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Eaglemont
Traffic Impact Analysis

Jurisdiction: City of Monroe

October 2012

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CITY OF MONROE
RECEIVED
OCT 15 2012
COMMUNITY DEVELOPMENT

GTC #12-087

EXHIBIT# 116

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1. DEVELOPMENT IDENTIFICATION

Gibson Traffic Consultants, Inc. (GTC) has been retained to provide a traffic impact analysis for the proposed Eaglemont development to address the City of Monroe, Snohomish County and Washington State Department of Transportation (WSDOT) traffic impacts. Brad Lincoln, responsible for this report and traffic analysis, is a licensed professional engineer (Civil) in the State of Washington and member of the Washington State section of ITE.

The Eaglemont development is proposed to consist of a total of up to 149 single-family residential units that will be constructed in five phases. The development site is currently vacant, except for a vacant residential unit. The development site is located at the terminus of 199th Avenue SE, north of Rainier View Road SE. Access to the development will be via the primary access to 199th Avenue SE and a secondary access to the north to Chain Lake Road. A site vicinity map has been included in Figure 1.

2. METHODOLOGY

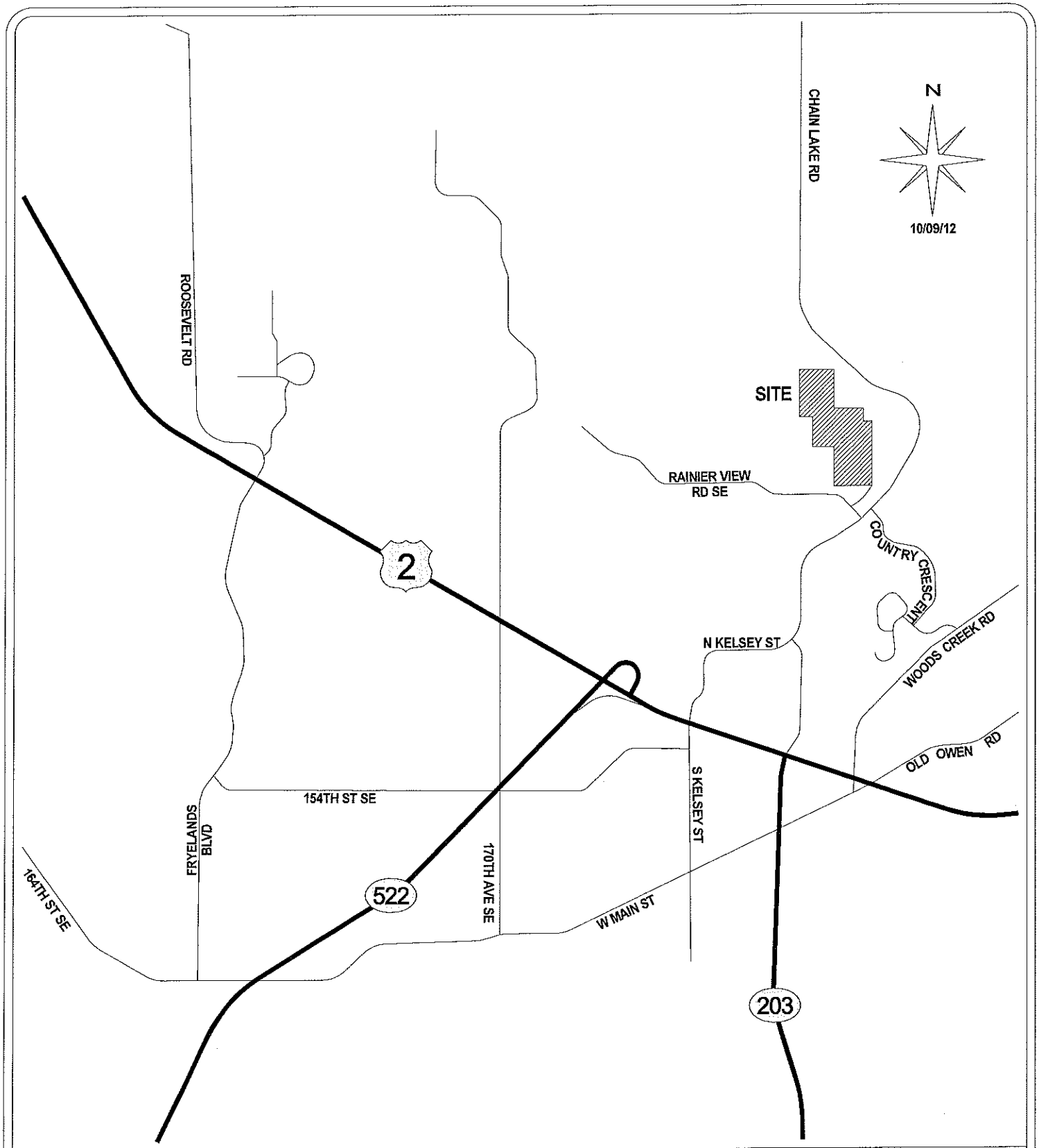
Trip generation calculations for the Eaglemont development have been performed utilizing average trip generation data contained in the Institute of Transportation Engineers' (ITE) *Trip Generation, 8th Edition (2008.* The distribution of trips generated by the site is based on approved distributions for similar developments in the site vicinity.

Intersection level of service analysis has been performed based on scoping discussions with Brad Fieldberg, City of Monroe Public Works Director. Level of service analysis has been performed for the following intersections:

1. Chain Lake Road at Country Crescent Boulevard
2. Chain Lake Road at Rainier View Road SE
3. Chain Lake Road at N Kelsey Street
4. N Kelsey Street at US-2
5. Chain Lake Road/SR-203 at US-2

The access intersections have also been analyzed.

Congestion at intersections is generally measured in terms of level of service (LOS). In accordance with *Highway Capacity Manual: 2010 Edition (HCM)* by the Transportation Research Board, road facilities and intersections are rated between LOS A and LOS F, with LOS A being free flow and LOS F being forced flow or over-capacity conditions. The level of service at signalized, roundabout and all-way stop-controlled intersections is based on the average delay of all approaches. The level of service for two-way stop-controlled intersections is based on average delays for the stopped approach with the highest delay. Geometric characteristics and conflicting traffic movements are taken into consideration when determining level of service values. A summary of the intersection level of service criteria is included in Table 1.



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TRAFFIC IMPACT STUDY
GTC #12-087

EAGLEMONT
149 SINGLE-FAMILY UNITS

CITY OF MONROE

LEGEND

DEVELOPMENT SITE

FIGURE 1
SITE VICINITY MAP

Table 1: Level of Service Criteria for Intersections

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

The City of Monroe has a level of service threshold of LOS C for collector road intersections and LOS D for arterial road intersections. The City of Monroe also has an interlocal agreement with WSDOT for intersections along US-2, SR-203 and SR-522. The interlocal agreement states that the level of service needs to remain at LOS D for intersections operating at LOS D before development and LOS E for intersections that operate at LOS E before developments. Intersections operating at LOS F before development will require mitigation.

The City of Monroe also has an interlocal agreement with Snohomish County to provide turning movements at Snohomish County key intersections impacted with 3 or more directional peak-hour trips on an approach or departure and for traffic mitigation fees.

[1] **Source:** *Highway Capacity Manual* 2010.

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

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

3. TRIP GENERATION

The trip generation calculations for the Eaglemont development are based on the average trip generation rates for ITE Land Use Code 210, single-family detached housing. The development is proposed to be constructed in five phases. The trip generation of each phase and the total trip generation of the Eaglemont development is summarized in Table 2.

Table 2: Trip Generation Summary

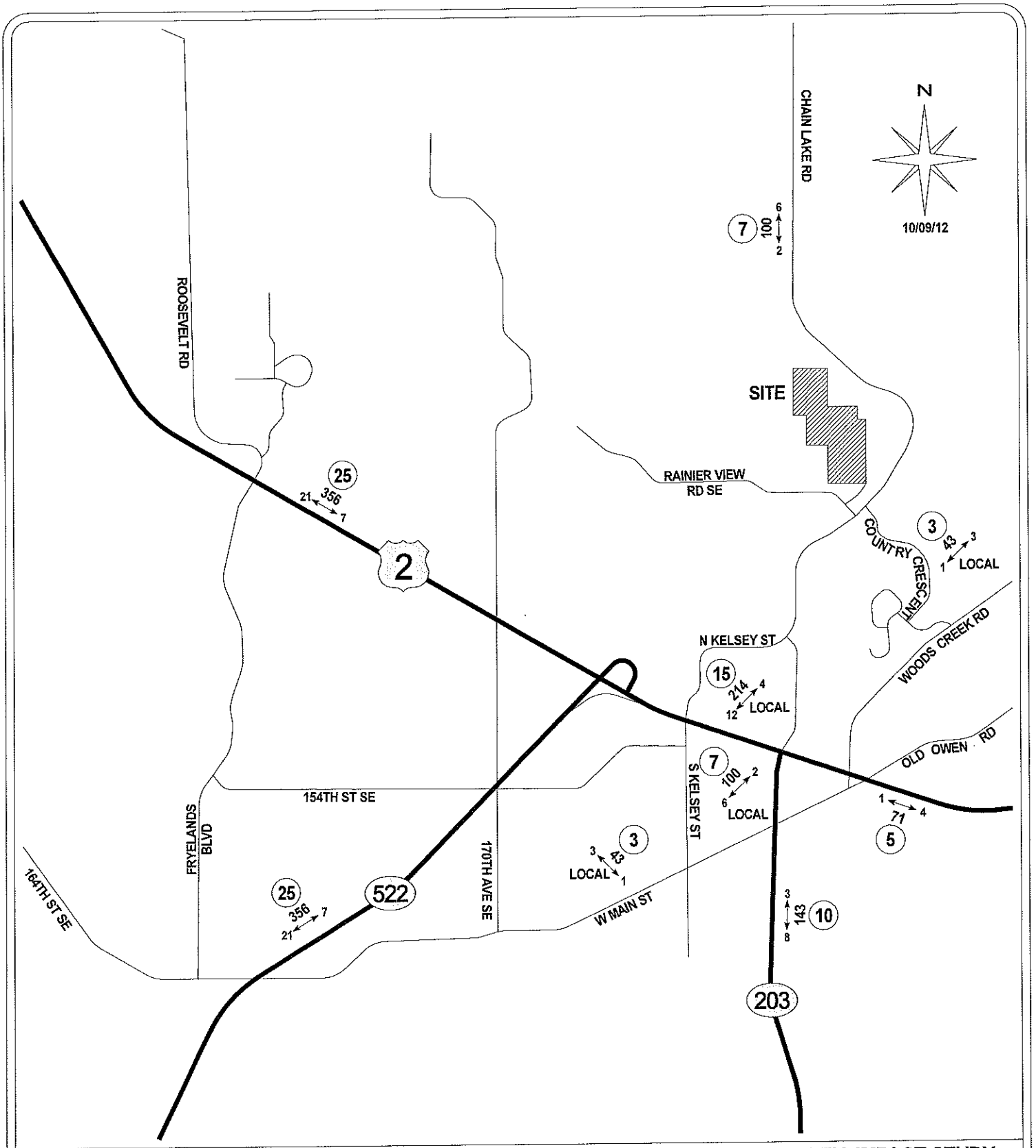
Phase	Units	Average Daily Trips	AM Peak-Hour Trips			PM Peak-Hour Trips		
			Inbound	Outbound	Total	Inbound	Outbound	Total
Phase I	26	248.82	4.88	14.62	19.50	16.54	9.72	26.26
Phase II	32	306.24	6.00	18.00	24.00	20.36	11.96	32.32
Phase III	20	191.40	3.75	11.25	15.00	12.73	7.47	20.20
Phase IV	41	392.37	7.69	23.06	30.75	26.09	15.32	41.41
Phase V	30	287.10	5.63	16.87	22.50	19.09	11.21	30.30
Total	**149**	**1,425.93**	**27.95**	**83.80**	**111.75**	**94.81**	**55.68**	**150.49**

The 149 total units are anticipated to generate 1,426 average daily trips with 112 AM peak-hour trips and 150 PM peak-hour trips. The trip generation calculations are included in the attachments.

4. TRIP DISTRIBUTION

The distribution of trips generated by the Eaglemont development is based on previously approved traffic studies conducted in the site vicinity for residential developments. It is anticipated that 25% of the development's trips will travel to and from the west along US-2. Approximately 35% of the development's trips will travel to and from the south, twenty-five percent along SR-522 and ten percent along SR-203. It is estimated that 28% of the development's trips will travel to and from local areas in the vicinity of the development, ten percent south of US-2, fifteen percent north of US-2 and three percent to the east. The remaining 12% of the development's trips are anticipated to travel to and from the north and east, seven percent to and from the north along Chain Lake Road and five percent to and from the east along US-2. Detailed distributions are included in Figure 2 for the AM peak-hour and Figure 3 for the PM peak-hour.

The interlocal agreement with Snohomish County requires key intersection impacted with 3 or more directional peak-hour trips on any approach or departure to be shown. The Eaglemont development will impact 14 key intersections during the AM and PM peak-hours. The key intersection impacts are shown in detail in the attachments of this report. Snohomish County's trip distribution policies state that trips along US-2 do not need to be distributed west of 88th Street SE. Trips traveling along SR-522 and SR-203 are anticipated to travel to and from King County.



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EAGLEMONT
149 SINGLE-FAMILY UNITS

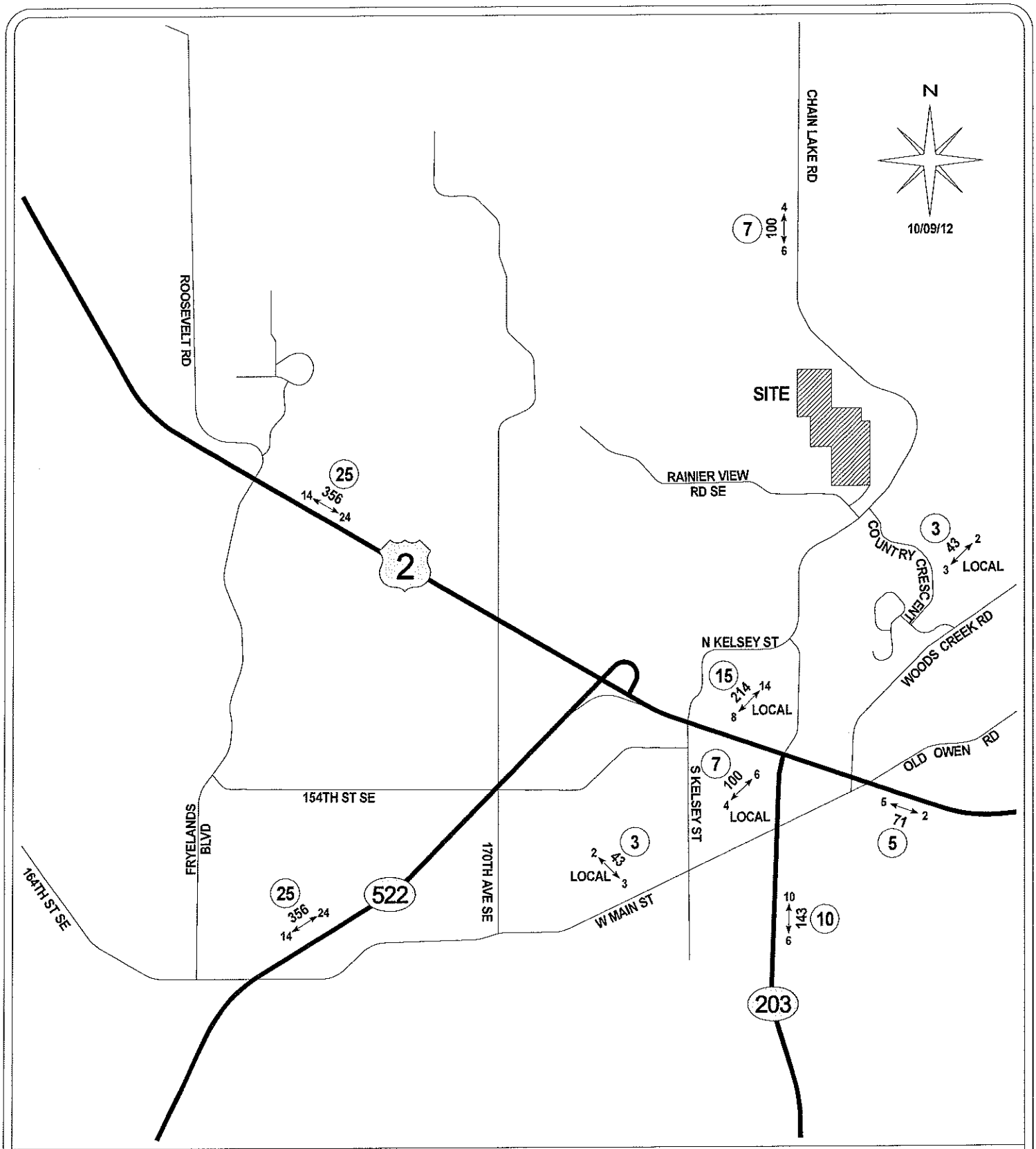
CITY OF MONROE

LEGEND

AWDT
AM ⟷ PEAK — NEW SITE TRAFFIC (DAILY/PEAK-HOUR)

(25) — TRIP DISTRIBUTION %

FIGURE 2
DEVELOPMENT
TRIP DISTRIBUTION
AM PEAK-HOUR



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149 SINGLE-FAMILY UNITS

CITY OF MONROE

LEGEND

AWDT
PM ⟷ PEAK — NEW SITE TRAFFIC (DAILY/PEAK-HOUR)

(25) — TRIP DISTRIBUTION %

FIGURE 3
DEVELOPMENT TRIP DISTRIBUTION PM PEAK-HOUR

5. INTERSECTION LEVEL OF SERVICE ANALYSIS

The intersections that have been analyzed as part of this report are based on scoping conversations with Brad Fielberg from the City of Monroe and the interlocal agreements with Snohomish County and WSDOT. Level of service analysis has been performed for the following intersections for the weekday PM peak-hour:

1. Chain Lake Road at Country Crescent Boulevard
2. Chain Lake Road at Rainier View Road SE
3. Chain Lake Road at N Kelsey Street
4. N Kelsey Street at US-2
5. Chain Lake Road/SR-203 at US-2

5.1 Turning Movement Volumes

The existing turning movements at the study intersections were counted by the independent count firm of Traffic Data Gathering (TDG). The counts were performed between 4:00 PM and 6:00 PM, the typical PM peak-period. The turning movement counts were collected in September and October of 2012. The existing turning movements at the study intersections are shown in Figure 4.

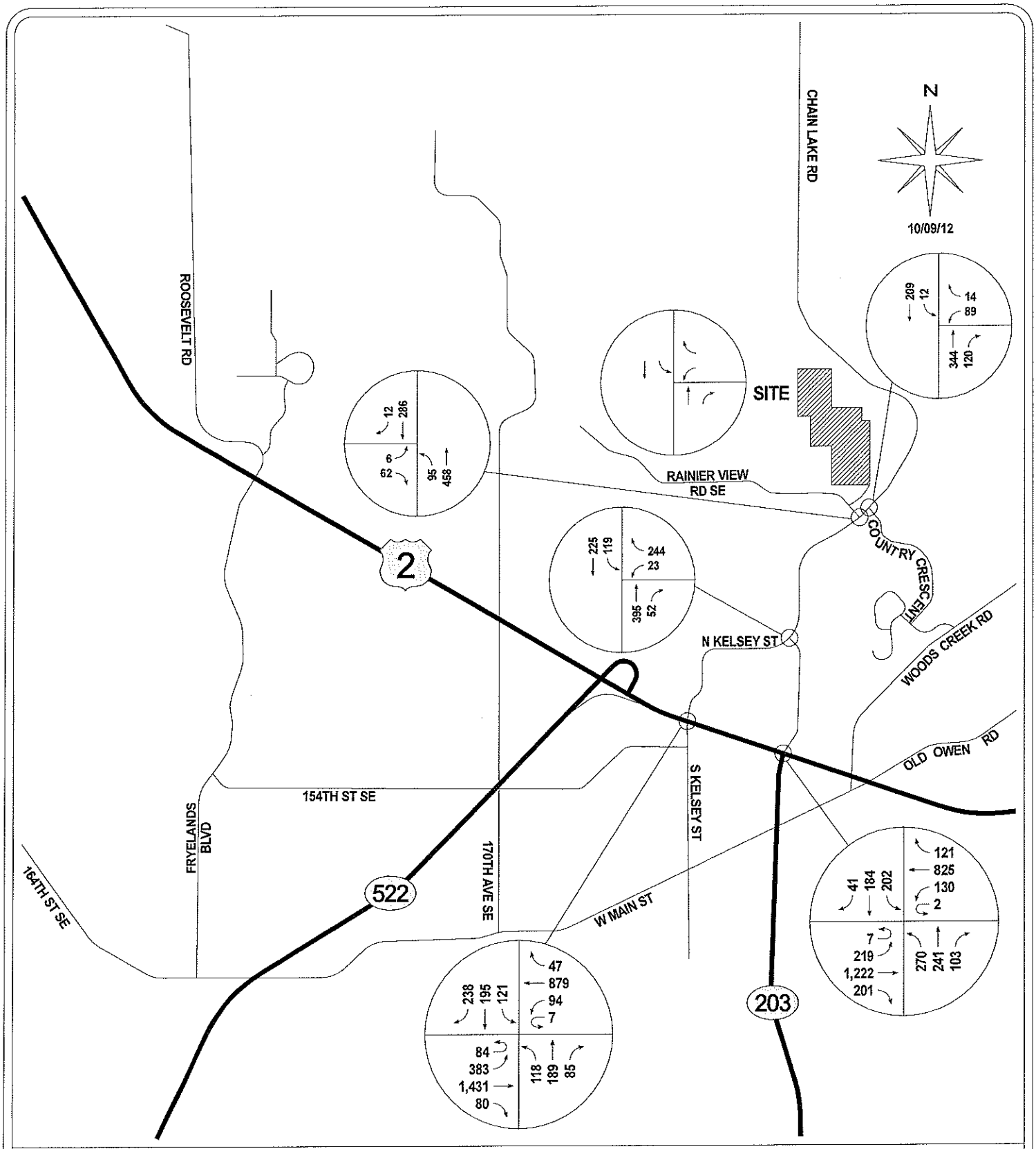
The future volumes have been calculated for the year 2018, which allows for a 6-year build-out of the development. The 2018 baseline turning movements have been calculated by applying a 2% annually compounding growth rate. The 2018 baseline turning movements at the study intersections are shown in Figure 5.

The 2018 future with development turning movements were calculated by adding the development's turning movements to the 2018 baseline turning movements. The 2018 future with development turning movements are shown in Figure 6. It should be noted that it has been assumed that all development trips will utilize the main access via 199th Avenue SE.

The existing turning movement counts and turning movement calculations are included in the attachments.

5.2 Intersection Level of Service Results

The level of service analysis has been performed utilizing the existing control, channelization, peak-hour factors and heavy-vehicle factors. The WSDOT signal timing data for the intersections of N Kelsey Street and Chain Lake Road/SR-203 at US-2 have been obtained and utilized in the analysis.



