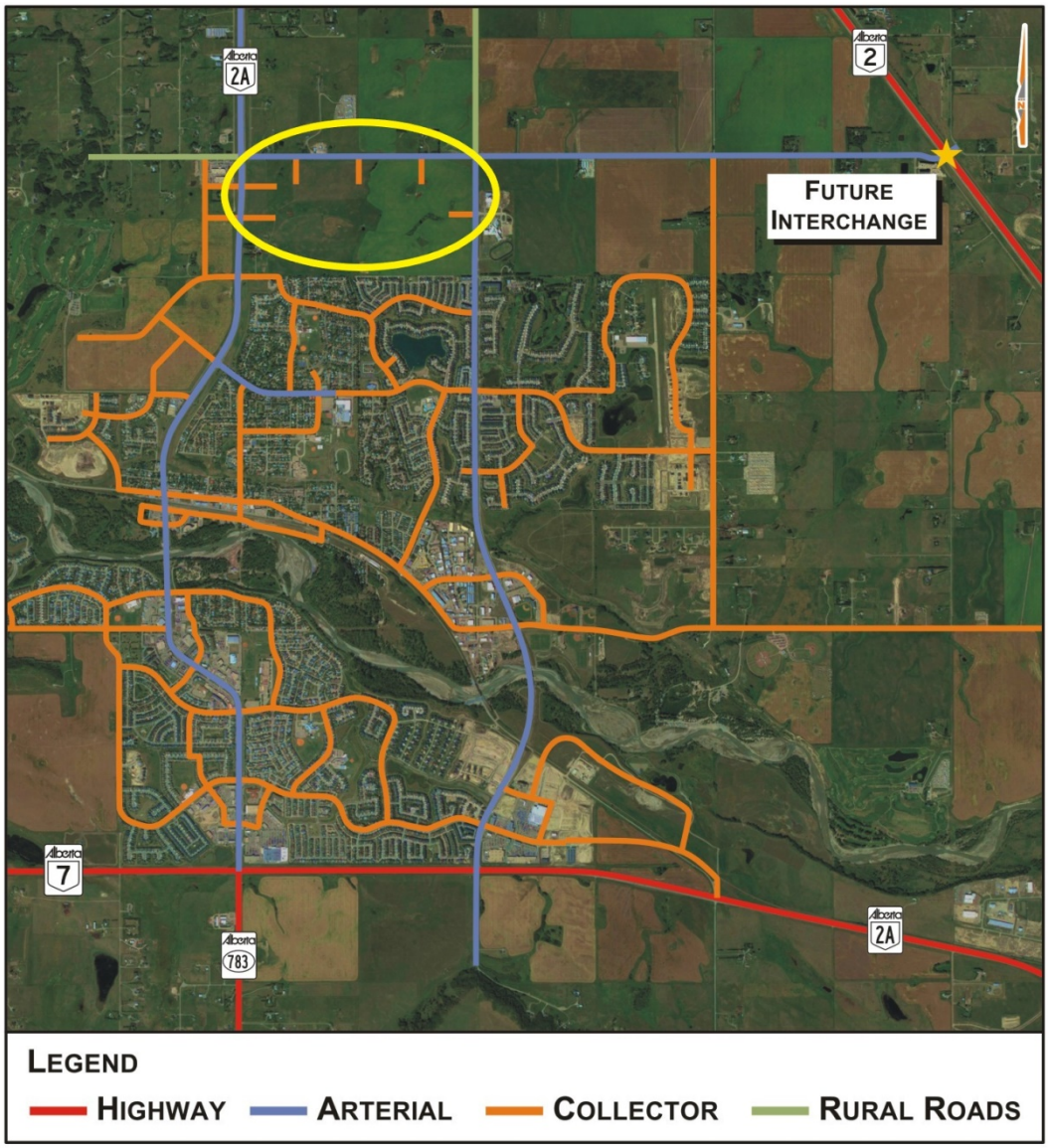


Figure 2: Future Road Network

3.0 EXISTING CONDITIONS

Existing conditions were extensively analyzed in the previous TMP and were therefore excluded from this study. However, new development since 2016 was considered with this update.

4.0 FUTURE CONDITIONS – LAND USE ASSUMPTIONS

4.1 TRAFFIC FORECAST MODEL AND GROWTH ASSUMPTIONS

For this study, the traffic model developed for the MD of Foothills representing p.m. peak hour volumes was used. It was based on the City of Calgary Regional Model and it was intended as a multimodal transportation demand forecasting tool to support the MD's short and long-term goals, policies and objectives as related to management of land use and the transportation network. It incorporates the Town of Okotoks, the City of Calgary, the MD of Foothills, High River and all of the other Hamlets within the MD of Foothills.

Incorporating the data from the MD of Foothills and the City of Calgary with the Town of Okotoks data permits an assessment that accounts for the close relationship between the locales in terms of origin and destination of the vehicular trips.

The traffic forecasting model was developed based on existing traffic volumes and land use data. It should be noted that the analysis carried out with the help of the model is fully dependent on the accuracy of the data entered into the model.

The Town of Okotoks has revised its growth assumptions to be lower than those that were used in the previous TMP. The new growth assumptions used in this analysis were 668 people per year from 2016-2041 and 680 people per year from 2041-2076.

4.2 PROPOSED LAND USE AND DEVELOPMENT PHASING

Land use scenarios and progression of the associated development were identified by the Town staff and this information was used to estimate future traffic volumes. **Figure 3** shows the assumed schedule and progression of the development. The development cells used in the analysis can be viewed in **Figure 4** with additional information in **Appendix B**.

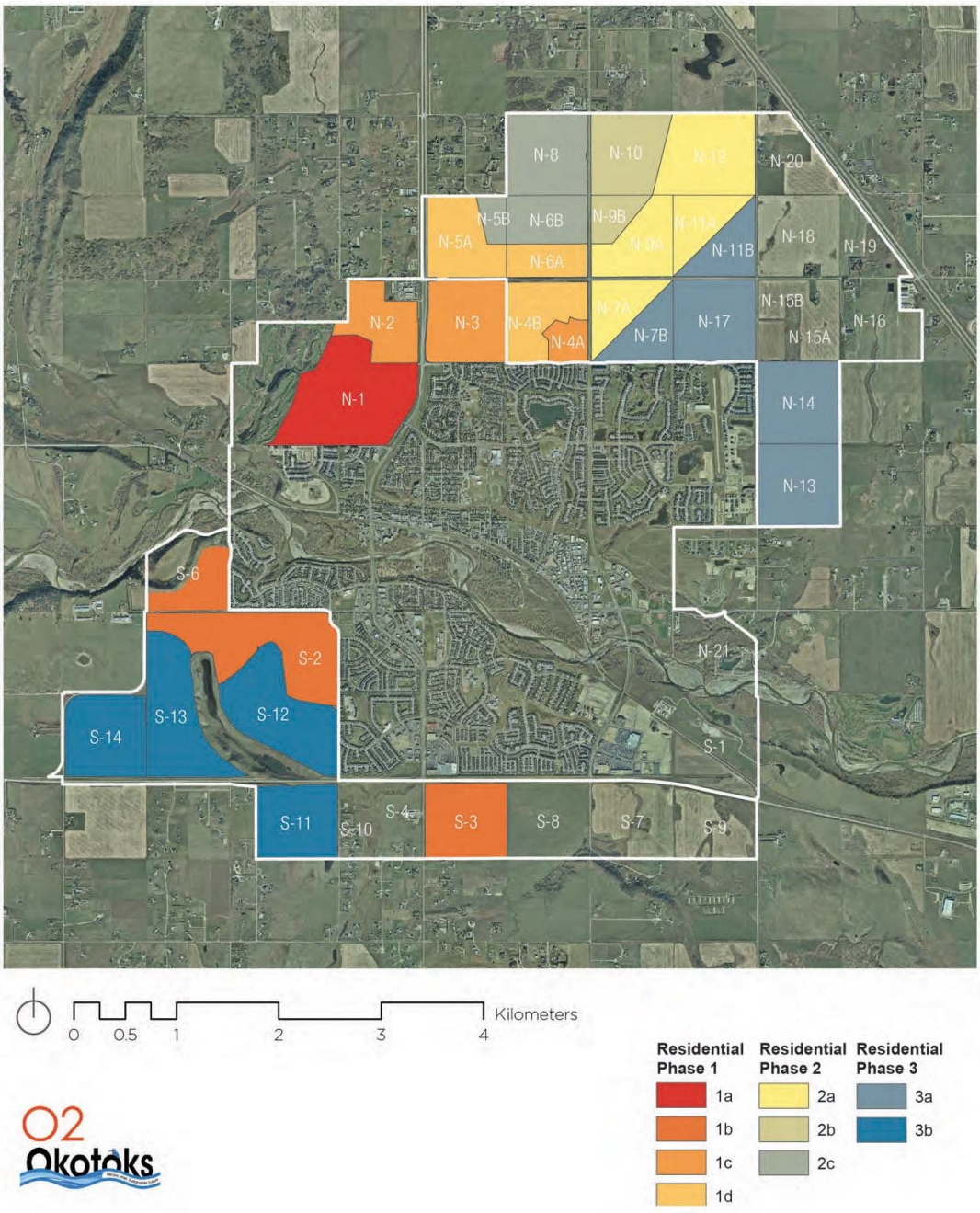


Figure 3: Development Progression

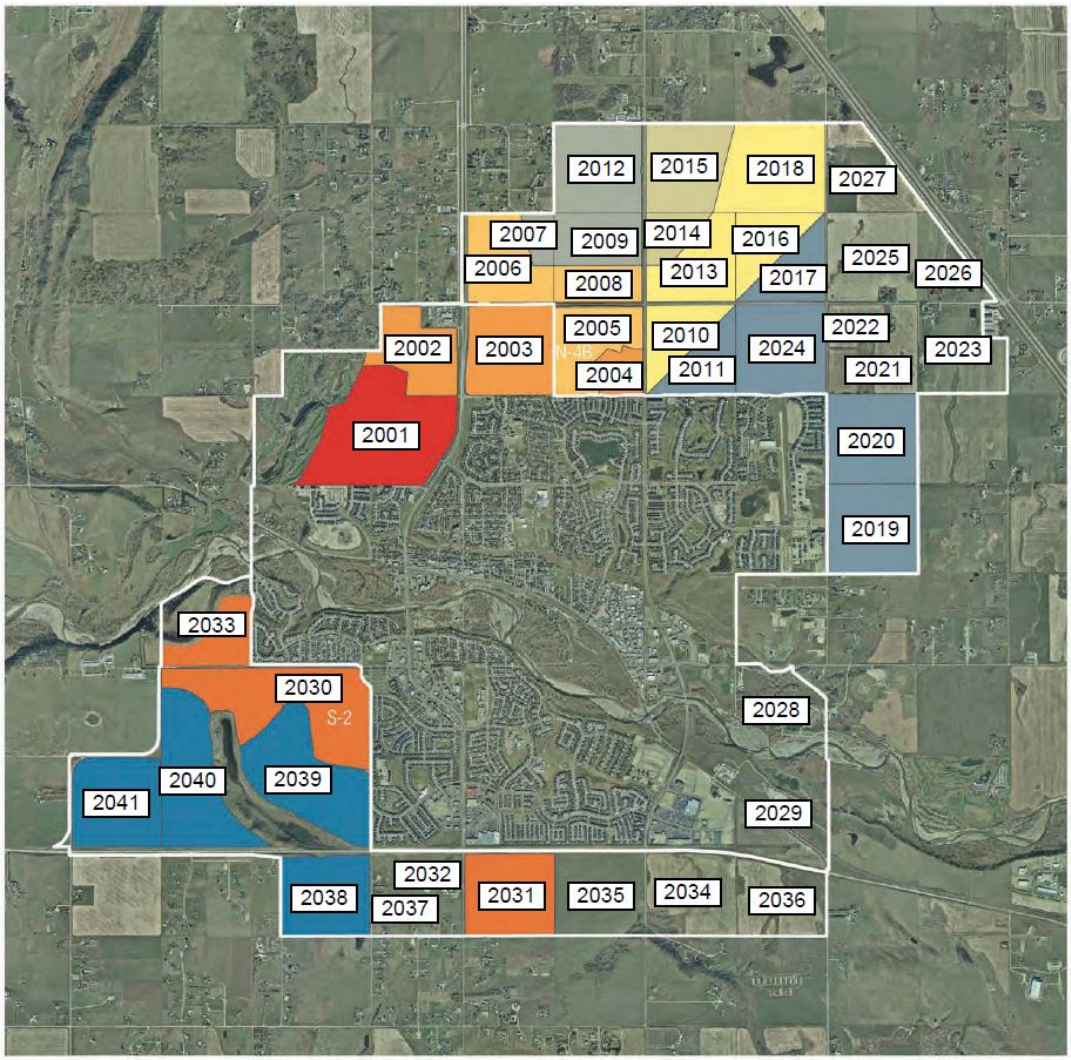


Figure 4: Development Cells

Please note that the numbers displayed in **Figure 4** represent the number of the development cell in the traffic model and not the development year of the associated area.

5.0 FUTURE CONDITIONS – TRAFFIC ANALYSIS

The methodology adopted for this study included a two-part analysis:

1. Traffic forecast and;
2. Operational and capacity analysis of the key intersections.

The traffic forecasting was carried out using the MD of Foothills traffic model using the Visum software platform. The traffic forecasting model was updated to reflect the latest land use and population information provided by the Town of Okotoks. Detailed information regarding the input traffic model information is available in **Appendix B**.

Operational and capacity analysis was carried out using Synchro/SimTraffic software based on HCM methodology.

The subsequent sections summarize the results of the analysis.

5.1 TRIP GENERATION

The trip generation rates for the existing and proposed land uses within the study area were the same as those used in the 2016 TMP.

5.2 TRIP ASSIGNMENT

The traffic generated by the development cells within the study area was assigned to the adjacent road network for each analyzed horizon using the Visum traffic model software.

It should be noted that the MD of Foothills model does not account for alternative modes of transportation and therefore the results should be considered conservative as they do not reflect reductions associated with transit, bicycle and pedestrian trips. However, it should be further noted that the Town is targeting 3 percent active transportation by 2035 and that this is not reflected in modelling results.

5.3 EVALUATION PROCESS

The current intersection configurations were used to evaluate the 2025 horizon year intersection capacity. Intersections that needed improvement were identified and assumed to be upgraded. This upgraded network was subsequently used to evaluate the 2035 traffic volumes with the same process being used for the 2045 traffic volumes. Subsequently, intersection treatments were identified and applied where needed for each time horizon.

The operating conditions during the peak hours at the studied intersections were evaluated using the Synchro/SimTraffic software packages, which are based on the Highway Capacity Manual (HCM 2010) evaluation methodology.

For un-signalized (stop-controlled) intersections, the Level-of-Service (LOS) is based on the computed delays on each of the critical movements. LOS 'A' represents minimal delays for minor-street traffic movements, and LOS 'F' represents a scenario with an insufficient number of gaps on the major street for minor street motorists to complete their movements without significant delays.

For signalized intersections, the methodology considers the intersection geometry, traffic volumes, traffic signal phasing/timing plan, and also pedestrian volumes. The average delay for each lane group is calculated, as well as the delay for the overall intersection. The operating conditions can also be expressed in terms of volume to capacity (v/c) ratios. LOS criteria for both unsignalized and signalized intersections, as summarized in the Highway Capacity Manual, are illustrated in **Table 1**.

TABLE 1: LOS CRITERIA FOR INTERSECTIONS

Level of Service (LOS)	Average Delay for UNSIGNALIZED Intersection Movements	Average Delay for SIGNALIZED Intersection Movements
A	0 – 10 seconds per vehicle	0 – 10 seconds per vehicle
B	> 10 – 15 seconds per vehicle	> 10 – 20 seconds per vehicle
C	> 15 – 25 seconds per vehicle	> 20 – 35 seconds per vehicle
D	> 25 – 35 seconds per vehicle	> 35 – 55 seconds per vehicle
E	> 35 – 50 seconds per vehicle	> 55 – 80 seconds per vehicle
F	> 50 seconds per vehicle	> 80 seconds per vehicle

Intersection Improvement Criteria

Two improvement criteria were used to identify the required improvements:

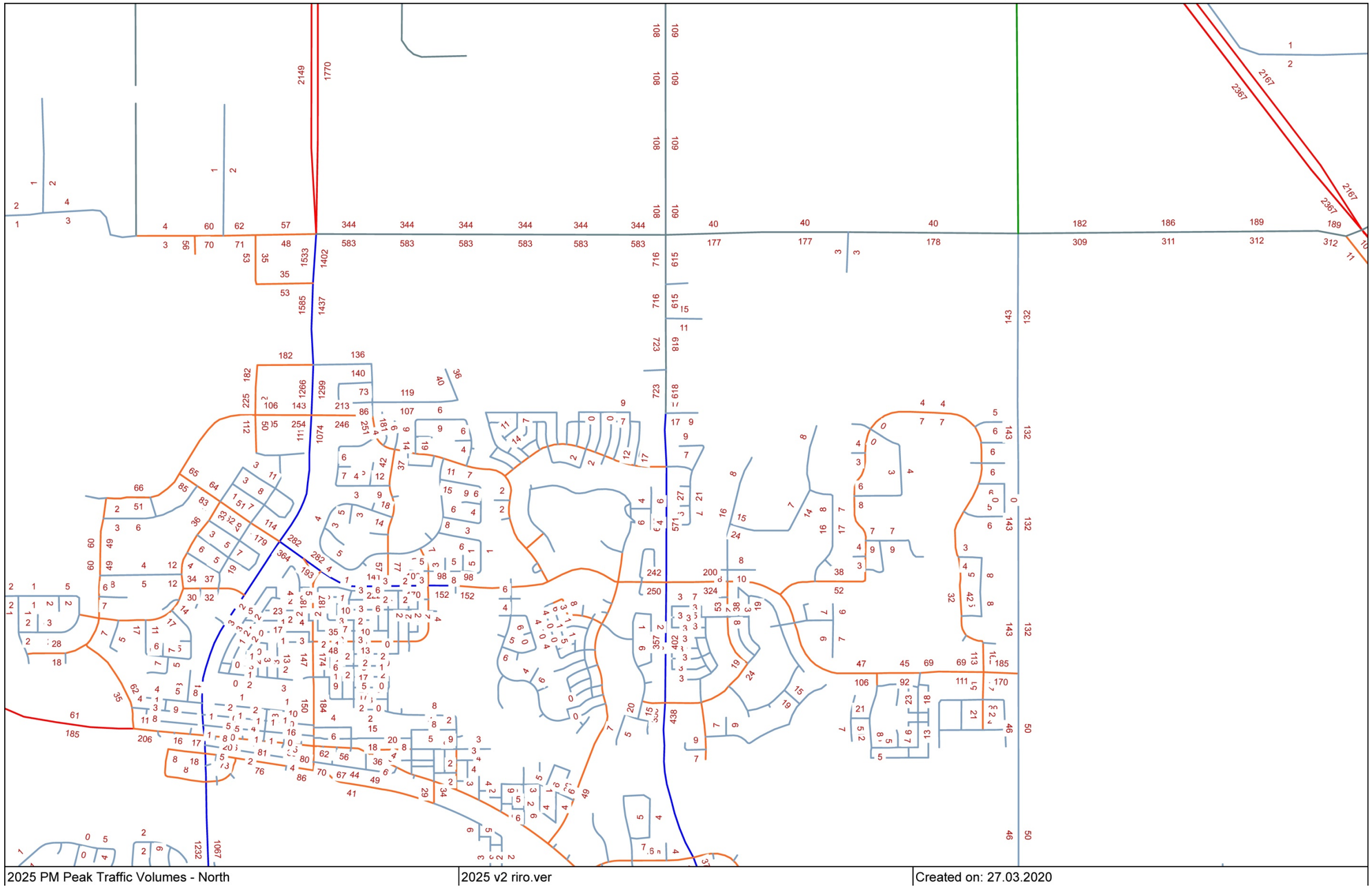
1. Overall intersection LOS E was identified as criterion for intersectional improvements to be considered.
2. City of Calgary Environmental Capacity Guidelines was used to establish the functional road classification.

It should be noted that as results of this analysis reflect the long-term improvement plans, operating conditions of some of the turning movements may result in the need for minor improvements before intersectional improvements are warranted. (i.e. minor improvement may include adjustments to the signal timing or minor geometrical modifications to the intersection approaches.)

5.4 INTERSECTION CAPACITY ANALYSIS RESULTS

Future operating conditions were analyzed for the proposed land development scenario identified in Section 5. The following pages summarize results of the analysis.

Figure 5 shows the 2025 PM peak traffic volumes, a more detailed printout is shown in **Appendix C. Note:** For readability this figure is being shown on two pages.



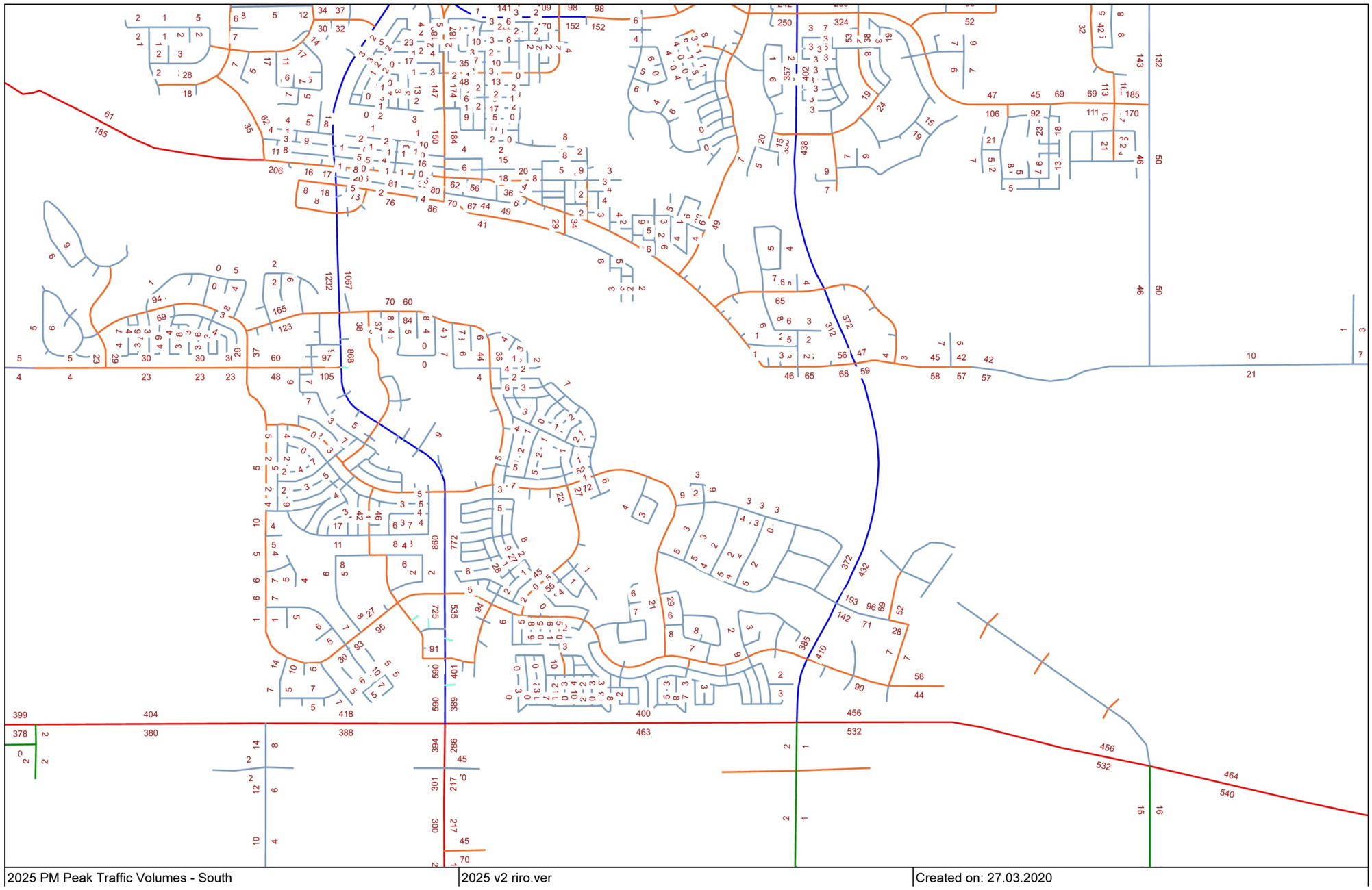


Figure 5: 2025 PM Peak Traffic Volumes

Using the existing intersection configuration, the forecast post-development 2025 traffic volumes were evaluated. The resulting operating conditions are shown in **Table 2** while detailed Synchro printouts are included in **Appendix D**.

TABLE 2: 2025 OPERATING CONDITIONS (NO IMPROVEMENTS)

INTERSECTION / MOVEMENT			PM PEAK HOUR			
			v/c Ratio	LOS	Delay (s)	Queue (m)
Northridge Drive / 338 Avenue (Signalized)	EB	Left	0.35	E	60	22
		Through	0.04	D	51	6
		Right	0.00	A	0	0
	WB	Left / Through	0.14	D	53	12
		Right	0.80	A	1	0
	NB	Left	0.00	A	0	0
		Through	0.87	D	35	214
		Right	0.00	A	0	0
	SB	Left	0.94	E	56	207
		Through	0.54	A	4	72
		Right	0.04	A	1	2
	Intersection Summary		-	**C**	**23**	-
Northridge Drive / Banister Gate (Signalized)	EB	Left / Through / Right	0.74	C	32	56
	WB	Left / Through	0.29	B	18	21
		Right	0.07	A	0	0
	NB	Left	0.08	A	8	3
		Through	0.56	A	10	50
		Right	0.06	A	2	4
	SB	Left	0.72	C	35	40
		Through / Right	0.63	B	10	58
	Intersection Summary		-	**B**	**13**	-
Northridge Drive / Milligan Drive (Signalized)	EB	Left	0.16	C	27	11
		Through / Right	0.45	B	18	23
	WB	Left	0.25	B	19	16
		Through	0.05	B	17	5
		Right	0.32	A	5	12
	NB	Left	0.17	A	9	8
		Through	0.70	C	22	76
		Right	0.15	A	2	5
	SB	Left	0.64	B	19	36
		Through	0.57	B	16	74
		Right	0.03	A	0	0
	Intersection Summary		-	**B**	**17**	-
Milligan Drive / Veterans Way (Stop-Controlled)	EB	Through	0.15	A	0	0
		Right	0.15	A	0	0
	WB	Left	0.02	A	8	0
		Through	0.04	A	0	0
	NB	Left	0.29	B	13	9
		Right	0.29	B	13	9
	Intersection Summary		-	**A**	**4**	-

Northridge Drive / Sandstone Gate (Signalized)	EB	Left	0.18	C	28	11
		Right	0.18	B	13	7
	NB	Left	0.09	A	3	3
		Through	0.37	A	4	32
	SB	Through	0.42	A	7	63
		Right	0.02	A	0	0
	Intersection Summary		-	**A**	**6**	-
Northridge Drive / Elizabeth Street (Signalized)	EB	Left / Through	0.16	C	22	8
		Right	0.47	A	8	14
	WB	Left / Through	0.17	C	23	11
		Right	0.05	A	0	0
	NB	Left	0.27	A	5	7
		Through	0.42	A	5	31
		Right	0.02	A	1	2
	SB	Left	0.05	A	9	3
		Through	0.55	B	12	56
		Right	0.04	A	1	2
	Intersection Summary		-	**A**	**9**	-
Veterans Way / Elizabeth Street (Signalized)	EB	Left	0.05	B	19	5
		Through / Right	0.07	B	15	7
	WB	Left	0.02	B	18	3
		Through / Right	0.12	B	11	8
	NB	Left	0.00	A	5	1
		Through / Right	0.09	A	7	20
	SB	Left	0.03	A	4	4
		Through / Right	0.09	A	6	18
	Intersection Summary		-	**A**	**8**	-
Lineham Avenue / North Railway Street (Stop-Controlled)	EB	Left	0.00	A	0	0
		Through	0.00	A	0	0
		Right	0.00	A	0	0
	WB	Left	0.02	A	0	0
		Through	0.02	A	3	0
		Right	0.00	A	0	0
	NB	Left	0.03	A	9	1
		Through	0.03	A	9	1
		Right	0.03	A	9	1
	SB	Left	0.00	A	9	0
		Through	0.00	A	9	0
		Right	0.00	A	9	0
	Intersection Summary		-	**A**	**3**	-
Crystal Ridge Drive / North Railway Street (Stop-Controlled)	EB	Left	0.01	A	0	0
		Through	0.01	A	2	0
	WB	Through	0.03	A	0	0
		Right	0.02	A	0	0
	SB	Left	0.02	A	9	1
		Right	0.02	A	9	1
	Intersection Summary		-	**A**	**2**	-

Northridge Drive / Riverside Drive (Stop-Controlled)	EB	Right	0.02	A	10	1
	WB	Right	0.03	A	9	1
	NB	Through	0.43	A	0	0
		Right	0.26	A	0	0
	SB	Through	0.49	A	0	0
		Right	0.25	A	0	0
	Intersection Summary		-	**A**	**0**	-
Northridge Drive / Riverside Gate (Signalized)	EB	Left / Through / Right	0.23	A	7	7
	WB	Left	0.27	C	23	18
		Through / Right	0.08	B	11	6
	NB	Left	0.04	A	4	2
		Through	0.46	A	8	66
		Right	0.01	A	0	0
	SB	Left	0.04	A	4	2
		Through / Right	0.53	A	8	79
	Intersection Summary		-	**A**	**8**	-
Southridge Drive / Woodhaven Drive (Signalized)	EB	Left / Through / Right	0.40	C	23	17
	WB	Left / Through / Right	0.20	A	8	6
	NB	Left	0.03	A	4	2
		Through	0.49	B	11	49
		Right	0.02	A	0	0
	SB	Left	0.23	A	5	8
		Through	0.47	A	8	58
		Right	0.19	A	3	13
	Intersection Summary		-	**A**	**10**	-
Southridge Drive / Big Rock Trail (Signalized)	EB	Left	0.20	C	22	12
		Through	0.01	B	19	2
		Right	0.16	A	5	5
	WB	Left	0.09	B	20	7
		Through / Right	0.10	B	10	6
	NB	Left	0.13	A	3	4
		Through	0.31	A	4	25
		Right	0.02	A	1	1
	SB	Left	0.06	A	9	5
		Through	0.41	A	9	51
		Right	0.02	A	0	0
	Intersection Summary		-	**A**	**7**	-
Southridge Drive / Westland Gate (Signalized)	EB	Left	0.01	A	3	1
		Through	0.40	A	7	52
		Right	0.09	A	3	7
	WB	Left	0.05	A	4	2
		Through	0.45	B	11	63
		Right	0.03	A	0	1
	NB	Left / Through / Right	0.24	B	19	11
	SB	Left / Through / Right	0.10	B	19	6
	Intersection Summary		-	**A**	**9**	-

Southridge Drive / Centennial Way (Signalized)	EB	Left	0.03	A	3	2
		Through	0.31	A	2	35
		Right	0.01	A	1	1
	WB	Left	0.01	A	3	1
		Through	0.30	A	2	32
		Right	0.01	A	0	0
	NB	Left / Through / Right	0.04	A	5	2
	SB	Left / Through / Right	0.05	A	6	2
	Intersection Summary		-	**A**	**2**	-
Southridge Drive / Cimarron Drive (Signalized)	EB	Left / Through / Right	0.10	B	12	5
	WB	Left / Through / Right	0.22	A	9	8
	NB	Left	0.04	A	4	2
		Through	0.40	B	11	37
		Right	0.06	A	2	3
	SB	Left	0.22	A	5	7
		Through	0.38	A	7	44
		Right	0.02	A	0	0
	Intersection Summary		-	**A**	**9**	-
Southridge Drive / Cimarron Boulevard (Signalized)	EB	Left / Through / Right	0.44	C	21	17
	WB	Left / Through / Right	0.44	B	11	13
	NB	Left	0.06	A	4	4
		Through	0.34	B	11	27
		Right	0.02	A	0	0
	SB	Left	0.30	A	5	12
		Through	0.35	A	9	36
		Right	0.06	A	2	4
	Intersection Summary		-	**B**	**10**	-
Cimarron Common / Cimarron Boulevard (Signalized)	EB	Left / Through	0.11	A	4	7
		Right	0.02	A	2	2
	WB	Left / Through / Right	0.15	A	4	8
	NB	Left / Through	0.15	B	13	8
		Right	0.23	A	5	7
	SB	Left / Through / Right	0.14	A	9	7
	Intersection Summary		-	**A**	**5**	-
Southridge Drive / Cimarron Common (Signalized)	EB	Left / Through / Right	0.39	B	18	14
	WB	Left / Through / Right	0.40	B	11	12
	NB	Left	0.12	A	4	6
		Through	0.13	A	4	9
		Right	0.05	A	2	3
	SB	Left	0.28	B	10	22
		Through	0.27	A	9	26
		Right	0.00	A	0	0
	Intersection Summary		-	**A**	**9**	-

Southridge Drive / Highway 7 (Signalized)	EB	Left	0.64	C	28	29
		Through / Right	0.22	B	20	41
	WB	Left / Through	0.68	D	39	89
		Right	0.06	A	0	0
	NB	Left / Through	0.30	B	18	49
		Right	0.08	A	5	7
	SB	Left / Through	0.75	C	30	123
		Right	0.29	A	3	13
	Intersection Summary		-	**C**	**23**	-
32 Street / Highway 7 (Signalized)	EB	Left	0.14	A	7	10
		Through / Right	0.39	A	10	48
	WB	Left / Through	0.41	B	17	54
		Right	0.10	A	0	0
	NB	Left / Through / Right	0.00	B	16	1
	SB	Left / Through	0.40	C	21	32
		Right	0.16	A	4	7
	Intersection Summary		-	**B**	**12**	-
32 Street / Southbank Boulevard (Signalized)	EB	Left / Through / Right	0.28	B	18	20
	WB	Left	0.18	B	10	14
		Through	0.11	B	10	11
		Right	0.25	A	3	10
	NB	Left	0.07	B	12	7
		Through	0.14	B	20	12
		Right	0.15	A	1	2
	SB	Left	0.41	B	17	24
		Through	0.11	B	18	12
		Right	0.18	A	3	6
	Intersection Summary		-	**B**	**12**	-
Southbank Boulevard / Costco Access (Signalized)	EB	Left	0.28	A	7	13
		Through / Right	0.07	A	4	4
	WB	Left	0.00	B	13	1
		Through / Right	0.11	B	14	9
	NB	Left	0.16	B	15	11
		Through / Right	0.01	B	12	2
	SB	Left	0.02	B	13	3
		Through / Right	0.35	A	5	12
	Intersection Summary		-	**A**	**8**	-
32 Street / Cimarron Estates Gate (Signalized)	EB	Left / Through / Right	0.10	B	15	5
	WB	Left / Through	0.20	C	22	10
		Right	0.28	A	7	9
	NB	Left	0.04	A	4	3
		Through	0.15	A	5	11
		Right	0.06	A	2	3
	SB	Left	0.10	A	8	10
		Through	0.13	A	6	16
		Right	0.02	A	0	0
	Intersection Summary		-	**A**	**7**	-

32 Street / North Railway Street (Signalized)	EB	Left / Through / Right	0.13	B	10	5
	WB	Left / Through / Right	0.09	B	17	5
	NB	Left	0.05	A	5	5
		Through	0.15	A	4	13
		Right	0.04	A	2	3
	SB	Left	0.01	A	5	1
		Through	0.11	A	4	10
		Right	0.01	A	1	1
	Intersection Summary		-	**A**	**5**	-
32 Street / Stockton Avenue (Stop-Controlled)	EB	Left	0.20	C	20	5
		Through	0.20	B	15	5
		Right	0.02	B	10	0
	WB	Left	0.01	C	17	0
		Through	0.03	B	14	1
		Right	0.03	B	11	1
	NB	Left	0.01	A	8	0
		Through	0.24	A	0	0
		Right	0.24	A	0	0
	SB	Left	0.01	A	8	0
		Through	0.17	A	0	0
		Right	0.02	A	0	0
	Intersection Summary		-	**A**	**2**	-
32 Street / Crystal Ridge Gate (Signalized)	EB	Left / Through / Right	0.13	B	11	7
	WB	Left / Through / Right	0.28	B	12	12
	NB	Left	0.03	A	6	3
		Through / Right	0.34	A	6	35
	SB	Left	0.08	A	6	6
		Through	0.23	A	6	23
		Right	0.02	A	1	1
	Intersection Summary		-	**A**	**7**	-
32 Street / Milligan Drive (Signalized)	EB	Left / Through / Right	0.48	B	18	18
	WB	Left / Through / Right	0.31	A	9	10
	NB	Left	0.09	A	5	5
		Through / Right	0.48	B	15	47
	SB	Left	0.42	A	7	19
		Through	0.33	B	12	38
		Right	0.17	A	3	8
	Intersection Summary		-	**B**	**11**	-
32 Street / Crystal Shores Road (Signalized)	EB	Left / Through / Right	0.31	C	29	14
	WB	Left / Through / Right	0.14	B	20	7
	NB	Left	0.05	A	3	3
		Through / Right	0.44	A	9	73
	SB	Left	0.06	A	3	3
		Through	0.47	A	9	86
		Right	0.06	A	2	4
	Intersection Summary		-	**A**	**10**	-

32 Street / 338 Avenue (Stop-Controlled)	EB	Left	0.00	A	0	13
		Through	0.96	E	49	13
		Right	0.96	E	49	13
	WB	Left	0.09	B	11	0
		Through	0.09	B	11	0
		Right	0.09	B	11	0
	NB	Left	1.10	F	92	19
		Through	1.10	F	92	19
		Right	1.10	F	92	19
	SB	Left	0.22	B	12	1
		Through	0.22	B	12	1
		Right	0.22	B	12	1
	Intersection Summary		-	**F**	**65**	-

The results of the analysis indicate that all intersections are expected to operate at an acceptable LOS D or better, with the exception of 32 Street / 338 Avenue.

Proposed Improvements:

The intersection of 32 Street / 338 Avenue was analyzed with the following improvements in place to ensure compliance with intersection evaluation criteria:

- Signalization of 32 Street / 338 Avenue,
- Introduction of left turn lanes and a northbound right-turn lane at 32 Street / 338 Avenue.

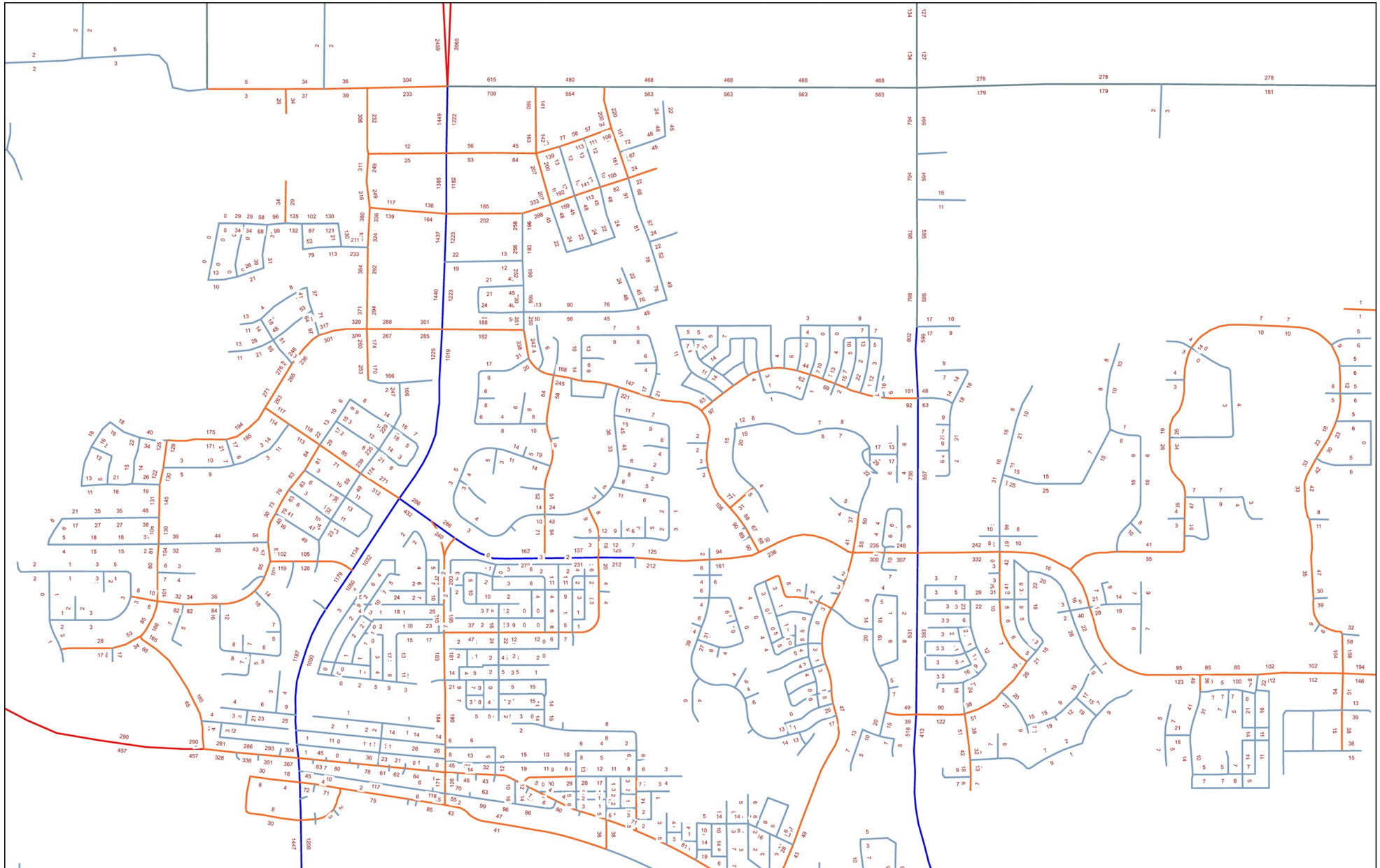
The results of the capacity analysis are summarized in **Table 3.**

TABLE 3: 2025 OPERATING CONDITIONS WITH IMPROVEMENTS

INTERSECTION / MOVEMENT			PM PEAK HOUR			
			v/c Ratio	LOS	Delay (s)	Queue (m)
32 Street / 338 Avenue (Signalized)	EB	Left / Through	0.01	B	13	2
		Right	0.77	A	9	18
	WB	Left	0.13	B	16	7
		Through / Right	0.02	B	13	2
	NB	Left	0.46	A	9	42
		Through	0.10	A	5	12
		Right	0.18	A	2	7
	SB	Left	0.00	A	6	1
		Through / Right	0.10	A	5	11
	Intersection Summary		-	**A**	**8**	-

The analysis indicates that the proposed improvements will result in the intersections operating at an acceptable LOS A or better at the 2025 horizon.

Figure 6 shows the 2035 PM peak traffic volumes, a more detailed printout is shown in **Appendix C. Note:** For readability this figure is being shown on two pages.



2035 PM Peak Traffic Volumes North	2035 v1.ver	Created on: 29.01.2020

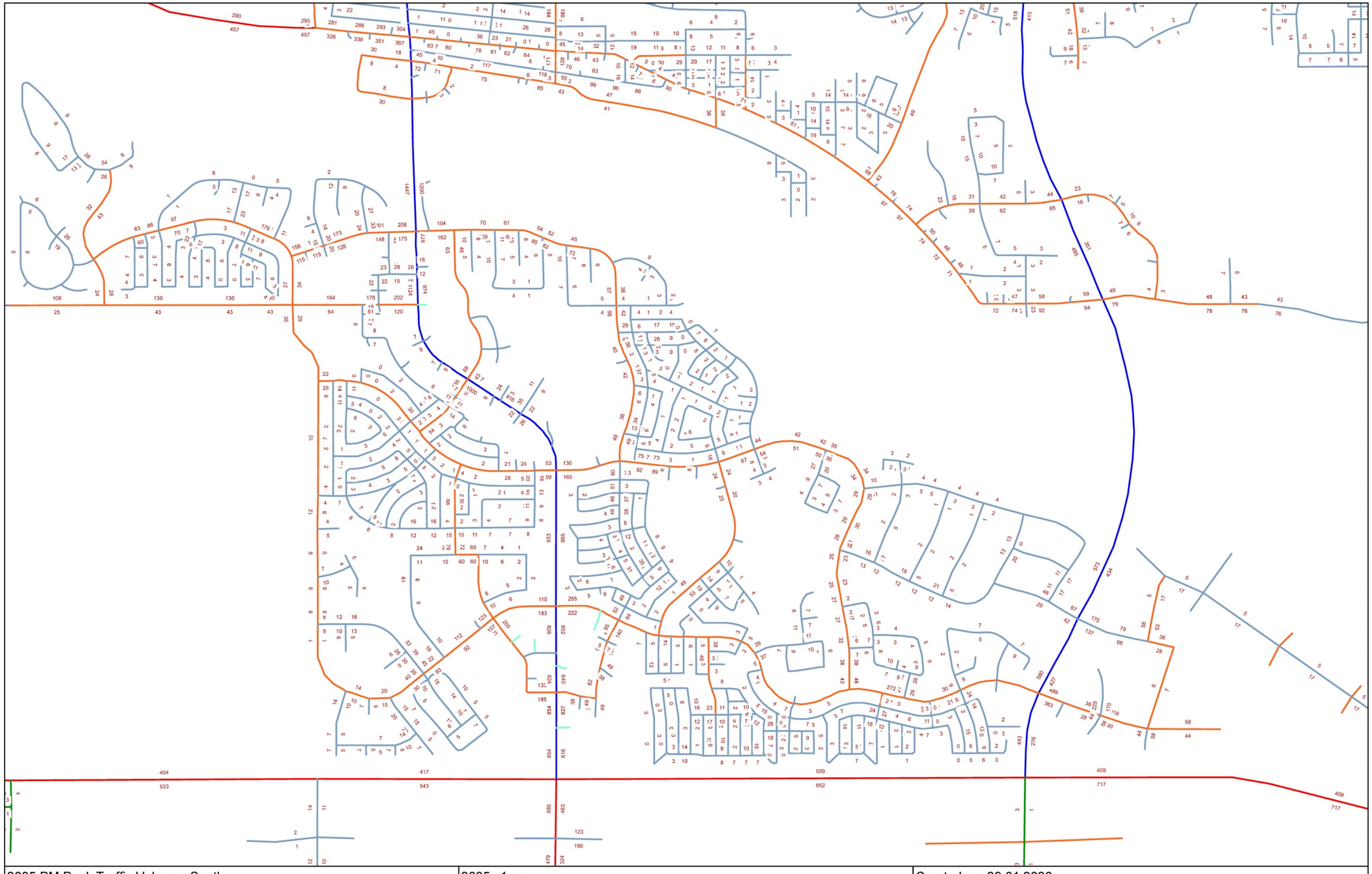


Figure 6: 2035 PM Peak Traffic Volumes

Using the 2025 based intersection configurations and the proposed improvements previously outlined, the forecasted post-development 2035 traffic volumes were evaluated. Additionally the 338 Avenue interchange is planned to be completed in 2028. This interchange is included in the 2035 and 2045 horizons. The resulting operating conditions are shown in **Table 4** while detailed capacity analysis is included in **Appendix D**.

TABLE 4: 2035 OPERATING CONDITIONS (NO IMPROVEMENTS)

Northridge Drive / 338 Avenue (Signalized)	EB	Left	0.84	E	78	97
		Through	0.00	D	42	2
		Right	0.00	A	0	0
	WB	Left / Through	0.01	D	42	3
		Right	0.71	A	5	0
	NB	Left	0.00	A	0	0
		Through	1.02	E	78	268
		Right	0.00	A	0	0
	SB	Left	1.24	F	157	349
		Through	0.63	B	13	159
		Right	0.28	A	2	10
	Intersection Summary		-	**D**	**55**	-
Northridge Drive / Northgate Circle (Signalized)	EB	Left / Through / Right	0.16	E	66	9
	WB	Left / Through / Right	0.33	C	30	10
	NB	Left	0.00	A	0	0
		Through	0.39	A	2	29
		Right	0.00	A	0	0
	SB	Left	0.19	A	2	5
		Through	0.46	A	2	38
		Right	0.00	A	0	0
	Intersection Summary		-	**A**	**3**	-
Northridge Drive / Spring Gate (Signalized)	EB	Left / Through / Right	0.57	D	52	31
	WB	Left / Through / Right	0.89	E	75	41
	NB	Left	0.06	A	3	2
		Through	0.40	A	4	51
		Right	0.08	A	1	3
	SB	Left	0.11	A	6	7
		Through	0.49	A	7	91
		Right	0.06	A	2	5
	Intersection Summary		-	**B**	**12**	-
Northridge Drive / Banister Gate (Signalized)	EB	Left / Through / Right	0.66	C	26	50
	WB	Left / Through	0.26	B	17	21
		Right	0.06	A	0	0
	NB	Left	0.03	A	8	2
		Through	0.56	B	11	52
		Right	0.05	A	3	4
	SB	Left	0.44	B	18	18
		Through	0.65	B	13	65
		Right	0.25	A	2	8
	Intersection Summary		-	**B**	**12**	-

Northridge Drive / Milligan Drive (Signalized)	EB	Left	0.14	B	20	10
		Through / Right	0.66	C	23	42
	WB	Left	0.18	C	21	9
		Through	0.14	B	19	10
		Right	0.33	A	6	11
	NB	Left	0.43	C	23	23
		Through	0.64	B	19	69
		Right	0.18	A	6	11
	SB	Left	0.62	B	16	31
		Through	0.47	A	9	54
		Right	0.09	A	2	5
	Intersection Summary		-	**B**	**14**	-
Milligan Drive / Veterans Way (Stop-Controlled)	EB	Through	0.17	A	0	0
		Right	0.17	A	0	0
	WB	Left	0.04	A	8	1
		Through	0.04	A	0	0
	NB	Left	0.36	C	15	12
		Right	0.36	C	15	12
	Intersection Summary		-	**A**	**4**	-
Milligan Drive / Robinson Drive (Stop-Controlled)	EB	Left	0.06	A	8	1
		Through	0.06	A	0	0
	WB	Through	0.05	A	0	0
		Right	0.03	A	0	0
	SB	Left	0.06	B	10	2
		Right	0.06	B	10	2
	Intersection Summary		-	**A**	**3**	-
Milligan Drive / Okotoks Drive (Stop-Controlled)	EB	Left	0.01	A	8	0
		Through	0.08	A	0	0
		Right	0.05	A	0	0
	WB	Left	0.00	A	8	0
		Through	0.04	A	0	0
		Right	0.00	A	0	0
	NB	Left	0.03	B	11	1
		Through	0.03	B	11	1
		Right	0.03	B	11	1
	SB	Left	0.01	A	10	0
		Through	0.01	A	10	0
		Right	0.01	A	10	0
	Intersection Summary		-	**A**	**1**	-
Milligan Drive / Banister Drive (Stop-Controlled)	EB	Left	0.00	A	0	0
		Through	0.06	A	0	0
	WB	Through	0.06	A	0	0
		Right	0.06	A	0	0
	SB	Left	0.12	B	10	3
		Right	0.12	B	10	3
	Intersection Summary		-	**A**	**2**	-

Milligan Drive / Crystal Ridge Drive (Stop-Controlled)	EB	Left	0.17	A	8	1
		Through	0.18	A	8	1
		Right	0.18	A	8	1
	WB	Left	0.21	A	9	1
		Through	0.21	A	8	1
		Right	0.15	A	8	1
	NB	Left	0.04	A	8	0
		Through	0.10	A	8	0
		Right	0.10	A	7	0
	SB	Left	0.06	A	9	0
		Through	0.06	A	8	0
		Right	0.02	A	7	0
	Intersection Summary		-	**A**	**8**	-
Northridge Drive / Sandstone Gate (Signalized)	EB	Left	0.40	C	27	22
		Right	0.33	A	9	10
	NB	Left	0.25	A	6	7
		Through	0.42	A	6	40
	SB	Through	0.56	B	12	71
		Right	0.04	A	0	0
	Intersection Summary		-	**A**	**10**	-
Northridge Drive / Elizabeth Street (Signalized)	EB	Left / Through	0.40	C	26	23
		Right	0.59	B	11	22
	WB	Left / Through	0.14	C	22	10
		Right	0.05	A	0	0
	NB	Left	0.76	C	25	46
		Through	0.45	A	6	39
		Right	0.01	A	1	1
	SB	Left	0.04	A	9	3
		Through	0.70	B	15	76
		Right	0.05	A	1	2
	Intersection Summary		-	**B**	**13**	-
Veterans Way / Elizabeth Street (Signalized)	EB	Left	0.05	B	14	4
		Through / Right	0.14	A	10	9
	WB	Left	0.02	B	14	2
		Through / Right	0.11	B	10	7
	NB	Left	0.01	A	5	1
		Through / Right	0.09	A	8	18
	SB	Left	0.03	A	4	5
		Through / Right	0.10	A	6	20
	Intersection Summary		-	**A**	**8**	-

Lineham Avenue / North Railway Street (Stop-Controlled)	EB	Left	0.00	A	0	0
		Through	0.00	A	0	0
		Right	0.00	A	0	0
	WB	Left	0.02	A	0	1
		Through	0.02	A	4	1
		Right	0.00	A	0	0
	NB	Left	0.04	A	9	1
		Through	0.04	A	9	1
		Right	0.04	A	9	1
	SB	Left	0.01	A	10	0
		Through	0.01	A	10	0
		Right	0.01	A	10	0
	Intersection Summary		-	**A**	**3**	-
Crystal Ridge Drive / North Railway Street (Stop-Controlled)	EB	Left	0.01	A	0	0
		Through	0.01	A	2	0
	WB	Through	0.03	A	0	0
		Right	0.01	A	0	0
	SB	Left	0.02	A	9	1
		Right	0.02	A	9	1
	Intersection Summary		-	**A**	**2**	-
Northridge Drive / Riverside Drive (Stop-Controlled)	EB	Right	0.01	B	11	0
	WB	Right	0.07	B	11	2
	NB	Through	0.49	A	0	0
		Right	0.29	A	0	0
	SB	Through	0.57	A	0	0
		Right	0.30	A	0	0
	Intersection Summary		-	**A**	**0**	-
Northridge Drive / Riverside Gate (Signalized)	EB	Left / Through / Right	0.42	D	40	25
	WB	Left	0.39	D	42	30
		Through / Right	0.11	B	19	8
	NB	Left	0.06	A	8	4
		Through	0.54	B	13	120
		Right	0.02	A	0	0
	SB	Left	0.04	A	7	3
		Through / Right	0.65	B	17	154
	Intersection Summary		-	**B**	**16**	-
Southridge Drive / Woodhaven Drive (Signalized)	EB	Left / Through / Right	0.90	D	38	26
	WB	Left / Through / Right	0.24	B	11	9
	NB	Left	0.04	A	3	2
		Through	0.47	B	10	63
		Right	0.01	A	0	0
	SB	Left	0.35	A	5	11
		Through	0.47	A	7	75
		Right	0.17	A	3	14
	Intersection Summary		-	**A**	**10**	-

Southridge Drive / Big Rock Trail (Signalized)	EB	Left	0.21	B	14	11
		Through	0.00	B	11	1
		Right	0.07	A	5	4
	WB	Left	0.06	B	19	7
		Through / Right	0.09	B	10	6
	NB	Left	0.22	B	12	13
		Through	0.38	A	8	52
		Right	0.02	A	0	0
	SB	Left	0.06	A	10	5
		Through	0.45	A	9	63
		Right	0.07	A	0	0
	Intersection Summary		-	**A**	**9**	-
Southridge Drive / Westland Gate (Signalized)	EB	Left	0.01	A	3	1
		Through	0.42	A	8	53
		Right	0.09	A	3	7
	WB	Left	0.06	A	3	2
		Through	0.43	B	10	61
		Right	0.03	A	0	1
	NB	Left / Through / Right	0.23	B	19	11
	SB	Left / Through / Right	0.16	C	20	8
	Intersection Summary		-	**A**	**9**	-
Southridge Drive / Centennial Way (Signalized)	EB	Left	0.03	A	3	2
		Through	0.32	A	2	36
		Right	0.01	A	1	1
	WB	Left	0.01	A	3	1
		Through	0.29	A	2	32
		Right	0.01	A	0	0
	NB	Left / Through / Right	0.04	A	5	2
	SB	Left / Through / Right	0.05	A	6	2
	Intersection Summary		-	**A**	**2**	-
Southridge Drive / Cimarron Drive (Signalized)	EB	Left / Through / Right	0.13	B	14	6
	WB	Left / Through / Right	0.25	B	11	9
	NB	Left	0.05	A	3	2
		Through	0.40	A	10	42
		Right	0.04	A	1	2
	SB	Left	0.22	A	4	7
		Through	0.37	A	6	47
		Right	0.02	A	0	0
	Intersection Summary		-	**A**	**8**	-
Cimarron Drive / Woodhaven Drive (Stop-Controlled)	EB	Left	0.02	A	0	1
		Through	0.02	A	2	1
		Right	0.03	A	0	0
	WB	Left	0.00	A	0	0
		Through	0.00	A	0	0
		Right	0.00	A	0	0
	NB	Left	0.07	B	11	2
		Through	0.07	B	11	2
		Right	0.07	B	11	2
	SB	Left	0.03	A	10	1
		Through	0.03	A	10	1
		Right	0.03	A	10	1
	Intersection Summary		-	**A**	**4**	-

Southridge Drive / Cimarron Boulevard (Signalized)	EB	Left / Through / Right	0.44	C	24	18
	WB	Left / Through / Right	0.45	B	12	15
	NB	Left	0.08	A	4	4
		Through	0.36	B	11	35
		Right	0.02	A	0	0
	SB	Left	0.29	A	5	11
		Through	0.39	A	9	42
		Right	0.05	A	2	3
	Intersection Summary		-	**B**	**11**	-
Cimarron Common / Cimarron Boulevard (Signalized)	EB	Left / Through	0.10	A	3	6
		Right				
	WB	Left / Through / Right	0.15	A	4	8
	NB	Left / Through	0.15	B	16	9
		Right	0.25	A	6	8
	SB	Left / Through / Right	0.17	B	13	9
	Intersection Summary		-	**A**	**5**	-
Cimarron Trail / Cimarron Boulevard (Stop-Controlled)	EB	Left	0.04	A	0	1
		Through	0.04	A	1	1
		Right	0.04	A	1	1
	WB	Left	0.00	A	0	0
		Through	0.00	A	0	0
		Right	0.00	A	0	0
	NB	Left	0.04	B	15	1
		Through	0.04	B	15	1
		Right	0.04	B	15	1
	SB	Left	0.05	B	12	1
		Through	0.05	B	12	1
		Right	0.05	B	12	1
	Intersection Summary		-	**A**	**2**	-
Cimarron Drive / Cimarron Boulevard (Stop-Controlled)	EB	Left	0.02	A	0	0
		Through	0.02	A	1	0
	WB	Through	0.16	A	0	0
		Right	0.16	A	0	0
	SB	Left	0.05	B	11	1
		Right	0.05	B	11	1
	Intersection Summary		-	**A**	**1**	-
Southridge Drive / Cimarron Common (Signalized)	EB	Left / Through / Right	0.42	B	18	15
	WB	Left / Through / Right	0.44	B	15	15
	NB	Left	0.22	A	4	8
		Through	0.20	A	4	15
		Right	0.07	A	1	3
	SB	Left	0.27	B	11	19
		Through	0.38	A	10	40
		Right	0.00	A	0	0
	Intersection Summary		-	**A**	**9**	-

Southridge Drive / Highway 7 (Signalized)	EB	Left	0.67	D	39	57
		Through / Right	0.54	C	34	98
	WB	Left / Through	1.53	F	290	204
		Right	0.05	A	0	0
	NB	Left / Through	0.37	B	19	79
		Right	0.15	A	3	9
	SB	Left / Through	1.14	F	110	304
		Right	0.23	A	5	17
	Intersection Summary		-	**F**	**90**	-
32 Street / Highway 7 (Signalized)	EB	Left	0.31	A	10	24
		Through / Right	0.61	B	16	93
	WB	Left / Through	0.60	C	28	72
		Right	0.08	A	0	0
	NB	Left / Through / Right	0.00	B	17	1
	SB	Left / Through	0.66	C	30	54
		Right	0.26	A	5	11
	Intersection Summary		-	**B**	**18**	-
32 Street / Southbank Boulevard (Signalized)	EB	Left / Through / Right	0.36	B	17	20
	WB	Left	0.29	B	11	18
		Through	0.13	B	11	12
		Right	0.25	A	3	9
	NB	Left	0.06	B	11	6
		Through	0.25	C	20	16
		Right	0.19	A	3	4
	SB	Left	0.39	B	16	23
		Through	0.19	B	18	18
		Right	0.26	A	6	12
	Intersection Summary		-	**B**	**13**	-
Southbank Boulevard / Costco Access (Signalized)	EB	Left	0.28	A	7	13
		Through / Right	0.08	A	5	4
	WB	Left	0.00	B	13	1
		Through / Right	0.09	B	13	7
	NB	Left	0.15	B	15	11
		Through / Right	0.01	B	12	2
	SB	Left	0.01	B	13	3
		Through / Right	0.34	A	5	12
	Intersection Summary		-	**A**	**7**	-
32 Street / Cimarron Estates Gate (Signalized)	EB	Left / Through / Right	0.09	B	14	5
	WB	Left / Through	0.26	C	22	12
		Right	0.27	A	7	9
	NB	Left	0.04	A	4	3
		Through	0.15	A	5	12
		Right	0.05	A	2	3
	SB	Left	0.15	A	8	14
		Through	0.18	A	6	21
		Right	0.03	A	0	0
	Intersection Summary		-	**A**	**7**	-

32 Street / North Railway Street (Signalized)	EB	Left / Through / Right	0.23	B	14	8
	WB	Left / Through / Right	0.14	C	26	7
	NB	Left	0.06	A	3	4
		Through	0.13	A	4	11
		Right	0.06	A	1	3
	SB	Left	0.00	A	8	1
		Through	0.21	A	7	25
		Right	0.01	A	0	0
	Intersection Summary		-	**A**	**7**	-
32 Street / Stockton Avenue (Stop-Controlled)	EB	Left	0.24	C	25	7
		Through	0.24	C	18	7
		Right	0.02	B	12	1
	WB	Left	0.02	C	20	0
		Through	0.03	C	15	1
		Right	0.03	B	11	1
	NB	Left	0.01	A	9	0
		Through	0.21	A	0	0
		Right	0.21	A	0	0
	SB	Left	0.01	A	8	0
		Through	0.29	A	0	0
		Right	0.02	A	0	0
	Intersection Summary		-	**A**	**2**	-
32 Street / Crystal Ridge Gate (Signalized)	EB	Left / Through / Right	0.12	B	11	7
	WB	Left / Through / Right	0.27	B	12	12
	NB	Left	0.03	A	6	3
		Through / Right	0.32	A	6	32
	SB	Left	0.08	A	6	6
		Through	0.31	A	6	33
		Right	0.02	A	1	1
	Intersection Summary		-	**A**	**7**	-
32 Street / Milligan Drive (Signalized)	EB	Left / Through / Right	0.53	B	16	19
	WB	Left / Through / Right	0.37	A	8	11
	NB	Left	0.12	A	5	7
		Through / Right	0.44	B	14	43
	SB	Left	0.36	A	7	17
		Through	0.41	B	13	49
		Right	0.15	A	3	8
	Intersection Summary		-	**B**	**11**	-
32 Street / Crystal Shores Road (Signalized)	EB	Left / Through / Right	0.31	C	34	15
	WB	Left / Through / Right	0.16	C	23	7
	NB	Left	0.04	A	2	2
		Through / Right	0.42	A	8	71
	SB	Left	0.05	A	2	3
		Through	0.48	A	8	91
		Right	0.06	A	1	2
	Intersection Summary		-	**A**	**9**	-

32 Street / 338 Avenue (Signalized)	EB	Left / Through	0.19	B	11	11
		Right	0.62	A	5	13
	WB	Left	0.53	B	17	22
		Through / Right	0.17	B	11	10
	NB	Left	0.68	B	19	63
		Through	0.13	A	7	12
		Right	0.16	A	3	6
	SB	Left	0.00	A	7	1
		Through / Right	0.16	A	6	13
	Intersection Summary		-	**B**	**11**	-

The results of the analysis indicate that all intersections are expected to operate at an acceptable LOS D or better, with the exception of the intersection of Southridge Drive / Highway 7.

Proposed Improvements:

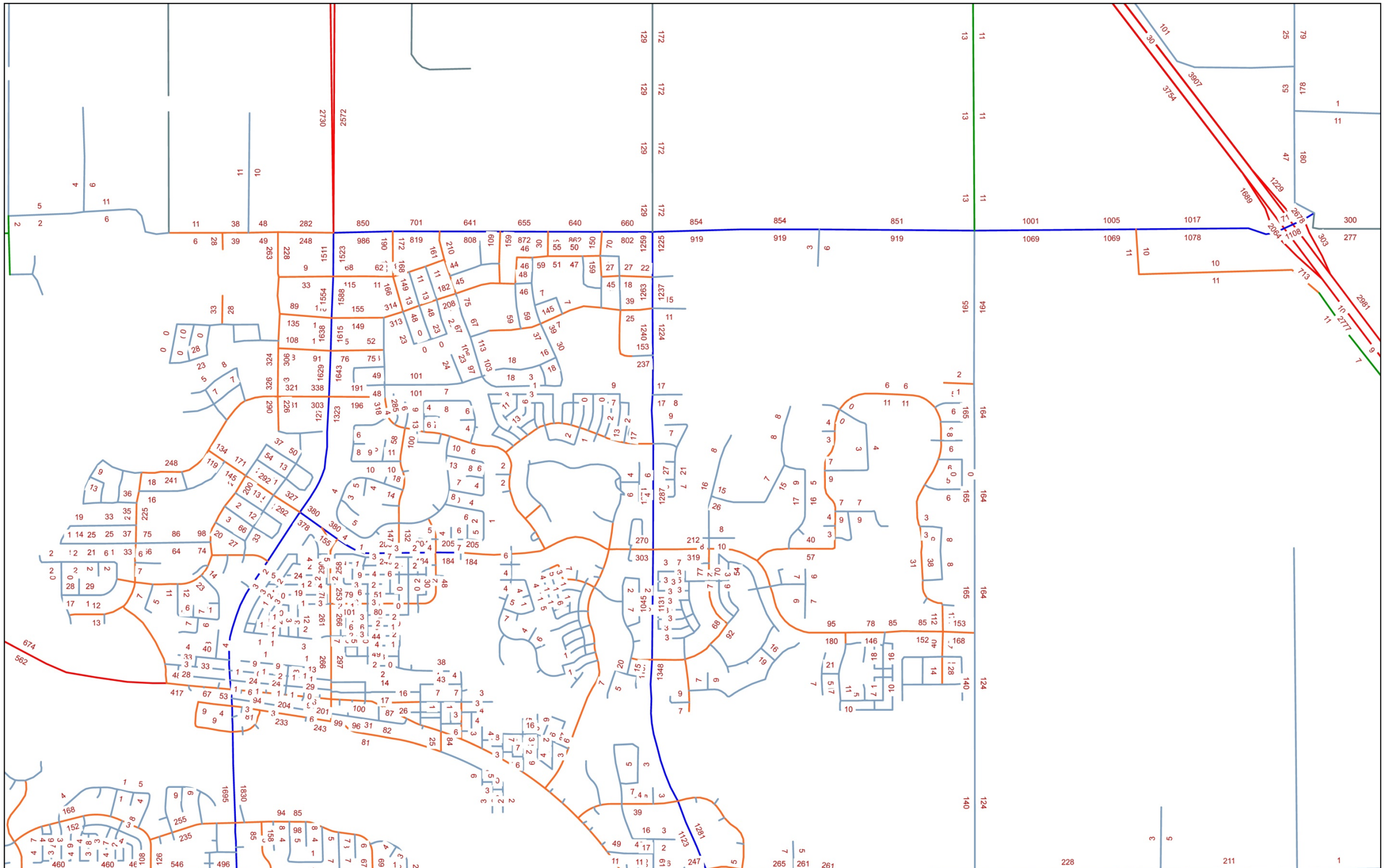
The intersection of Southridge Drive / Highway 7 was analyzed with improvements to ensure compliance with intersection evaluation criteria. The adopted improvements included the introduction of southbound and westbound left turn lanes. The results of the capacity analysis are summarized in **Table 5.**

TABLE 5: 2035 OPERATING CONDITIONS WITH IMPROVEMENTS

INTERSECTION / MOVEMENT			PM PEAK HOUR			
			v/c Ratio	LOS	Delay (s)	Queue (m)
Southridge Drive / Highway 7 (Signalized)	EB	Left	0.48	B	16	28
		Through / Right	0.68	C	30	78
	WB	Left	0.36	B	15	18
		Through	0.63	C	30	51
		Right	0.05	A	0	0
	NB	Left / Through	0.80	D	38	77
		Right	0.25	A	2	4
	SB	Left	0.69	C	29	33
		Through	0.77	C	26	100
		Right	0.28	A	3	10
	Intersection Summary		-	**C**	**23**	-

The results of the analysis indicate that the proposed improvements will address the identified operating issue and the intersection is expected to operate at an acceptable LOS C or better at the 2035 horizon.

