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Pacific Seafood
Traffic Impact Analysis

Prepared for: Fisher Construction Group, Inc.
Jurisdiction: City of Mukilteo

September 2015

GTC #15-106

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1. INTRODUCTION

Gibson Traffic Consultants (GTC) has been retained to complete a traffic impact analysis (TIA) for the proposed Pacific Seafood development per a scoping discussion with City of Mukilteo staff.

Matthew Palmer, responsible for the traffic analysis and report, is a licensed professional engineer (Civil) in the State of Washington and a current member of the Washington State section of ITE.

The development is located at 8007 44th Avenue W in the City of Mukilteo on the east side of 44th Avenue W, just above SR-526. The proposed development will consist of 33,548 SF of Manufacturing and 50,322 SF of Warehousing. There is an existing single-family residence which the development will be removing and receiving credit for. There will be two full service access points to 44th Avenue W on the southern portion of the development and a one-way inbound fire truck and service truck entrance just to the south of the north property line. A site vicinity map is included in Figure 1.

2. METHODOLOGY & ANALYSIS SCOPING

Trip generation for the development is based upon national research data for land uses contained in the Institute of Transportation Engineers' (ITE) *Trip Generation, 9th Edition* (2012). The average trip generation rates for the ITE Land Use Code (LUC) 140, Manufacturing, LUC 150, Warehousing and LUC 210, Single Family Dwelling were utilized to estimate the trip generation for the proposed commercial development.

The analysis required was scoped through discussions between the City of Mukilteo and GTC staff. The following three intersections were identified for the existing and future PM peak-hour level of service analysis:

- 80th Street SW at 44th Avenue W (all-way stop control)
- 84th Street SW at 44th Avenue W (signalized)
- 84th Street SW at SR-526 (signalized)

Traffic congestion on roadways is generally measured in terms of LOS at critical intersections. In accordance with the 2010 *Highway Capacity Manual*, roadway facilities and intersections are rated between LOS A and F, with LOS A being free flow and LOS F being forced flow or over-capacity conditions. The LOS at signalized intersections and all-way stop-controlled intersections are based on the average stopped delay for all entering vehicles. The LOS at two-way stop-controlled intersections is based on stopped delay times for the critical approach or movement(s). Geometric characteristics and conflicting traffic movements are taken into consideration when determining LOS values. City of Mukilteo has an acceptable intersection level of service threshold of LOS E or better for City intersections. A summary of the level of service criteria has been included in **Table 1**.

Table 1: Level of Service Criteria for Intersections

Level of [1] Service	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

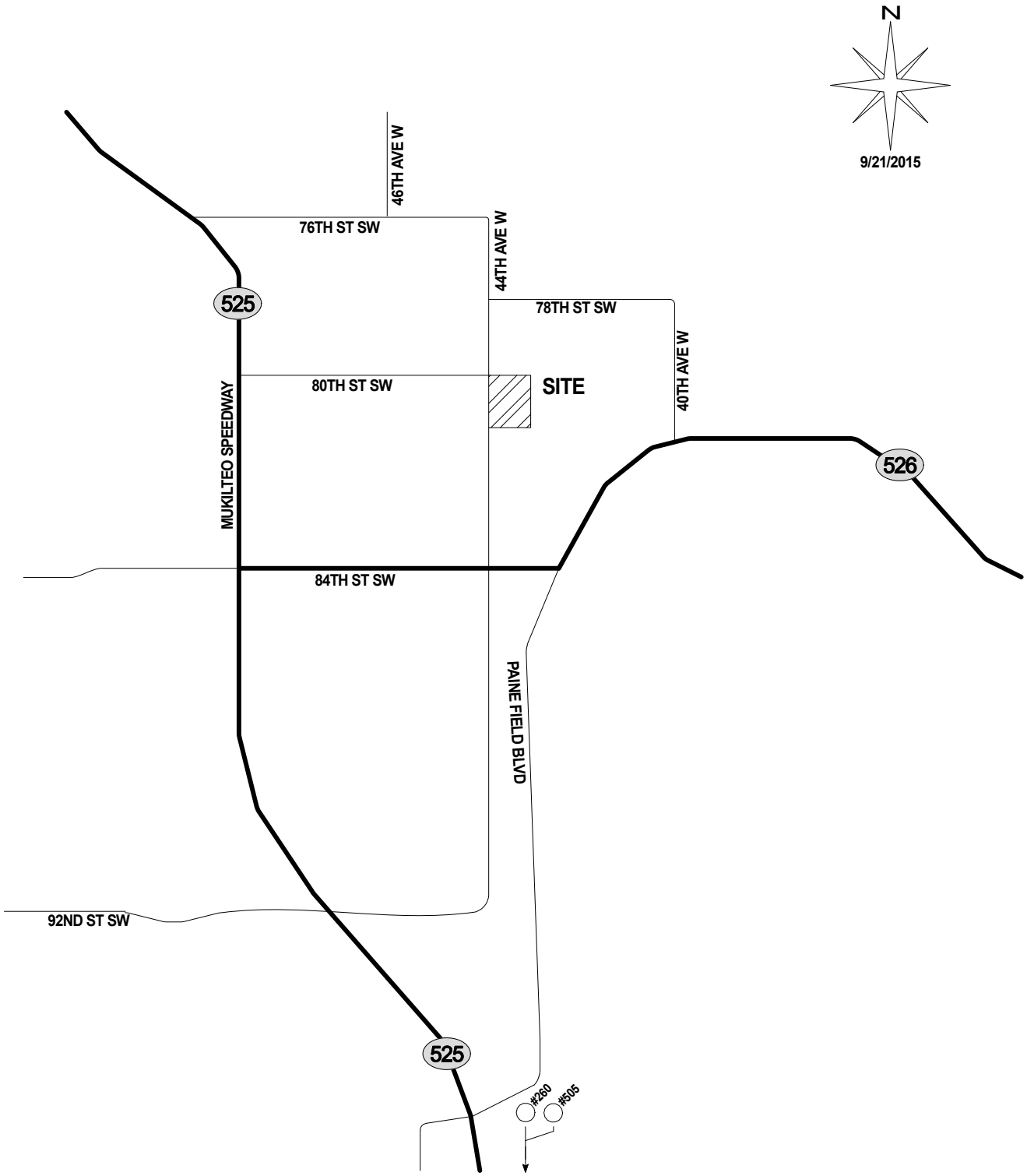
GTC utilized a 2.0-percent annual compounded growth rate to account for background traffic growth in the site vicinity when determining the through traffic volumes for the future with development level of service disclosure at the site access. This growth rate is based on the previous traffic studies prepared in the City of Mukilteo.