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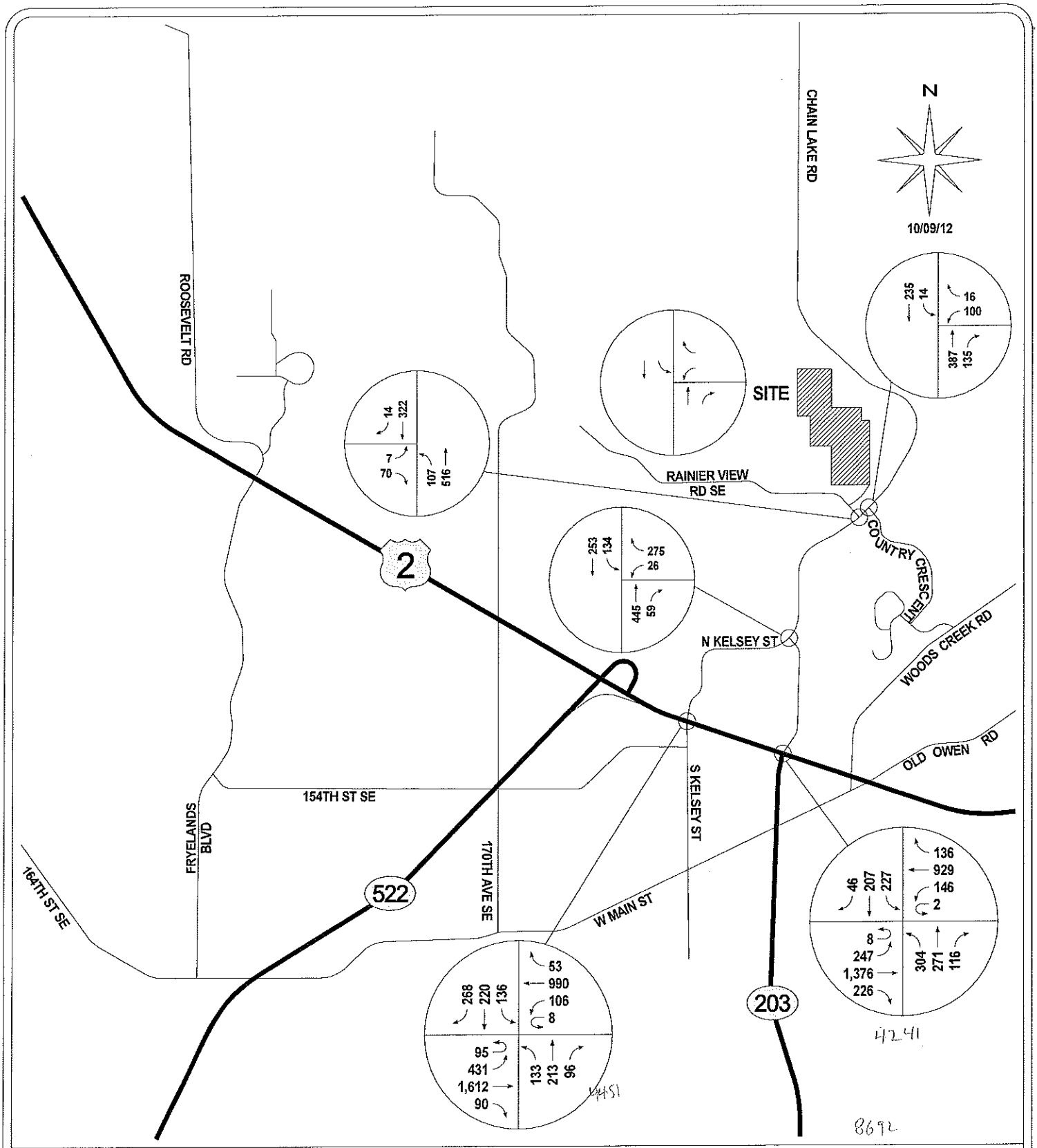
XXX → TURNING MOVEMENT VOLUMES

FIGURE 4
2012 EXISTING TURNING MOVEMENTS



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149 SINGLE-FAMILY UNITS

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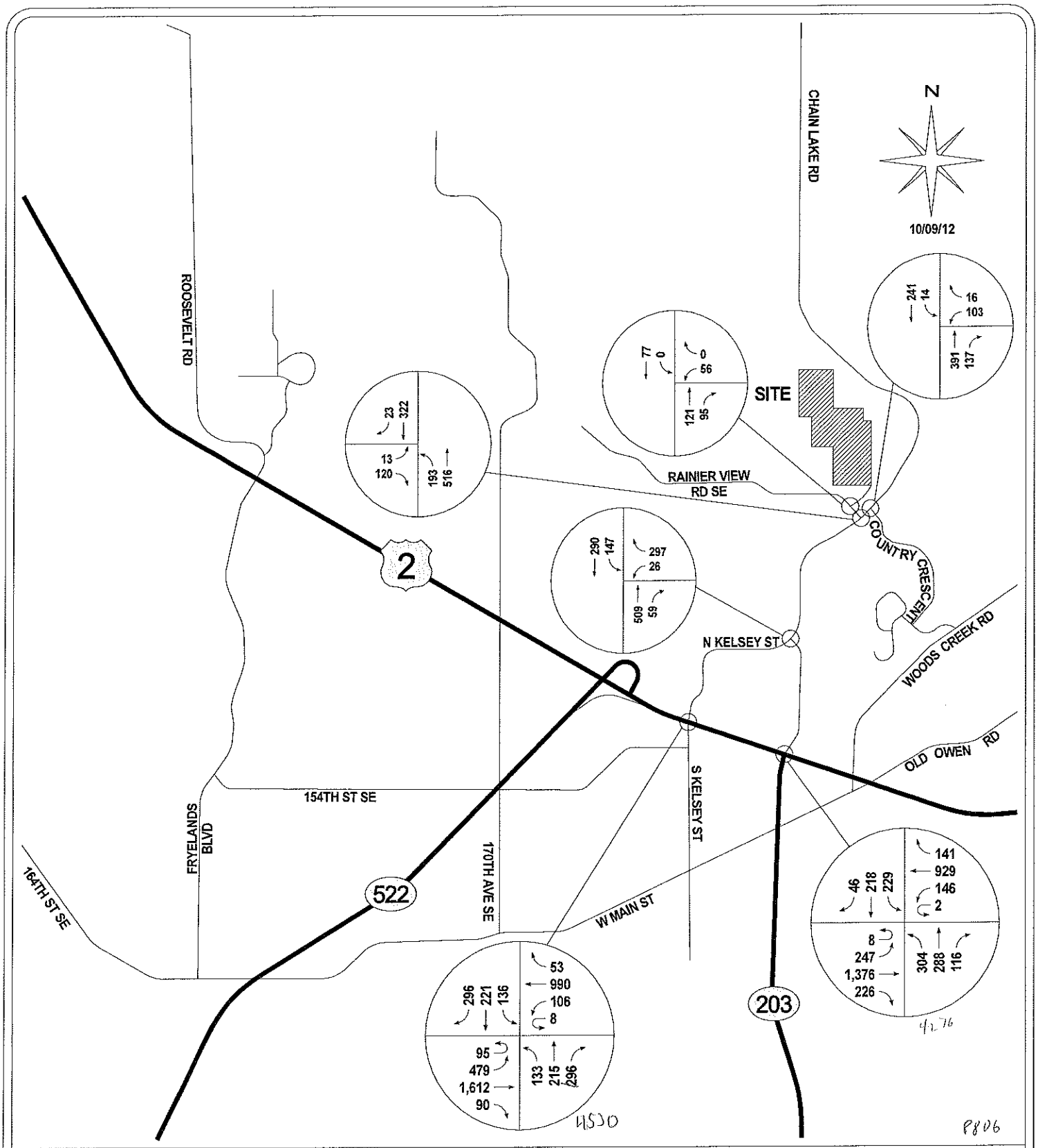
XXX → TURNING MOVEMENT VOLUMES

FIGURE 5
2022 BASELINE
TURNING MOVEMENTS



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149 SINGLE-FAMILY UNITS

CITY OF MONROE

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XXX → TURNING MOVEMENT VOLUMES

FIGURE 6

2022 FUTURE
WITH DEVELOPMENT
TURNING MOVEMENTS

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The following intersections are collector intersections and have a level of service threshold of LOS C:

1. Chain Lake Road at Country Crescent Boulevard
2. Chain Lake Road at Rainier View Road SE
3. Chain Lake Road at N Kelsey Street

The acceptable levels of service for the intersections of N Kelsey Street and Chain Lake Road at US-2 are based on the level of service before the development. If the level of service is LOS D before the development, LOS D must be maintained with the development. If the level of service is LOS E before the development, LOS E must be maintained with the development.

The level of service analysis shows that the collector intersections operate at LOS C or better under the 2012 existing conditions and the 2018 baseline conditions; and will remain at LOS C or better with the addition of the Eaglemont Development. The WSDOT intersections of N Kelsey Street and Chain Lake Road/SR-203 at US-2 are anticipated to operate at LOS E or better under the 2018 baseline conditions and remain at LOS E or better with the addition of the development.

The level of service analysis shows that all of the study intersections are anticipated to operate within acceptable thresholds. The level of service results for the study intersections are summarized in Table 3.

Table 3: Intersection Level of Service Summary

Intersection	2012 Existing Conditions		2018 Baseline Conditions		2018 Future Conditions with Development	
	LOS	Delay	LOS	Delay	LOS	Delay
1. Chain Lake Road at Country Crescent Boulvard	C	15.8 sec	C	18.2 sec	C	18.6 sec
2. Chain Lake Road at Rainier View Road SE	B	11.4 sec	B	12.2 sec	B	14.6 sec
3. Chain Lake Road at N Kelsey Street	B	14.8 sec	C	17.7 sec	C	21.5 sec
4. N Kelsey Street at US-2	D	41.8 sec	D	47.0 sec	D	48.1 sec
5. Chain Lake Road/SR-203 at US-2	D	50.7 sec	E	68.0 sec	E	68.0 sec
6. 199th Avenue SE (access) at Rainier View Road SE	---	---	---	---	B	10.5 sec

The level of service calculations are included in the attachments.

6. ACCESS ANALYSIS

The Eaglemont development is proposed to have access to 199th Avenue SE and Chain Lake Road. The main access will be via 199th Avenue SE, which currently dead-ends at the development. The access to Chain Lake Road will provide full access as well, but it not anticipated to be significantly utilized by the development.

The main access to 199th Avenue SE will extend the roadway into the development and will not create an intersection. The access to Chain Lake Road will be a new access and therefore sight distance and channelization analysis has been performed for this access. The Chain Lake Road access will be within the jurisdiction of Snohomish County and therefore the sight distance and channelization analysis has been performed based on Snohomish County guidelines. The posted speed limit along Chain Lake Road in the vicinity of the access is 35 mph, which requires 338 feet of stopping sight distance and 390 feet of intersection sight distance with the 8 mph modifier to the posted speed limit. The access will have at least 338 feet of stopping sight distance and 390 feet of intersection sight distance in both directions.

The Chain Lake Road access is not anticipated to have a significant number of left-turns into the access. However, the Snohomish County *Guidelines for Left-Turn Lane at Unsignalized Intersection – Two-Lane Roadway* have been evaluated for the Chain Lake Road access. The analysis, which is based on the volumes from the adjacent intersection of Chain Lake Road at Country Crescent Boulevard, shows that there would have to be approximately 54 left-turns before the left-turn lane would be warranted. The development will only have 95 total inbound PM peak-hour trips. This would mean that over 55% of the development's inbound trips would have to use the north access before a left-turn lane would be warranted. Since nearly all of the development's trips are anticipated to use the access to 199th Avenue SE, a left-turn lane is not warranted for the Chain Lake Road access.

7. TRAFFIC MITIGATION FEES

The Washington Growth Management Act and Revised Code of Washington 82.02.050(2) authorize local jurisdictions to establish proportionate share traffic mitigation fees in order to fund capital facilities, such as roads and intersections. The Eaglemont development is located within the City of Monroe, which has established traffic mitigation fees. The City of Monroe also has interlocal agreements with Snohomish County and WSDOT for traffic mitigation fees.

7.1 City of Monroe

The City of Monroe has established a traffic mitigation fee schedule. The fee for single-family residential units is $2,043 per unit. The 149 units of the Eaglemont development will have City of Monroe traffic mitigation fees of $304,407. It should be noted that these fees may not vest and may be higher when the building applications are pulled.

7.2 Snohomish County

The City of Monroe and Snohomish County have an interlocal agreement that provides for the payment of traffic mitigation fees for impacts to Snohomish County roadways by City of Monroe developments. Traffic mitigation fees are based on predetermined area impacts or impacts to actual improvement projects. The trip distribution shows that the Eaglemont development will not impact any Snohomish County improvement projects in the Transportation Needs Report with three directional PM peak-hour trips. According to Section 3(a)2 of the *Snohomish County Traffic Worksheet and Traffic Study Requirements for Developments in the City of Monroe*, City of Monroe developments are only required to pay traffic mitigation fees for improvements in the Transportation Needs Report impacted with three directional peak-hour trips. The Eaglemont is therefore not required to pay traffic mitigation fees to Snohomish County.

7.3 WSDOT

The City of Monroe and WSDOT have an interlocal agreement that provides for the payment of traffic mitigation fees. The interlocal agreement states that a development only has a "significant adverse impact" if the development contributes 25 or more trips to a WSDOT intersection. The only WSDOT roadway that the Eaglemont development impacts with 25 peak-hour trips (AM or PM peak-hour trips) for which WSDOT has an ongoing improvement project is along SR-522 from the Snohomish River to US-2, which is currently under construction.

The interlocal agreement between the City of Monroe and WSDOT is unclear as to when fees will no longer be collected for an improvement project. However, section 5.2 d) of the interlocal agreement between Snohomish County and WSDOT states that "[t]he STATE will not request proportionate-share mitigation for development's impacts to any STATE project whose Ad date comes before the development's regulatory completeness date." The "Ad date" is defined as when a project is "advertised for bids for construction." Based on information from WSDOT's website for the SR-522 improvement project, the project was advertised on April 4, 2011 and awarded on May 26, 2011. Therefore, mitigation fees for impacts to the SR-522 improvement project from the Snohomish River to US-2 should not be required.

7.4 Traffic Mitigation Fee Summary

The Eaglemont development is located in the City of Monroe and is therefore required to pay traffic mitigation fees to the City of Monroe. The City of Monroe traffic mitigation fees are $304,407 for the development. The City of Monroe has interlocal agreements with Snohomish County and WSDOT. However, the Eaglemont development will not meet the thresholds for paying traffic mitigation fees to Snohomish County and WSDOT and therefore traffic mitigation fees for these jurisdictions are not required.

The total traffic mitigation fees for the Eaglemont development are $304,407. This is equivalent to $2,043 per unit.

8. CONCLUSIONS

The Eaglemont development is proposed to consist of 149 total single-family residential units. The development is anticipated to generate 1,426 average daily trips with 112 AM peak-hour trips and 150 PM peak-hour trips. The level of service analysis shows that all of the study intersections are anticipated to operate within acceptable thresholds. The Eaglemont development will have City of Monroe traffic mitigation fees of $304,407. The development will not meet the thresholds for paying traffic mitigation fees to Snohomish County or WSDOT.

Trip Generation Calculations

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

									NET EXTERNAL TRIPS BY TYPE											
									IN BOTH DIRECTIONS						DIRECTIONAL ASSIGNMENTS					
			Gross Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
Single-Family (Phase I)	26 units	210	9.57	50%	50%	248.82	0%	0.00	248.82	0%	0.00	0%	0.00	248.82	0.00	0.00	0.00	0.00	124.41	124.41
Single-Family (Phase II)	32 units	210	9.57	50%	50%	306.24	0%	0.00	306.24	0%	0.00	0%	0.00	306.24	0.00	0.00	0.00	0.00	153.12	153.12
Single-Family (Phase III)	20 units	210	9.57	50%	50%	191.40	0%	0.00	191.40	0%	0.00	0%	0.00	191.40	0.00	0.00	0.00	0.00	95.70	95.70
Single-Family (Phase IV)	41 units	210	9.57	50%	50%	392.37	0%	0.00	392.37	0%	0.00	0%	0.00	392.37	0.00	0.00	0.00	0.00	196.19	196.18
Single-Family (Phase V)	30 units	210	9.57	50%	50%	287.10	0%	0.00	287.10	0%	0.00	0%	0.00	287.10	0.00	0.00	0.00	0.00	143.55	143.55
Totals						1425.93		0.00	1425.93		0.00		0.00	1425.93	0.00	0.00	0.00	0.00	712.97	712.96

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

									NET EXTERNAL TRIPS BY TYPE											
									IN BOTH DIRECTIONS						DIRECTIONAL ASSIGNMENTS					
			Gross Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
Single-Family (Phase I)	26 units	210	0.75	25%	75%	19.50	0%	0.00	19.50	0%	0.00	0%	0.00	19.50	0.00	0.00	0.00	0.00	4.88	14.62
Single-Family (Phase II)	32 units	210	0.75	25%	75%	24.00	0%	0.00	24.00	0%	0.00	0%	0.00	24.00	0.00	0.00	0.00	0.00	6.00	18.00
Single-Family (Phase III)	20 units	210	0.75	25%	75%	15.00	0%	0.00	15.00	0%	0.00	0%	0.00	15.00	0.00	0.00	0.00	0.00	3.75	11.25
Single-Family (Phase IV)	41 units	210	0.75	25%	75%	30.75	0%	0.00	30.75	0%	0.00	0%	0.00	30.75	0.00	0.00	0.00	0.00	7.69	23.06
Single-Family (Phase V)	30 units	210	0.75	25%	75%	22.50	0%	0.00	22.50	0%	0.00	0%	0.00	22.50	0.00	0.00	0.00	0.00	5.63	16.87
Totals						111.75		0.00	111.75		0.00		0.00	111.75	0.00	0.00	0.00	0.00	27.95	83.80

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

									NET EXTERNAL TRIPS BY TYPE											
									IN BOTH DIRECTIONS						DIRECTIONAL ASSIGNMENTS					
			Gross Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
Single-Family (Phase I)	26 units	210	1.01	63%	37%	26.26	0%	0.00	26.26	0%	0.00	0%	0.00	26.26	0.00	0.00	0.00	0.00	16.54	9.72
Single-Family (Phase II)	32 units	210	1.01	63%	37%	32.32	0%	0.00	32.32	0%	0.00	0%	0.00	32.32	0.00	0.00	0.00	0.00	20.36	11.96
Single-Family (Phase III)	20 units	210	1.01	63%	37%	20.20	0%	0.00	20.20	0%	0.00	0%	0.00	20.20	0.00	0.00	0.00	0.00	12.73	7.47
Single-Family (Phase IV)	41 units	210	1.01	63%	37%	41.41	0%	0.00	41.41	0%	0.00	0%	0.00	41.41	0.00	0.00	0.00	0.00	26.09	15.32
Single-Family (Phase V)	30 units	210	1.01	63%	37%	30.30	0%	0.00	30.30	0%	0.00	0%	0.00	30.30	0.00	0.00	0.00	0.00	19.09	11.21
Totals						150.49		0.00	150.49		0.00		0.00	150.49	0.00	0.00	0.00	0.00	94.81	55.68

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AM Peak-Hour

%	New ADT	New AM Peak Hour Trips		
		In	Out	Total
100%	1426	28	84	111.75
1%	14.26	0.28	0.84	1.12
2%	28.52	0.56	1.68	2.24
3%	42.78	0.84	2.51	3.35
4%	57.04	1.12	3.35	4.47
5%	**71.30**	**1.40**	**4.19**	**5.59**
6%	85.56	1.68	5.03	6.71
7%	99.82	1.96	5.87	7.82
8%	114.07	2.24	6.70	8.94
9%	128.33	2.52	7.54	10.06
10%	**142.59**	**2.80**	**8.38**	**11.18**
11%	156.85	3.07	9.22	12.29
12%	171.11	3.35	10.06	13.41
13%	185.37	3.63	10.89	14.53
14%	199.63	3.91	11.73	15.65
15%	**213.89**	**4.19**	**12.57**	**16.76**
16%	228.15	4.47	13.41	17.88
17%	242.41	4.75	14.25	19.00
18%	256.67	5.03	15.08	20.12
19%	270.93	5.31	15.92	21.23
20%	**285.19**	**5.59**	**16.76**	**22.35**
21%	299.45	5.87	17.60	23.47
22%	313.70	6.15	18.44	24.59
23%	327.96	6.43	19.27	25.70
24%	342.22	6.71	20.11	26.82
25%	**356.48**	**6.99**	**20.95**	**27.94**
26%	370.74	7.27	21.79	29.06
27%	385.00	7.55	22.63	30.17
28%	399.26	7.83	23.46	31.29
29%	413.52	8.11	24.30	32.41
30%	**427.78**	**8.39**	**25.14**	**33.53**
31%	442.04	8.66	25.98	34.64
32%	456.30	8.94	26.82	35.76
33%	470.56	9.22	27.65	36.88
34%	484.82	9.50	28.49	38.00
35%	**499.08**	**9.78**	**29.33**	**39.11**
36%	513.33	10.06	30.17	40.23
37%	527.59	10.34	31.01	41.35
38%	541.85	10.62	31.84	42.47
39%	556.11	10.90	32.68	43.58
40%	**570.37**	**11.18**	**33.52**	**44.70**
41%	584.63	11.46	34.36	45.82
42%	598.89	11.74	35.20	46.94
43%	613.15	12.02	36.03	48.05
44%	627.41	12.30	36.87	49.17
45%	**641.67**	**12.58**	**37.71**	**50.29**
46%	655.93	12.86	38.55	51.41
47%	670.19	13.14	39.39	52.52
48%	684.45	13.42	40.22	53.64
49%	698.71	13.70	41.06	54.76
50%	**712.97**	**13.98**	**41.90**	**55.88**

%	New ADT	New AM Peak Hour Trips		
		In	Out	Total
100%	1426	28	84	112
51%	727.22	14.25	42.74	56.99
52%	741.48	14.53	43.58	58.11
53%	755.74	14.81	44.41	59.23
54%	770.00	15.09	45.25	60.35
55%	**784.26**	**15.37**	**46.09**	**61.46**
56%	798.52	15.65	46.93	62.58
57%	812.78	15.93	47.77	63.70
58%	827.04	16.21	48.60	64.82
59%	841.30	16.49	49.44	65.93
60%	**855.56**	**16.77**	**50.28**	**67.05**
61%	869.82	17.05	51.12	68.17
62%	884.08	17.33	51.96	69.29
63%	898.34	17.61	52.79	70.40
64%	912.60	17.89	53.63	71.52
65%	**926.85**	**18.17**	**54.47**	**72.64**
66%	941.11	18.45	55.31	73.76
67%	955.37	18.73	56.15	74.87
68%	969.63	19.01	56.98	75.99
69%	983.89	19.29	57.82	77.11
70%	**998.15**	**19.57**	**58.66**	**78.23**
71%	1012.41	19.84	59.50	79.34
72%	1026.67	20.12	60.34	80.46
73%	1040.93	20.40	61.17	81.58
74%	1055.19	20.68	62.01	82.70
75%	**1069.45**	**20.96**	**62.85**	**83.81**
76%	1083.71	21.24	63.69	84.93
77%	1097.97	21.52	64.53	86.05
78%	1112.23	21.80	65.36	87.17
79%	1126.48	22.08	66.20	88.28
80%	**1140.74**	**22.36**	**67.04**	**89.40**
81%	1155.00	22.64	67.88	90.52
82%	1169.26	22.92	68.72	91.64
83%	1183.52	23.20	69.55	92.75
84%	1197.78	23.48	70.39	93.87
85%	**1212.04**	**23.76**	**71.23**	**94.99**
86%	1226.30	24.04	72.07	96.11
87%	1240.56	24.32	72.91	97.22
88%	1254.82	24.60	73.74	98.34
89%	1269.08	24.88	74.58	99.46
90%	**1283.34**	**25.16**	**75.42**	**100.58**
91%	1297.60	25.43	76.26	101.69
92%	1311.86	25.71	77.10	102.81
93%	1326.11	25.99	77.93	103.93
94%	1340.37	26.27	78.77	105.05
95%	**1354.63**	**26.55**	**79.61**	**106.16**
96%	1368.89	26.83	80.45	107.28
97%	1383.15	27.11	81.29	108.40
98%	1397.41	27.39	82.12	109.52
99%	1411.67	27.67	82.96	110.63
100%	**1425.93**	**27.95**	**83.80**	**111.75**