Figure 7 shows the 2045 PM peak traffic volumes, a more detailed printout is shown in **Appendix C. Note:** For readability this figure is being shown on two pages.



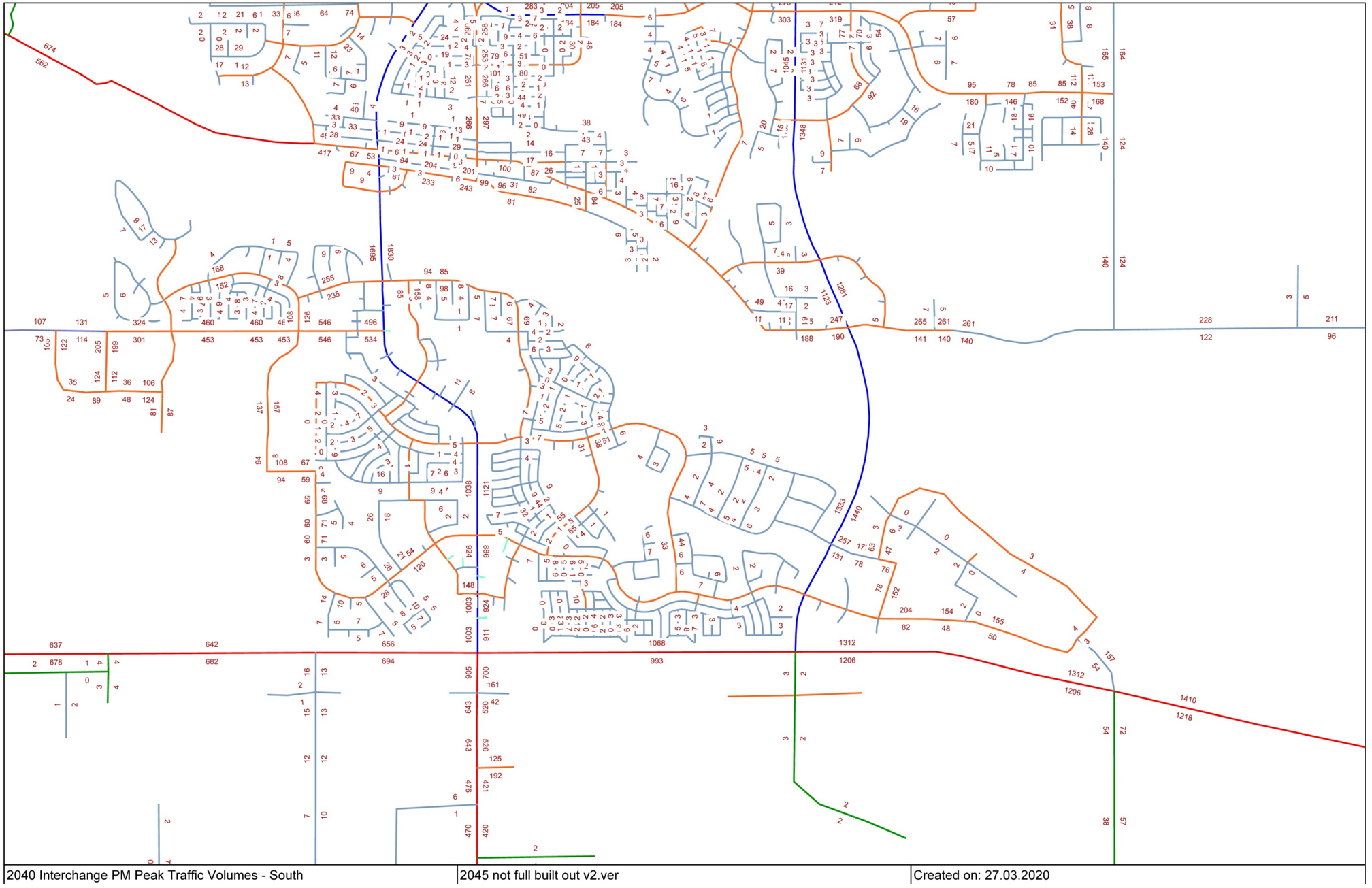


Figure 7: 2045 PM Peak Traffic Volumes

At the 2045 horizon a significant increase in traffic volumes is seen on 32 Street. This appears to be caused by the following factors:

- The introduction of the 338 Avenue interchange makes 32 Street an attractive option for accessing that interchange.
- External traffic from southwest of Okotoks is more likely to use 32 Street as opposed to Northridge Drive to travel through the town due to the lower volumes on 32 Street.
- By 2045 the interchange at Highway 547 and Highway 2 is expected to be near capacity. Consequently some external traffic from south east of the town is anticipated to move through the town on 32 Street to reach alternative accesses to Highway 2 with the new 338 Avenue interchange being the ideal second alternative.

Using the existing and proposed intersection configuration, the forecasted post-development 2045 traffic volumes were evaluated. The resulting operating conditions are shown in **Table 6** while detailed Synchro printouts are included in **Appendix D**.

TABLE 6: 2045 OPERATING CONDITIONS (NO IMPROVEMENTS)

INTERSECTION / MOVEMENT			PM PEAK HOUR			
			v/c Ratio	LOS	Delay (s)	Queue (m)
Northridge Drive / 338 Avenue (Signalized)	EB	Left	1.62	F	348	150
		Through	0.10	E	58	14
		Right	0.03	A	0	0
	WB	Left / Through	0.18	E	70	15
		Right	0.97	C	27	64
	NB	Left	0.00	A	0	0
		Through	0.91	F	88	286
		Right	0.00	A	0	0
	SB	Left	2.11	F	536	563
		Through	0.56	A	6	97
		Right	0.22	A	1	5
	Intersection Summary		-	**F**	**142**	-
Northridge Drive / Northgate Circle (Signalized)	EB	Left / Through / Right	0.17	E	64	11
	WB	Left / Through / Right	0.42	E	64	18
	NB	Left	0.00	A	0	0
		Through	0.52	A	4	57
		Right	0.06	A	0	2
	SB	Left	0.03	A	2	1
		Through	0.52	A	4	56
		Right	0.00	A	1	0
	Intersection Summary		-	**A**	**5**	-
Northridge Drive / Spring Gate (Signalized)	EB	Left / Through / Right	0.65	E	70	36
	WB	Left / Through / Right	1.29	E	79	37
	NB	Left	0.12	A	4	4
		Through	0.55	A	5	81
		Right	0.06	A	1	3
	SB	Left	0.04	A	3	2
		Through	0.54	A	5	79
		Right	0.05	A	1	3
	Intersection Summary		-	**B**	**11**	-
Northridge Drive / Banister Gate (Signalized)	EB	Left / Through / Right	0.84	D	50	95
	WB	Left / Through	0.24	C	25	26
		Right	0.06	A	0	0
	NB	Left	0.02	B	15	2
		Through	0.85	C	29	137
		Right	0.04	A	0	0
	SB	Left	0.65	C	27	31
		Through / Right	0.81	B	19	137
	Intersection Summary		-	**C**	**25**	-

Northridge Drive / Milligan Drive (Signalized)	EB	Left	0.30	C	26	17
		Through / Right	0.61	C	29	44
	WB	Left	0.23	C	25	12
		Through	0.30	C	23	21
		Right	0.31	A	7	12
	NB	Left	0.32	B	18	17
		Through	0.75	B	20	97
		Right	0.02	A	0	0
	SB	Left	0.72	C	26	43
		Through	0.50	A	9	59
		Right	0.05	A	3	4
	Intersection Summary		-	**B**	**17**	-
Milligan Drive / Veterans Way (Stop-Controlled)	EB	Through	0.15	A	0	0
		Right	0.15	A	0	0
	WB	Left	0.07	A	8	2
		Through	0.05	A	0	0
	NB	Left	0.44	C	16	17
		Right	0.44	C	16	17
	Intersection Summary		-	**A**	**6**	-
Milligan Drive / Robinson Drive (Stop-Controlled)	EB	Through	0.07	A	8	2
		Right	0.05	A	0	0
	WB	Left	0.06	A	0	0
		Through	0.06	A	0	0
	SB	Left	0.11	B	10	3
		Right	0.11	B	10	3
	Intersection Summary		-	**A**	**4**	-
Milligan Drive / Okotoks Drive (Stop-Controlled)	EB	Left	0.01	A	8	0
		Through	0.08	A	0	0
		Right	0.05	A	0	0
	WB	Left	0.00	A	8	0
		Through	0.05	A	0	0
		Right	0.01	A	0	0
	NB	Left	0.21	B	13	6
		Through	0.21	B	13	6
		Right	0.21	B	13	6
	SB	Left	0.15	B	13	4
		Through	0.15	B	13	4
		Right	0.15	B	13	4
	Intersection Summary		-	**A**	**5**	-
Milligan Drive / Banister Drive (Stop-Controlled)	EB	Through	0.01	A	0	0
		Right	0.06	A	1	0
	WB	Left	0.09	A	0	0
		Through	0.09	A	0	0
	SB	Left	0.16	B	11	4
		Right	0.16	B	11	4
	Intersection Summary		-	**A**	**3**	-

Milligan Drive / Crystal Ridge Drive (Stop-Controlled)	EB	Left	0.18	A	9	1
		Through	0.23	A	9	1
		Right	0.23	A	9	1
	WB	Left	0.25	A	10	1
		Through	0.25	A	9	1
		Right	0.13	A	8	1
	NB	Left	0.18	A	10	1
		Through	0.18	A	9	1
		Right	0.15	A	8	1
	SB	Left	0.06	A	9	0
		Through	0.06	A	8	0
		Right	0.02	A	8	0
	Intersection Summary		-	**A**	**9**	-
Northridge Drive / Sandstone Gate (Signalized)	EB	Left	0.38	E	69	23
		Right	0.64	C	21	21
	NB	Left	2.44	F	702	160
		Through	0.42	A	3	47
	SB	Through	0.43	A	7	69
		Right	0.04	A	2	4
	Intersection Summary		-	**E**	**65**	-
Northridge Drive / Elizabeth Street (Signalized)	EB	Left / Through	0.62	E	78	53
		Right	0.91	D	54	106
	WB	Left / Through	0.71	E	79	85
		Right	0.04	A	0	0
	NB	Left	1.01	E	62	81
		Through	0.51	A	8	102
		Right	0.01	A	0	0
	SB	Left	0.04	A	8	3
		Through	0.48	B	11	105
		Right	0.02	A	0	0
	Intersection Summary		-	**C**	**24**	-
Veterans Way / Elizabeth Street (Signalized)	EB	Left	0.03	B	14	3
		Through / Right	0.27	B	11	14
	WB	Left	0.02	B	14	2
		Through / Right	0.23	B	17	16
	NB	Left	0.10	A	5	8
		Through / Right	0.23	A	8	36
	SB	Left	0.04	A	5	4
		Through / Right	0.22	B	11	31
	Intersection Summary		-	**A**	**10**	-

Lineham Avenue / North Railway Street (Stop-Controlled)	EB	Left	0.00	A	0	0
		Through	0.00	A	0	0
		Right	0.00	A	0	0
	WB	Left	0.03	A	0	1
		Through	0.03	A	2	1
		Right	0.00	A	0	0
	NB	Left	0.07	A	10	2
		Through	0.07	A	10	2
		Right	0.07	A	10	2
	SB	Left	0.01	B	12	0
		Through	0.01	B	12	0
		Right	0.01	B	12	0
	Intersection Summary		-	**A**	**3**	-
Crystal Ridge Drive / North Railway Street (Stop-Controlled)	EB	Left	0.05	A	0	1
		Through	0.05	A	3	1
	WB	Through	0.13	A	0	0
		Right	0.07	A	0	0
	SB	Left	0.09	B	11	2
		Right	0.09	B	11	2
	Intersection Summary		-	**A**	**2**	-
Northridge Drive / Riverside Drive (Stop-Controlled)	EB	Right	0.01	B	12	0
	WB	Right	0.17	B	11	5
	NB	Through	0.63	A	0	0
		Right	0.37	A	0	0
	SB	Through	0.66	A	0	0
		Right	0.35	A	0	0
	Intersection Summary		-	**A**	**0**	-
Northridge Drive / Riverside Gate (Signalized)	EB	Left / Through / Right	0.72	E	75	46
	WB	Left	0.63	E	56	75
		Through / Right	0.04	C	23	8
	NB	Left	0.10	B	11	5
		Through	0.69	B	17	218
		Right	0.25	A	8	41
	SB	Left	0.07	B	16	4
		Through / Right	0.67	C	21	226
	Intersection Summary		-	**C**	**22**	-
Southridge Drive / Woodhaven Drive (Signalized)	EB	Left / Through / Right	1.30	E	72	60
	WB	Left / Through / Right	0.61	B	17	17
	NB	Left	0.02	B	17	3
		Through	0.67	C	24	198
		Right	0.01	A	0	0
	SB	Left	0.58	B	18	33
		Through	0.55	B	12	123
		Right	0.25	A	6	32
	Intersection Summary		-	**C**	**21**	-

Southridge Drive / Big Rock Trail (Signalized)	EB	Left	0.74	D	38	107
		Through	0.00	C	21	2
		Right	0.22	A	4	12
	WB	Left	0.16	E	59	13
		Through / Right	0.20	C	28	12
	NB	Left	0.85	D	51	76
		Through	0.53	C	21	121
		Right	0.02	A	1	1
	SB	Left	0.10	C	25	10
		Through	0.63	C	29	143
		Right	0.19	A	0	0
	Intersection Summary		-	**C**	**25**	-
Southridge Drive / Westland Gate (Signalized)	EB	Left	0.03	A	4	2
		Through	0.49	A	8	71
		Right	0.11	A	2	7
	WB	Left	0.05	A	4	2
		Through	0.54	B	12	79
		Right	0.16	A	4	13
	NB	Left / Through / Right	0.42	C	26	20
	SB	Left / Through / Right	0.28	C	22	13
	Intersection Summary		-	**B**	**11**	-
Southridge Drive / Centennial Way (Signalized)	EB	Left	0.04	A	4	2
		Through	0.40	A	3	43
		Right	0.01	A	1	1
	WB	Left	0.01	A	4	1
		Through	0.39	A	3	41
		Right	0.01	A	0	0
	NB	Left / Through / Right	0.05	A	8	2
	SB	Left / Through / Right	0.07	A	9	3
	Intersection Summary		-	**A**	**3**	-
Southridge Drive / Cimarron Drive (Signalized)	EB	Left / Through / Right	0.13	B	16	6
	WB	Left / Through / Right	0.23	B	12	8
	NB	Left	0.08	A	3	3
		Through	0.49	A	10	58
		Right	0.04	A	1	2
	SB	Left	0.18	A	4	5
		Through	0.47	A	8	61
		Right	0.02	A	0	0
	Intersection Summary		-	**A**	**9**	-

Cimarron Drive / Woodhaven Drive (Stop-Controlled)	EB	Left	0.03	A	0	1
		Through	0.03	A	4	1
		Right	0.02	A	0	0
	WB	Left	0.00	A	0	0
		Through	0.00	A	0	0
		Right	0.00	A	0	0
	NB	Left	0.07	B	11	2
		Through	0.07	B	11	2
		Right	0.07	B	11	2
	SB	Left	0.06	A	10	1
		Through	0.06	A	10	1
		Right	0.06	A	10	1
	Intersection Summary		-	**A**	**5**	-
Southridge Drive / Cimarron Boulevard (Signalized)	EB	Left / Through / Right	0.47	C	29	19
	WB	Left / Through / Right	0.66	B	17	25
	NB	Left	0.20	A	5	8
		Through	0.44	B	11	51
		Right	0.02	A	0	0
	SB	Left	0.38	A	6	14
		Through	0.45	B	10	54
		Right	0.02	A	0	0
	Intersection Summary		-	**B**	**12**	-
Cimarron Common / Cimarron Boulevard (Signalized)	EB	Left / Through	0.13	A	4	8
		Right				
	WB	Left / Through / Right	0.22	A	4	12
	NB	Left / Through	0.19	B	16	11
		Right	0.33	A	6	10
	SB	Left / Through / Right	0.17	B	13	9
	Intersection Summary		-	**A**	**5**	-
Cimarron Trail / Cimarron Boulevard (Stop-Controlled)	EB	Left	0.05	A	1	1
		Through	0.05	A	2	1
		Right	0.05	A	2	1
	WB	Left	0.00	A	0	0
		Through	0.00	A	0	0
		Right	0.00	A	0	0
	NB	Left	0.05	C	20	1
		Through	0.05	C	20	1
		Right	0.05	C	20	1
	SB	Left	0.09	B	14	2
		Through	0.09	B	14	2
		Right	0.09	B	14	2
	Intersection Summary		-	**A**	**2**	-

Cimarron Drive / Cimarron Boulevard (Stop-Controlled)	EB	Left	0.02	A	0	0
		Through	0.02	A	1	0
	WB	Through	0.28	A	0	0
		Right	0.28	A	0	0
	SB	Left	0.10	B	15	2
		Right	0.10	B	15	2
	Intersection Summary		-	**A**	**1**	-
Southridge Drive / Cimarron Common (Signalized)	EB	Left / Through / Right	0.44	C	22	17
	WB	Left / Through / Right	0.47	B	20	17
	NB	Left	0.28	A	5	8
		Through	0.35	A	8	38
		Right	0.10	A	3	6
	SB	Left	0.24	A	5	9
		Through	0.48	A	10	59
		Right	0.00	A	0	0
	Intersection Summary		-	**B**	**10**	-
Southridge Drive / Highway 7 (Signalized)	EB	Left	0.82	D	44	60
		Through / Right	1.09	F	108	182
	WB	Left	1.08	F	100	136
		Through	0.84	D	49	150
		Right	0.17	A	0	0
	NB	Left / Through	0.96	E	72	167
		Right	0.44	B	13	34
	SB	Left	1.35	F	206	131
		Through	0.71	C	32	133
		Right	0.25	A	4	12
	Intersection Summary		-	**E**	**69**	-
32 Street / Highway 7 (Signalized)	EB	Left	1.36	F	202	127
		Through / Right	0.89	D	36	172
	WB	Left / Through	1.20	F	137	176
		Right	0.53	A	1	0
	NB	Left / Through / Right	0.01	C	26	2
	SB	Left / Through	1.12	F	100	187
		Right	0.64	A	7	34
	Intersection Summary		-	**E**	**69**	-
32 Street / Southbank Boulevard (Signalized)	EB	Left / Through / Right	0.70	D	36	49
	WB	Left	0.27	C	20	20
		Through	0.27	C	21	31
		Right	0.20	A	5	10
	NB	Left	0.38	B	17	16
		Through	0.63	B	18	98
		Right	0.08	A	3	6
	SB	Left	0.58	D	38	44
		Through	0.68	C	24	109
		Right	0.25	A	9	22
	Intersection Summary		-	**C**	**22**	-

Southbank Boulevard / Costco Access (Signalized)	EB	Left	0.29	A	7	13
		Through / Right	0.08	A	4	4
	WB	Left	0.00	B	14	1
		Through / Right	0.19	B	15	12
	NB	Left	0.19	B	17	11
		Through / Right	0.01	B	10	2
	SB	Left	0.08	B	15	7
		Through / Right	0.37	A	6	12
	Intersection Summary		-	**A**	**9**	-
32 Street / Cimarron Estates Gate (Signalized)	EB	Left / Through / Right	0.11	B	18	6
	WB	Left / Through	0.14	C	25	8
		Right	0.52	A	9	16
	NB	Left	0.10	A	10	5
		Through	0.66	B	13	82
		Right	0.03	A	0	0
	SB	Left	0.37	A	7	8
		Through	0.54	A	7	52
		Right	0.03	A	0	0
	Intersection Summary		-	**B**	**10**	-
32 Street / North Railway Street (Signalized)	EB	Left / Through / Right	0.42	B	12	13
	WB	Left / Through / Right	0.67	D	40	32
	NB	Left	0.52	A	8	18
		Through	0.45	A	5	61
		Right	0.07	A	1	5
	SB	Left	0.10	B	10	8
		Through	0.48	B	11	94
		Right	0.00	A	0	0
	Intersection Summary		-	**B**	**11**	-
32 Street / Stockton Avenue (Stop-Controlled)	EB	Left	Error	F	Error	Error
		Through	Error	F	Error	Error
		Right	23.69	F	Error	Error
	WB	Left	Error	F	Error	Error
		Through	Error	F	Error	Error
		Right	57.93	F	Error	Error
	NB	Left	0.00	B	11	0
		Through	0.78	A	0	0
		Right	0.78	A	0	0
	SB	Left	0.07	C	25	2
		Through	0.66	A	0	0
		Right	0.02	A	0	0
	Intersection Summary		-	**F**	**Error**	-
	***Note: Error denotes value beyond software limits**					

32 Street / Crystal Ridge Gate (Signalized)	EB	Left / Through / Right	0.31	B	19	19
	WB	Left / Through / Right	0.72	E	59	48
	NB	Left	0.48	B	13	11
		Through / Right	0.97	C	34	377
	SB	Left	0.47	D	39	20
		Through	0.89	C	28	295
		Right	0.02	A	0	0
	Intersection Summary		-	**C**	**32**	-
32 Street / Milligan Drive (Signalized)	EB	Left / Through / Right	0.61	C	27	30
	WB	Left / Through / Right	0.32	B	10	12
	NB	Left	0.36	A	10	12
		Through / Right	1.31	F	170	286
	SB	Left	0.60	B	17	29
		Through	1.10	F	82	255
		Right	0.12	A	5	9
	Intersection Summary		-	**F**	**93**	-
32 Street / Crystal Shores Road (Signalized)	EB	Left / Through / Right	0.36	C	32	16
	WB	Left / Through / Right	0.15	C	22	7
	NB	Left	0.18	A	5	3
		Through / Right	1.06	E	61	346
	SB	Left	0.20	A	5	3
		Through	1.04	E	56	336
		Right	0.16	A	4	13
	Intersection Summary		-	**D**	**52**	-
32 Street / 338 Avenue (Signalized)	EB	Left / Through	1.07	F	111	142
		Right	1.01	E	70	134
	WB	Left	1.36	F	201	265
		Through / Right	0.18	B	15	30
	NB	Left	1.00	E	71	178
		Through	0.16	C	22	28
		Right	0.67	A	7	41
	SB	Left	0.03	D	39	5
		Through / Right	0.42	D	44	42
	Intersection Summary		-	**F**	**86**	-

The results of the analysis indicate that all intersections are expected to operate at an acceptable LOS D or better, with the exception of the following intersections:

- Northridge Drive / 338 Avenue;
- Northridge Drive / Sandstone Gate;
- Northridge Drive / Elizabeth Street;
- Southridge Drive / Highway 7 and,
- 32 Street / Highway 7.

Proposed Improvements:
The above intersections were analyzed with improvements to ensure compliance with the intersection evaluation criteria.

The adopted improvements included:

- Introduction of eastbound and southbound dual left-turn lanes at Northridge Drive / 338 Avenue.
- Introduction of eastbound and northbound dual left-turn lanes at Northridge Drive / Sandstone Gate.
- Introduction of eastbound left turn lane and a channelized right-turn and a westbound through lane at Northridge Drive / Elizabeth Street.
- Introduction of additional through lanes on all legs at Southridge Drive / Highway 7.
- Introduction of an eastbound through lane and a westbound through lane and left lane as well as a southbound through/left lane at 32 Street / Highway 7.

The results of the capacity analysis with the above improvements in place are summarized in **Table 7.** The results of the analysis indicate that the proposed improvements will improve operating conditions for all of the intersections to a LOS D or better at the 2045 horizon.

TABLE 7: 2045 OPERATING CONDITIONS WITH IMPROVEMENTS

INTERSECTION / MOVEMENT			PM PEAK HOUR			
			v/c Ratio	LOS	Delay (s)	Queue (m)
Northridge Drive / 338 Avenue (Signalized)	EB	Left	1.36	F	235	120
		Through	0.05	D	44	6
		Right	0.03	A	0	0
	WB	Left / Through	0.07	D	51	7
		Right	0.97	C	28	64
	NB	Left	0.00	A	0	0
		Through	0.96	E	62	254
		Right	0.00	A	0	0
	SB	Left	1.11	F	104	187
		Through	0.58	A	6	94
		Right	0.23	A	1	6
	Intersection Summary		-	**D**	**53**	-
Northridge Drive / Sandstone Gate (Signalized)	EB	Left	0.21	E	61	11
		Right	0.66	C	22	21
	NB	Left	1.24	F	196	69
		Through	0.42	A	3	47
	SB	Through	0.43	A	6	69
		Right	0.04	A	2	4
	Intersection Summary		-	**C**	**22**	-
Southridge Drive / Highway 7 (Signalized)	EB	Left	0.61	C	21	33
		Through / Right	0.65	C	29	45
	WB	Left	0.91	D	44	71
		Through	0.55	C	25	43
		Right	0.17	A	0	0
	NB	Left / Through	0.75	C	34	47
		Right	0.52	B	11	24
	SB	Left	0.96	E	60	68
		Through	0.41	B	16	38
		Right	0.41	A	4	14
	Intersection Summary		-	**C**	**26**	-
32 Street / Highway 7 (Signalized)	EB	Left	1.06	F	84	132
		Through / Right	0.46	B	15	57
	WB	Left / Through	0.63	C	26	61
		Right	0.53	A	1	0
	NB	Left / Through / Right	0.01	C	26	2
	SB	Left	0.63	C	27	81
		Left / Through	0.64	C	27	82
		Right	0.64	A	6	24
	Intersection Summary		-	**C**	**22**	-

32 Street / Stockton Avenue (Signalized)	EB	Left / Through / Right	0.15	C	32	7
	WB	Left / Through / Right	0.11	B	17	4
	NB	Left	0.01	A	4	1
		Through / Right	0.45	A	4	68
	SB	Left	0.04	A	2	1
		Through	0.37	A	2	27
		Right	0.02	A	1	1
	Intersection Summary		-	**A**	**4**	-
32 Street / Crystal Ridge Gate (Signalized)	EB	Left / Through / Right	0.24	B	10	11
	WB	Left / Through / Right	0.51	C	24	25
	NB	Left	0.28	A	8	10
		Through / Right	0.57	A	9	70
	SB	Left	0.16	B	15	8
		Through	0.58	B	15	77
		Right	0.02	A	0	0
	Intersection Summary		-	**B**	**12**	-
32 Street / Milligan Drive (Signalized)	EB	Left / Through / Right	0.61	C	27	30
	WB	Left / Through / Right	0.32	B	10	12
	NB	Left	0.28	A	7	10
		Through / Right	0.69	B	19	93
	SB	Left	0.54	B	11	22
		Through	0.58	B	14	78
		Right	0.12	A	5	9
	Intersection Summary		-	**B**	**16**	-
32 Street / Crystal Shores Road (Signalized)	EB	Left / Through / Right	0.36	C	32	16
	WB	Left / Through / Right	0.15	C	22	7
	NB	Left	0.11	A	4	3
		Through / Right	0.56	A	9	82
	SB	Left	0.12	A	4	3
		Through	0.55	A	9	80
		Right	0.16	A	3	11
	Intersection Summary		-	**A**	**10**	-
32 Street / 338 Avenue (Signalized)	EB	Left / Through	0.74	D	49	50
		Right	0.73	B	11	29
	WB	Left	1.21	F	134	220
		Through / Right	0.10	B	13	14
	NB	Left	0.95	E	57	162
		Through	0.08	B	18	13
		Right	0.66	A	7	39
	SB	Left / Through / Right	0.21	C	31	19
	Intersection Summary		-	**D**	**52**	-

5.5 RECOMMENDED ROADWAY CLASSIFICATION

Based on the projected daily traffic at the 2045 time horizon in both scenarios, the recommended number of lanes for the skeletal road system is shown in **Figure 8**.

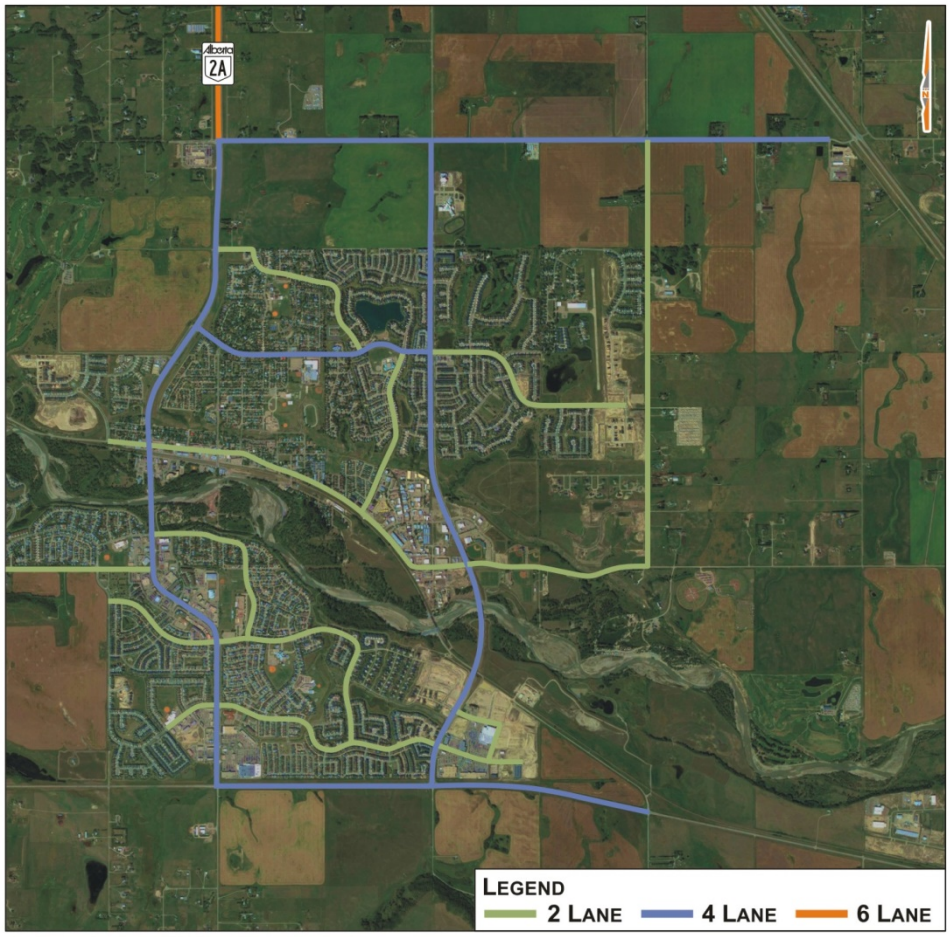


Figure 8: 2045 Recommended Number of Lanes

Northridge Drive: The model suggests that a four-lane cross-section through the Town up to 338th Avenue will accommodate the 2045 traffic volumes. Turn lanes and auxiliary lanes may be needed in certain sections to accommodate the specific demand at intersections but the overall daily volumes suggest that having four core through lanes will be sufficient in the future. North of 338 Avenue, the anticipated volumes suggest that a 6-lane cross-section would be needed. For this section of the roadway, the Town should work with the MD of Foothills to acquire the right-of-way necessary to build a six-lane cross-section when warranted. A typical right-of-way for a 6-lane urban roadway is 44m.

338th Avenue: Much of the anticipated development in the north part of Okotoks is expected to occur north and south of 338th Avenue. With full development in place and the interchange at Highway 2, this road is recommended as a four-lane cross-section. The construction of this roadway can be staged depending on the intensity and pattern of development in the area. For example, the road could be upgraded to an urban two-lane roadway as development proceeds but the functionality of the roadway and the design of the intersections should be verified with each major development application that is approved. The model output suggests that this road would need to be upgraded sometime within the 2035-2045 time frame.

32nd Street E: With the interchange at 338th Avenue / Hwy 2 in place, the volumes along 32nd Street E are expected to increase up to 25,000 vehicles per day. These volumes would warrant a four-lane cross-section. Therefore, as development proceeds at the north end of this roadway, the Town of Okotoks should acquire the necessary right-of-way to accommodate the widening of this road in the future. As with 338th Avenue, the construction of the ultimate four-lane cross-section could be staged as development proceeds, subject to more detailed traffic operations analysis prepared in conjunction with the development applications.

6.0 COST ESTIMATE FOR FUTURE NETWORK IMPROVEMENTS

Following a review of the required improvements, a cost estimate for the construction of the required improvements was prepared using the agreed upon unit costs.

The preliminary cost estimates for each scenario at the 2045 time horizon can be viewed in **Table 8**. The detailed unit costs and estimates are provided in **Appendix E**.

TABLE 8: PRELIMINARY COST ESTIMATE

Improvements 2025 Horizon Year Cost Estimate Proposed Improvement	Unit (m)	Cost
Signal at 32 Street / 338 Avenue		$350,000
Left turn lanes and a northbound right turn lane at 32 Street / 338 Avenue	100	$163,000.00
	SUM	$513,000.00

Improvements 2035 Horizon Year Cost Estimate Proposed Improvement	Unit (m)	Cost
Southbound and westbound left turn lanes at Southridge Drive / Highway 7.	100	$163,000.00
Signal at Northridge Dr / Northgate Circle*		$350,000.00
Signal at Northridge Dr / Spring Gate*		$350,000.00
Highway 2 / 338 Avenue Interchange** **(Expected 2028)**		$12,500,000.00
*Developer funded		
Cost estimate conducted by WATT, total cost is $50,000,000 with **25% Town share		
	SUM	$13,363,000.00

Improvements 2045 Horizon Year Cost Estimate Proposed Improvement	Unit (m)	Cost
Upgrade to 4 Lanes - 338 Ave between Northridge Dr & Hwy 2	4600	$14,956,000.00
Upgrade to 4 Lanes - 32 Street between 338 Ave & N Railway St	3270	$10,632,000.00
Upgrade to 4 Lanes - Highway 7 - Southridge Drive to East Town Boundary	3280	$10,665,000.00
Upgrade to 6 Lanes -Northridge Dr - North of 338 Ave to Town Boundary	820	$2,667,000.00
Southbound Dual Left Turn at Northridge Dr / 338 Ave	120	$196,000.00
Eastbound & Northbound Dual Left Turns at Northridge Dr / Sandstone Gate	140	$228,000.00
Westbound Left at Hwy 7 / 32 St	40	$66,000.00
Signal at 32 Street / Stockton Avenue		$350,000
	SUM	$39,760,000.00

7.0 CONCLUSIONS AND RECOMMENDATIONS

The results of the analysis led to the following conclusions/recommendations:

- Based on the results of the analysis, the improvements to the network which are required by the 2025, 2035 and 2045 time horizons include:

2025 time horizon improvements:

- Signalization of 32 Street / 338 Avenue,
- Introduction of left turn lanes and a northbound right turn lane at 32 Street / 338 Avenue.

2035 time horizon improvements:

- Signalization of Northridge Drive / Northgate Circle – Developer funded
- Signalization of Northridge Drive / Spring Gate – Developer funded
- Introduction of southbound and westbound left turn lanes at Southridge Drive / Highway 7.

2045 time horizon improvements

- Introduction of southbound dual left turn lanes and one additional eastbound and westbound through lane at Northridge Drive / 338 Avenue.
- Introduction of eastbound and northbound dual left turn lanes at Northridge Drive / Sandstone Gate.
- Additional through lane on all legs at Southridge Drive / Highway 7.
- Introduction of an eastbound through lane and a westbound through lane and left lane as well as a southbound through/left lane at 32 Street / Highway 7.
- Signalization of 32 Street / Stockton Avenue.
- Widen Northridge Drive (see note below.)
- Widen 338th Avenue (see note below.)
- Widen 32nd Street E (see note below.)

Road Widening

- ***Northridge Drive:*** The model suggests that a four-lane cross-section through the Town up to 338th Avenue will accommodate the 2045 traffic volumes. Road widening south of 338th Avenue may be needed to accommodate turn lanes and auxiliary lanes at certain intersections but the overall daily volumes suggest that having four core through lanes will be sufficient in the future. North of 338 Avenue, the anticipated volumes suggest that a 6-lane cross-section would be needed.

- ***338th Avenue:*** With all anticipated development in place and the interchange at Highway 2, this road is recommended as a four-lane cross-section. The construction of this roadway can be staged depending on the intensity and pattern of

development in the area. For example, the road could be upgraded to an urban two-lane roadway as development proceeds but the functionality of the roadway and the design of the intersections should be verified with each major development application that is approved. The model output suggests that this road would need to be upgraded sometime within the 2035-2045 time frame.

- ***32nd Street E***: With the interchange at 338th Avenue / Hwy 2 in place, the volumes along 32nd Street E are expected to increase up to 25,000 vehicles per day. These volumes would warrant a four-lane cross-section. Therefore, as development proceeds at the north end of this roadway, the Town of Okotoks should acquire the necessary right-of-way to accommodate the widening of this road in the future. Depending on the pace of development, the road widening is expected to be needed in the 2035-2045 time frame.

- A traffic monitoring program should be introduced to ensure that the schedule of improvements reflects actual traffic conditions and the actual development progression in the area.

APPENDIX A: STUDY SCOPE

1.0 INTRODUCTION

The Town of Okotoks (Town) updated its Transportation Master Plan (TMP) in September 2016. Since this update a number of planning documents as well as the Town's plans for long-term development within its boundaries have changed. Consequently, the Town requested an update of the transportation network analysis to be carried out to provide an update to the original TMP, accounting for the most recent Town's plans. This proposal has been prepared as an answer to this request and is based on our experience gained during preparation of the original TMP as well as other similar projects, knowledge of the area and recent work in support of the SW ASP. The work plan summarized in a subsequent section of this proposal has been prepared based on the scope included in the e-mail requesting submission of this proposal as well as subsequent discussions with the Town's staff.

1.1 STUDY OBJECTIVE

The objective of the study is to provide an update to the long-term transportation network improvement plans based on the current land use plans and the expected development progression summarized in the Town's current Growth Strategy as well as the current servicing plans.

1.2 STUDY SCOPE

The study scope defined in the RFP includes the following:

An update to the current 'Transportation Master Plan Update – Final Report, September 14, 2016, prepared by Watt Consulting Group';

1. Including change in density rate from 8 to 10 units per acre as per the draft MDP
2. Accounting for the currently planned phasing of growth, and reduction in growth as per;
    a. Servicing Strategy Brief to Accommodate the Draft Growth Strategy, June 25, 2019, prepared by ISL, and
    b. Town of Okotoks Internal Memo, September 2019
3. Accounting for recommendations included in CMRB SECRTS Draft Functional Plan, prepared by ISL
4. Also including a high-level guidance towards future integrated mobility master plan and
5. Culminating in a memorandum summarizing results of the study.

2.0 WORK PLAN

We have prepared a work plan based on our experience gained on similar projects, preparation of the original TMP as well as knowledge of the area. The proposed work plan is summarized below.

- Start-up Meeting – within a week following permission to proceed, we will set up a meeting that will be used to establish lines of communication, verify study scope and

schedule, as well as obtain any additional pertinent information and discuss in detail the proposed scope and work plan.

- Review of the existing information – following the startup meeting we will carry out a review of the available information including, but not limited to, change in proposed densities and development plans, Servicing Strategy Brief to Accommodate the Draft Growth Strategy, Town of Okotoks Internal Memo, September 2019 and CMRB SECRTS Draft Functional Plan.
- Model update – following a review of the existing information, we will carry out the Town's traffic forecasting model update to ensure that the current plans pertaining to the planned growth as well as the progression of the development are reflected in the model.
- Traffic forecast – after the model update is completed, we will carry out a traffic forecast for selected time horizons which will be confirmed during the Start-up meeting. We expect that the 2025, 2035- and 2045-year horizon scenarios will be used in the analysis. Our analysis will reflect the expected land use progression as per the Town's Comprehensive Growth Strategy and network improvements within the area included in the traffic forecasting model as per the available results of the South East Calgary Regional Transportation Study included in the Record of Meeting dated August 26, 2019.
- Operational and Capacity review - identification of the required network improvements. We will use information provided by the forecasting model to identify the level of service for the key intersections and corresponding network improvements for each of the analyzed horizons.
- Construction Cost Estimate – should the results of the operational and capacity analysis identify different improvements for specific horizon years than those determined in the original TMP, we will determine, using unit costs approved by the Town Project Manager (TPM), construction costs for those improvements at each analyzed horizon year.
- Preparation of the draft memorandum – results of the analysis will be summarized in the form of a memorandum and submitted to TPM for review and comments. This memorandum will also provide a high-level guidance towards future integrated mobility master plan.
- Preparation of the final memorandum - following receipt of comments we will review and incorporate them into the final memorandum which will be delivered to the TPM.

APPENDIX B: TRAFFIC MODEL INPUT

WATT Traffic Model - Population				
Zone #	Exsiting	2025	2035	2045
1000	642	642	642	642
1001	336	336	336	336
1002	0	0	0	0
1003	0	0	0	0
1004	417	417	417	417
1005	546	546	546	546
1006	217	217	217	217
1007	431	431	431	431
1008	0	0	0	0
1009	131	131	131	131
1010	0	0	0	0
1011	0	0	0	0
1012	152	152	152	152
1013	403	403	403	403
1014	336	336	336	336
1015	695	695	695	695
1016	775	775	775	775
1017	0	0	0	0
1018	0	0	0	0
1019	0	0	0	0
1020	0	0	0	0
1021	412	412	412	412
1022	320	320	320	320
1023	74	74	74	74
1024	239	239	239	239
1025	176	176	176	176
1026	116	116	116	116
1027	295	295	295	295
1028	231	231	231	231
1029	291	291	291	291
1030	163	163	163	163
1031	0	0	0	0
1032	0	0	0	0
1033	0	0	0	0
1034	293	293	293	293
1035	293	293	293	293
1036	119	119	119	119
1037	166	166	166	166
1038	290	290	290	290
1039	313	313	313	313
1040	0	0	0	0
1041	347	347	347	347
1042	532	532	532	532
1043	0	0	0	0
1044	165	165	165	165

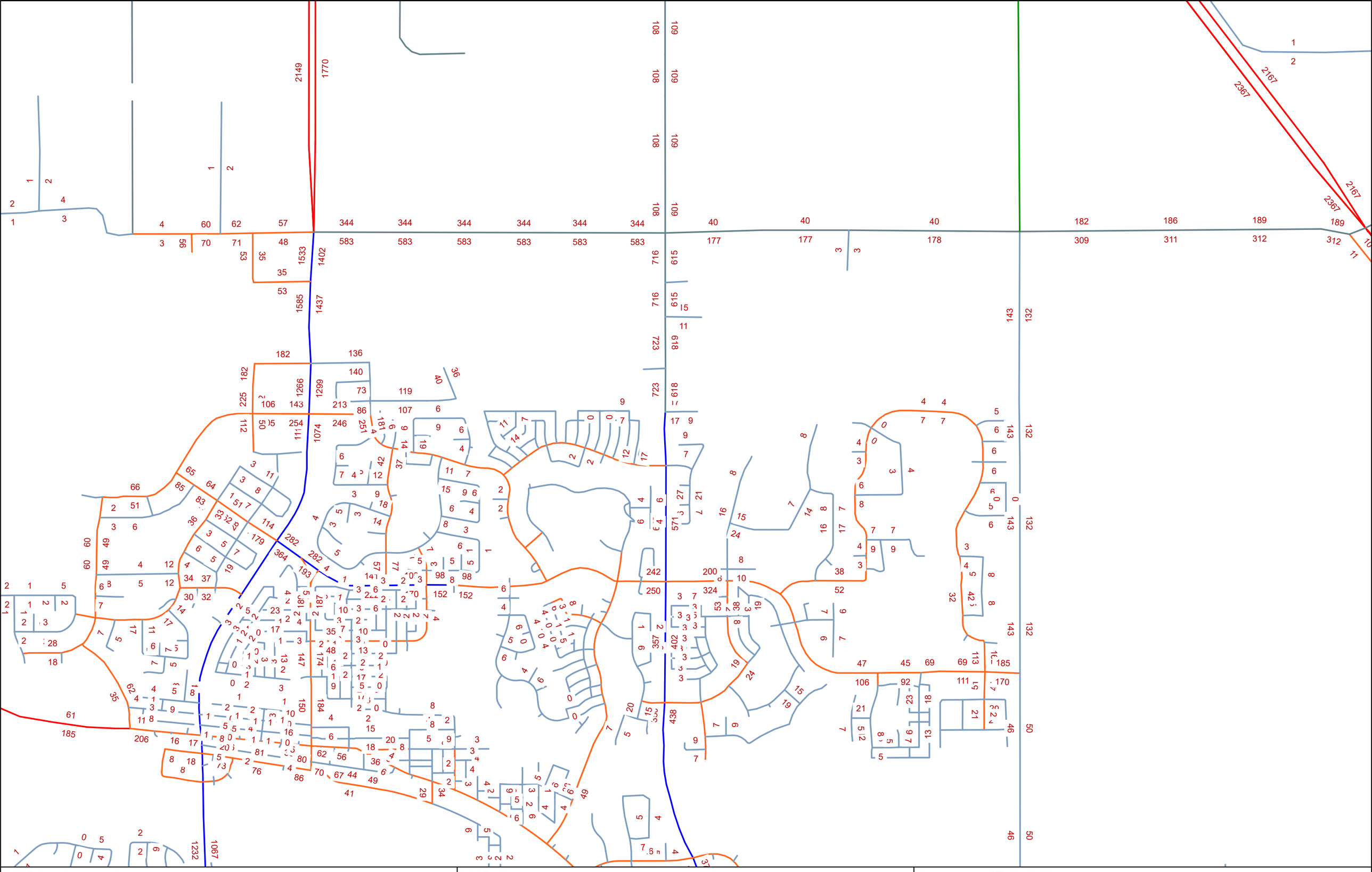
Zone #	Exsiting	2025	2035	2045
1045	145	145	145	145
1046	244	244	244	244
1047	200	200	200	200
1048	159	159	159	159
1049	59	59	59	59
1050	300	300	300	300
1051	0	0	0	0
1052	0	0	0	0
1053	0	0	0	0
1054	0	0	0	0
1055	265	265	265	265
1056	319	319	319	319
1057	183	183	183	183
1058	244	244	244	244
1059	478	478	478	478
1060	446	446	446	446
1061	0	0	0	0
1062	0	0	0	0
1063	21	21	21	21
1064	0	0	0	0
1065	156	156	156	156
1066	234	234	234	234
1067	0	0	0	0
1068	77	77	77	77
1069	147	147	147	147
1070	108	108	108	108
1071	176	176	176	176
1072	0	0	0	0
1073	90	90	90	90
1074	0	0	0	0
1075	342	342	342	342
1076	197	197	197	197
1077	405	405	405	405
1078	158	158	158	158
1079	0	0	0	0
1080	0	0	0	0
1081	170	170	170	170
1082	59	59	59	59
1083	0	0	0	0
1084	263	263	263	263
1085	108	108	108	108
1086	12	12	12	12
1087	128	128	128	128
1088	248	248	248	248
1089	0	0	0	0
1090	76	76	76	76

Zone #	Exsiting	2025	2035	2045
1091	501	501	501	501
1092	0	0	0	0
1093	0	0	0	0
1094	0	0	0	0
1095	0	0	0	0
1096	0	0	0	0
1097	640	640	640	640
1098	0	0	0	0
1099	521	521	521	521
1100	672	672	672	672
1101	826	826	826	826
1102	543	543	543	543
1103	271	271	271	271
1104	602	602	602	602
1105	0	0	0	0
1107	300	300	300	300
1108	405	405	405	405
1109	373	373	373	373
1110	226	226	226	226
1111	729	729	729	729
1112	564	564	564	564
1113	0	0	0	0
1114	656	656	656	656
1115	136	136	136	136
1116	247	247	247	247
1117	383	383	383	383
1118	412	412	412	412
1119	0	0	0	0
1120	293	293	293	293
1121	365	365	365	365
1122	75	75	75	75
1123	392	392	392	392
1124	411	411	411	411
1125	273	273	273	273
1126	587	587	587	587
1127				
1131		400	400	400
1136		1128	1128	1128
2001		1594	4301	4905
2002	400	286	745	850
2003		898	2425	2764
2004		0	0	800
2005		0	0	1400
2006		0	0	
2007	1128	0	0	
2008		0	0	

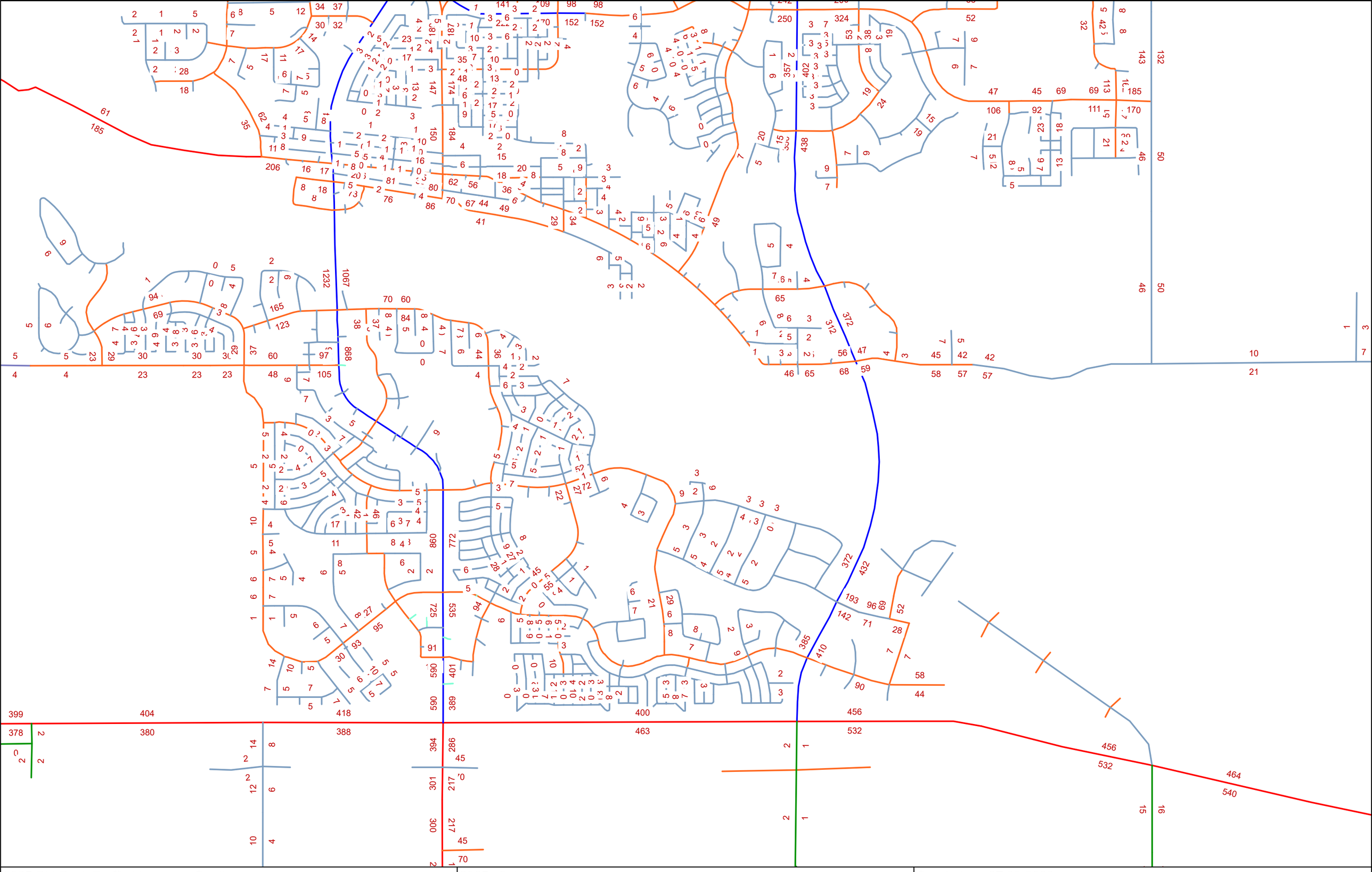
Zone #	Exsiting	2025	2035	2045
2009		0	0	
2010		0	0	
2011		0	0	
2012		0	0	
2013		0	0	
2014		0	0	
2015		0	0	
2016		0	0	
2017		0	0	
2018		0	0	
2019		0	0	
2020		0	0	
2021		0	0	
2022		0	0	
2023		0	0	
2024		0	0	
2025		0	0	
2026		0	0	
2027		0	0	
2028		0	0	
2029		0	0	
2030		0	0	3000
2031		1190	3209	3661
2032		0	0	
2033		0	0	
2034		0	0	
2035		0	0	
2036		0	0	
2037		0	0	
2038		0	0	
2039		0	0	
2040		0	0	
2041		0	0	

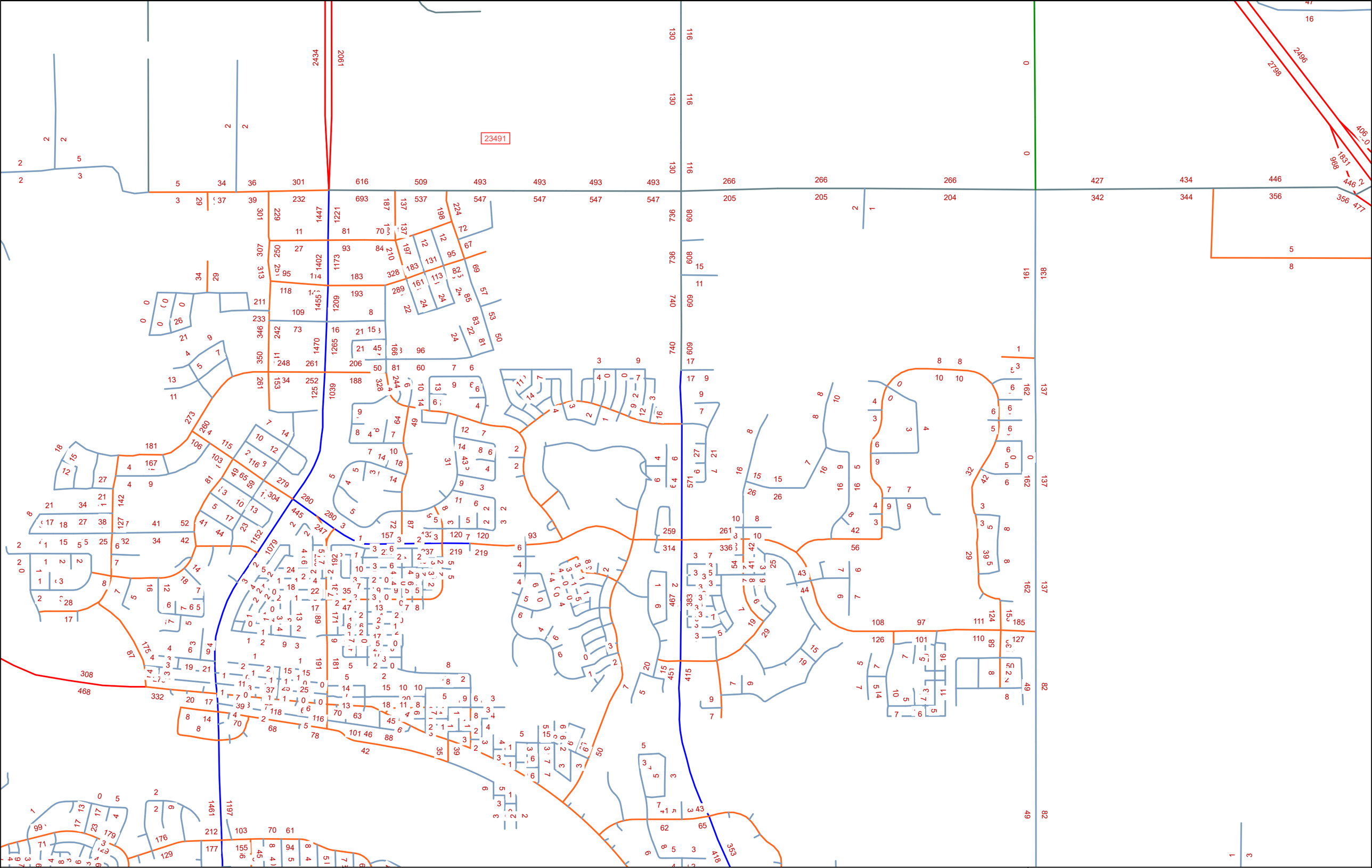
	Exsiting	2025	2035	2045
Summary	29064	33032	39744	46444

APPENDIX C: TRAFFIC MODEL OUTPUT

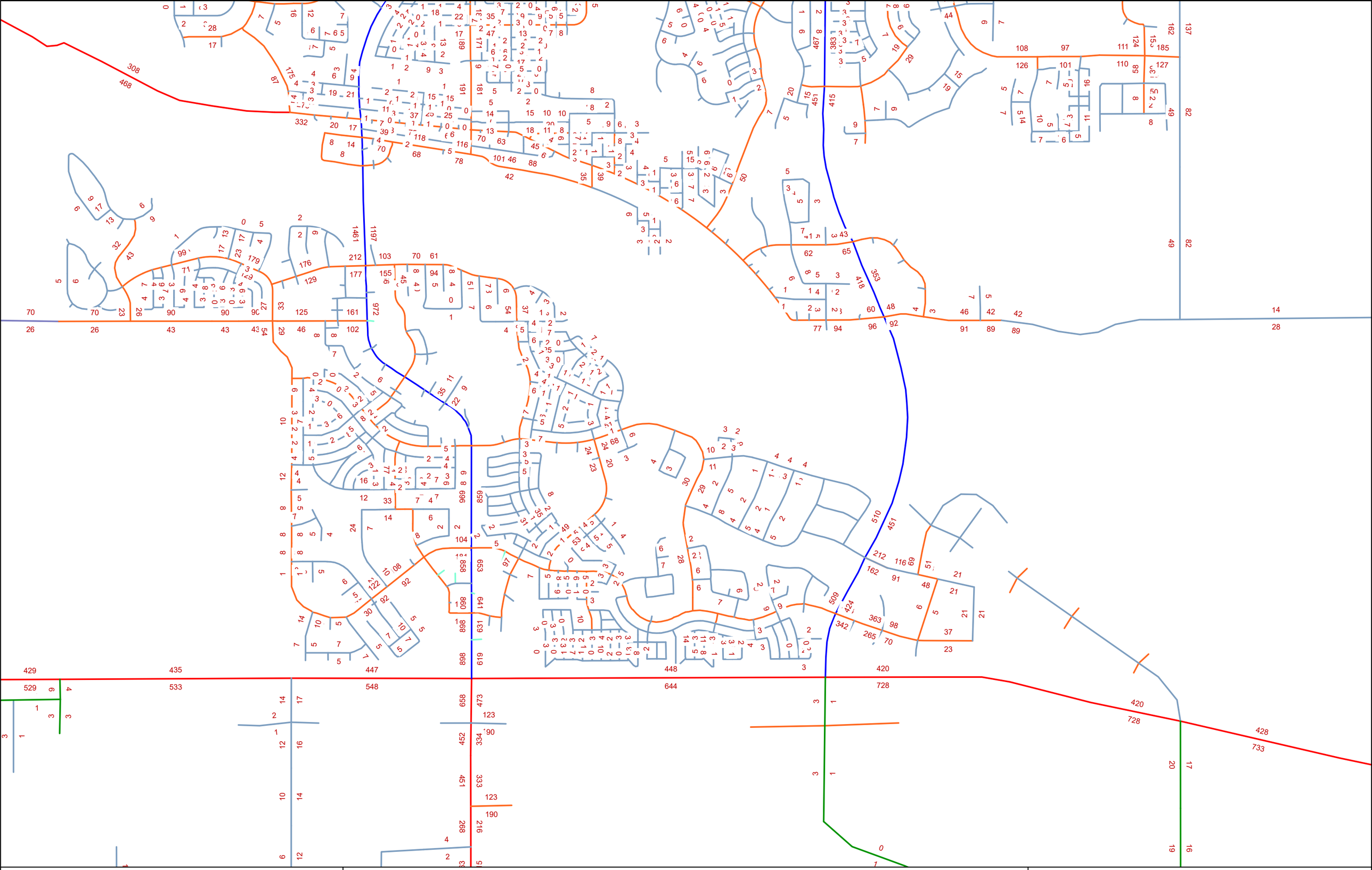


2025 PM Peak Traffic Volumes - North	2025 v2 riro.ver	Created on: 27.03.2020





2035 PM Peak Traffic Volumes - North	2035 v2.ver	Created on: 27.03.2020/10:17:03



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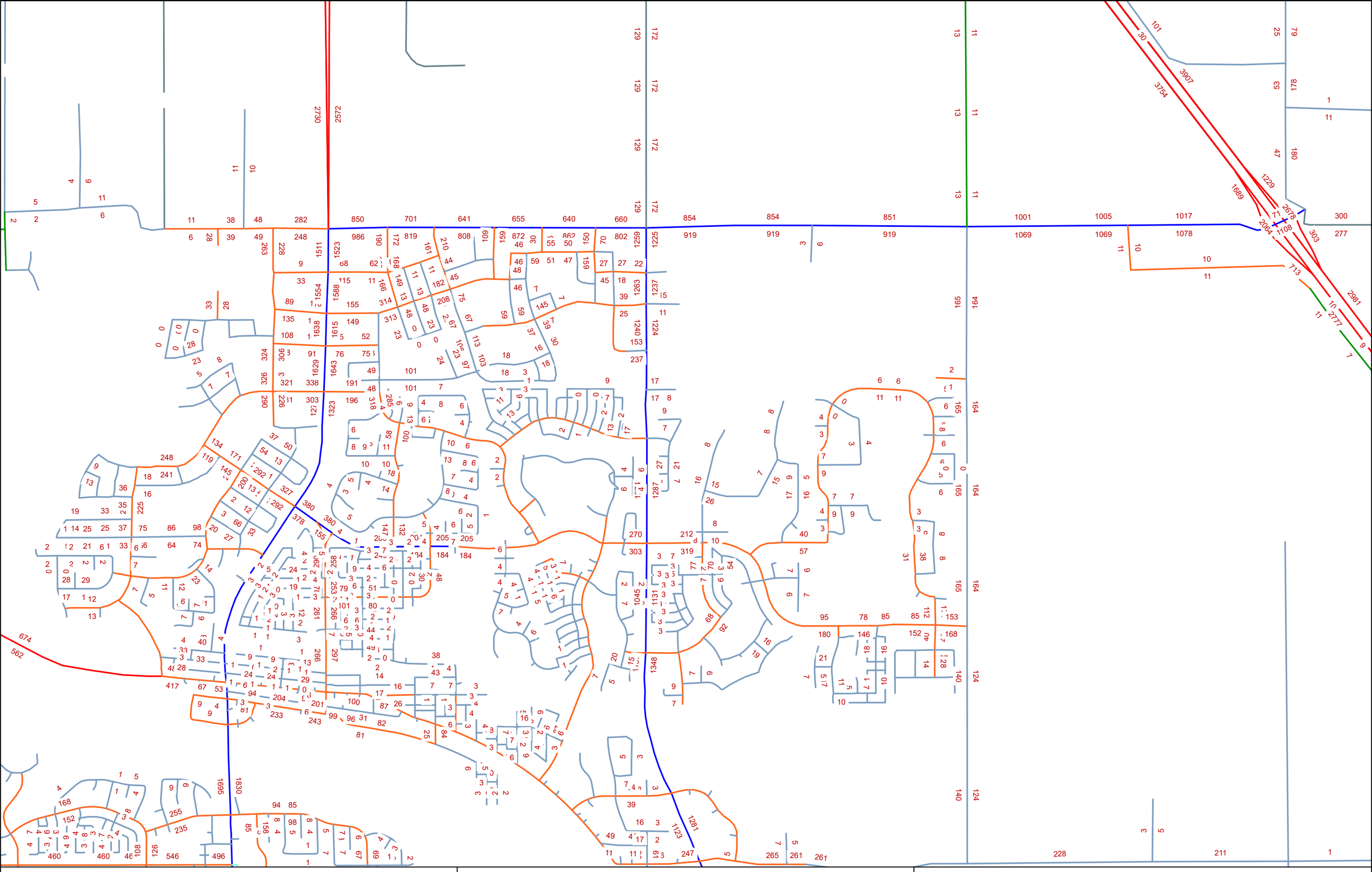
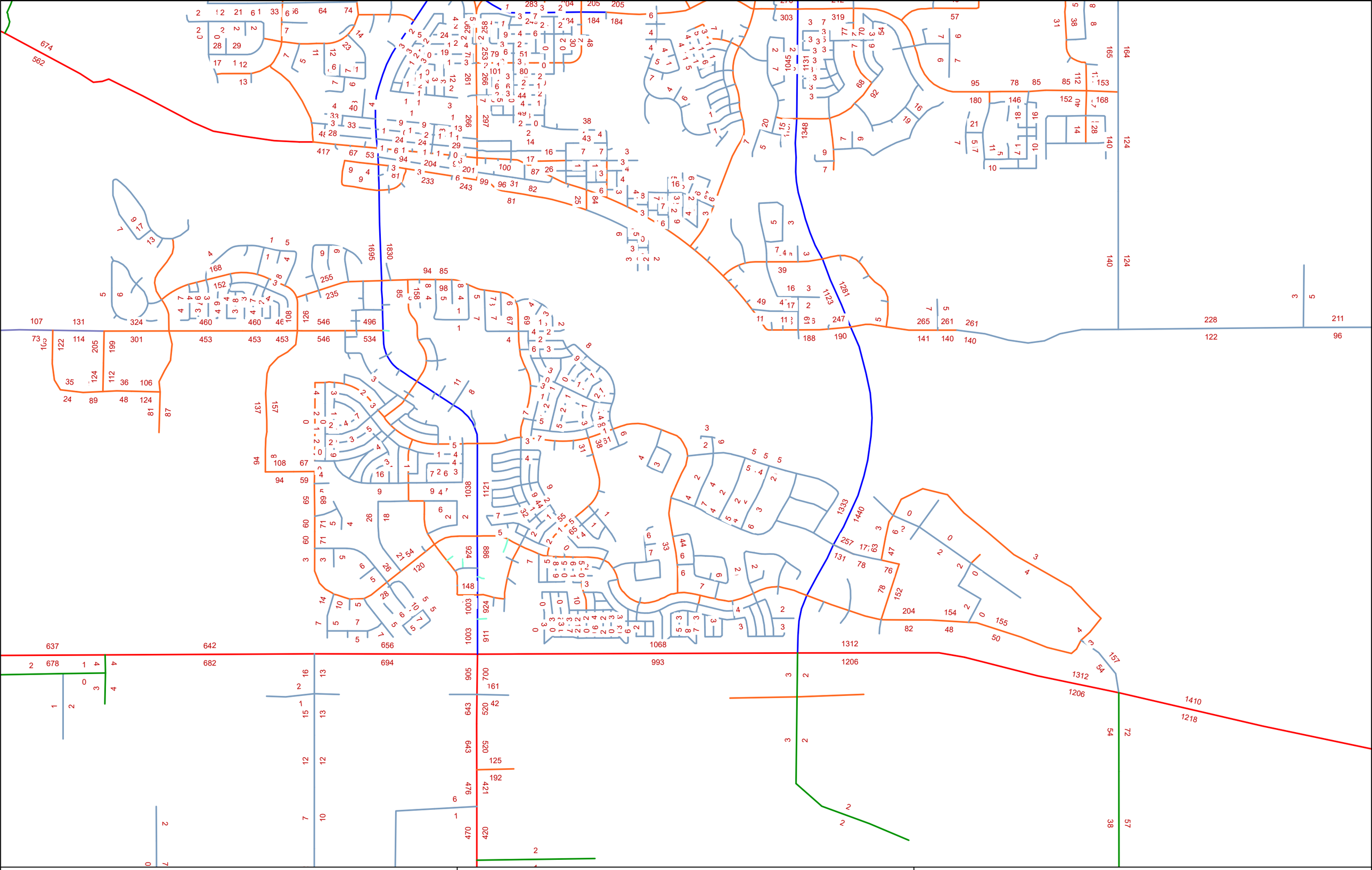
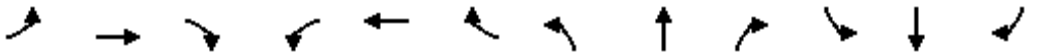