The city of Mukilteo has a requirement of at least two years of growth for horizon year. Therefore, the year 2017 has been used as the "horizon year" in the analysis.

[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.



GIBSON TRAFFIC CONSULTANTS

TRAFFIC IMPACT STUDY
GTC #15-106

PACIFIC SEAFOOD
33,548 SF MANUFACTURING
& 50,322 SF WAREHOUSING

CITY OF MUKILTEO

LEGEND

PROJECT SITE

KEY INTERSECTION

FIGURE 1

SITE VICINITY MAP

3. EXISTING CONDITIONS

3.1 Trip Generation

The daily, AM peak-hour and PM peak-hour trips anticipated to be generated by the proposed development were estimated by trip generation data contained in the ITE *Trip Generation Manual*, 9th Edition (2012). The ITE land use code 140, Manufacturing, LUC 150, Warehousing and LUC 210 Single-Family Detached Housing, was used for the proposed development. Average trip generation rates were used with the amount of dwelling units as the independent variable.

The proposed development will generate fewer trips during the AM peak-hour than the PM peak-hour; this confirms that the PM peak-hour is the critical commuter peak for the level of service and channelization analysis. Pacific Seafood will be receiving credit for the removal of the single-family house already on site. The development will generate 297.78 ADT with 38.84 AM peak-hour trips (30.84 inbound/8.00 outbound) and 39.59 PM peak-hour trips (12.22 inbound/27.37 outbound). A Trip Generation summary has been included in **Table 2**.

Table 2: Trip Generation Summary

Land Use	Units	Average Daily Trips	AM Peak-Hour Trips			PM Peak-Hour Trips		
			Inbound	Outbound	Total	Inbound	Outbound	Total
Manufacturing	33,548 SF	128.15	19.10	5.39	24.49	8.82	15.67	24.49
Warehousing	50,322 SF	179.15	11.93	3.17	15.10	4.03	12.07	16.10
Single-Family	-1 SFD	-9.52	-0.19	-0.56	-0.75	-0.63	-0.37	-1.00
Total	-	297.78	30.84	8.00	38.84	12.22	27.37	39.59

The trip generation calculations are included in the attachments.

3.2 Trip Distribution

The trip distribution is based on existing counts and employment in the region. It is anticipated that 88% of the site traffic will travel to and from the south on 44th Avenue W with seventy-three percent heading east on 84th Street SW, eight percent heading west on 84th Street SW and seven percent continuing further south on 44th Avenue W. The remaining 12% of the site traffic will travel to and from the north on 44th Avenue W with five percent turning on 80th Street SW and seven percent continuing further north on 44th Avenue W. A maximum of fifteen percent would use Airport Road from the fifty percent that is traveling to/from the east on SR-526. A detailed trip distribution for the AM and PM peak-hour are included in Figure 2 and Figure 3, respectively.

The interlocal agreement between the City of Mukilteo and Snohomish County requires development turning movement volumes at Snohomish County key intersections impacted by three or more development trips on any approach or departure to be shown. The development will impact five key intersections with three or more development trips in the AM or PM peak-hour. The AM and PM peak-hour key intersection impacts are shown in tabular form in **Table 3** and **Table 4**, respectively.

Table 3: AM Peak-Hour Key Intersection Volumes

Intersection	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
#260: SR-525 @ Beverly Park Rd	0	0	0	0	0	0	0	6	0	0	2	0
#505: SR-525 @ Lincoln Way	0	0	0	0	0	0	0	6	0	0	2	0

Table 4: AM Peak-Hour Key Intersection Volumes

Intersection	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
#260: SR-525 @ Beverly Park Rd	0	0	0	0	0	0	0	3	0	0	5	0
#505: SR-525 @ Lincoln Way	0	0	0	0	0	0	0	3	0	0	5	0

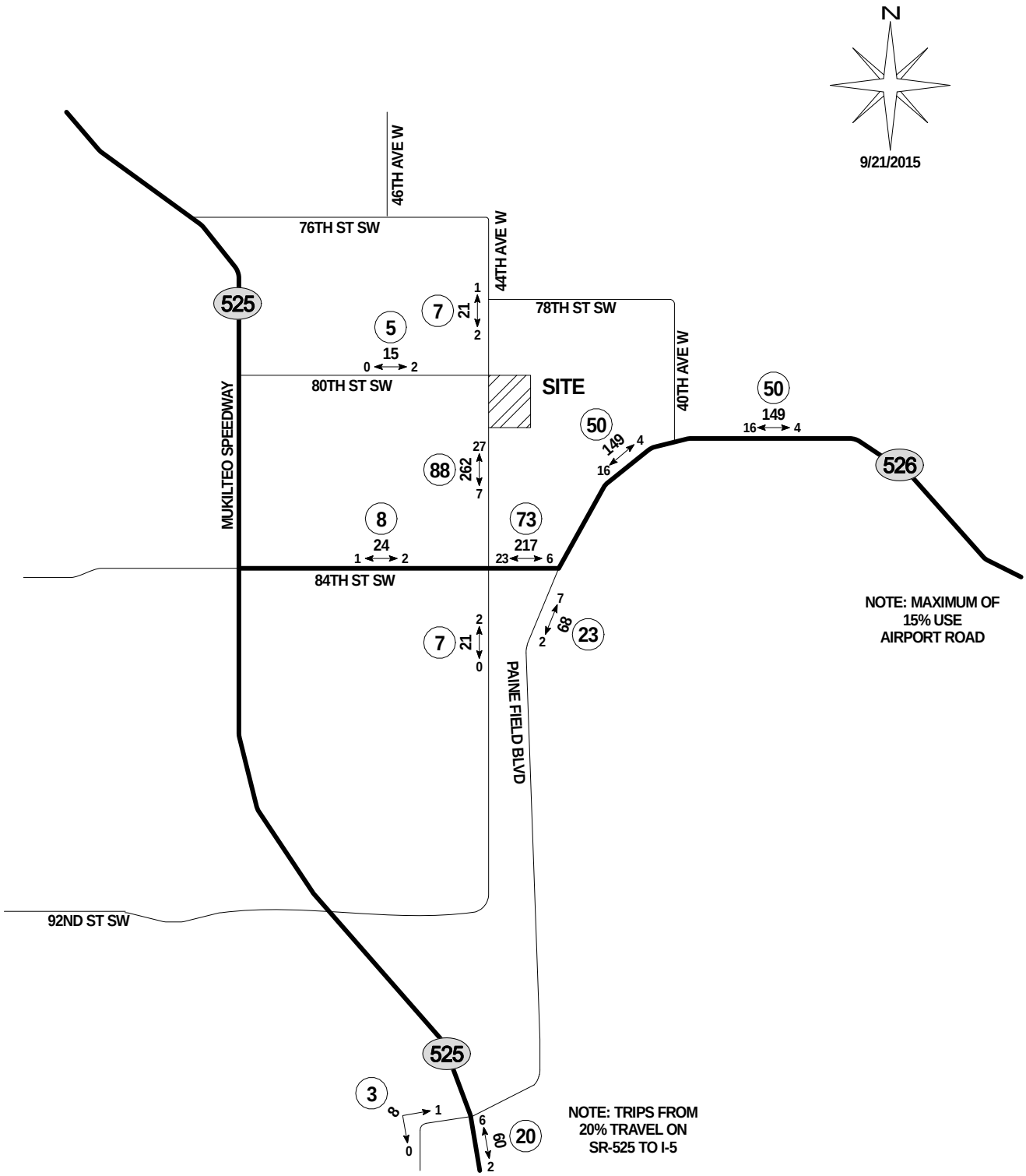
The key intersection impacts are also shown in graphical form in Figure 4 for the AM and PM peak-hours.