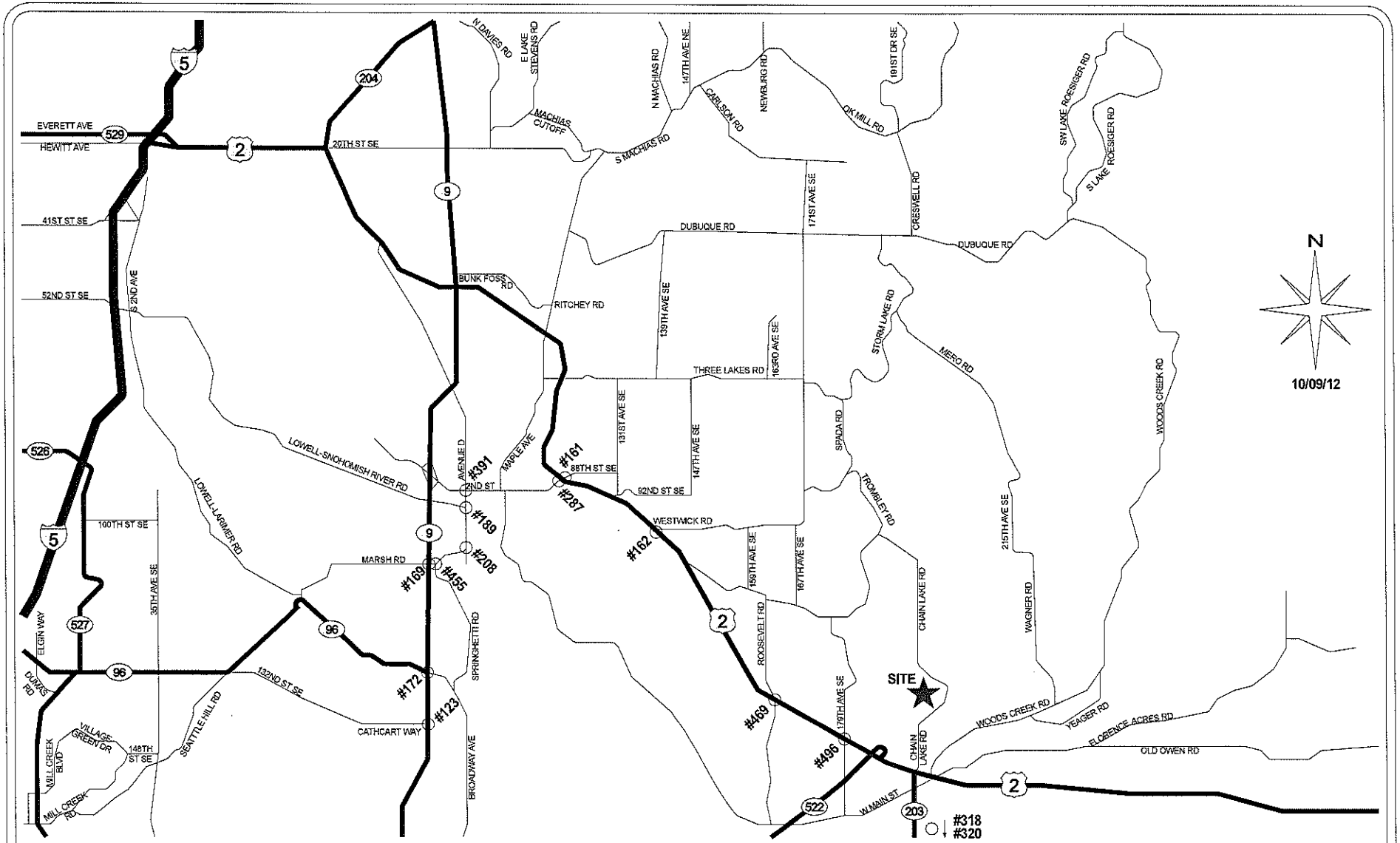
Eaglemont
GTC #12-087

PM Peak-Hour

%	New ADT	New PM Peak Hour Trips		
		In	Out	Total
100%	1426	95	56	150.49
1%	14.26	0.95	0.56	1.50
2%	28.52	1.90	1.11	3.01
3%	42.78	2.84	1.67	4.51
4%	57.04	3.79	2.23	6.02
5%	**71.30**	**4.74**	**2.78**	**7.52**
6%	85.56	5.69	3.34	9.03
7%	99.82	6.64	3.90	10.53
8%	114.07	7.58	4.45	12.04
9%	128.33	8.53	5.01	13.54
10%	**142.59**	**9.48**	**5.57**	**15.05**
11%	156.85	10.43	6.12	16.55
12%	171.11	11.38	6.68	18.06
13%	185.37	12.33	7.24	19.56
14%	199.63	13.27	7.80	21.07
15%	**213.89**	**14.22**	**8.35**	**22.57**
16%	228.15	15.17	8.91	24.08
17%	242.41	16.12	9.47	25.58
18%	256.67	17.07	10.02	27.09
19%	270.93	18.01	10.58	28.59
20%	**285.19**	**18.96**	**11.14**	**30.10**
21%	299.45	19.91	11.69	31.60
22%	313.70	20.86	12.25	33.11
23%	327.96	21.81	12.81	34.61
24%	342.22	22.75	13.36	36.12
25%	**356.48**	**23.70**	**13.92**	**37.62**
26%	370.74	24.65	14.48	39.13
27%	385.00	25.60	15.03	40.63
28%	399.26	26.55	15.59	42.14
29%	413.52	27.49	16.15	43.64
30%	**427.78**	**28.44**	**16.70**	**45.15**
31%	442.04	29.39	17.26	46.65
32%	456.30	30.34	17.82	48.16
33%	470.56	31.29	18.37	49.66
34%	484.82	32.24	18.93	51.17
35%	**499.08**	**33.18**	**19.49**	**52.67**
36%	513.33	34.13	20.04	54.18
37%	527.59	35.08	20.60	55.68
38%	541.85	36.03	21.16	57.19
39%	556.11	36.98	21.72	58.69
40%	**570.37**	**37.92**	**22.27**	**60.20**
41%	584.63	38.87	22.83	61.70
42%	598.89	39.82	23.39	63.21
43%	613.15	40.77	23.94	64.71
44%	627.41	41.72	24.50	66.22
45%	**641.67**	**42.66**	**25.06**	**67.72**
46%	655.93	43.61	25.61	69.23
47%	670.19	44.56	26.17	70.73
48%	684.45	45.51	26.73	72.24
49%	698.71	46.46	27.28	73.74
50%	**712.97**	**47.41**	**27.84**	**75.25**

%	New ADT	New PM Peak Hour Trips		
		In	Out	Total
100%	1426	95	56	150
51%	727.22	48.35	28.40	76.75
52%	741.48	49.30	28.95	78.25
53%	755.74	50.25	29.51	79.76
54%	770.00	51.20	30.07	81.26
55%	**784.26**	**52.15**	**30.62**	**82.77**
56%	798.52	53.09	31.18	84.27
57%	812.78	54.04	31.74	85.78
58%	827.04	54.99	32.29	87.28
59%	841.30	55.94	32.85	88.79
60%	**855.56**	**56.89**	**33.41**	**90.29**
61%	869.82	57.83	33.96	91.80
62%	884.08	58.78	34.52	93.30
63%	898.34	59.73	35.08	94.81
64%	912.60	60.68	35.64	96.31
65%	**926.85**	**61.63**	**36.19**	**97.82**
66%	941.11	62.57	36.75	99.32
67%	955.37	63.52	37.31	100.83
68%	969.63	64.47	37.86	102.33
69%	983.89	65.42	38.42	103.84
70%	**998.15**	**66.37**	**38.98**	**105.34**
71%	1012.41	67.32	39.53	106.85
72%	1026.67	68.26	40.09	108.35
73%	1040.93	69.21	40.65	109.86
74%	1055.19	70.16	41.20	111.36
75%	**1069.45**	**71.11**	**41.76**	**112.87**
76%	1083.71	72.06	42.32	114.37
77%	1097.97	73.00	42.87	115.88
78%	1112.23	73.95	43.43	117.38
79%	1126.48	74.90	43.99	118.89
80%	**1140.74**	**75.85**	**44.54**	**120.39**
81%	1155.00	76.80	45.10	121.90
82%	1169.26	77.74	45.66	123.40
83%	1183.52	78.69	46.21	124.91
84%	1197.78	79.64	46.77	126.41
85%	**1212.04**	**80.59**	**47.33**	**127.92**
86%	1226.30	81.54	47.88	129.42
87%	1240.56	82.48	48.44	130.93
88%	1254.82	83.43	49.00	132.43
89%	1269.08	84.38	49.56	133.94
90%	**1283.34**	**85.33**	**50.11**	**135.44**
91%	1297.60	86.28	50.67	136.95
92%	1311.86	87.23	51.23	138.45
93%	1326.11	88.17	51.78	139.96
94%	1340.37	89.12	52.34	141.46
95%	**1354.63**	**90.07**	**52.90**	**142.97**
96%	1368.89	91.02	53.45	144.47
97%	1383.15	91.97	54.01	145.98
98%	1397.41	92.91	54.57	147.48
99%	1411.67	93.86	55.12	148.99
100%	**1425.93**	**94.81**	**55.68**	**150.49**

Snohomish County Key Intersection Impacts



GIBSON TRAFFIC CONSULTANTS

TRAFFIC IMPACT STUDY
GTC #12-087

EAGLEMONT
149 SINGLE-FAMILY UNITS

CITY OF MONROE

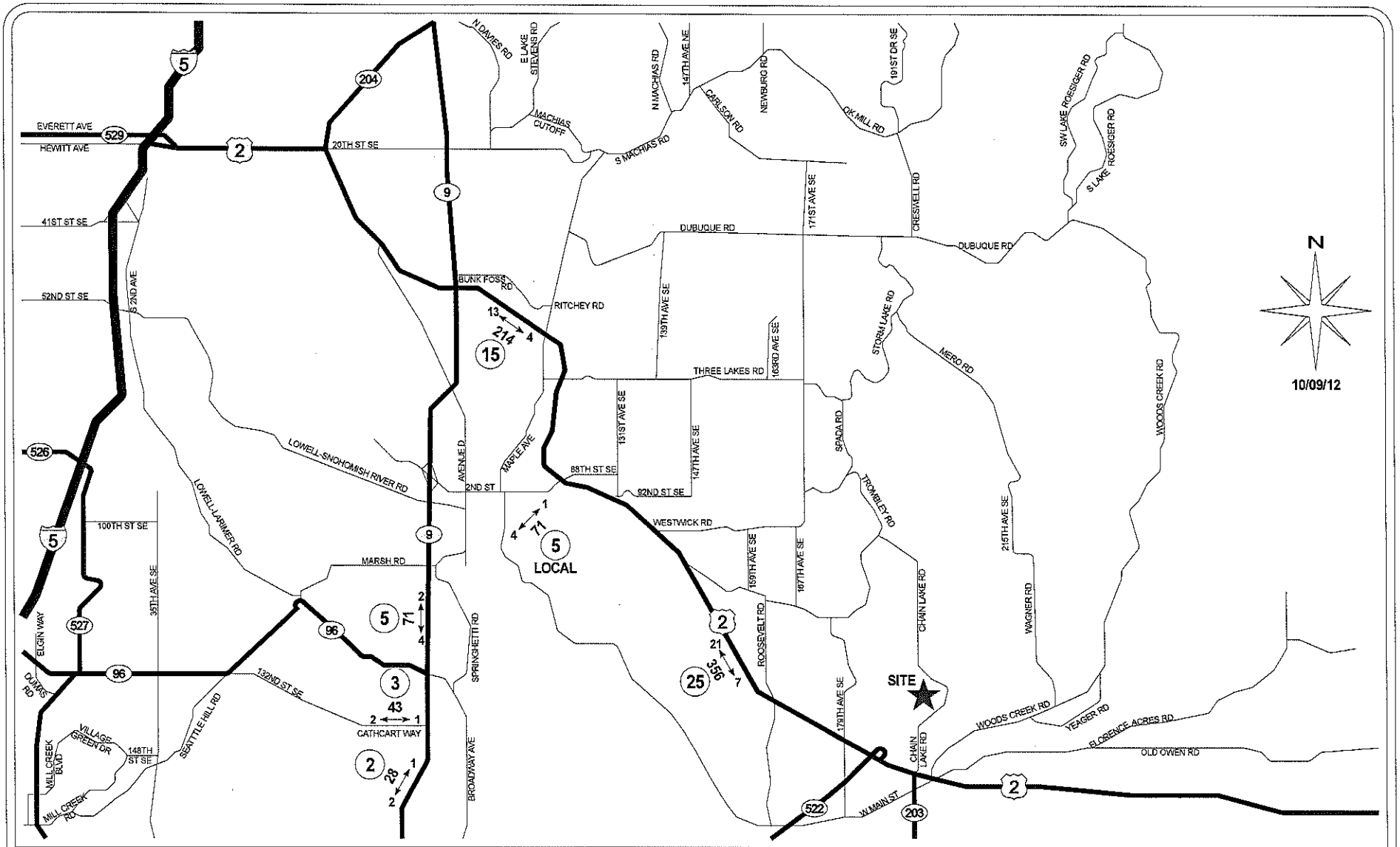
LEGEND

DEVELOPMENT SITE

KEY INTERSECTION

FIGURE A

KEY INTERSECTION LOCATIONS



GIBSON TRAFFIC CONSULTANTS

TRAFFIC IMPACT STUDY
GTC #12-087

EAGLEMONT
149 SINGLE-FAMILY UNITS

CITY OF MONROE

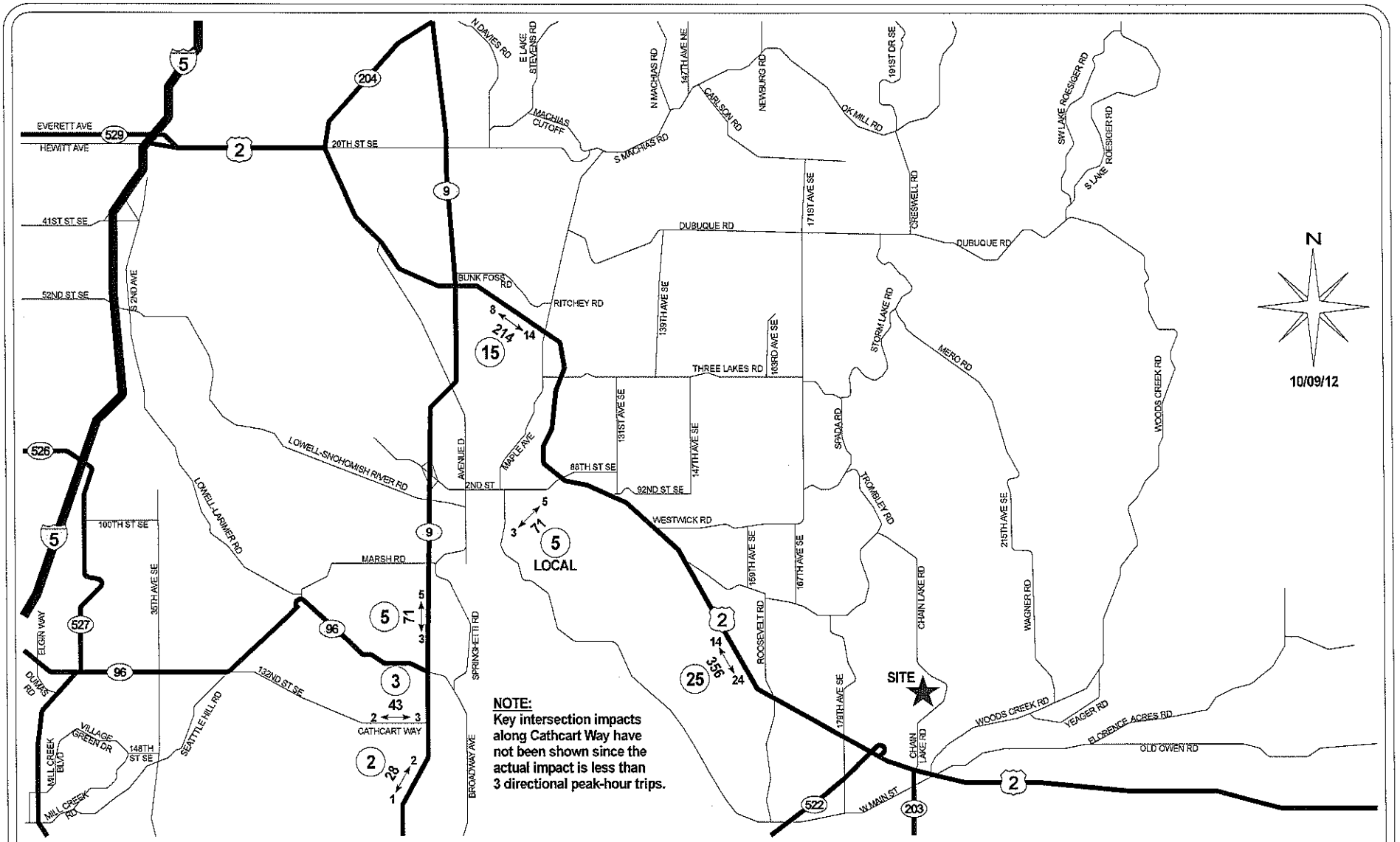
LEGEND

AWDT
PM ← → PEAK — NEW SITE TRAFFIC DAILY AND PM PEAK-HOUR

(XX) — TRIP DISTRIBUTION %

FIGURE B

DEVELOPMENT
TRIP DISTRIBUTION
AM PEAK-HOUR



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TRAFFIC IMPACT STUDY
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EAGLEMONT
149 SINGLE-FAMILY UNITS

CITY OF MONROE

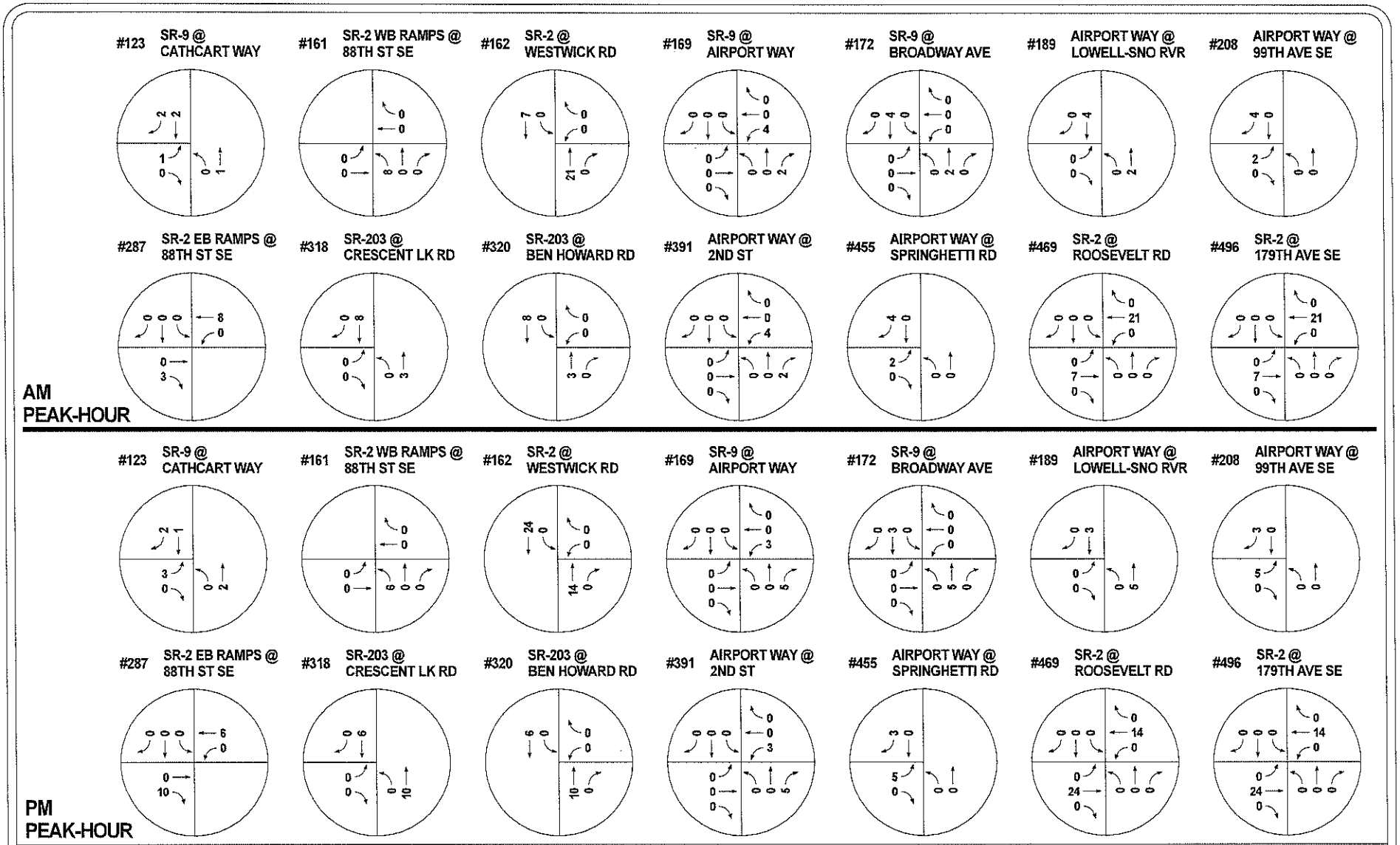
LEGEND

AWDT
PM ← → PEAK — NEW SITE TRAFFIC DAILY AND PM PEAK-HOUR

(XX) — TRIP DISTRIBUTION %

FIGURE C

DEVELOPMENT
TRIP DISTRIBUTION
PM PEAK-HOUR



GIBSON TRAFFIC CONSULTANTS

TRAFFIC IMPACT STUDY
GTC #12-087

EAGLEMONT
149 SINGLE-FAMILY UNITS

CITY OF MONROE

LEGEND

XX→ PEAK HOUR TURNING MOVEMENT VOLUME

FIGURE D

DEVELOPMENT
KEY INTERSECTION VOLUMES
AM & PM PEAK-HOURS

AM Peak-Hour Key Intersection Volumes

Intersection	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
#123: SR-9 at Cathcart Way	1	NA	0	NA	NA	NA	0	1	NA	NA	2	2
#161: SR-2 WB Ramps @ 88th St SE	0	0	NA	NA	0	0	8	0	0	NA	NA	NA
#162: SR-2 at Westwick Rd	NA	NA	NA	0	NA	0	NA	21	0	0	7	NA
#169: SR-9 at Airport Way	0	0	0	4	0	0	0	0	2	0	0	0
#172: SR-9 at Broadway Ave	0	0	0	0	0	0	0	2	0	0	4	0
#189: Airport Way at Lowell-Sno Rvr	0	NA	0	NA	NA	NA	0	2	NA	NA	4	0
#208: Airport Way at 99th Ave SE	2	NA	0	NA	NA	NA	0	0	NA	NA	0	4
#287: SR-2 EB Ramps at 88th St SE	NA	0	3	0	8	NA	NA	NA	NA	0	0	0
#318: SR-203 at Crescent Lk Rd	0	NA	0	NA	NA	NA	0	3	NA	NA	8	0
#320: SR-203 at Ben Howard Rd	NA	NA	NA	0	NA	0	NA	3	0	0	8	NA
#391: Airport Way at 2nd St	0	0	0	4	0	0	0	0	2	0	0	0
#455: Airport Way at Springhetti Rd	2	NA	0	NA	NA	NA	0	0	NA	NA	0	4
#469: SR-2 at Roosevelt Rd	0	7	0	0	21	0	0	0	0	0	0	0
#496: SR-2 at 179th Ave SE	0	7	0	0	21	0	0	0	0	0	0	0