2045 Interchange PM Peak Traffic Volumes - North	2045 not full built out v2.ver	Created on: 27.03.2020

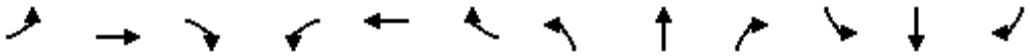


2045 Interchange PM Peak Traffic Volumes - South	2045 not full built out v2.ver	Created on: 27.03.2020

APPENDIX D: SYNCHRO RESULTS



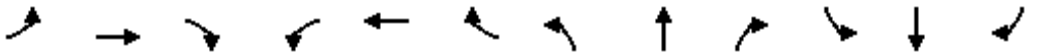
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	128	259	1	89	239	71	2	190	93	110	304	176
Future Volume (vph)	128	259	1	89	239	71	2	190	93	110	304	176
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	140.0		0.0	0.0		125.0	0.0		15.0	0.0		0.0
Storage Lanes	1		0	0		1	0		1	0		1
Taper Length (m)	100.0			30.0			2.5			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999				0.850			0.850			0.850
Flt Protected	0.950				0.987						0.987	
Satd. Flow (prot)	1742	1832	0	0	1758	1514	0	1834	1559	0	1758	1514
Flt Permitted	0.375				0.821			0.997			0.825	
Satd. Flow (perm)	688	1832	0	0	1463	1514	0	1828	1559	0	1470	1514
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						92			79			185
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		184.9			244.8			155.1			308.4	
Travel Time (s)		13.3			17.6			11.2			22.2	
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 (%)	2%	2%	2%	5%	5%	5%	2%	2%	2%	5%	5%	5%
Adj. Flow (vph)	135	273	1	94	252	75	2	200	98	116	320	185
Shared Lane Traffic (%)												
Lane Group Flow (vph)	135	274	0	0	346	75	0	202	98	0	436	185
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1	1	1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	2.0	2.0		0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Detector 1 Position(m)	2.0	2.0		0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Detector 1 Size(m)	6.0	2.0		8.0	2.0	4.1	8.0	2.0	4.1	8.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA		Perm	NA	Free	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		Free	2		2	6		6
Detector Phase	7	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	7.0	15.0		15.0	15.0		12.0	12.0	12.0	12.0	12.0	12.0
Minimum Split (s)	11.5	21.5		21.5	21.5		17.5	17.5	17.5	17.5	17.5	17.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	12.0	60.0		48.0	48.0		100.0	100.0	100.0	100.0	100.0	100.0
Total Split (%)	7.5%	37.5%		30.0%	30.0%		62.5%	62.5%	62.5%	62.5%	62.5%	62.5%
Maximum Green (s)	7.5	53.5		41.5	41.5		94.5	94.5	94.5	94.5	94.5	94.5
Yellow Time (s)	3.5	4.5		4.5	4.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	6.5			6.5			5.5	5.5		5.5	5.5
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	6.0		6.0	6.0		4.0	4.0	4.0	4.0	4.0	4.0
Recall Mode	None	None		None	None		None	None	None	None	None	None
Act Effct Green (s)	47.0	45.0			32.6	91.9		34.6	34.6		34.6	34.6
Actuated g/C Ratio	0.51	0.49			0.35	1.00		0.38	0.38		0.38	0.38
v/c Ratio	0.31	0.31			0.67	0.05		0.29	0.15		0.79	0.27
Control Delay	15.5	16.6			33.6	0.1		21.7	7.1		37.3	4.1
Queue Delay	0.0	0.0			0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	15.5	16.6			33.6	0.1		21.7	7.1		37.3	4.1
LOS	B	B			C	A		C	A		D	A
Approach Delay		16.2			27.6			16.9			27.4	
Approach LOS		B			C			B			C	
Queue Length 50th (m)	12.0	27.9			50.7	0.0		24.6	2.1		67.1	0.0
Queue Length 95th (m)	27.7	56.1			96.3	0.0		45.1	12.1		115.7	12.8
Internal Link Dist (m)		160.9			220.8			131.1			284.4	
Turn Bay Length (m)	140.0					125.0			15.0			
Base Capacity (vph)	440	1097			679	1514		1743	1490		1402	1452
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	0.31	0.25			0.51	0.05		0.12	0.07		0.31	0.13

Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 91.9			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 23.0		Intersection LOS: C	
Intersection Capacity Utilization 85.1%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 3: Southridge Drive & Highway 7

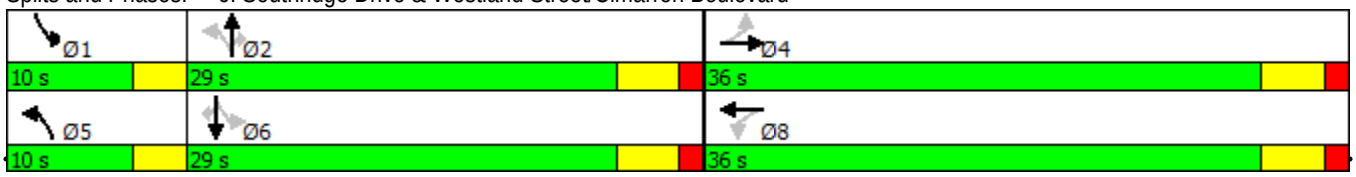


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	129	51	22	82	27	153	34	487	15	174	627	50
Future Volume (vph)	129	51	22	82	27	153	34	487	15	174	627	50
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	65.0		30.0	65.0		30.0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (m)	2.5			2.5			40.0			40.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.984			0.912				0.850			0.850
Flt Protected		0.969			0.985		0.950			0.950		
Satd. Flow (prot)	0	3367	0	0	3154	0	1759	3484	1590	1759	3451	1574
Flt Permitted		0.689			0.795		0.401			0.408		
Satd. Flow (perm)	0	2394	0	0	2546	0	743	3484	1590	756	3451	1574
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			161				73			73
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		101.4			236.7			314.2			471.7	
Travel Time (s)		7.3			17.0			22.6			34.0	
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%	6%	2%	0%	1%	1%	2%	0%	1%	3%	1%
Adj. Flow (vph)	136	54	23	86	28	161	36	513	16	183	660	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	213	0	0	275	0	36	513	16	183	660	53
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	36.0	36.0		36.0	36.0		10.0	29.0	29.0	10.0	29.0	29.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	36.0	36.0		36.0	36.0		10.0	29.0	29.0	10.0	29.0	29.0
Total Split (%)	48.0%	48.0%		48.0%	48.0%		13.3%	38.7%	38.7%	13.3%	38.7%	38.7%
Maximum Green (s)	31.0	31.0		31.0	31.0		7.0	24.0	24.0	7.0	24.0	24.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.5	3.5	3.0	3.5	3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		0.0	1.5	1.5	0.0	1.5	1.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0			5.0		3.0	5.0	5.0	3.0	5.0	5.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.5	5.0	5.0	2.5	5.0	5.0
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)	24.0	24.0		24.0	24.0			17.0	17.0		17.0	17.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)		10.7			10.7		33.0	24.0	24.0	34.8	30.1	30.1
Actuated g/C Ratio		0.20			0.20		0.60	0.44	0.44	0.64	0.55	0.55
v/c Ratio		0.44			0.44		0.06	0.34	0.02	0.30	0.35	0.06
Control Delay		20.5			10.9		3.9	11.1	0.1	5.2	8.9	2.3
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		20.5			10.9		3.9	11.1	0.1	5.2	8.9	2.3
LOS		C			B		A	B	A	A	A	A
Approach Delay		20.5			10.9			10.3			7.7	
Approach LOS		C			B			B			A	
Queue Length 50th (m)		8.8			5.0		0.9	16.0	0.0	5.2	12.7	0.0
Queue Length 95th (m)		16.8			13.4		3.5	27.4	0.0	12.4	36.1	3.5
Internal Link Dist (m)		77.4			212.7			290.2			447.7	
Turn Bay Length (m)							65.0		30.0	65.0		30.0
Base Capacity (vph)		1366			1512		578	1528	738	609	1897	898
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		0.16			0.18		0.06	0.34	0.02	0.30	0.35	0.06

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 54.7			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.44			
Intersection Signal Delay: 10.3		Intersection LOS: B	
Intersection Capacity Utilization 59.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 6: Southridge Drive & Westland Street/Cimarron Boulevard

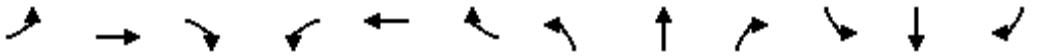


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	94	31	48	58	19	143	70	281	50	152	488	0
Future Volume (vph)	94	31	48	58	19	143	70	281	50	152	488	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	65.0		25.0	65.0		30.0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (m)	2.5			2.5			40.0			35.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.958			0.902				0.850			
Flt Protected		0.974			0.987		0.950			0.950		
Satd. Flow (prot)	0	3251	0	0	3102	0	1742	3484	1559	1742	3484	1834
Flt Permitted		0.725			0.823		0.417			0.571		
Satd. Flow (perm)	0	2420	0	0	2587	0	765	3484	1559	1047	3484	1834
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		51			151				53			
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		76.3			64.1			308.4			314.2	
Travel Time (s)		5.5			4.6			22.2			22.6	
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
Adj. Flow (vph)	99	33	51	61	20	151	74	296	53	160	514	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	183	0	0	232	0	74	296	53	160	514	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		6.5	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	32.0	32.0		32.0	32.0		10.0	29.0	29.0	29.0	29.0	29.0
Total Split (s)	32.0	32.0		32.0	32.0		10.0	43.0	43.0	33.0	33.0	33.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	42.7%	42.7%		42.7%	42.7%		13.3%	57.3%	57.3%	44.0%	44.0%	44.0%
Maximum Green (s)	27.0	27.0		27.0	27.0		6.5	38.0	38.0	28.0	28.0	28.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		0.0	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	0.0
Total Lost Time (s)		5.0			5.0		3.5	5.0	5.0	5.0	5.0	5.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.5	3.5		3.5	3.5		2.5	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		None	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	20.0	20.0		20.0	20.0			17.0	17.0	17.0	17.0	17.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0	0	0	0
Act Effct Green (s)		10.4			10.4		40.1	38.6	38.6	32.6	32.6	
Actuated g/C Ratio		0.18			0.18		0.68	0.65	0.65	0.55	0.55	
v/c Ratio		0.39			0.40		0.12	0.13	0.05	0.28	0.27	
Control Delay		17.9			10.7		3.8	4.1	1.5	10.4	8.5	
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		17.9			10.7		3.8	4.1	1.5	10.4	8.5	
LOS		B			B		A	A	A	B	A	
Approach Delay		17.9			10.7			3.7			8.9	
Approach LOS		B			B			A			A	
Queue Length 50th (m)		6.5			3.8		2.0	5.0	0.0	9.6	16.0	
Queue Length 95th (m)		14.1			11.8		5.6	9.4	2.8	21.8	26.2	
Internal Link Dist (m)		52.3			40.1			284.4			290.2	
Turn Bay Length (m)							65.0		25.0	65.0		
Base Capacity (vph)		1135			1266		628	2281	1038	578	1924	
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		0.16			0.18		0.12	0.13	0.05	0.28	0.27	

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 59			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.40			
Intersection Signal Delay: 8.8		Intersection LOS: A	
Intersection Capacity Utilization 66.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 9: Southridge Drive & Westmount Road/Cimarron Common



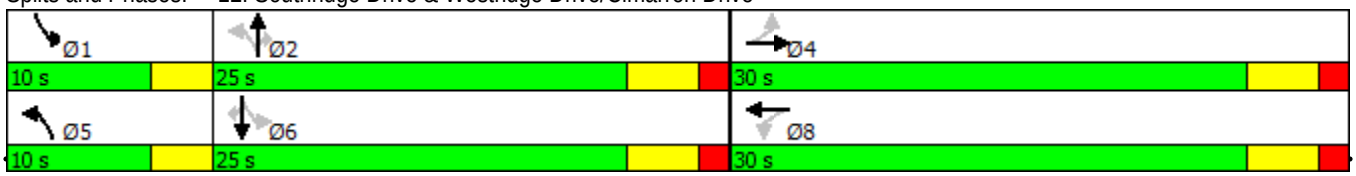
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	9	25	40	8	87	24	698	51	116	796	22
Future Volume (vph)	23	9	25	40	8	87	24	698	51	116	796	22
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	55.0		35.0	85.0		35.0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (m)	2.5			2.5			35.0			45.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.934			0.903				0.850			0.850
Flt Protected		0.980			0.985		0.950			0.950		
Satd. Flow (prot)	0	3225	0	0	3113	0	1777	3519	1590	1759	3484	1590
Flt Permitted		0.800			0.854		0.337			0.305		
Satd. Flow (perm)	0	2632	0	0	2699	0	630	3519	1590	565	3484	1590
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26			92				84			84
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		74.9			103.2			471.7			250.2	
Travel Time (s)		5.4			7.4			34.0			18.0	
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%	2%	3%	0%	1%	0%	1%	0%	1%	2%	0%
Adj. Flow (vph)	24	9	26	42	8	92	25	735	54	122	838	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	59	0	0	142	0	25	735	54	122	838	23
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	30.0	30.0		30.0	30.0		10.0	25.0	25.0	10.0	25.0	25.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	30.0	30.0		30.0	30.0		10.0	25.0	25.0	10.0	25.0	25.0
Total Split (%)	46.2%	46.2%		46.2%	46.2%		15.4%	38.5%	38.5%	15.4%	38.5%	38.5%
Maximum Green (s)	25.0	25.0		25.0	25.0		7.0	20.0	20.0	7.0	20.0	20.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.5	3.5	3.0	3.5	3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		0.0	1.5	1.5	0.0	1.5	1.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0			5.0		3.0	5.0	5.0	3.0	5.0	5.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.5	3.5		3.5	3.5		3.5	5.0	5.0	3.5	5.0	5.0
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Walk Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Flash Dont Walk (s)	20.0	20.0		20.0	20.0			15.0	15.0		15.0	15.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)		10.1			10.1		31.2	25.0	25.0	32.9	30.7	30.7
Actuated g/C Ratio		0.21			0.21		0.65	0.52	0.52	0.69	0.64	0.64
v/c Ratio		0.10			0.22		0.04	0.40	0.06	0.22	0.38	0.02
Control Delay		11.6			8.9		3.6	11.2	1.8	4.6	7.4	0.0
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		11.6			8.9		3.6	11.2	1.8	4.6	7.4	0.0
LOS		B			A		A	B	A	A	A	A
Approach Delay		11.6			8.9			10.3			6.9	
Approach LOS		B			A			B			A	
Queue Length 50th (m)		1.2			1.9		0.6	24.7	0.0	3.3	17.2	0.0
Queue Length 95th (m)		4.8			7.5		2.3	37.3	3.0	7.3	43.8	0.0
Internal Link Dist (m)		50.9			79.2			447.7			226.2	
Turn Bay Length (m)							55.0		35.0	85.0		35.0
Base Capacity (vph)		1394			1460		577	1829	867	562	2229	1047
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			0.10		0.04	0.40	0.06	0.22	0.38	0.02

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 48
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.40
Intersection Signal Delay: 8.6 Intersection LOS: A
Intersection Capacity Utilization 49.0% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 12: Southridge Drive & Westridge Drive/Cimarron Drive

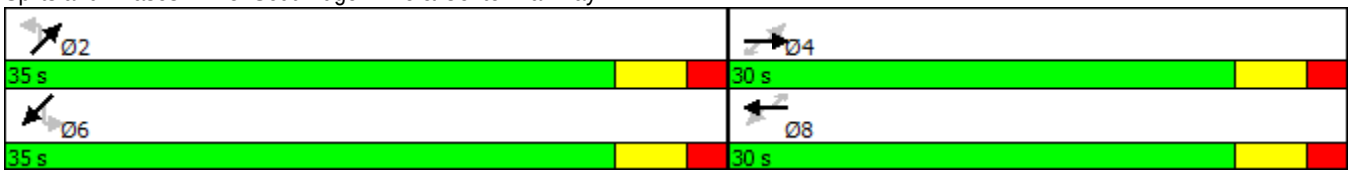


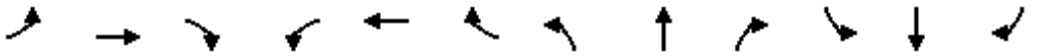
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	13	917	19	4	782	9	21	0	6	14	0	21
Future Volume (vph)	13	917	19	4	782	9	21	0	6	14	0	21
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	80.0		25.0	40.0		35.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (m)	25.0			50.0			2.5			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850			0.850		0.968			0.911	
Flt Protected	0.950			0.950				0.962			0.980	
Satd. Flow (prot)	1742	3484	1559	1742	3484	1559	0	3245	0	0	3111	0
Flt Permitted	0.342			0.297				0.955			0.955	
Satd. Flow (perm)	627	3484	1559	545	3484	1559	0	3221	0	0	3031	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			42			42		42			42	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		223.9			250.2			49.8			70.5	
Travel Time (s)		16.1			18.0			3.6			5.1	
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
Adj. Flow (vph)	14	965	20	4	823	9	22	0	6	15	0	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	14	965	20	4	823	9	0	28	0	0	37	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1	1	1	1	1	1	1		1	1	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0		8.0	4.0	
Trailing Detector (m)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0		0.0	2.0	
Detector 1 Position(m)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0		0.0	2.0	
Detector 1 Size(m)	6.0	2.0	4.1	6.0	2.0	4.1	8.0	2.0		8.0	2.0	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	29.5	29.5	29.5	29.5	29.5	29.5	34.5	34.5		34.5	34.5	
Total Split (s)	30.0	30.0	30.0	30.0	30.0	30.0	35.0	35.0		35.0	35.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Total Split (%)	46.2%	46.2%	46.2%	46.2%	46.2%	46.2%	53.8%	53.8%		53.8%	53.8%	
Maximum Green (s)	24.5	24.5	24.5	24.5	24.5	24.5	29.5	29.5		29.5	29.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5		5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0		5.0	5.0	
Recall Mode	Max	Max	Max	Max	Max	Max	None	None		None	None	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	17.0	17.0	17.0	17.0	17.0	17.0	22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	41.3	41.3	41.3	41.3	41.3	41.3		10.0			10.0	
Actuated g/C Ratio	0.91	0.91	0.91	0.91	0.91	0.91		0.22			0.22	
v/c Ratio	0.02	0.30	0.01	0.01	0.26	0.01		0.04			0.05	
Control Delay	2.9	2.3	1.1	3.0	2.1	0.1		4.9			6.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	2.9	2.3	1.1	3.0	2.1	0.1		4.9			6.0	
LOS	A	A	A	A	A	A		A			A	
Approach Delay		2.3			2.1			4.9			6.0	
Approach LOS		A			A			A			A	
Queue Length 50th (m)	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Queue Length 95th (m)	2.2	33.4	1.1	1.0	27.2	0.2		1.8			2.5	
Internal Link Dist (m)		199.9			226.2			25.8			46.5	
Turn Bay Length (m)	80.0		25.0	40.0		35.0						
Base Capacity (vph)	571	3173	1423	496	3173	1423		2108			1984	
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	0.02	0.30	0.01	0.01	0.26	0.01		0.01			0.02	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 45.4			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.30			
Intersection Signal Delay: 2.3		Intersection LOS: A	
Intersection Capacity Utilization 55.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 15: Southridge Drive & Centennial Way





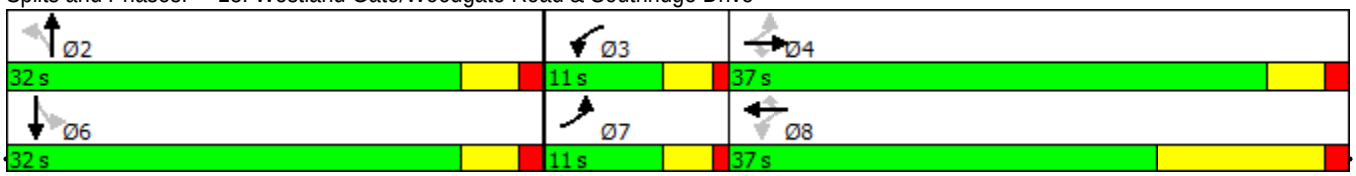
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	893	94	24	789	22	81	6	23	30	7	7
Future Volume (vph)	7	893	94	24	789	22	81	6	23	30	7	7
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	65.0		30.0	75.0		35.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (m)	25.0			30.0			2.5			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850			0.850		0.969			0.977	
Flt Protected	0.950			0.950				0.964			0.966	
Satd. Flow (prot)	1777	3519	1590	1742	3519	1544	0	3282	0	0	3319	0
Flt Permitted	0.339			0.267				0.767			0.745	
Satd. Flow (perm)	634	3519	1590	490	3519	1544	0	2611	0	0	2560	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82			82		24			7	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		334.8			223.9			57.4			61.2	
Travel Time (s)		24.1			16.1			4.1			4.4	
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 (%)	0%	1%	0%	2%	1%	3%	0%	14%	2%	0%	7%	0%
Adj. Flow (vph)	7	940	99	25	831	23	85	6	24	32	7	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	7	940	99	25	831	23	0	115	0	0	46	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1	1	1	1	1	1	1		1	1	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0		8.0	4.0	
Trailing Detector (m)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0		0.0	2.0	
Detector 1 Position(m)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0		0.0	2.0	
Detector 1 Size(m)	6.0	2.0	4.1	6.0	2.0	4.1	8.0	2.0		8.0	2.0	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	7	4	4	3	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	11.0	29.0	29.0	11.0	35.5	35.5	32.0	32.0		32.0	32.0	

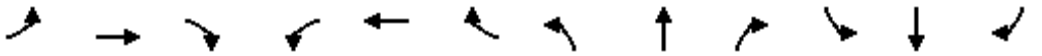
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	11.0	37.0	37.0	11.0	37.0	37.0	32.0	32.0		32.0	32.0	
Total Split (%)	13.8%	46.3%	46.3%	13.8%	46.3%	46.3%	40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	7.0	32.0	32.0	7.0	25.5	25.5	27.0	27.0		27.0	27.0	
Yellow Time (s)	3.0	3.5	3.5	3.0	10.0	10.0	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	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			0.0	
Total Lost Time (s)	4.0	5.0	5.0	4.0	11.5	11.5		5.0			5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	2.5	5.0	5.0	2.5	5.0	5.0	3.5	3.5		3.5	3.5	
Recall Mode	None	Max	Max	None	Max	Max	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		17.0	17.0		17.0	17.0	20.0	20.0		20.0	20.0	
Pedestrian Calls (#/hr)		0	0		0	0	0	0		0	0	
Act Effct Green (s)	40.1	38.9	38.9	40.1	33.8	33.8		10.1			10.1	
Actuated g/C Ratio	0.71	0.69	0.69	0.71	0.60	0.60		0.18			0.18	
v/c Ratio	0.01	0.39	0.09	0.05	0.40	0.02		0.24			0.10	
Control Delay	3.3	6.6	2.6	3.5	10.0	0.0		18.6			18.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	3.3	6.6	2.6	3.5	10.0	0.0		18.6			18.6	
LOS	A	A	A	A	A	A		B			B	
Approach Delay		6.2			9.6			18.6			18.6	
Approach LOS		A			A			B			B	
Queue Length 50th (m)	0.3	20.0	0.5	0.7	24.7	0.0		3.8			1.6	
Queue Length 95th (m)	1.0	50.0	6.8	2.3	53.7	0.0		11.2			6.0	
Internal Link Dist (m)		310.8			199.9			33.4			37.2	
Turn Bay Length (m)	65.0		30.0	75.0		35.0						
Base Capacity (vph)	590	2415	1117	502	2097	953		1265			1232	
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	0.01	0.39	0.09	0.05	0.40	0.02		0.09			0.04	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 56.7
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.40
Intersection Signal Delay: 8.6 — Intersection LOS: A
Intersection Capacity Utilization 47.9% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 18: Westland Gate/Woodgate Road & Southridge Drive





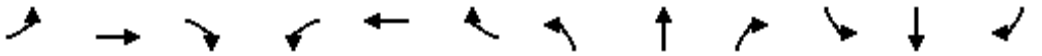
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	2	53	21	3	26	63	797	19	23	914	29
Future Volume (vph)	46	2	53	21	3	26	63	797	19	23	914	29
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		30.0	0.0		0.0	85.0		10.0	65.0		35.0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (m)	2.5			2.5			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850		0.865				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1709	1871	1559	1777	1589	0	1742	3484	1590	1777	3484	1529
Flt Permitted	0.738			0.757			0.242			0.336		
Satd. Flow (perm)	1327	1871	1559	1416	1589	0	444	3484	1590	629	3484	1529
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			78		27				31			156
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		162.5			89.1			334.8			253.8	
Travel Time (s)		11.7			6.4			24.1			18.3	
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 (%)	4%	0%	2%	0%	0%	2%	2%	2%	0%	0%	2%	4%
Adj. Flow (vph)	48	2	56	22	3	27	66	839	20	24	962	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	2	56	22	30	0	66	839	20	24	962	31
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1	1	1	1		1	1	1	1	1	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0	6.1	8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	6.0	2.0	4.1	6.0	2.0		6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA	Perm	Perm	NA	Free
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8			2		2	6		Free
Detector Phase	4	4	4	8	8		5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		7.0	20.0	20.0	20.0	20.0	
Minimum Split (s)	30.0	30.0	30.0	30.0	30.0		10.0	27.0	27.0	27.0	27.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	30.0	30.0	30.0	30.0	30.0		10.0	40.0	40.0	30.0	30.0	
Total Split (%)	42.9%	42.9%	42.9%	42.9%	42.9%		14.3%	57.1%	57.1%	42.9%	42.9%	
Maximum Green (s)	25.0	25.0	25.0	25.0	25.0		7.0	35.0	35.0	25.0	25.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.0	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5		0.0	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	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		3.0	5.0	5.0	5.0	5.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		2.5	5.0	5.0	5.0	5.0	
Recall Mode	None	None	None	None	None		None	Max	Max	Max	Max	
Walk Time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	20.0	20.0	20.0	20.0	20.0			17.0	17.0	17.0	17.0	
Pedestrian Calls (#/hr)	0	0	0	0	0			0	0	0	0	
Act Effct Green (s)	10.0	10.0	10.0	10.0	10.0		43.0	43.0	43.0	37.0	37.0	55.0
Actuated g/C Ratio	0.18	0.18	0.18	0.18	0.18		0.78	0.78	0.78	0.67	0.67	1.00
v/c Ratio	0.20	0.01	0.16	0.09	0.10		0.13	0.31	0.02	0.06	0.41	0.02
Control Delay	21.5	18.5	5.2	19.8	10.1		3.4	3.9	1.3	9.1	9.0	0.0
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	21.5	18.5	5.2	19.8	10.1		3.4	3.9	1.3	9.1	9.0	0.0
LOS	C	B	A	B	B		A	A	A	A	A	A
Approach Delay		12.8			14.2			3.8			8.7	
Approach LOS		B			B			A			A	
Queue Length 50th (m)	4.1	0.2	0.0	1.8	0.3		1.8	17.2	0.0	1.3	35.5	0.0
Queue Length 95th (m)	11.5	1.6	5.3	6.6	5.7		4.4	25.1	1.3	4.7	51.2	0.0
Internal Link Dist (m)		138.5			65.1			310.8			229.8	
Turn Bay Length (m)			30.0				85.0		10.0	65.0		35.0
Base Capacity (vph)	603	850	751	643	737		511	2724	1250	423	2343	1529
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	0.00	0.07	0.03	0.04		0.13	0.31	0.02	0.06	0.41	0.02

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 55
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.41
Intersection Signal Delay: 6.9 — Intersection LOS: A
Intersection Capacity Utilization 61.1% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 21: Southridge Drive & Big Rock Trail/Big Rock Lane

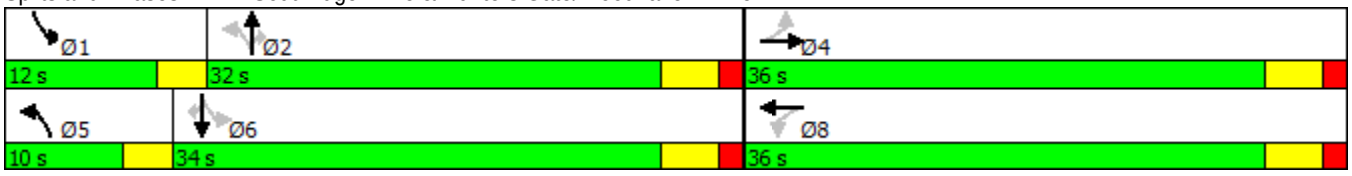


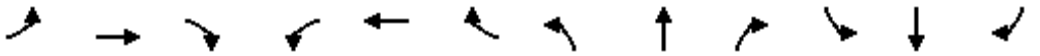
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	10	11	12	7	87	15	831	14	104	953	178
Future Volume (vph)	150	10	11	12	7	87	15	831	14	104	953	178
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	65.0		30.0	75.0		30.0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (m)	2.5			2.5			35.0			30.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.990			0.877				0.850			0.850
Flt Protected		0.958			0.994		0.950			0.950		
Satd. Flow (prot)	0	3305	0	0	3037	0	1742	3484	1559	1742	3484	1559
Flt Permitted		0.713			0.907		0.278			0.250		
Satd. Flow (perm)	0	2460	0	0	2772	0	510	3484	1559	458	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			92				68			124
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		89.2			93.8			253.8			302.8	
Travel Time (s)		6.4			6.8			18.3			21.8	
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
Adj. Flow (vph)	158	11	12	13	7	92	16	875	15	109	1003	187
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	181	0	0	112	0	16	875	15	109	1003	187
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		0.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		0.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		8.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	36.0	36.0		36.0	36.0		10.0	29.0	29.0	10.0	29.0	29.0
Total Split (s)	36.0	36.0		36.0	36.0		10.0	32.0	32.0	12.0	34.0	34.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	45.0%	45.0%		45.0%	45.0%		12.5%	40.0%	40.0%	15.0%	42.5%	42.5%
Maximum Green (s)	31.0	31.0		31.0	31.0		7.0	27.0	27.0	9.0	29.0	29.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.5	3.5	3.0	3.5	3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		0.0	1.5	1.5	0.0	1.5	1.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0			5.0		3.0	5.0	5.0	3.0	5.0	5.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.5	5.0	5.0	2.5	5.0	5.0
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)	24.0	24.0		24.0	24.0			17.0	17.0		17.0	17.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)		10.5			10.5		37.7	30.1	30.1	39.8	36.3	36.3
Actuated g/C Ratio		0.18			0.18		0.64	0.51	0.51	0.68	0.62	0.62
v/c Ratio		0.40			0.20		0.03	0.49	0.02	0.23	0.47	0.19
Control Delay		22.8			8.3		3.5	11.4	0.1	4.6	7.9	3.3
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		22.8			8.3		3.5	11.4	0.1	4.6	7.9	3.3
LOS		C			A		A	B	A	A	A	A
Approach Delay		22.8			8.3			11.1			6.9	
Approach LOS		C			A			B			A	
Queue Length 50th (m)		8.3			0.9		0.4	31.1	0.0	3.0	21.8	2.0
Queue Length 95th (m)		16.6			6.4		1.9	49.2	0.0	7.5	57.8	12.7
Internal Link Dist (m)		65.2			69.8			229.8			278.8	
Turn Bay Length (m)							65.0		30.0	75.0		30.0
Base Capacity (vph)		1303			1507		474	1782	830	509	2152	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		0.14			0.07		0.03	0.49	0.02	0.21	0.47	0.19

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 58.8			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 9.6		Intersection LOS: A	
Intersection Capacity Utilization 59.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 24: Southridge Drive & Hunters Gate/Woodhaven Drive



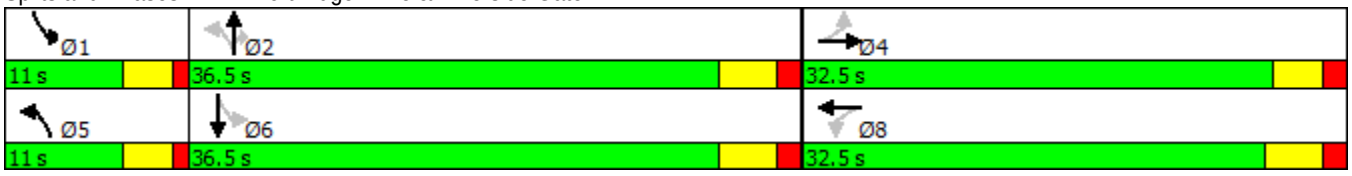


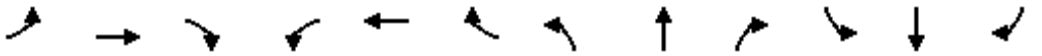
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	0	11	69	3	21	16	1041	9	18	1152	30
Future Volume (vph)	54	0	11	69	3	21	16	1041	9	18	1152	30
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	65.0		35.0	65.0		0.0
Storage Lanes	0		0	1		0	1		1	1		0
Taper Length (m)	2.5			2.5			40.0			40.0		
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		0.977			0.868				0.850		0.996	
Flt Protected		0.960		0.950			0.950			0.950		
Satd. Flow (prot)	0	1720	0	1742	1592	0	1742	3484	1559	1742	3470	0
Flt Permitted		0.746		0.819			0.175			0.219		
Satd. Flow (perm)	0	1337	0	1502	1592	0	321	3484	1559	402	3470	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		82			22				82		4	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		139.0			152.6			167.8			165.9	
Travel Time (s)		10.0			11.0			12.1			11.9	
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
Adj. Flow (vph)	57	0	12	73	3	22	17	1096	9	19	1213	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	69	0	73	25	0	17	1096	9	19	1245	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1	1	1	1	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	
Trailing Detector (m)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Detector 1 Position(m)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Detector 1 Size(m)	6.0	2.0		6.0	2.0		6.0	2.0	4.1	6.0	2.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		10.0	10.0		7.0	20.0	20.0	7.0	20.0	
Minimum Split (s)	32.5	32.5		30.0	30.0		11.0	27.0	27.0	11.0	27.0	
Total Split (s)	32.5	32.5		32.5	32.5		11.0	36.5	36.5	11.0	36.5	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	40.6%	40.6%		40.6%	40.6%		13.8%	45.6%	45.6%	13.8%	45.6%	
Maximum Green (s)	28.0	28.0		27.5	27.5		7.0	31.5	31.5	7.0	31.5	
Yellow Time (s)	3.0	3.0		3.5	3.5		3.0	3.5	3.5	3.0	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.0	1.5	1.5	1.0	1.5	
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		5.0	5.0		4.0	5.0	5.0	4.0	5.0	
Lead/Lag							Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	5.0	5.0	2.5	5.0	
Recall Mode	None	None		None	None		None	Max	Max	None	Max	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0		7.0	
Flash Dont Walk (s)	21.0	21.0		18.0	18.0			15.0	15.0		15.0	
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	
Act Effct Green (s)		10.2		10.4	10.4		40.1	38.9	38.9	40.1	38.9	
Actuated g/C Ratio		0.18		0.18	0.18		0.70	0.68	0.68	0.70	0.68	
v/c Ratio		0.23		0.27	0.08		0.04	0.46	0.01	0.04	0.53	
Control Delay		6.9		23.4	11.1		3.8	7.5	0.0	3.7	8.2	
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		6.9		23.4	11.1		3.8	7.5	0.0	3.7	8.2	
LOS		A		C	B		A	A	A	A	A	
Approach Delay		6.9			20.3			7.4			8.1	
Approach LOS		A			C			A			A	
Queue Length 50th (m)		0.0		5.9	0.3		0.5	24.8	0.0	0.5	30.1	
Queue Length 95th (m)		7.4		17.6	5.7		2.0	65.6	0.0	2.1	79.2	
Internal Link Dist (m)		115.0			128.6			143.8			141.9	
Turn Bay Length (m)							65.0		35.0	65.0		
Base Capacity (vph)		706		733	789		402	2378	1090	449	2370	
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		0.10	0.03		0.04	0.46	0.01	0.04	0.53	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 57			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 8.2		Intersection LOS: A	
Intersection Capacity Utilization 52.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 27: Northridge Drive & Riverside Gate



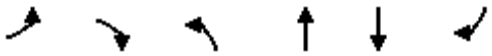


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	25	185	27	10	14	105	946	23	12	987	34
Future Volume (vph)	43	25	185	27	10	14	105	946	23	12	987	34
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	65.0		40.0	65.0		50.0
Storage Lanes	0		1	0		1	1		1	1		1
Taper Length (m)	2.5			2.5			30.0			15.0		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected		0.969			0.965		0.950			0.950		
Satd. Flow (prot)	0	3376	1559	0	1770	1559	1742	3484	1559	1742	3484	1559
Flt Permitted		0.784			0.762		0.195			0.288		
Satd. Flow (perm)	0	2732	1559	0	1397	1559	358	3484	1559	528	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			195			73			29			73
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		52.8			64.7			49.8			709.4	
Travel Time (s)		3.8			4.7			3.6			51.1	
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
Adj. Flow (vph)	45	26	195	28	11	15	111	996	24	13	1039	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	71	195	0	39	15	111	996	24	13	1039	36
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1	1	1	1	1	1	1	1	1	1	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0	6.1	8.0	2.0	6.1	6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	5	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	10.0	31.0	31.0	31.0	31.0	31.0
Total Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	10.0	44.0	44.0	34.0	34.0	34.0

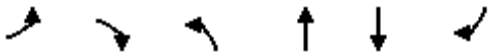
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	41.3%	41.3%	41.3%	41.3%	41.3%	41.3%	13.3%	58.7%	58.7%	45.3%	45.3%	45.3%
Maximum Green (s)	26.0	26.0	26.0	26.0	26.0	26.0	7.0	39.0	39.0	29.0	29.0	29.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.0	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	0.0	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	0.0	0.0	0.0
Total Lost Time (s)		5.0	5.0		5.0	5.0	3.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Vehicle Extension (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None	None	None	None	None	None	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	19.0	19.0	19.0	19.0	19.0	19.0		19.0	19.0	19.0	19.0	19.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0	0	0	0	0
Act Effct Green (s)		10.1	10.1		10.1	10.1	43.8	41.8	41.8	33.4	33.4	33.4
Actuated g/C Ratio		0.16	0.16		0.16	0.16	0.71	0.67	0.67	0.54	0.54	0.54
v/c Ratio		0.16	0.47		0.17	0.05	0.27	0.42	0.02	0.05	0.55	0.04
Control Delay		22.0	8.2		23.1	0.3	4.6	5.3	1.4	8.5	11.5	1.0
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		22.0	8.2		23.1	0.3	4.6	5.3	1.4	8.5	11.5	1.0
LOS		C	A		C	A	A	A	A	A	B	A
Approach Delay		11.8			16.8			5.2			11.1	
Approach LOS		B			B			A			B	
Queue Length 50th (m)		3.4	0.0		3.7	0.0	3.0	21.7	0.0	0.7	39.5	0.0
Queue Length 95th (m)		8.1	14.2		10.5	0.0	6.5	31.0	1.5	3.0	56.1	1.5
Internal Link Dist (m)		28.8			40.7			25.8			685.4	
Turn Bay Length (m)							65.0		40.0	65.0		50.0
Base Capacity (vph)		1154	771		590	700	410	2349	1061	284	1877	874
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		0.06	0.25		0.07	0.02	0.27	0.42	0.02	0.05	0.55	0.04

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 62			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.55			
Intersection Signal Delay: 8.6		Intersection LOS: A	
Intersection Capacity Utilization 65.1%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 30: Northridge Drive & Elizabeth Street



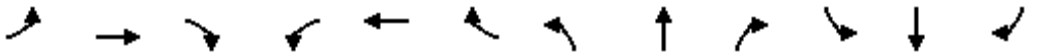
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	33	34	40	991	1018	33
Future Volume (vph)	33	34	40	991	1018	33
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0	0.0	70.0			35.0
Storage Lanes	1	1	1			1
Taper Length (m)	2.5		30.0			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1742	1559	1742	3484	3484	1559
Flt Permitted	0.950		0.213			
Satd. Flow (perm)	1742	1559	391	3484	3484	1559
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		36				14
Link Speed (k/h)	50			50	50	
Link Distance (m)	120.4			709.4	306.5	
Travel Time (s)	8.7			51.1	22.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	35	36	42	1043	1072	35
Shared Lane Traffic (%)						
Lane Group Flow (vph)	35	36	42	1043	1072	35
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24	14	24			14
Number of Detectors	1	1	1	1	1	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (m)	8.0	6.1	8.0	4.0	4.0	6.1
Trailing Detector (m)	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	6.0	4.1	6.0	2.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Prot	Perm	pm+pt	NA	NA	Free
Protected Phases	4		5	2	6	
Permitted Phases		4	2			Free
Detector Phase	4	4	5	2	6	
Switch Phase						
Minimum Initial (s)	1.0	1.0	5.0	20.0	20.0	
Minimum Split (s)	32.0	32.0	9.5	26.0	32.0	
Total Split (s)	32.0	32.0	18.0	58.0	40.0	



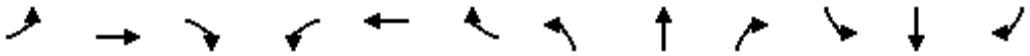
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Total Split (%)	35.6%	35.6%	20.0%	64.4%	44.4%	
Maximum Green (s)	26.0	26.0	13.5	52.0	34.0	
Yellow Time (s)	4.0	4.0	3.5	4.0	4.0	
All-Red Time (s)	2.0	2.0	1.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	4.5	6.0	6.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	Max	
Walk Time (s)	5.0	5.0				
Flash Dont Walk (s)	21.0	21.0				
Pedestrian Calls (#/hr)	0	0				
Act Effct Green (s)	6.6	6.6	46.4	47.4	43.2	58.6
Actuated g/C Ratio	0.11	0.11	0.79	0.81	0.74	1.00
v/c Ratio	0.18	0.17	0.09	0.37	0.42	0.02
Control Delay	27.3	12.5	3.0	3.6	7.4	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.3	12.5	3.0	3.6	7.4	0.0
LOS	C	B	A	A	A	A
Approach Delay	19.8			3.6	7.1	
Approach LOS	B			A	A	
Queue Length 50th (m)	3.0	0.0	1.0	20.7	21.6	0.0
Queue Length 95th (m)	11.2	7.1	3.1	32.6	63.0	0.0
Internal Link Dist (m)	96.4			685.4	282.5	
Turn Bay Length (m)			70.0			35.0
Base Capacity (vph)	781	718	623	3123	2567	1559
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	0.04	0.05	0.07	0.33	0.42	0.02

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 58.6			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.42			
Intersection Signal Delay: 5.8		Intersection LOS: A	
Intersection Capacity Utilization 47.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 33: Northridge Drive & Sandstone Gate



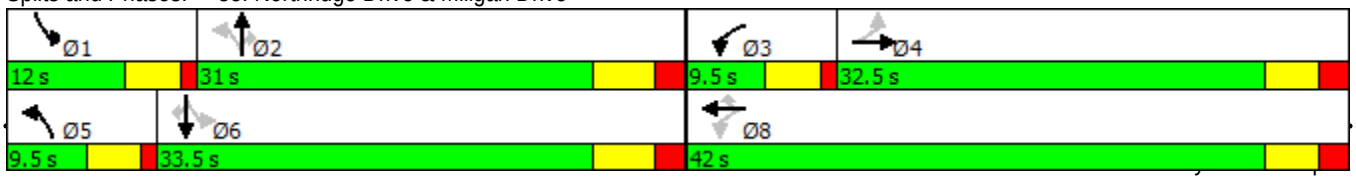
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	62	85	73	41	168	51	873	99	203	893	22
Future Volume (vph)	33	62	85	73	41	168	51	873	99	203	893	22
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		10.0	0.0		40.0	70.0		30.0	100.0		35.0
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (m)	2.5			30.0			30.0			35.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.913				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1742	1674	0	1742	3484	1559	1742	3484	1559	1742	3484	1559
Flt Permitted	0.728			0.464			0.261			0.171		
Satd. Flow (perm)	1335	1674	0	851	3484	1559	479	3484	1559	314	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		85				177			148			148
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		39.6			251.3			306.5			628.8	
Travel Time (s)		2.9			18.1			22.1			45.3	
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
Adj. Flow (vph)	35	65	89	77	43	177	54	919	104	214	940	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	35	154	0	77	43	177	54	919	104	214	940	23
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1	1	1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		6.0	2.0	4.1	6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Detector Phase	4	4		3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		5.0	10.0	10.0	5.0	20.0	20.0	5.0	20.0	20.0
Minimum Split (s)	32.5	32.5		9.5	32.5	32.5	9.5	30.0	30.0	9.5	30.0	30.0
Total Split (s)	32.5	32.5		9.5	42.0	42.0	9.5	31.0	31.0	12.0	33.5	33.5

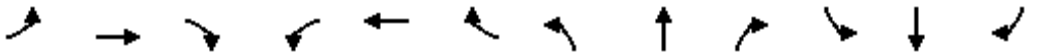


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	38.2%	38.2%		11.2%	49.4%	49.4%	11.2%	36.5%	36.5%	14.1%	39.4%	39.4%
Maximum Green (s)	27.0	27.0		5.0	36.5	36.5	5.0	25.0	25.0	7.5	27.5	27.5
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	4.0	4.0	3.5	4.0	4.0
All-Red Time (s)	2.0	2.0		1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0
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)	5.5	5.5		4.5	5.5	5.5	4.5	6.0	6.0	4.5	6.0	6.0
Lead/Lag	Lag	Lag		Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.5	3.5		3.0	3.5	3.5	3.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None		None	None	None	None	Max	Max	None	Max	Max
Walk Time (s)	7.0	7.0			7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)	20.0	20.0			20.0	20.0		17.0	17.0		17.0	17.0
Pedestrian Calls (#/hr)	0	0			0	0		0	0		0	0
Act Effct Green (s)	10.8	10.8		19.2	18.1	18.1	31.7	25.1	25.1	37.5	31.7	31.7
Actuated g/C Ratio	0.16	0.16		0.29	0.27	0.27	0.47	0.38	0.38	0.56	0.47	0.47
v/c Ratio	0.16	0.45		0.25	0.05	0.32	0.17	0.70	0.15	0.64	0.57	0.03
Control Delay	27.0	17.8		19.3	17.3	5.1	8.9	22.0	2.0	19.0	16.4	0.0
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	27.0	17.8		19.3	17.3	5.1	8.9	22.0	2.0	19.0	16.4	0.0
LOS	C	B		B	B	A	A	C	A	B	B	A
Approach Delay		19.5			10.5			19.4			16.6	
Approach LOS		B			B			B			B	
Queue Length 50th (m)	4.0	7.9		7.0	2.0	0.0	2.8	51.4	0.0	12.1	49.3	0.0
Queue Length 95th (m)	11.1	22.8		15.6	5.2	12.0	7.7	76.4	4.7	#35.5	73.7	0.0
Internal Link Dist (m)		15.6			227.3			282.5			604.8	
Turn Bay Length (m)						40.0	70.0		30.0	100.0		35.0
Base Capacity (vph)	541	729		310	1910	934	321	1308	677	337	1649	816
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	0.06	0.21		0.25	0.02	0.19	0.17	0.70	0.15	0.64	0.57	0.03

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 66.9			
Natural Cycle: 85			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 17.2		Intersection LOS: B	
Intersection Capacity Utilization 70.9%		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: 35: Northridge Drive & Miligan Drive





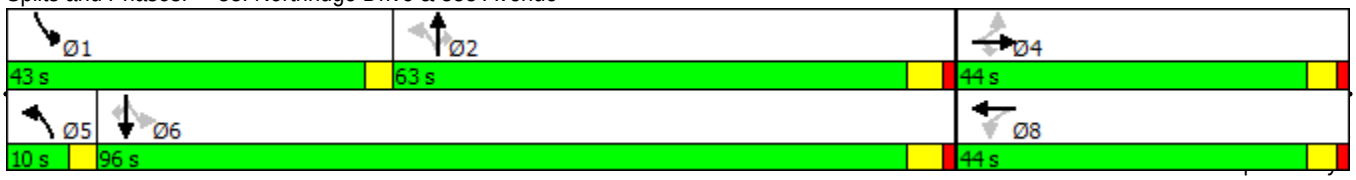
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	6	0	7	11	327	0	1401	0	577	1526	46
Future Volume (vph)	42	6	0	7	11	327	0	1401	0	577	1526	46
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	45.0		0.0	0.0		40.0	155.0		165.0	170.0		150.0
Storage Lanes	1		1	0		1	1		1	1		1
Taper Length (m)	15.0			2.5			70.0			80.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt						0.850						0.850
Flt Protected	0.950				0.982					0.950		
Satd. Flow (prot)	1742	1871	1816	0	1641	909	1834	3484	1716	1725	3451	1472
Flt Permitted	0.745				0.893					0.066		
Satd. Flow (perm)	1366	1871	1816	0	1492	909	1834	3484	1716	120	3451	1472
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						344						48
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		467.6			1650.5			385.1			208.1	
Travel Time (s)		33.7			118.8			27.7			15.0	
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 (%)	2%	0%	3%	17%	9%	75%	2%	2%	9%	3%	3%	8%
Adj. Flow (vph)	44	6	0	7	12	344	0	1475	0	607	1606	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	44	6	0	0	19	344	0	1475	0	607	1606	48
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1	1	1	1	1	1	1	1	1	1	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	2.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	2.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	6.0	2.0	4.1	8.0	2.0	4.1	6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA	Perm	Perm	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		Free	2		2	6		6
Detector Phase	4	4	4	8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	44.0	44.0	44.0	44.0	44.0		10.0	25.5	25.5	10.0	44.5	44.5

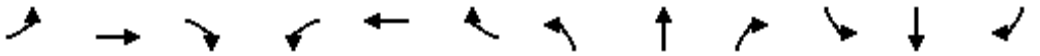
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	44.0	44.0	44.0	44.0	44.0		10.0	63.0	63.0	43.0	96.0	96.0
Total Split (%)	29.3%	29.3%	29.3%	29.3%	29.3%		6.7%	42.0%	42.0%	28.7%	64.0%	64.0%
Maximum Green (s)	39.0	39.0	39.0	39.0	39.0		7.0	57.5	57.5	40.0	90.5	90.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5		0.0	1.5	1.5	0.0	1.5	1.5
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)	5.0	5.0	5.0		5.0		3.0	5.5	5.5	3.0	5.5	5.5
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5		3.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None	None	None	None		None	Max	Max	None	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)	32.0	32.0	32.0	32.0	32.0			11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0			0	0		0	0
Act Effct Green (s)	10.9	10.9			10.9	118.9		57.7		103.3	102.1	102.1
Actuated g/C Ratio	0.09	0.09			0.09	1.00		0.49		0.87	0.86	0.86
v/c Ratio	0.35	0.04			0.14	0.38		0.87		0.94	0.54	0.04
Control Delay	60.4	50.8			53.4	1.2		35.3		56.2	3.9	0.7
Queue Delay	0.0	0.0			0.0	0.0		0.0		0.0	0.0	0.0
Total Delay	60.4	50.8			53.4	1.2		35.3		56.2	3.9	0.7
LOS	E	D			D	A		D		E	A	A
Approach Delay		59.3			3.9			35.3			17.9	
Approach LOS		E			A			D			B	
Queue Length 50th (m)	10.1	1.3			4.3	0.0		163.4		123.8	48.4	0.0
Queue Length 95th (m)	22.1	5.6			12.0	0.0		#214.1		#206.5	71.8	2.0
Internal Link Dist (m)		443.6			1626.5			361.1			184.1	
Turn Bay Length (m)	45.0					40.0				170.0		150.0
Base Capacity (vph)	449	615			490	909		1690		646	2962	1270
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	0.01			0.04	0.38		0.87		0.94	0.54	0.04

Intersection Summary

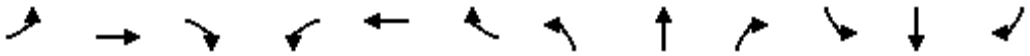
Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 118.9
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 23.4 — Intersection LOS: C
Intersection Capacity Utilization 93.7% — ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 38: Northridge Drive & 338 Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	191	50	12	57	57	99	12	1009	53	143	1049	74
Future Volume (vph)	191	50	12	57	57	99	12	1009	53	143	1049	74
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		45.0	70.0		40.0	175.0		40.0
Storage Lanes	0		0	0		1	1		1	1		0
Taper Length (m)	2.5			2.5			30.0			55.0		
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		0.993				0.850			0.850		0.990	
Flt Protected		0.964			0.976		0.950			0.950		
Satd. Flow (prot)	0	1755	0	0	1790	1559	1742	3484	1559	1742	3450	0
Flt Permitted		0.703			0.797		0.172			0.211		
Satd. Flow (perm)	0	1280	0	0	1462	1559	315	3484	1559	387	3450	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4				109			56		19	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		130.7			162.2			628.8			460.2	
Travel Time (s)		9.4			11.7			45.3			33.1	
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
Adj. Flow (vph)	201	53	13	60	60	104	13	1062	56	151	1104	78
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	267	0	0	120	104	13	1062	56	151	1182	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		0.0			0.0			0.0			0.0	
Detector 2 Size(m)		0.0			0.0			0.0			0.0	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA	Free	Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		Free	2		2	6		

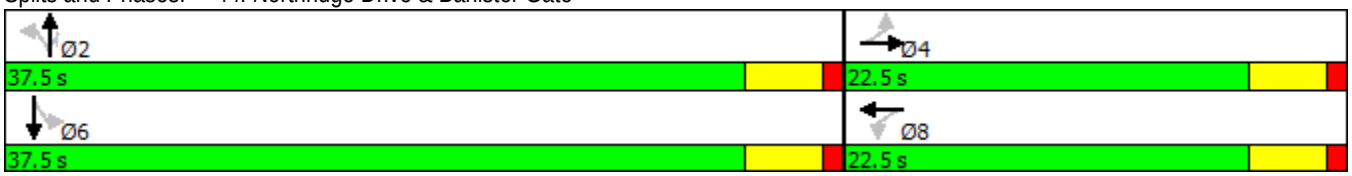


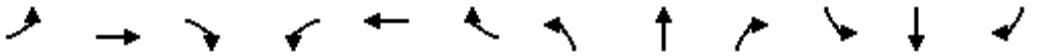
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		37.5	37.5	37.5	37.5	37.5	
Total Split (%)	37.5%	37.5%		37.5%	37.5%		62.5%	62.5%	62.5%	62.5%	62.5%	
Maximum Green (s)	18.0	18.0		18.0	18.0		33.0	33.0	33.0	33.0	33.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	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	
Total Lost Time (s)		4.5			4.5		4.5	4.5	4.5	4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		Min	Min	Min	Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	
Act Effct Green (s)		14.8			14.8	52.8	28.7	28.7	28.7	28.7	28.7	
Actuated g/C Ratio		0.28			0.28	1.00	0.54	0.54	0.54	0.54	0.54	
v/c Ratio		0.74			0.29	0.07	0.08	0.56	0.06	0.72	0.63	
Control Delay		32.2			17.9	0.1	7.8	9.6	2.4	34.6	10.3	
Queue Delay		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		32.2			17.9	0.1	7.8	9.6	2.4	34.6	10.3	
LOS		C			B	A	A	A	A	C	B	
Approach Delay		32.2			9.6			9.2			13.1	
Approach LOS		C			A			A			B	
Queue Length 50th (m)		24.8			9.8	0.0	0.6	35.0	0.0	10.8	40.3	
Queue Length 95th (m)		#55.5			21.2	0.0	2.8	50.1	3.7	#40.4	58.1	
Internal Link Dist (m)		106.7			138.2			604.8			436.2	
Turn Bay Length (m)						45.0	70.0		40.0	175.0		
Base Capacity (vph)		450			511	1559	202	2236	1020	248	2221	
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		0.59			0.23	0.07	0.06	0.47	0.05	0.61	0.53	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 52.8			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 13.1		Intersection LOS: B	
Intersection Capacity Utilization 69.0%		ICU Level of Service C	
Analysis Period (min) 15			

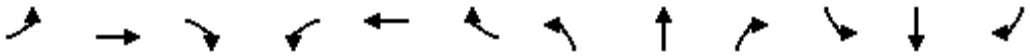
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 44: Northridge Drive & Banister Gate





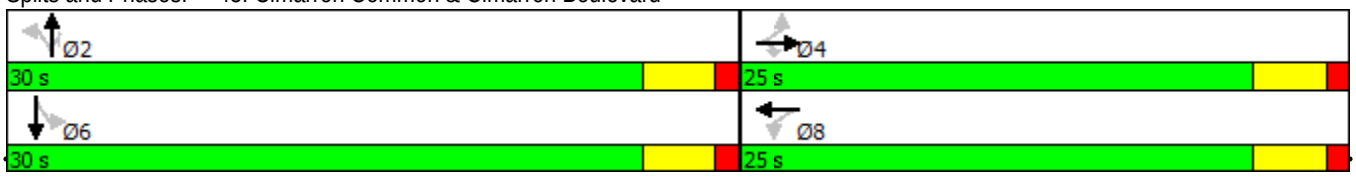
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	205	19	59	214	23	26	26	99	17	13	20
Future Volume (vph)	17	205	19	59	214	23	26	26	99	17	13	20
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	0.0		10.0	0.0		0.0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.988				0.850		0.947	
Flt Protected		0.996			0.990			0.976			0.983	
Satd. Flow (prot)	0	3507	1559	0	3445	0	0	1755	1574	0	1701	0
Flt Permitted		0.929			0.873			0.843			0.895	
Satd. Flow (perm)	0	3272	1559	0	3037	0	0	1516	1574	0	1549	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			20		18				104		21	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		236.7			109.0			76.0			62.8	
Travel Time (s)		17.0			7.8			5.5			4.5	
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%	1%	2%	1%	1%	0%	0%	8%	1%	0%	0%	6%
Adj. Flow (vph)	18	216	20	62	225	24	27	27	104	18	14	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	234	20	0	311	0	0	54	104	0	53	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1	1	1	1		1	1	1	1	1	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	8.0	4.0	6.1	8.0	4.0		8.0	4.0	6.1	8.0	4.0	
Trailing Detector (m)	0.0	2.0	0.0	0.0	2.0		0.0	2.0	0.0	0.0	2.0	
Detector 1 Position(m)	0.0	2.0	0.0	0.0	2.0		0.0	2.0	0.0	0.0	2.0	
Detector 1 Size(m)	8.0	2.0	6.1	8.0	2.0		8.0	2.0	6.1	8.0	2.0	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2		2	6		
Detector Phase	4	4	4	8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0		29.0	29.0	29.0	29.0	29.0	

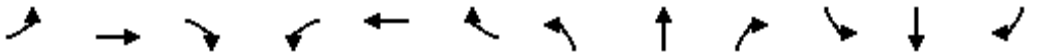


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	25.0	25.0	25.0	25.0	25.0		30.0	30.0	30.0	30.0	30.0	
Total Split (%)	45.5%	45.5%	45.5%	45.5%	45.5%		54.5%	54.5%	54.5%	54.5%	54.5%	
Maximum Green (s)	21.0	21.0	21.0	21.0	21.0		26.0	26.0	26.0	26.0	26.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	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	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)		4.0	4.0		4.0			4.0	4.0		4.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	Max	Max	Max	Max	Max		None	None	None	None	None	
Walk Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	13.0	13.0	13.0	13.0	13.0		20.0	20.0	20.0	20.0	20.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0	0	0	0	
Act Effct Green (s)		28.1	28.1		28.1			10.1	10.1		10.1	
Actuated g/C Ratio		0.66	0.66		0.66			0.24	0.24		0.24	
v/c Ratio		0.11	0.02		0.15			0.15	0.23		0.14	
Control Delay		4.3	2.4		4.2			13.1	4.9		9.2	
Queue Delay		0.0	0.0		0.0			0.0	0.0		0.0	
Total Delay		4.3	2.4		4.2			13.1	4.9		9.2	
LOS		A	A		A			B	A		A	
Approach Delay		4.1			4.2			7.7			9.2	
Approach LOS		A			A			A			A	
Queue Length 50th (m)		3.3	0.0		4.3			3.0	0.0		1.8	
Queue Length 95th (m)		6.5	1.6		8.1			8.2	7.1		6.8	
Internal Link Dist (m)		212.7			85.0			52.0			38.8	
Turn Bay Length (m)									10.0			
Base Capacity (vph)		2161	1036		2012			940	1016		968	
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		0.11	0.02		0.15			0.06	0.10		0.05	

Intersection Summary			
Area Type:	Other		
Cycle Length: 55			
Actuated Cycle Length: 42.5			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.23			
Intersection Signal Delay: 5.2		Intersection LOS: A	
Intersection Capacity Utilization 36.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 45: Cimarron Common & Cimarron Boulevard



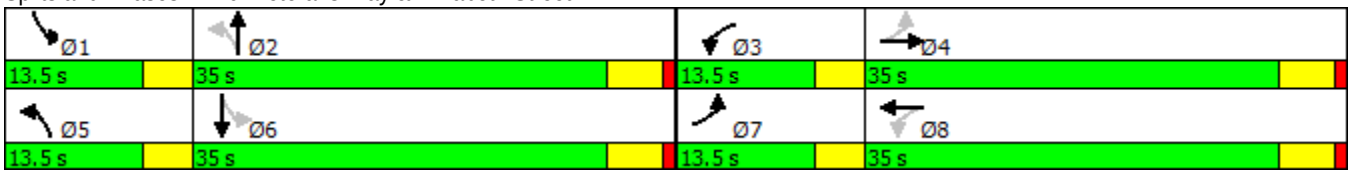


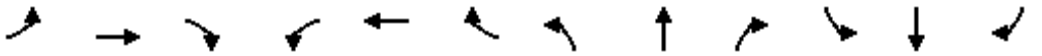
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	7	16	6	3	34	4	123	7	30	109	12
Future Volume (vph)	14	7	16	6	3	34	4	123	7	30	109	12
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	20.0		0.0	25.0		0.0	10.0		0.0	18.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	20.0			15.0			10.0			18.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.894			0.862			0.992			0.985	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1742	1639	0	1742	1581	0	1742	1819	0	1742	1806	0
Flt Permitted							0.675			0.652		
Satd. Flow (perm)	1834	1639	0	1834	1581	0	1238	1819	0	1196	1806	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			36			3			6	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		453.7			99.3			88.2			148.0	
Travel Time (s)		32.7			7.1			6.4			10.7	
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
Adj. Flow (vph)	15	7	17	6	3	36	4	129	7	32	115	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	15	24	0	6	39	0	4	136	0	32	128	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0		8.0	4.0	
Trailing Detector (m)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Detector 1 Position(m)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Detector 1 Size(m)	6.0	2.0		6.0	2.0		6.0	2.0		6.0	2.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0		5.0	10.0	
Minimum Split (s)	8.5	26.0		8.5	26.0		8.5	26.0		8.5	26.0	
Total Split (s)	13.5	35.0		13.5	35.0		13.5	35.0		13.5	35.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	13.9%	36.1%		13.9%	36.1%		13.9%	36.1%		13.9%	36.1%	
Maximum Green (s)	10.0	30.0		10.0	30.0		10.0	30.0		10.0	30.0	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	0.0	1.0		0.0	1.0		0.0	1.0		0.0	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)	3.5	5.0		3.5	5.0		3.5	5.0		3.5	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.5	3.5		2.5	3.5		3.0	4.0		2.5	4.0	
Recall Mode	None	None		None	None		None	Max		None	Max	
Walk Time (s)		7.0			7.0			7.0		0.0	7.0	
Flash Dont Walk (s)		14.0			14.0			14.0		0.0	14.0	
Pedestrian Calls (#/hr)		0			0			0		0	0	
Act Effct Green (s)	8.5	10.3		8.2	10.2		43.6	43.5		44.4	45.3	
Actuated g/C Ratio	0.15	0.19		0.15	0.18		0.79	0.79		0.80	0.82	
v/c Ratio	0.05	0.08		0.02	0.12		0.00	0.09		0.03	0.09	
Control Delay	18.6	14.7		18.2	11.4		4.5	7.0		3.9	5.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.6	14.7		18.2	11.4		4.5	7.0		3.9	5.7	
LOS	B	B		B	B		A	A		A	A	
Approach Delay		16.2			12.3			6.9			5.3	
Approach LOS		B			B			A			A	
Queue Length 50th (m)	1.2	0.5		0.5	0.2		0.0	0.0		0.2	0.0	
Queue Length 95th (m)	5.0	6.6		2.9	7.7		1.2	19.7		4.4	18.2	
Internal Link Dist (m)		429.7			75.3			64.2			124.0	
Turn Bay Length (m)	20.0			25.0			10.0			18.0		
Base Capacity (vph)	393	914		392	891		1099	1435		1073	1482	
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	0.03		0.02	0.04		0.00	0.09		0.03	0.09	

Intersection Summary			
Area Type:	Other		
Cycle Length: 97			
Actuated Cycle Length: 55.2			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.12			
Intersection Signal Delay: 7.8		Intersection LOS: A	
Intersection Capacity Utilization 32.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 49: Veterans Way & Elizabeth Street



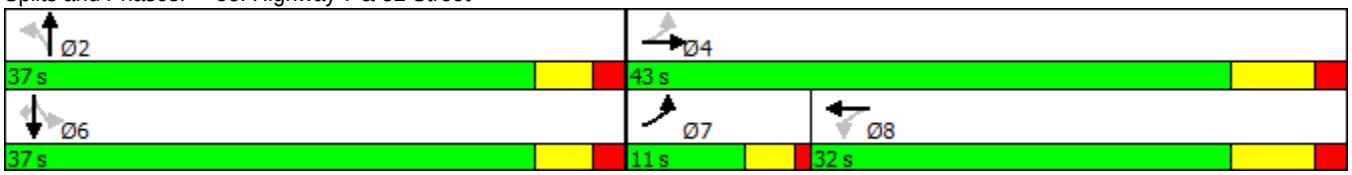


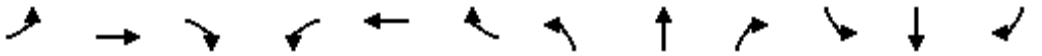
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	84	378	0	0	314	142	0	1	0	154	2	86
Future Volume (vph)	84	378	0	0	314	142	0	1	0	154	2	86
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	195.0		0.0	0.0		145.0	0.0		0.0	0.0		0.0
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (m)	95.0			2.5			2.5			2.5		
Lane Util. Factor	1.00	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						0.850
Flt Protected	0.950										0.953	
Satd. Flow (prot)	1630	1670	0	0	1781	1544	0	1871	0	0	1699	1590
Flt Permitted	0.460										0.729	
Satd. Flow (perm)	789	1670	0	0	1781	1544	0	1871	0	0	1299	1590
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						184						109
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		352.3			293.1			58.8			315.8	
Travel Time (s)		25.4			21.1			4.2			22.7	
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 (%)	9%	12%	0%	0%	5%	3%	0%	0%	0%	5%	0%	0%
Adj. Flow (vph)	88	398	0	0	331	149	0	1	0	162	2	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	88	398	0	0	331	149	0	1	0	0	164	91
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1	1	1	1		1	1	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0	6.1	8.0	4.0		8.0	4.0	6.1
Trailing Detector (m)	2.0	2.0		0.0	2.0	2.0	0.0	2.0		0.0	2.0	2.0
Detector 1 Position(m)	2.0	2.0		0.0	2.0	2.0	0.0	2.0		0.0	2.0	2.0
Detector 1 Size(m)	6.0	2.0		8.0	2.0	4.1	8.0	2.0		8.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	pm+pt	NA			NA	Free		NA		Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		Free	2			6		6
Detector Phase	7	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	7.0	15.0		15.0	15.0		12.0	12.0		12.0	12.0	12.0
Minimum Split (s)	11.0	22.0		22.0	22.0		17.5	17.5		17.5	17.5	17.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	11.0	43.0		32.0	32.0		37.0	37.0		37.0	37.0	37.0
Total Split (%)	13.8%	53.8%		40.0%	40.0%		46.3%	46.3%		46.3%	46.3%	46.3%
Maximum Green (s)	7.0	36.0		25.0	25.0		31.5	31.5		31.5	31.5	31.5
Yellow Time (s)	3.0	5.0		5.0	5.0		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)	4.0	7.0			7.0			5.5			5.5	5.5
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	4.0		4.0	4.0		3.5	3.5		3.5	3.5	3.5
Recall Mode	None	None		None	None		None	None		None	None	None
Act Effct Green (s)	30.6	30.2			22.4	49.4		15.7			15.7	15.7
Actuated g/C Ratio	0.62	0.61			0.45	1.00		0.32			0.32	0.32
v/c Ratio	0.14	0.39			0.41	0.10		0.00			0.40	0.16
Control Delay	6.5	9.9			17.4	0.1		16.0			21.4	4.1
Queue Delay	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Delay	6.5	9.9			17.4	0.1		16.0			21.4	4.1
LOS	A	A			B	A		B			C	A
Approach Delay		9.3			12.1			16.0			15.2	
Approach LOS		A			B			B			B	
Queue Length 50th (m)	3.1	20.9			25.7	0.0		0.1			13.0	0.0
Queue Length 95th (m)	10.0	48.3			53.7	0.0		1.0			31.9	7.0
Internal Link Dist (m)		328.3			269.1			34.8			291.8	
Turn Bay Length (m)	195.0					145.0						
Base Capacity (vph)	626	1200			997	1544		1223			849	1077
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	0.14	0.33			0.33	0.10		0.00			0.19	0.08