3.3 2015 Existing Volumes and Level of Service

Existing counts were conducted by Traffic Data Gathering (TDG) on September 9th and 10th. The existing channelization and intersection control were utilized at the study intersections for determining the level of service. The 80th Street SW at 44th Avenue W intersection presently operates at LOS A with 8.6 seconds of delay. The 84th Street SW at 44th Avenue W intersection currently operates at LOS A with 9.1 seconds of delay. The 84th Street SW at SR-526/Paine Field Blvd intersection operates at LOS C with 26.5 seconds of delay. The existing PM peak-hour level of service results have been summarized in **Table 5**. The level of service calculations are included in the attachments.

Table 5: Existing Intersection Level of Service Summary

Intersection	2015 Existing Conditions	
	LOS	Delay (sec)
1. 80th Street SW @ 44th Avenue W	A	8.6
2. 84th Street SW @ 44th Avenue W	A	9.1
3. 84th Street SW @ SR-526	C	26.5



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33,548 SF MANUFACTURING
& 50,322 SF WAREHOUSING

CITY OF MUKILTEO

LEGEND

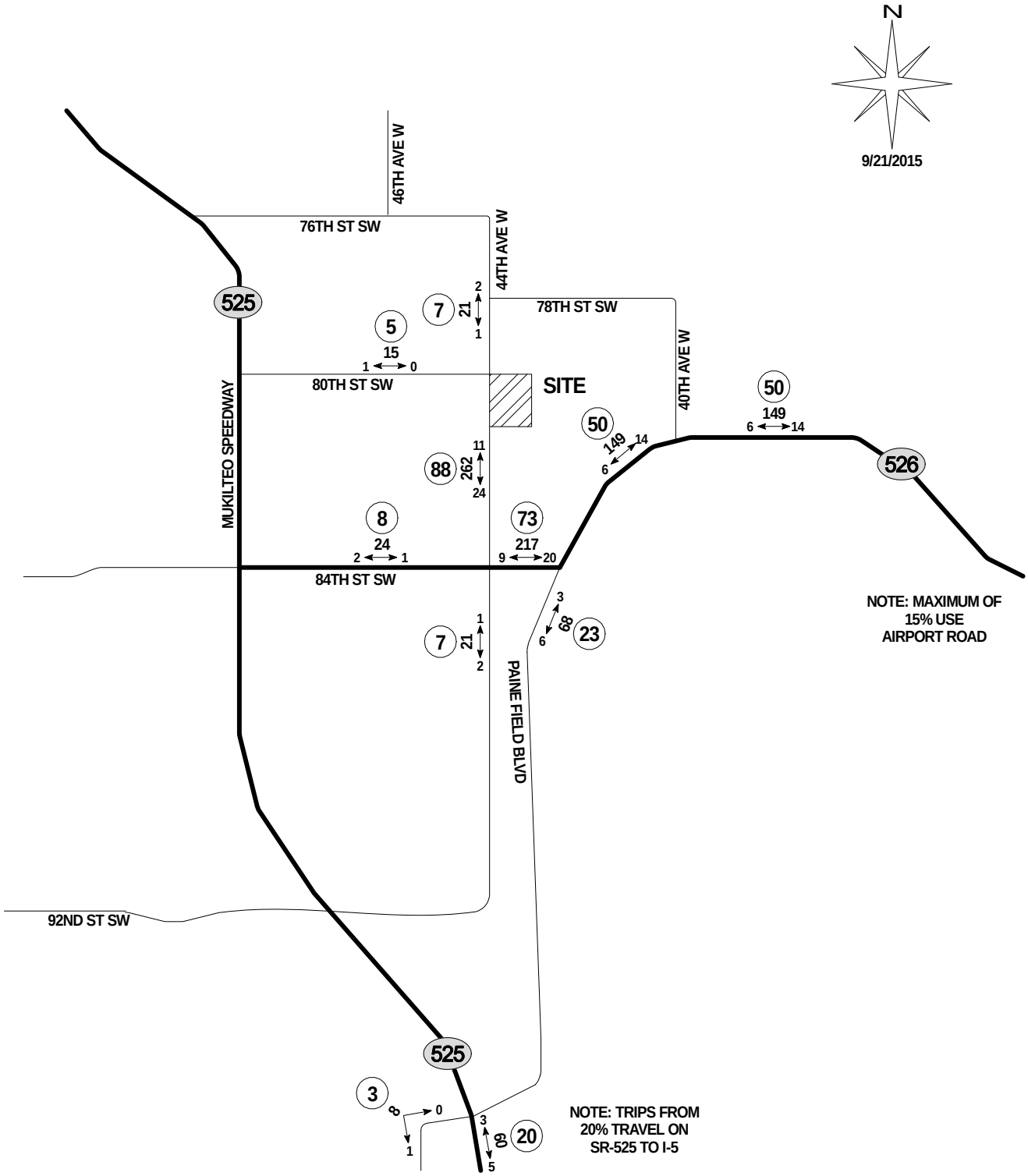
AWDT — NEW DAILY TRAFFIC

AM ↔ PEAK — NEW AM PEAK-HOUR TRIPS

25 — TRIP DISTRIBUTION %

FIGURE 2

DEVELOPMENT
TRIP DISTRIBUTION
AM PEAK-HOUR



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LEGEND

AWDT — NEW DAILY TRAFFIC

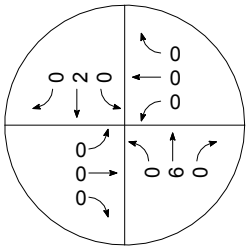
PM ⟷ PEAK — NEW PM PEAK-HOUR TRIPS

25 — TRIP DISTRIBUTION %

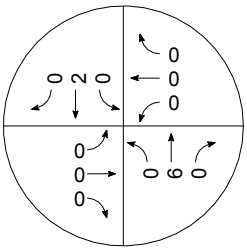
FIGURE 3

DEVELOPMENT
TRIP DISTRIBUTION
PM PEAK-HOUR

#260 SR-525 @ Beverly Park Rd



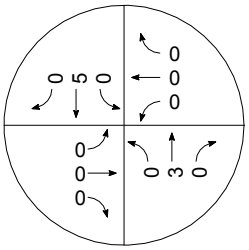
#505 SR-525 @ Lincoln Way



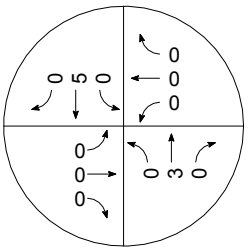
AM PEAK-HOUR

PM PEAK-HOUR

#260 SR-525 @ Beverly Park Rd



#505 SR-525 @ Lincoln Way



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XX → AM/PM PEAK-HOUR TURNING MOVEMENT VOLUMES

FIGURE 4

DEVELOPMENT KEY
INTERSECTION VOLUMES
AM & PM PEAK-HOURS

4. FUTURE CONDITIONS

4.1 2017 Baseline Volumes and Level of Service

The 2017 baseline turning movement volumes are derived by adding a 2% growth rate to the existing volumes from the counts at 80th Street SW at 44th Avenue W, 84th Street SW at 44th Avenue W and 84th Street SW at SR-526. The 2017 baseline PM peak-hour turning movement volumes are shown in Figure 4.

4.2 2017 Future with Development Volumes and Level of Service

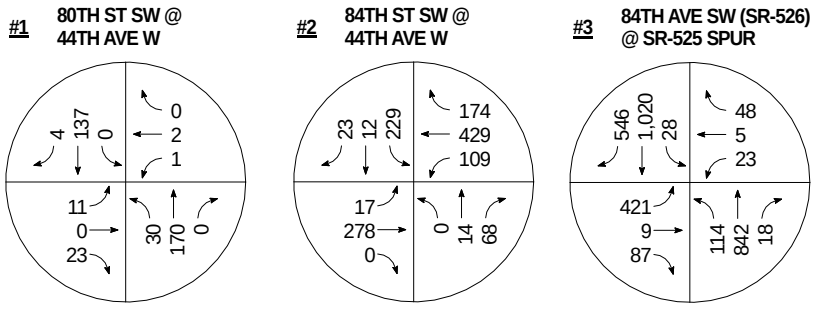