PM Peak-Hour Key Intersection Volumes

Intersection	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
#123: SR-9 at Cathcart Way	31	NA	0	NA	NA	NA	0	2	NA	NA	1	2
#161: SR-2 WB Ramps @ 88th St SE	0	0	NA	NA	0	0	6	0	0	NA	NA	NA
#162: SR-2 at Westwick Rd	NA	NA	NA	0	NA	0	NA	14	0	0	24	NA
#169: SR-9 at Airport Way	0	0	0	3	0	0	0	0	5	0	0	0
#172: SR-9 at Broadway Ave	0	0	0	0	0	0	0	5	0	0	3	0
#189: Airport Way at Lowell-Sno Rvr	0	NA	0	NA	NA	NA	0	5	NA	NA	3	0
#208: Airport Way at 99th Ave SE	5	NA	0	NA	NA	NA	0	0	NA	NA	0	3
#287: SR-2 EB Ramps at 88th St SE	NA	0	10	0	6	NA	NA	NA	NA	0	0	0
#318: SR-203 at Crescent Lk Rd	0	NA	0	NA	NA	NA	0	10	NA	NA	6	0
#320: SR-203 at Ben Howard Rd	NA	NA	NA	0	NA	0	NA	10	0	0	6	NA
#391: Airport Way at 2nd St	0	0	0	3	0	0	0	0	5	0	0	0
#455: Airport Way at Springhetti Rd	5	NA	0	NA	NA	NA	0	0	NA	NA	0	3
#469: SR-2 at Roosevelt Rd	0	24	0	0	14	0	0	0	0	0	0	0
#496: SR-2 at 179th Ave SE	0	24	0	0	14	0	0	0	0	0	0	0

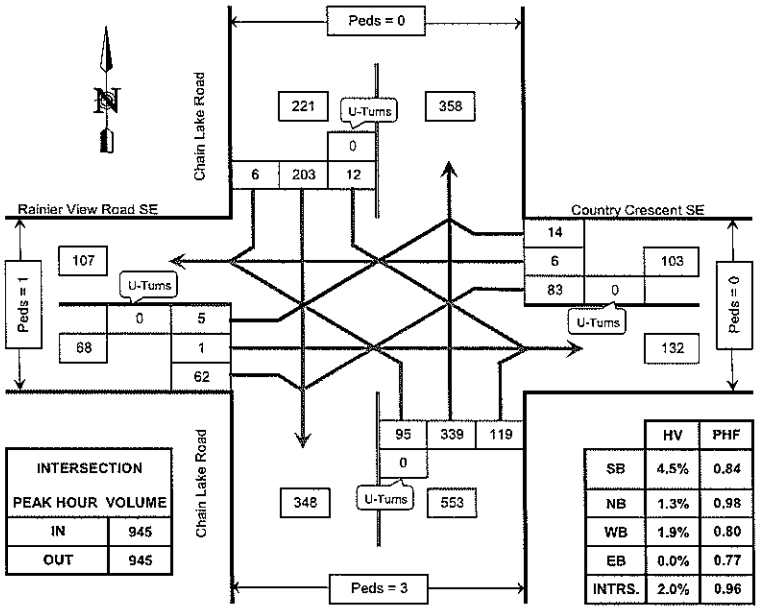
Turning Movement Volumes

C

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

4:00 - 6:00 PM PEAK HOUR: 5:00 PM TO 6:00 PM



INTERSECTION PEAK HOUR VOLUME	
IN	945
OUT	945

	HV	PHF
SB	4.5%	0.84
NB	1.3%	0.98
WB	1.9%	0.80
EB	0.0%	0.77
INTRS.	2.0%	0.96

PHF = Peak Hour Factor
HV = Heavy Vehicles

Chain Lake Road @ Country Crescent SE

Monroe, WA

COUNTED BY: JH

REDUCED BY: CN

REDUCTION DATE: Mon. 10/1/12

DATE OF COUNT: Thu. 9/27/12

TIME OF COUNT: 4:00 - 6:00 PM

WEATHER: Sunny

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: Chain Lake Road @ Country Crescent SE
Monroe, WA

DATE OF COUNT: Thu. 9/27/12
TIME OF COUNT: 4:00 - 6:00 PM

COUNTED BY: JH
WEATHER: Sunny

TIME INTERVAL ENDING AT	FROM NORTH ON Chain Lake Road						FROM SOUTH ON Chain Lake Road						FROM EAST ON Country Crescent SE						FROM WEST ON Rainier View Road SE						INTERVAL TOTALS
	Peds	HV	UTurn	Left	Thru	Right	Peds	HV	UTurn	Left	Thru	Right	Peds	HV	UTurn	Left	Thru	Right	Peds	HV	UTurn	Left	Thru	Right	
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	1	0	6	30	2	2	1	0	14	74	35	0	1	0	17	0	5	2	0	0	1	0	12	198
04:30 PM	0	3	0	2	36	0	0	3	0	16	66	33	0	0	0	24	2	6	0	0	0	0	2	9	200
04:45 PM	0	0	0	2	42	0	0	4	0	18	83	30	0	0	0	11	2	4	0	0	0	0	1	16	209
05:00 PM	0	5	0	2	56	1	1	1	0	24	81	26	0	0	0	19	0	3	1	0	0	1	0	18	233
05:15 PM	0	3	0	0	44	2	1	4	0	21	83	27	0	1	0	21	1	3	0	0	0	2	1	14	229
05:30 PM	0	1	0	5	41	0	1	1	0	25	88	28	0	1	0	14	1	4	0	0	0	0	0	18	224
05:45 PM	0	3	0	3	58	2	1	1	0	26	80	35	0	0	0	24	3	5	1	0	0	1	0	10	247
06:00 PM	0	3	0	4	80	2	0	1	0	23	78	29	0	0	0	24	1	2	0	0	0	2	0	20	245
PEAK HOUR TOTALS	0	10	0	12	203	6	3	7	0	95	339	119	0	2	0	83	6	14	1	0	0	5	1	62	INTERSECTION
ALL MOVEMENTS	221						553						103						68						945
% HV	4.5%						1.3%						1.9%						0.0%						2.0%
PEAK HOUR FACTOR	0.84						0.98						0.80						0.77						0.96

PHF = Peak Hour Factor

4:00 - 6:00 PM PEAK HOUR: 5:00 PM TO 6:00 PM

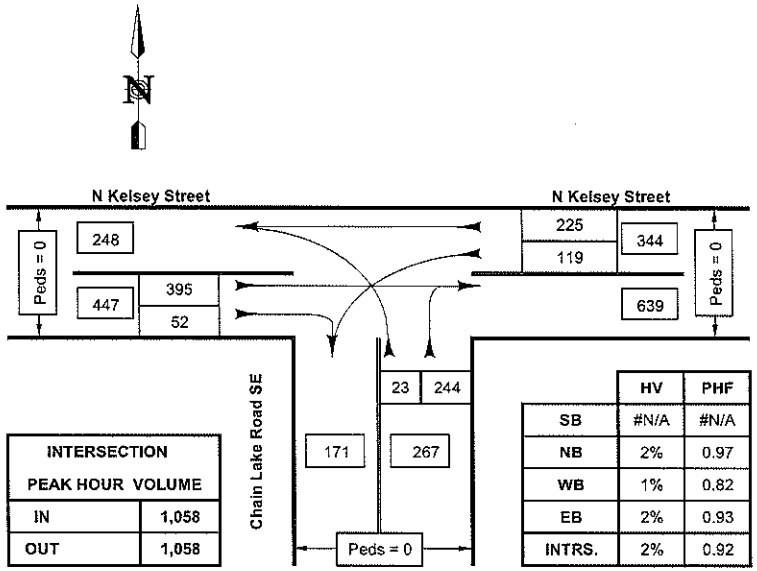
REDUCED BY: CN

DATE OF REDUCTION: 10/1/2012

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

4:00 - 6:00 PM PEAK HOUR: 4:45 PM TO 5:45 PM



INTERSECTION PEAK HOUR VOLUME	
IN	1,058
OUT	1,058

	HV	PHF
SB	#N/A	#N/A
NB	2%	0.97
WB	1%	0.82
EB	2%	0.93
INTRS.	2%	0.92

HV = HEAVY VEHICLES

PHF = PEAK HOUR FACTOR

Chain Lake Road @ N Kelsey Street

Woodinville, WA

COUNTED BY:	JH	DATE OF COUNT:	Thu. 9/20/12
REDUCED BY:	CN	TIME OF COUNT:	4:00 - 6:00 PM
DATE OF REDUCTION:	Fri. 9/21/12	WEATHER:	Sunny

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION:	Chain Lake Road @ N Kelsey Street Woodinville, WA	DATE OF COUNT: TIME OF COUNT:	Thu. 9/20/12 4:00 - 6:00 PM	COUNTED BY: JH WEATHER: Sunny

TIME INTERVAL ENDING AT	FROM NORTH ON					FROM SOUTH ON Chain Lake Road SE					FROM EAST ON N Kelsey Street					FROM WEST ON N Kelsey Street					INTERVAL TOTALS
	Peds	HV	Left	Thru	Right	Peds	HV	Left	Thru	Right	Peds	HV	Left	Thru	Right	Peds	HV	Left	Thru	Right	
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	2	8	0	49	0	0	23	55	0	0	2	0	75	15	225
04:30 PM	0	0	0	0	0	0	3	5	0	51	0	2	20	49	0	0	1	0	88	17	226
04:45 PM	0	0	0	0	0	0	0	5	0	44	0	10	23	73	0	2	3	0	68	10	221
05:00 PM	0	0	0	0	0	0	0	5	0	54	0	1	30	53	0	0	3	0	93	13	258
05:15 PM	0	0	0	0	0	0	1	5	0	59	0	1	28	47	0	0	2	0	108	12	259
05:30 PM	0	0	0	0	0	0	2	5	0	63	0	1	30	51	0	0	2	0	86	15	252
05:45 PM	0	0	0	0	0	0	2	8	0	56	0	2	31	74	0	0	2	0	106	12	289
06:00 PM	0	0	0	0	0	0	3	3	0	53	0	2	33	53	0	0	1	0	83	15	240
PEAK HOUR TOTALS	0	0	0	0	0	0	5	23	0	244	0	5	119	225	0	0	9	0	395	52	INTERSECTION
ALL MOVEMENTS	0					267					344					447					1058
% HV	#N/A					2%					1%					2%					2%
PEAK HOUR FACTOR	#N/A					0.97					0.82					0.93					0.92

PHF = Peak Hour Factor

4:00 - 6:00 PM PEAK HOUR: 4:45 PM TO 5:45 PM

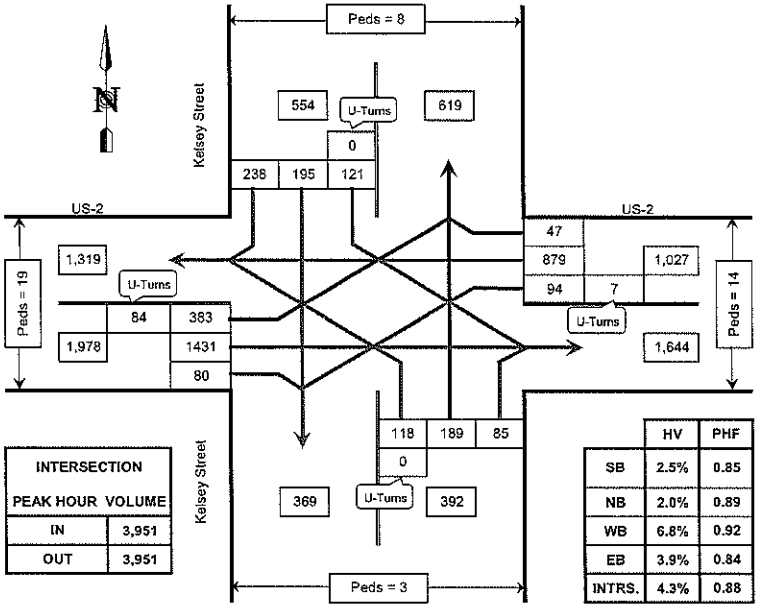
REDUCED BY: CN

DATE OF REDUCTION: 9/21/2012

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

4:00 - 6:00 PM PEAK HOUR: 4:15 PM TO 5:15 PM



INTERSECTION PEAK HOUR VOLUME	
IN	3,951
OUT	3,951

	HV	PHF
SB	2.5%	0.85
NB	2.0%	0.89
WB	6.8%	0.92
EB	3.9%	0.84
INTRS.	4.3%	0.88

PHF = Peak Hour Factor
HV = Heavy Vehicles

Kelsey Street @ US-2

Monroe, WA

COUNTED BY: CN/PB
DATE OF COUNT: Thu. 9/27/12
REDUCED BY: CN
TIME OF COUNT: 4:00 - 6:00 PM
REDUCTION DATE: Mon. 10/1/12
WEATHER: Sunny

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: Kelsey Street @ US-2, Monroe, WA
DATE OF COUNT: Thu. 9/27/12
TIME OF COUNT: 4:00 - 6:00 PM
COUNTED BY: CN/PB
WEATHER: Sunny

TIME INTERVAL ENDING AT	FROM NORTH ON Kelsey Street						FROM SOUTH ON Kelsey Street						FROM EAST ON US-2						FROM WEST ON US-2						INTERVAL TOTALS
	Peds	HV	UTurn	Left	Thru	Right	Peds	HV	UTurn	Left	Thru	Right	Peds	HV	UTurn	Left	Thru	Right	Peds	HV	UTurn	Left	Thru	Right	
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	1	3	0	36	40	46	2	0	0	22	45	32	6	13	3	29	252	14	3	23	10	100	302	33	964
04:30 PM	5	3	0	25	43	59	1	5	0	29	46	25	3	16	2	23	224	10	6	23	15	75	345	15	936
04:45 PM	1	5	0	32	48	51	0	0	0	29	41	21	1	20	2	28	236	12	4	15	21	82	327	22	954
05:00 PM	0	3	0	29	50	55	0	1	0	22	48	21	1	13	1	25	192	16	3	26	25	103	334	22	943
05:15 PM	2	5	0	35	54	73	2	2	0	38	54	18	7	21	2	18	225	9	6	20	23	123	425	21	1118
05:30 PM	0	0	0	23	46	42	1	2	0	27	40	27	7	14	3	35	194	9	3	15	22	86	300	16	882
05:45 PM	1	1	0	24	58	50	1	0	0	38	66	11	1	9	3	32	168	12	12	14	20	90	286	21	899
06:00 PM	1	3	0	35	60	60	1	0	0	18	49	17	1	10	6	23	217	19	6	17	14	95	281	22	997
PEAK HOUR TOTALS	8	14	0	121	195	238	3	5	0	118	189	85	14	70	7	94	870	47	19	78	84	383	1431	80	INTERSECTION
ALL MOVEMENTS	554						392						1027						1876						3851
% HV	2.5%						2.0%						6.8%						3.9%						4.3%
PEAK HOUR FACTOR	0.85						0.89						0.92						0.84						0.88

PHF = Peak Hour Factor

4:00 - 6:00 PM PEAK HOUR: 4:15 PM TO 5:15 PM

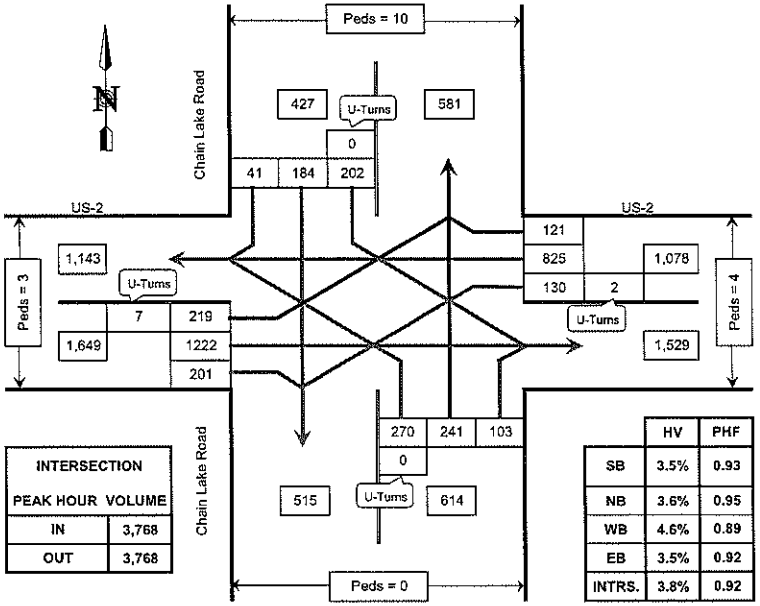
REDUCED BY: CN

DATE OF REDUCTION: 10/1/2012

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

4:00 - 6:00 PM PEAK HOUR: 4:15 PM TO 5:15 PM



INTERSECTION PEAK HOUR VOLUME	
IN	3,768
OUT	3,768

	HV	PHF
SB	3.5%	0.93
NB	3.6%	0.95
WB	4.6%	0.89
EB	3.5%	0.92
INTRS.	3.8%	0.92

PHF = Peak Hour Factor
HV = Heavy Vehicles

Chain Lake Road @ US-2

Monroe, WA

COUNTED BY: JH

DATE OF COUNT: Tue. 10/2/12

REDUCED BY: CN

TIME OF COUNT: 4:00 - 6:00 PM

REDUCTION DATE: Tue. 10/2/12

WEATHER: Sunny

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: Chain Lake Road @ US-2, Monroe, WA

DATE OF COUNT: Tue. 10/2/12

TIME OF COUNT: 4:00 - 6:00 PM

COUNTED BY: JH

WEATHER: Sunny

TIME INTERVAL ENDING AT	FROM NORTH ON Chain Lake Road						FROM SOUTH ON Chain Lake Road						FROM EAST ON US-2						FROM WEST ON US-2						INTERVAL TOTALS
	Peds	HV	UTurn	Left	Thru	Right	Peds	HV	UTurn	Left	Thru	Right	Peds	HV	UTurn	Left	Thru	Right	Peds	HV	UTurn	Left	Thru	Right	
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	1	0	50	30	3	1	0	0	60	53	30	0	15	1	25	173	38	1	17	3	69	226	46	807
04:30 PM	1	1	0	52	35	8	0	0	0	62	54	27	0	16	0	29	217	32	0	20	1	50	255	54	877
04:45 PM	3	0	0	49	50	6	0	6	0	72	64	16	1	16	0	28	210	33	1	13	2	53	313	40	945
05:00 PM	5	5	0	43	63	9	0	6	0	62	65	27	3	5	0	40	158	28	1	18	2	54	316	53	924
05:15 PM	1	0	0	58	38	17	0	1	0	74	55	33	0	12	2	33	240	27	1	7	2	62	338	45	1022
05:30 PM	1	2	0	42	47	13	0	7	0	68	58	24	0	0	0	33	201	23	1	6	0	45	240	46	842
05:45 PM	1	1	0	50	42	12	0	9	0	82	60	26	1	5	3	42	167	13	0	12	1	68	272	44	862
06:00 PM	0	1	0	55	35	16	0	14	0	66	42	29	0	6	0	41	190	25	0	6	0	55	237	54	845
PEAK HOUR TOTALS	10	15	0	202	184	41	0	22	0	270	241	103	4	50	2	135	825	121	3	58	7	219	1222	201	INTERSECTION
ALL MOVEMENTS	427						614						1075						1649						3768
% HV	3.5%						3.6%						4.6%						3.5%						3.8%
PEAK HOUR FACTOR	0.93						0.95						0.89						0.92						0.92

PHF = Peak Hour Factor

4:00 - 6:00 PM PEAK HOUR: 4:15 PM TO 5:15 PM

REDUCED BY: CN

DATE OF REDUCTION: 10/2/2012

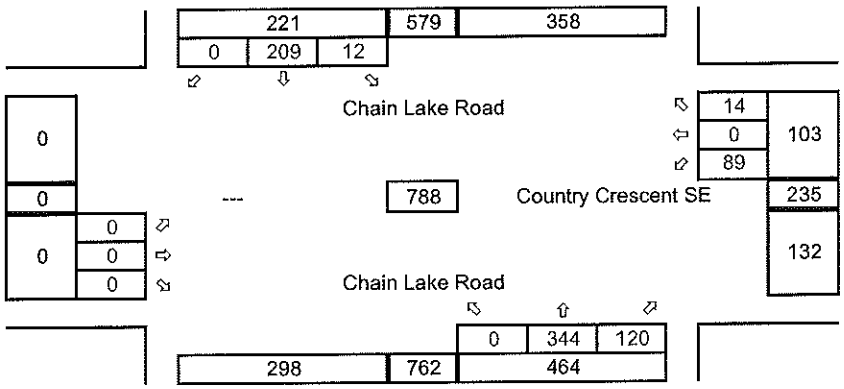
1 Chain Lake Rd @ Country Cres.