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 49.4			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.41			
Intersection Signal Delay: 11.6		Intersection LOS: B	
Intersection Capacity Utilization 69.2%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 55: Highway 7 & 32 Street





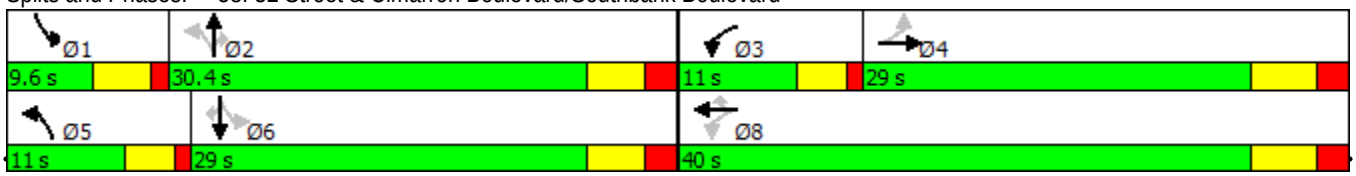
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	122	24	104	179	205	33	116	77	164	113	107
Future Volume (vph)	89	122	24	104	179	205	33	116	77	164	113	107
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	70.0		30.0	70.0		35.0	65.0		40.0	70.0		35.0
Storage Lanes	0		0	1		1	1		1	1		1
Taper Length (m)	30.0			30.0			35.0			30.0		
Lane Util. Factor	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.985				0.850			0.850			0.850
Flt Protected		0.981		0.950			0.950			0.950		
Satd. Flow (prot)	0	3356	0	1742	3554	1574	1742	3231	1559	1777	3417	1559
Flt Permitted		0.771		0.487			0.677			0.578		
Satd. Flow (perm)	0	2638	0	893	3554	1574	1242	3231	1559	1081	3417	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15				216			157			157
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		135.3			228.7			315.8			299.7	
Travel Time (s)		9.7			16.5			22.7			21.6	
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%	0%	8%	2%	0%	1%	2%	10%	2%	0%	4%	2%
Adj. Flow (vph)	94	128	25	109	188	216	35	122	81	173	119	113
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	247	0	109	188	216	35	122	81	173	119	113
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1	1	1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		6.0	2.0	4.1	8.0	2.0	6.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Detector Phase	4	4		3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	15.0	15.0		7.0	15.0	15.0	7.0	12.0	12.0	5.0	12.0	12.0
Minimum Split (s)	29.0	29.0		11.0	29.0	29.0	11.0	28.5	28.5	9.5	28.5	28.5

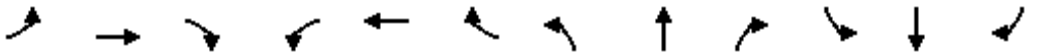
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	29.0	29.0		11.0	40.0	40.0	11.0	30.4	30.4	9.6	29.0	29.0
Total Split (%)	36.3%	36.3%		13.8%	50.0%	50.0%	13.8%	38.0%	38.0%	12.0%	36.3%	36.3%
Maximum Green (s)	23.0	23.0		7.0	34.0	34.0	7.0	24.9	24.9	5.1	23.5	23.5
Yellow Time (s)	4.0	4.0		3.0	4.0	4.0	3.0	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0		1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0
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)		6.0		4.0	6.0	6.0	4.0	5.5	5.5	4.5	5.5	5.5
Lead/Lag	Lag	Lag		Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0		2.5	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None		None	None	None	None	None	None	None	None	None
Walk Time (s)	7.0	7.0			7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)	16.0	16.0			16.0	16.0		16.0	16.0		16.0	16.0
Pedestrian Calls (#/hr)	0	0			0	0		0	0		0	0
Act Effct Green (s)		17.5		27.5	25.2	25.2	18.1	14.5	14.5	16.7	17.4	17.4
Actuated g/C Ratio		0.33		0.52	0.48	0.48	0.35	0.28	0.28	0.32	0.33	0.33
v/c Ratio		0.28		0.18	0.11	0.25	0.07	0.14	0.15	0.41	0.11	0.18
Control Delay		18.0		10.1	10.3	2.8	11.5	19.8	1.2	16.5	18.0	2.9
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		18.0		10.1	10.3	2.8	11.5	19.8	1.2	16.5	18.0	2.9
LOS		B		B	B	A	B	B	A	B	B	A
Approach Delay		18.0			7.1			12.2			13.2	
Approach LOS		B			A			B			B	
Queue Length 50th (m)		10.7		6.2	6.0	0.0	2.3	5.7	0.0	12.4	4.3	0.0
Queue Length 95th (m)		19.8		13.9	11.3	9.7	6.7	11.6	1.7	23.8	11.7	6.2
Internal Link Dist (m)		111.3			204.7			291.8			275.7	
Turn Bay Length (m)				70.0		35.0	65.0		40.0	70.0		35.0
Base Capacity (vph)		1346		600	2327	1105	507	1722	904	422	1757	878
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		0.18	0.08	0.20	0.07	0.07	0.09	0.41	0.07	0.13

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 52.4
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.41
Intersection Signal Delay: 11.6 — Intersection LOS: B
Intersection Capacity Utilization 55.6% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 58: 32 Street & Cimarron Boulevard/Southbank Boulevard



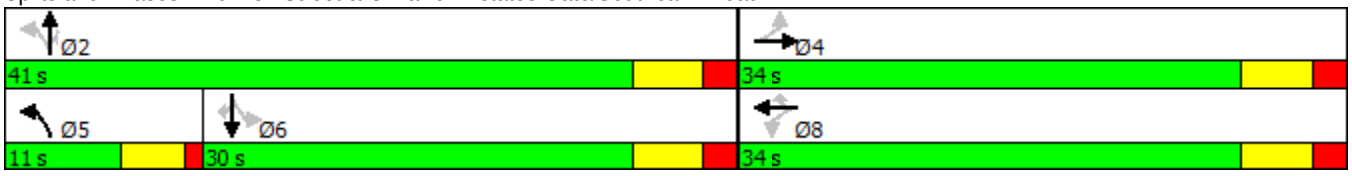


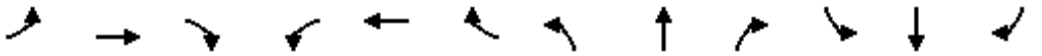
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	10	17	81	15	97	26	318	66	66	287	18
Future Volume (vph)	18	10	17	81	15	97	26	318	66	66	287	18
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		45.0	65.0		35.0	95.0		35.0
Storage Lanes	0		0	0		1	1		1	1		1
Taper Length (m)	2.5			2.5			35.0			35.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.944				0.850			0.850			0.850
Flt Protected		0.981			0.960		0.950			0.950		
Satd. Flow (prot)	0	3227	0	0	3345	1559	1742	3484	1559	1742	3484	1559
Flt Permitted		0.813			0.772		0.505			0.550		
Satd. Flow (perm)	0	2674	0	0	2690	1559	926	3484	1559	1009	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18				109			69			109
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		162.5			126.3			299.7			1173.6	
Travel Time (s)		11.7			9.1			21.6			84.5	
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
Adj. Flow (vph)	19	11	18	85	16	102	27	335	69	69	302	19
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	48	0	0	101	102	27	335	69	69	302	19
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1	1	1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0	4.1	6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8		8	2		2	6		6
Detector Phase	4	4		8	8	8	5	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	10.0	5.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	34.0	34.0		30.0	30.0	30.0	9.5	27.0	27.0	29.0	29.0	29.0
Total Split (s)	34.0	34.0		34.0	34.0	34.0	11.0	41.0	41.0	30.0	30.0	30.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	45.3%	45.3%		45.3%	45.3%	45.3%	14.7%	54.7%	54.7%	40.0%	40.0%	40.0%
Maximum Green (s)	28.0	28.0		28.0	28.0	28.0	6.5	35.0	35.0	24.0	24.0	24.0
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.5	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0
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)		6.0			6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None	None	None	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0		7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	21.0	21.0		17.0	17.0	17.0		14.0	14.0	16.0	16.0	16.0
Pedestrian Calls (#/hr)	0	0		0	0	0		0	0	0	0	0
Act Effct Green (s)		10.0			10.0	10.0	40.1	39.8	39.8	37.7	37.7	37.7
Actuated g/C Ratio		0.17			0.17	0.17	0.70	0.69	0.69	0.66	0.66	0.66
v/c Ratio		0.10			0.22	0.28	0.04	0.14	0.06	0.10	0.13	0.02
Control Delay		14.9			21.7	7.2	3.9	4.5	1.6	7.6	6.3	0.1
Queue Delay		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		14.9			21.7	7.2	3.9	4.5	1.6	7.6	6.3	0.1
LOS		B			C	A	A	A	A	A	A	A
Approach Delay		14.9			14.4			4.0			6.2	
Approach LOS		B			B			A			A	
Queue Length 50th (m)		1.3			4.7	0.0	0.8	6.6	0.0	2.5	5.8	0.0
Queue Length 95th (m)		5.0			10.3	9.5	2.8	10.8	3.3	10.7	16.3	0.0
Internal Link Dist (m)		138.5			102.3			275.7			1149.6	
Turn Bay Length (m)						45.0	65.0		35.0	95.0		35.0
Base Capacity (vph)		1316			1315	818	740	2419	1103	663	2289	1061
Starvation Cap Reductn		0			0	0	0	0	0	0	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		0.04			0.08	0.12	0.04	0.14	0.06	0.10	0.13	0.02

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 57.3			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.28			
Intersection Signal Delay: 7.3		Intersection LOS: A	
Intersection Capacity Utilization 59.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 61: 32 Street & Cimarron Estates Gate/Southbank Road



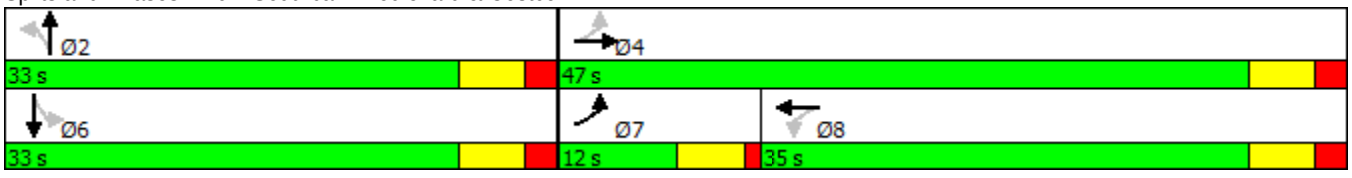


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	162	83	41	1	110	7	55	2	1	7	2	217
Future Volume (vph)	162	83	41	1	110	7	55	2	1	7	2	217
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	70.0		0.0	45.0		0.0	0.0		0.0	30.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	35.0			30.0			2.5			30.0		
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		0.950			0.991			0.950			0.851	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1742	3310	0	1742	3453	0	1742	1742	0	1742	1561	0
Flt Permitted	0.391			0.670			0.615			0.756		
Satd. Flow (perm)	717	3310	0	1229	3453	0	1128	1742	0	1386	1561	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		43			7			1			228	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		228.7			107.0			102.0			81.0	
Travel Time (s)		16.5			7.7			7.3			5.8	
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
Adj. Flow (vph)	171	87	43	1	116	7	58	2	1	7	2	228
Shared Lane Traffic (%)												
Lane Group Flow (vph)	171	130	0	1	123	0	58	3	0	7	230	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0		8.0	4.0	
Trailing Detector (m)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Detector 1 Position(m)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Detector 1 Size(m)	6.0	2.0		6.0	2.0		6.0	2.0		6.0	2.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	12.0	34.0		35.0	35.0		31.0	31.0		30.0	30.0	
Total Split (s)	12.0	47.0		35.0	35.0		33.0	33.0		33.0	33.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	15.0%	58.8%		43.8%	43.8%		41.3%	41.3%		41.3%	41.3%	
Maximum Green (s)	7.0	41.0		29.0	29.0		27.0	27.0		27.0	27.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)		7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		21.0		22.0	22.0		18.0	18.0		17.0	17.0	
Pedestrian Calls (#/hr)		0		0	0		0	0		0	0	
Act Effct Green (s)	19.7	20.7		12.4	12.4		12.5	12.5		12.5	12.5	
Actuated g/C Ratio	0.52	0.54		0.33	0.33		0.33	0.33		0.33	0.33	
v/c Ratio	0.28	0.07		0.00	0.11		0.16	0.01		0.02	0.35	
Control Delay	7.0	4.4		13.0	13.5		15.3	12.0		13.3	4.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	7.0	4.4		13.0	13.5		15.3	12.0		13.3	4.7	
LOS	A	A		B	B		B	B		B	A	
Approach Delay		5.9			13.5			15.1			4.9	
Approach LOS		A			B			B			A	
Queue Length 50th (m)	6.0	1.5		0.1	3.7		3.6	0.1		0.4	0.1	
Queue Length 95th (m)	13.3	4.4		0.9	8.6		10.6	1.5		2.5	12.1	
Internal Link Dist (m)		204.7			83.0			78.0			57.0	
Turn Bay Length (m)	70.0			45.0						30.0		
Base Capacity (vph)	604	3123		892	2507		777	1201		955	1146	
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	0.28	0.04		0.00	0.05		0.07	0.00		0.01	0.20	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 38.1			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.35			
Intersection Signal Delay: 7.7		Intersection LOS: A	
Intersection Capacity Utilization 53.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 64: Southbank Boulevard & Costco

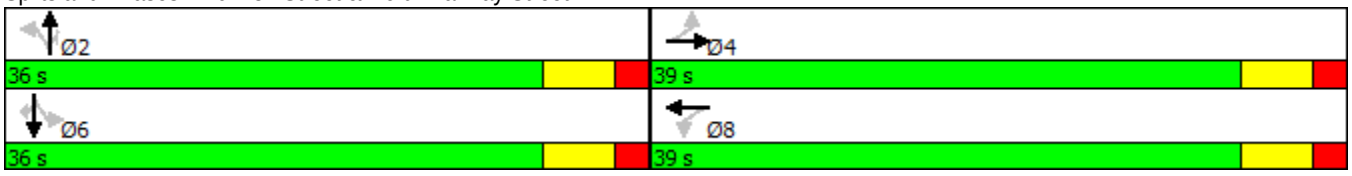


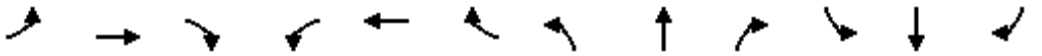
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	7	44	37	5	4	40	348	46	5	293	14
Future Volume (vph)	19	7	44	37	5	4	40	348	46	5	293	14
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	70.0		45.0	70.0		35.0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (m)	2.5			2.5			25.0			30.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.905			0.987				0.850			0.850
Flt Protected		0.986			0.961		0.950			0.950		
Satd. Flow (prot)	0	3109	0	0	3305	0	1742	3484	1559	1742	3484	1559
Flt Permitted		0.868			0.861		0.564			0.534		
Satd. Flow (perm)	0	2737	0	0	2961	0	1034	3484	1559	979	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		46			4				48			44
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		157.3			183.5			1173.6			202.1	
Travel Time (s)		11.3			13.2			84.5			14.6	
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
Adj. Flow (vph)	20	7	46	39	5	4	42	366	48	5	308	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	73	0	0	48	0	42	366	48	5	308	15
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0	20.0	10.0	10.0	10.0
Minimum Split (s)	39.0	39.0		39.0	39.0		33.0	33.0	33.0	33.0	33.0	33.0
Total Split (s)	39.0	39.0		39.0	39.0		36.0	36.0	36.0	36.0	36.0	36.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	52.0%	52.0%		52.0%	52.0%		48.0%	48.0%	48.0%	48.0%	48.0%	48.0%
Maximum Green (s)	33.0	33.0		33.0	33.0		30.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		4.0	4.0	4.0	4.0	4.0	4.0
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	26.0	26.0		26.0	26.0		20.0	20.0	20.0	20.0	20.0	20.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	0
Act Effct Green (s)		10.0			10.0		40.3	40.3	40.3	40.3	40.3	40.3
Actuated g/C Ratio		0.19			0.19		0.76	0.76	0.76	0.76	0.76	0.76
v/c Ratio		0.13			0.09		0.05	0.14	0.04	0.01	0.12	0.01
Control Delay		10.4			17.3		4.8	4.0	2.0	4.8	4.0	0.6
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		10.4			17.3		4.8	4.0	2.0	4.8	4.0	0.6
LOS		B			B		A	A	A	A	A	A
Approach Delay		10.4			17.3			3.9			3.9	
Approach LOS		B			B			A			A	
Queue Length 50th (m)		1.3			2.1		1.5	7.2	0.0	0.2	6.0	0.0
Queue Length 95th (m)		5.2			5.2		4.5	12.0	2.9	1.1	10.2	0.6
Internal Link Dist (m)		133.3			159.5			1149.6			178.1	
Turn Bay Length (m)							70.0		45.0	70.0		35.0
Base Capacity (vph)		1721			1844		783	2639	1192	741	2639	1191
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			0.03		0.05	0.14	0.04	0.01	0.12	0.01

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 53.2			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.14			
Intersection Signal Delay: 5.1		Intersection LOS: A	
Intersection Capacity Utilization 48.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 67: 32 Street & North Railway Street



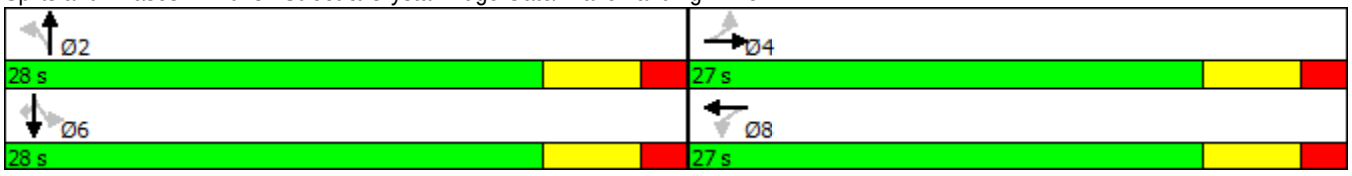


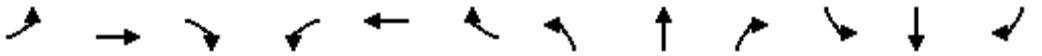
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	4	19	50	4	38	25	347	67	52	282	22
Future Volume (vph)	17	4	19	50	4	38	25	347	67	52	282	22
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		5.0	0.0		5.0	25.0		0.0	75.0		35.0
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (m)	2.5			2.5			5.0			35.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.936			0.944			0.976				0.850
Flt Protected		0.979			0.973		0.950			0.950		
Satd. Flow (prot)	0	1680	0	0	1684	0	1742	1790	0	1742	1834	1559
Flt Permitted		0.816			0.807		0.579			0.509		
Satd. Flow (perm)	0	1401	0	0	1397	0	1062	1790	0	933	1834	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			40			21				60
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		116.1			112.6			742.0			568.0	
Travel Time (s)		8.4			8.1			53.4			40.9	
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
Adj. Flow (vph)	18	4	20	53	4	40	26	365	71	55	297	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	42	0	0	97	0	26	436	0	55	297	23
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1		1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0		8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		2.0	2.0		2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		2.0	2.0		2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		6.0	2.0		6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0		20.0	20.0	20.0
Minimum Split (s)	27.0	27.0		27.0	27.0		26.0	26.0		26.0	26.0	26.0
Total Split (s)	27.0	27.0		27.0	27.0		28.0	28.0		28.0	28.0	28.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	49.1%	49.1%		49.1%	49.1%		50.9%	50.9%		50.9%	50.9%	50.9%
Maximum Green (s)	21.0	21.0		21.0	21.0		22.0	22.0		22.0	22.0	22.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		5.0	5.0	5.0
Recall Mode	None	None		None	None		Max	Max		Max	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	14.0	14.0		14.0	14.0		12.0	12.0		12.0	12.0	12.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	0
Act Effct Green (s)		10.0			10.0		31.6	31.6		31.6	31.6	31.6
Actuated g/C Ratio		0.22			0.22		0.71	0.71		0.71	0.71	0.71
v/c Ratio		0.13			0.28		0.03	0.34		0.08	0.23	0.02
Control Delay		10.8			12.2		5.8	6.4		6.0	5.9	0.7
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		10.8			12.2		5.8	6.4		6.0	5.9	0.7
LOS		B			B		A	A		A	A	A
Approach Delay		10.8			12.2			6.4			5.6	
Approach LOS		B			B			A			A	
Queue Length 50th (m)		1.5			4.1		0.9	18.3		2.0	12.0	0.0
Queue Length 95th (m)		6.6			12.2		3.4	34.9		6.0	23.2	0.9
Internal Link Dist (m)		92.1			88.6			718.0			544.0	
Turn Bay Length (m)							25.0			75.0		35.0
Base Capacity (vph)		673			681		753	1275		661	1301	1123
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		0.06			0.14		0.03	0.34		0.08	0.23	0.02

Intersection Summary			
Area Type:	Other		
Cycle Length: 55			
Actuated Cycle Length: 44.5			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.34			
Intersection Signal Delay: 6.9		Intersection LOS: A	
Intersection Capacity Utilization 62.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 70: 32 Street & Crystal Ridge Gate/Drake Landing Drive



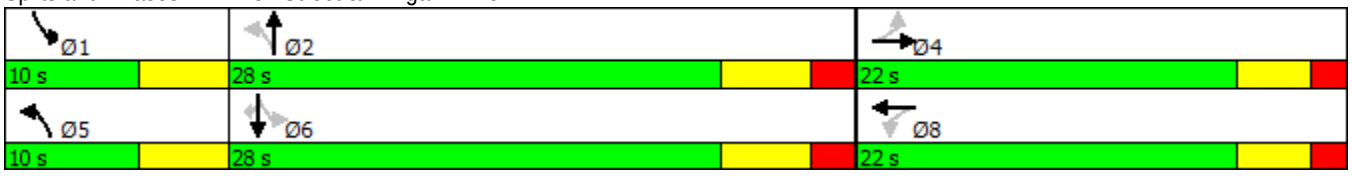


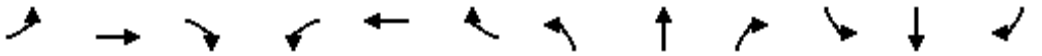
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	124	68	57	18	55	127	54	320	23	237	282	129
Future Volume (vph)	124	68	57	18	55	127	54	320	23	237	282	129
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	25.0		0.0	65.0		25.0
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (m)	2.5			2.5			5.0			35.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.905			0.990				0.850
Flt Protected		0.976			0.996		0.950			0.950		
Satd. Flow (prot)	0	3285	0	0	3141	0	1742	1816	0	1742	1834	1559
Flt Permitted		0.741			0.906		0.579			0.454		
Satd. Flow (perm)	0	2494	0	0	2857	0	1062	1816	0	833	1834	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		60			134			7				136
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		166.3			184.0			568.0			548.7	
Travel Time (s)		12.0			13.2			40.9			39.5	
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
Adj. Flow (vph)	131	72	60	19	58	134	57	337	24	249	297	136
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	263	0	0	211	0	57	361	0	249	297	136
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1		1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0		8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		2.0	2.0		2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		2.0	2.0		2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		6.0	2.0		6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		6.0	20.0		6.0	20.0	20.0
Minimum Split (s)	22.0	22.0		22.0	22.0		10.0	28.0		10.0	28.0	28.0
Total Split (s)	22.0	22.0		22.0	22.0		10.0	28.0		10.0	28.0	28.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	36.7%	36.7%		36.7%	36.7%		16.7%	46.7%		16.7%	46.7%	46.7%
Maximum Green (s)	17.0	17.0		17.0	17.0		6.0	22.0		6.0	22.0	22.0
Yellow Time (s)	3.3	3.3		3.3	3.3		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.7	1.7		1.7	1.7		0.0	2.0		0.0	2.0	2.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		5.0			5.0		4.0	6.0		4.0	6.0	6.0
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	5.0		3.0	5.0	5.0
Recall Mode	None	None		None	None		None	Max		None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Flash Dont Walk (s)	10.0	10.0		10.0	10.0			15.0			15.0	15.0
Pedestrian Calls (#/hr)	0	0		0	0			0			0	0
Act Effct Green (s)		10.9			10.9		30.0	22.0		31.7	26.1	26.1
Actuated g/C Ratio		0.20			0.20		0.56	0.41		0.59	0.48	0.48
v/c Ratio		0.48			0.31		0.09	0.48		0.42	0.33	0.17
Control Delay		17.7			9.0		4.6	14.5		7.2	11.7	3.2
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		17.7			9.0		4.6	14.5		7.2	11.7	3.2
LOS		B			A		A	B		A	B	A
Approach Delay		17.7			9.0			13.2			8.4	
Approach LOS		B			A			B			A	
Queue Length 50th (m)		9.1			3.2		1.6	23.2		8.0	18.7	0.0
Queue Length 95th (m)		17.7			10.2		5.3	46.6		18.7	38.0	8.1
Internal Link Dist (m)		142.3			160.0			544.0			524.7	
Turn Bay Length (m)							25.0			65.0		25.0
Base Capacity (vph)		828			993		667	745		590	887	824
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		0.32			0.21		0.09	0.48		0.42	0.33	0.17

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 53.9			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 11.3		Intersection LOS: B	
Intersection Capacity Utilization 65.5%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 74: 32 Street & Milligan Drive



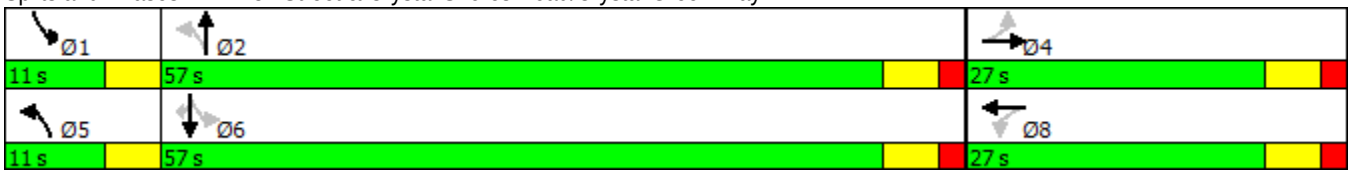


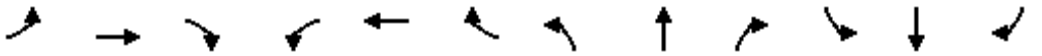
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	72	7	24	14	7	27	29	525	17	39	604	64
Future Volume (vph)	72	7	24	14	7	27	29	525	17	39	604	64
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	25.0		0.0	70.0		35.0
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (m)	2.5			2.5			5.0			35.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.965			0.916			0.995				0.850
Flt Protected		0.966			0.985		0.950			0.950		
Satd. Flow (prot)	0	3248	0	0	3144	0	1742	1825	0	1742	1834	1559
Flt Permitted		0.771			0.838		0.369			0.386		
Satd. Flow (perm)	0	2592	0	0	2675	0	677	1825	0	708	1834	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			28			3				80
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		87.7			95.5			548.7			1097.0	
Travel Time (s)		6.3			6.9			39.5			79.0	
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
Adj. Flow (vph)	76	7	25	15	7	28	31	553	18	41	636	67
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	108	0	0	50	0	31	571	0	41	636	67
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1		1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0		8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		2.0	2.0		2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		2.0	2.0		2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		6.0	2.0		6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		7.0	10.0		7.0	10.0	10.0
Minimum Split (s)	27.0	27.0		27.0	27.0		11.0	26.0		11.0	29.0	29.0
Total Split (s)	27.0	27.0		27.0	27.0		11.0	57.0		11.0	57.0	57.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	28.4%	28.4%		28.4%	28.4%		11.6%	60.0%		11.6%	60.0%	60.0%
Maximum Green (s)	21.0	21.0		21.0	21.0		7.0	51.0		7.0	51.0	51.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	2.0		0.0	2.0	2.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		4.0	6.0		4.0	6.0	6.0
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0	5.0		2.0	5.0	5.0
Recall Mode	None	None		None	None		None	Max		None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Flash Dont Walk (s)	14.0	14.0		14.0	14.0			13.0			16.0	16.0
Pedestrian Calls (#/hr)	0	0		0	0			0			0	0
Act Effct Green (s)		10.1			10.1		61.9	57.2		62.7	59.3	59.3
Actuated g/C Ratio		0.12			0.12		0.77	0.71		0.78	0.73	0.73
v/c Ratio		0.31			0.14		0.05	0.44		0.06	0.47	0.06
Control Delay		29.0			20.0		2.8	9.1		2.8	8.6	1.5
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		29.0			20.0		2.8	9.1		2.8	8.6	1.5
LOS		C			B		A	A		A	A	A
Approach Delay		29.0			20.0			8.8			7.6	
Approach LOS		C			B			A			A	
Queue Length 50th (m)		6.4			1.6		0.9	47.1		1.3	33.0	0.0
Queue Length 95th (m)		14.0			6.6		2.7	72.9		3.3	85.9	3.7
Internal Link Dist (m)		63.7			71.5			524.7			1073.0	
Turn Bay Length (m)							25.0			70.0		35.0
Base Capacity (vph)		694			718		611	1293		639	1346	1166
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		0.16			0.07		0.05	0.44		0.06	0.47	0.06

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 80.8			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.47			
Intersection Signal Delay: 10.0		Intersection LOS: B	
Intersection Capacity Utilization 54.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 77: 32 Street & Crystal Shores Road/Crystal Green Way

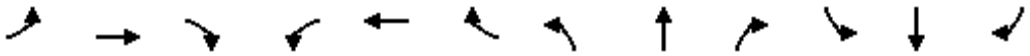




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	2	10	3	3	18	7	363	2	13	299	38
Future Volume (Veh/h)	56	2	10	3	3	18	7	363	2	13	299	38
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	59	2	11	3	3	19	7	382	2	14	315	40
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								372				
pX, platoon unblocked												
vC, conflicting volume	760	741	315	752	780	383	355			384		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	760	741	315	752	780	383	355			384		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	81	99	98	99	99	97	99			99		
cM capacity (veh/h)	307	338	725	316	321	664	1204			1174		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	60	12	4	20	7	384	14	315	40
Volume Left	59	0	3	0	7	0	14	0	0
Volume Right	0	11	0	19	0	2	0	0	40
cSH	308	662	318	616	1204	1700	1174	1700	1700
Volume to Capacity	0.20	0.02	0.01	0.03	0.01	0.23	0.01	0.19	0.02
Queue Length 95th (m)	5.4	0.4	0.3	0.8	0.1	0.0	0.3	0.0	0.0
Control Delay (s)	19.5	10.5	16.5	11.0	8.0	0.0	8.1	0.0	0.0
Lane LOS	C	B	C	B	A		A		
Approach Delay (s)	18.0		12.0		0.1		0.3		
Approach LOS	C		B						

Intersection Summary				
Average Delay	2.1			
Intersection Capacity Utilization	36.3%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	3	580	34	5	1	334	108	173	1	102	1
Future Volume (vph)	0	3	580	34	5	1	334	108	173	1	102	1
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
Hourly flow rate (vph)	0	3	611	36	5	1	352	114	182	1	107	1

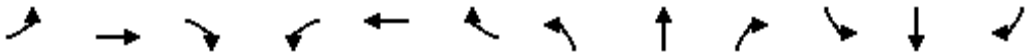
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	614	42	648	109
Volume Left (vph)	0	36	352	1
Volume Right (vph)	611	1	182	1
Hadj (s)	-0.56	0.19	-0.03	0.03
Departure Headway (s)	5.6	7.7	6.1	7.2
Degree Utilization, x	0.96	0.09	1.10	0.22
Capacity (veh/h)	637	449	590	488
Control Delay (s)	48.7	11.4	92.3	12.1
Approach Delay (s)	48.7	11.4	92.3	12.1
Approach LOS	E	B	F	B

Intersection Summary			
Delay	64.8		
Level of Service	F		
Intersection Capacity Utilization	86.1%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	193	171	18	123	158	29
Future Volume (Veh/h)	193	171	18	123	158	29
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	203	180	19	129	166	31
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						2
Median type	None			None		
Median storage veh)						
Upstream signal (m)	251					
pX, platoon unblocked						
vC, conflicting volume			383		396	192
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			383		396	192
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		71	96
cM capacity (veh/h)			1172		572	818

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NE 1
Volume Total	135	248	19	64	64	197
Volume Left	0	0	19	0	0	166
Volume Right	0	180	0	0	0	31
cSH	1700	1700	1172	1700	1700	679
Volume to Capacity	0.08	0.15	0.02	0.04	0.04	0.29
Queue Length 95th (m)	0.0	0.0	0.4	0.0	0.0	9.1
Control Delay (s)	0.0	0.0	8.1	0.0	0.0	13.2
Lane LOS			A			B
Approach Delay (s)	0.0		1.0			13.2
Approach LOS						B

Intersection Summary				
Average Delay	3.8			
Intersection Capacity Utilization	31.0%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	18	0	0	26	0	1045	74	0	1182	17
Future Volume (Veh/h)	0	0	18	0	0	26	0	1045	74	0	1182	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	0	0	19	0	0	27	0	1100	78	0	1244	18
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								166			50	
pX, platoon unblocked	0.89	0.89	0.80	0.89	0.89	0.82	0.80			0.82		
vC, conflicting volume	1830	2431	631	1780	2401	589	1262			1178		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	785	1460	41	728	1426	67	830			783		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	98	100	100	97	100			100		
cM capacity (veh/h)	244	114	817	270	119	808	639			683		

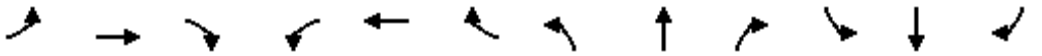
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	19	27	733	445	829	433
Volume Left	0	0	0	0	0	0
Volume Right	19	27	0	78	0	18
cSH	817	808	1700	1700	1700	1700
Volume to Capacity	0.02	0.03	0.43	0.26	0.49	0.25
Queue Length 95th (m)	0.5	0.8	0.0	0.0	0.0	0.0
Control Delay (s)	9.5	9.6	0.0	0.0	0.0	0.0
Lane LOS	A	A				
Approach Delay (s)	9.5	9.6	0.0		0.0	
Approach LOS	A	A				

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	44.1%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	14	53	50	25	18	10
Future Volume (Veh/h)	14	53	50	25	18	10
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	15	56	53	26	19	11
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						1
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	79				139	53
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	79				139	53
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				98	99
cM capacity (veh/h)	1519				846	1014

Direction, Lane #	SE 1	NW 1	NW 2	SW 1
Volume Total	71	53	26	30
Volume Left	15	0	0	19
Volume Right	0	0	26	11
cSH	1519	1700	1700	1335
Volume to Capacity	0.01	0.03	0.02	0.02
Queue Length 95th (m)	0.2	0.0	0.0	0.5
Control Delay (s)	1.6	0.0	0.0	9.1
Lane LOS	A			A
Approach Delay (s)	1.6	0.0		9.1
Approach LOS				A

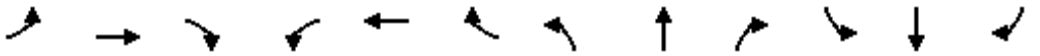
Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	20.3%	ICU Level of Service	A
Analysis Period (min)	15		



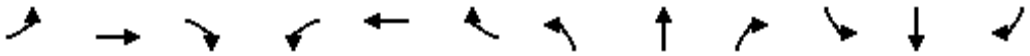
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	60	1	26	32	2	1	3	29	1	2	2
Future Volume (Veh/h)	2	60	1	26	32	2	1	3	29	1	2	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	2	63	1	27	34	2	1	3	31	1	2	2
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)									1			1
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	36			64			157	157	63	156	156	34
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	36			64			157	157	63	156	156	34
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			100	100	97	100	100	100
cM capacity (veh/h)	1575			1538			794	721	1002	771	722	1039

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	65	1	61	2	35	5
Volume Left	2	0	27	0	1	1
Volume Right	0	1	0	2	31	2
cSH	1575	1700	1538	1700	1131	1231
Volume to Capacity	0.00	0.00	0.02	0.00	0.03	0.00
Queue Length 95th (m)	0.0	0.0	0.4	0.0	0.7	0.1
Control Delay (s)	0.2	0.0	3.3	0.0	8.8	9.3
Lane LOS	A		A		A	A
Approach Delay (s)	0.2		3.2		8.8	9.3
Approach LOS					A	A

Intersection Summary				
Average Delay	3.4			
Intersection Capacity Utilization	20.0%	ICU Level of Service		A
Analysis Period (min)	15			



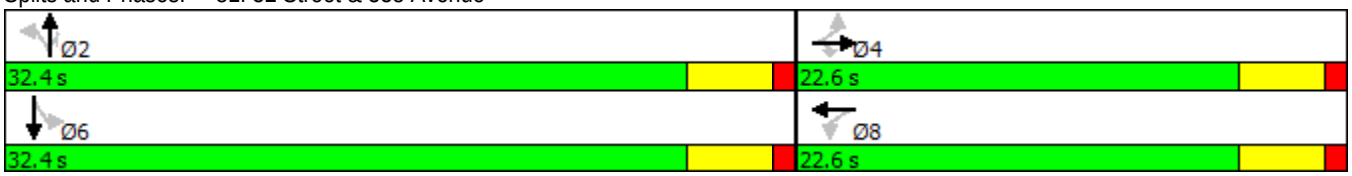
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	3	580	34	5	1	334	108	173	1	102	1
Future Volume (vph)	0	3	580	34	5	1	334	108	173	1	102	1
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		20.0	20.0		0.0	30.0		20.0	20.0		0.0
Storage Lanes	0		1	1		0	1		1	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	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		0.975				0.850		0.999	
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	0	1834	1559	1742	1788	0	1742	1834	1559	1742	1832	0
Flt Permitted				0.756			0.687			0.684		
Satd. Flow (perm)	0	1834	1559	1386	1788	0	1260	1834	1559	1254	1832	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			611		1				182		1	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		825.3			206.9			2201.8			98.4	
Travel Time (s)		59.4			14.9			158.5			7.1	
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
Adj. Flow (vph)	0	3	611	36	5	1	352	114	182	1	107	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	611	36	6	0	352	114	182	1	108	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	8.0	4.0	6.1	8.0	4.0		8.0	4.0	6.1	8.0	4.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	8.0	4.0	6.1	8.0	4.0		8.0	4.0	6.1	8.0	4.0	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		0.0			0.0			0.0			0.0	
Detector 2 Size(m)		0.0			0.0			0.0			0.0	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type		NA	Perm	Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2		2	6		

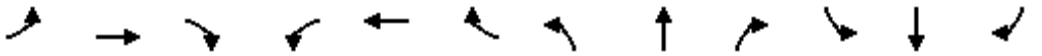


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (s)	22.6	22.6	22.6	22.6	22.6		32.4	32.4	32.4	32.4	32.4	
Total Split (%)	41.1%	41.1%	41.1%	41.1%	41.1%		58.9%	58.9%	58.9%	58.9%	58.9%	
Maximum Green (s)	18.1	18.1	18.1	18.1	18.1		27.9	27.9	27.9	27.9	27.9	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5	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	
Total Lost Time (s)		4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None		Max	Max	Max	Max	Max	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0	0	0	0	
Act Effct Green (s)		8.9	8.9	8.9	8.9		28.2	28.2	28.2	28.2	28.2	
Actuated g/C Ratio		0.19	0.19	0.19	0.19		0.61	0.61	0.61	0.61	0.61	
v/c Ratio		0.01	0.77	0.13	0.02		0.46	0.10	0.18	0.00	0.10	
Control Delay		13.3	9.2	15.5	12.8		8.7	5.4	1.8	6.0	5.3	
Queue Delay		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		13.3	9.2	15.5	12.8		8.7	5.4	1.8	6.0	5.3	
LOS		B	A	B	B		A	A	A	A	A	
Approach Delay		9.2			15.1			6.2			5.3	
Approach LOS		A			B			A			A	
Queue Length 50th (m)		0.2	0.0	2.4	0.3		9.9	2.5	0.0	0.0	2.3	
Queue Length 95th (m)		1.5	18.1	7.3	2.3		42.4	11.7	7.1	0.6	11.2	
Internal Link Dist (m)		801.3			182.9			2177.8			74.4	
Turn Bay Length (m)			20.0	20.0			30.0		20.0	20.0		
Base Capacity (vph)		725	986	548	708		769	1119	1022	765	1118	
Starvation Cap Reductn		0	0	0	0		0	0	0	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		0.00	0.62	0.07	0.01		0.46	0.10	0.18	0.00	0.10	

Intersection Summary			
Area Type:	Other		
Cycle Length: 55			
Actuated Cycle Length: 46.2			
Natural Cycle: 55			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 7.7		Intersection LOS: A	
Intersection Capacity Utilization 57.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 81: 32 Street & 338 Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	332	16	121	249	78	2	341	130	182	521	196
Future Volume (vph)	200	332	16	121	249	78	2	341	130	182	521	196
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	140.0		0.0	0.0		125.0	0.0		15.0	0.0		0.0
Storage Lanes	1		0	0		1	0		1	0		1
Taper Length (m)	100.0			30.0			2.5			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.993				0.850			0.850			0.850
Flt Protected	0.950				0.984						0.987	
Satd. Flow (prot)	1742	1821	0	0	1753	1514	0	1834	1559	0	1758	1514
Flt Permitted	0.142				0.752			0.998			0.685	
Satd. Flow (perm)	260	1821	0	0	1340	1514	0	1830	1559	0	1220	1514
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				113			67			171
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		184.9			244.8			155.1			150.7	
Travel Time (s)		13.3			17.6			11.2			10.9	
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 (%)	2%	2%	2%	5%	5%	5%	2%	2%	2%	5%	5%	5%
Adj. Flow (vph)	211	349	17	127	262	82	2	359	137	192	548	206
Shared Lane Traffic (%)												
Lane Group Flow (vph)	211	366	0	0	389	82	0	361	137	0	740	206
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1	1	1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	2.0	2.0		0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Detector 1 Position(m)	2.0	2.0		0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Detector 1 Size(m)	6.0	2.0		8.0	2.0	4.1	8.0	2.0	4.1	8.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA		Perm	NA	Free	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		Free	2		2	6		6
Detector Phase	7	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	7.0	15.0		15.0	15.0		12.0	12.0	12.0	12.0	12.0	12.0
Minimum Split (s)	11.5	21.5		21.5	21.5		17.5	17.5	17.5	17.5	17.5	17.5

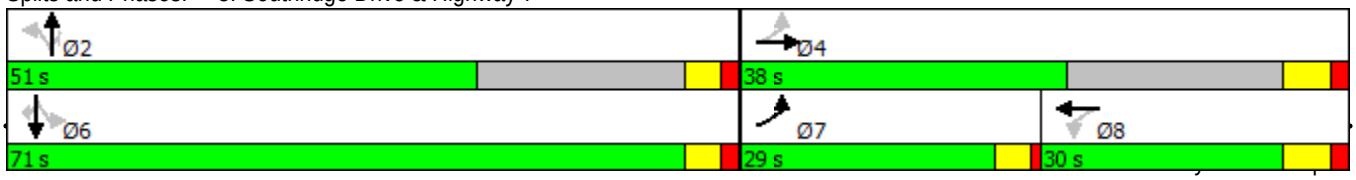
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	29.0	38.0		30.0	30.0		51.0	51.0	51.0	71.0	71.0	71.0
Total Split (%)	22.3%	29.2%		23.1%	23.1%		39.2%	39.2%	39.2%	54.6%	54.6%	54.6%
Maximum Green (s)	24.5	31.5		23.5	23.5		45.5	45.5	45.5	65.5	65.5	65.5
Yellow Time (s)	3.5	4.5		4.5	4.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	6.5			6.5			5.5	5.5		5.5	5.5
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	6.0		6.0	6.0		4.0	4.0	4.0	4.0	4.0	4.0
Recall Mode	None	None		None	None		None	None	None	None	None	None
Act Effct Green (s)	47.9	45.9			23.5	123.5		65.6	65.6		65.6	65.6
Actuated g/C Ratio	0.39	0.37			0.19	1.00		0.53	0.53		0.53	0.53
v/c Ratio	0.67	0.54			1.53	0.05		0.37	0.16		1.14	0.23
Control Delay	38.4	33.6			290.4	0.1		19.0	8.8		110.7	4.5
Queue Delay	0.0	0.0			0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	38.4	33.6			290.4	0.1		19.0	8.8		110.7	4.5
LOS	D	C			F	A		B	A		F	A
Approach Delay		35.3			239.9			16.2			87.6	
Approach LOS		D			F			B			F	
Queue Length 50th (m)	35.3	68.7			~131.7	0.0		49.2	8.0		~209.6	3.9
Queue Length 95th (m)	57.1	97.7			#203.8	0.0		78.8	20.1		#303.7	17.0
Internal Link Dist (m)		160.9			220.8			131.1			126.7	
Turn Bay Length (m)	140.0					125.0			15.0			
Base Capacity (vph)	395	776			255	1514		972	859		648	884
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	0.53	0.47			1.53	0.05		0.37	0.16		1.14	0.23

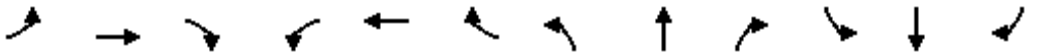
Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 123.5			
Natural Cycle: 110			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.53			
Intersection Signal Delay: 90.0		Intersection LOS: F	
Intersection Capacity Utilization 116.3%		ICU Level of Service 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: 3: Southridge Drive & Highway 7



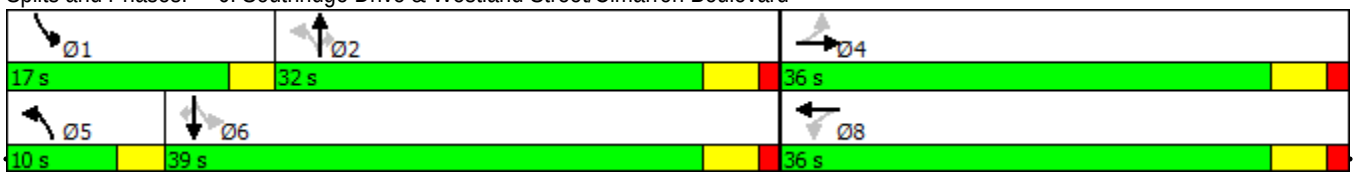


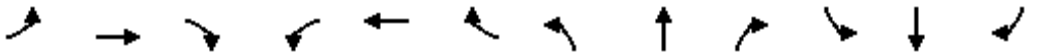
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	47	26	68	27	160	42	595	14	160	731	41
Future Volume (vph)	110	47	26	68	27	160	42	595	14	160	731	41
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	65.0		30.0	65.0		30.0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (m)	2.5			2.5			40.0			40.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.979			0.906				0.850			0.850
Flt Protected		0.971			0.987		0.950			0.950		
Satd. Flow (prot)	0	3350	0	0	3142	0	1759	3484	1590	1759	3451	1574
Flt Permitted		0.698			0.817		0.360			0.356		
Satd. Flow (perm)	0	2408	0	0	2600	0	667	3484	1590	659	3451	1574
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			168				103			64
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		101.4			236.7			314.2			471.7	
Travel Time (s)		7.3			17.0			22.6			34.0	
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%	6%	2%	0%	1%	1%	2%	0%	1%	3%	1%
Adj. Flow (vph)	116	49	27	72	28	168	44	626	15	168	769	43
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	192	0	0	268	0	44	626	15	168	769	43
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	36.0	36.0		36.0	36.0		10.0	29.0	29.0	10.0	29.0	29.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	36.0	36.0		36.0	36.0		10.0	32.0	32.0	17.0	39.0	39.0
Total Split (%)	42.4%	42.4%		42.4%	42.4%		11.8%	37.6%	37.6%	20.0%	45.9%	45.9%
Maximum Green (s)	31.0	31.0		31.0	31.0		7.0	27.0	27.0	14.0	34.0	34.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.5	3.5	3.0	3.5	3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		0.0	1.5	1.5	0.0	1.5	1.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0			5.0		3.0	5.0	5.0	3.0	5.0	5.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.5	5.0	5.0	2.5	5.0	5.0
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)	24.0	24.0		24.0	24.0			17.0	17.0		17.0	17.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)		10.9			10.9		39.8	30.7	30.7	41.9	35.5	35.5
Actuated g/C Ratio		0.18			0.18		0.64	0.49	0.49	0.67	0.57	0.57
v/c Ratio		0.44			0.45		0.08	0.36	0.02	0.29	0.39	0.05
Control Delay		24.0			12.4		3.5	10.5	0.1	4.7	9.1	1.7
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		24.0			12.4		3.5	10.5	0.1	4.7	9.1	1.7
LOS		C			B		A	B	A	A	A	A
Approach Delay		24.0			12.4			9.8			8.0	
Approach LOS		C			B			A			A	
Queue Length 50th (m)		9.6			5.5		1.2	20.3	0.0	4.7	26.4	0.0
Queue Length 95th (m)		18.2			14.8		3.8	35.1	0.0	11.3	42.2	2.7
Internal Link Dist (m)		77.4			212.7			290.2			447.7	
Turn Bay Length (m)							65.0		30.0	65.0		30.0
Base Capacity (vph)		1220			1388		551	1724	839	708	1972	927
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		0.16			0.19		0.08	0.36	0.02	0.24	0.39	0.05

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 62.1			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.45			
Intersection Signal Delay: 10.6		Intersection LOS: B	
Intersection Capacity Utilization 59.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 6: Southridge Drive & Westland Street/Cimarron Boulevard



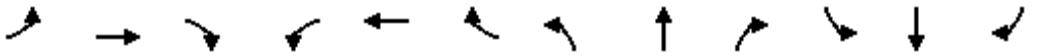


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	85	27	73	82	23	106	109	449	70	125	699	0
Future Volume (vph)	85	27	73	82	23	106	109	449	70	125	699	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	65.0		25.0	65.0		30.0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (m)	2.5			2.5			40.0			35.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.940			0.924				0.850			
Flt Protected		0.978			0.981		0.950			0.950		
Satd. Flow (prot)	0	3203	0	0	3158	0	1742	3484	1559	1742	3484	1834
Flt Permitted		0.748			0.778		0.309			0.481		
Satd. Flow (perm)	0	2450	0	0	2505	0	567	3484	1559	882	3484	1834
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		77			112				74			
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		76.3			64.1			157.7			314.2	
Travel Time (s)		5.5			4.6			11.4			22.6	
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
Adj. Flow (vph)	89	28	77	86	24	112	115	473	74	132	736	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	194	0	0	222	0	115	473	74	132	736	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		6.5	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	32.0	32.0		32.0	32.0		10.0	29.0	29.0	29.0	29.0	29.0
Total Split (s)	32.0	32.0		32.0	32.0		13.0	48.0	48.0	35.0	35.0	35.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	40.0%	40.0%		40.0%	40.0%		16.3%	60.0%	60.0%	43.8%	43.8%	43.8%
Maximum Green (s)	27.0	27.0		27.0	27.0		9.5	43.0	43.0	30.0	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	3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		0.0	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	0.0
Total Lost Time (s)		5.0			5.0		3.5	5.0	5.0	5.0	5.0	5.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.5	3.5		3.5	3.5		2.5	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		None	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	20.0	20.0		20.0	20.0			17.0	17.0	17.0	17.0	17.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0	0	0	0
Act Effct Green (s)		10.4			10.4		44.7	43.2	43.2	35.0	35.0	
Actuated g/C Ratio		0.16			0.16		0.70	0.68	0.68	0.55	0.55	
v/c Ratio		0.42			0.44		0.22	0.20	0.07	0.27	0.38	
Control Delay		17.5			15.3		4.2	4.1	1.3	10.8	9.7	
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		17.5			15.3		4.2	4.1	1.3	10.8	9.7	
LOS		B			B		A	A	A	B	A	
Approach Delay		17.5			15.3			3.8			9.8	
Approach LOS		B			B			A			A	
Queue Length 50th (m)		6.4			6.0		3.3	8.5	0.0	7.9	24.8	
Queue Length 95th (m)		14.6			14.6		7.8	14.5	3.1	19.5	39.8	
Internal Link Dist (m)		52.3			40.1			133.7			290.2	
Turn Bay Length (m)							65.0		25.0	65.0		
Base Capacity (vph)		1084			1127		573	2367	1083	485	1917	
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		0.18			0.20		0.20	0.20	0.07	0.27	0.38	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 63.6			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.44			
Intersection Signal Delay: 9.2		Intersection LOS: A	
Intersection Capacity Utilization 66.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 9: Southridge Drive & Westmount Road/Cimarron Common



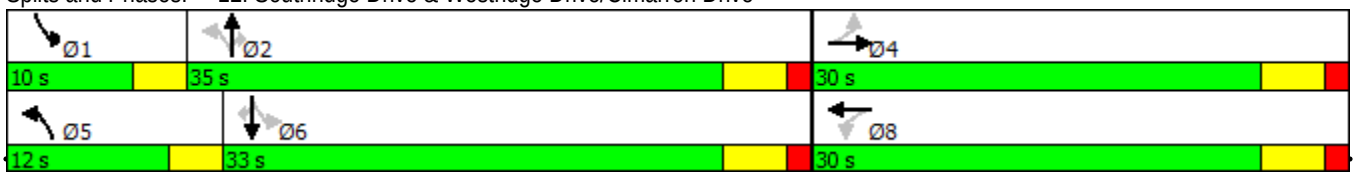
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	8	43	38	7	85	25	800	41	111	865	21
Future Volume (vph)	21	8	43	38	7	85	25	800	41	111	865	21
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	55.0		35.0	85.0		35.0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (m)	2.5			2.5			35.0			45.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.910			0.902				0.850			0.850
Flt Protected		0.986			0.986		0.950			0.950		
Satd. Flow (prot)	0	3151	0	0	3113	0	1777	3519	1590	1759	3484	1590
Flt Permitted		0.832			0.850		0.313			0.278		
Satd. Flow (perm)	0	2659	0	0	2684	0	585	3519	1590	515	3484	1590
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		45			89				73			73
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		74.9			163.4			471.7			250.2	
Travel Time (s)		5.4			11.8			34.0			18.0	
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%	2%	3%	0%	1%	0%	1%	0%	1%	2%	0%
Adj. Flow (vph)	22	8	45	40	7	89	26	842	43	117	911	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	75	0	0	136	0	26	842	43	117	911	22
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	30.0	30.0		30.0	30.0		10.0	25.0	25.0	10.0	25.0	25.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	30.0	30.0		30.0	30.0		12.0	35.0	35.0	10.0	33.0	33.0
Total Split (%)	40.0%	40.0%		40.0%	40.0%		16.0%	46.7%	46.7%	13.3%	44.0%	44.0%
Maximum Green (s)	25.0	25.0		25.0	25.0		9.0	30.0	30.0	7.0	28.0	28.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.5	3.5	3.0	3.5	3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		0.0	1.5	1.5	0.0	1.5	1.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0			5.0		3.0	5.0	5.0	3.0	5.0	5.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.5	3.5		3.5	3.5		3.5	5.0	5.0	3.5	5.0	5.0
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Walk Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Flash Dont Walk (s)	20.0	20.0		20.0	20.0			15.0	15.0		15.0	15.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)		10.1			10.1		41.1	34.8	34.8	42.8	40.6	40.6
Actuated g/C Ratio		0.17			0.17		0.71	0.60	0.60	0.74	0.70	0.70
v/c Ratio		0.15			0.25		0.05	0.40	0.04	0.22	0.37	0.02
Control Delay		12.4			11.1		3.0	9.5	1.2	4.0	6.2	0.0
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		12.4			11.1		3.0	9.5	1.2	4.0	6.2	0.0
LOS		B			B		A	A	A	A	A	A
Approach Delay		12.4			11.1			8.9			5.9	
Approach LOS		B			B			A			A	
Queue Length 50th (m)		1.4			2.3		0.7	29.5	0.0	3.2	19.2	0.0
Queue Length 95th (m)		6.2			8.7		2.2	42.1	2.1	6.7	46.7	0.1
Internal Link Dist (m)		50.9			139.4			447.7			226.2	
Turn Bay Length (m)							55.0		35.0	85.0		35.0
Base Capacity (vph)		1178			1213		615	2111	983	530	2438	1135
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			0.11		0.04	0.40	0.04	0.22	0.37	0.02

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 58
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.40
Intersection Signal Delay: 7.7 — Intersection LOS: A
Intersection Capacity Utilization 50.9% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 12: Southridge Drive & Westridge Drive/Cimarron Drive

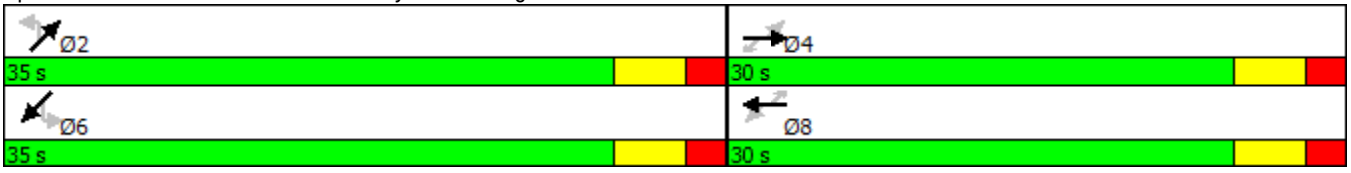


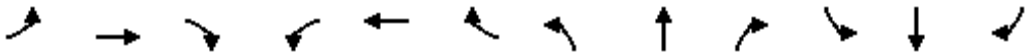
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	12	974	18	4	878	10	19	0	6	16	0	19
Future Volume (vph)	12	974	18	4	878	10	19	0	6	16	0	19
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	80.0		25.0	40.0		35.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (m)	25.0			50.0			2.5			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850			0.850		0.965			0.919	
Flt Protected	0.950			0.950				0.963			0.978	
Satd. Flow (prot)	1742	3484	1559	1742	3484	1559	0	3238	0	0	3132	0
Flt Permitted	0.309			0.279				0.955			0.955	
Satd. Flow (perm)	567	3484	1559	512	3484	1559	0	3211	0	0	3058	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			42			42		42			42	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		223.9			250.2			49.8			70.5	
Travel Time (s)		16.1			18.0			3.6			5.1	
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
Adj. Flow (vph)	13	1025	19	4	924	11	20	0	6	17	0	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	1025	19	4	924	11	0	26	0	0	37	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1	1	1	1	1	1	1		1	1	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0		8.0	4.0	
Trailing Detector (m)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0		0.0	2.0	
Detector 1 Position(m)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0		0.0	2.0	
Detector 1 Size(m)	6.0	2.0	4.1	6.0	2.0	4.1	8.0	2.0		8.0	2.0	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	29.5	29.5	29.5	29.5	29.5	29.5	34.5	34.5		34.5	34.5	
Total Split (s)	30.0	30.0	30.0	30.0	30.0	30.0	35.0	35.0		35.0	35.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Total Split (%)	46.2%	46.2%	46.2%	46.2%	46.2%	46.2%	53.8%	53.8%		53.8%	53.8%	
Maximum Green (s)	24.5	24.5	24.5	24.5	24.5	24.5	29.5	29.5		29.5	29.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5		5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0		5.0	5.0	
Recall Mode	Max	Max	Max	Max	Max	Max	None	None		None	None	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	17.0	17.0	17.0	17.0	17.0	17.0	22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	41.5	41.5	41.5	41.5	41.5	41.5		10.0			10.0	
Actuated g/C Ratio	0.91	0.91	0.91	0.91	0.91	0.91		0.22			0.22	
v/c Ratio	0.03	0.32	0.01	0.01	0.29	0.01		0.04			0.05	
Control Delay	2.9	2.4	1.0	3.0	2.2	0.3		4.6			6.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	2.9	2.4	1.0	3.0	2.2	0.3		4.6			6.0	
LOS	A	A	A	A	A	A		A			A	
Approach Delay		2.3			2.2			4.6			6.0	
Approach LOS		A			A			A			A	
Queue Length 50th (m)	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Queue Length 95th (m)	2.1	36.1	1.1	1.0	31.4	0.4		1.6			2.5	
Internal Link Dist (m)		199.9			226.2			25.8			46.5	
Turn Bay Length (m)	80.0		25.0	40.0		35.0						
Base Capacity (vph)	517	3175	1424	466	3175	1424		2099			2000	
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	0.03	0.32	0.01	0.01	0.29	0.01		0.01			0.02	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 45.5			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.32			
Intersection Signal Delay: 2.4		Intersection LOS: A	
Intersection Capacity Utilization 55.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 15: Centennial Way & Southridge Drive



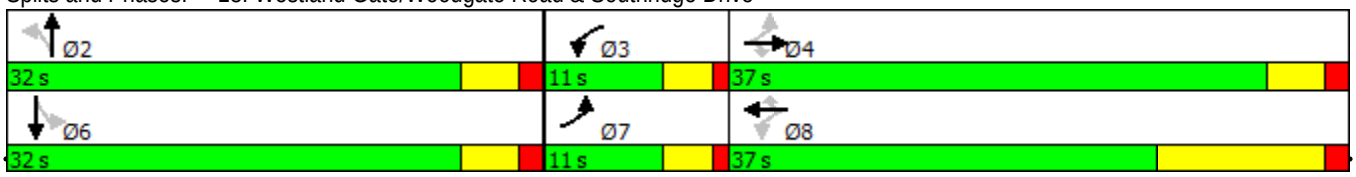


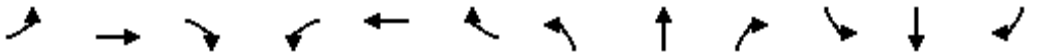
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	934	96	25	872	30	73	5	23	43	15	10
Future Volume (vph)	8	934	96	25	872	30	73	5	23	43	15	10
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	65.0		30.0	75.0		35.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (m)	25.0			30.0			2.5			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850			0.850		0.966			0.977	
Flt Protected	0.950			0.950				0.965			0.970	
Satd. Flow (prot)	1777	3519	1590	1742	3519	1544	0	3277	0	0	3317	0
Flt Permitted	0.311			0.237				0.758			0.762	
Satd. Flow (perm)	582	3519	1590	435	3519	1544	0	2574	0	0	2605	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82			82		24			11	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		334.8			223.9			57.4			61.2	
Travel Time (s)		24.1			16.1			4.1			4.4	
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 (%)	0%	1%	0%	2%	1%	3%	0%	14%	2%	0%	7%	0%
Adj. Flow (vph)	8	983	101	26	918	32	77	5	24	45	16	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	983	101	26	918	32	0	106	0	0	72	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1	1	1	1	1	1	1		1	1	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0		8.0	4.0	
Trailing Detector (m)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0		0.0	2.0	
Detector 1 Position(m)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0		0.0	2.0	
Detector 1 Size(m)	6.0	2.0	4.1	6.0	2.0	4.1	8.0	2.0		8.0	2.0	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	7	4	4	3	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	11.0	29.0	29.0	11.0	35.5	35.5	32.0	32.0		32.0	32.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	11.0	37.0	37.0	11.0	37.0	37.0	32.0	32.0		32.0	32.0	
Total Split (%)	13.8%	46.3%	46.3%	13.8%	46.3%	46.3%	40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	7.0	32.0	32.0	7.0	25.5	25.5	27.0	27.0		27.0	27.0	
Yellow Time (s)	3.0	3.5	3.5	3.0	10.0	10.0	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	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			0.0	
Total Lost Time (s)	4.0	5.0	5.0	4.0	11.5	11.5		5.0			5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	2.5	5.0	5.0	2.5	5.0	5.0	3.5	3.5		3.5	3.5	
Recall Mode	None	Max	Max	None	Max	Max	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		17.0	17.0		17.0	17.0	20.0	20.0		20.0	20.0	
Pedestrian Calls (#/hr)		0	0		0	0	0	0		0	0	
Act Effct Green (s)	40.9	38.4	38.4	41.7	35.4	35.4		10.1			10.1	
Actuated g/C Ratio	0.70	0.66	0.66	0.72	0.61	0.61		0.17			0.17	
v/c Ratio	0.01	0.42	0.09	0.06	0.43	0.03		0.23			0.16	
Control Delay	3.1	8.1	3.2	3.4	10.1	0.4		19.4			20.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	3.1	8.1	3.2	3.4	10.1	0.4		19.4			20.2	
LOS	A	A	A	A	B	A		B			C	
Approach Delay		7.6			9.6			19.4			20.2	
Approach LOS		A			A			B			C	
Queue Length 50th (m)	0.3	21.2	0.6	0.7	28.3	0.0		3.4			2.5	
Queue Length 95th (m)	1.1	52.9	6.9	2.3	61.1	0.7		10.5			8.2	
Internal Link Dist (m)		310.8			199.9			33.4			37.2	
Turn Bay Length (m)	65.0		30.0	75.0		35.0						
Base Capacity (vph)	554	2324	1078	469	2138	970		1217			1224	
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	0.01	0.42	0.09	0.06	0.43	0.03		0.09			0.06	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 58.2			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.43			
Intersection Signal Delay: 9.4		Intersection LOS: A	
Intersection Capacity Utilization 49.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 18: Westland Gate/Woodgate Road & Southridge Drive