The 2017 future with development turning movement volumes are derived by adding development trips to the projected through volumes from the counts at 80th Street SW at 44th Avenue W, 84th Street SW at 44th Avenue W and 84th Street SW at SR-526. The 2017 future with development PM peak-hour turning movement volumes are shown in Figure 5. The 2017 baseline and future with development level of service analysis results at the study intersection have been summarized in **Table 6**.

Table 6: Intersection Level of Service Summary

Intersection	2015 Existing Conditions		2016 Baseline Conditions		2016 Future with Development Conditions	
	LOS	Delay	LOS	Delay	LOS	Delay
1. 80th Street SW @ 44th Avenue W	A	8.6 sec	A	8.7 sec	A	8.7 sec
2. 84th Street SW @ 44th Avenue W	A	9.1 sec	A	9.5 sec	B	10.0 sec
3. 84th Street SW @ SR-526	C	26.5 sec	C	27.4 sec	C	28.0 sec

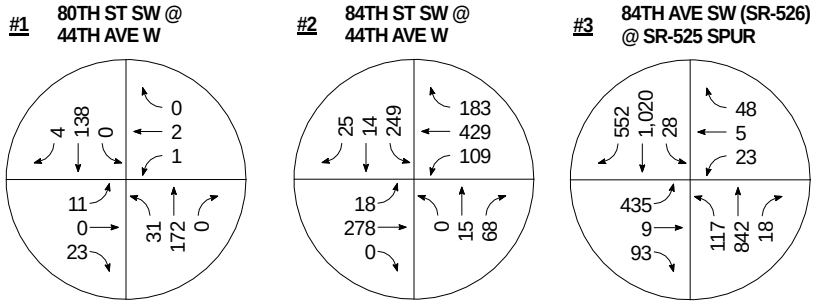
4.3 City of Mukilteo Sight Distance

The City of Mukilteo *Development Standards* requires the minimum sight distance to be equivalent to the current WSDOT highway design standards or as approved by Public Works Director. The *Development Standards* do identify a minimum sight distance for access to City streets which varies from 200 lineal feet for 20 mph to 400 lineal feet for 40 mph. This distance is measured from the assumed driver's eye height of 3.5 feet and the height of the object to be seen by the driver is 3.5 feet above the pavement. The distance back from the edge of traveled lane utilized in the sight distance measurement is 10 feet. To the north and south there is over 400 feet of sight distance. Therefore, the available sight distance meets the minimum City streets standard for 25 mph.



BASELINE

FUTURE WITH DEVELOPMENT



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LEGEND

XXX→ PM PEAK-HOUR TURNING MOVEMENT VOLUMES

FIGURE 5

2017 BASELINE AND FUTURE WITH DEVELOPMENT VOLUMES PM PEAK-HOUR

5. COLLISION ANALYSIS

According to WSDOT collision information for the past five years, January 1, 2012-August 3, 2015 (Present information), there have been no collisions within a tenth of a mile from the development's accesses to 44th Avenue W. There were a total of six collisions within 100 feet of SR-526 and 44th Avenue W (Milepost 0.32), with rear-end and entering at an angle collisions being the most common with two each. At the intersection of SR-526 and the SR-525 Spur (Mile Post 0.40), there were a total of 28 collisions, with rear-end being the most common collision type with 12 incidents. A detailed breakdown of the accidents is shown in **Table 7**.