Synchro ID: 1

Existing Volumes
Average Weekday
PM Peak-Hour

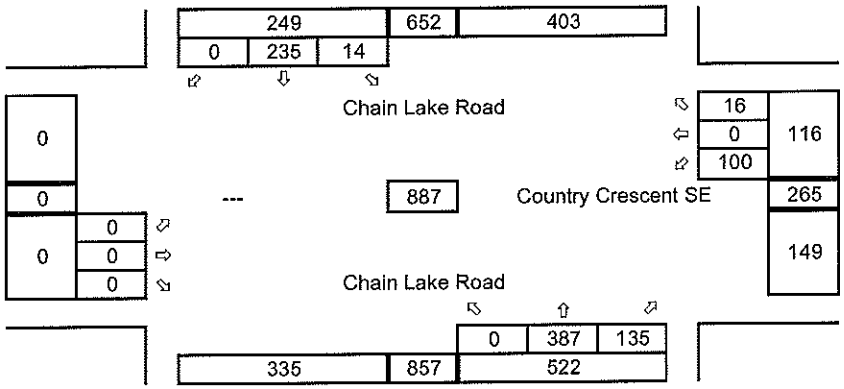
Year: 9/27/2012

Data Source: TDG

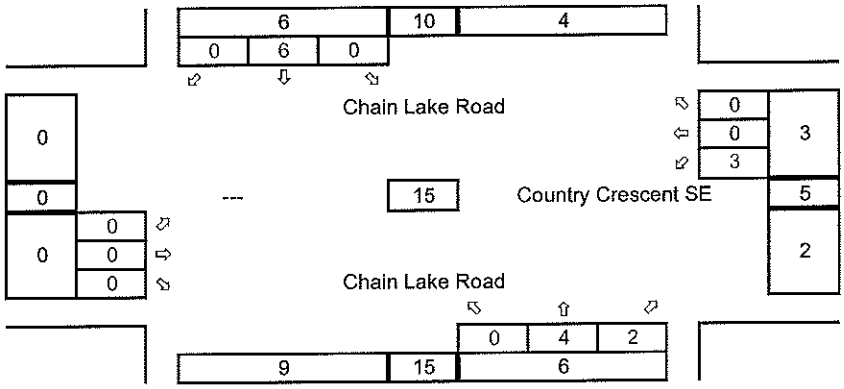


Baseline Volumes
Average Weekday
PM Peak-Hour

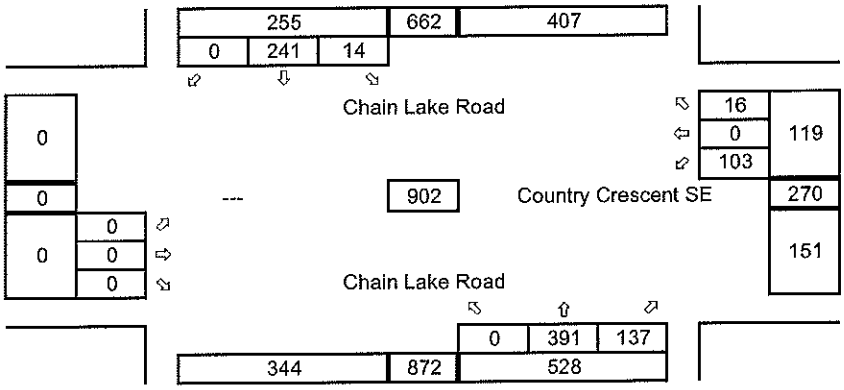
Year: 2018
Growth Rate = 2.0%
Years of Growth = 6
Total Growth = 1.1262



Development Trips
Average Weekday
PM Peak-Hour



Future with Dev. Volumes
Average Weekday
PM Peak-Hour



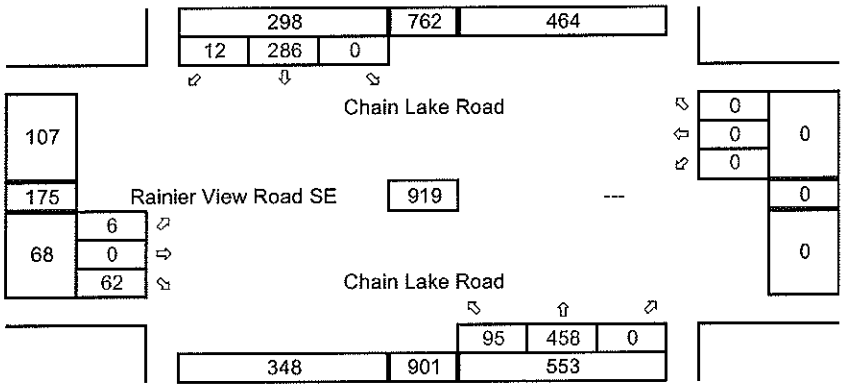
2 Chain Lake Rd @ Rainier View

Synchro ID: 2

Existing Volumes
Average Weekday
PM Peak-Hour

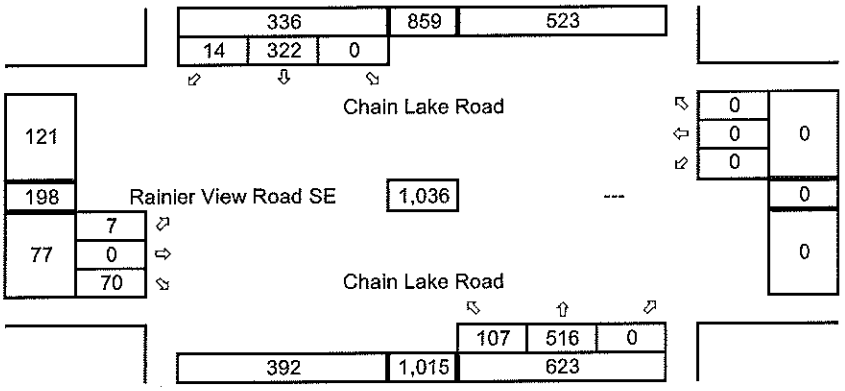
Year: **9/27/2012**

Data Source: **TDG**

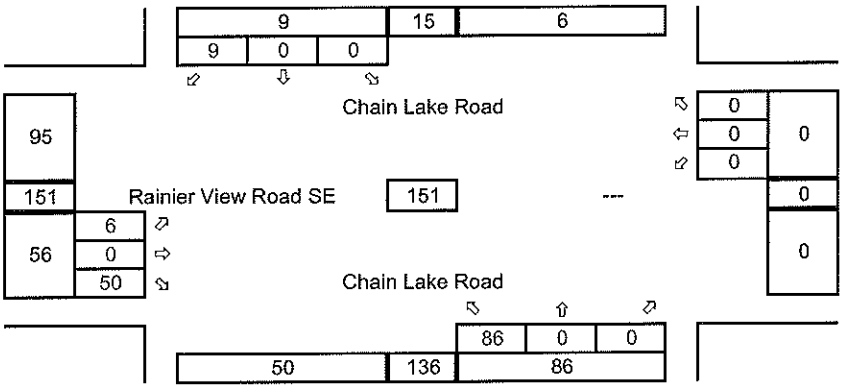


Baseline Volumes
Average Weekday
PM Peak-Hour

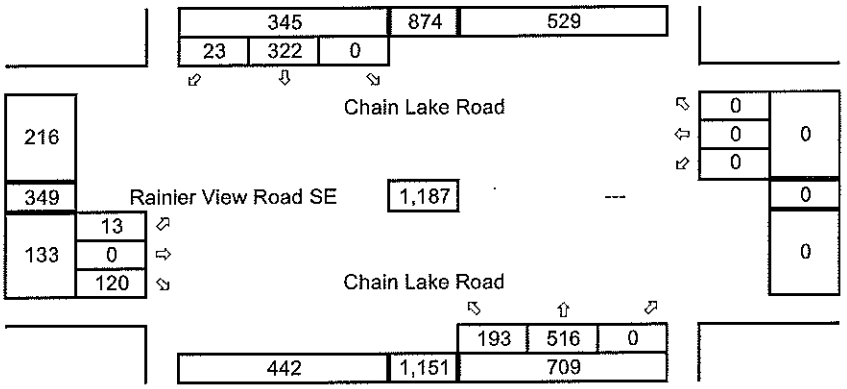
Year: 2018
Growth Rate = 2.0%
Years of Growth = 6
Total Growth = 1.1262



Development Trips
Average Weekday
PM Peak-Hour



Future with Dev. Volumes
Average Weekday
PM Peak-Hour



3 Chain Lake Rd @ N Kelsey St

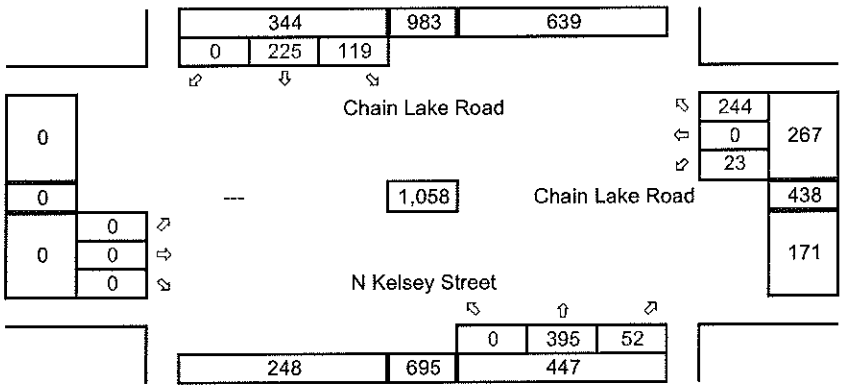
Synchro ID: 3

Existing Volumes
Average Weekday
PM Peak-Hour

Year: **9/20/2012**

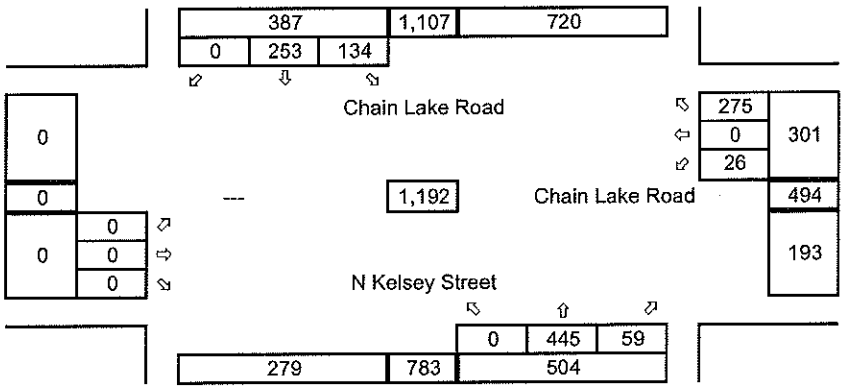
Data Source: **TDG**

The volumes have been rotated 90-degrees counterclockwise from the count data.

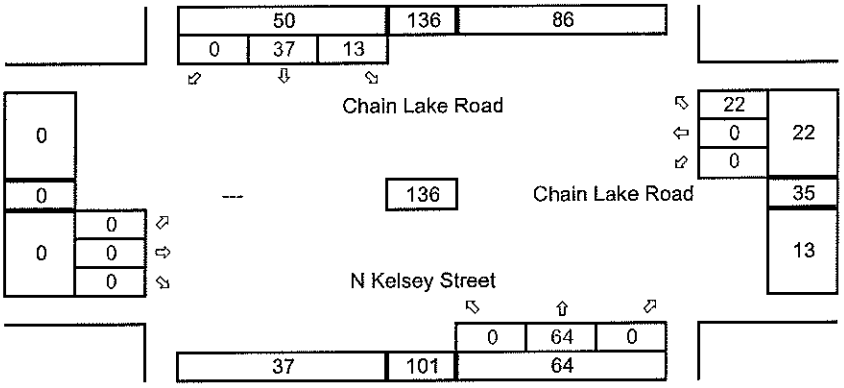


Baseline Volumes
Average Weekday
PM Peak-Hour

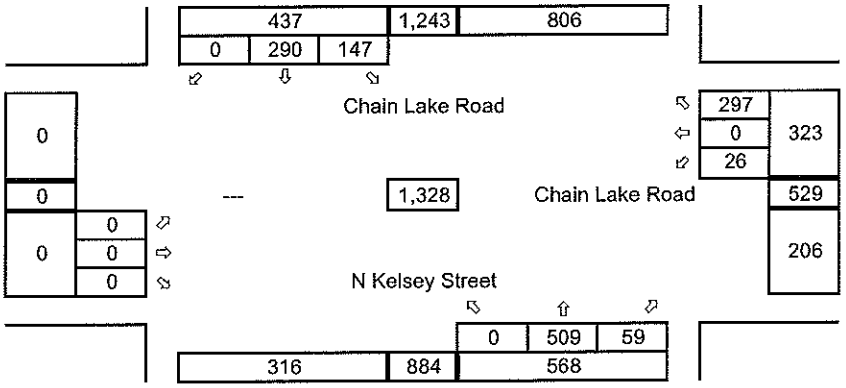
Year: 2018
Growth Rate = 2.0%
Years of Growth = 6
Total Growth = 1.1262



Development Trips
Average Weekday
PM Peak-Hour



Future with Dev. Volumes
Average Weekday
PM Peak-Hour



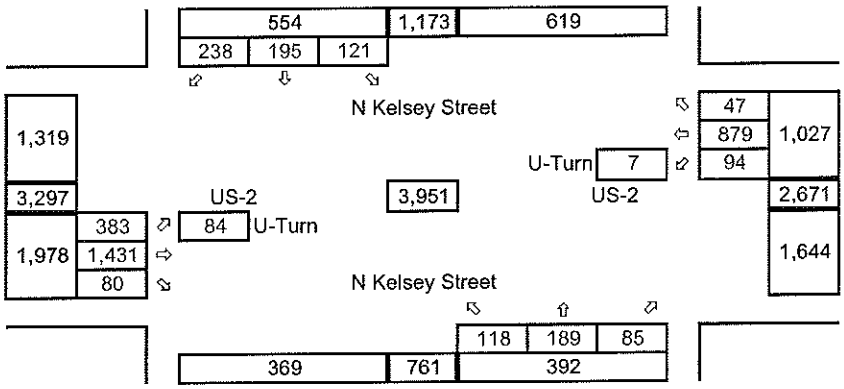
4 N Kelsey St @ US-2

Synchro ID: 4

Existing Volumes
Average Weekday
PM Peak-Hour

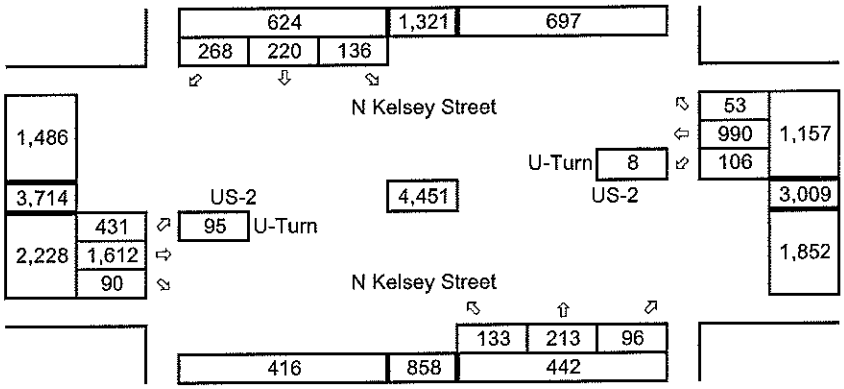
Year: **9/27/2012**

Data Source: **TDG**

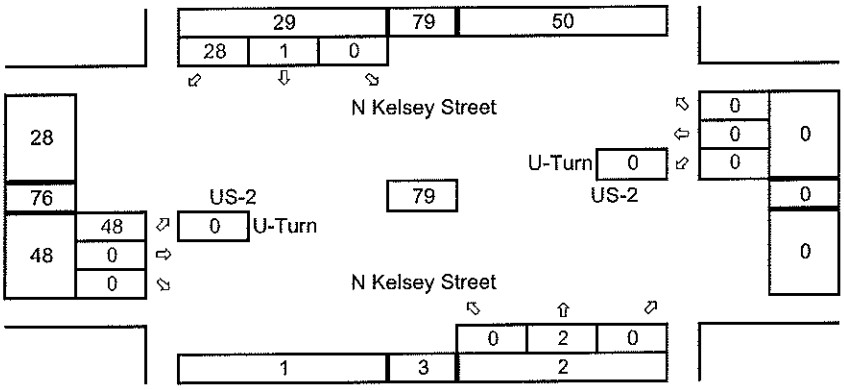


Baseline Volumes
Average Weekday
PM Peak-Hour

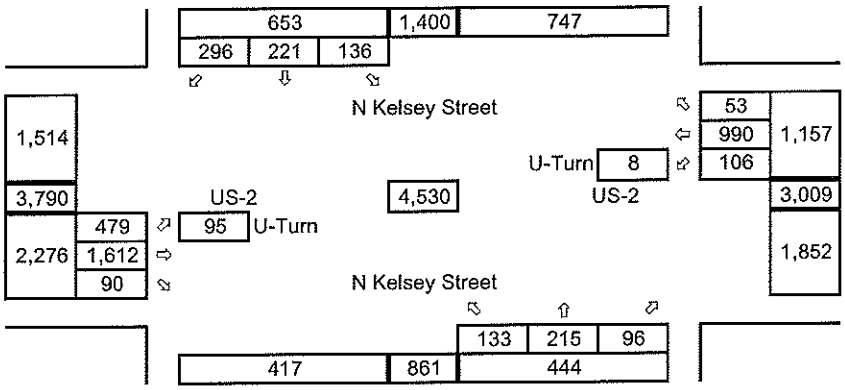
Year: 2018
Growth Rate = 2.0%
Years of Growth = 6
Total Growth = 1.1262



Development Trips
Average Weekday
PM Peak-Hour



Future with Dev. Volumes
Average Weekday
PM Peak-Hour



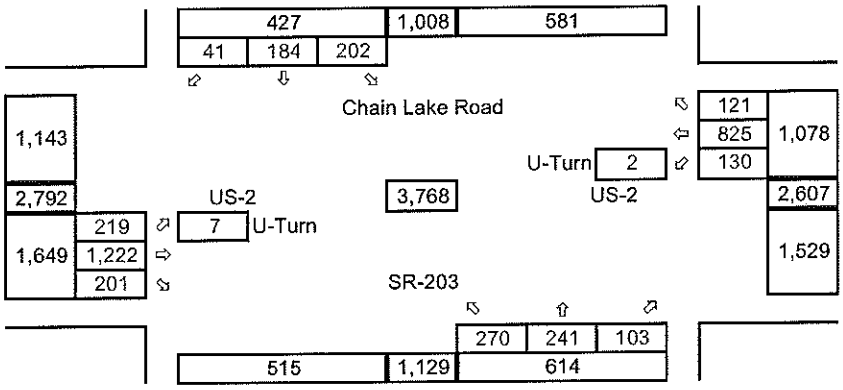
5 Chain Lake Rd-SR-203 @ US-2

Synchro ID: 5

Existing Volumes
Average Weekday
PM Peak-Hour

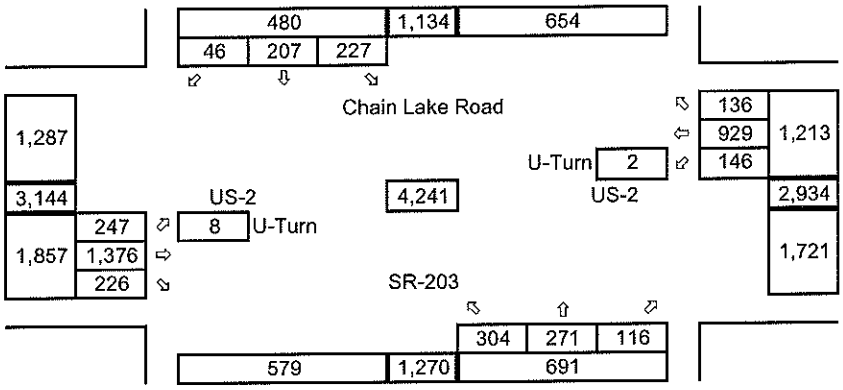
Year: 10/2/2012

Data Source: TDG

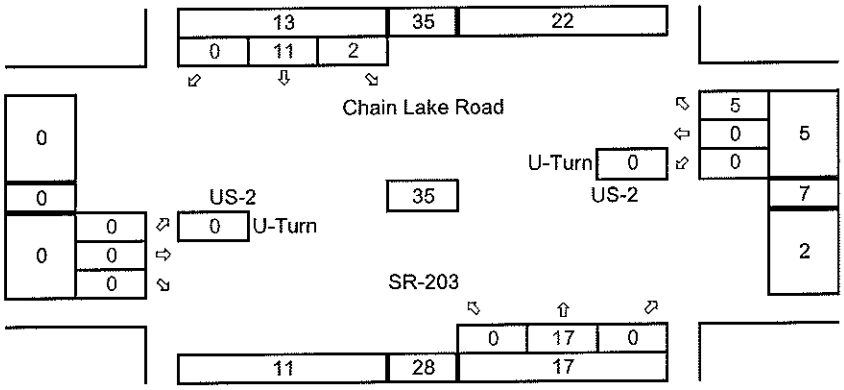


Baseline Volumes
Average Weekday
PM Peak-Hour

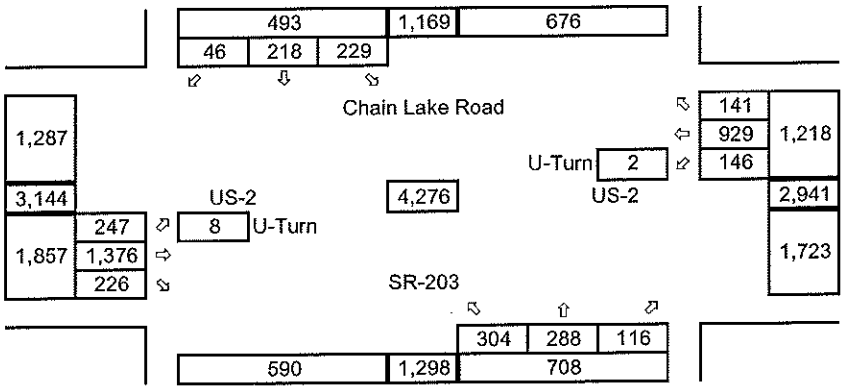
Year: 2018
Growth Rate = 2.0%
Years of Growth = 6
Total Growth = 1.1262



Development Trips
Average Weekday
PM Peak-Hour



Future with Dev. Volumes
Average Weekday
PM Peak-Hour



6 119th Ave @ Rainier View

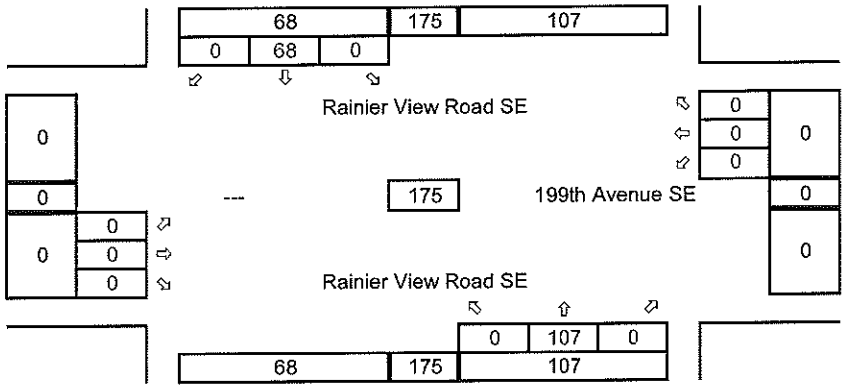
Synchro ID: 6

Existing Volumes
Average Weekday
PM Peak-Hour

Year: **9/27/2012**

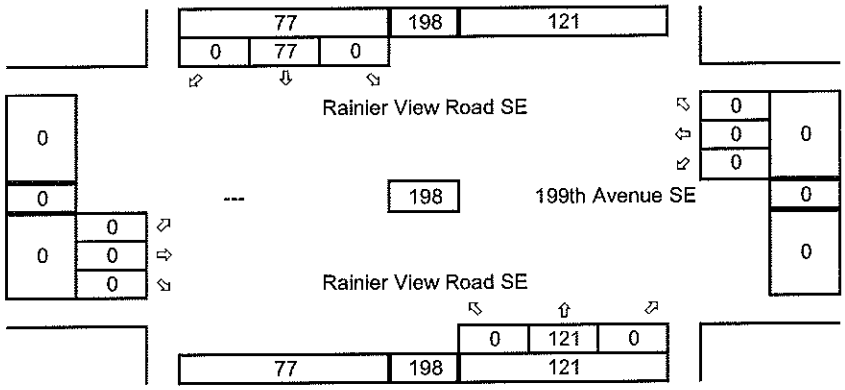
Data Source: **TDG**

Volumes are based on adjacent intersection with Chain Lake Road, but has been rotated 90 degress.