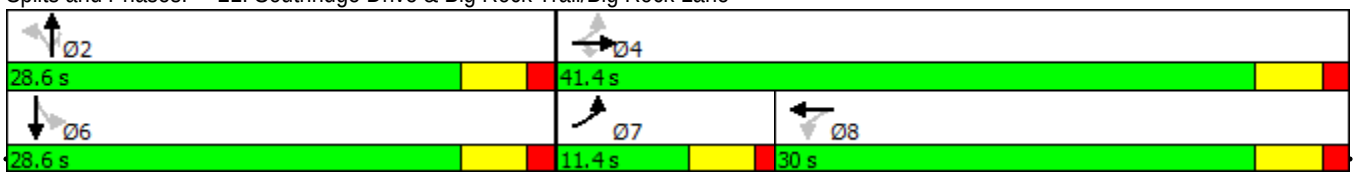
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	2	30	21	3	26	60	880	20	22	1018	101
Future Volume (vph)	68	2	30	21	3	26	60	880	20	22	1018	101
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		30.0	0.0		0.0	85.0		10.0	65.0		35.0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (m)	2.5			2.5			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850		0.865				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1709	1871	1559	1777	1589	0	1742	3484	1590	1777	3484	1529
Flt Permitted	0.494						0.222			0.275		
Satd. Flow (perm)	889	1871	1559	1871	1589	0	407	3484	1590	514	3484	1529
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			31		27				101			179
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		162.5			89.1			334.8			253.8	
Travel Time (s)		11.7			6.4			24.1			18.3	
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 (%)	4%	0%	2%	0%	0%	2%	2%	2%	0%	0%	2%	4%
Adj. Flow (vph)	72	2	32	22	3	27	63	926	21	23	1072	106
Shared Lane Traffic (%)												
Lane Group Flow (vph)	72	2	32	22	30	0	63	926	21	23	1072	106
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1	1	1	1		1	1	1	1	1	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0	6.1	8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	6.0	2.0	4.1	6.0	2.0		6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA	Perm	Perm	NA		Perm	NA	Perm	Perm	NA	Free
Protected Phases	7	4			8			2			6	
Permitted Phases	4		4	8			2		2	6		Free
Detector Phase	7	4	4	8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0		20.0	20.0	20.0	20.0	20.0	
Minimum Split (s)	9.5	30.0	30.0	30.0	30.0		27.0	27.0	27.0	27.0	27.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	11.4	41.4	41.4	30.0	30.0		28.6	28.6	28.6	28.6	28.6	
Total Split (%)	16.3%	59.1%	59.1%	42.9%	42.9%		40.9%	40.9%	40.9%	40.9%	40.9%	
Maximum Green (s)	6.9	36.4	36.4	25.0	25.0		23.6	23.6	23.6	23.6	23.6	
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	1.5	1.5	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	0.0	0.0	0.0	
Total Lost Time (s)	4.5	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		5.0	5.0	5.0	5.0	5.0	
Recall Mode	None	None	None	None	None		Max	Max	Max	Max	Max	
Walk Time (s)		5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)		20.0	20.0	20.0	20.0		17.0	17.0	17.0	17.0	17.0	
Pedestrian Calls (#/hr)		0	0	0	0		0	0	0	0	0	
Act Effct Green (s)	12.6	14.2	14.2	10.1	10.1		34.1	34.1	34.1	34.1	34.1	49.3
Actuated g/C Ratio	0.26	0.29	0.29	0.20	0.20		0.69	0.69	0.69	0.69	0.69	1.00
v/c Ratio	0.21	0.00	0.07	0.06	0.09		0.22	0.38	0.02	0.06	0.45	0.07
Control Delay	13.6	11.0	5.3	18.8	10.1		12.3	8.3	0.1	9.5	8.9	0.1
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	13.6	11.0	5.3	18.8	10.1		12.3	8.3	0.1	9.5	8.9	0.1
LOS	B	B	A	B	B		B	A	A	A	A	A
Approach Delay		11.1			13.8			8.4			8.2	
Approach LOS		B			B			A			A	
Queue Length 50th (m)	5.3	0.2	0.1	1.6	0.2		2.2	19.6	0.0	0.7	24.1	0.0
Queue Length 95th (m)	10.6	1.1	4.0	6.5	5.7		13.0	51.5	0.0	5.0	62.7	0.0
Internal Link Dist (m)		138.5			65.1			310.8			229.8	
Turn Bay Length (m)			30.0				85.0		10.0	65.0		35.0
Base Capacity (vph)	363	1395	1170	958	827		281	2406	1129	355	2406	1529
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	0.20	0.00	0.03	0.02	0.04		0.22	0.38	0.02	0.06	0.45	0.07

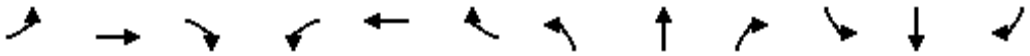
Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 49.3
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.45
Intersection Signal Delay: 8.5 — Intersection LOS: A
Intersection Capacity Utilization 68.6% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 21: Southridge Drive & Big Rock Trail/Big Rock Lane



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	158	9	7	11	7	91	14	951	12	144	1115	188
Future Volume (vph)	158	9	7	11	7	91	14	951	12	144	1115	188
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	65.0		30.0	75.0		30.0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (m)	2.5			2.5			35.0			30.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.994			0.875				0.850			0.850
Flt Protected		0.956			0.995		0.950			0.950		
Satd. Flow (prot)	0	3311	0	0	3034	0	1742	3484	1559	1742	3484	1559
Flt Permitted		0.701			0.911		0.229			0.228		
Satd. Flow (perm)	0	2428	0	0	2777	0	420	3484	1559	418	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			96				79			112
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		89.2			93.8			253.8			302.8	
Travel Time (s)		6.4			6.8			18.3			21.8	
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
Adj. Flow (vph)	166	9	7	12	7	96	15	1001	13	152	1174	198
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	182	0	0	115	0	15	1001	13	152	1174	198
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		0.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		0.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		8.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	36.0	36.0		36.0	36.0		10.0	29.0	29.0	10.0	29.0	29.0
Total Split (s)	36.0	36.0		36.0	36.0		10.0	52.0	52.0	22.0	64.0	64.0

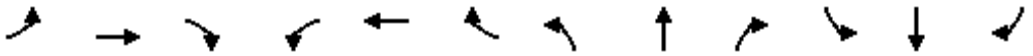


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	32.7%	32.7%		32.7%	32.7%		9.1%	47.3%	47.3%	20.0%	58.2%	58.2%
Maximum Green (s)	31.0	31.0		31.0	31.0		7.0	47.0	47.0	19.0	59.0	59.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.5	3.5	3.0	3.5	3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		0.0	1.5	1.5	0.0	1.5	1.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0			5.0		3.0	5.0	5.0	3.0	5.0	5.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.5	5.0	5.0	2.5	5.0	5.0
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)	24.0	24.0		24.0	24.0			17.0	17.0		17.0	17.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)		12.0			12.0		59.6	50.6	50.6	62.8	59.3	59.3
Actuated g/C Ratio		0.14			0.14		0.72	0.61	0.61	0.76	0.71	0.71
v/c Ratio		0.90dl			0.24		0.04	0.47	0.01	0.35	0.47	0.17
Control Delay		38.0			11.3		3.1	10.1	0.0	5.2	6.7	2.8
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		38.0			11.3		3.1	10.1	0.0	5.2	6.7	2.8
LOS		D			B		A	B	A	A	A	A
Approach Delay		38.0			11.3			9.8			6.0	
Approach LOS		D			B			A			A	
Queue Length 50th (m)		13.4			1.3		0.4	39.2	0.0	4.6	29.7	2.9
Queue Length 95th (m)		26.0			8.9		1.9	63.4	0.0	11.1	75.3	14.0
Internal Link Dist (m)		65.2			69.8			229.8			278.8	
Turn Bay Length (m)							65.0		30.0	75.0		30.0
Base Capacity (vph)		912			1100		413	2121	980	621	2484	1143
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			0.10		0.04	0.47	0.01	0.24	0.47	0.17

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 83.1			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.51			
Intersection Signal Delay: 9.7		Intersection LOS: A	
Intersection Capacity Utilization 64.8%		ICU Level of Service C	
Analysis Period (min) 15			

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

Splits and Phases: 24: Southridge Drive & Hunters Gate/Woodhaven Drive

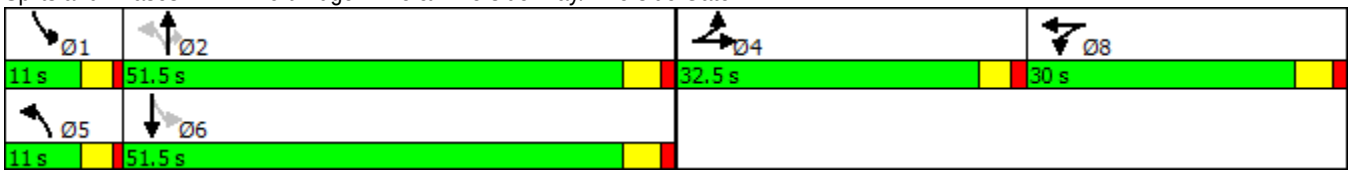


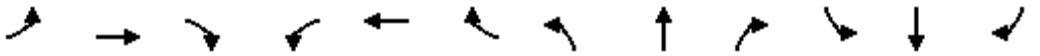
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	1	20	84	5	20	16	1169	15	12	1343	26
Future Volume (vph)	55	1	20	84	5	20	16	1169	15	12	1343	26
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	65.0		35.0	65.0		0.0
Storage Lanes	0		0	1		0	1		1	1		0
Taper Length (m)	2.5			2.5			40.0			40.0		
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		0.965			0.879				0.850		0.997	
Flt Protected		0.965		0.950			0.950			0.950		
Satd. Flow (prot)	0	1708	0	1742	1612	0	1742	3484	1559	1742	3474	0
Flt Permitted		0.965		0.950			0.106			0.168		
Satd. Flow (perm)	0	1708	0	1742	1612	0	194	3484	1559	308	3474	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			21				92		2	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		139.0			152.6			167.8			156.1	
Travel Time (s)		10.0			11.0			12.1			11.2	
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
Adj. Flow (vph)	58	1	21	88	5	21	17	1231	16	13	1414	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	80	0	88	26	0	17	1231	16	13	1441	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1	1	1	1	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	
Trailing Detector (m)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Detector 1 Position(m)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Detector 1 Size(m)	6.0	2.0		6.0	2.0		6.0	2.0	4.1	6.0	2.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turn Type	Split	NA		Split	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases							2		2	6		
Detector Phase	4	4		8	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		10.0	10.0		7.0	20.0	20.0	7.0	20.0	
Minimum Split (s)	32.5	32.5		30.0	30.0		11.0	27.0	27.0	11.0	27.0	
Total Split (s)	32.5	32.5		30.0	30.0		11.0	51.5	51.5	11.0	51.5	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	26.0%	26.0%		24.0%	24.0%		8.8%	41.2%	41.2%	8.8%	41.2%	
Maximum Green (s)	28.0	28.0		25.0	25.0		7.0	46.5	46.5	7.0	46.5	
Yellow Time (s)	3.0	3.0		3.5	3.5		3.0	3.5	3.5	3.0	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.0	1.5	1.5	1.0	1.5	
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		5.0	5.0		4.0	5.0	5.0	4.0	5.0	
Lead/Lag							Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	5.0	5.0	2.5	5.0	
Recall Mode	None	None		None	None		None	Max	Max	None	Max	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0		7.0	
Flash Dont Walk (s)	21.0	21.0		18.0	18.0			15.0	15.0		15.0	
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	
Act Effct Green (s)		8.6		10.9	10.9		55.3	54.3	54.3	54.6	52.3	
Actuated g/C Ratio		0.10		0.13	0.13		0.67	0.66	0.66	0.66	0.63	
v/c Ratio		0.42		0.39	0.11		0.06	0.54	0.02	0.04	0.65	
Control Delay		39.6		41.5	19.4		7.6	12.8	0.0	7.4	16.8	
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		39.6		41.5	19.4		7.6	12.8	0.0	7.4	16.8	
LOS		D		D	B		A	B	A	A	B	
Approach Delay		39.6			36.5			12.6			16.7	
Approach LOS		D			D			B			B	
Queue Length 50th (m)		9.6		12.3	0.7		0.9	55.7	0.0	0.7	71.8	
Queue Length 95th (m)		25.3		29.9	8.2		3.7	120.0	0.0	3.1	154.2	
Internal Link Dist (m)		115.0			128.6			143.8			132.1	
Turn Bay Length (m)							65.0		35.0	65.0		
Base Capacity (vph)		597		536	511		263	2290	1056	327	2201	
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		0.16	0.05		0.06	0.54	0.02	0.04	0.65	

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 82.6			
Natural Cycle: 125			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 16.3		Intersection LOS: B	
Intersection Capacity Utilization 58.0%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 27: Northridge Drive & Riverside Way/Riverside Gate



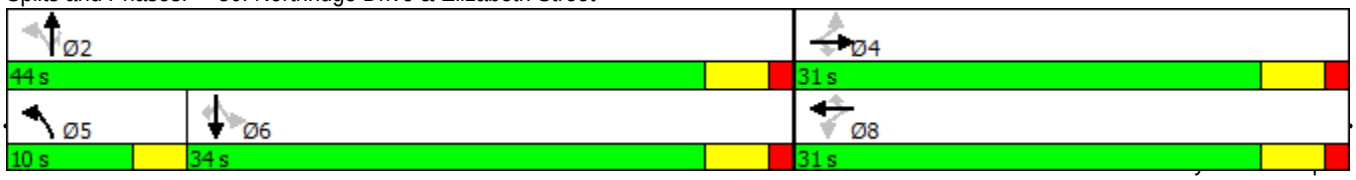


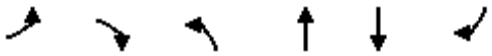
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	64	259	17	18	15	248	962	14	9	1118	37
Future Volume (vph)	44	64	259	17	18	15	248	962	14	9	1118	37
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	65.0		40.0	65.0		50.0
Storage Lanes	0		1	0		1	1		1	1		1
Taper Length (m)	30.0			30.0			30.0			15.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected		0.980			0.976		0.950			0.950		
Satd. Flow (prot)	0	1797	1559	0	1790	1559	1742	3484	1559	1742	3484	1559
Flt Permitted		0.854			0.832		0.134			0.283		
Satd. Flow (perm)	0	1566	1559	0	1526	1559	246	3484	1559	519	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			226			73			29			73
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		52.8			64.7			59.6			709.4	
Travel Time (s)		3.8			4.7			4.3			51.1	
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
Adj. Flow (vph)	46	67	273	18	19	16	261	1013	15	9	1177	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	113	273	0	37	16	261	1013	15	9	1177	39
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1	1	1	1	1	1	1	1	1	1	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0	6.1	8.0	2.0	6.1	6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	5	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	10.0	31.0	31.0	31.0	31.0	31.0
Total Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	10.0	44.0	44.0	34.0	34.0	34.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	41.3%	41.3%	41.3%	41.3%	41.3%	41.3%	13.3%	58.7%	58.7%	45.3%	45.3%	45.3%
Maximum Green (s)	26.0	26.0	26.0	26.0	26.0	26.0	7.0	39.0	39.0	29.0	29.0	29.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.0	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	0.0	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	0.0	0.0	0.0
Total Lost Time (s)		5.0	5.0		5.0	5.0	3.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Vehicle Extension (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None	None	None	None	None	None	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	19.0	19.0	19.0	19.0	19.0	19.0		19.0	19.0	19.0	19.0	19.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0	0	0	0	0
Act Effct Green (s)		10.8	10.8		10.8	10.8	41.0	39.0	39.0	29.0	29.0	29.0
Actuated g/C Ratio		0.18	0.18		0.18	0.18	0.69	0.65	0.65	0.48	0.48	0.48
v/c Ratio		0.40	0.59		0.14	0.05	0.76	0.45	0.01	0.04	0.70	0.05
Control Delay		26.3	11.4		21.7	0.3	25.4	6.0	1.2	9.2	14.9	1.3
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		26.3	11.4		21.7	0.3	25.4	6.0	1.2	9.2	14.9	1.3
LOS		C	B		C	A	C	A	A	A	B	A
Approach Delay		15.8			15.2			9.9			14.5	
Approach LOS		B			B			A			B	
Queue Length 50th (m)		11.1	4.4		3.5	0.0	9.1	22.2	0.0	0.5	47.5	0.0
Queue Length 95th (m)		23.4	21.8		10.0	0.0	#45.6	39.2	1.1	2.6	76.0	1.9
Internal Link Dist (m)		28.8			40.7			35.6			685.4	
Turn Bay Length (m)							65.0		40.0	65.0		50.0
Base Capacity (vph)		681	805		663	719	343	2273	1027	252	1690	794
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	0.34		0.06	0.02	0.76	0.45	0.01	0.04	0.70	0.05

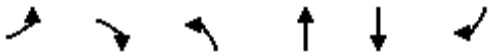
Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 59.8			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 12.6		Intersection LOS: B	
Intersection Capacity Utilization 70.1%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 30: Northridge Drive & Elizabeth Street





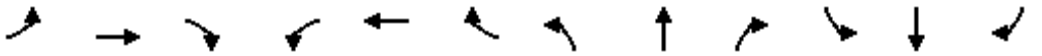
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	100	102	82	974	1076	58
Future Volume (vph)	100	102	82	974	1076	58
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0	0.0	70.0			35.0
Storage Lanes	1	1	1			1
Taper Length (m)	40.0		30.0			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1742	1559	1742	3484	3484	1559
Flt Permitted	0.950		0.165			
Satd. Flow (perm)	1742	1559	303	3484	3484	1559
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		107				28
Link Speed (k/h)	50			50	50	
Link Distance (m)	120.4			709.4	306.5	
Travel Time (s)	8.7			51.1	22.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	105	107	86	1025	1133	61
Shared Lane Traffic (%)						
Lane Group Flow (vph)	105	107	86	1025	1133	61
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24	14	24			14
Number of Detectors	1	1	1	1	1	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (m)	8.0	6.1	8.0	4.0	4.0	6.1
Trailing Detector (m)	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	6.0	4.1	6.0	2.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Prot	Perm	pm+pt	NA	NA	Free
Protected Phases	4		5	2	6	
Permitted Phases		4	2			Free
Detector Phase	4	4	5	2	6	
Switch Phase						
Minimum Initial (s)	1.0	1.0	5.0	20.0	20.0	
Minimum Split (s)	32.0	32.0	9.5	26.0	32.0	
Total Split (s)	32.0	32.0	9.5	43.0	33.5	



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Total Split (%)	42.7%	42.7%	12.7%	57.3%	44.7%	
Maximum Green (s)	26.0	26.0	5.0	37.0	27.5	
Yellow Time (s)	4.0	4.0	3.5	4.0	4.0	
All-Red Time (s)	2.0	2.0	1.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	4.5	6.0	6.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	Max	
Walk Time (s)	5.0	5.0				
Flash Dont Walk (s)	21.0	21.0				
Pedestrian Calls (#/hr)	0	0				
Act Effct Green (s)	8.5	8.5	40.0	39.9	32.6	56.4
Actuated g/C Ratio	0.15	0.15	0.71	0.71	0.58	1.00
v/c Ratio	0.40	0.33	0.25	0.42	0.56	0.04
Control Delay	26.8	8.4	5.6	5.7	12.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.8	8.4	5.6	5.7	12.4	0.1
LOS	C	A	A	A	B	A
Approach Delay	17.5			5.7	11.7	
Approach LOS	B			A	B	
Queue Length 50th (m)	10.2	0.0	2.5	23.5	45.0	0.0
Queue Length 95th (m)	21.9	10.4	7.1	40.4	71.3	0.0
Internal Link Dist (m)	96.4			685.4	282.5	
Turn Bay Length (m)			70.0			35.0
Base Capacity (vph)	807	780	343	2464	2010	1559
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	0.13	0.14	0.25	0.42	0.56	0.04

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 56.4			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.56			
Intersection Signal Delay: 9.6		Intersection LOS: A	
Intersection Capacity Utilization 54.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 33: Northridge Drive & Sandstone Gate

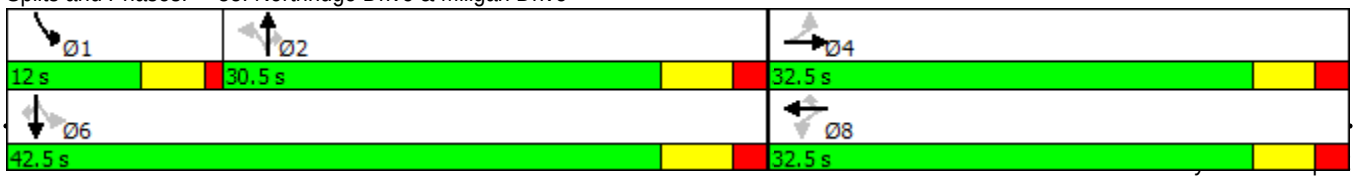


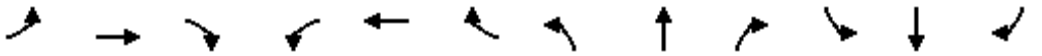
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	85	188	31	104	151	86	829	117	229	915	82
Future Volume (vph)	38	85	188	31	104	151	86	829	117	229	915	82
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		10.0	60.0		40.0	70.0		30.0	100.0		35.0
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (m)	2.5			30.0			30.0			35.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.897				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1742	1645	0	1742	3484	1559	1742	3484	1559	1742	3484	1559
Flt Permitted	0.683			0.436			0.297			0.197		
Satd. Flow (perm)	1253	1645	0	800	3484	1559	545	3484	1559	361	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		78				159			102			86
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		39.6			245.7			306.5			628.2	
Travel Time (s)		2.9			17.7			22.1			45.2	
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
Adj. Flow (vph)	40	89	198	33	109	159	91	873	123	241	963	86
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	287	0	33	109	159	91	873	123	241	963	86
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1	1	1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		6.0	2.0	4.1	6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Detector Phase	4	4		8	8	8	2	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	10.0	20.0	20.0	20.0	5.0	20.0	20.0
Minimum Split (s)	32.5	32.5		32.5	32.5	32.5	30.0	30.0	30.0	9.5	30.0	30.0
Total Split (s)	32.5	32.5		32.5	32.5	32.5	30.5	30.5	30.5	12.0	42.5	42.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	43.3%	43.3%		43.3%	43.3%	43.3%	40.7%	40.7%	40.7%	16.0%	56.7%	56.7%
Maximum Green (s)	27.0	27.0		27.0	27.0	27.0	24.5	24.5	24.5	7.5	36.5	36.5
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	4.0	4.0	4.0	3.5	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	1.0	2.0	2.0
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)	5.5	5.5		5.5	5.5	5.5	6.0	6.0	6.0	4.5	6.0	6.0
Lead/Lag							Lag	Lag	Lag	Lead		
Lead-Lag Optimize?							Yes	Yes	Yes	Yes		
Vehicle Extension (s)	3.5	3.5		3.5	3.5	3.5	5.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None		None	None	None	Max	Max	Max	None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0
Flash Dont Walk (s)	20.0	20.0		20.0	20.0	20.0	17.0	17.0	17.0		17.0	17.0
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0	0		0	0
Act Effct Green (s)	14.3	14.3		14.3	14.3	14.3	24.6	24.6	24.6	38.2	36.7	36.7
Actuated g/C Ratio	0.23	0.23		0.23	0.23	0.23	0.39	0.39	0.39	0.61	0.59	0.59
v/c Ratio	0.14	0.66		0.18	0.14	0.33	0.43	0.64	0.18	0.62	0.47	0.09
Control Delay	19.7	23.2		21.2	18.9	5.7	23.2	18.7	5.6	15.5	9.0	2.3
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	19.7	23.2		21.2	18.9	5.7	23.2	18.7	5.6	15.5	9.0	2.3
LOS	B	C		C	B	A	C	B	A	B	A	A
Approach Delay		22.8			12.2			17.6			9.8	
Approach LOS		C			B			B			A	
Queue Length 50th (m)	3.7	21.3		3.1	5.2	0.0	7.2	40.4	1.4	10.5	28.5	0.0
Queue Length 95th (m)	10.1	42.3		9.1	10.4	11.4	22.6	69.0	11.3	#31.1	53.8	5.3
Internal Link Dist (m)		15.6			221.7			282.5			604.2	
Turn Bay Length (m)				60.0		40.0	70.0		30.0	100.0		35.0
Base Capacity (vph)	543	757		347	1511	766	214	1371	675	386	2043	949
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	0.07	0.38		0.10	0.07	0.21	0.43	0.64	0.18	0.62	0.47	0.09

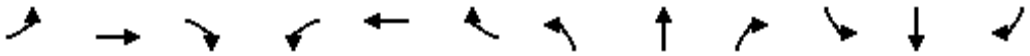
Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 62.5			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 14.2		Intersection LOS: B	
Intersection Capacity Utilization 83.7%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 35: Northridge Drive & Miligan Drive





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	231	1	1	0	3	612	0	1221	0	708	1449	301
Future Volume (vph)	231	1	1	0	3	612	0	1221	0	708	1449	301
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	45.0		0.0	0.0		40.0	155.0		165.0	170.0		150.0
Storage Lanes	1		1	0		1	1		1	1		1
Taper Length (m)	15.0			2.5			70.0			80.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1742	1871	1544	0	1716	909	1834	3484	1716	1725	3451	1472
Flt Permitted	0.756									0.073		
Satd. Flow (perm)	1386	1871	1544	0	1716	909	1834	3484	1716	133	3451	1472
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			47			397						317
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		467.6			1300.7			211.3			197.6	
Travel Time (s)		33.7			93.7			15.2			14.2	
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 (%)	2%	0%	3%	17%	9%	75%	2%	2%	9%	3%	3%	8%
Adj. Flow (vph)	243	1	1	0	3	644	0	1285	0	745	1525	317
Shared Lane Traffic (%)												
Lane Group Flow (vph)	243	1	1	0	3	644	0	1285	0	745	1525	317
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1	1	1	1	1	1	1	1	1	1	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	2.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	2.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	6.0	2.0	4.1	8.0	2.0	4.1	6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA	Perm		NA	Free	Perm	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases	4		4	8		Free	2		2	6		6
Detector Phase	4	4	4	8	8		2	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		20.0	20.0	20.0	5.0	20.0	20.0
Minimum Split (s)	45.0	45.0	45.0	45.0	45.0		26.0	26.0	26.0	9.5	44.5	44.5



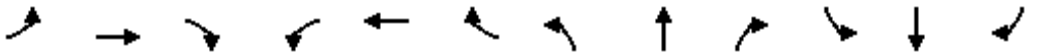
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	45.0	45.0	45.0	45.0	45.0		57.0	57.0	57.0	48.0	105.0	105.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	30.0%		38.0%	38.0%	38.0%	32.0%	70.0%	70.0%
Maximum Green (s)	39.0	39.0	39.0	39.0	39.0		51.0	51.0	51.0	44.5	99.0	99.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		4.0	4.0	4.0	3.5	4.0	4.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5		2.0	2.0	2.0	0.0	2.0	2.0
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)	6.0	6.0	6.0		6.0		6.0	6.0	6.0	3.5	6.0	6.0
Lead/Lag							Lag	Lag	Lag	Lead		
Lead-Lag Optimize?							Yes	Yes	Yes	Yes		
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5		5.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None	None	None	None		Max	Max	Max	None	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0		7.0	7.0
Flash Dont Walk (s)	32.0	32.0	32.0	32.0	32.0		11.0	11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0	0		0	0
Act Effct Green (s)	29.3	29.3	29.3		29.3	140.6		51.1		101.8	99.3	99.3
Actuated g/C Ratio	0.21	0.21	0.21		0.21	1.00		0.36		0.72	0.71	0.71
v/c Ratio	0.84	0.00	0.00		0.01	0.71		1.02		1.24	0.63	0.28
Control Delay	78.0	42.0	0.0		42.0	4.6		73.2		156.8	13.2	1.5
Queue Delay	0.0	0.0	0.0		0.0	0.0		5.1		0.0	0.0	0.0
Total Delay	78.0	42.0	0.0		42.0	4.6		78.3		156.8	13.2	1.5
LOS	E	D	A		D	A		E		F	B	A
Approach Delay		77.6			4.8			78.3			53.1	
Approach LOS		E			A			E			D	
Queue Length 50th (m)	65.3	0.2	0.0		0.7	0.0		~199.1		~242.9	109.0	0.0
Queue Length 95th (m)	96.8	1.8	0.0		3.4	0.0		#267.6		#349.1	159.4	9.9
Internal Link Dist (m)		443.6			1276.7			187.3			173.6	
Turn Bay Length (m)	45.0					40.0				170.0		150.0
Base Capacity (vph)	385	520	463		477	909		1266		601	2436	1132
Starvation Cap Reductn	0	0	0		0	0		20		0	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	0.63	0.00	0.00		0.01	0.71		1.03		1.24	0.63	0.28

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 140.6			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.24			
Intersection Signal Delay: 54.6		Intersection LOS: D	
Intersection Capacity Utilization 108.1%		ICU Level of Service G	
Analysis Period (min) 15			

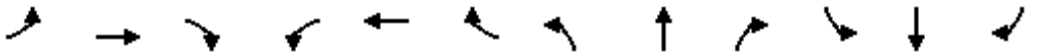
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Splits and Phases: 38: Northridge Drive & 338 Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	192	53	20	60	57	89	5	971	44	86	1135	219
Future Volume (vph)	192	53	20	60	57	89	5	971	44	86	1135	219
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		45.0	70.0		40.0	175.0		40.0
Storage Lanes	0		0	0		1	1		1	1		1
Taper Length (m)	2.5			2.5			30.0			55.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.990				0.850			0.850			0.850
Flt Protected		0.965			0.975		0.950			0.950		
Satd. Flow (prot)	0	1752	0	0	1788	1559	1742	3484	1559	1742	3484	1559
Flt Permitted		0.709			0.785		0.156			0.213		
Satd. Flow (perm)	0	1287	0	0	1440	1559	286	3484	1559	391	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7				109			46			231
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		205.5			168.2			628.2			452.0	
Travel Time (s)		14.8			12.1			45.2			32.5	
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
Adj. Flow (vph)	202	56	21	63	60	94	5	1022	46	91	1195	231
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	279	0	0	123	94	5	1022	46	91	1195	231
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		0.0			0.0			0.0			0.0	
Detector 2 Size(m)		0.0			0.0			0.0			0.0	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA	Free	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		Free	2		2	6		6

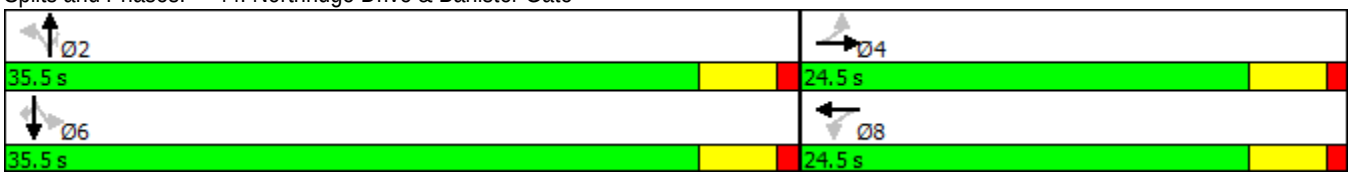


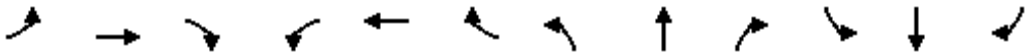
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		20.0	20.0		20.0	20.0	20.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5		24.5	24.5		24.5	24.5	24.5	22.5	22.5	22.5
Total Split (s)	24.5	24.5		24.5	24.5		35.5	35.5	35.5	35.5	35.5	35.5
Total Split (%)	40.8%	40.8%		40.8%	40.8%		59.2%	59.2%	59.2%	59.2%	59.2%	59.2%
Maximum Green (s)	20.0	20.0		20.0	20.0		31.0	31.0	31.0	31.0	31.0	31.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5			4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	0
Act Effct Green (s)		20.1			20.1	61.6	32.5	32.5	32.5	32.5	32.5	32.5
Actuated g/C Ratio		0.33			0.33	1.00	0.53	0.53	0.53	0.53	0.53	0.53
v/c Ratio		0.66			0.26	0.06	0.03	0.56	0.05	0.44	0.65	0.25
Control Delay		25.9			16.6	0.1	8.0	11.3	2.9	17.8	12.6	2.1
Queue Delay		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		25.9			16.6	0.1	8.0	11.3	2.9	17.8	12.6	2.1
LOS		C			B	A	A	B	A	B	B	A
Approach Delay		25.9			9.4			10.9			11.3	
Approach LOS		C			A			B			B	
Queue Length 50th (m)		24.8			9.7	0.0	0.2	36.9	0.0	5.8	46.5	0.0
Queue Length 95th (m)		#49.5			20.5	0.0	1.6	52.1	3.7	18.4	65.1	8.2
Internal Link Dist (m)		181.5			144.2			604.2			428.0	
Turn Bay Length (m)						45.0	70.0		40.0	175.0		40.0
Base Capacity (vph)		423			469	1559	150	1839	844	206	1839	932
Starvation Cap Reductn		0			0	0	0	0	0	0	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		0.66			0.26	0.06	0.03	0.56	0.05	0.44	0.65	0.25

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 61.6			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 12.4		Intersection LOS: B	
Intersection Capacity Utilization 81.8%		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: 44: Northridge Drive & Banister Gate





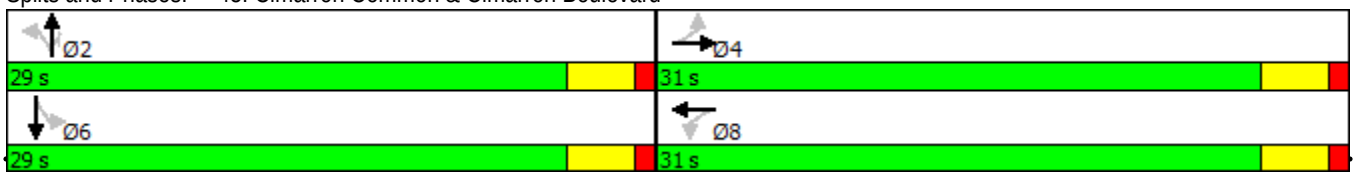
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	187	18	60	218	24	21	24	95	21	16	15
Future Volume (vph)	16	187	18	60	218	24	21	24	95	21	16	15
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	0.0		10.0	0.0		0.0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988			0.988				0.850		0.961	
Flt Protected		0.996			0.990			0.977			0.980	
Satd. Flow (prot)	0	3462	0	0	3445	0	0	1753	1574	0	1731	0
Flt Permitted		0.931			0.870			0.853			0.874	
Satd. Flow (perm)	0	3236	0	0	3027	0	0	1530	1574	0	1544	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19			19				100		16	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		236.7			65.8			76.0			62.8	
Travel Time (s)		17.0			4.7			5.5			4.5	
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%	1%	2%	1%	1%	0%	0%	8%	1%	0%	0%	6%
Adj. Flow (vph)	17	197	19	63	229	25	22	25	100	22	17	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	233	0	0	317	0	0	47	100	0	55	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1	1	1	1	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	
Trailing Detector (m)	0.0	2.0		0.0	2.0		0.0	2.0	0.0	0.0	2.0	
Detector 1 Position(m)	0.0	2.0		0.0	2.0		0.0	2.0	0.0	0.0	2.0	
Detector 1 Size(m)	8.0	2.0		8.0	2.0		8.0	2.0	6.1	8.0	2.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	22.0	22.0		22.0	22.0		29.0	29.0	29.0	29.0	29.0	

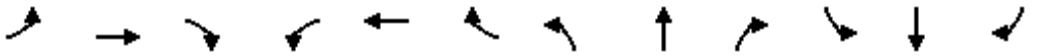
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	31.0	31.0		31.0	31.0		29.0	29.0	29.0	29.0	29.0	
Total Split (%)	51.7%	51.7%		51.7%	51.7%		48.3%	48.3%	48.3%	48.3%	48.3%	
Maximum Green (s)	27.0	27.0		27.0	27.0		25.0	25.0	25.0	25.0	25.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	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 Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None	None	None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	13.0	13.0		13.0	13.0		20.0	20.0	20.0	20.0	20.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	
Act Effct Green (s)		34.3			34.3			10.1	10.1		10.1	
Actuated g/C Ratio		0.70			0.70			0.21	0.21		0.21	
v/c Ratio		0.10			0.15			0.15	0.25		0.17	
Control Delay		3.4			3.6			16.2	6.0		12.9	
Queue Delay		0.0			0.0			0.0	0.0		0.0	
Total Delay		3.4			3.6			16.2	6.0		12.9	
LOS		A			A			B	A		B	
Approach Delay		3.4			3.6			9.2			12.9	
Approach LOS		A			A			A			B	
Queue Length 50th (m)		3.0			4.4			3.3	0.0		2.7	
Queue Length 95th (m)		6.0			8.0			8.9	8.1		8.9	
Internal Link Dist (m)		212.7			41.8			52.0			38.8	
Turn Bay Length (m)									10.0			
Base Capacity (vph)		2285			2138			794	865		808	
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		0.10			0.15			0.06	0.12		0.07	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 48.7
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.25
Intersection Signal Delay: 5.3 Intersection LOS: A
Intersection Capacity Utilization 36.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 45: Cimarron Common & Cimarron Boulevard



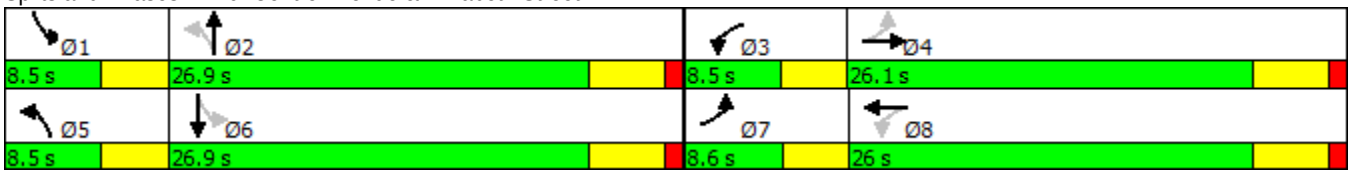


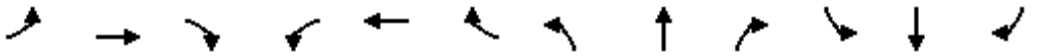
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	11	43	5	7	32	5	114	7	31	122	12
Future Volume (vph)	14	11	43	5	7	32	5	114	7	31	122	12
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	20.0		0.0	25.0		0.0	10.0		0.0	18.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	20.0			15.0			10.0			18.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.882			0.876			0.992			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1742	1617	0	1742	1606	0	1742	1819	0	1742	1808	0
Flt Permitted							0.667			0.657		
Satd. Flow (perm)	1834	1617	0	1834	1606	0	1223	1819	0	1205	1808	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		45			34			4			8	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		453.7			99.3			88.2			148.0	
Travel Time (s)		32.7			7.1			6.4			10.7	
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
Adj. Flow (vph)	15	12	45	5	7	34	5	120	7	33	128	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	15	57	0	5	41	0	5	127	0	33	141	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0		8.0	4.0	
Trailing Detector (m)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Detector 1 Position(m)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Detector 1 Size(m)	6.0	2.0		6.0	2.0		6.0	2.0		6.0	2.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0		5.0	10.0	
Minimum Split (s)	8.5	26.0		8.5	26.0		8.5	26.0		8.5	26.0	
Total Split (s)	8.6	26.1		8.5	26.0		8.5	26.9		8.5	26.9	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	12.3%	37.3%		12.1%	37.1%		12.1%	38.4%		12.1%	38.4%	
Maximum Green (s)	5.1	21.1		5.0	21.0		5.0	21.9		5.0	21.9	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	0.0	1.0		0.0	1.0		0.0	1.0		0.0	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)	3.5	5.0		3.5	5.0		3.5	5.0		3.5	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.5	3.5		2.5	3.5		3.0	4.0		2.5	4.0	
Recall Mode	None	None		None	None		None	Max		None	Max	
Walk Time (s)		7.0			7.0			7.0		0.0	7.0	
Flash Dont Walk (s)		14.0			14.0			14.0		0.0	14.0	
Pedestrian Calls (#/hr)		0			0			0		0	0	
Act Effct Green (s)	8.2	10.3		8.1	10.3		34.5	34.8		35.2	36.3	
Actuated g/C Ratio	0.18	0.23		0.18	0.23		0.75	0.76		0.77	0.79	
v/c Ratio	0.05	0.14		0.02	0.11		0.01	0.09		0.03	0.10	
Control Delay	14.1	9.9		13.8	10.1		4.8	7.8		4.4	6.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	14.1	9.9		13.8	10.1		4.8	7.8		4.4	6.4	
LOS	B	A		B	B		A	A		A	A	
Approach Delay		10.8			10.5			7.6			6.0	
Approach LOS		B			B			A			A	
Queue Length 50th (m)	0.8	0.5		0.3	0.3		0.0	0.0		0.2	0.0	
Queue Length 95th (m)	4.2	9.0		2.2	7.3		1.4	18.2		4.5	19.7	
Internal Link Dist (m)		429.7			75.3			64.2			124.0	
Turn Bay Length (m)	20.0			25.0			10.0			18.0		
Base Capacity (vph)	321	793		317	778		982	1385		987	1439	
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	0.05	0.07		0.02	0.05		0.01	0.09		0.03	0.10	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 45.7			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.14			
Intersection Signal Delay: 7.8		Intersection LOS: A	
Intersection Capacity Utilization 32.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 49: Centre Avenue & Elizabeth Street



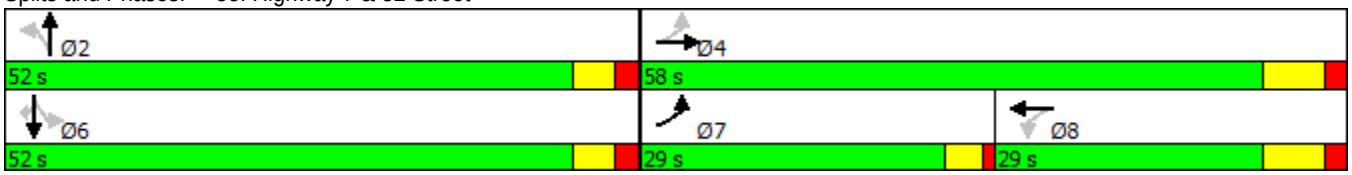


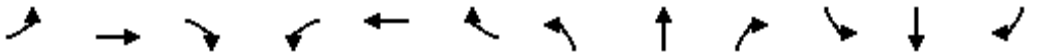
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	159	492	0	0	294	115	0	1	0	235	3	140
Future Volume (vph)	159	492	0	0	294	115	0	1	0	235	3	140
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	195.0		0.0	0.0		145.0	0.0		0.0	0.0		0.0
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (m)	95.0			30.0			2.5			40.0		
Lane Util. Factor	1.00	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						0.850
Flt Protected	0.950										0.953	
Satd. Flow (prot)	1630	1670	0	0	1781	1544	0	1871	0	0	1699	1590
Flt Permitted	0.409										0.729	
Satd. Flow (perm)	702	1670	0	0	1781	1544	0	1871	0	0	1299	1590
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						134						147
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		352.3			293.1			58.8			315.8	
Travel Time (s)		25.4			21.1			4.2			22.7	
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 (%)	9%	12%	0%	0%	5%	3%	0%	0%	0%	5%	0%	0%
Adj. Flow (vph)	167	518	0	0	309	121	0	1	0	247	3	147
Shared Lane Traffic (%)												
Lane Group Flow (vph)	167	518	0	0	309	121	0	1	0	0	250	147
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1	1	1	1		1	1	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0	6.1	8.0	4.0		8.0	4.0	6.1
Trailing Detector (m)	2.0	2.0		0.0	2.0	2.0	0.0	2.0		0.0	2.0	2.0
Detector 1 Position(m)	2.0	2.0		0.0	2.0	2.0	0.0	2.0		0.0	2.0	2.0
Detector 1 Size(m)	6.0	2.0		8.0	2.0	4.1	8.0	2.0		8.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	pm+pt	NA			NA	Free		NA		Perm	NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8		Free	2			6		6
Detector Phase	7	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	7.0	15.0		15.0	15.0		12.0	12.0		12.0	12.0	12.0
Minimum Split (s)	11.0	22.0		22.0	22.0		17.5	17.5		17.5	17.5	17.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	29.0	58.0		29.0	29.0		52.0	52.0		52.0	52.0	52.0
Total Split (%)	26.4%	52.7%		26.4%	26.4%		47.3%	47.3%		47.3%	47.3%	47.3%
Maximum Green (s)	25.0	51.0		22.0	22.0		46.5	46.5		46.5	46.5	46.5
Yellow Time (s)	3.0	5.0		5.0	5.0		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)	4.0	7.0			7.0			5.5			5.5	5.5
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	4.0		4.0	4.0		3.5	3.5		3.5	3.5	3.5
Recall Mode	None	None		None	None		None	None		None	None	None
Act Effct Green (s)	36.5	33.4			18.8	65.4		19.0			19.0	19.0
Actuated g/C Ratio	0.56	0.51			0.29	1.00		0.29			0.29	0.29
v/c Ratio	0.31	0.61			0.60	0.08		0.00			0.66	0.26
Control Delay	10.0	16.2			27.9	0.1		17.0			30.2	4.9
Queue Delay	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Delay	10.0	16.2			27.9	0.1		17.0			30.2	4.9
LOS	B	B			C	A		B			C	A
Approach Delay		14.7			20.1			17.0			20.8	
Approach LOS		B			C			B			C	
Queue Length 50th (m)	8.3	38.3			30.4	0.0		0.1			25.9	0.0
Queue Length 95th (m)	24.3	93.1			71.7	0.0		1.1			53.5	11.0
Internal Link Dist (m)		328.3			269.1			34.8			291.8	
Turn Bay Length (m)	195.0					145.0						
Base Capacity (vph)	758	1343			619	1544		1375			954	1207
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	0.22	0.39			0.50	0.08		0.00			0.26	0.12

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 65.4			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 17.8		Intersection LOS: B	
Intersection Capacity Utilization 78.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 55: Highway 7 & 32 Street





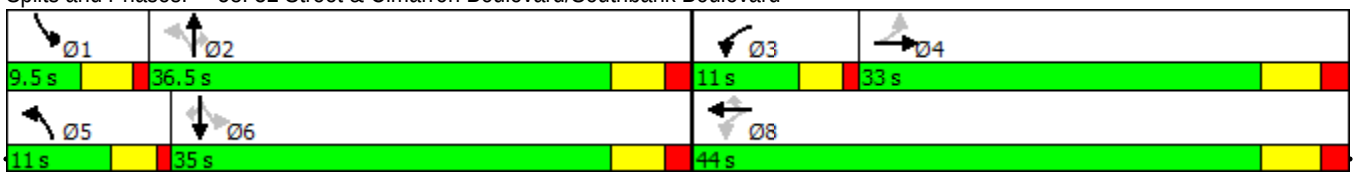
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	115	53	135	175	178	29	172	85	163	195	151
Future Volume (vph)	77	115	53	135	175	178	29	172	85	163	195	151
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	70.0		30.0	70.0		35.0	65.0		40.0	70.0		35.0
Storage Lanes	0		0	1		1	1		1	1		1
Taper Length (m)	30.0			30.0			35.0			30.0		
Lane Util. Factor	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.967				0.850			0.850			0.850
Flt Protected		0.985		0.950			0.950			0.950		
Satd. Flow (prot)	0	3287	0	1742	3554	1574	1742	3231	1559	1777	3417	1559
Flt Permitted		0.797		0.468			0.623			0.537		
Satd. Flow (perm)	0	2660	0	858	3554	1574	1143	3231	1559	1004	3417	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40				187			139			159
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		135.3			228.7			315.8			299.7	
Travel Time (s)		9.7			16.5			22.7			21.6	
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%	0%	8%	2%	0%	1%	2%	10%	2%	0%	4%	2%
Adj. Flow (vph)	81	121	56	142	184	187	31	181	89	172	205	159
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	258	0	142	184	187	31	181	89	172	205	159
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1	1	1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		6.0	2.0	4.1	8.0	2.0	6.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Detector Phase	4	4		3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	15.0	15.0		7.0	15.0	15.0	7.0	12.0	12.0	5.0	12.0	12.0
Minimum Split (s)	29.0	29.0		11.0	29.0	29.0	11.0	28.5	28.5	9.5	28.5	28.5

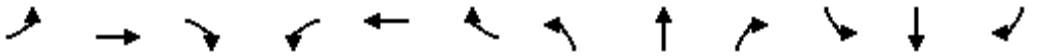
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	33.0	33.0		11.0	44.0	44.0	11.0	36.5	36.5	9.5	35.0	35.0
Total Split (%)	36.7%	36.7%		12.2%	48.9%	48.9%	12.2%	40.6%	40.6%	10.6%	38.9%	38.9%
Maximum Green (s)	27.0	27.0		7.0	38.0	38.0	7.0	31.0	31.0	5.0	29.5	29.5
Yellow Time (s)	4.0	4.0		3.0	4.0	4.0	3.0	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0		1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0
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)		6.0		4.0	6.0	6.0	4.0	5.5	5.5	4.5	5.5	5.5
Lead/Lag	Lag	Lag		Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes			Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0		2.5	4.0	4.0	3.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None		None	None	None	None	None	None	None	None	None
Walk Time (s)	7.0	7.0			7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)	16.0	16.0			16.0	16.0		16.0	16.0		16.0	16.0
Pedestrian Calls (#/hr)	0	0			0	0		0	0		0	0
Act Effct Green (s)		15.1		25.6	23.6	23.6	21.6	13.0	13.0	21.3	18.5	18.5
Actuated g/C Ratio		0.26		0.44	0.41	0.41	0.37	0.22	0.22	0.37	0.32	0.32
v/c Ratio		0.36		0.29	0.13	0.25	0.06	0.25	0.19	0.39	0.19	0.26
Control Delay		17.4		11.4	10.8	3.1	11.3	20.2	2.7	16.0	17.8	5.6
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		17.4		11.4	10.8	3.1	11.3	20.2	2.7	16.0	17.8	5.6
LOS		B		B	B	A	B	C	A	B	B	A
Approach Delay		17.4			8.2			14.1			13.6	
Approach LOS		B			A			B			B	
Queue Length 50th (m)		10.0		8.2	5.8	0.0	2.0	8.7	0.0	12.3	7.6	0.0
Queue Length 95th (m)		19.9		18.4	11.7	9.4	6.1	15.8	4.2	23.4	18.1	12.3
Internal Link Dist (m)		111.3			204.7			291.8			275.7	
Turn Bay Length (m)				70.0		35.0	65.0		40.0	70.0		35.0
Base Capacity (vph)		1275		488	2358	1107	500	1748	907	438	1760	880
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		0.20		0.29	0.08	0.17	0.06	0.10	0.10	0.39	0.12	0.18

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 57.8
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.39
Intersection Signal Delay: 12.6 — Intersection LOS: B
Intersection Capacity Utilization 62.6% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 58: 32 Street & Cimarron Boulevard/Southbank Boulevard



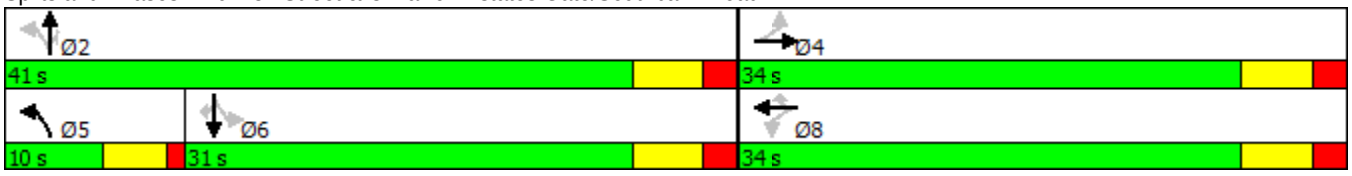


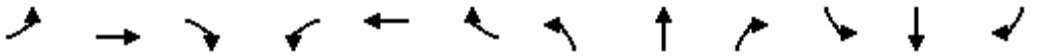
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	9	20	103	16	93	23	350	54	93	387	30
Future Volume (vph)	13	9	20	103	16	93	23	350	54	93	387	30
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		45.0	65.0		35.0	95.0		35.0
Storage Lanes	0		0	0		1	1		1	1		1
Taper Length (m)	2.5			2.5			35.0			35.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.928				0.850			0.850			0.850
Flt Protected		0.984			0.959		0.950			0.950		
Satd. Flow (prot)	0	3182	0	0	3342	1559	1742	3484	1559	1742	3484	1559
Flt Permitted		0.827			0.776		0.456			0.533		
Satd. Flow (perm)	0	2674	0	0	2704	1559	836	3484	1559	977	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21				109			57			109
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		162.5			126.3			299.7			1173.6	
Travel Time (s)		11.7			9.1			21.6			84.5	
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
Adj. Flow (vph)	14	9	21	108	17	98	24	368	57	98	407	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	44	0	0	125	98	24	368	57	98	407	32
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1	1	1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0	4.1	6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8		8	2		2	6		6
Detector Phase	4	4		8	8	8	5	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	10.0	5.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	34.0	34.0		30.0	30.0	30.0	9.5	27.0	27.0	29.0	29.0	29.0
Total Split (s)	34.0	34.0		34.0	34.0	34.0	10.0	41.0	41.0	31.0	31.0	31.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	45.3%	45.3%		45.3%	45.3%	45.3%	13.3%	54.7%	54.7%	41.3%	41.3%	41.3%
Maximum Green (s)	28.0	28.0		28.0	28.0	28.0	5.5	35.0	35.0	25.0	25.0	25.0
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.5	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0
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)		6.0			6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None	None	None	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0		7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	21.0	21.0		17.0	17.0	17.0		14.0	14.0	16.0	16.0	16.0
Pedestrian Calls (#/hr)	0	0		0	0	0		0	0	0	0	0
Act Effct Green (s)		10.0			10.0	10.0	39.8	39.5	39.5	37.5	37.5	37.5
Actuated g/C Ratio		0.18			0.18	0.18	0.70	0.69	0.69	0.66	0.66	0.66
v/c Ratio		0.09			0.26	0.27	0.04	0.15	0.05	0.15	0.18	0.03
Control Delay		13.7			22.1	6.8	3.9	4.5	1.7	7.9	6.4	0.1
Queue Delay		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		13.7			22.1	6.8	3.9	4.5	1.7	7.9	6.4	0.1
LOS		B			C	A	A	A	A	A	A	A
Approach Delay		13.7			15.4			4.1			6.3	
Approach LOS		B			B			A			A	
Queue Length 50th (m)		1.0			5.9	0.0	0.8	7.3	0.0	3.7	8.2	0.0
Queue Length 95th (m)		4.5			12.2	8.8	2.6	11.9	3.0	14.3	21.2	0.0
Internal Link Dist (m)		138.5			102.3			275.7			1149.6	
Turn Bay Length (m)						45.0	65.0		35.0	95.0		35.0
Base Capacity (vph)		1322			1326	820	670	2412	1097	642	2291	1062
Starvation Cap Reductn		0			0	0	0	0	0	0	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		0.03			0.09	0.12	0.04	0.15	0.05	0.15	0.18	0.03

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 57.1			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.27			
Intersection Signal Delay: 7.4		Intersection LOS: A	
Intersection Capacity Utilization 60.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 61: 32 Street & Cimarron Estates Gate/Southbank Road



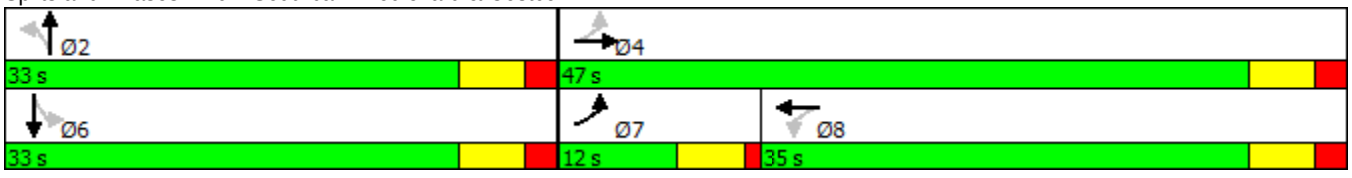


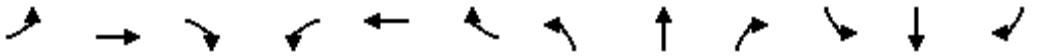
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	162	82	41	1	91	7	55	2	1	7	2	217
Future Volume (vph)	162	82	41	1	91	7	55	2	1	7	2	217
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	70.0		0.0	45.0		0.0	0.0		0.0	30.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	35.0			30.0			2.5			30.0		
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		0.950			0.990			0.950			0.851	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1742	3310	0	1742	3450	0	1742	1742	0	1742	1561	0
Flt Permitted	0.404			0.816			0.615			0.756		
Satd. Flow (perm)	741	3310	0	1496	3450	0	1128	1742	0	1386	1561	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		43			7			1			228	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		228.7			107.0			102.0			81.0	
Travel Time (s)		16.5			7.7			7.3			5.8	
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
Adj. Flow (vph)	171	86	43	1	96	7	58	2	1	7	2	228
Shared Lane Traffic (%)												
Lane Group Flow (vph)	171	129	0	1	103	0	58	3	0	7	230	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0		8.0	4.0	
Trailing Detector (m)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Detector 1 Position(m)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Detector 1 Size(m)	6.0	2.0		6.0	2.0		6.0	2.0		6.0	2.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	12.0	34.0		35.0	35.0		31.0	31.0		30.0	30.0	
Total Split (s)	12.0	47.0		35.0	35.0		33.0	33.0		33.0	33.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	15.0%	58.8%		43.8%	43.8%		41.3%	41.3%		41.3%	41.3%	
Maximum Green (s)	7.0	41.0		29.0	29.0		27.0	27.0		27.0	27.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)		7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		21.0		22.0	22.0		18.0	18.0		17.0	17.0	
Pedestrian Calls (#/hr)		0		0	0		0	0		0	0	
Act Effct Green (s)	17.1	17.8		12.0	12.0		12.1	12.1		12.1	12.1	
Actuated g/C Ratio	0.48	0.50		0.34	0.34		0.34	0.34		0.34	0.34	
v/c Ratio	0.28	0.08		0.00	0.09		0.15	0.01		0.01	0.34	
Control Delay	7.2	4.5		13.0	12.8		14.9	12.0		13.3	4.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	7.2	4.5		13.0	12.8		14.9	12.0		13.3	4.6	
LOS	A	A		B	B		B	B		B	A	
Approach Delay		6.1			12.8			14.8			4.9	
Approach LOS		A			B			B			A	
Queue Length 50th (m)	6.0	1.5		0.1	3.0		3.6	0.1		0.4	0.1	
Queue Length 95th (m)	13.3	4.4		0.9	7.5		10.6	1.5		2.5	12.1	
Internal Link Dist (m)		204.7			83.0			78.0			57.0	
Turn Bay Length (m)	70.0			45.0						30.0		
Base Capacity (vph)	613	3168		1159	2675		829	1281		1019	1207	
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	0.28	0.04		0.00	0.04		0.07	0.00		0.01	0.19	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 35.8			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.34			
Intersection Signal Delay: 7.4		Intersection LOS: A	
Intersection Capacity Utilization 53.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 64: Southbank Boulevard & Costco



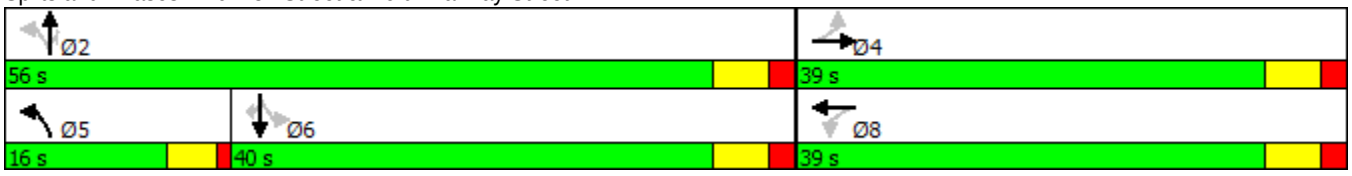


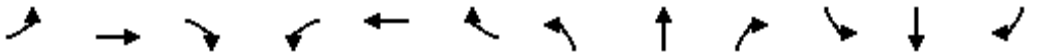
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	11	65	37	6	6	41	328	79	3	404	12
Future Volume (vph)	18	11	65	37	6	6	41	328	79	3	404	12
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	70.0		45.0	70.0		35.0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (m)	2.5			2.5			25.0			30.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.897			0.982				0.850			0.850
Flt Protected		0.990			0.963		0.950			0.950		
Satd. Flow (prot)	0	3094	0	0	3295	0	1742	3484	1559	1742	3484	1559
Flt Permitted		0.886			0.757		0.461			0.545		
Satd. Flow (perm)	0	2769	0	0	2590	0	845	3484	1559	999	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		68			6				83			86
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		157.3			183.5			1173.6			220.2	
Travel Time (s)		11.3			13.2			84.5			15.9	
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
Adj. Flow (vph)	19	12	68	39	6	6	43	345	83	3	425	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	99	0	0	51	0	43	345	83	3	425	13
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	20.0	20.0	10.0	10.0	10.0
Minimum Split (s)	39.0	39.0		39.0	39.0		9.5	33.0	33.0	33.0	33.0	33.0
Total Split (s)	39.0	39.0		39.0	39.0		16.0	56.0	56.0	40.0	40.0	40.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	41.1%	41.1%		41.1%	41.1%		16.8%	58.9%	58.9%	42.1%	42.1%	42.1%
Maximum Green (s)	33.0	33.0		33.0	33.0		11.5	50.0	50.0	34.0	34.0	34.0
Yellow Time (s)	4.0	4.0		4.0	4.0		3.5	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		4.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	4.0	4.0	4.0	4.0	4.0
Recall Mode	None	None		None	None		None	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	26.0	26.0		26.0	26.0			20.0	20.0	20.0	20.0	20.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0	0	0	0
Act Effct Green (s)		10.0			10.0		56.4	56.1	56.1	49.6	49.6	49.6
Actuated g/C Ratio		0.14			0.14		0.77	0.76	0.76	0.67	0.67	0.67
v/c Ratio		0.23			0.14		0.06	0.13	0.07	0.00	0.18	0.01
Control Delay		13.5			26.2		3.2	3.5	1.1	7.7	7.0	0.0
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		13.5			26.2		3.2	3.5	1.1	7.7	7.0	0.0
LOS		B			C		A	A	A	A	A	A
Approach Delay		13.5			26.3			3.0			6.8	
Approach LOS		B			C			A			A	
Queue Length 50th (m)		1.9			2.8		1.4	6.8	0.0	0.2	14.1	0.0
Queue Length 95th (m)		8.2			7.4		3.5	10.5	3.1	1.2	21.6	0.0
Internal Link Dist (m)		133.3			159.5			1149.6			196.2	
Turn Bay Length (m)							70.0		45.0	70.0		35.0
Base Capacity (vph)		1281			1167		787	2656	1208	673	2349	1079
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			0.04		0.05	0.13	0.07	0.00	0.18	0.01

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 73.6			
Natural Cycle: 85			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.23			
Intersection Signal Delay: 6.7		Intersection LOS: A	
Intersection Capacity Utilization 48.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 67: 32 Street & North Railway Street



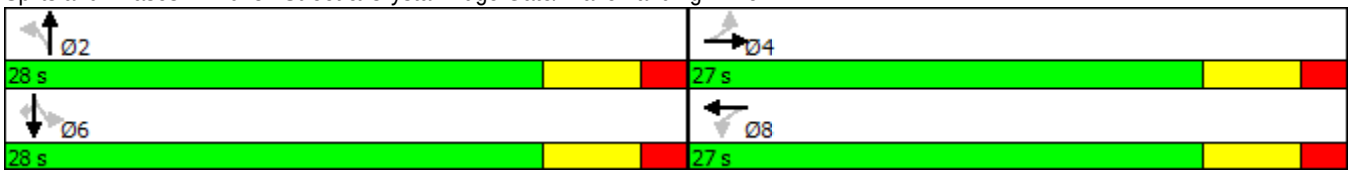


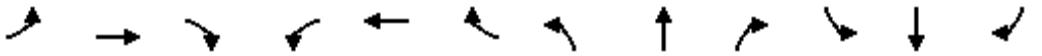
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	4	17	46	5	39	22	327	64	54	389	22
Future Volume (vph)	17	4	17	46	5	39	22	327	64	54	389	22
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		5.0	0.0		5.0	25.0		0.0	75.0		35.0
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (m)	2.5			2.5			5.0			35.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.939			0.941			0.976				0.850
Flt Protected		0.978			0.975		0.950			0.950		
Satd. Flow (prot)	0	1684	0	0	1683	0	1742	1790	0	1742	1834	1559
Flt Permitted		0.810			0.818		0.522			0.521		
Satd. Flow (perm)	0	1395	0	0	1412	0	957	1790	0	955	1834	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			41			21				60
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		116.1			112.6			742.0			568.0	
Travel Time (s)		8.4			8.1			53.4			40.9	
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
Adj. Flow (vph)	18	4	18	48	5	41	23	344	67	57	409	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	40	0	0	94	0	23	411	0	57	409	23
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1		1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0		8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		2.0	2.0		2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		2.0	2.0		2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		6.0	2.0		6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0		20.0	20.0	20.0
Minimum Split (s)	27.0	27.0		27.0	27.0		26.0	26.0		26.0	26.0	26.0
Total Split (s)	27.0	27.0		27.0	27.0		28.0	28.0		28.0	28.0	28.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	49.1%	49.1%		49.1%	49.1%		50.9%	50.9%		50.9%	50.9%	50.9%
Maximum Green (s)	21.0	21.0		21.0	21.0		22.0	22.0		22.0	22.0	22.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		5.0	5.0	5.0
Recall Mode	None	None		None	None		Max	Max		Max	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	14.0	14.0		14.0	14.0		12.0	12.0		12.0	12.0	12.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	0
Act Effct Green (s)		10.0			10.0		31.7	31.7		31.7	31.7	31.7
Actuated g/C Ratio		0.22			0.22		0.71	0.71		0.71	0.71	0.71
v/c Ratio		0.12			0.27		0.03	0.32		0.08	0.31	0.02
Control Delay		11.1			11.8		5.9	6.3		5.9	6.4	0.7
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		11.1			11.8		5.9	6.3		5.9	6.4	0.7
LOS		B			B		A	A		A	A	A
Approach Delay		11.1			11.8			6.2			6.1	
Approach LOS		B			B			A			A	
Queue Length 50th (m)		1.6			3.9		0.8	16.8		2.0	17.8	0.0
Queue Length 95th (m)		6.6			11.7		3.2	32.3		6.1	33.1	0.9
Internal Link Dist (m)		92.1			88.6			718.0			544.0	
Turn Bay Length (m)							25.0			75.0		35.0
Base Capacity (vph)		667			687		680	1278		678	1303	1125
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		0.06			0.14		0.03	0.32		0.08	0.31	0.02

Intersection Summary			
Area Type:	Other		
Cycle Length: 55			
Actuated Cycle Length: 44.6			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.32			
Intersection Signal Delay: 6.9		Intersection LOS: A	
Intersection Capacity Utilization 61.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 70: 32 Street & Crystal Ridge Gate/Drake Landing Drive



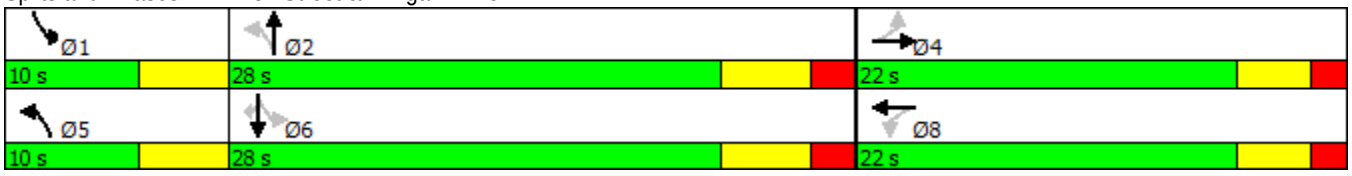


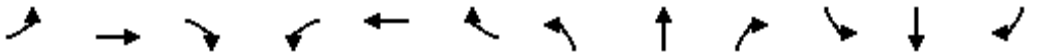
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	102	103	102	16	63	181	71	291	20	208	348	115
Future Volume (vph)	102	103	102	16	63	181	71	291	20	208	348	115
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	25.0		0.0	65.0		25.0
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (m)	2.5			2.5			5.0			35.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.950			0.895			0.990				0.850
Flt Protected		0.984			0.997		0.950			0.950		
Satd. Flow (prot)	0	3257	0	0	3109	0	1742	1816	0	1742	1834	1559
Flt Permitted		0.768			0.916		0.543			0.487		
Satd. Flow (perm)	0	2542	0	0	2857	0	996	1816	0	893	1834	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		107			191			7				121
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		219.9			184.0			568.0			548.7	
Travel Time (s)		15.8			13.2			40.9			39.5	
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
Adj. Flow (vph)	107	108	107	17	66	191	75	306	21	219	366	121
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	322	0	0	274	0	75	327	0	219	366	121
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1		1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0		8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		2.0	2.0		2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		2.0	2.0		2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		6.0	2.0		6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		6.0	20.0		6.0	20.0	20.0
Minimum Split (s)	22.0	22.0		22.0	22.0		10.0	28.0		10.0	28.0	28.0
Total Split (s)	22.0	22.0		22.0	22.0		10.0	28.0		10.0	28.0	28.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	36.7%	36.7%		36.7%	36.7%		16.7%	46.7%		16.7%	46.7%	46.7%
Maximum Green (s)	17.0	17.0		17.0	17.0		6.0	22.0		6.0	22.0	22.0
Yellow Time (s)	3.3	3.3		3.3	3.3		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.7	1.7		1.7	1.7		0.0	2.0		0.0	2.0	2.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		5.0			5.0		4.0	6.0		4.0	6.0	6.0
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	5.0		3.0	5.0	5.0
Recall Mode	None	None		None	None		None	Max		None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Flash Dont Walk (s)	10.0	10.0		10.0	10.0			15.0			15.0	15.0
Pedestrian Calls (#/hr)	0	0		0	0			0			0	0
Act Effct Green (s)		11.1			11.1		30.0	22.0		31.6	26.1	26.1
Actuated g/C Ratio		0.21			0.21		0.55	0.41		0.58	0.48	0.48
v/c Ratio		0.53			0.37		0.12	0.44		0.36	0.41	0.15
Control Delay		16.1			8.0		4.9	14.0		6.5	12.8	3.3
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		16.1			8.0		4.9	14.0		6.5	12.8	3.3
LOS		B			A		A	B		A	B	A
Approach Delay		16.1			8.0			12.3			9.2	
Approach LOS		B			A			B			A	
Queue Length 50th (m)		9.6			3.5		2.2	20.5		6.9	24.2	0.0
Queue Length 95th (m)		19.2			11.2		6.8	42.7		17.2	49.0	7.9
Internal Link Dist (m)		195.9			160.0			544.0			524.7	
Turn Bay Length (m)							25.0			65.0		25.0
Base Capacity (vph)		872			1029		635	742		616	884	814
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		0.37			0.27		0.12	0.44		0.36	0.41	0.15