Table 7: Collision Data Summary

Intersection	Collision Type							Total Collisions
	Rear-end	Entering at Angle	Opp. Dir.	Sideswipe	Same Dir. Other	Ped./Cyclist Involved	Fixed Object	
80th St SW @ 44th Ave W	0	0	0	0	0	0	0	0
84th St SW (SR-526) @ 44th Ave W	2	2	0	1	1	0	0	6
84th St SW (SR-526) @ SR-525	12	4	4	4	2	0	2	28

6. TRAFFIC MITIGATION

6.1 City of Mukilteo

The City of Mukilteo has established an area wide traffic mitigation fee of $1,875 per new PM peak-hour trip generated by developments. The proposed manufacturing and warehouse development will generate a total of 39.59 new PM peak-hour trips. Therefore, the mitigation fee to the City of Mukilteo will be **$74,231.25**. As 44th Avenue W is part of the cost fee basis for the traffic mitigation fees, credit for the cost of the frontage improvements should be applied to the City of Mukilteo traffic mitigation fees.

6.2 Snohomish County

Based on the interlocal agreement between Snohomish County and the City of Mukilteo, Snohomish County may request traffic mitigation measures from any new developments in the City of Mukilteo to mitigate its impact to the county roadways. The mitigation can be based on a standard rate or from a specific rate identified in a TIA. Since the development will impact two Snohomish County key intersections with 3 or more directional trips, the development will be required to pay mitigation fees to Snohomish County. There will be a potential impact of 35% to Snohomish County projects (20% on SR-525 and 15% on Airport Road). The fee for TSA D, commercial is $227 per ADT for 35% of the development's ADT. Since Pacific Seafood development has 297.78 ADT the mitigation fee to Snohomish County will be $**23,658.62**.

6.3 Washington State Department of Transportation

No collection projects on the Snohomish County Exhibit C list is impacted with 3 directional peak-hour trips; therefore, no mitigation is warranted.

6.4 Summary of Traffic Mitigation Fees

The Pacific Seafood will generate 297.78 new daily trips and 39.59 PM peak-hour trips. The traffic mitigation fee to be paid by the development is **$97,889.87** before credit for the frontage improvements to 44th Avenue W.

Trip Generation

Pacific Seafood
GTC #15-106

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
Manufacturing	33.548 ksf	140	3.82	50%	50%	128.15	0%	0.00	128.15	0%	0.00	0%	0.00	128.15	0.00	0.00	0.00	0.00	64.08	64.07
Warehousing	50.322 ksf	150	3.56	50%	50%	179.15	0%	0.00	179.15	0%	0.00	0%	0.00	179.15	0.00	0.00	0.00	0.00	89.58	89.57
Single-Family Dwelling (Removed)	-1 Unit	210	9.52	50%	50%	-9.52	0%	0.00	-9.52	0%	0.00	0%	0.00	-9.52	0.00	0.00	0.00	0.00	-4.76	-4.76
Totals						297.78		0.00	297.78		0.00		0.00	297.78	0.00	0.00	0.00	0.00	148.90	148.88

Pacific Seafood
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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
Manufacturing	33.548 ksf	140	0.73	78%	22%	24.49	0%	0.00	24.49	0%	0.00	0%	0.00	24.49	0.00	0.00	0.00	0.00	19.10	5.39
Warehousing	50.322 ksf	150	0.30	79%	21%	15.10	0%	0.00	15.10	0%	0.00	0%	0.00	15.10	0.00	0.00	0.00	0.00	11.93	3.17
Single-Family Dwelling (Removed)	-1 Unit	210	0.75	25%	75%	-0.75	0%	0.00	-0.75	0%	0.00	0%	0.00	-0.75	0.00	0.00	0.00	0.00	-0.19	-0.56
Totals						38.84		0.00	38.84		0.00		0.00	38.84	0.00	0.00	0.00	0.00	30.84	8.00

Pacific Seafood
GTC #15-106

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
Manufacturing	33.548 ksf	140	0.73	36%	64%	24.49	0%	0.00	24.49	0%	0.00	0%	0.00	24.49	0.00	0.00	0.00	0.00	8.82	15.67
Warehousing	50.322 ksf	150	0.32	25%	75%	16.10	0%	0.00	16.10	0%	0.00	0%	0.00	16.10	0.00	0.00	0.00	0.00	4.03	12.07
Single-Family Dwelling (Removed)	-1 Unit	210	1.00	63%	37%	-1.00	0%	0.00	-1.00	0%	0.00	0%	0.00	-1.00	0.00	0.00	0.00	0.00	-0.63	-0.37
Totals						39.59		0.00	39.59		0.00		0.00	39.59	0.00	0.00	0.00	0.00	12.22	27.37

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AM Peak-Hour

%	New ADT	New AM Peak Hour Trips		
		In	Out	Total
100%	298	31	8	39
1%	2.98	0.31	0.08	0.39
2%	5.96	0.62	0.16	0.78
3%	8.93	0.93	0.24	1.17
4%	11.91	1.23	0.32	1.55
5%	**14.89**	**1.54**	**0.40**	**1.94**
6%	17.87	1.85	0.48	2.33
7%	20.84	2.16	0.56	2.72
8%	23.82	2.47	0.64	3.11
9%	26.80	2.78	0.72	3.50
10%	**29.78**	**3.08**	**0.80**	**3.88**
11%	32.76	3.39	0.88	4.27
12%	35.73	3.70	0.96	4.66
13%	38.71	4.01	1.04	5.05
14%	41.69	4.32	1.12	5.44
15%	**44.67**	**4.63**	**1.20**	**5.83**
16%	47.64	4.93	1.28	6.21
17%	50.62	5.24	1.36	6.60
18%	53.60	5.55	1.44	6.99
19%	56.58	5.86	1.52	7.38
20%	**59.56**	**6.17**	**1.60**	**7.77**
21%	62.53	6.48	1.68	8.16
22%	65.51	6.78	1.76	8.54
23%	68.49	7.09	1.84	8.93
24%	71.47	7.40	1.92	9.32
25%	**74.45**	**7.71**	**2.00**	**9.71**
26%	77.42	8.02	2.08	10.10
27%	80.40	8.33	2.16	10.49
28%	83.38	8.64	2.24	10.88
29%	86.36	8.94	2.32	11.26
30%	**89.33**	**9.25**	**2.40**	**11.65**
31%	92.31	9.56	2.48	12.04
32%	95.29	9.87	2.56	12.43
33%	98.27	10.18	2.64	12.82
34%	101.25	10.49	2.72	13.21
35%	**104.22**	**10.79**	**2.80**	**13.59**
36%	107.20	11.10	2.88	13.98
37%	110.18	11.41	2.96	14.37
38%	113.16	11.72	3.04	14.76
39%	116.13	12.03	3.12	15.15
40%	**119.11**	**12.34**	**3.20**	**15.54**
41%	122.09	12.64	3.28	15.92
42%	125.07	12.95	3.36	16.31
43%	128.05	13.26	3.44	16.70
44%	131.02	13.57	3.52	17.09
45%	**134.00**	**13.88**	**3.60**	**17.48**
46%	136.98	14.19	3.68	17.87
47%	139.96	14.49	3.76	18.25
48%	142.93	14.80	3.84	18.64
49%	145.91	15.11	3.92	19.03
50%	**148.89**	**15.42**	**4.00**	**19.42**