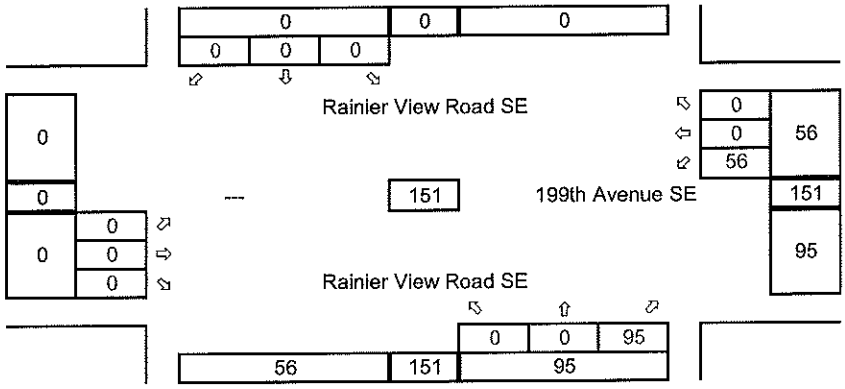


Baseline Volumes
Average Weekday
PM Peak-Hour

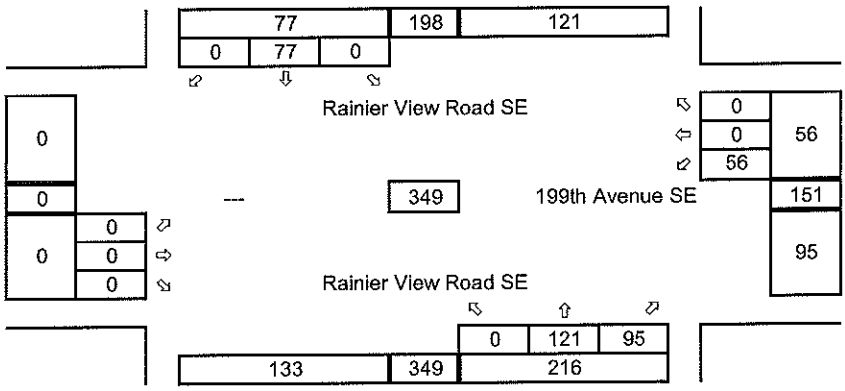
Year: 2018
Growth Rate = 2.0%
Years of Growth = 6
Total Growth = 1.1262



Development Trips
Average Weekday
PM Peak-Hour



Future with Dev. Volumes
Average Weekday
PM Peak-Hour



Level of Service Calculations

MP 14.57 - SR2 - Kelsey St

November 2, 2010

Control Table Info

Description	SR2 / Kelsey St
Created By	WagnerG
Created On	03/11/09 09:25:14
Modified By	WagnerG
Modified On	10/19/10 14:41:23

NextPhase 1.7.4 Control Params

Control Mode	scheduler
Manual Plan	1: Free Plan
Free Plan	1: Free Plan
Default Schedule	1: Basic Schedule Parameters

Schedule Table Info

Table	Description	Created By	Created On	Modified By	Modified On
1	Basic Schedule Parameters	WagnerG	03/11/09 09:25:14	WagnerG	10/19/10 14:17:22

Schedule Table 1 Params

Event	Enable	Hour	Minute	Day Of Week							CtrMode	Plan
				Su	Mo	Tu	We	Th	Fr	Sa		
1	X	0	1	X	X	X	X	X	X	X	free	1
2	X	6	30		X	X	X	X	X		sched	2
3	X	8	30		X	X	X	X	X		sched	3
4	X	10	0	X						X	sched	5
5	X	14	0	X							sched	6
6	X	15	0		X	X	X	X	X		sched	4
7	X	19	0		X	X	X	X	X		free	1
8	X	21	0	X						X	free	1
9		0	0								sched	0
10		13	0								sched	7
11		21	0								sched	1
12		0	0								sched	0
13		0	0								sched	0
14		0	0								sched	0
15		0	0								sched	0
16		0	0								sched	0
17		0	0								sched	0
18		0	0								sched	0
19		0	0								sched	0
20		0	0								sched	0
21		0	0								sched	0
22		0	0								sched	0
23		0	0								sched	0
24		0	0								sched	0
25		0	0								sched	0
26		0	0								sched	0
27		0	0								sched	0
28		0	0								sched	0
29		0	0								sched	0
30		0	0								sched	0
31		0	0								sched	0
32		0	0								sched	0
33		0	0								sched	0
34		0	0								sched	0

NextEdit

MP 14.57 - SR2 - Kelsey St

Parameters Holiday Floating

Holiday	Enable	Month	Week	Day of Week							Schedule	Description
				Su	Mo	Tu	We	Th	Fr	Sa		
5		1	1								1: Basic Schedule Parameters	
6		1	1								1: Basic Schedule Parameters	
7		1	1								1: Basic Schedule Parameters	
8		1	1								1: Basic Schedule Parameters	
9		1	1								1: Basic Schedule Parameters	
10		1	1								1: Basic Schedule Parameters	
11		1	1								1: Basic Schedule Parameters	
12		1	1								1: Basic Schedule Parameters	
13		1	1								1: Basic Schedule Parameters	
14		1	1								1: Basic Schedule Parameters	
15		1	1								1: Basic Schedule Parameters	
16		1	1								1: Basic Schedule Parameters	
17		1	1								1: Basic Schedule Parameters	
18		1	1								1: Basic Schedule Parameters	
19		1	1								1: Basic Schedule Parameters	
20		1	1								1: Basic Schedule Parameters	

Plan Table Info

Table	Description	Created By	Created On	Modified By	Modified On
1	Free Plan	WagnerG	03/11/09 09:25:14	WagnerG	03/11/09 09:26:06
2	AM Peak 140sec	WagnerG	03/11/09 09:26:05	WagnerG	10/19/10 14:06:16
3	Noon Peak 145sec	WagnerG	03/11/09 09:26:05	WagnerG	10/19/10 14:23:41
4	PM Peak 150sec	WagnerG	03/11/09 09:26:05	WagnerG	10/19/10 14:12:06
5	Weekend 145sec	WagnerG	03/11/09 09:26:05	WagnerG	10/19/10 14:23:52
6	Weekend Peak 150sec	WagnerG	03/11/09 09:26:05	WagnerG	10/19/10 14:27:05
7	Memorial Day Plan	WagnerG	05/31/10 12:25:06	WagnerG	05/31/10 12:28:51

Plan Table 1 Params

Plan Mode	Max Mode	Splt/Ofs	Phase	Sequence
free	max1	seconds	1: Basic Phase Parameters	1: Basic Sequence Parameters

Plan Table 1 Params

Overlap	Prioritor	Config	Cycle Length	Permissive
1: Basic Overlap Parameters	1: Basic Prioritor Parameters	1: Basic Active Configuration	0	0

Plan Table 1 Params

SpcFcn								AuxFcn								Prioritor Disable									
1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	9	10

NextEdit

MP 14.57 - SR2 - Kelsey St

Plan Table 3 Splits

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CordMin	20	30	12	20	20	30	12	20	0	0	0	0	0	0	0
CordNom	35	62	13	35	35	62	13	35	0	0	0	0	0	0	0
CordMax	50	100	15	50	50	100	15	50	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan Table 3 Splits

Phase	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
CordMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CordNom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CordMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan Table 3 Splits

Phase	31	32	33	34	35	36	37	38	39	40
CordMin	0	0	0	0	0	0	0	0	0	0
CordNom	0	0	0	0	0	0	0	0	0	0
CordMax	0	0	0	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0

Plan Table 3 Offsets

Offset	1	2	3	4	5	6	7	8	9	10	11
Barrier	a	None	None	None	None	None	None	None	None	None	None
Value	20	0	0	0	0	0	0	0	0	0	0

Plan Table 3 Offsets

Offset	12	13	14	15	16	17	18	19	20
Barrier	None	None	None	None	None	None	None	None	None
Value	0	0	0	0	0	0	0	0	0

Plan Table 4 Params

Plan Mode	Max Mode	Split/Ofs	Phase	Sequence
coord	none	seconds	1: Basic Phase Parameters	1: Basic Sequence Parameters

Plan Table 4 Params

Overlap	Prioritor	Config	Cycle Length	Permissive
1: Basic Overlap Parameters	1: Basic Prioritor Parameters	1: Basic Active Configuration	150	0

MP 14.57 - SR2 - Kelsey St

Plan Table 4 Params

SpcFcn								AuxFcn								Prioritor Disable									
1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	9	10

Plan Table 4 Flags

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Coord		X				X														
Hold		X				X														

Plan Table 4 Flags

Phase	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Coord																				
Hold																				

Plan Table 4 Splits

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CordMin	20	35	13	25	20	35	13	25	0	0	0	0	0	0	0
CordNom	30	70	13	37	42	58	13	37	0	0	0	0	0	0	0
CordMax	40	100	25	50	40	100	25	50	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan Table 4 Splits

Phase	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
CordMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CordNom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CordMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan Table 4 Splits

Phase	31	32	33	34	35	36	37	38	39	40
CordMin	0	0	0	0	0	0	0	0	0	0
CordNom	0	0	0	0	0	0	0	0	0	0
CordMax	0	0	0	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0

Plan Table 4 Offsets

Offset	1	2	3	4	5	6	7	8	9	10	11
Barrier	a	None	None	None	None	None	None	None	None	None	None
Value	15	0	0	0	0	0	0	0	0	0	0

NextEdit

MP 14.57 - SR2 - Kelsey St

Phase Table 1 Flags

Phase	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Omit																				
PedOmit																				
MinRcl																				
MaxRcl																				
SftRcl																				
ConSvc																				
PedRcl																				
DualEnt																				
SimGap																				
RedRest																				
AutoPed																				
WlkRest																				
PedRcycl																				
RedLock																				
YelLock																				
NoExtend																				
NoAdded																				
NoReduce																				
NoRange																				
NoMaxLck																				

Phase Table 1 Timing

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MinGrn	3	15	3	5	3	15	3	5	0	0	0	0	0	0	0
Passage	2.5	4.0	2.0	2.5	2.5	4.0	2.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MinTerm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max1	25	65	20	25	30	60	20	25	0	0	0	0	0	0	0
Max2	25	65	20	25	30	60	20	25	0	0	0	0	0	0	0
CSMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YelClr	3.6	4.0	3.6	4.0	3.6	4.0	3.6	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RedClr	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk	0	7	0	5	0	7	0	5	0	0	0	0	0	0	0
PedClr	0	21	0	21	0	15	0	26	0	0	0	0	0	0	0
Added	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MinGap	2.5	4.0	2.0	2.5	2.5	4.0	2.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MxInit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MP 14.57 - SR2 - Kelsey St

Active Config Table 1 Params

Phase	1: Basic Phase Configuration
Overlap	1: Basic Overlap Configuration
Preempt	1: Basic Pre-empt Configuration
Cabinet	1: Basic Cabinet Configuration 332
Detector	1: Basic 332 Detector Configuration
Coordination	1: Basic Coordination Configuration
Peer	1: Basic Peer Configuration

Phase Config Table Info

Table	Description	Created By	Created On	Modified By	Modified On
1	Basic Phase Configuration	WagnerG	03/11/09 09:25:14	wagnerg	03/11/10 07:54:41

Phase Config Table 1 Phase ID

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Direction	wbl	ebt	sbl	nbt	ebl	wbt	nbl	sbt	none	none	none	none	none	none	none

Phase Config Table 1 Phase ID

Phase	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Direction	none	none	none	none	none	none	none	none	none	none	none	none	none	none	none

Phase Config Table 1 Phase ID

Phase	31	32	33	34	35	36	37	38	39	40
Direction	none	none	none	none	none	none	none	none	none	none

Phase Config Table 1 Flags

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Startup		X				X														
YelStart																				
RedStart																				
SecStart																				
Ped		X		X		X		X												
YelFlash																				
AltFlsHz																				
FlsEntry																				
FlsExit																				
NoCall																				
MCEOmit																				

MP 14.92 - SR2 - SR203 - Lewis St

November 2, 2010

Control Table Info

Description	SR2 / SR203 - Lewis St
Created By	WagnerG
Created On	06/02/10 12:15:11
Modified By	WagnerG
Modified On	10/19/10 14:36:51

NextPhase 1.7.5 Control Params

Control Mode	scheduler
Manual Plan	1: Free Plan
Free Plan	1: Free Plan
Default Schedule	1: Basic Schedule Parameters

Schedule Table Info

Table	Description	Created By	Created On	Modified By	Modified On
1	Basic Schedule Parameters	WagnerG	06/02/10 12:15:11	WagnerG	10/19/10 14:17:13

Schedule Table 1 Params

Event	Enable	Hour	Minute	Day Of Week							CtrMode	Plan
				Su	Mo	Tu	We	Th	Fr	Sa		
1	X	0	1	X	X	X	X	X	X	X	free	1
2	X	6	30		X	X	X	X	X		sched	2
3	X	8	30		X	X	X	X	X		sched	3
4	X	10	0	X						X	sched	5
5	X	14	0	X							sched	6
6	X	15	0		X	X	X	X	X		sched	4
7	X	19	0		X	X	X	X	X		free	1
8	X	21	0	X						X	free	1
9		0	0								sched	0
10		13	0								sched	7
11		21	0								sched	1
12		0	0								sched	0
13		0	0								sched	0
14		0	0								sched	0
15		0	0								sched	0
16		0	0								sched	0
17		0	0								sched	0
18		0	0								sched	0
19		0	0								sched	0
20		0	0								sched	0
21		0	0								sched	0
22		0	0								sched	0
23		0	0								sched	0
24		0	0								sched	0
25		0	0								sched	0
26		0	0								sched	0
27		0	0								sched	0
28		0	0								sched	0
29		0	0								sched	0
30		0	0								sched	0
31		0	0								sched	0
32		0	0								sched	0
33		0	0								sched	0
34		0	0								sched	0

NextEdit

MP 14.92 - SR2 - SR203 - Lewis St

Parameters Holiday Floating

Holiday	Enable	Month	Week	Day of Week							Schedule	Description
				Su	Mo	Tu	We	Th	Fr	Sa		
5		1	1								1: Basic Schedule Parameters	
6		1	1								1: Basic Schedule Parameters	
7		1	1								1: Basic Schedule Parameters	
8		1	1								1: Basic Schedule Parameters	
9		1	1								1: Basic Schedule Parameters	
10		1	1								1: Basic Schedule Parameters	
11		1	1								1: Basic Schedule Parameters	
12		1	1								1: Basic Schedule Parameters	
13		1	1								1: Basic Schedule Parameters	
14		1	1								1: Basic Schedule Parameters	
15		1	1								1: Basic Schedule Parameters	
16		1	1								1: Basic Schedule Parameters	
17		1	1								1: Basic Schedule Parameters	
18		1	1								1: Basic Schedule Parameters	
19		1	1								1: Basic Schedule Parameters	
20		1	1								1: Basic Schedule Parameters	

Plan Table Info

Table	Description	Created By	Created On	Modified By	Modified On
1	Free Plan	WagnerG	06/02/10 12:15:11	WagnerG	10/14/10 07:23:51
2	AM Peak 140sec	WagnerG	06/02/10 12:18:27	WagnerG	10/19/10 14:06:04
3	Noon Peak 145sec	WagnerG	10/14/10 07:23:50	WagnerG	10/19/10 14:05:13
4	PM Peak 150sec	WagnerG	10/14/10 07:23:50	WagnerG	10/19/10 14:15:15
5	Weekend 145sec	WagnerG	10/14/10 07:23:50	WagnerG	10/19/10 14:20:12
6	Weekend Peak 150sec	WagnerG	10/14/10 07:23:50	WagnerG	10/19/10 14:26:51
7	Memorial Day Plan	WagnerG	10/14/10 07:23:50	WagnerG	10/14/10 07:23:51

Plan Table 1 Params

Plan Mode	Max Mode	Split/Ofs	Phase	Sequence	Overlap
free	max1	seconds	1: Basic Phase Parameters	1: Basic Phase Sequence	1: Basic Overlap Settings

Plan Table 1 Params

Prioritor	Config	Cycle Length	Permissive	SpcFcn							
				1	2	3	4	5	6	7	8
1: Basic Prioritor Settings	1: Basic Active Configuration	0	0								

Plan Table 1 Params

AuxFcn								Prioritor Disable									
1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	9	10

NextEdit

MP 14.92 - SR2 - SR203 - Lewis St

Plan Table 3 Splits

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CordMin	20	30	20	20	20	30	20	20	0	0	0	0	0	0	0
CordNom	27	55	25	38	30	52	25	38	0	0	0	0	0	0	0
CordMax	50	90	25	40	50	90	25	40	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan Table 3 Splits

Phase	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
CordMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CordNom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CordMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan Table 3 Splits

Phase	31	32	33	34	35	36	37	38	39	40
CordMin	0	0	0	0	0	0	0	0	0	0
CordNom	0	0	0	0	0	0	0	0	0	0
CordMax	0	0	0	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0

Plan Table 3 Offsets

Offset	1	2	3	4	5	6	7	8	9	10	11
Barrier	a	None	None	None	None	None	None	None	None	None	None
Value	0	0	0	0	0	0	0	0	0	0	0

Plan Table 3 Offsets

Offset	12	13	14	15	16	17	18	19	20
Barrier	None	None	None	None	None	None	None	None	None
Value	0	0	0	0	0	0	0	0	0

Plan Table 4 Params

Plan Mode	Max Mode	Splt/Ofs	Phase	Sequence	Overlap
coord	none	seconds	1: Basic Phase Parameters	1: Basic Phase Sequence	1: Basic Overlap Settings

Plan Table 4 Params

Prioritor	Config	Cycle Length	Permissive	SpcFcn							
				1	2	3	4	5	6	7	8
1: Basic Prioritor Settings	1: Basic Active Configuration	150	0								

NextEdit

MP 14.92 - SR2 - SR203 - Lewis St

Plan Table 4 Params

AuxFcn								Prioritor Disable									
1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	9	10

Plan Table 4 Flags

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Coord		X				X														
Hold		X				X														

Plan Table 4 Flags

Phase	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Coord																				
Hold																				

Plan Table 4 Splits

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CordMin	20	35	20	25	20	35	20	25	0	0	0	0	0	0	0
CordNom	25	60	29	36	32	53	29	36	0	0	0	0	0	0	0
CordMax	40	100	30	40	40	100	30	40	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan Table 4 Splits

Phase	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
CordMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CordNom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CordMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan Table 4 Splits

Phase	31	32	33	34	35	36	37	38	39	40
CordMin	0	0	0	0	0	0	0	0	0	0
CordNom	0	0	0	0	0	0	0	0	0	0
CordMax	0	0	0	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0

Plan Table 4 Offsets

Offset	1	2	3	4	5	6	7	8	9	10	11
Barrier	a	None	None	None	None	None	None	None	None	None	None
Value	25	0	0	0	0	0	0	0	0	0	0

NextEdit

MP 14.92 - SR2 - SR203 - Lewis St

Phase Table 1 Flags

Phase	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Omit																				
PedOmit																				
MinRcl																				
MaxRcl																				
SftRcl																				
ConSvc																				
PedRcl																				
DualEnt																				
SimGap																				
RedRest																				
AutoPed																				
WlkRest																				
PedRcycl																				
RedLock																				
YelLock																				
NoExtend																				
NoAdded																				
NoReduce																				
NoRange																				
NoMaxLck																				

Phase Table 1 Timing

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MinGrn	3	15	3	5	3	15	3	5	0	0	0	0	0	0	0
Passage	2.5	4.0	3.5	2.5	2.5	4.0	2.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MinTerm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max1	25	50	20	35	25	50	20	35	0	0	0	0	0	0	0
Max2	25	50	20	35	25	50	20	35	0	0	0	0	0	0	0
CSMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YelClr	3.6	4.0	3.6	4.0	3.6	4.0	3.6	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RedClr	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk	0	7	0	5	0	7	0	5	0	0	0	0	0	0	0
PedClr	0	22	0	28	0	18	0	27	0	0	0	0	0	0	0
Added	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MinGap	2.5	4.0	3.5	2.5	2.5	4.0	2.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MxInit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NextEdit

MP 14.92 - SR2 - SR203 - Lewis St

Active Config Table 1 Params

Phase	1: Basic Phase Configuration
Overlap	1: Basic Overlap Configuration
Preempt	1: Basic Preempt Configuration
Cabinet	1: Basic 332 Cabinet Configuration
Detector	1: Basic Detector Configuration
Coordination	1: Basic Coordination Configuration
Peer	1: Basic Peer Configuration

Phase Config Table Info

Table	Description	Created By	Created On	Modified By	Modified On
1	Basic Phase Configuration	WagnerG	06/02/10 12:15:11	WagnerG	10/14/10 07:33:24

Phase Config Table 1 Phase ID

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Direction	wbl	ebt	sbl	nbt	ebl	wbt	nbl	sbt	none	none	none	none	none	none	none

Phase Config Table 1 Phase ID

Phase	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Direction	none	none	none	none	none	none	none	none	none	none	none	none	none	none	none

Phase Config Table 1 Phase ID

Phase	31	32	33	34	35	36	37	38	39	40
Direction	none	none	none	none	none	none	none	none	none	none

Phase Config Table 1 Flags

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Startup		X				X														
YelStart																				
RedStart																				
SecStart																				
Ped		X		X		X		X												
YelFlash																				
AltFlsHz																				
FlsEntry																				
FlsExit																				
NoCall																				
MCEOmit																				

Intersection

Intersection Delay (sec/veh): 2.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Volume (vph)	89	14	344	120	12	209
Conflicting Peds.(#/hr)	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
Right Turn Channelized	None	None	None	None	None	None
Storage Length	0	0		0	100	
Median Width	12		12			12
Grade (%)	0%		0%			0%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles(%)	2	2	2	2	2	2
Movement Flow Rate	93	15	358	125	13	218
Number of Lanes	1	0	1	0	1	1