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 54.1			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 11.1		Intersection LOS: B	
Intersection Capacity Utilization 63.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 74: 32 Street & Milligan Drive



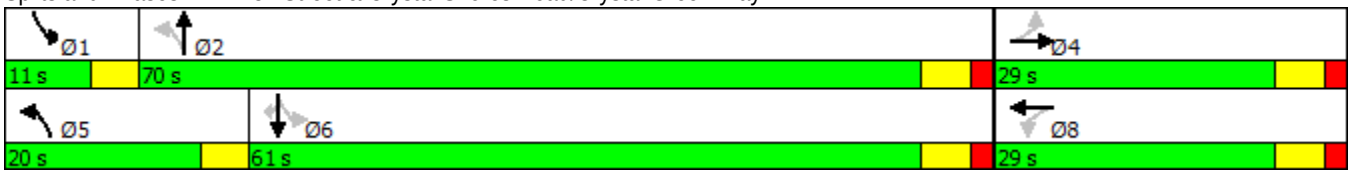


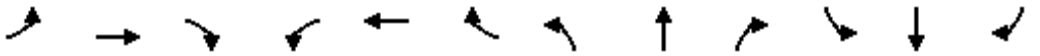
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	57	12	22	12	8	28	26	528	17	34	640	67
Future Volume (vph)	57	12	22	12	8	28	26	528	17	34	640	67
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	25.0		0.0	70.0		35.0
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (m)	2.5			2.5			5.0			35.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.964			0.913			0.995				0.850
Flt Protected		0.970			0.987		0.950			0.950		
Satd. Flow (prot)	0	3258	0	0	3140	0	1742	1825	0	1742	1834	1559
Flt Permitted		0.785			0.854		0.359			0.395		
Satd. Flow (perm)	0	2637	0	0	2717	0	658	1825	0	724	1834	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			29			3				109
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		87.7			95.5			548.7			1098.3	
Travel Time (s)		6.3			6.9			39.5			79.1	
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
Adj. Flow (vph)	60	13	23	13	8	29	27	556	18	36	674	71
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	96	0	0	50	0	27	574	0	36	674	71
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1		1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0		8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		2.0	2.0		2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		2.0	2.0		2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		6.0	2.0		6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		7.0	10.0		7.0	10.0	10.0
Minimum Split (s)	27.0	27.0		27.0	27.0		11.0	26.0		11.0	29.0	29.0
Total Split (s)	29.0	29.0		29.0	29.0		20.0	70.0		11.0	61.0	61.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	26.4%	26.4%		26.4%	26.4%		18.2%	63.6%		10.0%	55.5%	55.5%
Maximum Green (s)	23.0	23.0		23.0	23.0		16.0	64.0		7.0	55.0	55.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	2.0		0.0	2.0	2.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		4.0	6.0		4.0	6.0	6.0
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0	5.0		2.0	5.0	5.0
Recall Mode	None	None		None	None		None	Max		None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Flash Dont Walk (s)	14.0	14.0		14.0	14.0			13.0			16.0	16.0
Pedestrian Calls (#/hr)	0	0		0	0			0			0	0
Act Effct Green (s)		10.2			10.2		75.1	70.4		75.9	72.5	72.5
Actuated g/C Ratio		0.11			0.11		0.80	0.75		0.81	0.77	0.77
v/c Ratio		0.31			0.16		0.04	0.42		0.05	0.48	0.06
Control Delay		34.0			23.0		2.4	7.8		2.4	7.7	0.6
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		34.0			23.0		2.4	7.8		2.4	7.7	0.6
LOS		C			C		A	A		A	A	A
Approach Delay		34.0			23.0			7.6			6.8	
Approach LOS		C			C			A			A	
Queue Length 50th (m)		6.7			1.8		0.8	47.5		1.1	36.1	0.0
Queue Length 95th (m)		14.5			7.4		2.3	71.1		2.8	90.7	1.9
Internal Link Dist (m)		63.7			71.5			524.7			1074.3	
Turn Bay Length (m)							25.0			70.0		35.0
Base Capacity (vph)		663			687		726	1366		659	1413	1226
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		0.14			0.07		0.04	0.42		0.05	0.48	0.06

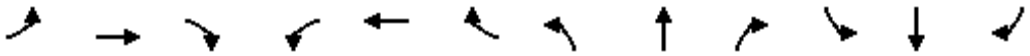
Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 94.1			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 9.3		Intersection LOS: A	
Intersection Capacity Utilization 54.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 77: 32 Street & Crystal Shores Road/Crystal Green Way





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	86	470	181	84	0	378	110	121	1	106	28
Future Volume (vph)	7	86	470	181	84	0	378	110	121	1	106	28
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		12.0	12.0		0.0	12.0		12.0	12.0		0.0
Storage Lanes	0		1	1		0	1		1	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	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						0.850		0.969	
Flt Protected		0.996		0.950			0.950			0.950		
Satd. Flow (prot)	0	1827	1559	1742	1834	0	1742	1834	1559	1742	1777	0
Flt Permitted		0.980		0.694			0.667			0.682		
Satd. Flow (perm)	0	1797	1559	1273	1834	0	1223	1834	1559	1251	1777	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			495						127		29	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		344.1			438.9			1098.3			106.4	
Travel Time (s)		24.8			31.6			79.1			7.7	
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
Adj. Flow (vph)	7	91	495	191	88	0	398	116	127	1	112	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	98	495	191	88	0	398	116	127	1	141	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	8.0	4.0	6.1	8.0	4.0		8.0	4.0	6.1	8.0	4.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	8.0	4.0	6.1	8.0	4.0		8.0	4.0	6.1	8.0	4.0	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		0.0			0.0			0.0			0.0	
Detector 2 Size(m)		0.0			0.0			0.0			0.0	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2		2	6		

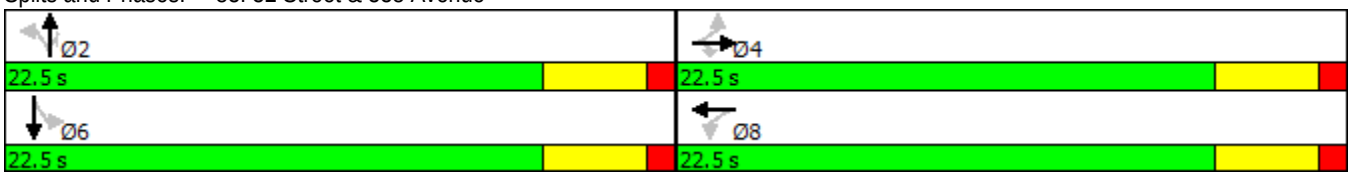


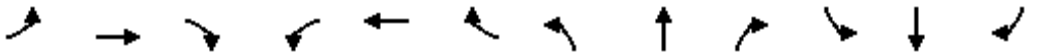
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (s)	22.5	22.5	22.5	22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%		50.0%	50.0%	50.0%	50.0%	50.0%	
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0		18.0	18.0	18.0	18.0	18.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5	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	
Total Lost Time (s)		4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None		Max	Max	Max	Max	Max	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0	0	0	0	
Act Effct Green (s)		10.8	10.8	10.8	10.8		18.1	18.1	18.1	18.1	18.1	
Actuated g/C Ratio		0.28	0.28	0.28	0.28		0.48	0.48	0.48	0.48	0.48	
v/c Ratio		0.19	0.62	0.53	0.17		0.68	0.13	0.16	0.00	0.16	
Control Delay		10.7	5.3	16.9	10.5		18.7	7.3	2.7	7.0	6.4	
Queue Delay		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		10.7	5.3	16.9	10.5		18.7	7.3	2.7	7.0	6.4	
LOS		B	A	B	B		B	A	A	A	A	
Approach Delay		6.2			14.9			13.4			6.4	
Approach LOS		A			B			B			A	
Queue Length 50th (m)		4.6	0.0	10.0	4.1		17.1	3.6	0.0	0.0	3.5	
Queue Length 95th (m)		11.2	13.2	22.1	10.2		#62.5	12.0	6.3	0.6	12.5	
Internal Link Dist (m)		320.1			414.9			1074.3			82.4	
Turn Bay Length (m)			12.0	12.0			12.0		12.0	12.0		
Base Capacity (vph)		858	1003	607	875		583	875	811	597	863	
Starvation Cap Reductn		0	0	0	0		0	0	0	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		0.11	0.49	0.31	0.10		0.68	0.13	0.16	0.00	0.16	

Intersection Summary

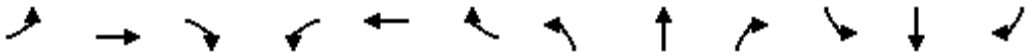
Area Type: Other
Cycle Length: 45
Actuated Cycle Length: 38
Natural Cycle: 55
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 10.5 Intersection LOS: B
Intersection Capacity Utilization 58.9% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 83: 32 Street & 338 Avenue





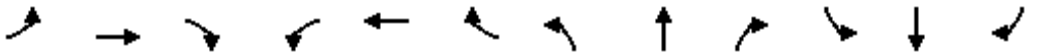
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	48	60	55	103	49	34	18	1100	105	37	1279	69
Future Volume (vph)	48	60	55	103	49	34	18	1100	105	37	1279	69
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	70.0		40.0	70.0		40.0
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (m)	2.5			2.5			30.0			30.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.949			0.972				0.850			0.850
Flt Protected		0.985			0.973		0.950			0.950		
Satd. Flow (prot)	0	3257	0	0	3295	0	1742	3484	1559	1742	3484	1559
Flt Permitted		0.714			0.684		0.167			0.243		
Satd. Flow (perm)	0	2361	0	0	2317	0	306	3484	1559	446	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		48			15				111			61
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		93.6			108.8			452.0			178.8	
Travel Time (s)		6.7			7.8			32.5			12.9	
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
Adj. Flow (vph)	51	63	58	108	52	36	19	1158	111	39	1346	73
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	172	0	0	196	0	19	1158	111	39	1346	73
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		0.0			0.0			0.0			0.0	
Detector 2 Size(m)		0.0			0.0			0.0			0.0	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6



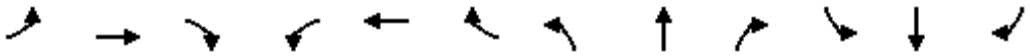
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	24.0	24.0		24.0	24.0		9.5	126.0	126.0	116.5	116.5	116.5
Total Split (%)	16.0%	16.0%		16.0%	16.0%		6.3%	84.0%	84.0%	77.7%	77.7%	77.7%
Maximum Green (s)	19.5	19.5		19.5	19.5		5.0	121.5	121.5	112.0	112.0	112.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5			4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		None	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0	0	0	0
Act Effct Green (s)		16.1			16.1		121.5	121.5	121.5	115.9	115.9	115.9
Actuated g/C Ratio		0.11			0.11		0.83	0.83	0.83	0.79	0.79	0.79
v/c Ratio		0.57			0.89dl		0.06	0.40	0.08	0.11	0.49	0.06
Control Delay		52.0			74.8		3.0	3.8	0.6	5.6	6.7	1.6
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.8	0.0
Total Delay		52.0			74.8		3.0	3.8	0.6	5.6	7.4	1.6
LOS		D			E		A	A	A	A	A	A
Approach Delay		52.0			74.8			3.6			7.1	
Approach LOS		D			E			A			A	
Queue Length 50th (m)		18.1			27.2		0.8	38.0	0.0	2.6	71.2	0.8
Queue Length 95th (m)		30.8			41.2		2.4	51.2	3.3	6.6	91.2	4.7
Internal Link Dist (m)		69.6			84.8			428.0			154.8	
Turn Bay Length (m)							70.0		40.0	70.0		40.0
Base Capacity (vph)		355			321		302	2888	1311	352	2755	1245
Starvation Cap Reductn		0			0		0	0	0	0	984	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		0.48			0.61		0.06	0.40	0.08	0.11	0.76	0.06

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 146.6			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 12.4		Intersection LOS: B	
Intersection Capacity Utilization 56.3%		ICU Level of Service B	
Analysis Period (min) 15			
dl Defacto Left Lane. Recode with 1 though lane as a left lane.			

Splits and Phases: 86: Northridge Drive & Spring Gate



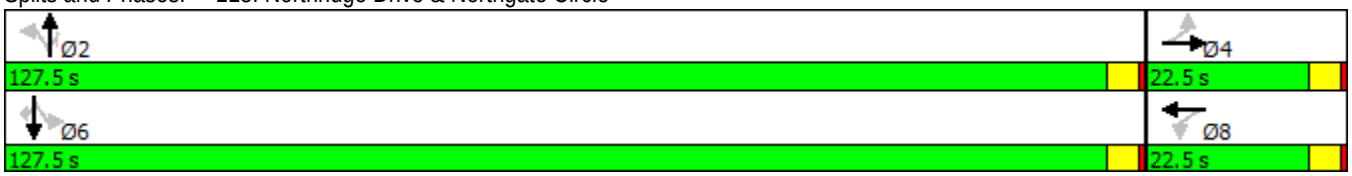
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	20	0	9	6	42	0	1176	6	67	1376	6
Future Volume (vph)	4	20	0	9	6	42	0	1176	6	67	1376	6
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	70.0		40.0	70.0		40.0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (m)	2.5			2.5			30.0			30.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt					0.888				0.850			0.850
Flt Protected		0.992			0.992					0.950		
Satd. Flow (prot)	0	3456	0	0	3069	0	1834	3484	1559	1742	3484	1559
Flt Permitted		0.899			0.907					0.219		
Satd. Flow (perm)	0	3132	0	0	2806	0	1834	3484	1559	402	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					44				11			11
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		131.8			124.2			178.8			211.3	
Travel Time (s)		9.5			8.9			12.9			15.2	
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
Adj. Flow (vph)	4	21	0	9	6	44	0	1238	6	71	1448	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	25	0	0	59	0	0	1238	6	71	1448	6
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		0.0			0.0			0.0			0.0	
Detector 2 Size(m)		0.0			0.0			0.0			0.0	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6

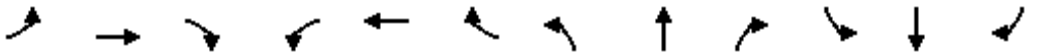


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5		22.5	22.5		127.5	127.5	127.5	127.5	127.5	127.5
Total Split (%)	15.0%	15.0%		15.0%	15.0%		85.0%	85.0%	85.0%	85.0%	85.0%	85.0%
Maximum Green (s)	18.0	18.0		18.0	18.0		123.0	123.0	123.0	123.0	123.0	123.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5			4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	0
Act Effct Green (s)		6.7			6.7			124.1	124.1	124.1	124.1	124.1
Actuated g/C Ratio		0.05			0.05			0.91	0.91	0.91	0.91	0.91
v/c Ratio		0.16			0.33			0.39	0.00	0.19	0.46	0.00
Control Delay		65.5			30.0			1.6	0.3	2.4	1.9	0.3
Queue Delay		0.0			0.0			0.4	0.0	0.0	0.4	0.0
Total Delay		65.5			30.0			2.1	0.3	2.4	2.3	0.3
LOS		E			C			A	A	A	A	A
Approach Delay		65.5			30.0			2.1			2.3	
Approach LOS		E			C			A			A	
Queue Length 50th (m)		3.5			2.1			20.3	0.0	1.7	26.3	0.0
Queue Length 95th (m)		8.5			9.6			29.1	0.3	4.5	37.5	0.3
Internal Link Dist (m)		107.8			100.2			154.8			187.3	
Turn Bay Length (m)									40.0	70.0		40.0
Base Capacity (vph)		413			407			3163	1416	365	3163	1416
Starvation Cap Reductn		0			0			1274	0	0	1031	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		0.06			0.14			0.66	0.00	0.19	0.68	0.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 136.7			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.46			
Intersection Signal Delay: 3.3		Intersection LOS: A	
Intersection Capacity Utilization 61.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 118: Northridge Drive & Northgate Circle

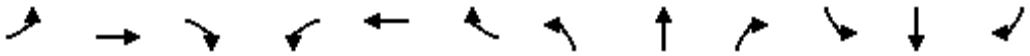




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	2	9	3	3	18	8	341	2	12	406	34
Future Volume (Veh/h)	54	2	9	3	3	18	8	341	2	12	406	34
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	57	2	9	3	3	19	8	359	2	13	427	36
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								372				
pX, platoon unblocked												
vC, conflicting volume	848	830	427	839	865	360	463			361		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	848	830	427	839	865	360	463			361		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	79	99	99	99	99	97	99			99		
cM capacity (veh/h)	267	300	628	276	286	684	1098			1198		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	58	10	4	20	8	361	13	427	36
Volume Left	57	0	3	0	8	0	13	0	0
Volume Right	0	9	0	19	0	2	0	0	36
cSH	268	566	279	621	1098	1700	1198	1700	1700
Volume to Capacity	0.22	0.02	0.02	0.03	0.01	0.21	0.01	0.25	0.02
Queue Length 95th (m)	6.1	0.4	0.4	0.8	0.2	0.0	0.3	0.0	0.0
Control Delay (s)	22.1	11.5	18.1	11.0	8.3	0.0	8.0	0.0	0.0
Lane LOS	C	B	C	B	A		A		
Approach Delay (s)	20.5		12.3		0.2		0.2		
Approach LOS	C		B						

Intersection Summary				
Average Delay	2.0			
Intersection Capacity Utilization	38.4%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	12	205	21	71	124	41	18	3	65	30	3	9
Future Volume (vph)	12	205	21	71	124	41	18	3	65	30	3	9
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
Hourly flow rate (vph)	13	216	22	75	131	43	19	3	68	32	3	9

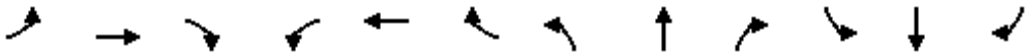
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	121	130	141	109	21	70	34	11
Volume Left (vph)	13	0	75	0	19	0	32	0
Volume Right (vph)	0	22	0	43	0	68	0	9
Hadj (s)	0.09	-0.08	0.30	-0.24	0.50	-0.65	0.51	-0.57
Departure Headway (s)	5.2	5.0	5.4	4.9	6.2	5.1	6.3	5.2
Degree Utilization, x	0.17	0.18	0.21	0.15	0.04	0.10	0.06	0.02
Capacity (veh/h)	675	694	644	715	543	658	533	637
Control Delay (s)	8.1	7.9	8.6	7.5	8.2	7.4	8.5	7.1
Approach Delay (s)	8.0		8.1		7.6		8.1	
Approach LOS	A		A		A		A	

Intersection Summary				
Delay	8.0			
Level of Service	A			
Intersection Capacity Utilization	32.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	240	192	39	123	164	39
Future Volume (Veh/h)	240	192	39	123	164	39
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	253	202	41	129	173	41
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						2
Median type	None			None		
Median storage veh)						
Upstream signal (m)	246					
pX, platoon unblocked						
vC, conflicting volume			455		500	228
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			455		500	228
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		64	95
cM capacity (veh/h)			1102		481	775

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	169	286	41	64	64	214
Volume Left	0	0	41	0	0	173
Volume Right	0	202	0	0	0	41
cSH	1700	1700	1102	1700	1700	595
Volume to Capacity	0.10	0.17	0.04	0.04	0.04	0.36
Queue Length 95th (m)	0.0	0.0	0.9	0.0	0.0	12.4
Control Delay (s)	0.0	0.0	8.4	0.0	0.0	15.3
Lane LOS			A			C
Approach Delay (s)	0.0		2.0			15.3
Approach LOS						C

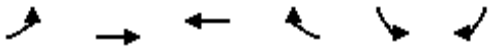
Intersection Summary				
Average Delay	4.3			
Intersection Capacity Utilization	35.8%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	14	0	0	45	0	1177	72	0	1376	18
Future Volume (Veh/h)	0	0	14	0	0	45	0	1177	72	0	1376	18
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	0	0	15	0	0	47	0	1239	76	0	1448	19
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								156			60	
pX, platoon unblocked	0.85	0.85	0.73	0.85	0.85	0.77	0.73			0.77		
vC, conflicting volume	2124	2772	734	2016	2744	658	1467			1315		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	764	1531	0	636	1498	0	908			825		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	98	100	100	94	100			100		
cM capacity (veh/h)	234	98	794	300	103	840	546			621		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	15	47	826	489	965	502
Volume Left	0	0	0	0	0	0
Volume Right	15	47	0	76	0	19
cSH	794	840	1700	1700	1700	1700
Volume to Capacity	0.02	0.06	0.49	0.29	0.57	0.30
Queue Length 95th (m)	0.4	1.3	0.0	0.0	0.0	0.0
Control Delay (s)	9.6	9.5	0.0	0.0	0.0	0.0
Lane LOS	A	A				
Approach Delay (s)	9.6	9.5	0.0		0.0	
Approach LOS	A	A				

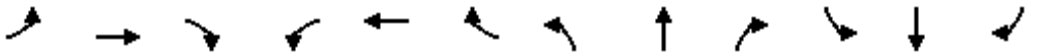
Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	49.7%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	79	200	123	15	32	39
Future Volume (Veh/h)	79	200	123	15	32	39
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	83	211	129	16	34	41
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						1
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	145				408	72
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	145				408	72
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	94				94	96
cM capacity (veh/h)	1435				538	975

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	83	106	106	86	59	75
Volume Left	83	0	0	0	0	34
Volume Right	0	0	0	0	16	41
cSH	1435	1700	1700	1700	1700	1186
Volume to Capacity	0.06	0.06	0.06	0.05	0.03	0.06
Queue Length 95th (m)	1.4	0.0	0.0	0.0	0.0	1.5
Control Delay (s)	7.7	0.0	0.0	0.0	0.0	10.3
Lane LOS	A					B
Approach Delay (s)	2.2			0.0		10.3
Approach LOS						B

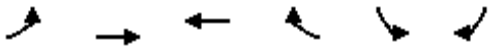
Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	21.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	203	16	5	115	5	13	2	5	4	2	10
Future Volume (Veh/h)	12	203	16	5	115	5	13	2	5	4	2	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	13	214	17	5	121	5	14	2	5	4	2	11
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)									1			1
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	121			231			320	380	116	268	388	60
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	121			231			320	380	116	268	388	60
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			98	100	99	99	100	99
cM capacity (veh/h)	1464			1334			595	544	915	652	538	992

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	13	143	88	5	60	60	5	21	17
Volume Left	13	0	0	5	0	0	0	14	4
Volume Right	0	0	17	0	0	0	5	5	11
cSH	1464	1700	1700	1334	1700	1700	1700	773	1533
Volume to Capacity	0.01	0.08	0.05	0.00	0.04	0.04	0.00	0.03	0.01
Queue Length 95th (m)	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.6	0.3
Control Delay (s)	7.5	0.0	0.0	7.7	0.0	0.0	0.0	10.7	9.5
Lane LOS	A			A				B	A
Approach Delay (s)	0.4			0.3				10.7	9.5
Approach LOS								B	A

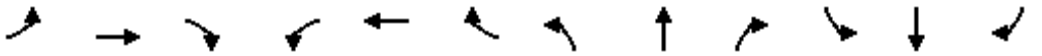
Intersection Summary				
Average Delay	1.3			
Intersection Capacity Utilization	23.0%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	154	89	61	84	5
Future Volume (Veh/h)	7	154	89	61	84	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	7	162	94	64	88	5
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						2
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	158				221	79
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	158				221	79
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				88	99
cM capacity (veh/h)	1419				744	965

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	61	108	63	95	93
Volume Left	7	0	0	0	88
Volume Right	0	0	0	64	5
cSH	1419	1700	1700	1700	786
Volume to Capacity	0.00	0.06	0.04	0.06	0.12
Queue Length 95th (m)	0.1	0.0	0.0	0.0	3.0
Control Delay (s)	0.9	0.0	0.0	0.0	10.4
Lane LOS	A				B
Approach Delay (s)	0.3		0.0		10.4
Approach LOS					B

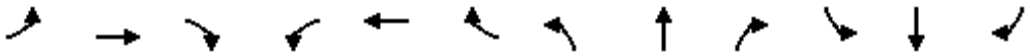
Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	21.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	81	43	4	66	5	31	11	3	7	12	30
Future Volume (Veh/h)	33	81	43	4	66	5	31	11	3	7	12	30
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	35	85	45	4	69	5	33	12	3	7	13	32
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)									1			1
Median type		None			None							
Median storage veh)												
Upstream signal (m)		227										
pX, platoon unblocked												
vC, conflicting volume	74			85			257	237	85	242	234	72
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	74			85			257	237	85	242	234	72
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			100			95	98	100	99	98	97
cM capacity (veh/h)	1526			1512			650	647	974	686	649	991

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total	120	45	78	48	52
Volume Left	35	0	4	33	7
Volume Right	0	45	5	3	32
cSH	1526	1700	1512	693	1610
Volume to Capacity	0.02	0.03	0.00	0.07	0.03
Queue Length 95th (m)	0.5	0.0	0.1	1.7	0.8
Control Delay (s)	2.3	0.0	0.4	10.8	9.5
Lane LOS	A		A	B	A
Approach Delay (s)	1.7		0.4	10.8	9.5
Approach LOS				B	A

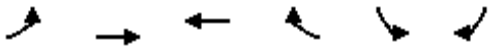
Intersection Summary				
Average Delay	3.8			
Intersection Capacity Utilization	28.6%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	240	15	3	252	17	11	1	2	17	1	36
Future Volume (Veh/h)	44	240	15	3	252	17	11	1	2	17	1	36
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	46	253	16	3	265	18	12	1	2	18	1	38
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)									1			1
Median type		None			None							
Median storage veh)												
Upstream signal (m)		153										
pX, platoon unblocked												
vC, conflicting volume	283			269			652	642	261	634	641	274
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	283			269			652	642	261	634	641	274
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			100			97	100	100	95	100	95
cM capacity (veh/h)	1279			1295			351	377	778	378	378	765

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	315	286	15	57
Volume Left	46	3	12	18
Volume Right	16	18	2	38
cSH	1279	1295	407	1135
Volume to Capacity	0.04	0.00	0.04	0.05
Queue Length 95th (m)	0.8	0.1	0.9	1.2
Control Delay (s)	1.4	0.1	14.8	11.6
Lane LOS	A	A	B	B
Approach Delay (s)	1.4	0.1	14.8	11.6
Approach LOS			B	B

Intersection Summary				
Average Delay	2.0			
Intersection Capacity Utilization	48.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	19	172	234	27	26	17
Future Volume (Veh/h)	19	172	234	27	26	17
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	20	181	246	28	27	18
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						1
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	274				481	260
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	274				481	260
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				95	98
cM capacity (veh/h)	1289				536	779

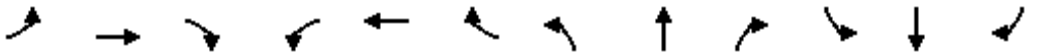
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	201	274	45
Volume Left	20	0	27
Volume Right	0	28	18
cSH	1289	1700	893
Volume to Capacity	0.02	0.16	0.05
Queue Length 95th (m)	0.4	0.0	1.2
Control Delay (s)	0.9	0.0	11.1
Lane LOS	A		B
Approach Delay (s)	0.9	0.0	11.1
Approach LOS			B

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	35.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	20	82	56	23	17	12
Future Volume (Veh/h)	20	82	56	23	17	12
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	21	86	59	24	18	13
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						1
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	83				187	59
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	83				187	59
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				98	99
cM capacity (veh/h)	1514				791	1007

Direction, Lane #	SE 1	NW 1	NW 2	SW 1
Volume Total	107	59	24	31
Volume Left	21	0	0	18
Volume Right	0	0	24	13
cSH	1514	1700	1700	1362
Volume to Capacity	0.01	0.03	0.01	0.02
Queue Length 95th (m)	0.3	0.0	0.0	0.5
Control Delay (s)	1.5	0.0	0.0	9.2
Lane LOS	A			A
Approach Delay (s)	1.5	0.0		9.2
Approach LOS				A

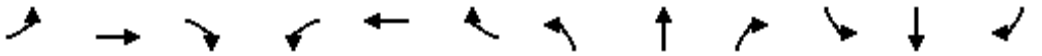
Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	22.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	86	1	33	37	2	1	4	33	2	2	1
Future Volume (Veh/h)	2	86	1	33	37	2	1	4	33	2	2	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	2	91	1	35	39	2	1	4	35	2	2	1
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)									1			1
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	41			92			206	206	91	206	205	39
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	41			92			206	206	91	206	205	39
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			100	99	96	100	100	100
cM capacity (veh/h)	1568			1503			736	674	967	708	675	1033

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	93	1	74	2	40	5
Volume Left	2	0	35	0	1	2
Volume Right	0	1	0	2	35	1
cSH	1568	1700	1503	1700	1105	864
Volume to Capacity	0.00	0.00	0.02	0.00	0.04	0.01
Queue Length 95th (m)	0.0	0.0	0.5	0.0	0.9	0.1
Control Delay (s)	0.2	0.0	3.6	0.0	9.0	9.9
Lane LOS	A		A		A	A
Approach Delay (s)	0.2		3.5		9.0	9.9
Approach LOS					A	A

Intersection Summary				
Average Delay	3.2			
Intersection Capacity Utilization	21.4%	ICU Level of Service		A
Analysis Period (min)	15			

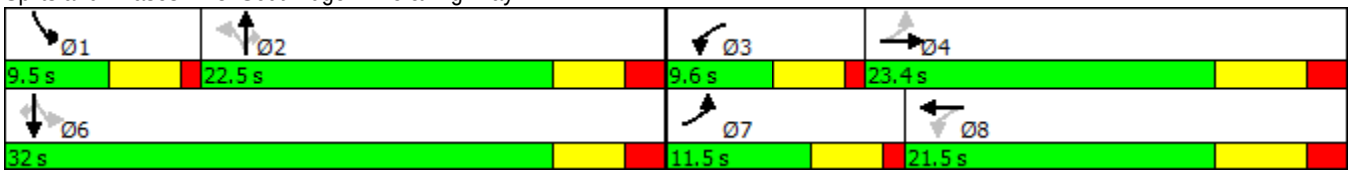


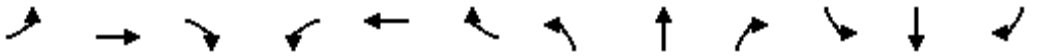
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	332	16	121	249	78	3	341	130	182	521	196
Future Volume (vph)	200	332	16	121	249	78	3	341	130	182	521	196
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	140.0		0.0	70.0		125.0	0.0		15.0	70.0		0.0
Storage Lanes	1		0	1		1	0		1	1		1
Taper Length (m)	100.0			30.0			2.5			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.993				0.850			0.850			0.850
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1742	1821	0	1692	1781	1514	0	1834	1559	1692	1781	1514
Flt Permitted	0.444			0.467				0.995		0.244		
Satd. Flow (perm)	814	1821	0	832	1781	1514	0	1825	1559	435	1781	1514
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4				302			210			206
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		184.9			244.8			155.1			2586.1	
Travel Time (s)		13.3			17.6			11.2			186.2	
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 (%)	2%	2%	2%	5%	5%	5%	2%	2%	2%	5%	5%	5%
Adj. Flow (vph)	211	349	17	127	262	82	3	359	137	192	548	206
Shared Lane Traffic (%)												
Lane Group Flow (vph)	211	366	0	127	262	82	0	362	137	192	548	206
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1	1	1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	2.0	2.0		0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Detector 1 Position(m)	2.0	2.0		0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Detector 1 Size(m)	6.0	2.0		8.0	2.0	4.1	8.0	2.0	4.1	8.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA		pm+pt	NA	Free	Perm	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8		Free	2		2	6		6
Detector Phase	7	4		3	8		2	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	15.0		5.0	15.0		12.0	12.0	12.0	5.0	12.0	12.0
Minimum Split (s)	11.5	21.5		9.5	21.5		17.5	17.5	17.5	9.5	17.5	17.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	11.5	23.4		9.6	21.5		22.5	22.5	22.5	9.5	32.0	32.0
Total Split (%)	17.7%	36.0%		14.8%	33.1%		34.6%	34.6%	34.6%	14.6%	49.2%	49.2%
Maximum Green (s)	7.0	16.9		5.1	15.0		17.0	17.0	17.0	5.0	26.5	26.5
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	2.0		1.0	2.0		2.0	2.0	2.0	1.0	2.0	2.0
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	6.5		4.5	6.5			5.5	5.5	4.5	5.5	5.5
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes		
Vehicle Extension (s)	3.0	6.0		3.0	6.0		4.0	4.0	4.0	3.0	4.0	4.0
Recall Mode	None	None		None	None		None	None	None	None	None	None
Act Effct Green (s)	26.5	18.9		22.1	15.0	64.0		16.0	16.0	26.5	25.5	25.5
Actuated g/C Ratio	0.41	0.30		0.35	0.23	1.00		0.25	0.25	0.41	0.40	0.40
v/c Ratio	0.48	0.68		0.36	0.63	0.05		0.80	0.25	0.69	0.77	0.28
Control Delay	16.0	29.5		14.8	30.1	0.1		37.5	2.1	28.6	25.9	3.3
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	16.0	29.5		14.8	30.1	0.1		37.5	2.1	28.6	25.9	3.3
LOS	B	C		B	C	A		D	A	C	C	A
Approach Delay		24.6			20.8			27.8			21.6	
Approach LOS		C			C			C			C	
Queue Length 50th (m)	15.5	40.2		8.9	28.6	0.0		40.0	0.0	14.4	54.4	0.0
Queue Length 95th (m)	28.3	#77.9		17.9	#50.7	0.0		#76.7	3.8	#33.4	#100.3	10.4
Internal Link Dist (m)		160.9			220.8			131.1			2562.1	
Turn Bay Length (m)	140.0			70.0		125.0			15.0	70.0		
Base Capacity (vph)	438	541		356	418	1514		485	568	278	738	748
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	0.48	0.68		0.36	0.63	0.05		0.75	0.24	0.69	0.74	0.28

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 64			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 23.4		Intersection LOS: C	
Intersection Capacity Utilization 90.9%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 3: Southridge Drive & Highway 7





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	228	445	21	369	461	238	18	446	236	311	515	177
Future Volume (vph)	228	445	21	369	461	238	18	446	236	311	515	177
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	140.0		0.0	70.0		125.0	0.0		15.0	70.0		70.0
Storage Lanes	1		0	1		1	0		1	1		1
Taper Length (m)	100.0			30.0			2.5			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.993				0.850			0.850			0.850
Flt Protected	0.950			0.950				0.998		0.950		
Satd. Flow (prot)	1742	1821	0	1692	1781	1514	0	1830	1559	1692	1781	1514
Flt Permitted	0.266			0.127				0.967		0.111		
Satd. Flow (perm)	488	1821	0	226	1781	1514	0	1773	1559	198	1781	1514
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				251			169			186
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		184.9			244.8			155.1			142.7	
Travel Time (s)		13.3			17.6			11.2			10.3	
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 (%)	2%	2%	2%	5%	5%	5%	2%	2%	2%	5%	5%	5%
Adj. Flow (vph)	240	468	22	388	485	251	19	469	248	327	542	186
Shared Lane Traffic (%)												
Lane Group Flow (vph)	240	490	0	388	485	251	0	488	248	327	542	186
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1	1	1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	2.0	2.0		0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Detector 1 Position(m)	2.0	2.0		0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Detector 1 Size(m)	6.0	2.0		8.0	2.0	4.1	8.0	2.0	4.1	8.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA		pm+pt	NA	Free	Perm	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8		Free	2		2	6		6
Detector Phase	7	4		3	8		2	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	15.0		5.0	15.0		12.0	12.0	12.0	5.0	12.0	12.0
Minimum Split (s)	11.5	21.5		9.5	21.5		17.5	17.5	17.5	9.5	17.5	17.5

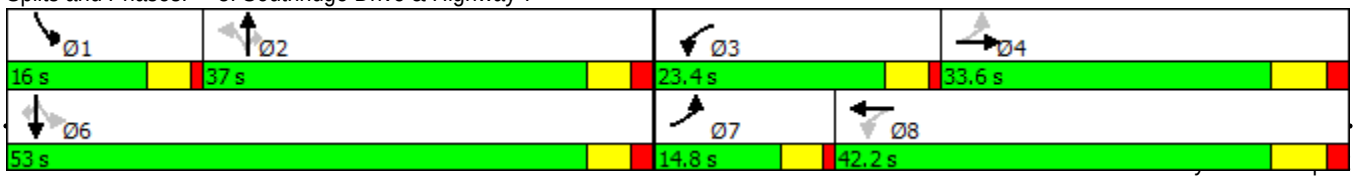
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	14.8	33.6		23.4	42.2		37.0	37.0	37.0	16.0	53.0	53.0
Total Split (%)	13.5%	30.5%		21.3%	38.4%		33.6%	33.6%	33.6%	14.5%	48.2%	48.2%
Maximum Green (s)	10.3	27.1		18.9	35.7		31.5	31.5	31.5	11.5	47.5	47.5
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	2.0		1.0	2.0		2.0	2.0	2.0	1.0	2.0	2.0
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	6.5		4.5	6.5			5.5	5.5	4.5	5.5	5.5
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes		
Vehicle Extension (s)	3.0	6.0		3.0	6.0		4.0	4.0	4.0	3.0	4.0	4.0
Recall Mode	None	None		None	None		None	None	None	None	None	None
Act Effct Green (s)	39.4	27.1		52.5	35.7	109.9		31.4	31.4	48.4	47.4	47.4
Actuated g/C Ratio	0.36	0.25		0.48	0.32	1.00		0.29	0.29	0.44	0.43	0.43
v/c Ratio	0.82	1.09		1.08	0.84	0.17		0.96	0.44	1.35	0.71	0.25
Control Delay	44.3	108.2		100.3	49.0	0.2		71.7	13.3	206.3	31.7	3.6
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	44.3	108.2		100.3	49.0	0.2		71.7	13.3	206.3	31.7	3.6
LOS	D	F		F	D	A		E	B	F	C	A
Approach Delay		87.2			55.8			52.0			80.9	
Approach LOS		F			E			D			F	
Queue Length 50th (m)	30.3	~118.6		~77.4	96.2	0.0		103.1	12.8	~77.1	93.0	0.0
Queue Length 95th (m)	#59.6	#181.6		#135.8	#149.6	0.0		#166.7	34.4	#131.9	132.8	12.4
Internal Link Dist (m)		160.9			220.8			131.1			118.7	
Turn Bay Length (m)	140.0			70.0		125.0			15.0	70.0		70.0
Base Capacity (vph)	292	450		359	578	1514		507	567	243	769	759
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	0.82	1.09		1.08	0.84	0.17		0.96	0.44	1.35	0.70	0.25

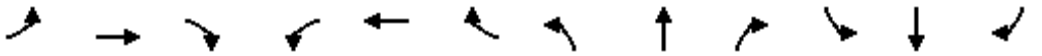
Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 109.9			
Natural Cycle: 110			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.35			
Intersection Signal Delay: 68.6		Intersection LOS: E	
Intersection Capacity Utilization 117.7%		ICU Level of Service 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: 3: Southridge Drive & Highway 7





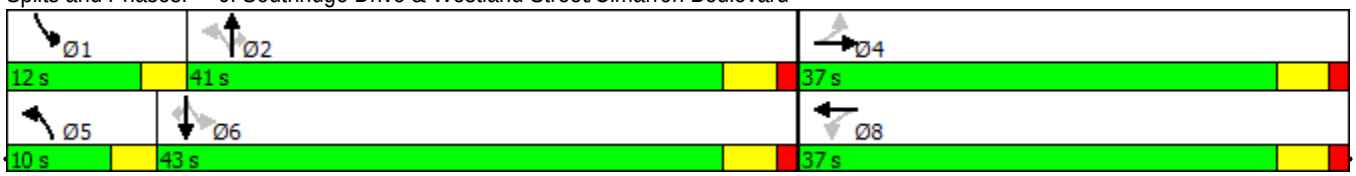
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	86	15	67	57	289	92	773	19	180	841	17
Future Volume (vph)	68	86	15	67	57	289	92	773	19	180	841	17
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	65.0		30.0	65.0		30.0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (m)	2.5			2.5			40.0			40.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.987			0.895				0.850			0.850
Flt Protected		0.980			0.992		0.950			0.950		
Satd. Flow (prot)	0	3419	0	0	3123	0	1759	3484	1590	1759	3451	1574
Flt Permitted		0.625			0.863		0.292			0.282		
Satd. Flow (perm)	0	2181	0	0	2717	0	541	3484	1590	522	3451	1574
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			238				61			61
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		101.4			236.7			314.2			471.7	
Travel Time (s)		7.3			17.0			22.6			34.0	
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%	6%	2%	0%	1%	1%	2%	0%	1%	3%	1%
Adj. Flow (vph)	72	91	16	71	60	304	97	814	20	189	885	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	179	0	0	435	0	97	814	20	189	885	18
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	36.0	36.0		36.0	36.0		10.0	29.0	29.0	10.0	29.0	29.0

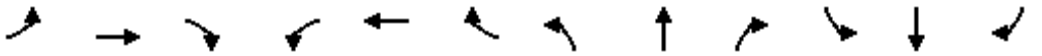
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	37.0	37.0		37.0	37.0		10.0	41.0	41.0	12.0	43.0	43.0
Total Split (%)	41.1%	41.1%		41.1%	41.1%		11.1%	45.6%	45.6%	13.3%	47.8%	47.8%
Maximum Green (s)	32.0	32.0		32.0	32.0		7.0	36.0	36.0	9.0	38.0	38.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.5	3.5	3.0	3.5	3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		0.0	1.5	1.5	0.0	1.5	1.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0			5.0		3.0	5.0	5.0	3.0	5.0	5.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.5	5.0	5.0	2.5	5.0	5.0
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)	24.0	24.0		24.0	24.0			17.0	17.0		17.0	17.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)		11.7			11.7		46.1	37.1	37.1	47.8	39.7	39.7
Actuated g/C Ratio		0.17			0.17		0.67	0.54	0.54	0.69	0.57	0.57
v/c Ratio		0.47			0.66		0.20	0.44	0.02	0.38	0.45	0.02
Control Delay		28.6			17.3		4.5	11.2	0.1	5.8	10.3	0.1
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		28.6			17.3		4.5	11.2	0.1	5.8	10.3	0.1
LOS		C			B		A	B	A	A	B	A
Approach Delay		28.6			17.3			10.2			9.4	
Approach LOS		C			B			B			A	
Queue Length 50th (m)		10.4			12.3		2.7	28.8	0.0	5.6	32.5	0.0
Queue Length 95th (m)		19.1			25.4		7.9	51.3	0.2	14.2	53.5	0.0
Internal Link Dist (m)		77.4			212.7			290.2			447.7	
Turn Bay Length (m)							65.0		30.0	65.0		30.0
Base Capacity (vph)		1015			1383		482	1862	878	528	1977	928
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		0.18			0.31		0.20	0.44	0.02	0.36	0.45	0.02

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 69.3
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 12.3 Intersection LOS: B
Intersection Capacity Utilization 69.6% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 6: Southridge Drive & Westland Street/Cimarron Boulevard



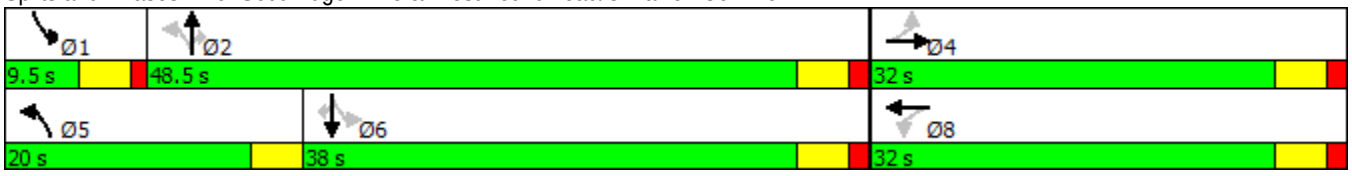


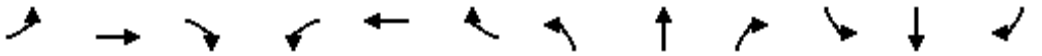
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	41	62	83	30	94	116	700	97	113	857	0
Future Volume (vph)	77	41	62	83	30	94	116	700	97	113	857	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	65.0		25.0	65.0		30.0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (m)	2.5			2.5			40.0			35.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.948			0.932				0.850			
Flt Protected		0.979			0.980		0.950			0.950		
Satd. Flow (prot)	0	3234	0	0	3182	0	1742	3484	1559	1742	3484	1834
Flt Permitted		0.757			0.776		0.273			0.349		
Satd. Flow (perm)	0	2501	0	0	2520	0	501	3484	1559	640	3484	1834
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		65			99				87			
Link Speed (k/h)		30			30			50			50	
Link Distance (m)		76.3			64.1			165.7			314.2	
Travel Time (s)		9.2			7.7			11.9			22.6	
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
Adj. Flow (vph)	81	43	65	87	32	99	122	737	102	119	902	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	189	0	0	218	0	122	737	102	119	902	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		6.5	20.0	20.0	5.0	20.0	20.0
Minimum Split (s)	32.0	32.0		32.0	32.0		10.0	29.0	29.0	9.5	29.0	29.0
Total Split (s)	32.0	32.0		32.0	32.0		20.0	48.5	48.5	9.5	38.0	38.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	35.6%	35.6%		35.6%	35.6%		22.2%	53.9%	53.9%	10.6%	42.2%	42.2%
Maximum Green (s)	27.0	27.0		27.0	27.0		16.5	43.5	43.5	5.0	33.0	33.0
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)	1.5	1.5		1.5	1.5		0.0	1.5	1.5	1.0	1.5	1.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0			5.0		3.5	5.0	5.0	4.5	5.0	5.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.5	3.5		3.5	3.5		2.5	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)	20.0	20.0		20.0	20.0			17.0	17.0		17.0	17.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)		10.7			10.7		50.5	43.7	43.7	47.4	43.0	
Actuated g/C Ratio		0.15			0.15		0.70	0.61	0.61	0.66	0.60	
v/c Ratio		0.44			0.47		0.26	0.35	0.10	0.24	0.43	
Control Delay		22.3			19.7		4.3	8.1	2.6	4.6	9.3	
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		22.3			19.7		4.3	8.1	2.6	4.6	9.3	
LOS		C			B		A	A	A	A	A	
Approach Delay		22.3			19.7			7.1			8.7	
Approach LOS		C			B			A			A	
Queue Length 50th (m)		8.2			7.8		3.5	24.4	0.8	3.7	32.4	
Queue Length 95th (m)		17.3			17.4		8.3	37.7	6.4	8.7	51.4	
Internal Link Dist (m)		52.3			40.1			141.7			290.2	
Turn Bay Length (m)							65.0		25.0	65.0		
Base Capacity (vph)		984			1013		653	2119	982	499	2087	
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		0.19			0.22		0.19	0.35	0.10	0.24	0.43	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 71.8			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.47			
Intersection Signal Delay: 10.1		Intersection LOS: B	
Intersection Capacity Utilization 63.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 9: Southridge Drive & Westmount Road/Cimarron Common





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	9	27	27	7	77	34	1033	39	77	975	17
Future Volume (vph)	19	9	27	27	7	77	34	1033	39	77	975	17
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	55.0		35.0	85.0		35.0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (m)	2.5			2.5			35.0			45.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.926			0.895				0.850			0.850
Flt Protected		0.983			0.988		0.950			0.950		
Satd. Flow (prot)	0	3204	0	0	3099	0	1777	3519	1590	1759	3484	1590
Flt Permitted		0.822			0.870		0.263			0.202		
Satd. Flow (perm)	0	2679	0	0	2729	0	492	3519	1590	374	3484	1590
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		28			81				68			68
Link Speed (k/h)		40			40			50			50	
Link Distance (m)		74.9			154.9			471.7			250.2	
Travel Time (s)		6.7			13.9			34.0			18.0	
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%	2%	3%	0%	1%	0%	1%	0%	1%	2%	0%
Adj. Flow (vph)	20	9	28	28	7	81	36	1087	41	81	1026	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	57	0	0	116	0	36	1087	41	81	1026	18
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	30.0	30.0		30.0	30.0		10.0	25.0	25.0	10.0	25.0	25.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	30.0	30.0		30.0	30.0		12.0	40.0	40.0	10.0	38.0	38.0
Total Split (%)	37.5%	37.5%		37.5%	37.5%		15.0%	50.0%	50.0%	12.5%	47.5%	47.5%
Maximum Green (s)	25.0	25.0		25.0	25.0		9.0	35.0	35.0	7.0	33.0	33.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.5	3.5	3.0	3.5	3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		0.0	1.5	1.5	0.0	1.5	1.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0			5.0		3.0	5.0	5.0	3.0	5.0	5.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.5	3.5		3.5	3.5		3.5	5.0	5.0	3.5	5.0	5.0
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Walk Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Flash Dont Walk (s)	20.0	20.0		20.0	20.0			15.0	15.0		15.0	15.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0		0	0
Act Effct Green (s)		10.0			10.0		46.0	39.7	39.7	47.2	43.6	43.6
Actuated g/C Ratio		0.16			0.16		0.73	0.63	0.63	0.75	0.69	0.69
v/c Ratio		0.13			0.23		0.07	0.49	0.04	0.19	0.43	0.02
Control Delay		15.6			11.7		2.9	9.8	1.1	3.7	7.4	0.0
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		15.6			11.7		2.9	9.8	1.1	3.7	7.4	0.0
LOS		B			B		A	A	A	A	A	A
Approach Delay		15.6			11.7			9.3			7.0	
Approach LOS		B			B			A			A	
Queue Length 50th (m)		1.5			1.9		0.9	41.9	0.0	2.2	22.6	0.0
Queue Length 95th (m)		6.0			8.1		2.6	57.9	2.0	4.9	53.7	0.0
Internal Link Dist (m)		50.9			130.9			447.7			226.2	
Turn Bay Length (m)							55.0		35.0	85.0		35.0
Base Capacity (vph)		1084			1136		556	2219	1028	434	2412	1121
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		0.05			0.10		0.06	0.49	0.04	0.19	0.43	0.02

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 63
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.49
Intersection Signal Delay: 8.5 — Intersection LOS: A
Intersection Capacity Utilization 55.2% — ICU Level of Service B
Analysis Period (min) 15

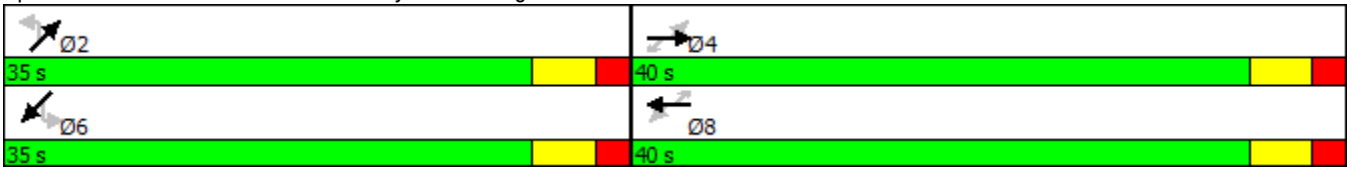
Splits and Phases: 12: Southridge Drive & Westridge Drive/Cimarron Drive

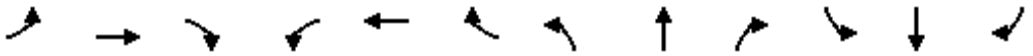
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	12	1050	19	4	1112	9	22	0	5	13	0	22
Future Volume (vph)	12	1050	19	4	1112	9	22	0	5	13	0	22
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	80.0		25.0	40.0		35.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (m)	25.0			50.0			2.5			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850			0.850		0.973			0.907	
Flt Protected	0.950			0.950				0.961			0.981	
Satd. Flow (prot)	1742	3484	1559	1742	3484	1559	0	3258	0	0	3100	0
Flt Permitted	0.230			0.249				0.955			0.872	
Satd. Flow (perm)	422	3484	1559	457	3484	1559	0	3238	0	0	2756	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			36			36		36			36	
Link Speed (k/h)		50			50			30			30	
Link Distance (m)		223.9			250.2			49.8			70.5	
Travel Time (s)		16.1			18.0			6.0			8.5	
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
Adj. Flow (vph)	13	1105	20	4	1171	9	23	0	5	14	0	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	1105	20	4	1171	9	0	28	0	0	37	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1	1	1	1	1	1	1		1	1	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0		8.0	4.0	
Trailing Detector (m)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0		0.0	2.0	
Detector 1 Position(m)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0		0.0	2.0	
Detector 1 Size(m)	6.0	2.0	4.1	6.0	2.0	4.1	8.0	2.0		8.0	2.0	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	29.5	29.5	29.5	29.5	29.5	29.5	34.5	34.5		34.5	34.5	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	35.0	35.0		35.0	35.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Total Split (%)	53.3%	53.3%	53.3%	53.3%	53.3%	53.3%	46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	34.5	34.5	34.5	34.5	34.5	34.5	29.5	29.5		29.5	29.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5		5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0		5.0	5.0	
Recall Mode	Max	Max	Max	Max	Max	Max	None	None		None	None	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	17.0	17.0	17.0	17.0	17.0	17.0	22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	49.8	49.8	49.8	49.8	49.8	49.8		10.1			10.1	
Actuated g/C Ratio	0.86	0.86	0.86	0.86	0.86	0.86		0.18			0.18	
v/c Ratio	0.04	0.37	0.01	0.01	0.39	0.01		0.05			0.07	
Control Delay	3.7	3.2	0.9	3.5	3.3	0.2		7.6			9.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	3.7	3.2	0.9	3.5	3.3	0.2		7.6			9.3	
LOS	A	A	A	A	A	A		A			A	
Approach Delay		3.2			3.3			7.6			9.3	
Approach LOS		A			A			A			A	
Queue Length 50th (m)	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Queue Length 95th (m)	2.0	38.3	1.1	0.9	41.7	0.3		2.3			3.2	
Internal Link Dist (m)		199.9			226.2			25.8			46.5	
Turn Bay Length (m)	80.0		25.0	40.0		35.0						
Base Capacity (vph)	364	3007	1350	394	3007	1350		1682			1434	
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	0.37	0.01	0.01	0.39	0.01		0.02			0.03	

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 57.7			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.39			
Intersection Signal Delay: 3.4		Intersection LOS: A	
Intersection Capacity Utilization 55.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 15: Centennial Way & Southridge Drive



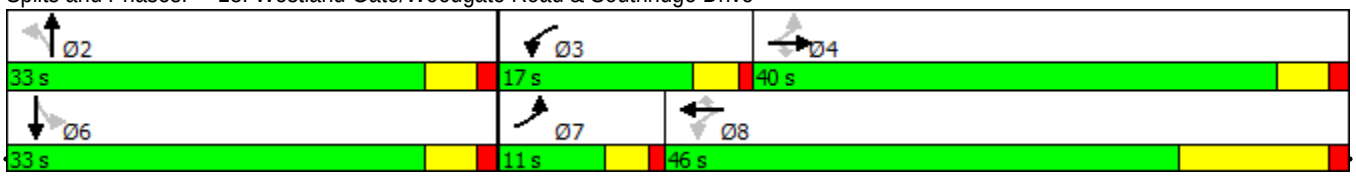


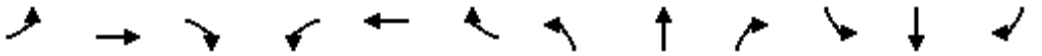
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	1008	95	19	1046	101	106	46	17	51	29	17
Future Volume (vph)	14	1008	95	19	1046	101	106	46	17	51	29	17
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	65.0		30.0	75.0		35.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (m)	25.0			30.0			2.5			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850			0.850		0.985			0.974	
Flt Protected	0.950			0.950				0.969			0.974	
Satd. Flow (prot)	1777	3519	1590	1742	3519	1544	0	3262	0	0	3302	0
Flt Permitted	0.236			0.221				0.754			0.746	
Satd. Flow (perm)	441	3519	1590	405	3519	1544	0	2539	0	0	2529	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			121			73		14			18	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		334.8			223.9			57.4			61.2	
Travel Time (s)		24.1			16.1			4.1			4.4	
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 (%)	0%	1%	0%	2%	1%	3%	0%	14%	2%	0%	7%	0%
Adj. Flow (vph)	15	1061	100	20	1101	106	112	48	18	54	31	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	15	1061	100	20	1101	106	0	178	0	0	103	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1	1	1	1	1	1	1		1	1	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0		8.0	4.0	
Trailing Detector (m)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0		0.0	2.0	
Detector 1 Position(m)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0		0.0	2.0	
Detector 1 Size(m)	6.0	2.0	4.1	6.0	2.0	4.1	8.0	2.0		8.0	2.0	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	7	4	4	3	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	11.0	29.0	29.0	11.0	35.5	35.5	32.0	32.0		32.0	32.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	11.0	40.0	40.0	17.0	46.0	46.0	33.0	33.0		33.0	33.0	
Total Split (%)	12.2%	44.4%	44.4%	18.9%	51.1%	51.1%	36.7%	36.7%		36.7%	36.7%	
Maximum Green (s)	7.0	35.0	35.0	13.0	34.5	34.5	28.0	28.0		28.0	28.0	
Yellow Time (s)	3.0	3.5	3.5	3.0	10.0	10.0	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	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			0.0	
Total Lost Time (s)	4.0	5.0	5.0	4.0	11.5	11.5		5.0			5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	2.5	5.0	5.0	2.5	5.0	5.0	3.5	3.5		3.5	3.5	
Recall Mode	None	Max	Max	None	Max	Max	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		17.0	17.0		17.0	17.0	20.0	20.0		20.0	20.0	
Pedestrian Calls (#/hr)		0	0		0	0	0	0		0	0	
Act Effct Green (s)	46.3	44.1	44.1	46.3	37.5	37.5		11.0			11.0	
Actuated g/C Ratio	0.69	0.66	0.66	0.69	0.56	0.56		0.16			0.16	
v/c Ratio	0.03	0.46	0.09	0.05	0.56	0.12		0.42			0.24	
Control Delay	3.6	7.4	1.4	3.6	11.9	4.4		26.1			21.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	3.6	7.4	1.4	3.6	11.9	4.4		26.1			21.5	
LOS	A	A	A	A	B	A		C			C	
Approach Delay		6.8			11.1			26.1			21.5	
Approach LOS		A			B			C			C	
Queue Length 50th (m)	0.4	23.6	0.0	0.6	36.5	1.5		8.7			4.4	
Queue Length 95th (m)	1.9	64.8	4.5	2.3	83.6	10.4		19.7			11.8	
Internal Link Dist (m)		310.8			199.9			33.4			37.2	
Turn Bay Length (m)	65.0		30.0	75.0		35.0						
Base Capacity (vph)	444	2310	1085	545	1966	894		1078			1076	
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	0.03	0.46	0.09	0.04	0.56	0.12		0.17			0.10	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 67.1			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.56			
Intersection Signal Delay: 10.6		Intersection LOS: B	
Intersection Capacity Utilization 56.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 18: Westland Gate/Woodgate Road & Southridge Drive





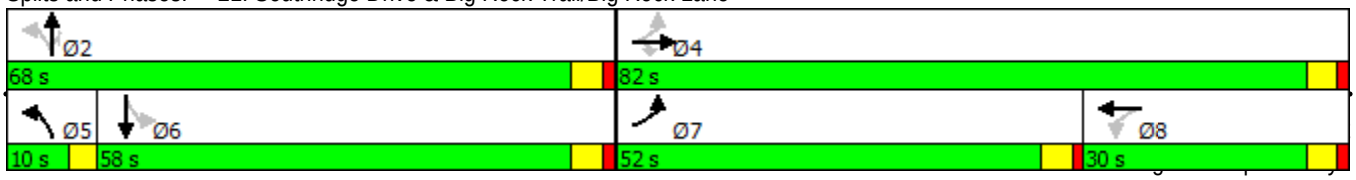
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	390	3	139	18	7	24	202	941	19	20	955	279
Future Volume (vph)	390	3	139	18	7	24	202	941	19	20	955	279
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		30.0	0.0		0.0	85.0		10.0	65.0		35.0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (m)	40.0			2.5			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850		0.883				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1709	1871	1559	1777	1626	0	1742	3484	1590	1777	3484	1529
Flt Permitted	0.462			0.756			0.159			0.249		
Satd. Flow (perm)	831	1871	1559	1414	1626	0	292	3484	1590	466	3484	1529
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			146		25				47			105
Link Speed (k/h)		50			30			50			50	
Link Distance (m)		162.5			89.1			334.8			253.8	
Travel Time (s)		11.7			10.7			24.1			18.3	
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 (%)	4%	0%	2%	0%	0%	2%	2%	2%	0%	0%	2%	4%
Adj. Flow (vph)	411	3	146	19	7	25	213	991	20	21	1005	294
Shared Lane Traffic (%)												
Lane Group Flow (vph)	411	3	146	19	32	0	213	991	20	21	1005	294
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1	1	1	1		1	1	1	1	1	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0	6.1	8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	6.0	2.0	4.1	6.0	2.0		6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA	Perm	Perm	NA		pm+pt	NA	Perm	Perm	NA	Free
Protected Phases	7	4			8		5	2			6	
Permitted Phases	4		4	8			2		2	6		Free
Detector Phase	7	4	4	8	8		5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0		7.0	20.0	20.0	20.0	20.0	
Minimum Split (s)	9.5	30.0	30.0	30.0	30.0		10.0	27.0	27.0	27.0	27.0	

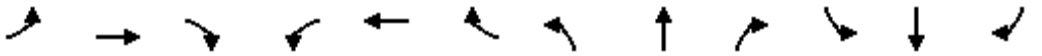
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	52.0	82.0	82.0	30.0	30.0		10.0	68.0	68.0	58.0	58.0	
Total Split (%)	34.7%	54.7%	54.7%	20.0%	20.0%		6.7%	45.3%	45.3%	38.7%	38.7%	
Maximum Green (s)	47.5	77.0	77.0	25.0	25.0		7.0	63.0	63.0	53.0	53.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.0	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		0.0	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	0.0	0.0	0.0	
Total Lost Time (s)	4.5	5.0	5.0	5.0	5.0		3.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead			Lag	Lag		Lead			Lag	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes		Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		2.5	5.0	5.0	5.0	5.0	
Recall Mode	None	None	None	None	None		None	Max	Max	Max	Max	
Walk Time (s)		5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0	
Flash Dont Walk (s)		20.0	20.0	20.0	20.0			17.0	17.0	17.0	17.0	
Pedestrian Calls (#/hr)		0	0	0	0			0	0	0	0	
Act Effct Green (s)	44.5	44.0	44.0	10.2	10.2		66.1	64.0	64.0	53.9	53.9	118.2
Actuated g/C Ratio	0.38	0.37	0.37	0.09	0.09		0.56	0.54	0.54	0.46	0.46	1.00
v/c Ratio	0.74	0.00	0.22	0.16	0.20		0.85	0.53	0.02	0.10	0.63	0.19
Control Delay	37.6	20.7	4.1	58.7	28.4		50.8	21.0	0.6	25.0	29.3	0.3
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	37.6	20.7	4.1	58.7	28.4		50.8	21.0	0.6	25.0	29.3	0.3
LOS	D	C	A	E	C		D	C	A	C	C	A
Approach Delay		28.8			39.7			25.9			22.8	
Approach LOS		C			D			C			C	
Queue Length 50th (m)	76.0	0.4	0.0	4.3	1.6		25.8	80.3	0.0	2.9	97.6	0.0
Queue Length 95th (m)	106.8	2.3	11.6	12.9	12.1		#75.8	121.4	0.7	9.7	142.9	0.0
Internal Link Dist (m)		138.5			65.1			310.8			229.8	
Turn Bay Length (m)			30.0				85.0		10.0	65.0		35.0
Base Capacity (vph)	725	1238	1081	303	369		250	1886	882	212	1587	1529
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	0.57	0.00	0.14	0.06	0.09		0.85	0.53	0.02	0.10	0.63	0.19

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 118.2
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 25.3 — Intersection LOS: C
Intersection Capacity Utilization 84.7% — ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 21: Southridge Drive & Big Rock Trail/Big Rock Lane





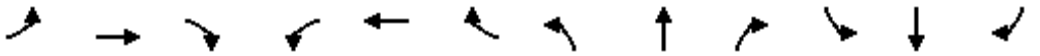
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	262	14	0	7	11	223	4	1305	13	160	1273	262
Future Volume (vph)	262	14	0	7	11	223	4	1305	13	160	1273	262
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	65.0		30.0	75.0		30.0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (m)	2.5			2.5			35.0			30.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt					0.861				0.850			0.850
Flt Protected		0.955			0.999		0.950			0.950		
Satd. Flow (prot)	0	3328	0	0	2997	0	1742	3484	1559	1742	3484	1559
Flt Permitted		0.955			0.937		0.189			0.113		
Satd. Flow (perm)	0	3328	0	0	2811	0	347	3484	1559	207	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					235				61			91
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		89.2			93.8			253.8			302.8	
Travel Time (s)		6.4			6.8			18.3			21.8	
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
Adj. Flow (vph)	276	15	0	7	12	235	4	1374	14	168	1340	276
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	291	0	0	254	0	4	1374	14	168	1340	276
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		0.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		0.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		8.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Split	NA		Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm
Protected Phases	4	4			8			2		1	6	
Permitted Phases				8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	36.0	36.0		36.0	36.0		29.0	29.0	29.0	10.0	29.0	29.0
Total Split (s)	36.0	36.0		36.0	36.0		78.0	78.0	78.0	30.0	108.0	108.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	20.0%	20.0%		20.0%	20.0%		43.3%	43.3%	43.3%	16.7%	60.0%	60.0%
Maximum Green (s)	31.0	31.0		31.0	31.0		73.0	73.0	73.0	27.0	103.0	103.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.0	3.5	3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5	1.5	0.0	1.5	1.5
Lost Time Adjust (s)		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	5.0	5.0	3.0	5.0	5.0
Lead/Lag							Lag	Lag	Lag	Lead		
Lead-Lag Optimize?							Yes	Yes	Yes	Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0	5.0	2.5	5.0	5.0
Recall Mode	None	None		None	None		Max	Max	Max	None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0		7.0	7.0
Flash Dont Walk (s)	24.0	24.0		24.0	24.0		17.0	17.0	17.0		17.0	17.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0		0	0
Act Effct Green (s)		17.8			10.3		86.5	86.5	86.5	105.0	103.0	103.0
Actuated g/C Ratio		0.12			0.07		0.59	0.59	0.59	0.72	0.70	0.70
v/c Ratio		1.30dl			0.61		0.02	0.67	0.01	0.58	0.55	0.25
Control Delay		72.3			16.9		16.5	23.6	0.0	17.8	11.7	5.9
Queue Delay		0.0			0.0		0.0	0.6	0.0	0.0	0.0	0.0
Total Delay		72.3			16.9		16.5	24.1	0.0	17.8	11.7	5.9
LOS		E			B		B	C	A	B	B	A
Approach Delay		72.3			16.9			23.9			11.4	
Approach LOS		E			B			C			B	
Queue Length 50th (m)		43.2			2.7		0.5	134.2	0.0	13.7	89.1	16.3
Queue Length 95th (m)		59.6			16.8		2.7	198.0	0.0	32.8	122.8	31.9
Internal Link Dist (m)		65.2			69.8			229.8			278.8	
Turn Bay Length (m)							65.0		30.0	75.0		30.0
Base Capacity (vph)		705			781		205	2061	946	432	2455	1125
Starvation Cap Reductn		0			0		0	307	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		0.41			0.33		0.02	0.78	0.01	0.39	0.55	0.25