%	New ADT	New AM Peak Hour Trips		
		In	Out	Total
100%	298	31	8	39
51%	151.87	15.73	4.08	19.81
52%	154.85	16.04	4.16	20.20
53%	157.82	16.35	4.24	20.59
54%	160.80	16.65	4.32	20.97
55%	**163.78**	**16.96**	**4.40**	**21.36**
56%	166.76	17.27	4.48	21.75
57%	169.73	17.58	4.56	22.14
58%	172.71	17.89	4.64	22.53
59%	175.69	18.20	4.72	22.92
60%	**178.67**	**18.50**	**4.80**	**23.30**
61%	181.65	18.81	4.88	23.69
62%	184.62	19.12	4.96	24.08
63%	187.60	19.43	5.04	24.47
64%	190.58	19.74	5.12	24.86
65%	**193.56**	**20.05**	**5.20**	**25.25**
66%	196.53	20.35	5.28	25.63
67%	199.51	20.66	5.36	26.02
68%	202.49	20.97	5.44	26.41
69%	205.47	21.28	5.52	26.80
70%	**208.45**	**21.59**	**5.60**	**27.19**
71%	211.42	21.90	5.68	27.58
72%	214.40	22.20	5.76	27.96
73%	217.38	22.51	5.84	28.35
74%	220.36	22.82	5.92	28.74
75%	**223.34**	**23.13**	**6.00**	**29.13**
76%	226.31	23.44	6.08	29.52
77%	229.29	23.75	6.16	29.91
78%	232.27	24.06	6.24	30.30
79%	235.25	24.36	6.32	30.68
80%	**238.22**	**24.67**	**6.40**	**31.07**
81%	241.20	24.98	6.48	31.46
82%	244.18	25.29	6.56	31.85
83%	247.16	25.60	6.64	32.24
84%	250.14	25.91	6.72	32.63
85%	**253.11**	**26.21**	**6.80**	**33.01**
86%	256.09	26.52	6.88	33.40
87%	259.07	26.83	6.96	33.79
88%	262.05	27.14	7.04	34.18
89%	265.02	27.45	7.12	34.57
90%	**268.00**	**27.76**	**7.20**	**34.96**
91%	270.98	28.06	7.28	35.34
92%	273.96	28.37	7.36	35.73
93%	276.94	28.68	7.44	36.12
94%	279.91	28.99	7.52	36.51
95%	**282.89**	**29.30**	**7.60**	**36.90**
96%	285.87	29.61	7.68	37.29
97%	288.85	29.91	7.76	37.67
98%	291.82	30.22	7.84	38.06
99%	294.80	30.53	7.92	38.45
100%	**297.78**	**30.84**	**8.00**	**38.84**

Pacific Seafood
GTC #15-106

PM Peak-Hour

%	New ADT	New PM Peak Hour Trips		
		In	Out	Total
100%	298	12	27	39.6
1%	2.98	0.12	0.27	0.40
2%	5.96	0.24	0.55	0.79
3%	8.93	0.37	0.82	1.19
4%	11.91	0.49	1.09	1.58
5%	**14.89**	**0.61**	**1.37**	**1.98**
6%	17.87	0.73	1.64	2.38
7%	20.84	0.86	1.92	2.77
8%	23.82	0.98	2.19	3.17
9%	26.80	1.10	2.46	3.56
10%	**29.78**	**1.22**	**2.74**	**3.96**
11%	32.76	1.34	3.01	4.35
12%	35.73	1.47	3.28	4.75
13%	38.71	1.59	3.56	5.15
14%	41.69	1.71	3.83	5.54
15%	**44.67**	**1.83**	**4.11**	**5.94**
16%	47.64	1.96	4.38	6.33
17%	50.62	2.08	4.65	6.73
18%	53.60	2.20	4.93	7.13
19%	56.58	2.32	5.20	7.52
20%	**59.56**	**2.44**	**5.47**	**7.92**
21%	62.53	2.57	5.75	8.31
22%	65.51	2.69	6.02	8.71
23%	68.49	2.81	6.30	9.11
24%	71.47	2.93	6.57	9.50
25%	**74.45**	**3.06**	**6.84**	**9.90**
26%	77.42	3.18	7.12	10.29
27%	80.40	3.30	7.39	10.69
28%	83.38	3.42	7.66	11.09
29%	86.36	3.54	7.94	11.48
30%	**89.33**	**3.67**	**8.21**	**11.88**
31%	92.31	3.79	8.48	12.27
32%	95.29	3.91	8.76	12.67
33%	98.27	4.03	9.03	13.06
34%	101.25	4.15	9.31	13.46
35%	**104.22**	**4.28**	**9.58**	**13.86**
36%	107.20	4.40	9.85	14.25
37%	110.18	4.52	10.13	14.65
38%	113.16	4.64	10.40	15.04
39%	116.13	4.77	10.67	15.44
40%	**119.11**	**4.89**	**10.95**	**15.84**
41%	122.09	5.01	11.22	16.23
42%	125.07	5.13	11.50	16.63
43%	128.05	5.25	11.77	17.02
44%	131.02	5.38	12.04	17.42
45%	**134.00**	**5.50**	**12.32**	**17.82**
46%	136.98	5.62	12.59	18.21
47%	139.96	5.74	12.86	18.61
48%	142.93	5.87	13.14	19.00
49%	145.91	5.99	13.41	19.40
50%	**148.89**	**6.11**	**13.69**	**19.80**