Major/Minor			Major 1			Major 2
Conflicting Flow Rate - All	665	421	0	0	483	0
Stage 1	421	-	-	-	-	-
Stage 2	244	-	-	-	-	-
Follow-up Headway	3.518	3.318	-	-	2.218	-
Pot Capacity-1 Maneuver	425	632	-	-	1080	-
Stage 1	662	-	-	-	-	-
Stage 2	797	-	-	-	-	-
Time blocked-Platoon(%)	0	0	-	-	0	-
Mov Capacity-1 Maneuver	420	632	-	-	1080	-
Mov Capacity-2 Maneuver	420	-	-	-	-	-
Stage 1	662	-	-	-	-	-
Stage 2	787	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay (s)	15.8	0	0.5
HCM LOS	C	A	A

Lane	NBT	NBR	WBLn1	SBL	SBT
Capacity (vph)			440		
HCM Control Delay (s)	-	-	15.8	8.372	-
HCM Lane VC Ratio	-	-	0.244	0.012	-
HCM Lane LOS	-	-	C	A	-
HCM 95th Percentile Queue (veh)	-	-	0.946	0.035	-

Intersection

Intersection Delay (sec/veh): 1.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Volume (vph)	6	62	95	458	286	12
Conflicting Peds.(#/hr)	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
Right Turn Channelized	None	None	None	None	None	None
Storage Length	0	0	100			0
Median Width	12			12	12	
Grade (%)	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles(%)	2	2	2	2	2	2
Movement Flow Rate	6	65	99	477	298	13
Number of Lanes	1	0	1	1	1	0

Major/Minor				Major 1	Major 2	
Conflicting Flow Rate - All	980	305	311	0	0	0
Stage 1	305	-	-	-	-	-
Stage 2	675	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	277	735	1249	-	-	-
Stage 1	748	-	-	-	-	-
Stage 2	506	-	-	-	-	-
Time blocked-Platoon(%)	0	0	0	-	-	-
Mov Capacity-1 Maneuver	255	735	1249	-	-	-
Mov Capacity-2 Maneuver	255	-	-	-	-	-
Stage 1	748	-	-	-	-	-
Stage 2	466	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay (s)	11.4	1.4	0
HCM LOS	B	A	A

Lane	NBL	NBT	EBLn1	SBT	SBR
Capacity (vph)			630		
HCM Control Delay (s)	8.13	-	11.4	-	-
HCM Lane VC Ratio	0.079	-	0.112	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th Percentile Queue (veh)	0.258	-	0.378	-	-

Intersection

Intersection Delay (sec/veh): 4.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Volume (vph)	23	244	395	52	119	225
Conflicting Peds.(#/hr)	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
Right Turn Channelized	None	None	None	None	None	None
Storage Length	0	0		0	150	
Median Width	12		12			12
Grade (%)	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles(%)	2	2	2	2	2	2
Movement Flow Rate	25	265	429	57	129	245
Number of Lanes	1	0	1	1	1	2

Major/Minor			Major 1			Major 2
Conflicting Flow Rate - All	839	244	0	0	486	0
Stage 1	458	-	-	-	-	-
Stage 2	381	-	-	-	-	-
Follow-up Headway	3.52	3.32	-	-	2.22	-
Pot Capacity-1 Maneuver	304	757	-	-	1073	-
Stage 1	604	-	-	-	-	-
Stage 2	660	-	-	-	-	-
Time blocked-Platoon(%)	0	0	-	-	0	-
Mov Capacity-1 Maneuver	267	757	-	-	1073	-
Mov Capacity-2 Maneuver	267	-	-	-	-	-
Stage 1	604	-	-	-	-	-
Stage 2	581	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay (s)	14.8	0	3
HCM LOS	B	A	A

Lane	NBT	NBR	WBLn1	SBL	SBT
Capacity (vph)			654		
HCM Control Delay (s)	-	-	14.8	8.814	-
HCM Lane VC Ratio	-	-	0.444	0.121	-
HCM Lane LOS	-	-	B	A	-
HCM 95th Percentile Queue (veh)	-	-	2.279	0.41	-

Lanes, Volumes, Timings
4: N Kelsey St & US-2

Eaglemont

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Volume (vph)	84	383	1431	80	7	94	879	47	118	189	85	121	195	238
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		750		0		700		0	100		100	350		0
Storage Lanes		2		0		1		0	1		1	1		1
Taper Length (ft)		25				25			25			25		
Lane Util. Factor	0.91	0.97	0.91	0.91	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.992				0.992				0.850			0.850
Flt Protected		0.950				0.950			0.950			0.950		
Satd. Flow (prot)	0	3367	4948	0	0	1736	3443	0	1736	1827	1553	1736	1827	1553
Flt Permitted		0.950				0.950			0.280			0.299		
Satd. Flow (perm)	0	3367	4948	0	0	1736	3443	0	512	1827	1553	546	1827	1553
Right Turn on Red				Yes				Yes			Yes			Yes
Satd. Flow (RTOR)			7				4				115			269
Link Speed (mph)			50				50			30			30	
Link Distance (ft)			1263				1615			2553			2702	
Travel Time (s)			17.2				22.0			58.0			61.4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Adj. Flow (vph)	95	435	1626	91	8	107	999	53	134	215	97	138	222	270
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	530	1717	0	0	115	1052	0	134	215	97	138	222	270
Turn Type	Prot	Prot	NA		Prot	Prot	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	5	2		1	1	6		7	4		3	8	
Permitted Phases									4		4	8		8
Detector Phase	5	5	2		1	1	6		7	4	4	3	8	8
Switch Phase														
Minimum Initial (s)	3.0	3.0	15.0		3.0	3.0	15.0		3.0	5.0	5.0	3.0	5.0	5.0
Minimum Split (s)	8.0	8.0	33.0		8.0	8.0	27.0		8.0	31.0	31.0	8.0	36.0	36.0
Total Split (s)	42.0	42.0	70.0		30.0	30.0	58.0		13.0	37.0	37.0	13.0	37.0	37.0
Total Split (%)	28.0%	28.0%	46.7%		20.0%	20.0%	38.7%		8.7%	24.7%	24.7%	8.7%	24.7%	24.7%
Yellow Time (s)	3.6	3.6	4.0		3.6	3.6	4.0		3.6	4.0	4.0	3.6	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0			0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0

Lanes, Volumes, Timings
4: N Kelsey St & US-2

Eaglemont

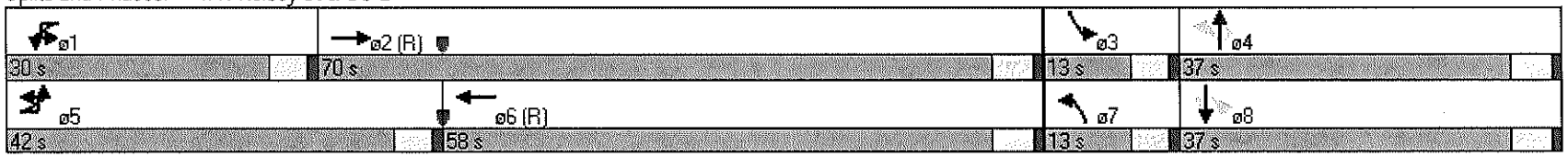
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)		4.6	5.0			4.6	5.0		4.6	5.0	5.0	4.6	5.0	5.0
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	C-Max		None	None	C-Max		None	None	None	None	None	None
Act Effct Green (s)		28.5	84.3			14.8	70.6		32.2	23.4	23.4	32.2	23.4	23.4
Actuated g/C Ratio		0.19	0.56			0.10	0.47		0.21	0.16	0.16	0.21	0.16	0.16
v/c Ratio		0.83	0.62			0.67	0.65		0.75	0.76	0.29	0.75	0.78	0.58
Control Delay		70.0	24.6			61.1	41.5		72.9	76.8	7.2	72.6	79.0	10.7
Queue Delay		0.0	0.0			0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		70.0	24.6			61.1	41.5		72.9	76.8	7.2	72.6	79.0	10.7
LOS		E	C			E	D		E	E	A	E	E	B
Approach Delay			35.3				43.4			60.5			48.3	
Approach LOS			D				D			E			D	
Queue Length 50th (ft)		259	396			120	333		108	205	0	112	212	1
Queue Length 95th (ft)		303	528			m164	422		156	273	32	160	282	72
Internal Link Dist (ft)			1183				1535			2473			2622	
Turn Bay Length (ft)		750				700			100		100	350		
Base Capacity (vph)		839	2782			293	1622		178	389	421	183	389	542
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		0.63	0.62			0.39	0.65		0.75	0.55	0.23	0.75	0.57	0.50

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 15 (10%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 41.8 Intersection LOS: D
Intersection Capacity Utilization 76.4% ICU Level of Service D
Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: N Kelsey St & US-2



Lanes, Volumes, Timings
5: SR-203/Chain Lake Road & US-2

Eaglemont

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Volume (vph)	7	219	1222	201	2	130	825	121	270	241	103	202	184	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		500		0		250		200	200		0	200		0
Storage Lanes		1		1		1		1	2		0	2		1
Taper Length (ft)		25				25			25			25		
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97	1.00	1.00
Frt				0.850				0.850		0.955				0.850
Flt Protected		0.950				0.950			0.950			0.950		
Satd. Flow (prot)	0	1736	3471	1553	0	1736	3471	1553	3367	3315	0	3367	1827	1553
Flt Permitted		0.950				0.950			0.950			0.950		
Satd. Flow (perm)	0	1736	3471	1553	0	1736	3471	1553	3367	3315	0	3367	1827	1553
Right Turn on Red				Yes				Yes			Yes			Yes
Satd. Flow (RTOR)				130				115		40				115
Link Speed (mph)			50				50			30			30	
Link Distance (ft)			1615				3126			3037			746	
Travel Time (s)			22.0				42.6			69.0			17.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Adj. Flow (vph)	8	238	1328	218	2	141	897	132	293	262	112	220	200	45
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	246	1328	218	0	143	897	132	293	374	0	220	200	45
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	5	5	2		1	1	6		7	4		3	8	
Permitted Phases				2				6						8
Detector Phase	5	5	2	2	1	1	6	6	7	4		3	8	8
Switch Phase														
Minimum Initial (s)	3.0	3.0	15.0	15.0	3.0	3.0	15.0	15.0	3.0	5.0		3.0	5.0	5.0
Minimum Split (s)	8.0	8.0	34.5	34.5	8.0	8.0	34.5	34.5	8.0	38.0		8.0	37.0	37.0
Total Split (s)	32.0	32.0	60.0	60.0	25.0	25.0	53.0	53.0	29.0	36.0		29.0	36.0	36.0
Total Split (%)	21.3%	21.3%	40.0%	40.0%	16.7%	16.7%	35.3%	35.3%	19.3%	24.0%		19.3%	24.0%	24.0%
Yellow Time (s)	3.6	3.6	4.0	4.0	3.6	3.6	4.0	4.0	3.6	4.0		3.6	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0

Lanes, Volumes, Timings
5: SR-203/Chain Lake Road & US-2

Eaglemont

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)		4.6	5.0	5.0		4.6	5.0	5.0	4.6	5.0		4.6	5.0	5.0
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	C-Max	C-Max	None	None	C-Max	C-Max	None	Max		None	Max	Max
Act Effct Green (s)		24.5	58.9	58.9		16.5	50.9	50.9	17.8	39.8		15.6	37.6	37.6
Actuated g/C Ratio		0.16	0.39	0.39		0.11	0.34	0.34	0.12	0.27		0.10	0.25	0.25
v/c Ratio		0.87	0.97	0.32		0.75	0.76	0.22	0.73	0.41		0.63	0.44	0.09
Control Delay		103.1	45.4	3.1		88.1	49.8	9.3	74.6	42.5		69.0	50.2	0.4
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay		103.1	45.4	3.1		88.1	49.8	9.3	74.6	42.5		69.0	50.2	0.4
LOS		F	D	A		F	D	A	E	D		E	D	A
Approach Delay			48.1				49.9			56.6			54.3	
Approach LOS			D				D			E			D	
Queue Length 50th (ft)		195	681	13		137	420	11	144	142		104	171	0
Queue Length 95th (ft)		m#358	#863	m12		211	509	62	190	201		144	264	m0
Internal Link Dist (ft)			1535				3046			2957			666	
Turn Bay Length (ft)		500				250		200	200			200		
Base Capacity (vph)		317	1363	688		236	1177	603	547	909		547	457	475
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		0.78	0.97	0.32		0.61	0.76	0.22	0.54	0.41		0.40	0.44	0.09

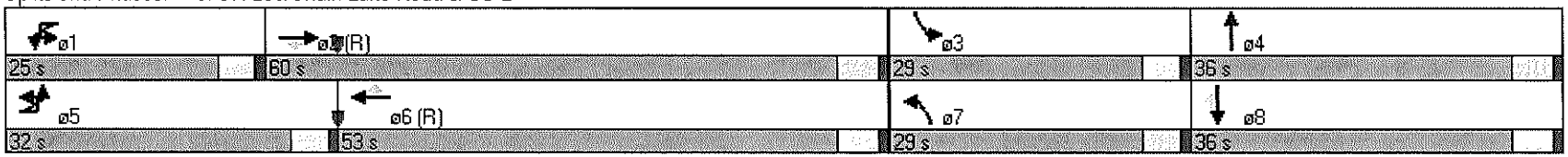
Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 25 (17%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.97
Intersection Signal Delay: 50.7 — Intersection LOS: D
Intersection Capacity Utilization 74.5% — ICU Level of Service D
Analysis Period (min) 15

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

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: SR-203/Chain Lake Road & US-2



Intersection

Intersection Delay (sec/veh): 2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Volume (vph)	100	16	387	135	14	235
Conflicting Peds.(#/hr)	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
Right Turn Channelized	None	None	None	None	None	None
Storage Length	0	0		0	100	
Median Width	12		12			12
Grade (%)	0%		0%			0%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles(%)	2	2	2	2	2	2
Movement Flow Rate	104	17	403	141	15	245
Number of Lanes	1	0	1	0	1	1

Major/Minor			Major 1			Major 2
Conflicting Flow Rate - All	749	474	0	0	544	0
Stage 1	474	-	-	-	-	-
Stage 2	275	-	-	-	-	-
Follow-up Headway	3.518	3.318	-	-	2.218	-
Pot Capacity-1 Maneuver	379	590	-	-	1025	-
Stage 1	626	-	-	-	-	-
Stage 2	771	-	-	-	-	-
Time blocked-Platoon(%)	0	0	-	-	0	-
Mov Capacity-1 Maneuver	373	590	-	-	1025	-
Mov Capacity-2 Maneuver	373	-	-	-	-	-
Stage 1	626	-	-	-	-	-
Stage 2	760	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay (s)	18.2	0	0.5
HCM LOS	C	A	A

Lane	NBT	NBR	WBLn1	SBL	SBT
Capacity (vph)			393		
HCM Control Delay (s)	-	-	18.2	8.563	-
HCM Lane VC Ratio	-	-	0.307	0.014	-
HCM Lane LOS	-	-	C	A	-
HCM 95th Percentile Queue (veh)	-	-	1.283	0.043	-

Intersection

Intersection Delay (sec/veh): 1.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Volume (vph)	7	70	107	516	322	14
Conflicting Peds.(#/hr)	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
Right Turn Channelized	None	None	None	None	None	None
Storage Length	0	0	100			0
Median Width	12			12	12	
Grade (%)	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles(%)	2	2	2	2	2	2
Movement Flow Rate	7	73	111	538	335	15
Number of Lanes	1	0	1	1	1	0

Major/Minor				Major 1	Major 2	
Conflicting Flow Rate - All	1103	343	350	0	0	0
Stage 1	343	-	-	-	-	-
Stage 2	760	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	234	700	1209	-	-	-
Stage 1	719	-	-	-	-	-
Stage 2	462	-	-	-	-	-
Time blocked-Platoon(%)	0	0	0	-	-	-
Mov Capacity-1 Maneuver	213	700	1209	-	-	-
Mov Capacity-2 Maneuver	213	-	-	-	-	-
Stage 1	719	-	-	-	-	-
Stage 2	420	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay (s)	12.2	1.4	0
HCM LOS	B	A	A

Lane	NBL	NBT	EBLn1	SBT	SBR
Capacity (vph)			580		
HCM Control Delay (s)	8.28	-	12.2	-	-
HCM Lane VC Ratio	0.092	-	0.138	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th Percentile Queue (veh)	0.304	-	0.478	-	-

Intersection

Intersection Delay (sec/veh): 5.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Volume (vph)	26	275	445	59	134	253
Conflicting Peds.(#/hr)	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
Right Turn Channelized	None	None	None	None	None	None
Storage Length	0	0		0	150	
Median Width	12		12			12
Grade (%)	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles(%)	2	2	2	2	2	2
Movement Flow Rate	28	299	484	64	146	275
Number of Lanes	1	0	1	1	1	2

Major/Minor			Major 1			Major 2
Conflicting Flow Rate - All	946	274	0	0	548	0
Stage 1	516	-	-	-	-	-
Stage 2	430	-	-	-	-	-
Follow-up Headway	3.52	3.32	-	-	2.22	-
Pot Capacity-1 Maneuver	260	724	-	-	1018	-
Stage 1	564	-	-	-	-	-
Stage 2	624	-	-	-	-	-
Time blocked-Platoon(%)	0	0	-	-	0	-
Mov Capacity-1 Maneuver	223	724	-	-	1018	-
Mov Capacity-2 Maneuver	223	-	-	-	-	-
Stage 1	564	-	-	-	-	-
Stage 2	535	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay (s)	17.7	0	3.2
HCM LOS	C	A	A

Lane	NBT	NBR	WBLn1	SBL	SBT
Capacity (vph)			606		
HCM Control Delay (s)	-	-	17.7	9.126	-
HCM Lane VC Ratio	-	-	0.54	0.143	-
HCM Lane LOS	-	-	C	A	-
HCM 95th Percentile Queue (veh)	-	-	3.222	0.499	-

Lanes, Volumes, Timings
4: N Kelsey St & US-2

Eaglemont

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Volume (vph)	95	431	1612	90	8	106	990	53	133	213	96	136	220	268
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		750		0		700		0	100		100	350		0
Storage Lanes		2		0		1		0	1		1	1		1
Taper Length (ft)		25				25			25			25		
Lane Util. Factor	0.91	0.97	0.91	0.91	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.992				0.992				0.850			0.850
Flt Protected		0.950				0.950			0.950			0.950		
Satd. Flow (prot)	0	3367	4948	0	0	1736	3443	0	1736	1827	1553	1736	1827	1553
Flt Permitted		0.950				0.950			0.245			0.265		
Satd. Flow (perm)	0	3367	4948	0	0	1736	3443	0	448	1827	1553	484	1827	1553
Right Turn on Red				Yes				Yes			Yes			Yes
Satd. Flow (RTOR)			7				4				115			243
Link Speed (mph)			50				50			30			30	
Link Distance (ft)			1263				1615			2553			2702	
Travel Time (s)			17.2				22.0			58.0			61.4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Adj. Flow (vph)	108	490	1832	102	9	120	1125	60	151	242	109	155	250	305
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	598	1934	0	0	129	1185	0	151	242	109	155	250	305
Turn Type	Prot	Prot	NA		Prot	Prot	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	5	2		1	1	6		7	4		3	8	
Permitted Phases									4		4	8		8
Detector Phase	5	5	2		1	1	6		7	4	4	3	8	8
Switch Phase														
Minimum Initial (s)	3.0	3.0	15.0		3.0	3.0	15.0		3.0	5.0	5.0	3.0	5.0	5.0
Minimum Split (s)	8.0	8.0	33.0		8.0	8.0	27.0		8.0	31.0	31.0	8.0	36.0	36.0
Total Split (s)	42.0	42.0	70.0		30.0	30.0	58.0		13.0	37.0	37.0	13.0	37.0	37.0
Total Split (%)	28.0%	28.0%	46.7%		20.0%	20.0%	38.7%		8.7%	24.7%	24.7%	8.7%	24.7%	24.7%
Yellow Time (s)	3.6	3.6	4.0		3.6	3.6	4.0		3.6	4.0	4.0	3.6	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0			0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0

Lanes, Volumes, Timings
4: N Kelsey St & US-2

Eaglemont

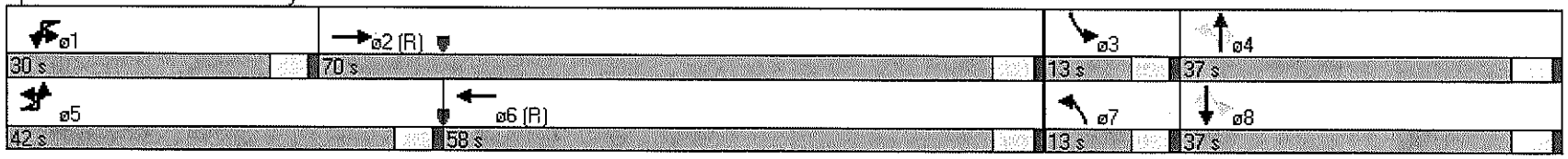
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)		4.6	5.0			4.6	5.0		4.6	5.0	5.0	4.6	5.0	5.0
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	C-Max		None	None	C-Max		None	None	None	None	None	None
Act Effct Green (s)		31.3	81.1			16.0	65.8		34.2	25.4	25.4	34.2	25.4	25.4
Actuated g/C Ratio		0.21	0.54			0.11	0.44		0.23	0.17	0.17	0.23	0.17	0.17
v/c Ratio		0.85	0.72			0.70	0.78		0.87	0.79	0.31	0.86	0.81	0.66
Control Delay		69.3	29.4			59.3	50.4		88.2	77.0	9.4	86.4	79.6	19.6
Queue Delay		0.0	0.0			0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		69.3	29.4			59.3	50.4		88.2	77.0	9.4	86.4	79.6	19.6
LOS		E	C			E	D		F	E	A	F	E	B
Approach Delay			38.9				51.2			65.7			55.3	
Approach LOS			D				D			E			E	
Queue Length 50th (ft)		293	512			134	417		120	229	0	124	237	53
Queue Length 95th (ft)		337	650			m165	#699		#202	305	44	#201	316	142
Internal Link Dist (ft)			1183				1535			2473			2622	
Turn Bay Length (ft)		750				700			100		100	350		
Base Capacity (vph)		839	2677			293	1512		174	389	421	180	389	522
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		0.71	0.72			0.44	0.78		0.87	0.62	0.26	0.86	0.64	0.58

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 15 (10%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 105
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 47.0 — Intersection LOS: D
Intersection Capacity Utilization 84.0% — 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: N Kelsey St & US-2