Intersection Summary			
Area Type:	Other		
Cycle Length: 180			
Actuated Cycle Length: 146.2			
Natural Cycle: 145			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 21.2		Intersection LOS: C	
Intersection Capacity Utilization 92.7%		ICU Level of Service F	
Analysis Period (min) 15			

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

Splits and Phases: 24: Southridge Drive & Hunters Gate/Woodhaven Drive

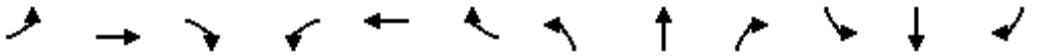


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	12	50	194	6	10	16	1567	258	8	1451	14
Future Volume (vph)	41	12	50	194	6	10	16	1567	258	8	1451	14
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	65.0		35.0	65.0		0.0
Storage Lanes	0		0	1		0	1		1	1		0
Taper Length (m)	2.5			2.5			40.0			40.0		
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		0.934			0.903				0.850		0.999	
Flt Protected		0.981		0.950			0.950			0.950		
Satd. Flow (prot)	0	1680	0	1742	1656	0	1742	3484	1559	1742	3481	0
Flt Permitted		0.864		0.442			0.096			0.100		
Satd. Flow (perm)	0	1480	0	811	1656	0	176	3484	1559	183	3481	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		28			11				80		1	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		139.0			152.6			167.8			145.3	
Travel Time (s)		10.0			11.0			12.1			10.5	
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
Adj. Flow (vph)	43	13	53	204	6	11	17	1649	272	8	1527	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	109	0	204	17	0	17	1649	272	8	1542	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1	1	1	1	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	
Trailing Detector (m)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Detector 1 Position(m)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Detector 1 Size(m)	6.0	2.0		6.0	2.0		6.0	2.0	4.1	6.0	2.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	Perm	NA	
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	7	4		3	8		5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		10.0	10.0		5.0	20.0	20.0	20.0	20.0	
Minimum Split (s)	32.5	32.5		30.0	30.0		9.5	27.0	27.0	27.0	27.0	
Total Split (s)	32.5	33.0		41.0	41.5		9.5	106.0	106.0	96.5	96.5	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	18.1%	18.3%		22.8%	23.1%		5.3%	58.9%	58.9%	53.6%	53.6%	
Maximum Green (s)	28.0	28.5		36.0	36.5		5.0	101.0	101.0	91.5	91.5	
Yellow Time (s)	3.0	3.0		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.0	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	0.0	
Total Lost Time (s)		4.5		5.0	5.0		4.5	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		3.0	5.0	5.0	5.0	5.0	
Recall Mode	None	None		None	None		None	Max	Max	Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	21.0	21.0		18.0	18.0			15.0	15.0	15.0	15.0	
Pedestrian Calls (#/hr)	0	0		0	0			0	0	0	0	
Act Effct Green (s)		12.6		36.5	36.5		101.8	101.3	101.3	97.8	97.8	
Actuated g/C Ratio		0.09		0.25	0.25		0.69	0.68	0.68	0.66	0.66	
v/c Ratio		0.72		0.63	0.04		0.10	0.69	0.25	0.07	0.67	
Control Delay		75.2		56.1	23.1		10.6	17.2	7.6	15.5	19.4	
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0	0.0	2.0	
Total Delay		75.2		56.1	23.1		10.6	17.2	7.6	15.5	21.4	
LOS		E		E	C		B	B	A	B	C	
Approach Delay		75.2			53.5			15.8			21.4	
Approach LOS		E			D			B			C	
Queue Length 50th (m)		23.4		51.2	1.4		1.4	140.6	18.7	0.7	124.2	
Queue Length 95th (m)		46.1		75.2	7.5		5.2	217.5	40.6	4.3	226.0	
Internal Link Dist (m)		115.0			128.6			143.8			121.3	
Turn Bay Length (m)							65.0		35.0	65.0		
Base Capacity (vph)		308		446	458		174	2387	1093	120	2301	
Starvation Cap Reductn		0		0	0		0	0	0	0	571	
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		0.35		0.46	0.04		0.10	0.69	0.25	0.07	0.89	

Intersection Summary			
Area Type:	Other		
Cycle Length: 180			
Actuated Cycle Length: 147.9			
Natural Cycle: 130			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 21.9		Intersection LOS: C	
Intersection Capacity Utilization 70.5%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 27: Northridge Drive & Riverside Way/Riverside Gate



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	74	363	15	165	11	324	1327	16	9	1144	27
Future Volume (vph)	27	74	363	15	165	11	324	1327	16	9	1144	27
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	40.0		0.0	40.0		0.0	65.0		40.0	65.0		50.0
Storage Lanes	0		1	0		1	1		1	1		1
Taper Length (m)	30.0			30.0			30.0			15.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected		0.987			0.996		0.950			0.950		
Satd. Flow (prot)	0	1810	1559	0	1827	1559	1742	3484	1559	1742	3484	1559
Flt Permitted		0.625			0.969		0.190			0.179		
Satd. Flow (perm)	0	1146	1559	0	1777	1559	348	3484	1559	328	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			219			58			39			58
Link Speed (k/h)		30			30			50			50	
Link Distance (m)		52.8			64.7			70.4			709.4	
Travel Time (s)		6.3			7.8			5.1			51.1	
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
Adj. Flow (vph)	28	78	382	16	174	12	341	1397	17	9	1204	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	106	382	0	190	12	341	1397	17	9	1204	28
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1	1	1	1	1	1	1	1	1	1	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0	6.1	8.0	2.0	6.1	6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	7.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	9.5	31.0	31.0	9.5	31.0	31.0	10.0	31.0	31.0	31.0	31.0	31.0
Total Split (s)	17.2	35.0	35.0	16.0	33.8	33.8	10.0	129.0	129.0	119.0	119.0	119.0

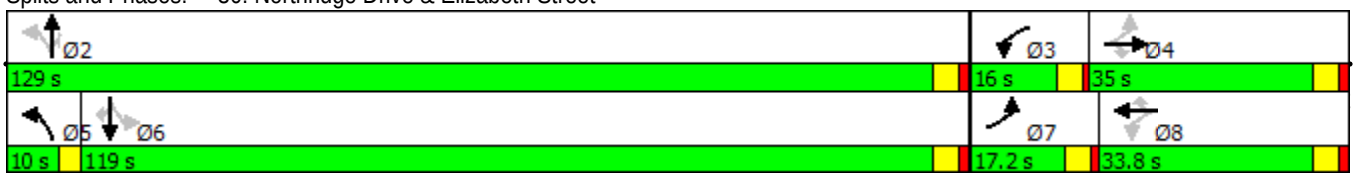
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	9.6%	19.4%	19.4%	8.9%	18.8%	18.8%	5.6%	71.7%	71.7%	66.1%	66.1%	66.1%
Maximum Green (s)	12.7	30.0	30.0	11.5	28.8	28.8	7.0	124.0	124.0	114.0	114.0	114.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.0	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	0.0	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	0.0	0.0	0.0
Total Lost Time (s)		5.0	5.0		5.0	5.0	3.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	2.5	2.5	3.0	2.5	2.5	2.5	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None	None	None	None	None	None	Max	Max	Max	Max	Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		19.0	19.0		19.0	19.0		19.0	19.0	19.0	19.0	19.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0	0	0	0
Act Effct Green (s)		23.7	23.7		23.7	23.7	126.2	124.2	124.2	114.2	114.2	114.2
Actuated g/C Ratio		0.15	0.15		0.15	0.15	0.80	0.79	0.79	0.72	0.72	0.72
v/c Ratio		0.62	0.91		0.71	0.04	1.01	0.51	0.01	0.04	0.48	0.02
Control Delay		78.3	53.7		78.7	0.3	61.8	7.3	0.2	8.2	10.6	0.1
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0
Total Delay		78.3	53.7		78.7	0.3	61.8	8.0	0.2	8.2	10.6	0.1
LOS		E	D		E	A	E	A	A	A	B	A
Approach Delay		59.0			74.0			18.4			10.3	
Approach LOS		E			E			B			B	
Queue Length 50th (m)		31.6	54.7		57.5	0.0	~26.9	77.2	0.0	0.8	81.4	0.0
Queue Length 95th (m)		52.8	#105.7		84.6	0.0	#81.3	101.5	0.4	3.0	104.5	0.4
Internal Link Dist (m)		28.8			40.7			46.4			685.4	
Turn Bay Length (m)							65.0		40.0	65.0		50.0
Base Capacity (vph)		218	474		329	336	339	2739	1234	237	2518	1143
Starvation Cap Reductn		0	0		0	0	0	903	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		0.49	0.81		0.58	0.04	1.01	0.76	0.01	0.04	0.48	0.02

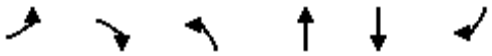
Intersection Summary			
Area Type:	Other		
Cycle Length: 180			
Actuated Cycle Length: 157.9			
Natural Cycle: 95			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.01			
Intersection Signal Delay: 24.1		Intersection LOS: C	
Intersection Capacity Utilization 89.1%		ICU Level of Service E	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

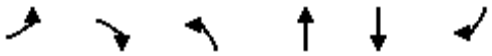
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 30: Northridge Drive & Elizabeth Street





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	40	150	227	1171	1080	45
Future Volume (vph)	40	150	227	1171	1080	45
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	70.0	0.0	70.0			35.0
Storage Lanes	1	1	1			1
Taper Length (m)	40.0		30.0			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1742	1559	1742	3484	3484	1559
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1742	1559	1742	3484	3484	1559
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		158				32
Link Speed (k/h)	30			50	50	
Link Distance (m)	120.4			709.4	306.5	
Travel Time (s)	14.4			51.1	22.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	42	158	239	1233	1137	47
Shared Lane Traffic (%)						
Lane Group Flow (vph)	42	158	239	1233	1137	47
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24	14	24			14
Number of Detectors	1	1	1	1	1	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (m)	8.0	6.1	8.0	4.0	4.0	6.1
Trailing Detector (m)	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	6.0	4.1	6.0	2.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	1.0	1.0	5.0	20.0	20.0	20.0
Minimum Split (s)	32.0	32.0	9.5	26.0	32.0	32.0
Total Split (s)	32.0	32.0	12.0	118.0	106.0	106.0



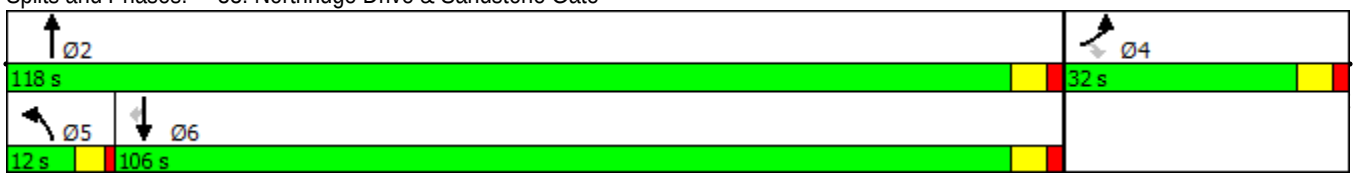
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Total Split (%)	21.3%	21.3%	8.0%	78.7%	70.7%	70.7%
Maximum Green (s)	26.0	26.0	7.5	112.0	100.0	100.0
Yellow Time (s)	4.0	4.0	3.5	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.5	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	Max	Max
Walk Time (s)	5.0	5.0				
Flash Dont Walk (s)	21.0	21.0				
Pedestrian Calls (#/hr)	0	0				
Act Effct Green (s)	8.5	8.5	7.5	112.1	100.1	100.1
Actuated g/C Ratio	0.06	0.06	0.06	0.85	0.75	0.75
v/c Ratio	0.38	0.64	2.44	0.42	0.43	0.04
Control Delay	68.8	20.8	702.2	3.1	6.7	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.8	20.8	702.2	3.1	6.7	2.3
LOS	E	C	F	A	A	A
Approach Delay	30.9			116.6	6.5	
Approach LOS	C			F	A	
Queue Length 50th (m)	10.7	0.0	~102.8	30.3	49.3	0.8
Queue Length 95th (m)	22.8	21.2	#159.9	47.3	69.2	4.3
Internal Link Dist (m)	96.4			685.4	282.5	
Turn Bay Length (m)	70.0		70.0			35.0
Base Capacity (vph)	341	432	98	2944	2629	1184
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	0.12	0.37	2.44	0.42	0.43	0.04

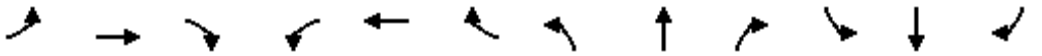
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 132.6			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 2.44			
Intersection Signal Delay: 65.0		Intersection LOS: E	
Intersection Capacity Utilization 60.7%		ICU Level of Service B	
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: 33: Northridge Drive & Sandstone Gate



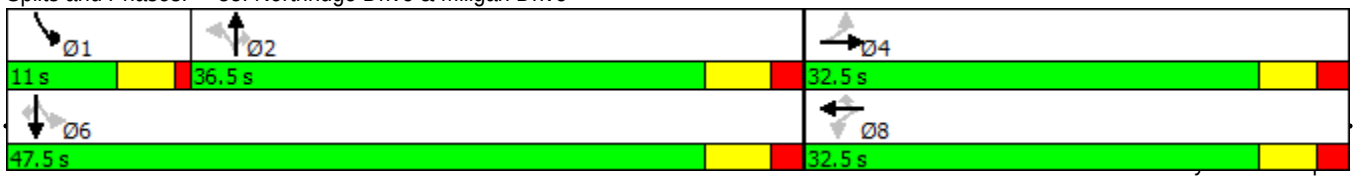


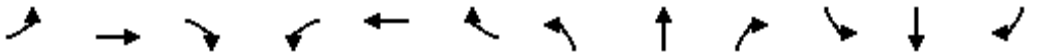
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	166	59	42	209	129	67	1128	16	195	1024	51
Future Volume (vph)	67	166	59	42	209	129	67	1128	16	195	1024	51
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		10.0	65.0		40.0	70.0		30.0	100.0		35.0
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (m)	2.5			35.0			30.0			35.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.961				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1742	1762	0	1742	3484	1559	1742	3484	1559	1742	3484	1559
Flt Permitted	0.614			0.500			0.265			0.117		
Satd. Flow (perm)	1126	1762	0	917	3484	1559	486	3484	1559	215	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24				136			95			50
Link Speed (k/h)		50			50			50			60	
Link Distance (m)		39.6			246.8			306.5			628.2	
Travel Time (s)		2.9			17.8			22.1			37.7	
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
Adj. Flow (vph)	71	175	62	44	220	136	71	1187	17	205	1078	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	71	237	0	44	220	136	71	1187	17	205	1078	54
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1	1	1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		6.0	2.0	4.1	6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Detector Phase	4	4		8	8	8	2	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	10.0	20.0	20.0	20.0	5.0	20.0	20.0
Minimum Split (s)	32.5	32.5		32.5	32.5	32.5	30.0	30.0	30.0	9.5	30.0	30.0
Total Split (s)	32.5	32.5		32.5	32.5	32.5	36.5	36.5	36.5	11.0	47.5	47.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	40.6%	40.6%		40.6%	40.6%	40.6%	45.6%	45.6%	45.6%	13.8%	59.4%	59.4%
Maximum Green (s)	27.0	27.0		27.0	27.0	27.0	30.5	30.5	30.5	6.5	41.5	41.5
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	4.0	4.0	4.0	3.5	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	1.0	2.0	2.0
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)	5.5	5.5		5.5	5.5	5.5	6.0	6.0	6.0	4.5	6.0	6.0
Lead/Lag							Lag	Lag	Lag	Lead		
Lead-Lag Optimize?							Yes	Yes	Yes	Yes		
Vehicle Extension (s)	3.5	3.5		3.5	3.5	3.5	5.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None		None	None	None	Max	Max	Max	None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0
Flash Dont Walk (s)	20.0	20.0		20.0	20.0	20.0	17.0	17.0	17.0		17.0	17.0
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0	0		0	0
Act Effct Green (s)	14.0	14.0		14.0	14.0	14.0	30.6	30.6	30.6	43.1	41.6	41.6
Actuated g/C Ratio	0.21	0.21		0.21	0.21	0.21	0.46	0.46	0.46	0.64	0.62	0.62
v/c Ratio	0.30	0.61		0.23	0.30	0.31	0.32	0.75	0.02	0.72	0.50	0.05
Control Delay	25.6	28.6		24.7	23.2	6.5	18.2	19.6	0.1	26.1	8.6	2.5
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	25.6	28.6		24.7	23.2	6.5	18.2	19.6	0.1	26.1	8.6	2.5
LOS	C	C		C	C	A	B	B	A	C	A	A
Approach Delay		27.9			17.7			19.3			11.0	
Approach LOS		C			B			B			B	
Queue Length 50th (m)	7.5	24.1		4.6	12.2	0.0	5.3	60.4	0.0	8.7	33.3	0.2
Queue Length 95th (m)	17.4	43.7		12.3	20.5	11.5	16.9	97.2	0.0	#42.7	59.0	4.2
Internal Link Dist (m)		15.6			222.8			282.5			604.2	
Turn Bay Length (m)				65.0		40.0	70.0		30.0	100.0		35.0
Base Capacity (vph)	453	724		369	1403	709	221	1585	761	286	2157	984
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	0.16	0.33		0.12	0.16	0.19	0.32	0.75	0.02	0.72	0.50	0.05

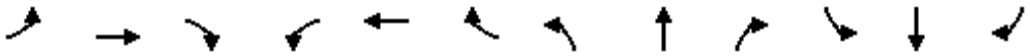
Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 67.2			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 16.6		Intersection LOS: B	
Intersection Capacity Utilization 85.9%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 35: Northridge Drive & Miligan Drive





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	221	20	7	0	20	842	0	1524	1	964	1504	261
Future Volume (vph)	221	20	7	0	20	842	0	1524	1	964	1504	261
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	45.0		45.0	0.0		40.0	155.0		165.0	170.0		150.0
Storage Lanes	1		1	0		1	1		1	1		1
Taper Length (m)	15.0			2.5			70.0			80.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1742	1871	1544	0	1716	909	1834	3484	1459	1725	3451	1472
Flt Permitted	0.419									0.950		
Satd. Flow (perm)	768	1871	1544	0	1716	909	1834	3484	1459	1725	3451	1472
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			42			346			67			275
Link Speed (k/h)		50			80			60			60	
Link Distance (m)		467.6			1651.2			203.5			221.1	
Travel Time (s)		33.7			74.3			12.2			13.3	
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 (%)	2%	0%	3%	17%	9%	75%	2%	2%	9%	3%	3%	8%
Adj. Flow (vph)	233	21	7	0	21	886	0	1604	1	1015	1583	275
Shared Lane Traffic (%)												
Lane Group Flow (vph)	233	21	7	0	21	886	0	1604	1	1015	1583	275
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1	1	1	1	1	1	1	1	1	1	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	2.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	2.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	6.0	2.0	4.1	8.0	2.0	4.1	6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA	Perm		NA	Free	Perm	NA	Perm	Prot	NA	Perm
Protected Phases	7	4			8			2		1	6	
Permitted Phases	4		4	8		Free	2		2			6
Detector Phase	7	4	4	8	8		2	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0		20.0	20.0	20.0	5.0	20.0	20.0
Minimum Split (s)	9.5	44.0	44.0	44.0	44.0		25.5	25.5	25.5	9.5	44.5	44.5



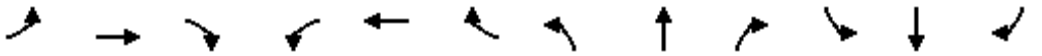
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	11.0	56.0	56.0	45.0	45.0		79.0	79.0	79.0	45.0	124.0	124.0
Total Split (%)	6.1%	31.1%	31.1%	25.0%	25.0%		43.9%	43.9%	43.9%	25.0%	68.9%	68.9%
Maximum Green (s)	6.5	51.0	51.0	40.0	40.0		73.5	73.5	73.5	40.5	118.5	118.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		4.0	4.0	4.0	3.5	4.0	4.0
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		1.5	1.5	1.5	1.0	1.5	1.5
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	5.0	5.0		5.0		5.5	5.5	5.5	4.5	5.5	5.5
Lead/Lag	Lead			Lag	Lag		Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes	Yes	Yes		
Vehicle Extension (s)	3.0	3.5	3.5	3.5	3.5		5.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None	None	None	None		Max	Max	Max	None	Max	Max
Walk Time (s)		7.0	7.0	7.0	7.0		7.0	7.0	7.0		7.0	7.0
Flash Dont Walk (s)		32.0	32.0	32.0	32.0		11.0	11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0	0	0		0	0	0		0	0
Act Effct Green (s)	16.9	16.4	16.4		10.0	145.6		73.6	73.6	40.6	118.7	118.7
Actuated g/C Ratio	0.12	0.11	0.11		0.07	1.00		0.51	0.51	0.28	0.82	0.82
v/c Ratio	1.62	0.10	0.03		0.18	0.97		0.91	0.00	2.11	0.56	0.22
Control Delay	347.8	57.9	0.3		69.6	27.3		42.5	0.0	535.6	6.0	0.8
Queue Delay	0.0	0.0	0.0		0.0	0.0		45.9	0.0	0.0	0.0	0.0
Total Delay	347.8	57.9	0.3		69.6	27.3		88.4	0.0	535.6	6.0	0.8
LOS	F	E	A		E	C		F	A	F	A	A
Approach Delay		315.1			28.3			88.3			192.6	
Approach LOS		F			C			F			F	
Queue Length 50th (m)	~96.7	5.5	0.0		6.0	0.0		233.0	0.0	~482.3	82.9	0.0
Queue Length 95th (m)	#150.4	13.9	0.0		15.2	#64.1		#285.7	0.0	#562.5	96.6	5.4
Internal Link Dist (m)		443.6			1627.2			179.5			197.1	
Turn Bay Length (m)	45.0		45.0			40.0			165.0	170.0		150.0
Base Capacity (vph)	144	656	568		471	909		1761	771	480	2812	1250
Starvation Cap Reductn	0	0	0		0	0		310	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	1.62	0.03	0.01		0.04	0.97		1.11	0.00	2.11	0.56	0.22

Intersection Summary			
Area Type:	Other		
Cycle Length: 180			
Actuated Cycle Length: 145.6			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 2.11			
Intersection Signal Delay: 142.2		Intersection LOS: F	
Intersection Capacity Utilization 129.9%		ICU Level of Service H	
Analysis Period (min) 15			

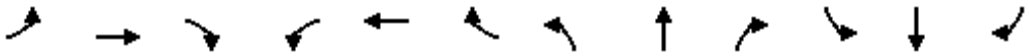
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Splits and Phases: 38: Northridge Drive & 338 Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	262	36	5	49	51	90	2	1283	28	131	1215	283
Future Volume (vph)	262	36	5	49	51	90	2	1283	28	131	1215	283
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		45.0	70.0		40.0	175.0		40.0
Storage Lanes	0		0	0		1	1		1	1		0
Taper Length (m)	2.5			2.5			30.0			55.0		
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		0.998				0.850			0.850		0.972	
Flt Protected		0.959			0.976		0.950			0.950		
Satd. Flow (prot)	0	1755	0	0	1790	1559	1742	3484	1559	1742	3387	0
Flt Permitted		0.682			0.791		0.099			0.091		
Satd. Flow (perm)	0	1248	0	0	1451	1559	182	3484	1559	167	3387	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				188			121		51	
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		216.0			158.4			628.2			439.5	
Travel Time (s)		15.6			11.4			37.7			26.4	
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
Adj. Flow (vph)	276	38	5	52	54	95	2	1351	29	138	1279	298
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	319	0	0	106	95	2	1351	29	138	1577	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		0.0			0.0			0.0			0.0	
Detector 2 Size(m)		0.0			0.0			0.0			0.0	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA	Free	Perm	NA	Perm	pm+pt	NA	
Protected Phases	7	4			8			2		1	6	
Permitted Phases	4			8		Free	2		2	6		

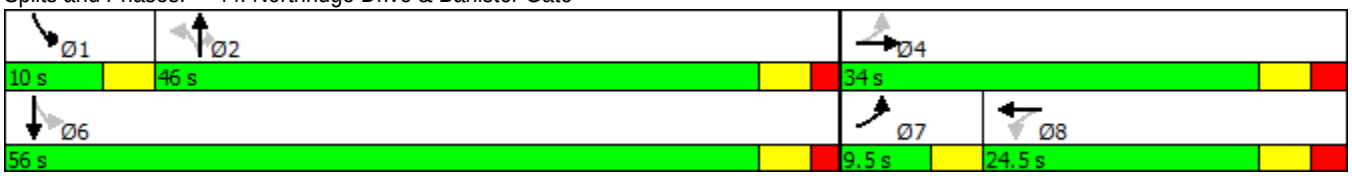


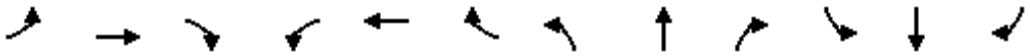
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4		8	8		2	2	2	1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	24.0		24.0	24.0		23.5	23.5	23.5	9.5	23.5	
Total Split (s)	9.5	34.0		24.5	24.5		46.0	46.0	46.0	10.0	56.0	
Total Split (%)	10.6%	37.8%		27.2%	27.2%		51.1%	51.1%	51.1%	11.1%	62.2%	
Maximum Green (s)	6.0	28.0		18.5	18.5		40.5	40.5	40.5	6.5	50.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	0.0	2.5		2.5	2.5		2.0	2.0	2.0	0.0	2.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.0			6.0		5.5	5.5	5.5	3.5	5.5	
Lead/Lag	Lead			Lag	Lag		Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes	Yes	Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		Max	Max	Max	None	Max	
Walk Time (s)		7.0		7.0	7.0		7.0	7.0	7.0		7.0	
Flash Dont Walk (s)		11.0		11.0	11.0		11.0	11.0	11.0		11.0	
Pedestrian Calls (#/hr)		0		0	0		0	0	0		0	
Act Effct Green (s)		27.0			27.0	89.1	40.5	40.5	40.5	52.5	50.5	
Actuated g/C Ratio		0.30			0.30	1.00	0.45	0.45	0.45	0.59	0.57	
v/c Ratio		0.84			0.24	0.06	0.02	0.85	0.04	0.65	0.81	
Control Delay		50.4			24.9	0.1	15.0	28.5	0.1	27.0	19.4	
Queue Delay		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		50.4			24.9	0.1	15.0	28.5	0.1	27.0	19.4	
LOS		D			C	A	B	C	A	C	B	
Approach Delay		50.4			13.2			27.9			20.0	
Approach LOS		D			B			C			C	
Queue Length 50th (m)		50.6			13.5	0.0	0.2	106.7	0.0	10.0	105.7	
Queue Length 95th (m)		#95.1			26.2	0.0	1.5	136.6	0.0	#30.6	136.7	
Internal Link Dist (m)		192.0			134.4			604.2			415.5	
Turn Bay Length (m)						45.0	70.0		40.0	175.0		
Base Capacity (vph)		392			440	1559	82	1584	775	213	1943	
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		0.81			0.24	0.06	0.02	0.85	0.04	0.65	0.81	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 89.1			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 25.3		Intersection LOS: C	
Intersection Capacity Utilization 85.9%		ICU Level of Service E	
Analysis Period (min) 15			

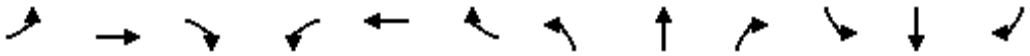
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 44: Northridge Drive & Banister Gate





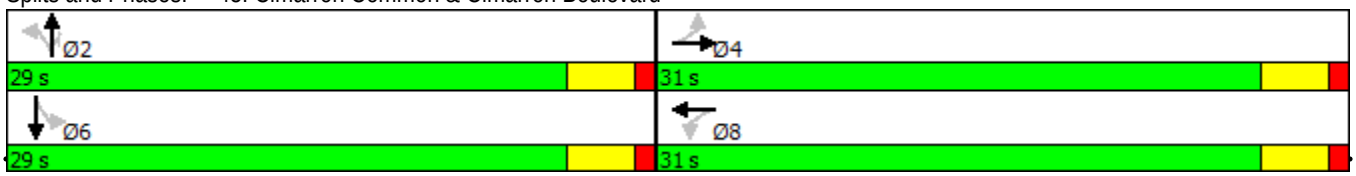
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	247	21	76	341	25	23	37	144	17	24	15
Future Volume (vph)	15	247	21	76	341	25	23	37	144	17	24	15
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	0.0		10.0	0.0		0.0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989			0.992				0.850		0.963	
Flt Protected		0.997			0.991			0.981			0.985	
Satd. Flow (prot)	0	3469	0	0	3461	0	0	1748	1574	0	1746	0
Flt Permitted		0.931			0.860			0.874			0.900	
Satd. Flow (perm)	0	3239	0	0	3004	0	0	1558	1574	0	1595	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			13				152		16	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		236.7			77.5			76.0			62.8	
Travel Time (s)		17.0			5.6			5.5			4.5	
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%	1%	2%	1%	1%	0%	0%	8%	1%	0%	0%	6%
Adj. Flow (vph)	16	260	22	80	359	26	24	39	152	18	25	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	298	0	0	465	0	0	63	152	0	59	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1	1	1	1	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	
Trailing Detector (m)	0.0	2.0		0.0	2.0		0.0	2.0	0.0	0.0	2.0	
Detector 1 Position(m)	0.0	2.0		0.0	2.0		0.0	2.0	0.0	0.0	2.0	
Detector 1 Size(m)	8.0	2.0		8.0	2.0		8.0	2.0	6.1	8.0	2.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	22.0	22.0		22.0	22.0		29.0	29.0	29.0	29.0	29.0	

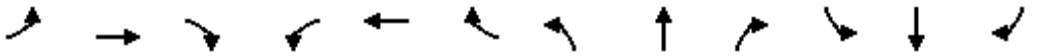


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	31.0	31.0		31.0	31.0		29.0	29.0	29.0	29.0	29.0	
Total Split (%)	51.7%	51.7%		51.7%	51.7%		48.3%	48.3%	48.3%	48.3%	48.3%	
Maximum Green (s)	27.0	27.0		27.0	27.0		25.0	25.0	25.0	25.0	25.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	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 Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None	None	None	None	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	13.0	13.0		13.0	13.0		20.0	20.0	20.0	20.0	20.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	
Act Effct Green (s)		32.0			32.0			10.0	10.0		10.0	
Actuated g/C Ratio		0.69			0.69			0.22	0.22		0.22	
v/c Ratio		0.13			0.22			0.19	0.33		0.17	
Control Delay		3.6			4.1			16.1	5.8		12.7	
Queue Delay		0.0			0.0			0.0	0.0		0.0	
Total Delay		3.6			4.1			16.1	5.8		12.7	
LOS		A			A			B	A		B	
Approach Delay		3.6			4.1			8.8			12.7	
Approach LOS		A			A			A			B	
Queue Length 50th (m)		4.1			7.1			4.0	0.0		2.7	
Queue Length 95th (m)		7.5			12.0			11.1	10.0		9.3	
Internal Link Dist (m)		212.7			53.5			52.0			38.8	
Turn Bay Length (m)									10.0			
Base Capacity (vph)		2238			2075			841	920		869	
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		0.13			0.22			0.07	0.17		0.07	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 46.4			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.33			
Intersection Signal Delay: 5.4		Intersection LOS: A	
Intersection Capacity Utilization 41.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 45: Cimarron Common & Cimarron Boulevard



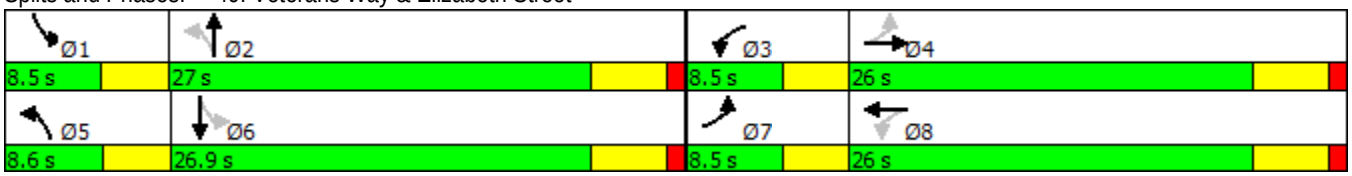


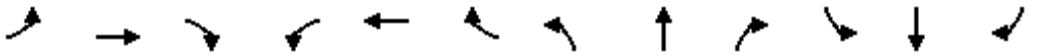
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	31	72	5	61	21	69	241	8	27	200	12
Future Volume (vph)	10	31	72	5	61	21	69	241	8	27	200	12
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	20.0		0.0	25.0		0.0	10.0		0.0	18.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	20.0			15.0			10.0			18.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.895			0.962			0.995			0.991	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1742	1641	0	1742	1764	0	1742	1825	0	1742	1817	0
Flt Permitted	0.701			0.687			0.575			0.597		
Satd. Flow (perm)	1286	1641	0	1260	1764	0	1054	1825	0	1095	1817	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		76			22			2			5	
Link Speed (k/h)		30			30			30			30	
Link Distance (m)		453.7			99.3			88.2			148.0	
Travel Time (s)		54.4			11.9			10.6			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
Adj. Flow (vph)	11	33	76	5	64	22	73	254	8	28	211	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	109	0	5	86	0	73	262	0	28	224	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0		8.0	4.0	
Trailing Detector (m)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Detector 1 Position(m)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Detector 1 Size(m)	6.0	2.0		6.0	2.0		6.0	2.0		6.0	2.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0		5.0	10.0	
Minimum Split (s)	8.5	26.0		8.5	26.0		8.5	26.0		8.5	26.0	
Total Split (s)	8.5	26.0		8.5	26.0		8.6	27.0		8.5	26.9	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	12.1%	37.1%		12.1%	37.1%		12.3%	38.6%		12.1%	38.4%	
Maximum Green (s)	5.0	21.0		5.0	21.0		5.1	22.0		5.0	21.9	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	0.0	1.0		0.0	1.0		0.0	1.0		0.0	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)	3.5	5.0		3.5	5.0		3.5	5.0		3.5	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.5	3.5		2.5	3.5		3.0	4.0		2.5	4.0	
Recall Mode	None	None		None	None		None	Max		None	Max	
Walk Time (s)		7.0			7.0			7.0		0.0	7.0	
Flash Dont Walk (s)		14.0			14.0			14.0		0.0	14.0	
Pedestrian Calls (#/hr)		0			0			0		0	0	
Act Effct Green (s)	11.0	10.2		11.0	10.2		32.3	31.1		30.9	27.7	
Actuated g/C Ratio	0.22	0.21		0.22	0.21		0.65	0.63		0.62	0.56	
v/c Ratio	0.03	0.27		0.02	0.23		0.10	0.23		0.04	0.22	
Control Delay	14.3	10.9		14.0	16.7		5.3	8.4		5.3	10.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	14.3	10.9		14.0	16.7		5.3	8.4		5.3	10.6	
LOS	B	B		B	B		A	A		A	B	
Approach Delay		11.2			16.5			7.8			10.0	
Approach LOS		B			B			A			A	
Queue Length 50th (m)	0.8	2.5		0.4	4.9		2.0	9.0		0.8	11.9	
Queue Length 95th (m)	3.4	14.2		2.2	16.3		8.2	36.3		4.1	31.0	
Internal Link Dist (m)		429.7			75.3			64.2			124.0	
Turn Bay Length (m)	20.0			25.0			10.0			18.0		
Base Capacity (vph)	333	747		329	770		758	1146		747	1017	
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	0.03	0.15		0.02	0.11		0.10	0.23		0.04	0.22	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 49.6			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.27			
Intersection Signal Delay: 10.0		Intersection LOS: A	
Intersection Capacity Utilization 37.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 49: Veterans Way & Elizabeth Street





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	382	611	0	0	533	779	0	2	0	595	3	535
Future Volume (vph)	382	611	0	0	533	779	0	2	0	595	3	535
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	195.0		0.0	40.0		145.0	0.0		0.0	70.0		0.0
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (m)	95.0			30.0			2.5			40.0		
Lane Util. Factor	1.00	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						0.850
Flt Protected	0.950										0.953	
Satd. Flow (prot)	1630	1670	0	0	1781	1544	0	1871	0	0	1698	1590
Flt Permitted	0.189										0.953	
Satd. Flow (perm)	324	1670	0	0	1781	1544	0	1871	0	0	1698	1590
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						820						517
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		352.3			293.1			58.8			315.8	
Travel Time (s)		25.4			21.1			4.2			22.7	
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 (%)	9%	12%	0%	0%	5%	3%	0%	0%	0%	5%	0%	0%
Adj. Flow (vph)	402	643	0	0	561	820	0	2	0	626	3	563
Shared Lane Traffic (%)												
Lane Group Flow (vph)	402	643	0	0	561	820	0	2	0	0	629	563
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1	1	1	1		1	1	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0	6.1	8.0	4.0		8.0	4.0	6.1
Trailing Detector (m)	2.0	2.0		0.0	2.0	2.0	0.0	2.0		0.0	2.0	2.0
Detector 1 Position(m)	2.0	2.0		0.0	2.0	2.0	0.0	2.0		0.0	2.0	2.0
Detector 1 Size(m)	6.0	2.0		8.0	2.0	4.1	8.0	2.0		8.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	pm+pt	NA			NA	Free		NA		Split	NA	Perm
Protected Phases	7	4			8			2		6	6	
Permitted Phases	4			8		Free	2					6
Detector Phase	7	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	7.0	15.0		15.0	15.0		12.0	12.0		12.0	12.0	12.0
Minimum Split (s)	11.0	22.0		22.0	22.0		17.5	17.5		17.5	17.5	17.5

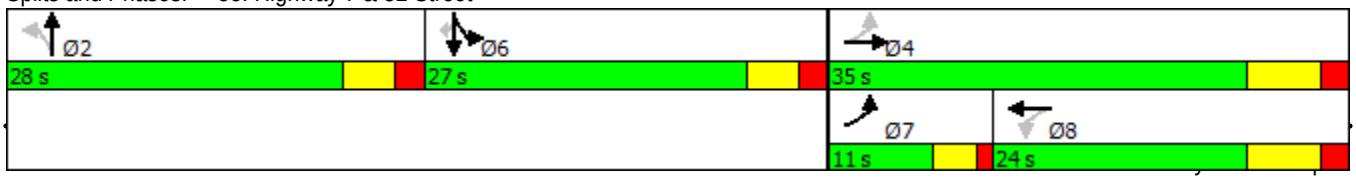
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	11.0	35.0		24.0	24.0		28.0	28.0		27.0	27.0	27.0
Total Split (%)	12.2%	38.9%		26.7%	26.7%		31.1%	31.1%		30.0%	30.0%	30.0%
Maximum Green (s)	7.0	28.0		17.0	17.0		22.5	22.5		21.5	21.5	21.5
Yellow Time (s)	3.0	5.0		5.0	5.0		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)	4.0	7.0			7.0			5.5			5.5	5.5
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	4.0		4.0	4.0		3.5	3.5		3.5	3.5	3.5
Recall Mode	None	None		None	None		None	None		None	None	None
Act Effct Green (s)	31.3	28.3			17.2	65.5		12.1			21.7	21.7
Actuated g/C Ratio	0.48	0.43			0.26	1.00		0.18			0.33	0.33
v/c Ratio	1.36	0.89			1.20	0.53		0.01			1.12	0.64
Control Delay	202.1	36.4			136.6	1.3		25.5			100.2	7.2
Queue Delay	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Delay	202.1	36.4			136.6	1.3		25.5			100.2	7.2
LOS	F	D			F	A		C			F	A
Approach Delay		100.1			56.3			25.5			56.2	
Approach LOS		F			E			C			E	
Queue Length 50th (m)	~45.0	61.8			~77.7	0.0		0.2			~82.0	3.5
Queue Length 95th (m)	#127.1	#171.6			#175.6	0.0		2.1			#187.1	34.3
Internal Link Dist (m)		328.3			269.1			34.8			291.8	
Turn Bay Length (m)	195.0					145.0						
Base Capacity (vph)	295	721			466	1544		648			562	873
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	1.36	0.89			1.20	0.53		0.00			1.12	0.64

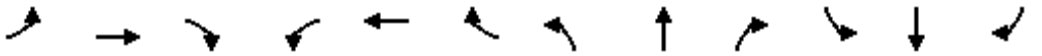
Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 65.5			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.36			
Intersection Signal Delay: 68.9		Intersection LOS: E	
Intersection Capacity Utilization 118.8%		ICU Level of Service H	
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: 55: Highway 7 & 32 Street





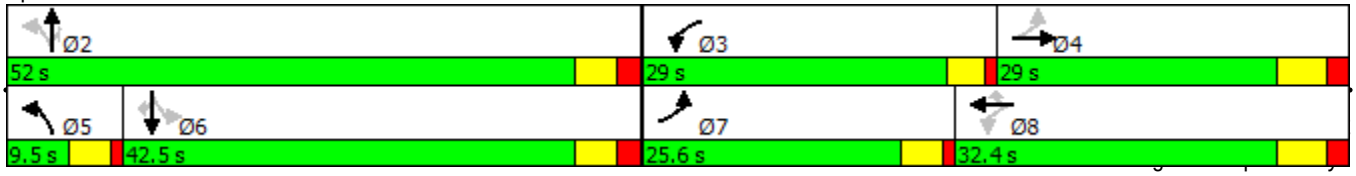
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	135	176	76	86	312	118	85	1014	64	106	971	179
Future Volume (vph)	135	176	76	86	312	118	85	1014	64	106	971	179
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	70.0		30.0	70.0		35.0	65.0		40.0	70.0		35.0
Storage Lanes	0		0	1		1	1		1	1		1
Taper Length (m)	30.0			30.0			35.0			30.0		
Lane Util. Factor	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.971				0.850			0.850			0.850
Flt Protected		0.983		0.950			0.950			0.950		
Satd. Flow (prot)	0	3295	0	1742	3554	1574	1742	3231	1559	1777	3417	1559
Flt Permitted		0.732		0.355			0.147			0.233		
Satd. Flow (perm)	0	2453	0	651	3554	1574	270	3231	1559	436	3417	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32				124			74			119
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		135.3			228.7			315.8			299.7	
Travel Time (s)		9.7			16.5			22.7			21.6	
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%	0%	8%	2%	0%	1%	2%	10%	2%	0%	4%	2%
Adj. Flow (vph)	142	185	80	91	328	124	89	1067	67	112	1022	188
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	407	0	91	328	124	89	1067	67	112	1022	188
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1	1	1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		6.0	2.0	4.1	8.0	2.0	6.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4			8		8	2		2	6		6
Detector Phase	7	4		3	8	8	5	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	15.0		7.0	15.0	15.0	5.0	12.0	12.0	12.0	12.0	12.0
Minimum Split (s)	9.5	29.0		11.0	29.0	29.0	9.5	28.5	28.5	28.5	28.5	28.5

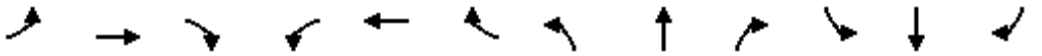
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	25.6	29.0		29.0	32.4	32.4	9.5	52.0	52.0	42.5	42.5	42.5
Total Split (%)	23.3%	26.4%		26.4%	29.5%	29.5%	8.6%	47.3%	47.3%	38.6%	38.6%	38.6%
Maximum Green (s)	21.1	23.0		25.0	26.4	26.4	5.0	46.5	46.5	37.0	37.0	37.0
Yellow Time (s)	3.5	4.0		3.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	2.0		1.0	2.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0
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)		6.0		4.0	6.0	6.0	4.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	4.0		2.5	4.0	4.0	3.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None	None	None	None	None	None	None	None
Walk Time (s)		7.0			7.0	7.0		7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		16.0			16.0	16.0		16.0	16.0	16.0	16.0	16.0
Pedestrian Calls (#/hr)		0			0	0		0	0	0	0	0
Act Effct Green (s)		19.4		30.9	28.8	28.8	46.0	45.0	45.0	37.8	37.8	37.8
Actuated g/C Ratio		0.23		0.36	0.34	0.34	0.54	0.53	0.53	0.44	0.44	0.44
v/c Ratio		0.70		0.27	0.27	0.20	0.38	0.63	0.08	0.58	0.68	0.25
Control Delay		36.3		20.2	21.0	4.6	16.5	17.7	3.2	38.1	24.2	8.6
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		36.3		20.2	21.0	4.6	16.5	17.7	3.2	38.1	24.2	8.6
LOS		D		C	C	A	B	B	A	D	C	A
Approach Delay		36.3			17.1			16.8			23.1	
Approach LOS		D			B			B			C	
Queue Length 50th (m)		31.5		10.2	20.8	0.0	7.1	65.3	0.0	14.8	75.2	7.1
Queue Length 95th (m)		49.1		19.6	30.5	10.2	16.3	98.4	5.8	#43.5	109.4	21.9
Internal Link Dist (m)		111.3			204.7			291.8			275.7	
Turn Bay Length (m)				70.0		35.0	65.0		40.0	70.0		35.0
Base Capacity (vph)		697		577	1325	664	233	1795	899	192	1510	755
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		0.58		0.16	0.25	0.19	0.38	0.59	0.07	0.58	0.68	0.25

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 85.6
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 21.5 — Intersection LOS: C
Intersection Capacity Utilization 83.0% — ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 58: 32 Street & Cimarron Boulevard/Southbank Boulevard



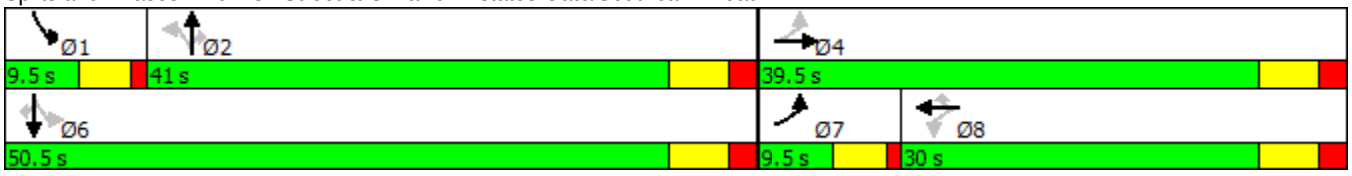


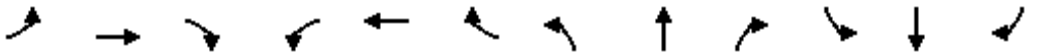
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	10	16	37	16	204	22	1220	25	96	1204	33
Future Volume (vph)	16	10	16	37	16	204	22	1220	25	96	1204	33
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		45.0	65.0		35.0	95.0		35.0
Storage Lanes	0		0	0		1	1		1	1		1
Taper Length (m)	2.5			2.5			35.0			35.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.943				0.850			0.850			0.850
Flt Protected		0.981			0.966		0.950			0.950		
Satd. Flow (prot)	0	3223	0	0	3366	1559	1742	3484	1559	1742	3484	1559
Flt Permitted		0.841			0.769		0.219			0.130		
Satd. Flow (perm)	0	2763	0	0	2679	1559	402	3484	1559	238	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17				215			145			91
Link Speed (k/h)		30			50			50			50	
Link Distance (m)		162.5			126.3			299.7			1173.6	
Travel Time (s)		19.5			9.1			21.6			84.5	
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
Adj. Flow (vph)	17	11	17	39	17	215	23	1284	26	101	1267	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	45	0	0	56	215	23	1284	26	101	1267	35
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1	1	1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0	4.1	6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4			8			2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Detector Phase	7	4		8	8	8	2	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0		10.0	10.0	10.0	20.0	20.0	20.0	5.0	20.0	20.0
Minimum Split (s)	9.5	34.0		30.0	30.0	30.0	27.0	27.0	27.0	9.5	29.0	29.0
Total Split (s)	9.5	39.5		30.0	30.0	30.0	41.0	41.0	41.0	9.5	50.5	50.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	10.6%	43.9%		33.3%	33.3%	33.3%	45.6%	45.6%	45.6%	10.6%	56.1%	56.1%
Maximum Green (s)	5.0	33.5		24.0	24.0	24.0	35.0	35.0	35.0	5.0	44.5	44.5
Yellow Time (s)	3.5	4.0		4.0	4.0	4.0	4.0	4.0	4.0	3.5	4.0	4.0
All-Red Time (s)	1.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	1.0	2.0	2.0
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)		6.0			6.0	6.0	6.0	6.0	6.0	4.5	6.0	6.0
Lead/Lag	Lead			Lag	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	5.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None		None	None	None	Max	Max	Max	None	Max	Max
Walk Time (s)		7.0		7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0
Flash Dont Walk (s)		21.0		17.0	17.0	17.0	14.0	14.0	14.0		16.0	16.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0	0		0	0
Act Effct Green (s)		10.2			10.2	10.2	38.4	38.4	38.4	47.7	46.2	46.2
Actuated g/C Ratio		0.15			0.15	0.15	0.56	0.56	0.56	0.70	0.67	0.67
v/c Ratio		0.11			0.14	0.52	0.10	0.66	0.03	0.37	0.54	0.03
Control Delay		18.1			25.4	9.2	9.7	13.2	0.0	7.3	6.8	0.1
Queue Delay		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		18.1			25.4	9.2	9.7	13.2	0.0	7.3	6.8	0.1
LOS		B			C	A	A	B	A	A	A	A
Approach Delay		18.1			12.5			12.9			6.7	
Approach LOS		B			B			B			A	
Queue Length 50th (m)		1.5			3.2	0.0	1.3	57.7	0.0	3.3	35.4	0.0
Queue Length 95th (m)		5.5			7.7	16.0	5.0	82.0	0.0	7.5	51.5	0.2
Internal Link Dist (m)		138.5			102.3			275.7			1149.6	
Turn Bay Length (m)						45.0	65.0		35.0	95.0		35.0
Base Capacity (vph)		1362			940	687	225	1954	938	275	2351	1081
Starvation Cap Reductn		0			0	0	0	0	0	0	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		0.03			0.06	0.31	0.10	0.66	0.03	0.37	0.54	0.03

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 68.5			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 10.1		Intersection LOS: B	
Intersection Capacity Utilization 74.6%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 61: 32 Street & Cimarron Estates Gate/Southbank Road



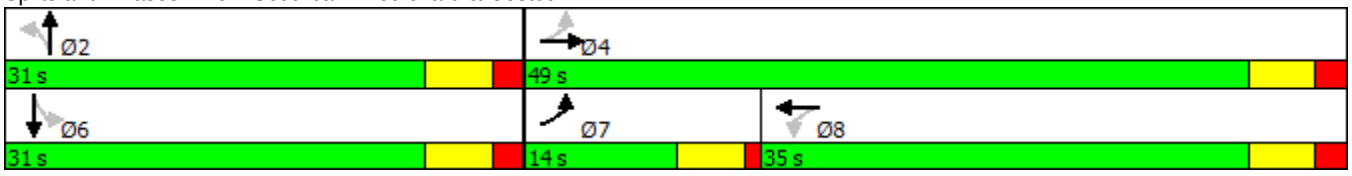


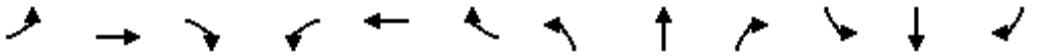
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	81	38	3	165	14	50	2	7	31	2	193
Future Volume (vph)	150	81	38	3	165	14	50	2	7	31	2	193
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	70.0		0.0	45.0		0.0	0.0		0.0	30.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	35.0			30.0			2.5			30.0		
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		0.952			0.988			0.883			0.851	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1742	3317	0	1742	3443	0	1742	1619	0	1742	1561	0
Flt Permitted	0.373			0.673			0.629			0.752		
Satd. Flow (perm)	684	3317	0	1234	3443	0	1154	1619	0	1379	1561	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40			13			7			203	
Link Speed (k/h)		50			50			30			30	
Link Distance (m)		228.7			107.0			102.0			81.0	
Travel Time (s)		16.5			7.7			12.2			9.7	
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
Adj. Flow (vph)	158	85	40	3	174	15	53	2	7	33	2	203
Shared Lane Traffic (%)												
Lane Group Flow (vph)	158	125	0	3	189	0	53	9	0	33	205	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0		8.0	4.0	
Trailing Detector (m)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Detector 1 Position(m)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Detector 1 Size(m)	6.0	2.0		6.0	2.0		6.0	2.0		6.0	2.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	12.0	34.0		35.0	35.0		31.0	31.0		30.0	30.0	
Total Split (s)	14.0	49.0		35.0	35.0		31.0	31.0		31.0	31.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	17.5%	61.3%		43.8%	43.8%		38.8%	38.8%		38.8%	38.8%	
Maximum Green (s)	9.0	43.0		29.0	29.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)		7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		21.0		22.0	22.0		18.0	18.0		17.0	17.0	
Pedestrian Calls (#/hr)		0		0	0		0	0		0	0	
Act Effct Green (s)	20.3	20.6		10.7	10.7		10.7	10.7		10.7	10.7	
Actuated g/C Ratio	0.49	0.50		0.26	0.26		0.26	0.26		0.26	0.26	
v/c Ratio	0.28	0.07		0.01	0.21		0.18	0.02		0.09	0.37	
Control Delay	6.9	4.2		14.3	14.5		16.6	10.3		15.3	5.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	6.9	4.2		14.3	14.5		16.6	10.3		15.3	5.5	
LOS	A	A		B	B		B	B		B	A	
Approach Delay		5.7			14.5			15.7			6.8	
Approach LOS		A			B			B			A	
Queue Length 50th (m)	5.5	1.5		0.2	6.1		3.5	0.1		2.1	0.1	
Queue Length 95th (m)	12.0	4.2		1.6	12.5		10.4	2.7		7.1	12.0	
Internal Link Dist (m)		204.7			83.0			78.0			57.0	
Turn Bay Length (m)	70.0			45.0						30.0		
Base Capacity (vph)	591	3161		872	2439		735	1034		879	1068	
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	0.27	0.04		0.00	0.08		0.07	0.01		0.04	0.19	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 41.4			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.37			
Intersection Signal Delay: 9.0		Intersection LOS: A	
Intersection Capacity Utilization 57.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 64: Southbank Boulevard & Costco



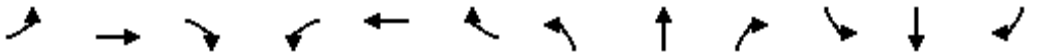


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	20	164	56	77	117	165	1158	117	6	1113	4
Future Volume (vph)	6	20	164	56	77	117	165	1158	117	6	1113	4
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	70.0		45.0	70.0		35.0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (m)	2.5			2.5			25.0			30.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.870			0.930				0.850			0.850
Flt Protected		0.999			0.989		0.950			0.950		
Satd. Flow (prot)	0	3028	0	0	3205	0	1742	3484	1559	1742	3484	1559
Flt Permitted		0.939			0.826		0.189			0.230		
Satd. Flow (perm)	0	2846	0	0	2677	0	347	3484	1559	422	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		173			86				97			53
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		157.3			183.5			1173.6			372.6	
Travel Time (s)		11.3			13.2			84.5			26.8	
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
Adj. Flow (vph)	6	21	173	59	81	123	174	1219	123	6	1172	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	200	0	0	263	0	174	1219	123	6	1172	4
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	20.0	20.0	10.0	10.0	10.0
Minimum Split (s)	39.0	39.0		39.0	39.0		9.5	33.0	33.0	33.0	33.0	33.0
Total Split (s)	43.0	43.0		43.0	43.0		25.0	92.0	92.0	67.0	67.0	67.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	31.9%	31.9%		31.9%	31.9%		18.5%	68.1%	68.1%	49.6%	49.6%	49.6%
Maximum Green (s)	37.0	37.0		37.0	37.0		21.5	86.0	86.0	61.0	61.0	61.0
Yellow Time (s)	4.0	4.0		4.0	4.0		3.5	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		0.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		3.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	4.0	4.0	4.0	4.0	4.0
Recall Mode	None	None		None	None		None	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0			7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	26.0	26.0		26.0	26.0			20.0	20.0	20.0	20.0	20.0
Pedestrian Calls (#/hr)	0	0		0	0			0	0	0	0	0
Act Effct Green (s)		13.1			13.1		88.5	86.0	86.0	73.8	73.8	73.8
Actuated g/C Ratio		0.12			0.12		0.80	0.77	0.77	0.66	0.66	0.66
v/c Ratio		0.41			0.67		0.45	0.45	0.10	0.02	0.51	0.00
Control Delay		12.4			40.2		6.7	5.2	1.3	8.7	11.1	0.0
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		12.4			40.2		6.7	5.2	1.3	8.7	11.1	0.0
LOS		B			D		A	A	A	A	B	A
Approach Delay		12.4			40.2			5.1			11.0	
Approach LOS		B			D			A			B	
Queue Length 50th (m)		2.7			19.4		6.6	38.7	1.1	0.4	58.5	0.0
Queue Length 95th (m)		13.2			33.1		14.1	60.5	5.7	2.3	98.0	0.0
Internal Link Dist (m)		133.3			159.5			1149.6			348.6	
Turn Bay Length (m)							70.0		45.0	70.0		35.0
Base Capacity (vph)		1063			948		546	2697	1228	280	2314	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		0.19			0.28		0.32	0.45	0.10	0.02	0.51	0.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 135			
Actuated Cycle Length: 111.1			
Natural Cycle: 85			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 10.7		Intersection LOS: B	
Intersection Capacity Utilization 77.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 67: 32 Street & North Railway Street

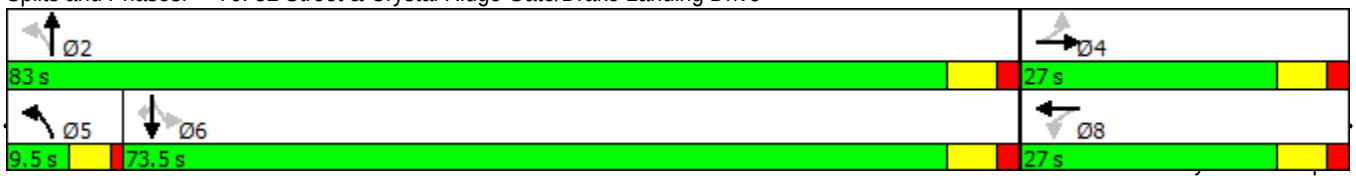


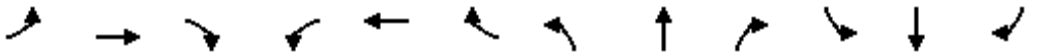
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	16	56	103	12	25	88	1082	149	30	1000	15
Future Volume (vph)	12	16	56	103	12	25	88	1082	149	30	1000	15
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		5.0	0.0		5.0	25.0		0.0	75.0		35.0
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (m)	2.5			2.5			5.0			35.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.911			0.976			0.982				0.850
Flt Protected		0.993			0.965		0.950			0.950		
Satd. Flow (prot)	0	1659	0	0	1727	0	1742	1801	0	1742	1834	1559
Flt Permitted		0.949			0.743		0.086			0.058		
Satd. Flow (perm)	0	1585	0	0	1330	0	158	1801	0	106	1834	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		59			9			15				74
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		116.1			112.6			742.0			568.0	
Travel Time (s)		8.4			8.1			53.4			40.9	
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
Adj. Flow (vph)	13	17	59	108	13	26	93	1139	157	32	1053	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	89	0	0	147	0	93	1296	0	32	1053	16
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1		1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0		8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		2.0	2.0		2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		2.0	2.0		2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		6.0	2.0		6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		5	2		6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	20.0		20.0	20.0	20.0
Minimum Split (s)	27.0	27.0		27.0	27.0		9.5	26.0		26.0	26.0	26.0
Total Split (s)	27.0	27.0		27.0	27.0		9.5	83.0		73.5	73.5	73.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	24.5%	24.5%		24.5%	24.5%		8.6%	75.5%		66.8%	66.8%	66.8%
Maximum Green (s)	21.0	21.0		21.0	21.0		5.0	77.0		67.5	67.5	67.5
Yellow Time (s)	4.0	4.0		4.0	4.0		3.5	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		4.5	6.0		6.0	6.0	6.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	5.0		5.0	5.0	5.0
Recall Mode	None	None		None	None		None	Max		Max	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0			7.0		7.0	7.0	7.0
Flash Dont Walk (s)	14.0	14.0		14.0	14.0			12.0		12.0	12.0	12.0
Pedestrian Calls (#/hr)	0	0		0	0			0		0	0	0
Act Effct Green (s)		15.7			15.7		79.4	77.9		68.4	68.4	68.4
Actuated g/C Ratio		0.15			0.15		0.75	0.74		0.65	0.65	0.65
v/c Ratio		0.31			0.72		0.48	0.97		0.47	0.89	0.02
Control Delay		19.2			59.4		13.0	34.1		38.8	27.5	0.0
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		19.2			59.4		13.0	34.1		38.8	27.5	0.0
LOS		B			E		B	C		D	C	A
Approach Delay		19.2			59.4			32.7			27.4	
Approach LOS		B			E			C			C	
Queue Length 50th (m)		5.4			27.1		4.2	211.0		3.0	164.2	0.0
Queue Length 95th (m)		18.9			48.0		11.3	#376.5		#19.9	#295.2	0.0
Internal Link Dist (m)		92.1			88.6			718.0			544.0	
Turn Bay Length (m)							25.0			75.0		35.0
Base Capacity (vph)		362			271		193	1332		68	1188	1036
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		0.25			0.54		0.48	0.97		0.47	0.89	0.02

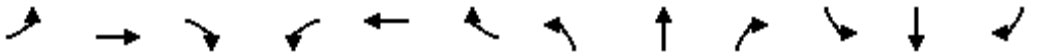
Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 105.6			
Natural Cycle: 110			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay: 31.5		Intersection LOS: C	
Intersection Capacity Utilization 99.8%		ICU Level of Service F	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 70: 32 Street & Crystal Ridge Gate/Drake Landing Drive





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	119	124	60	1	68	139	102	1028	1	195	980	99
Future Volume (vph)	119	124	60	1	68	139	102	1028	1	195	980	99
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	25.0		0.0	65.0		25.0
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (m)	2.5			2.5			5.0			35.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970			0.900							0.850
Flt Protected		0.981					0.950			0.950		
Satd. Flow (prot)	0	3316	0	0	3136	0	1742	1834	0	1742	1834	1559
Flt Permitted		0.763			0.953		0.127			0.116		
Satd. Flow (perm)	0	2579	0	0	2989	0	233	1834	0	213	1834	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38			146							82
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		216.0			184.0			568.0			548.7	
Travel Time (s)		15.6			13.2			40.9			39.5	
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
Adj. Flow (vph)	125	131	63	1	72	146	107	1082	1	205	1032	104
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	319	0	0	219	0	107	1083	0	205	1032	104
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1		1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0		8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		2.0	2.0		2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		2.0	2.0		2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		6.0	2.0		6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		6.0	20.0		6.0	20.0	20.0
Minimum Split (s)	22.0	22.0		22.0	22.0		10.0	28.0		10.0	28.0	28.0
Total Split (s)	28.0	28.0		28.0	28.0		13.0	35.0		17.0	39.0	39.0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	35.0%	35.0%		35.0%	35.0%		16.3%	43.8%		21.3%	48.8%	48.8%
Maximum Green (s)	23.0	23.0		23.0	23.0		9.0	29.0		13.0	33.0	33.0
Yellow Time (s)	3.3	3.3		3.3	3.3		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.7	1.7		1.7	1.7		0.0	2.0		0.0	2.0	2.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		5.0			5.0		4.0	6.0		4.0	6.0	6.0
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	5.0		3.0	5.0	5.0
Recall Mode	None	None		None	None		None	Max		None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Flash Dont Walk (s)	10.0	10.0		10.0	10.0			15.0			15.0	15.0
Pedestrian Calls (#/hr)	0	0		0	0			0			0	0
Act Effct Green (s)		13.0			13.0		39.5	30.5		44.1	34.6	34.6
Actuated g/C Ratio		0.19			0.19		0.59	0.45		0.65	0.51	0.51
v/c Ratio		0.61			0.32		0.36	1.31		0.60	1.10	0.12
Control Delay		27.3			10.3		9.8	169.5		16.7	81.7	4.7
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		27.3			10.3		9.8	169.5		16.7	81.7	4.7
LOS		C			B		A	F		B	F	A
Approach Delay		27.3			10.3			155.1			65.8	
Approach LOS		C			B			F			E	
Queue Length 50th (m)		17.1			4.0		3.8	~175.4		8.1	~156.6	1.4
Queue Length 95th (m)		29.7			12.3		11.5	#286.4		28.7	#254.9	9.4
Internal Link Dist (m)		192.0			160.0			544.0			524.7	
Turn Bay Length (m)							25.0			65.0		25.0
Base Capacity (vph)		908			1119		345	828		439	940	839
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		0.35			0.20		0.31	1.31		0.47	1.10	0.12

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 67.5			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.31			
Intersection Signal Delay: 92.5		Intersection LOS: F	
Intersection Capacity Utilization 100.8%		ICU Level of Service G	
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: 74: 32 Street & Milligan Drive

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	11	21	12	10	26	31	1239	17	35	1241	169
Future Volume (vph)	78	11	21	12	10	26	31	1239	17	35	1241	169
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	25.0		0.0	70.0		35.0
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (m)	2.5			2.5			5.0			35.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.972			0.921			0.998				0.850
Flt Protected		0.966			0.987		0.950			0.950		
Satd. Flow (prot)	0	3272	0	0	3167	0	1742	1830	0	1742	1834	1559
Flt Permitted		0.764			0.856		0.067			0.067		
Satd. Flow (perm)	0	2588	0	0	2747	0	123	1830	0	123	1834	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			27			1				82
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		87.7			95.5			548.7			1100.6	
Travel Time (s)		6.3			6.9			39.5			79.2	
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
Adj. Flow (vph)	82	12	22	13	11	27	33	1304	18	37	1306	178
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	116	0	0	51	0	33	1322	0	37	1306	178
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1		1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0		8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		2.0	2.0		2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		2.0	2.0		2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		6.0	2.0		6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	10.0		5.0	10.0	10.0
Minimum Split (s)	27.0	27.0		27.0	27.0		9.5	26.0		9.5	29.0	29.0
Total Split (s)	28.4	28.4		28.4	28.4		9.5	62.0		9.6	62.1	62.1

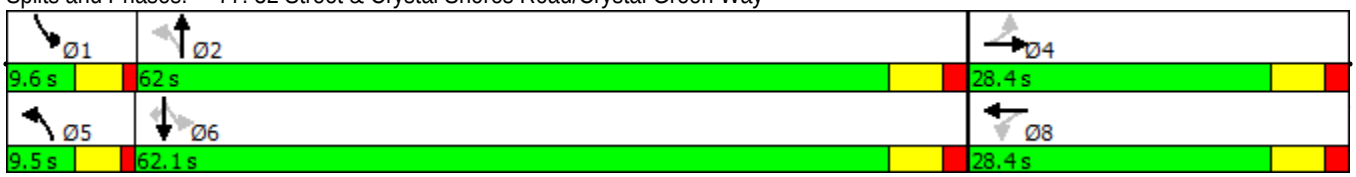
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	28.4%	28.4%		28.4%	28.4%		9.5%	62.0%		9.6%	62.1%	62.1%
Maximum Green (s)	22.4	22.4		22.4	22.4		5.0	56.0		5.1	56.1	56.1
Yellow Time (s)	4.0	4.0		4.0	4.0		3.5	4.0		3.5	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		4.5	6.0		4.5	6.0	6.0
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	5.0		3.0	5.0	5.0
Recall Mode	None	None		None	None		None	Max		None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Flash Dont Walk (s)	14.0	14.0		14.0	14.0			13.0			16.0	16.0
Pedestrian Calls (#/hr)	0	0		0	0			0			0	0
Act Effct Green (s)		10.3			10.3		64.6	60.0		64.7	60.1	60.1
Actuated g/C Ratio		0.12			0.12		0.73	0.68		0.73	0.68	0.68
v/c Ratio		0.36			0.15		0.18	1.06		0.20	1.04	0.16
Control Delay		32.2			21.5		5.0	60.9		5.3	55.5	3.7
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		32.2			21.5		5.0	60.9		5.3	55.5	3.7
LOS		C			C		A	E		A	E	A
Approach Delay		32.2			21.5			59.5			48.3	
Approach LOS		C			C			E			D	
Queue Length 50th (m)		7.7			1.9		1.0	~261.5		1.2	~253.9	5.5
Queue Length 95th (m)		15.7			7.0		3.0	#346.2		3.2	#336.2	13.3
Internal Link Dist (m)		63.7			71.5			524.7			1076.6	
Turn Bay Length (m)							25.0			70.0		35.0
Base Capacity (vph)		675			719		182	1247		184	1251	1089
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		0.17			0.07		0.18	1.06		0.20	1.04	0.16

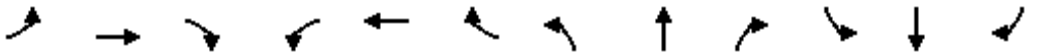
Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 88.1	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 52.2	Intersection LOS: D
Intersection Capacity Utilization 89.1%	ICU Level of Service E
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

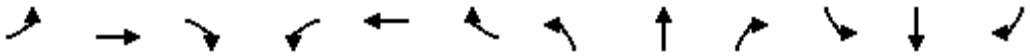
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 77: 32 Street & Crystal Shores Road/Crystal Green Way





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	286	456	696	157	1	487	112	626	7	107	16
Future Volume (vph)	59	286	456	696	157	1	487	112	626	7	107	16
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		20.0	30.0		0.0	75.0		20.0	20.0		0.0
Storage Lanes	0		1	1		0	1		1	1		0
Taper Length (m)	30.0			30.0			30.0			30.0		
Lane Util. Factor	1.00	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		0.999				0.850		0.980	
Flt Protected		0.992		0.950			0.950			0.950		
Satd. Flow (prot)	0	1819	1559	1742	1832	0	1742	1834	1559	1742	1797	0
Flt Permitted		0.909		0.148			0.465			0.681		
Satd. Flow (perm)	0	1667	1559	271	1832	0	853	1834	1559	1249	1797	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			198						595		6	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		1651.2			163.7			1100.6			114.6	
Travel Time (s)		118.9			11.8			79.2			8.3	
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
Adj. Flow (vph)	62	301	480	733	165	1	513	118	659	7	113	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	363	480	733	166	0	513	118	659	7	130	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	8.0	4.0	6.1	8.0	4.0		8.0	4.0	6.1	8.0	4.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	8.0	4.0	6.1	8.0	4.0		8.0	4.0	6.1	8.0	4.0	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		0.0			0.0			0.0			0.0	
Detector 2 Size(m)		0.0			0.0			0.0			0.0	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm	Perm	NA	
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4		4	8			2		2	6		



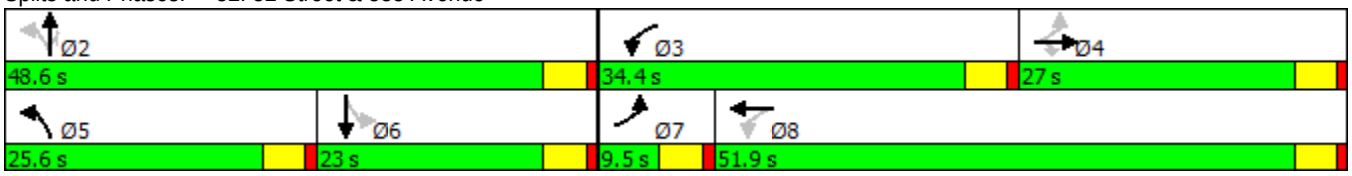
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8		5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5		9.5	22.5	22.5	22.5	22.5	
Total Split (s)	9.5	27.0	27.0	34.4	51.9		25.6	48.6	48.6	23.0	23.0	
Total Split (%)	8.6%	24.5%	24.5%	31.3%	47.2%		23.3%	44.2%	44.2%	20.9%	20.9%	
Maximum Green (s)	5.0	22.5	22.5	29.9	47.4		21.1	44.1	44.1	18.5	18.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5	3.5	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	
Total Lost Time (s)		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			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None		None	Max	Max	Max	Max	
Walk Time (s)		7.0	7.0		7.0			7.0	7.0	7.0	7.0	
Flash Dont Walk (s)		11.0	11.0		11.0			11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)		0	0		0			0	0	0	0	
Act Effct Green (s)		22.5	22.5	56.9	56.9		44.1	44.1	44.1	18.5	18.5	
Actuated g/C Ratio		0.20	0.20	0.52	0.52		0.40	0.40	0.40	0.17	0.17	
v/c Ratio		1.07	1.01	1.36	0.18		1.00	0.16	0.67	0.03	0.42	
Control Delay		110.5	69.9	200.5	14.7		71.1	21.9	7.1	39.0	43.9	
Queue Delay		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		110.5	69.9	200.5	14.7		71.1	21.9	7.1	39.0	43.9	
LOS		F	E	F	B		E	C	A	D	D	
Approach Delay		87.4			166.2			33.9			43.6	
Approach LOS		F			F			C			D	
Queue Length 50th (m)		~86.2	~67.8	~193.5	18.1		~92.1	16.0	8.4	1.3	24.1	
Queue Length 95th (m)		#142.2	#134.2	#264.6	29.9		#177.7	28.1	41.4	5.4	42.3	
Internal Link Dist (m)		1627.2			139.7			1076.6			90.6	
Turn Bay Length (m)			20.0	30.0			75.0		20.0	20.0		
Base Capacity (vph)		340	476	540	947		512	735	981	210	307	
Starvation Cap Reductn		0	0	0	0		0	0	0	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		1.07	1.01	1.36	0.18		1.00	0.16	0.67	0.03	0.42	

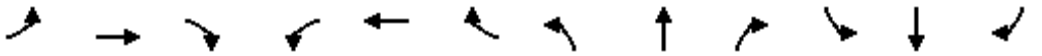
Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Natural Cycle: 110
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.36
Intersection Signal Delay: 86.1 Intersection LOS: F
Intersection Capacity Utilization 107.9% ICU Level of Service G
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

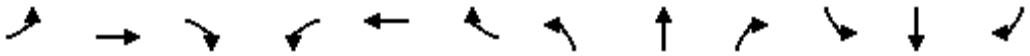
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 82: 32 Street & 338 Avenue





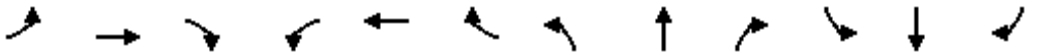
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	61	27	128	22	5	26	1509	80	9	1483	62
Future Volume (vph)	74	61	27	128	22	5	26	1509	80	9	1483	62
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	70.0		40.0	70.0		40.0
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (m)	2.5			2.5			30.0			30.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.975			0.995				0.850			0.850
Flt Protected		0.978			0.960		0.950			0.950		
Satd. Flow (prot)	0	3323	0	0	3328	0	1742	3484	1559	1742	3484	1559
Flt Permitted		0.713			0.645		0.142			0.137		
Satd. Flow (perm)	0	2422	0	0	2236	0	260	3484	1559	251	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			2				84			65
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		135.8			147.5			439.5			199.1	
Travel Time (s)		9.8			10.6			26.4			11.9	
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
Adj. Flow (vph)	78	64	28	135	23	5	27	1588	84	9	1561	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	170	0	0	163	0	27	1588	84	9	1561	65
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		0.0			0.0			0.0			0.0	
Detector 2 Size(m)		0.0			0.0			0.0			0.0	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6



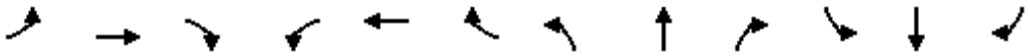
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	23.0	23.0		23.0	23.0		127.0	127.0	127.0	127.0	127.0	127.0
Total Split (%)	15.3%	15.3%		15.3%	15.3%		84.7%	84.7%	84.7%	84.7%	84.7%	84.7%
Maximum Green (s)	18.5	18.5		18.5	18.5		122.5	122.5	122.5	122.5	122.5	122.5
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5			4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	0
Act Effct Green (s)		15.2			15.2		122.6	122.6	122.6	122.6	122.6	122.6
Actuated g/C Ratio		0.10			0.10		0.84	0.84	0.84	0.84	0.84	0.84
v/c Ratio		0.65			1.29dl		0.12	0.55	0.06	0.04	0.54	0.05
Control Delay		70.0			78.8		4.0	4.7	0.6	3.0	4.6	0.6
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.8	0.0
Total Delay		70.0			78.8		4.0	4.7	0.6	3.0	5.4	0.6
LOS		E			E		A	A	A	A	A	A
Approach Delay		70.0			78.8			4.5			5.2	
Approach LOS		E			E			A			A	
Queue Length 50th (m)		23.4			24.2		1.2	61.1	0.0	0.4	59.2	0.0
Queue Length 95th (m)		36.4			37.0		3.7	81.2	2.7	1.6	78.6	2.5
Internal Link Dist (m)		111.8			123.5			415.5			175.1	
Turn Bay Length (m)							70.0		40.0	70.0		40.0
Base Capacity (vph)		316			283		217	2908	1315	209	2908	1312
Starvation Cap Reductn		0			0		0	0	0	0	932	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		0.54			0.58		0.12	0.55	0.06	0.04	0.79	0.05

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 146.8			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 11.1		Intersection LOS: B	
Intersection Capacity Utilization 64.3%		ICU Level of Service C	
Analysis Period (min) 15			
dl Defacto Left Lane. Recode with 1 though lane as a left lane.			