%	New ADT	New PM Peak Hour Trips		
		In	Out	Total
100%	298	12	27	39.6
51%	151.87	6.23	13.96	20.19
52%	154.85	6.35	14.23	20.59
53%	157.82	6.48	14.51	20.98
54%	160.80	6.60	14.78	21.38
55%	**163.78**	**6.72**	**15.05**	**21.77**
56%	166.76	6.84	15.33	22.17
57%	169.73	6.97	15.60	22.57
58%	172.71	7.09	15.87	22.96
59%	175.69	7.21	16.15	23.36
60%	**178.67**	**7.33**	**16.42**	**23.75**
61%	181.65	7.45	16.70	24.15
62%	184.62	7.58	16.97	24.55
63%	187.60	7.70	17.24	24.94
64%	190.58	7.82	17.52	25.34
65%	**193.56**	**7.94**	**17.79**	**25.73**
66%	196.53	8.07	18.06	26.13
67%	199.51	8.19	18.34	26.53
68%	202.49	8.31	18.61	26.92
69%	205.47	8.43	18.89	27.32
70%	**208.45**	**8.55**	**19.16**	**27.71**
71%	211.42	8.68	19.43	28.11
72%	214.40	8.80	19.71	28.50
73%	217.38	8.92	19.98	28.90
74%	220.36	9.04	20.25	29.30
75%	**223.34**	**9.17**	**20.53**	**29.69**
76%	226.31	9.29	20.80	30.09
77%	229.29	9.41	21.07	30.48
78%	232.27	9.53	21.35	30.88
79%	235.25	9.65	21.62	31.28
80%	**238.22**	**9.78**	**21.90**	**31.67**
81%	241.20	9.90	22.17	32.07
82%	244.18	10.02	22.44	32.46
83%	247.16	10.14	22.72	32.86
84%	250.14	10.26	22.99	33.26
85%	**253.11**	**10.39**	**23.26**	**33.65**
86%	256.09	10.51	23.54	34.05
87%	259.07	10.63	23.81	34.44
88%	262.05	10.75	24.09	34.84
89%	265.02	10.88	24.36	35.24
90%	**268.00**	**11.00**	**24.63**	**35.63**
91%	270.98	11.12	24.91	36.03
92%	273.96	11.24	25.18	36.42
93%	276.94	11.36	25.45	36.82
94%	279.91	11.49	25.73	37.21
95%	**282.89**	**11.61**	**26.00**	**37.61**
96%	285.87	11.73	26.28	38.01
97%	288.85	11.85	26.55	38.40
98%	291.82	11.98	26.82	38.80
99%	294.80	12.10	27.10	39.19
100%	**297.78**	**12.22**	**27.37**	**39.59**