Lanes, Volumes, Timings
5: SR-203/Chain Lake Road & US-2

Eaglemont

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Volume (vph)	8	247	1376	226	2	146	929	136	304	271	116	227	207	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		500		0		250		200	200		0	200		0
Storage Lanes		1		1		1		1	2		0	2		1
Taper Length (ft)		25				25			25			25		
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97	1.00	1.00
Frt				0.850				0.850		0.955				0.850
Flt Protected		0.950				0.950			0.950			0.950		
Satd. Flow (prot)	0	1736	3471	1553	0	1736	3471	1553	3367	3315	0	3367	1827	1553
Flt Permitted		0.950				0.950			0.950			0.950		
Satd. Flow (perm)	0	1736	3471	1553	0	1736	3471	1553	3367	3315	0	3367	1827	1553
Right Turn on Red				Yes				Yes			Yes			Yes
Satd. Flow (RTOR)				130				115		40				115
Link Speed (mph)			50				50			30			30	
Link Distance (ft)			1615				3126			3037			746	
Travel Time (s)			22.0				42.6			69.0			17.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Adj. Flow (vph)	9	268	1496	246	2	159	1010	148	330	295	126	247	225	50
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	277	1496	246	0	161	1010	148	330	421	0	247	225	50
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	5	5	2		1	1	6		7	4		3	8	
Permitted Phases				2				6						8
Detector Phase	5	5	2	2	1	1	6	6	7	4		3	8	8
Switch Phase														
Minimum Initial (s)	3.0	3.0	15.0	15.0	3.0	3.0	15.0	15.0	3.0	5.0		3.0	5.0	5.0
Minimum Split (s)	8.0	8.0	34.5	34.5	8.0	8.0	34.5	34.5	8.0	38.0		8.0	37.0	37.0
Total Split (s)	32.0	32.0	60.0	60.0	25.0	25.0	53.0	53.0	29.0	36.0		29.0	36.0	36.0
Total Split (%)	21.3%	21.3%	40.0%	40.0%	16.7%	16.7%	35.3%	35.3%	19.3%	24.0%		19.3%	24.0%	24.0%
Yellow Time (s)	3.6	3.6	4.0	4.0	3.6	3.6	4.0	4.0	3.6	4.0		3.6	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0

Lanes, Volumes, Timings
5: SR-203/Chain Lake Road & US-2

Eaglemont

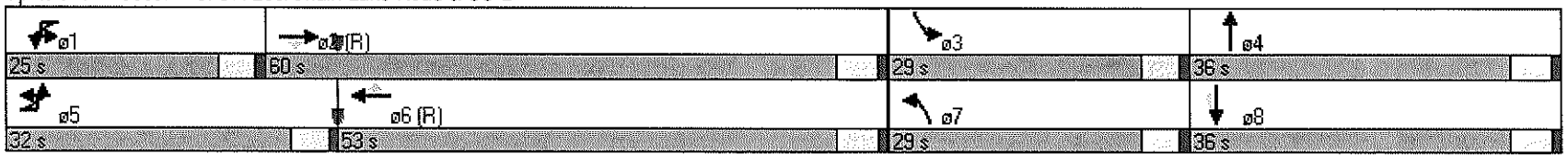
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)		4.6	5.0	5.0		4.6	5.0	5.0	4.6	5.0		4.6	5.0	5.0
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	C-Max	C-Max	None	None	C-Max	C-Max	None	Max		None	Max	Max
Act Effct Green (s)		26.1	57.9	57.9		17.5	49.3	49.3	19.5	38.7		16.7	35.9	35.9
Actuated g/C Ratio		0.17	0.39	0.39		0.12	0.33	0.33	0.13	0.26		0.11	0.24	0.24
v/c Ratio		0.92	1.12	0.36		0.80	0.89	0.25	0.76	0.48		0.66	0.51	0.11
Control Delay		108.1	89.6	6.0		91.0	58.4	11.4	74.2	45.1		69.6	53.4	0.5
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		108.1	89.6	6.0		91.0	58.4	11.4	74.2	45.1		69.6	53.4	0.5
LOS		F	F	A		F	E	B	E	D		E	D	A
Approach Delay			82.0				57.1			57.9			56.0	
Approach LOS			F				E			E			E	
Queue Length 50th (ft)		241	~902	8		154	500	22	162	166		117	198	0
Queue Length 95th (ft)		m#436	#1041	m54		#237	#623	77	209	231		161	299	m0
Internal Link Dist (ft)			1535				3046			2957			666	
Turn Bay Length (ft)		500				250		200	200			200		
Base Capacity (vph)		317	1339	678		236	1140	587	547	883		547	437	459
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		0.87	1.12	0.36		0.68	0.89	0.25	0.60	0.48		0.45	0.51	0.11

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 25 (17%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.12
Intersection Signal Delay: 68.0 — Intersection LOS: E
Intersection Capacity Utilization 81.8% — ICU Level of Service D
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: SR-203/Chain Lake Road & US-2



Intersection

Intersection Delay (sec/veh): 2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Volume (vph)	103	16	391	137	14	241
Conflicting Peds.(#/hr)	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
Right Turn Channelized	None	None	None	None	None	None
Storage Length	0	0		0	100	
Median Width	12		12			12
Grade (%)	0%		0%			0%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles(%)	2	2	2	2	2	2
Movement Flow Rate	107	17	407	143	15	251
Number of Lanes	1	0	1	0	1	1

Major/Minor			Major 1			Major 2
Conflicting Flow Rate - All	760	479	0	0	550	0
Stage 1	479	-	-	-	-	-
Stage 2	281	-	-	-	-	-
Follow-up Headway	3.518	3.318	-	-	2.218	-
Pot Capacity-1 Maneuver	374	587	-	-	1020	-
Stage 1	623	-	-	-	-	-
Stage 2	767	-	-	-	-	-
Time blocked-Platoon(%)	0	0	-	-	0	-
Mov Capacity-1 Maneuver	369	587	-	-	1020	-
Mov Capacity-2 Maneuver	369	-	-	-	-	-
Stage 1	623	-	-	-	-	-
Stage 2	756	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay (s)	18.6	0	0.5
HCM LOS	C	A	A

Lane	NBT	NBR	WBLn1	SBL	SBT
Capacity (vph)			388		
HCM Control Delay (s)	-	-	18.6	8.581	-
HCM Lane VC Ratio	-	-	0.319	0.014	-
HCM Lane LOS	-	-	C	A	-
HCM 95th Percentile Queue (veh)	-	-	1.353	0.043	-

Intersection

Intersection Delay (sec/veh): 3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Volume (vph)	13	120	193	516	322	23
Conflicting Peds.(#/hr)	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
Right Turn Channelized	None	None	None	None	None	None
Storage Length	0	0	100			0
Median Width	12			12	12	
Grade (%)	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles(%)	2	2	2	2	2	2
Movement Flow Rate	14	125	201	538	335	24
Number of Lanes	1	0	1	1	1	0

Major/Minor				Major 1	Major 2	
Conflicting Flow Rate - All	1287	347	359	0	0	0
Stage 1	347	-	-	-	-	-
Stage 2	940	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	181	696	1200	-	-	-
Stage 1	716	-	-	-	-	-
Stage 2	380	-	-	-	-	-
Time blocked-Platoon(%)	0	0	0	-	-	-
Mov Capacity-1 Maneuver	151	696	1200	-	-	-
Mov Capacity-2 Maneuver	151	-	-	-	-	-
Stage 1	716	-	-	-	-	-
Stage 2	316	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay (s)	14.6	2.3	0
HCM LOS	B	A	A

Lane	NBL	NBT	EBLn1	SBT	SBR
Capacity (vph)			514		
HCM Control Delay (s)	8.603	-	14.6	-	-
HCM Lane VC Ratio	0.168	-	0.27	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th Percentile Queue (veh)	0.601	-	1.082	-	-

Intersection

Intersection Delay (sec/veh): 6.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Volume (vph)	26	297	509	59	147	290
Conflicting Peds.(#/hr)	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
Right Turn Channelized	None	None	None	None	None	None
Storage Length	0	0		0	150	
Median Width	12		12			12
Grade (%)	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles(%)	2	2	2	2	2	2
Movement Flow Rate	28	323	553	64	160	315
Number of Lanes	1	0	1	1	1	2

Major/Minor			Major 1			Major 2
Conflicting Flow Rate - All	1063	309	0	0	617	0
Stage 1	585	-	-	-	-	-
Stage 2	478	-	-	-	-	-
Follow-up Headway	3.52	3.32	-	-	2.22	-
Pot Capacity-1 Maneuver	218	687	-	-	959	-
Stage 1	520	-	-	-	-	-
Stage 2	590	-	-	-	-	-
Time blocked-Platoon(%)	0	0	-	-	0	-
Mov Capacity-1 Maneuver	182	687	-	-	959	-
Mov Capacity-2 Maneuver	182	-	-	-	-	-
Stage 1	520	-	-	-	-	-
Stage 2	492	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay (s)	21.5	0	3.2
HCM LOS	C	A	A

Lane	NBT	NBR	WBLn1	SBL	SBT
Capacity (vph)			562		
HCM Control Delay (s)	-	-	21.5	9.503	-
HCM Lane VC Ratio	-	-	0.625	0.167	-
HCM Lane LOS	-	-	C	A	-
HCM 95th Percentile Queue (veh)	-	-	4.294	0.596	-

Lanes, Volumes, Timings
4: N Kelsey St & US-2

Eaglemont

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Volume (vph)	95	479	1612	90	8	106	990	53	133	215	96	136	221	296
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		750		0		700		0	100		100	350		0
Storage Lanes		2		0		1		0	1		1	1		1
Taper Length (ft)		25				25			25			25		
Lane Util. Factor	0.91	0.97	0.91	0.91	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.992				0.992				0.850			0.850
Flt Protected		0.950				0.950			0.950			0.950		
Satd. Flow (prot)	0	3367	4948	0	0	1736	3443	0	1736	1827	1553	1736	1827	1553
Flt Permitted		0.950				0.950			0.243			0.260		
Satd. Flow (perm)	0	3367	4948	0	0	1736	3443	0	444	1827	1553	475	1827	1553
Right Turn on Red				Yes				Yes			Yes			Yes
Satd. Flow (RTOR)			7				4				115			243
Link Speed (mph)			50				50			30			30	
Link Distance (ft)			1263				1615			2553			2702	
Travel Time (s)			17.2				22.0			58.0			61.4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Adj. Flow (vph)	108	544	1832	102	9	120	1125	60	151	244	109	155	251	336
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	652	1934	0	0	129	1185	0	151	244	109	155	251	336
Turn Type	Prot	Prot	NA		Prot	Prot	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	5	2		1	1	6		7	4		3	8	
Permitted Phases									4		4	8		8
Detector Phase	5	5	2		1	1	6		7	4	4	3	8	8
Switch Phase														
Minimum Initial (s)	3.0	3.0	15.0		3.0	3.0	15.0		3.0	5.0	5.0	3.0	5.0	5.0
Minimum Split (s)	8.0	8.0	33.0		8.0	8.0	27.0		8.0	31.0	31.0	8.0	36.0	36.0
Total Split (s)	42.0	42.0	70.0		30.0	30.0	58.0		13.0	37.0	37.0	13.0	37.0	37.0
Total Split (%)	28.0%	28.0%	46.7%		20.0%	20.0%	38.7%		8.7%	24.7%	24.7%	8.7%	24.7%	24.7%
Yellow Time (s)	3.6	3.6	4.0		3.6	3.6	4.0		3.6	4.0	4.0	3.6	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0			0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0

Lanes, Volumes, Timings
4: N Kelsey St & US-2

Eaglemont

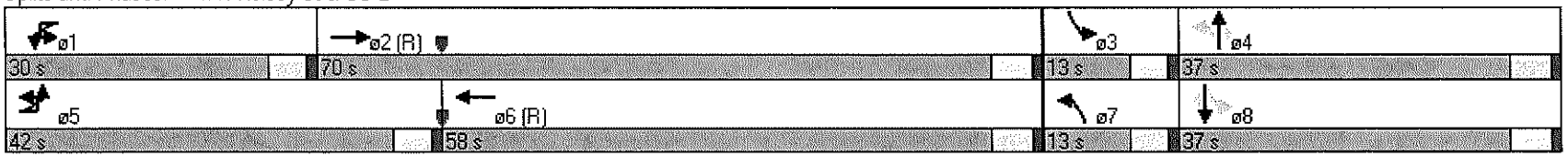
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)		4.6	5.0			4.6	5.0		4.6	5.0	5.0	4.6	5.0	5.0
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	C-Max		None	None	C-Max		None	None	None	None	None	None
Act Effct Green (s)		33.1	81.0			16.0	63.9		34.2	25.4	25.4	34.2	25.4	25.4
Actuated g/C Ratio		0.22	0.54			0.11	0.43		0.23	0.17	0.17	0.23	0.17	0.17
v/c Ratio		0.88	0.72			0.70	0.81		0.87	0.79	0.30	0.87	0.81	0.72
Control Delay		70.3	29.5			59.3	51.9		89.0	77.3	9.4	87.7	79.6	25.3
Queue Delay		0.0	0.0			0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		70.3	29.5			59.3	51.9		89.0	77.3	9.4	87.7	79.6	25.3
LOS		E	C			E	D		F	E	A	F	E	C
Approach Delay			39.8				52.6			66.1			56.7	
Approach LOS			D				D			E			E	
Queue Length 50th (ft)		319	513			134	417		120	230	0	123	238	84
Queue Length 95th (ft)		371	650			m165	#699		#203	309	44	#203	318	182
Internal Link Dist (ft)			1183				1535			2473			2622	
Turn Bay Length (ft)		750				700			100		100	350		
Base Capacity (vph)		839	2675			293	1469		173	389	421	178	389	522
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		0.78	0.72			0.44	0.81		0.87	0.63	0.26	0.87	0.65	0.64

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 15 (10%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 48.1 — Intersection LOS: D
Intersection Capacity Utilization 87.1% — ICU Level of Service E
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: N Kelsey St & US-2



Lanes, Volumes, Timings
5: SR-203/Chain Lake Road & US-2

Eaglemont

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Volume (vph)	8	247	1376	226	2	146	929	141	304	288	116	229	218	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		500		0		250		200	200		0	200		0
Storage Lanes		1		1		1		1	2		0	2		1
Taper Length (ft)		25				25			25			25		
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97	1.00	1.00
Frt				0.850				0.850		0.957				0.850
Flt Protected		0.950				0.950			0.950			0.950		
Satd. Flow (prot)	0	1736	3471	1553	0	1736	3471	1553	3367	3322	0	3367	1827	1553
Flt Permitted		0.950				0.950			0.950			0.950		
Satd. Flow (perm)	0	1736	3471	1553	0	1736	3471	1553	3367	3322	0	3367	1827	1553
Right Turn on Red				Yes				Yes			Yes			Yes
Satd. Flow (RTOR)				130				115		36				115
Link Speed (mph)			50				50			30			30	
Link Distance (ft)			1615				3126			3037			746	
Travel Time (s)			22.0				42.6			69.0			17.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Adj. Flow (vph)	9	268	1496	246	2	159	1010	153	330	313	126	249	237	50
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	277	1496	246	0	161	1010	153	330	439	0	249	237	50
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	5	5	2		1	1	6		7	4		3	8	
Permitted Phases				2				6						8
Detector Phase	5	5	2	2	1	1	6	6	7	4		3	8	8
Switch Phase														
Minimum Initial (s)	3.0	3.0	15.0	15.0	3.0	3.0	15.0	15.0	3.0	5.0		3.0	5.0	5.0
Minimum Split (s)	8.0	8.0	34.5	34.5	8.0	8.0	34.5	34.5	8.0	38.0		8.0	37.0	37.0
Total Split (s)	32.0	32.0	60.0	60.0	25.0	25.0	53.0	53.0	29.0	36.0		29.0	36.0	36.0
Total Split (%)	21.3%	21.3%	40.0%	40.0%	16.7%	16.7%	35.3%	35.3%	19.3%	24.0%		19.3%	24.0%	24.0%
Yellow Time (s)	3.6	3.6	4.0	4.0	3.6	3.6	4.0	4.0	3.6	4.0		3.6	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0

Lanes, Volumes, Timings
5: SR-203/Chain Lake Road & US-2

Eaglemont

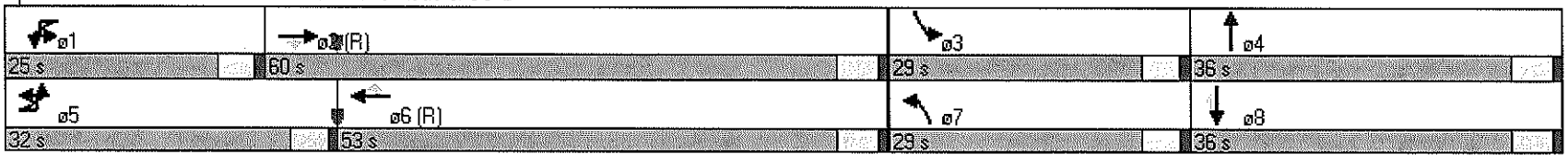
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)		4.6	5.0	5.0		4.6	5.0	5.0	4.6	5.0		4.6	5.0	5.0
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	C-Max	C-Max	None	None	C-Max	C-Max	None	Max		None	Max	Max
Act Effct Green (s)		26.1	57.9	57.9		17.5	49.3	49.3	19.5	38.6		16.8	35.9	35.9
Actuated g/C Ratio		0.17	0.39	0.39		0.12	0.33	0.33	0.13	0.26		0.11	0.24	0.24
v/c Ratio		0.92	1.12	0.36		0.80	0.89	0.26	0.76	0.50		0.66	0.54	0.11
Control Delay		108.3	89.6	6.0		91.0	58.4	12.2	74.2	46.2		70.1	54.1	0.5
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		108.3	89.6	6.0		91.0	58.4	12.2	74.2	46.2		70.1	54.1	0.5
LOS		F	F	A		F	E	B	E	D		E	D	A
Approach Delay			82.0				57.0			58.2			56.6	
Approach LOS			F				E			E			E	
Queue Length 50th (ft)		241	~902	8		154	500	26	162	177		118	210	0
Queue Length 95th (ft)		m#436	#1041	m54		#237	#623	83	209	244		m161	m312	m0
Internal Link Dist (ft)			1535				3046			2957			666	
Turn Bay Length (ft)		500				250		200	200			200		
Base Capacity (vph)		317	1339	678		236	1140	587	547	881		547	437	459
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		0.87	1.12	0.36		0.68	0.89	0.26	0.60	0.50		0.46	0.54	0.11

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 25 (17%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.12
Intersection Signal Delay: 68.0 — Intersection LOS: E
Intersection Capacity Utilization 82.4% — ICU Level of Service E
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: SR-203/Chain Lake Road & US-2



Intersection

Intersection Delay (sec/veh): 1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Volume (vph)	56	0	121	95	0	77
Conflicting Peds.(#/hr)	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
Right Turn Channelized	None	None	None	None	None	None
Storage Length	0	0		0	0	
Median Width	12		0			0
Grade (%)	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles(%)	2	2	2	2	2	2
Movement Flow Rate	61	0	132	103	0	84
Number of Lanes	1	0	1	0	0	1

Major/Minor			Major 1			Major 2
Conflicting Flow Rate - All	268	-	0	0	-	0
Stage 1	184	-	-	-	-	-
Stage 2	84	-	-	-	-	-
Follow-up Headway	3.518	0	-	-	0	-
Pot Capacity-1 Maneuver	721	0	-	-	0	-
Stage 1	848	0	-	-	0	-
Stage 2	939	0	-	-	0	-
Time blocked-Platoon(%)	0	0	-	-	0	-
Mov Capacity-1 Maneuver	721	-	-	-	-	-
Mov Capacity-2 Maneuver	721	-	-	-	-	-
Stage 1	848	-	-	-	-	-
Stage 2	939	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay (s)	10.5	0	0
HCM LOS	B	A	A

Lane	NBT	NBR	WBLn1	SBT
Capacity (vph)			721	
HCM Control Delay (s)	-	-	10.5	-
HCM Lane VC Ratio	-	-	0.084	-
HCM Lane LOS	-	-	B	-
HCM 95th Percentile Queue (veh)	-	-	0.276	-

Eaglemont (GTC #12-087)
Chain Lake Road @ North Access
2018 Future Conditions w. Dev.

358 x 15% = 54 Left-Turns to Warrant

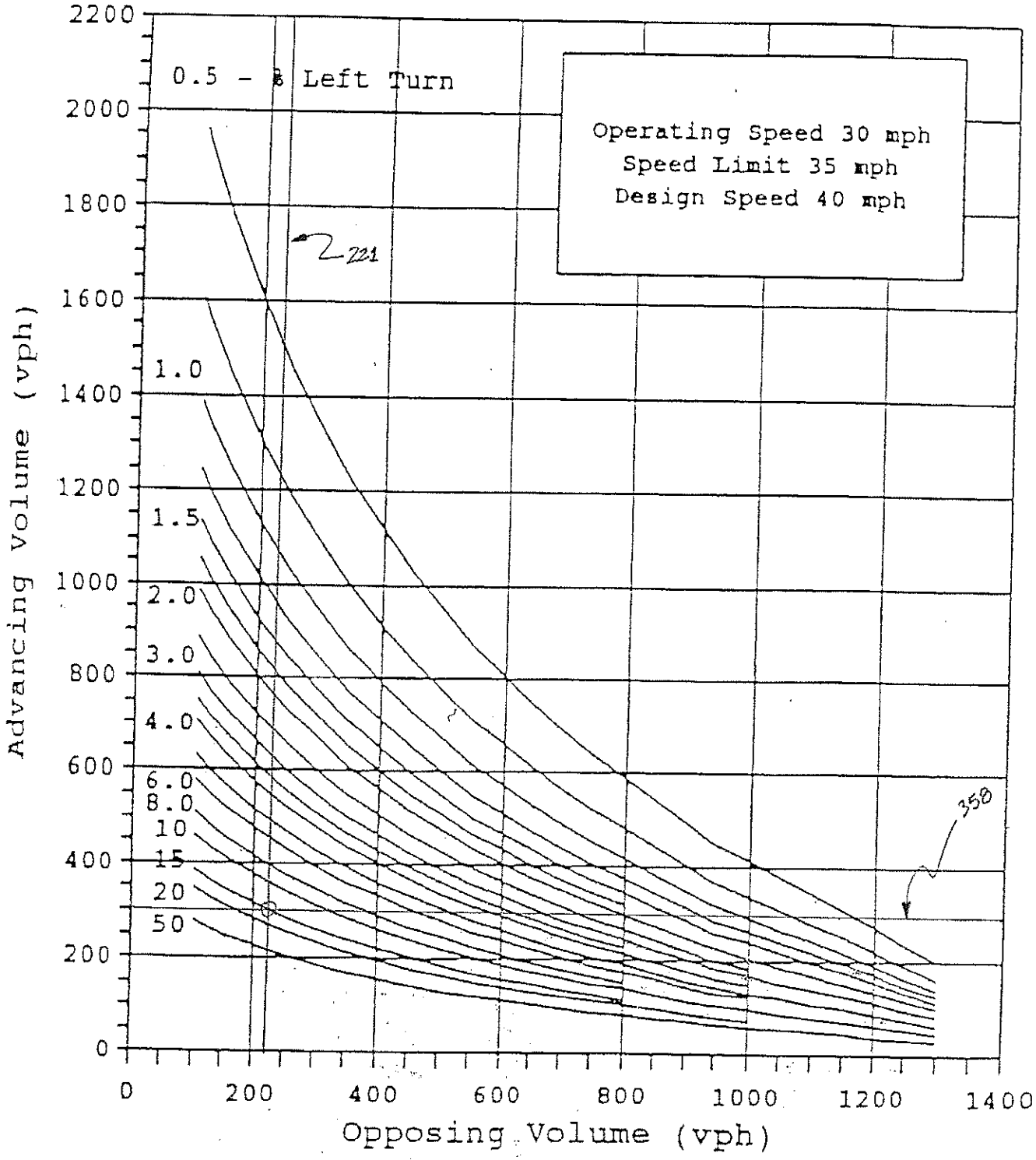


Figure 1 Guidelines for Left-turn Lane at Unsignalized Intersection - Two-lane Roadway