Splits and Phases: 85: Northridge Drive & spring Gate



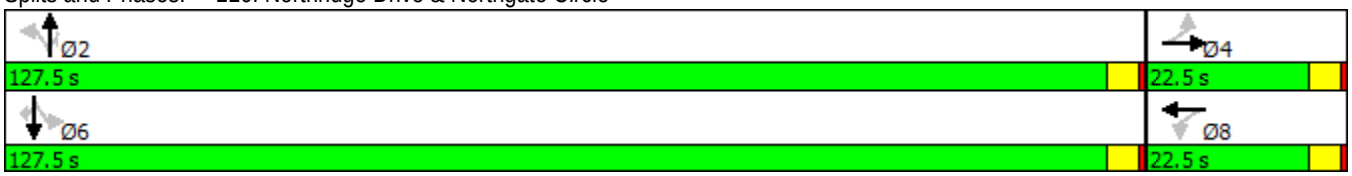
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	27	0	57	3	9	0	1508	80	8	1497	6
Future Volume (vph)	6	27	0	57	3	9	0	1508	80	8	1497	6
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	70.0		40.0	70.0		40.0
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (m)	2.5			2.5			30.0			30.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt					0.981				0.850			0.850
Flt Protected		0.991			0.960					0.950		
Satd. Flow (prot)	0	3453	0	0	3281	0	1834	3484	1559	1742	3484	1559
Flt Permitted		0.902			0.756					0.145		
Satd. Flow (perm)	0	3143	0	0	2584	0	1834	3484	1559	266	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					8				84			11
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		128.6			143.4			199.1			203.5	
Travel Time (s)		9.3			10.3			11.9			12.2	
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
Adj. Flow (vph)	6	28	0	60	3	9	0	1587	84	8	1576	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	34	0	0	72	0	0	1587	84	8	1576	6
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	8.0	4.0		8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		0.0			0.0			0.0			0.0	
Detector 2 Size(m)		0.0			0.0			0.0			0.0	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6

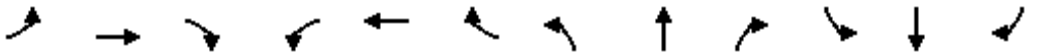


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5		22.5	22.5		127.5	127.5	127.5	127.5	127.5	127.5
Total Split (%)	15.0%	15.0%		15.0%	15.0%		85.0%	85.0%	85.0%	85.0%	85.0%	85.0%
Maximum Green (s)	18.0	18.0		18.0	18.0		123.0	123.0	123.0	123.0	123.0	123.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5			4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	0
Act Effct Green (s)		8.9			8.9			123.1	123.1	123.1	123.1	123.1
Actuated g/C Ratio		0.06			0.06			0.87	0.87	0.87	0.87	0.87
v/c Ratio		0.17			0.42			0.52	0.06	0.03	0.52	0.00
Control Delay		64.0			63.8			2.9	0.4	1.8	2.9	0.5
Queue Delay		0.0			0.0			0.6	0.0	0.0	0.6	0.0
Total Delay		64.0			63.8			3.5	0.4	1.8	3.5	0.5
LOS		E			E			A	A	A	A	A
Approach Delay		64.0			63.8			3.4			3.5	
Approach LOS		E			E			A			A	
Queue Length 50th (m)		4.8			9.2			38.7	0.0	0.2	38.1	0.0
Queue Length 95th (m)		10.6			17.6			57.0	1.9	1.0	56.4	0.4
Internal Link Dist (m)		104.6			119.4			175.1			179.5	
Turn Bay Length (m)									40.0	70.0		40.0
Base Capacity (vph)		401			337			3040	1371	232	3040	1361
Starvation Cap Reductn		0			0			964	0	0	970	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		0.08			0.21			0.76	0.06	0.03	0.76	0.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 141			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 5.3		Intersection LOS: A	
Intersection Capacity Utilization 60.2%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 116: Northridge Drive & Northgate Circle

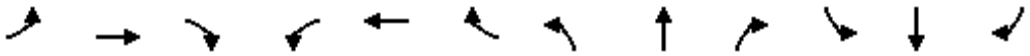




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	2	3	2	3	37	6	1274	1	12	1118	27
Future Volume (Veh/h)	37	2	3	2	3	37	6	1274	1	12	1118	27
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	39	2	3	2	3	39	6	1341	1	13	1177	28
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								372				
pX, platoon unblocked	0.24	0.24		0.24	0.24	0.24				0.24		
vC, conflicting volume	2596	2557	1177	2560	2584	1342	1205			1342		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	6137	5970	1177	5985	6087	830	1205			832		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	0	99	0	0	55	99			93		
cM capacity (veh/h)	0	0	233	0	0	88	579			189		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	40	4	4	40	6	1342	13	1177	28
Volume Left	39	0	2	0	6	0	13	0	0
Volume Right	0	3	0	39	0	1	0	0	28
cSH	0	0	0	1	579	1700	189	1700	1700
Volume to Capacity	Err	38.14	Err	69.70	0.01	0.79	0.07	0.69	0.02
Queue Length 95th (m)	Err	Err	Err	Err	0.2	0.0	1.7	0.0	0.0
Control Delay (s)	Err	Err	Err	Err	11.3	0.0	25.4	0.0	0.0
Lane LOS	F	F	F	F	B		D		
Approach Delay (s)	Err		Err		0.1		0.3		
Approach LOS	F		F						

Intersection Summary				
Average Delay	Err			
Intersection Capacity Utilization	84.4%	ICU Level of Service	E	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	7	202	48	86	118	27	87	24	86	29	9	6
Future Volume (vph)	7	202	48	86	118	27	87	24	86	29	9	6
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
Hourly flow rate (vph)	7	213	51	91	124	28	92	25	91	31	9	6

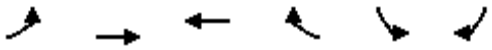
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	114	158	153	90	105	104	36	11
Volume Left (vph)	7	0	91	0	92	0	31	0
Volume Right (vph)	0	51	0	28	0	91	0	6
Hadj (s)	0.06	-0.19	0.33	-0.18	0.47	-0.58	0.47	-0.37
Departure Headway (s)	5.6	5.3	5.8	5.3	6.3	5.3	6.5	5.7
Degree Utilization, x	0.18	0.23	0.25	0.13	0.18	0.15	0.06	0.02
Capacity (veh/h)	616	652	591	646	541	642	510	581
Control Delay (s)	8.5	8.7	9.6	7.9	9.5	8.0	8.8	7.6
Approach Delay (s)	8.6		9.0		8.8		8.5	
Approach LOS	A		A		A		A	

Intersection Summary				
Delay	8.8			
Level of Service	A			
Intersection Capacity Utilization	35.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	166	188	81	175	186	99
Future Volume (Veh/h)	166	188	81	175	186	99
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	175	198	85	184	196	104
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						2
Median type	None			None		
Median storage veh)						
Upstream signal (m)	247					
pX, platoon unblocked						
vC, conflicting volume			373		536	186
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			373		536	186
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			93		56	87
cM capacity (veh/h)			1182		440	824

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	117	256	85	92	92	300
Volume Left	0	0	85	0	0	196
Volume Right	0	198	0	0	0	104
cSH	1700	1700	1182	1700	1700	674
Volume to Capacity	0.07	0.15	0.07	0.05	0.05	0.44
Queue Length 95th (m)	0.0	0.0	1.8	0.0	0.0	17.4
Control Delay (s)	0.0	0.0	8.3	0.0	0.0	16.2
Lane LOS			A			C
Approach Delay (s)	0.0		2.6			16.2
Approach LOS						C

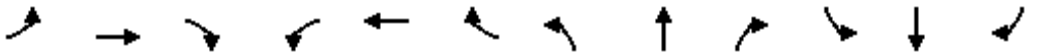
Intersection Summary				
Average Delay	5.9			
Intersection Capacity Utilization	36.1%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	87	173	156	40	39	100
Future Volume (Veh/h)	87	173	156	40	39	100
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	92	182	164	42	41	105
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						1
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	206				460	103
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	206				460	103
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	93				92	89
cM capacity (veh/h)	1363				494	932

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	92	91	91	109	97	146
Volume Left	92	0	0	0	0	41
Volume Right	0	0	0	0	42	105
cSH	1363	1700	1700	1700	1700	1296
Volume to Capacity	0.07	0.05	0.05	0.06	0.06	0.11
Queue Length 95th (m)	1.6	0.0	0.0	0.0	0.0	2.9
Control Delay (s)	7.8	0.0	0.0	0.0	0.0	10.4
Lane LOS	A					B
Approach Delay (s)	2.6			0.0		10.4
Approach LOS						B

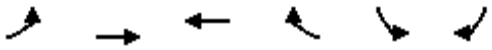
Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	24.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	183	17	6	163	11	25	77	15	8	65	8
Future Volume (Veh/h)	12	183	17	6	163	11	25	77	15	8	65	8
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	13	193	18	6	172	12	26	81	16	8	68	8
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)									1			1
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	172			211			360	412	106	355	421	86
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	172			211			360	412	106	355	421	86
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			95	84	98	98	87	99
cM capacity (veh/h)	1402			1357			504	521	929	493	515	956

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	13	129	82	6	86	86	12	123	84
Volume Left	13	0	0	6	0	0	0	26	8
Volume Right	0	0	18	0	0	0	12	16	8
cSH	1402	1700	1700	1357	1700	1700	1700	594	567
Volume to Capacity	0.01	0.08	0.05	0.00	0.05	0.05	0.01	0.21	0.15
Queue Length 95th (m)	0.2	0.0	0.0	0.1	0.0	0.0	0.0	5.9	3.9
Control Delay (s)	7.6	0.0	0.0	7.7	0.0	0.0	0.0	13.1	12.8
Lane LOS	A			A				B	B
Approach Delay (s)	0.4			0.2				13.1	12.8
Approach LOS								B	B

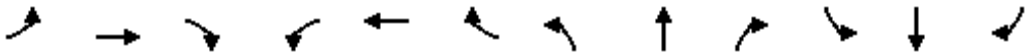
Intersection Summary				
Average Delay	4.6			
Intersection Capacity Utilization	29.2%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	11	150	104	107	107	13
Future Volume (Veh/h)	11	150	104	107	107	13
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	12	158	109	113	113	14
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						2
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	222				268	111
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	222				268	111
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				84	98
cM capacity (veh/h)	1344				692	921

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	65	105	73	149	127
Volume Left	12	0	0	0	113
Volume Right	0	0	0	113	14
cSH	1344	1700	1700	1700	778
Volume to Capacity	0.01	0.06	0.04	0.09	0.16
Queue Length 95th (m)	0.2	0.0	0.0	0.0	4.4
Control Delay (s)	1.5	0.0	0.0	0.0	11.0
Lane LOS	A				B
Approach Delay (s)	0.6		0.0		11.0
Approach LOS					B

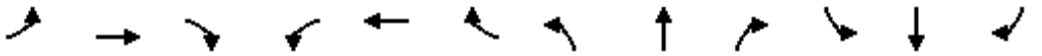
Intersection Summary			
Average Delay	2.9		
Intersection Capacity Utilization	25.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	5	0	0	128	0	1538	79	0	1469	53
Future Volume (Veh/h)	0	0	5	0	0	128	0	1538	79	0	1469	53
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	0	0	5	0	0	135	0	1619	83	0	1546	56
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								145			70	
pX, platoon unblocked	0.78	0.78	0.85	0.78	0.78	0.71	0.85			0.71		
vC, conflicting volume	2518	3276	801	2438	3262	851	1602			1702		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1526	2498	418	1423	2480	0	1358			1160		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	100	100	82	100			100		
cM capacity (veh/h)	52	22	497	74	23	765	428			422		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	5	135	1079	623	1031	571
Volume Left	0	0	0	0	0	0
Volume Right	5	135	0	83	0	56
cSH	497	765	1700	1700	1700	1700
Volume to Capacity	0.01	0.18	0.63	0.37	0.61	0.34
Queue Length 95th (m)	0.2	4.8	0.0	0.0	0.0	0.0
Control Delay (s)	12.3	10.7	0.0	0.0	0.0	0.0
Lane LOS	B	B				
Approach Delay (s)	12.3	10.7	0.0		0.0	
Approach LOS	B	B				

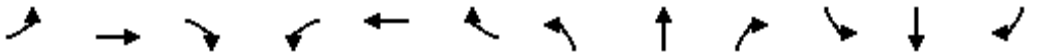
Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	61.1%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	49	30	4	52	16	26	18	3	19	17	32
Future Volume (Veh/h)	44	49	30	4	52	16	26	18	3	19	17	32
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	46	52	32	4	55	17	27	19	3	20	18	34
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)									1			1
Median type		None			None							
Median storage veh)												
Upstream signal (m)		231										
pX, platoon unblocked												
vC, conflicting volume	72			52			242	224	52	226	216	64
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	72			52			242	224	52	226	216	64
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			100			96	97	100	97	97	97
cM capacity (veh/h)	1528			1554			657	653	1016	693	660	1001

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total	98	32	76	49	72
Volume Left	46	0	4	27	20
Volume Right	0	32	17	3	34
cSH	1528	1700	1554	698	1283
Volume to Capacity	0.03	0.02	0.00	0.07	0.06
Queue Length 95th (m)	0.7	0.0	0.1	1.7	1.4
Control Delay (s)	3.6	0.0	0.4	10.8	9.7
Lane LOS	A		A	B	A
Approach Delay (s)	2.7		0.4	10.8	9.7
Approach LOS				B	A

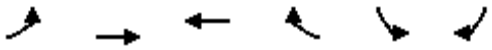
Intersection Summary			
Average Delay	4.9		
Intersection Capacity Utilization	27.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	337	14	3	388	19	10	1	3	19	1	41
Future Volume (Veh/h)	54	337	14	3	388	19	10	1	3	19	1	41
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	57	355	15	3	408	20	11	1	3	20	1	43
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)									1			1
Median type		None			None							
Median storage veh)												
Upstream signal (m)		155										
pX, platoon unblocked				1.00			1.00	1.00	1.00	1.00	1.00	
vC, conflicting volume	428			370			922	910	362	902	908	418
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	428			369			922	910	361	902	907	418
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			100			95	100	100	92	100	93
cM capacity (veh/h)	1131			1188			223	260	683	246	261	635

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	427	431	15	64
Volume Left	57	3	11	20
Volume Right	15	20	3	43
cSH	1131	1188	283	752
Volume to Capacity	0.05	0.00	0.05	0.09
Queue Length 95th (m)	1.2	0.1	1.3	2.1
Control Delay (s)	1.6	0.1	19.5	14.3
Lane LOS	A	A	C	B
Approach Delay (s)	1.6	0.1	19.5	14.3
Approach LOS			C	B

Intersection Summary				
Average Delay	2.0			
Intersection Capacity Utilization	62.3%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	18	304	404	44	31	16
Future Volume (Veh/h)	18	304	404	44	31	16
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	19	320	425	46	33	17
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						1
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	471				806	448
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	471				806	448
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				90	97
cM capacity (veh/h)	1091				345	611

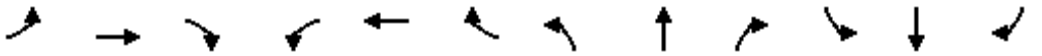
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	339	471	50
Volume Left	19	0	33
Volume Right	0	46	17
cSH	1091	1700	523
Volume to Capacity	0.02	0.28	0.10
Queue Length 95th (m)	0.4	0.0	2.4
Control Delay (s)	0.6	0.0	14.7
Lane LOS	A		B
Approach Delay (s)	0.6	0.0	14.7
Approach LOS			B

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	41.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	57	157	210	107	45	38
Future Volume (Veh/h)	57	157	210	107	45	38
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	60	165	221	113	47	40
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						1
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	334				506	221
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	334				506	221
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				91	95
cM capacity (veh/h)	1225				500	819

Direction, Lane #	SE 1	NW 1	NW 2	SW 1
Volume Total	225	221	113	87
Volume Left	60	0	0	47
Volume Right	0	0	113	40
cSH	1225	1700	1700	926
Volume to Capacity	0.05	0.13	0.07	0.09
Queue Length 95th (m)	1.2	0.0	0.0	2.4
Control Delay (s)	2.5	0.0	0.0	11.4
Lane LOS	A			B
Approach Delay (s)	2.5	0.0		11.4
Approach LOS				B

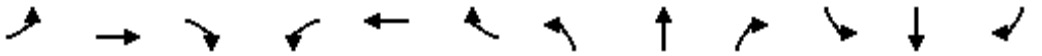
Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	36.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	124	1	43	151	3	1	10	63	2	3	1
Future Volume (Veh/h)	2	124	1	43	151	3	1	10	63	2	3	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	2	131	1	45	159	3	1	11	66	2	3	1
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)									1			1
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	162			132			386	387	131	390	385	159
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	162			132			386	387	131	390	385	159
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			97			100	98	93	100	99	100
cM capacity (veh/h)	1417			1453			555	530	919	507	531	886

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	133	1	204	3	78	6
Volume Left	2	0	45	0	1	2
Volume Right	0	1	0	3	66	1
cSH	1417	1700	1453	1700	1086	626
Volume to Capacity	0.00	0.00	0.03	0.00	0.07	0.01
Queue Length 95th (m)	0.0	0.0	0.7	0.0	1.8	0.2
Control Delay (s)	0.1	0.0	1.9	0.0	9.6	11.5
Lane LOS	A		A		A	B
Approach Delay (s)	0.1		1.8		9.6	11.5
Approach LOS					A	B

Intersection Summary				
Average Delay	2.9			
Intersection Capacity Utilization	30.8%	ICU Level of Service		A
Analysis Period (min)	15			

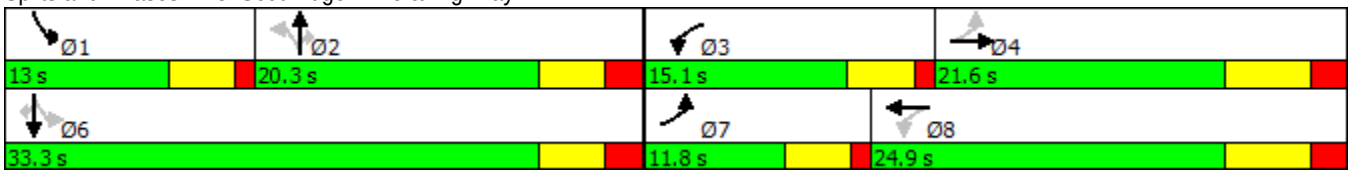


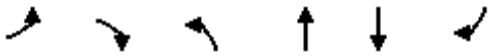
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	228	445	21	369	469	238	18	446	236	311	515	311
Future Volume (vph)	228	445	21	369	469	238	18	446	236	311	515	311
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	140.0		0.0	70.0		125.0	0.0		15.0	70.0		70.0
Storage Lanes	1		0	1		1	0		1	1		1
Taper Length (m)	100.0			30.0			2.5			30.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	0.95	1.00
Frt		0.993				0.850			0.850			0.850
Flt Protected	0.950			0.950				0.998		0.950		
Satd. Flow (prot)	1742	3460	0	1692	3385	1514	0	3477	1559	1692	3385	1514
Flt Permitted	0.471			0.322				0.915		0.267		
Satd. Flow (perm)	864	3460	0	574	3385	1514	0	3188	1559	476	3385	1514
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6				281			195			327
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		184.9			244.8			155.1			142.7	
Travel Time (s)		13.3			17.6			11.2			10.3	
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 (%)	2%	2%	2%	5%	5%	5%	2%	2%	2%	5%	5%	5%
Adj. Flow (vph)	240	468	22	388	494	251	19	469	248	327	542	327
Shared Lane Traffic (%)												
Lane Group Flow (vph)	240	490	0	388	494	251	0	488	248	327	542	327
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1	1	1	1	1	1	1	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	2.0	2.0		0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Detector 1 Position(m)	2.0	2.0		0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0
Detector 1 Size(m)	6.0	2.0		8.0	2.0	4.1	8.0	2.0	4.1	8.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA		pm+pt	NA	Free	Perm	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8		Free	2		2	6		6
Detector Phase	7	4		3	8		2	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	15.0		5.0	15.0		12.0	12.0	12.0	5.0	12.0	12.0
Minimum Split (s)	11.5	21.5		9.5	21.5		17.5	17.5	17.5	9.5	17.5	17.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	11.8	21.6		15.1	24.9		20.3	20.3	20.3	13.0	33.3	33.3
Total Split (%)	16.9%	30.9%		21.6%	35.6%		29.0%	29.0%	29.0%	18.6%	47.6%	47.6%
Maximum Green (s)	7.3	15.1		10.6	18.4		14.8	14.8	14.8	8.5	27.8	27.8
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	2.0		1.0	2.0		2.0	2.0	2.0	1.0	2.0	2.0
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	6.5		4.5	6.5			5.5	5.5	4.5	5.5	5.5
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes		
Vehicle Extension (s)	3.0	6.0		3.0	6.0		4.0	4.0	4.0	3.0	4.0	4.0
Recall Mode	None	None		None	None		None	None	None	None	None	None
Act Effct Green (s)	24.4	15.1		31.0	18.4	69.4		14.2	14.2	28.2	27.2	27.2
Actuated g/C Ratio	0.35	0.22		0.45	0.27	1.00		0.20	0.20	0.41	0.39	0.39
v/c Ratio	0.61	0.65		0.91	0.55	0.17		0.75	0.52	0.96	0.41	0.41
Control Delay	20.6	29.2		44.0	24.9	0.2		34.0	11.3	59.7	16.4	3.7
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	29.2		44.0	24.9	0.2		34.0	11.3	59.7	16.4	3.7
LOS	C	C		D	C	A		C	B	E	B	A
Approach Delay		26.4			26.0			26.3			24.7	
Approach LOS		C			C			C			C	
Queue Length 50th (m)	18.7	30.5		33.9	29.3	0.0		31.4	5.7	30.1	26.0	0.0
Queue Length 95th (m)	32.8	45.2		#71.3	43.1	0.0		46.6	23.9	#68.4	37.7	13.6
Internal Link Dist (m)		160.9			220.8			131.1			118.7	
Turn Bay Length (m)	140.0			70.0		125.0			15.0	70.0		70.0
Base Capacity (vph)	395	757		426	896	1514		680	485	342	1355	802
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	0.61	0.65		0.91	0.55	0.17		0.72	0.51	0.96	0.40	0.41

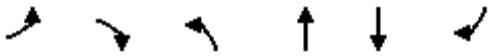
Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 69.4			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 25.7		Intersection LOS: C	
Intersection Capacity Utilization 83.5%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 3: Southridge Drive & Highway 7





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	40	150	227	1171	1080	45
Future Volume (vph)	40	150	227	1171	1080	45
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	70.0	0.0	70.0			35.0
Storage Lanes	1	1	2			1
Taper Length (m)	40.0		30.0			
Lane Util. Factor	0.97	1.00	0.97	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3380	1559	3380	3484	3484	1559
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	3380	1559	3380	3484	3484	1559
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		158				32
Link Speed (k/h)	30			50	50	
Link Distance (m)	120.4			709.4	306.5	
Travel Time (s)	14.4			51.1	22.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	42	158	239	1233	1137	47
Shared Lane Traffic (%)						
Lane Group Flow (vph)	42	158	239	1233	1137	47
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	7.4			7.4	7.4	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24	14	24			14
Number of Detectors	1	1	1	1	1	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (m)	8.0	6.1	8.0	4.0	4.0	6.1
Trailing Detector (m)	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	6.0	4.1	6.0	2.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	1.0	1.0	5.0	20.0	20.0	20.0
Minimum Split (s)	32.0	32.0	9.5	26.0	32.0	32.0
Total Split (s)	32.0	32.0	12.0	118.0	106.0	106.0



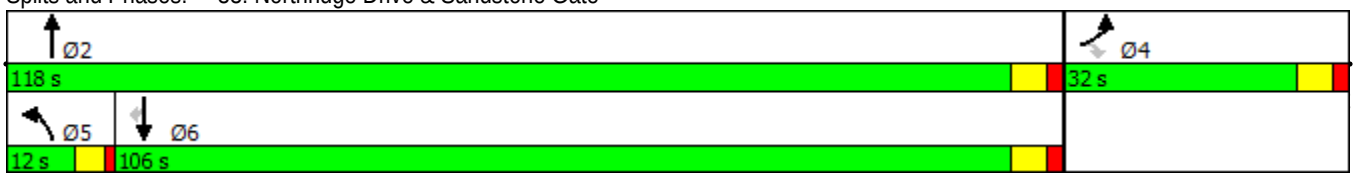
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Total Split (%)	21.3%	21.3%	8.0%	78.7%	70.7%	70.7%
Maximum Green (s)	26.0	26.0	7.5	112.0	100.0	100.0
Yellow Time (s)	4.0	4.0	3.5	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.5	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	Max	Max
Walk Time (s)	5.0	5.0				
Flash Dont Walk (s)	21.0	21.0				
Pedestrian Calls (#/hr)	0	0				
Act Effct Green (s)	7.7	7.7	7.5	112.1	100.1	100.1
Actuated g/C Ratio	0.06	0.06	0.06	0.85	0.76	0.76
v/c Ratio	0.21	0.66	1.24	0.42	0.43	0.04
Control Delay	61.1	22.3	196.0	2.9	6.4	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.1	22.3	196.0	2.9	6.4	2.2
LOS	E	C	F	A	A	A
Approach Delay	30.5			34.2	6.3	
Approach LOS	C			C	A	
Queue Length 50th (m)	5.4	0.0	~39.1	26.9	46.3	0.8
Queue Length 95th (m)	11.4	21.2	#69.4	47.3	69.2	4.3
Internal Link Dist (m)	96.4			685.4	282.5	
Turn Bay Length (m)	70.0		70.0			35.0
Base Capacity (vph)	667	434	192	2962	2645	1191
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	0.06	0.36	1.24	0.42	0.43	0.04

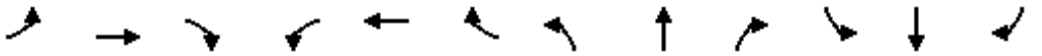
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 131.8			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.24			
Intersection Signal Delay: 22.4		Intersection LOS: C	
Intersection Capacity Utilization 54.4%		ICU Level of Service A	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

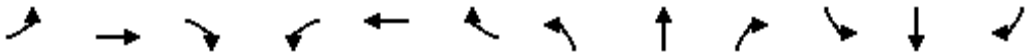
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 33: Northridge Drive & Sandstone Gate





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	221	20	7	0	20	842	0	1524	1	964	1504	261
Future Volume (vph)	221	20	7	0	20	842	0	1524	1	964	1504	261
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	100.0		45.0	0.0		40.0	155.0		165.0	200.0		150.0
Storage Lanes	1		1	0		1	1		1	2		1
Taper Length (m)	15.0			2.5			70.0			80.0		
Lane Util. Factor	1.00	0.95	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1742	3554	1544	0	3261	909	1834	3484	1459	3347	3451	1472
Flt Permitted	0.482									0.950		
Satd. Flow (perm)	884	3554	1544	0	3261	909	1834	3484	1459	3347	3451	1472
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			51			370			80			275
Link Speed (k/h)		50			80			60			60	
Link Distance (m)		467.6			1651.2			203.5			221.1	
Travel Time (s)		33.7			74.3			12.2			13.3	
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 (%)	2%	0%	3%	17%	9%	75%	2%	2%	9%	3%	3%	8%
Adj. Flow (vph)	233	21	7	0	21	886	0	1604	1	1015	1583	275
Shared Lane Traffic (%)												
Lane Group Flow (vph)	233	21	7	0	21	886	0	1604	1	1015	1583	275
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1	1	1	1	1	1	1	1	1	1	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1	8.0	4.0	6.1
Trailing Detector (m)	2.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Position(m)	2.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Detector 1 Size(m)	6.0	2.0	4.1	8.0	2.0	4.1	6.0	2.0	4.1	6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA	Perm		NA	Free	Perm	NA	Perm	Prot	NA	Perm
Protected Phases	7	4			8			2		1	6	
Permitted Phases	4		4	8		Free	2		2			6
Detector Phase	7	4	4	8	8		2	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0		20.0	20.0	20.0	5.0	20.0	20.0
Minimum Split (s)	9.5	44.0	44.0	44.0	44.0		25.5	25.5	25.5	9.5	44.5	44.5



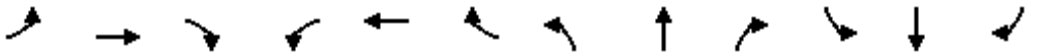
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	9.5	53.5	53.5	44.0	44.0		60.5	60.5	60.5	36.0	96.5	96.5
Total Split (%)	6.3%	35.7%	35.7%	29.3%	29.3%		40.3%	40.3%	40.3%	24.0%	64.3%	64.3%
Maximum Green (s)	5.0	48.5	48.5	39.0	39.0		55.0	55.0	55.0	31.5	91.0	91.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		4.0	4.0	4.0	3.5	4.0	4.0
All-Red Time (s)	1.0	1.5	1.5	1.5	1.5		1.5	1.5	1.5	1.0	1.5	1.5
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	5.0	5.0		5.0		5.5	5.5	5.5	4.5	5.5	5.5
Lead/Lag	Lead			Lag	Lag		Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes	Yes	Yes		
Vehicle Extension (s)	3.0	3.5	3.5	3.5	3.5		5.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None	None	None	None		Max	Max	Max	None	Max	Max
Walk Time (s)		7.0	7.0	7.0	7.0		7.0	7.0	7.0		7.0	7.0
Flash Dont Walk (s)		32.0	32.0	32.0	32.0		11.0	11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0	0	0		0	0	0		0	0
Act Effct Green (s)	14.1	13.6	13.6		10.0	115.3		55.1	55.1	31.6	91.1	91.1
Actuated g/C Ratio	0.12	0.12	0.12		0.09	1.00		0.48	0.48	0.27	0.79	0.79
v/c Ratio	1.36	0.05	0.03		0.07	0.97		0.96	0.00	1.11	0.58	0.23
Control Delay	235.4	44.1	0.3		50.9	27.7		45.0	0.0	103.7	6.2	0.9
Queue Delay	0.0	0.0	0.0		0.0	0.0		17.2	0.0	0.0	0.0	0.0
Total Delay	235.4	44.1	0.3		50.9	27.7		62.3	0.0	103.7	6.2	0.9
LOS	F	D	A		D	C		E	A	F	A	A
Approach Delay		213.7			28.2			62.2			40.1	
Approach LOS		F			C			E			D	
Queue Length 50th (m)	~68.6	2.2	0.0		2.2	0.0		166.8	0.0	~126.9	47.2	0.0
Queue Length 95th (m)	#119.7	6.0	0.0		6.6	#63.8		#253.6	0.0	#187.3	94.3	5.9
Internal Link Dist (m)		443.6			1627.2			179.5			197.1	
Turn Bay Length (m)	100.0		45.0			40.0			165.0	200.0		150.0
Base Capacity (vph)	171	1497	680		1104	909		1664	738	915	2728	1221
Starvation Cap Reductn	0	0	0		0	0		117	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	1.36	0.01	0.01		0.02	0.97		1.04	0.00	1.11	0.58	0.23

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 115.3			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.36			
Intersection Signal Delay: 52.5		Intersection LOS: D	
Intersection Capacity Utilization 103.3%		ICU Level of Service G	
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: 38: Northridge Drive & 338 Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	382	611	0	0	533	779	0	2	0	595	3	535
Future Volume (vph)	382	611	0	0	533	779	0	2	0	595	3	535
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	195.0		0.0	40.0		145.0	0.0		0.0	70.0		0.0
Storage Lanes	1		0	1		1	0		0	1		1
Taper Length (m)	95.0			30.0			2.5			40.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt						0.850						0.850
Flt Protected	0.950									0.950	0.953	
Satd. Flow (prot)	1630	3173	0	1871	3385	1544	0	1871	0	1608	1614	1590
Flt Permitted	0.295									0.950	0.953	
Satd. Flow (perm)	506	3173	0	1871	3385	1544	0	1871	0	1608	1614	1590
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						806						563
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		352.3			293.1			58.8			315.8	
Travel Time (s)		25.4			21.1			4.2			22.7	
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 (%)	9%	12%	0%	0%	5%	3%	0%	0%	0%	5%	0%	0%
Adj. Flow (vph)	402	643	0	0	561	820	0	2	0	626	3	563
Shared Lane Traffic (%)										50%		
Lane Group Flow (vph)	402	643	0	0	561	820	0	2	0	313	316	563
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1	1	1	1		1	1	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0	6.1	8.0	4.0		8.0	4.0	6.1
Trailing Detector (m)	2.0	2.0		0.0	2.0	2.0	0.0	2.0		0.0	2.0	2.0
Detector 1 Position(m)	2.0	2.0		0.0	2.0	2.0	0.0	2.0		0.0	2.0	2.0
Detector 1 Size(m)	6.0	2.0		8.0	2.0	4.1	8.0	2.0		8.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	pm+pt	NA		Perm	NA	Free		NA		Split	NA	Perm
Protected Phases	7	4			8			2		6	6	
Permitted Phases	4			8		Free	2					6
Detector Phase	7	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	7.0	15.0		15.0	15.0		12.0	12.0		12.0	12.0	12.0
Minimum Split (s)	11.0	22.0		22.0	22.0		17.5	17.5		17.5	17.5	17.5

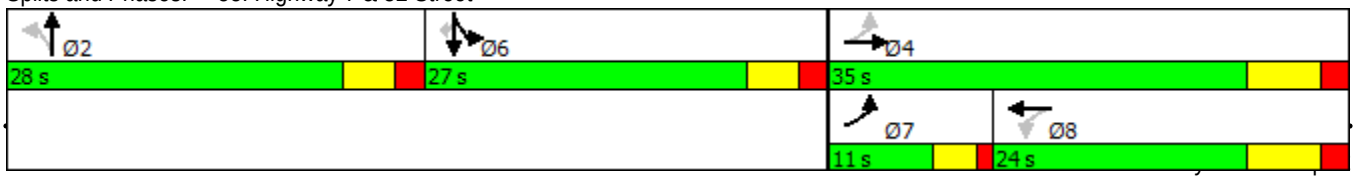
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	11.0	35.0		24.0	24.0		28.0	28.0		27.0	27.0	27.0
Total Split (%)	12.2%	38.9%		26.7%	26.7%		31.1%	31.1%		30.0%	30.0%	30.0%
Maximum Green (s)	7.0	28.0		17.0	17.0		22.5	22.5		21.5	21.5	21.5
Yellow Time (s)	3.0	5.0		5.0	5.0		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	7.0		7.0	7.0			5.5		5.5	5.5	5.5
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	4.0		4.0	4.0		3.5	3.5		3.5	3.5	3.5
Recall Mode	None	None		None	None		None	None		None	None	None
Act Effct Green (s)	30.8	27.7			16.5	62.3		12.2		19.1	19.1	19.1
Actuated g/C Ratio	0.49	0.44			0.26	1.00		0.20		0.31	0.31	0.31
v/c Ratio	1.06	0.46			0.63	0.53		0.01		0.63	0.64	0.64
Control Delay	84.3	15.1			25.8	1.3		25.5		27.1	27.2	6.1
Queue Delay	0.0	0.0			0.0	0.0		0.0		0.0	0.0	0.0
Total Delay	84.3	15.1			25.8	1.3		25.5		27.1	27.2	6.1
LOS	F	B			C	A		C		C	C	A
Approach Delay		41.7			11.2			25.5			17.2	
Approach LOS		D			B			C			B	
Queue Length 50th (m)	~31.4	25.1			29.1	0.0		0.2		29.6	30.0	0.0
Queue Length 95th (m)	#132.0	57.1			#61.3	0.0		2.1		#80.7	#81.8	23.9
Internal Link Dist (m)		328.3			269.1			34.8			291.8	
Turn Bay Length (m)	195.0					145.0				70.0		
Base Capacity (vph)	378	1455			942	1544		689		566	568	924
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	1.06	0.44			0.60	0.53		0.00		0.55	0.56	0.61

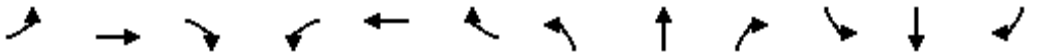
Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 62.3			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.06			
Intersection Signal Delay: 22.0		Intersection LOS: C	
Intersection Capacity Utilization 74.3%		ICU Level of Service D	
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: 55: Highway 7 & 32 Street



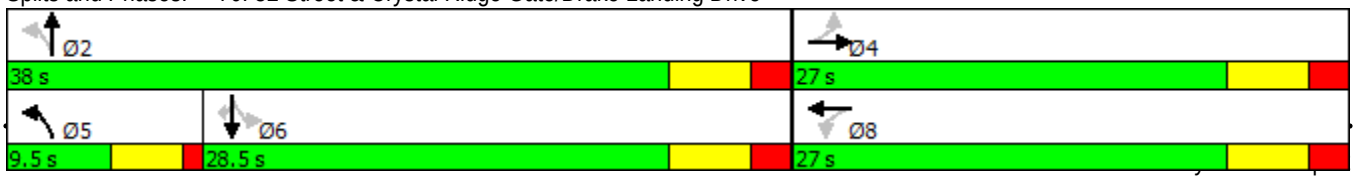


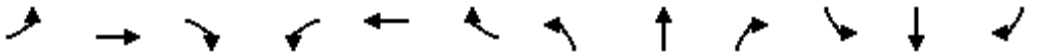
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	16	56	103	12	25	88	1082	149	30	1000	15
Future Volume (vph)	12	16	56	103	12	25	88	1082	149	30	1000	15
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		5.0	0.0		5.0	25.0		0.0	75.0		35.0
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (m)	2.5			2.5			5.0			35.0		
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	1.00
Frt		0.911			0.976			0.982				0.850
Flt Protected		0.993			0.965		0.950			0.950		
Satd. Flow (prot)	0	1659	0	0	1727	0	1742	3422	0	1742	3484	1559
Flt Permitted		0.940			0.727		0.171			0.213		
Satd. Flow (perm)	0	1570	0	0	1301	0	314	3422	0	391	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		59			18			33				126
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		116.1			112.6			742.0			568.0	
Travel Time (s)		8.4			8.1			53.4			40.9	
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
Adj. Flow (vph)	13	17	59	108	13	26	93	1139	157	32	1053	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	89	0	0	147	0	93	1296	0	32	1053	16
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1		1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0		8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		2.0	2.0		2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		2.0	2.0		2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		6.0	2.0		6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		5	2		6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	20.0		20.0	20.0	20.0
Minimum Split (s)	27.0	27.0		27.0	27.0		9.5	26.0		26.0	26.0	26.0
Total Split (s)	27.0	27.0		27.0	27.0		9.5	38.0		28.5	28.5	28.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	41.5%	41.5%		41.5%	41.5%		14.6%	58.5%		43.8%	43.8%	43.8%
Maximum Green (s)	21.0	21.0		21.0	21.0		5.0	32.0		22.5	22.5	22.5
Yellow Time (s)	4.0	4.0		4.0	4.0		3.5	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		4.5	6.0		6.0	6.0	6.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	5.0		5.0	5.0	5.0
Recall Mode	None	None		None	None		None	Max		Max	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0			7.0		7.0	7.0	7.0
Flash Dont Walk (s)	14.0	14.0		14.0	14.0			12.0		12.0	12.0	12.0
Pedestrian Calls (#/hr)	0	0		0	0			0		0	0	0
Act Effct Green (s)		11.8			11.8		36.7	36.4		28.9	28.9	28.9
Actuated g/C Ratio		0.21			0.21		0.66	0.65		0.52	0.52	0.52
v/c Ratio		0.24			0.51		0.28	0.57		0.16	0.58	0.02
Control Delay		10.3			23.6		7.5	8.8		14.8	15.3	0.1
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		10.3			23.6		7.5	8.8		14.8	15.3	0.1
LOS		B			C		A	A		B	B	A
Approach Delay		10.3			23.6			8.7			15.0	
Approach LOS		B			C			A			B	
Queue Length 50th (m)		2.5			11.5		3.1	36.8		1.9	43.4	0.0
Queue Length 95th (m)		11.3			25.4		9.6	70.4		8.3	#76.5	0.0
Internal Link Dist (m)		92.1			88.6			718.0			544.0	
Turn Bay Length (m)							25.0			75.0		35.0
Base Capacity (vph)		630			503		335	2254		203	1812	871
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		0.14			0.29		0.28	0.57		0.16	0.58	0.02

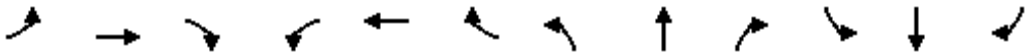
Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 55.6			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay: 12.1		Intersection LOS: B	
Intersection Capacity Utilization 82.0%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 70: 32 Street & Crystal Ridge Gate/Drake Landing Drive





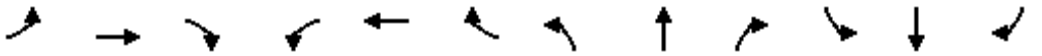
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	2	3	2	3	37	6	1274	1	12	1118	27
Future Volume (vph)	37	2	3	2	3	37	6	1274	1	12	1118	27
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	70.0		0.0	70.0		70.0
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (m)	2.5			2.5			30.0			40.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00	0.95	1.00
Frt		0.990			0.867							0.850
Flt Protected		0.958			0.998		0.950			0.950		
Satd. Flow (prot)	0	3305	0	0	3015	0	1742	3484	0	1742	3484	1559
Flt Permitted		0.955			0.939		0.240			0.167		
Satd. Flow (perm)	0	3294	0	0	2837	0	440	3484	0	306	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			39							28
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		160.3			172.7			372.6			742.0	
Travel Time (s)		11.5			12.4			26.8			53.4	
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
Adj. Flow (vph)	39	2	3	2	3	39	6	1341	1	13	1177	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	44	0	0	44	0	6	1342	0	13	1177	28
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0		8.0	4.0	6.1
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	8.0	4.0		8.0	4.0		8.0	4.0		8.0	4.0	6.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		0.0			0.0			0.0			0.0	
Detector 2 Size(m)		0.0			0.0			0.0			0.0	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		9.5	22.5	22.5
Total Split (s)	28.5	28.5		28.5	28.5		48.5	48.5		13.0	61.5	61.5
Total Split (%)	31.7%	31.7%		31.7%	31.7%		53.9%	53.9%		14.4%	68.3%	68.3%
Maximum Green (s)	24.0	24.0		24.0	24.0		44.0	44.0		8.5	57.0	57.0
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
Total Lost Time (s)		4.5			4.5		4.5	4.5		4.5	4.5	4.5
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		Max	Max		None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	0
Act Effct Green (s)		6.7			6.6		66.3	66.3		66.7	68.5	68.5
Actuated g/C Ratio		0.09			0.08		0.85	0.85		0.85	0.88	0.88
v/c Ratio		0.15			0.16		0.02	0.45		0.04	0.39	0.02
Control Delay		31.9			14.2		3.8	4.0		2.0	2.3	0.8
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		31.9			14.2		3.8	4.0		2.0	2.3	0.8
LOS		C			B		A	A		A	A	A
Approach Delay		31.9			14.2			4.0			2.2	
Approach LOS		C			B			A			A	
Queue Length 50th (m)		3.3			0.4		0.1	23.6		0.3	19.3	0.0
Queue Length 95th (m)		7.2			4.7		1.5	69.3		1.2	29.1	1.3
Internal Link Dist (m)		136.3			148.7			348.6			718.0	
Turn Bay Length (m)							70.0			70.0		70.0
Base Capacity (vph)		1016			900		373	2953		417	3051	1369
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		0.04			0.05		0.02	0.45		0.03	0.39	0.02

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 78.2			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.45			
Intersection Signal Delay: 3.8		Intersection LOS: A	
Intersection Capacity Utilization 52.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 73: 32 Street & Stockton Avenue

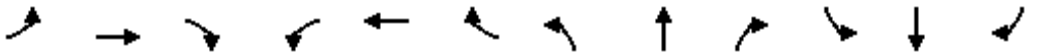


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	119	124	60	1	68	139	102	1028	1	195	980	99
Future Volume (vph)	119	124	60	1	68	139	102	1028	1	195	980	99
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	25.0		0.0	65.0		25.0
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (m)	2.5			2.5			5.0			35.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00	0.95	1.00
Frt		0.970			0.900							0.850
Flt Protected		0.981					0.950			0.950		
Satd. Flow (prot)	0	3316	0	0	3136	0	1742	3484	0	1742	3484	1559
Flt Permitted		0.763			0.953		0.230			0.155		
Satd. Flow (perm)	0	2579	0	0	2989	0	422	3484	0	284	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38			146							82
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		216.0			184.0			568.0			548.7	
Travel Time (s)		15.6			13.2			40.9			39.5	
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
Adj. Flow (vph)	125	131	63	1	72	146	107	1082	1	205	1032	104
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	319	0	0	219	0	107	1083	0	205	1032	104
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1		1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0		8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		2.0	2.0		2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		2.0	2.0		2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		6.0	2.0		6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		6.0	20.0		6.0	20.0	20.0
Minimum Split (s)	22.0	22.0		22.0	22.0		10.0	28.0		10.0	28.0	28.0
Total Split (s)	28.0	28.0		28.0	28.0		13.0	35.0		17.0	39.0	39.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	35.0%	35.0%		35.0%	35.0%		16.3%	43.8%		21.3%	48.8%	48.8%
Maximum Green (s)	23.0	23.0		23.0	23.0		9.0	29.0		13.0	33.0	33.0
Yellow Time (s)	3.3	3.3		3.3	3.3		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.7	1.7		1.7	1.7		0.0	2.0		0.0	2.0	2.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		5.0			5.0		4.0	6.0		4.0	6.0	6.0
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	5.0		3.0	5.0	5.0
Recall Mode	None	None		None	None		None	Max		None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Flash Dont Walk (s)	10.0	10.0		10.0	10.0			15.0			15.0	15.0
Pedestrian Calls (#/hr)	0	0		0	0			0			0	0
Act Effct Green (s)		13.0			13.0		39.5	30.5		44.1	34.6	34.6
Actuated g/C Ratio		0.19			0.19		0.59	0.45		0.65	0.51	0.51
v/c Ratio		0.61			0.32		0.28	0.69		0.54	0.58	0.12
Control Delay		27.3			10.3		6.8	18.8		11.3	14.4	4.7
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		27.3			10.3		6.8	18.8		11.3	14.4	4.7
LOS		C			B		A	B		B	B	A
Approach Delay		27.3			10.3			17.7			13.2	
Approach LOS		C			B			B			B	
Queue Length 50th (m)		17.1			4.0		3.8	52.1		7.6	46.4	1.4
Queue Length 95th (m)		29.7			12.3		10.1	93.1		22.2	77.7	9.4
Internal Link Dist (m)		192.0			160.0			544.0			524.7	
Turn Bay Length (m)							25.0			65.0		25.0
Base Capacity (vph)		908			1119		436	1572		473	1787	840
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		0.35			0.20		0.25	0.69		0.43	0.58	0.12

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 67.5			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 16.2		Intersection LOS: B	
Intersection Capacity Utilization 74.4%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 74: 32 Street & Milligan Drive

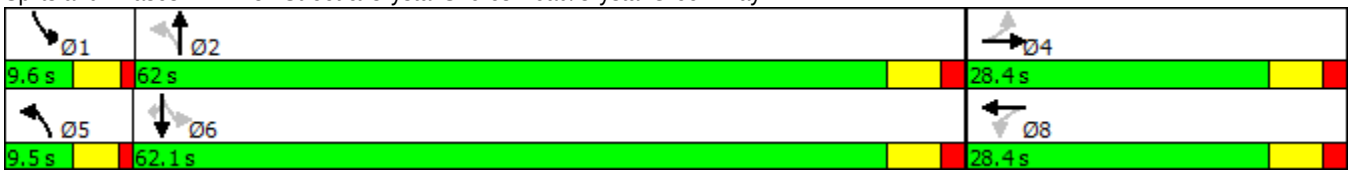


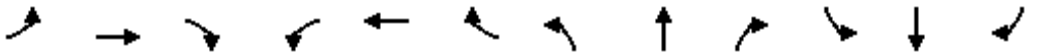
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	11	21	12	10	26	31	1239	17	35	1241	169
Future Volume (vph)	78	11	21	12	10	26	31	1239	17	35	1241	169
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	0.0		0.0	25.0		0.0	70.0		35.0
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (m)	2.5			2.5			5.0			35.0		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00	0.95	1.00
Frt		0.972			0.921			0.998				0.850
Flt Protected		0.966			0.987		0.950			0.950		
Satd. Flow (prot)	0	3272	0	0	3167	0	1742	3477	0	1742	3484	1559
Flt Permitted		0.764			0.856		0.168			0.163		
Satd. Flow (perm)	0	2588	0	0	2747	0	308	3477	0	299	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			27			2				119
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		87.7			95.5			548.7			1100.6	
Travel Time (s)		6.3			6.9			39.5			79.2	
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
Adj. Flow (vph)	82	12	22	13	11	27	33	1304	18	37	1306	178
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	116	0	0	51	0	33	1322	0	37	1306	178
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	1		1	1		1	1		1	1	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	8.0	4.0		8.0	4.0		8.0	4.0		8.0	4.0	6.1
Trailing Detector (m)	0.0	2.0		0.0	2.0		2.0	2.0		2.0	2.0	2.0
Detector 1 Position(m)	0.0	2.0		0.0	2.0		2.0	2.0		2.0	2.0	2.0
Detector 1 Size(m)	8.0	2.0		8.0	2.0		6.0	2.0		6.0	2.0	4.1
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	10.0		5.0	10.0	10.0
Minimum Split (s)	27.0	27.0		27.0	27.0		9.5	26.0		9.5	29.0	29.0
Total Split (s)	28.4	28.4		28.4	28.4		9.5	62.0		9.6	62.1	62.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	28.4%	28.4%		28.4%	28.4%		9.5%	62.0%		9.6%	62.1%	62.1%
Maximum Green (s)	22.4	22.4		22.4	22.4		5.0	56.0		5.1	56.1	56.1
Yellow Time (s)	4.0	4.0		4.0	4.0		3.5	4.0		3.5	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		4.5	6.0		4.5	6.0	6.0
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	5.0		3.0	5.0	5.0
Recall Mode	None	None		None	None		None	Max		None	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	7.0
Flash Dont Walk (s)	14.0	14.0		14.0	14.0			13.0			16.0	16.0
Pedestrian Calls (#/hr)	0	0		0	0			0			0	0
Act Effct Green (s)		10.3			10.3		64.6	60.0		64.7	60.1	60.1
Actuated g/C Ratio		0.12			0.12		0.73	0.68		0.73	0.68	0.68
v/c Ratio		0.36			0.15		0.11	0.56		0.12	0.55	0.16
Control Delay		32.2			21.5		3.5	9.1		3.6	8.9	2.7
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		32.2			21.5		3.5	9.1		3.6	8.9	2.7
LOS		C			C		A	A		A	A	A
Approach Delay		32.2			21.5			8.9			8.1	
Approach LOS		C			C			A			A	
Queue Length 50th (m)		7.7			1.9		1.0	60.6		1.2	59.2	3.3
Queue Length 95th (m)		15.7			7.0		3.0	81.9		3.2	80.1	10.6
Internal Link Dist (m)		63.7			71.5			524.7			1076.6	
Turn Bay Length (m)							25.0			70.0		35.0
Base Capacity (vph)		675			719		307	2370		303	2377	1101
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		0.17			0.07		0.11	0.56		0.12	0.55	0.16

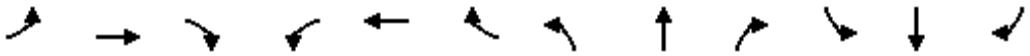
Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 88.1			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.56			
Intersection Signal Delay: 9.6		Intersection LOS: A	
Intersection Capacity Utilization 56.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 77: 32 Street & Crystal Shores Road/Crystal Green Way





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	286	456	696	157	1	487	112	626	7	107	16
Future Volume (vph)	59	286	456	696	157	1	487	112	626	7	107	16
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		40.0	165.0		0.0	165.0		60.0	0.0		0.0
Storage Lanes	0		1	1		0	1		1	0		0
Taper Length (m)	30.0			30.0			30.0			30.0		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	0.95	0.95	0.95
Frt			0.850		0.999				0.850		0.981	
Flt Protected		0.992		0.950			0.950				0.997	
Satd. Flow (prot)	0	3456	1559	1742	3481	0	1742	3484	1559	0	3408	0
Flt Permitted		0.858		0.283			0.538				0.942	
Satd. Flow (perm)	0	2990	1559	519	3481	0	987	3484	1559	0	3220	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			480		1				594		14	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		1651.2			163.7			1100.6			114.6	
Travel Time (s)		118.9			11.8			79.2			8.3	
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
Adj. Flow (vph)	62	301	480	733	165	1	513	118	659	7	113	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	363	480	733	166	0	513	118	659	0	137	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	8.0	4.0	6.1	8.0	4.0		8.0	4.0	6.1	8.0	4.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	8.0	4.0	6.1	8.0	4.0		8.0	4.0	6.1	8.0	4.0	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		0.0			0.0			0.0			0.0	
Detector 2 Size(m)		0.0			0.0			0.0			0.0	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm	Perm	NA	
Protected Phases	7	4		3	8		5	2			6	
Permitted Phases	4		4	8			2		2	6		



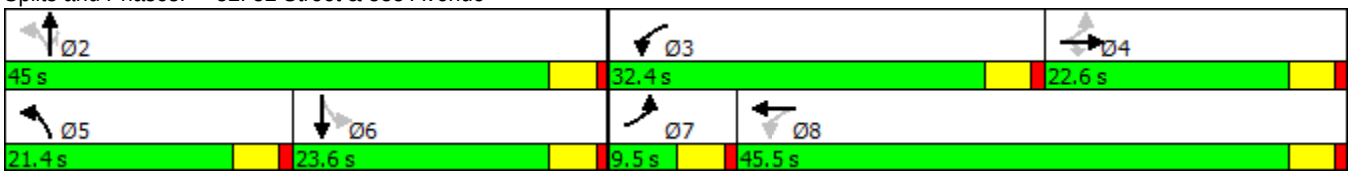
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8		5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5		9.5	22.5	22.5	22.5	22.5	
Total Split (s)	9.5	22.6	22.6	32.4	45.5		21.4	45.0	45.0	23.6	23.6	
Total Split (%)	9.5%	22.6%	22.6%	32.4%	45.5%		21.4%	45.0%	45.0%	23.6%	23.6%	
Maximum Green (s)	5.0	18.1	18.1	27.9	41.0		16.9	40.5	40.5	19.1	19.1	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)		4.5	4.5	4.5	4.5		4.5	4.5	4.5		4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None		None	Max	Max	Max	Max	
Walk Time (s)		7.0	7.0		7.0			7.0	7.0	7.0	7.0	
Flash Dont Walk (s)		11.0	11.0		11.0			11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)		0	0		0			0	0	0	0	
Act Effct Green (s)		16.1	16.1	48.6	48.6		40.5	40.5	40.5		19.1	
Actuated g/C Ratio		0.16	0.16	0.50	0.50		0.41	0.41	0.41		0.19	
v/c Ratio		0.74	0.73	1.21	0.10		0.95	0.08	0.66		0.21	
Control Delay		48.7	10.9	134.0	13.1		56.6	18.2	6.7		31.3	
Queue Delay		0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay		48.7	10.9	134.0	13.1		56.6	18.2	6.7		31.3	
LOS		D	B	F	B		E	B	A		C	
Approach Delay		27.2			111.7			27.6			31.3	
Approach LOS		C			F			C			C	
Queue Length 50th (m)		34.8	0.0	~151.2	8.3		82.0	7.2	7.7		10.6	
Queue Length 95th (m)		50.1	29.0	#220.4	13.7		#162.0	12.7	38.5		19.1	
Internal Link Dist (m)		1627.2			139.7			1076.6			90.6	
Turn Bay Length (m)			40.0	165.0			165.0		60.0			
Base Capacity (vph)		552	679	605	1723		538	1439	992		638	
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		0.66	0.71	1.21	0.10		0.95	0.08	0.66		0.21	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 98.1			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.21			
Intersection Signal Delay: 51.5		Intersection LOS: D	
Intersection Capacity Utilization 96.4%		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: 82: 32 Street & 338 Avenue



APPENDIX E: UNIT COSTS / COST ESTIMATE

Cost Estimate - Unit Costs		
Description	Units	Unit Price
Cut (Incl. in Fill)	m^3	N/A
Fill	m^3	$18.00
Import Common Fill	m^3	$30.00
Bridge Structure	m2	$6,000.00
Subgrade Preparation	m^2	$4.00
GBC - 250mm of 25mm Crushed Gravel	t	$28.00
GBC - 300mm of 25mm Crushed Gravel	t	$32.00
ACP - 100mm Mix 'A'	t	$80.00
ACP - 50mm Mix 'C'	t	$120.00
Concrete pinned curb	m	$95.00
Gravel Trail	t	$32.00
Loam Ditches for Seeding	m^2	$20.00
Hydroseed	m^2	$1.00
Paint	m	$1.00
Street Lighting (from CofC 2018 DA Rates)	each	$370.00
Signs	each	$375.00
High Tension Cable	m	$60.00

Improvements 2025 Horizon Year		
Cost Estimate		
Proposed Improvement	Unit (m)	Cost
Signal at 32 Street / 338 Avenue		$350,000
Left turn lanes and a northbound right turn lane at 32 Street / 338 Avenue	100	$163,000.00
	SUM	$513,000.00

Improvements 2035 Horizon Year		
Cost Estimate		
Proposed Improvement	Unit (m)	Cost
Southbound and westbound left turn lanes at Southridge Drive / Highway 7.	100	$163,000.00
Signal at Northridge Dr / Northgate Circle*		$350,000.00
Signal at Northridge Dr / Spring Gate*		$350,000.00
Highway 2 / 338 Avenue Interchange** **(Expected 2028)**		$12,500,000.00
*Developer funded		
Cost estimate conducted by WATT, total cost is $50,000,000 with **25% Town share		
	SUM	$13,363,000.00

Improvements 2045 Horizon Year		
Cost Estimate		
Proposed Improvement	Unit (m)	Cost
Upgrade to 4 Lanes - 338 Ave between Northridge Dr & Hwy 2	4600	$14,956,000.00
Upgrade to 4 Lanes - 32 Street between 338 Ave & N Railway St	3270	$10,632,000.00
Upgrade to 4 Lanes - Highway 7 - Southridge Drive to East Town Boundary	3280	$10,665,000.00
Upgrade to 6 Lanes -Northridge Dr - North of 338 Ave to Town Boundary	820	$2,667,000.00
Southbound Dual Left Turn at Northridge Dr / 338 Ave	120	$196,000.00
Eastbound & Northbound Dual Left Turns at Northridge Dr / Sandstone Gate	140	$228,000.00
Westbound Left at Hwy 7 / 32 St	40	$66,000.00
Signal at 32 Street / Stockton Avenue		$350,000
	SUM	$39,760,000.00