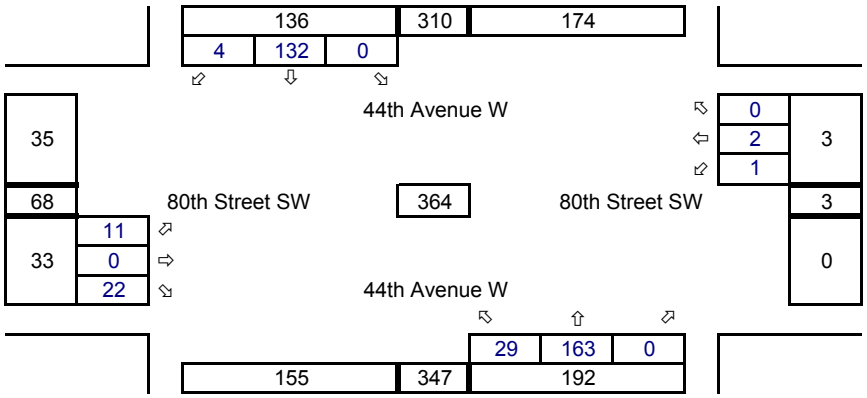
Turning Movements

Synchro ID: 1

Existing
Average Weekday
PM Peak Hour

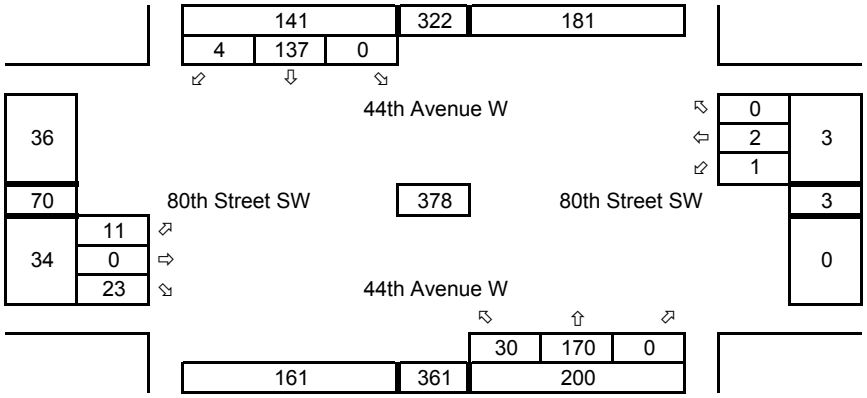
Year: **6/6/15**

Data Source: Co. Name

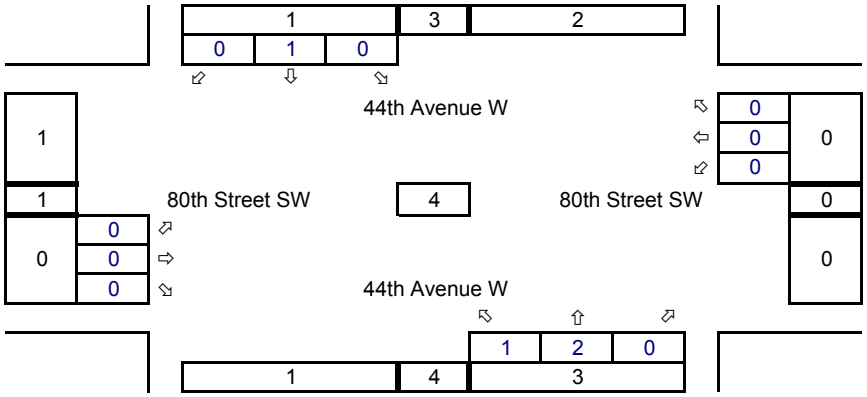


Future without Project
Average Weekday
PM Peak Hour

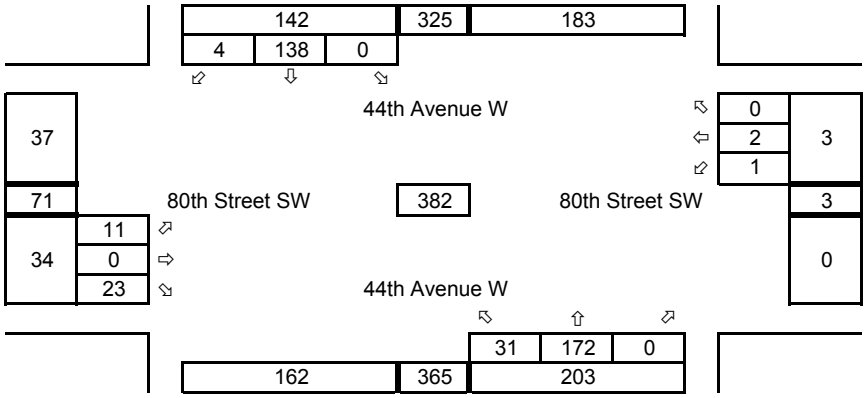
Year: 2017
Growth Rate = 2.0%
Years of Growth = 2
Total Growth = 1.0404



Total Project Trips
Average Weekday
PM Peak Hour



Future with Project
Average Weekday
PM Peak Hour

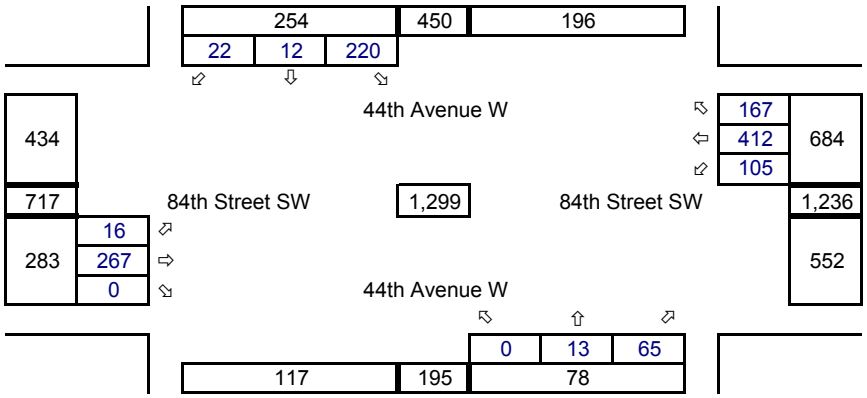


Synchro ID: 2

Existing
Average Weekday
PM Peak Hour

Year: **6/6/15**

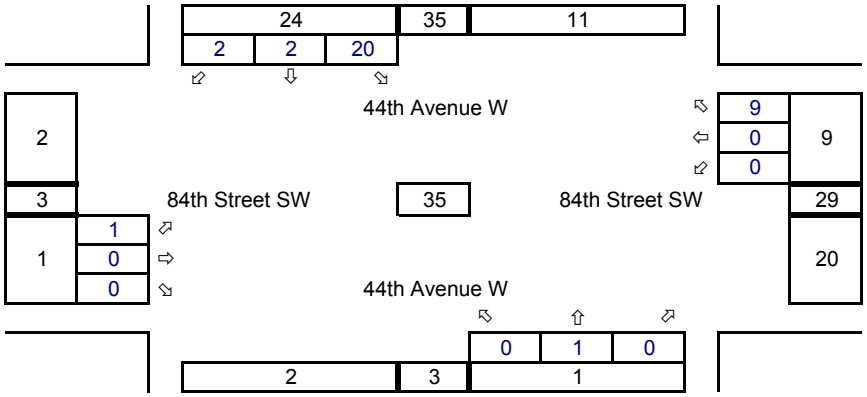
Data Source: Co. Name



Future without Project
Average Weekday
PM Peak Hour

Year: 2017
Growth Rate = 2.0%
Years of Growth = 2
Total Growth = 1.0404

Total Project Trips
Average Weekday
PM Peak Hour



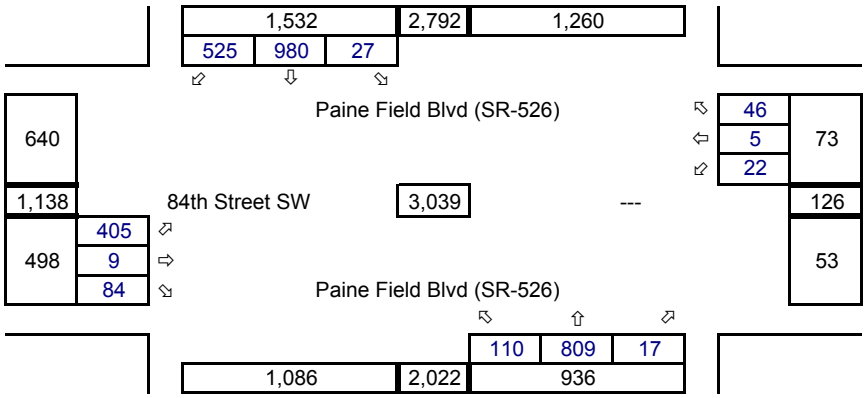
Future with Project
Average Weekday
PM Peak Hour

Synchro ID: 3

Existing
Average Weekday
PM Peak Hour

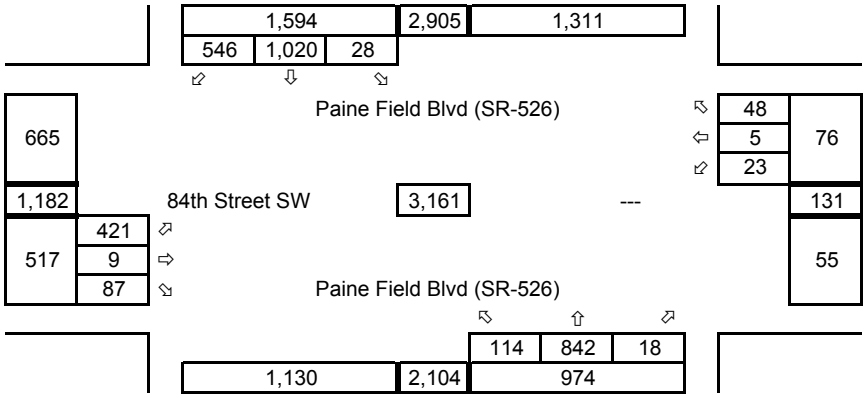
Year: **6/6/15**

Data Source: Co. Name

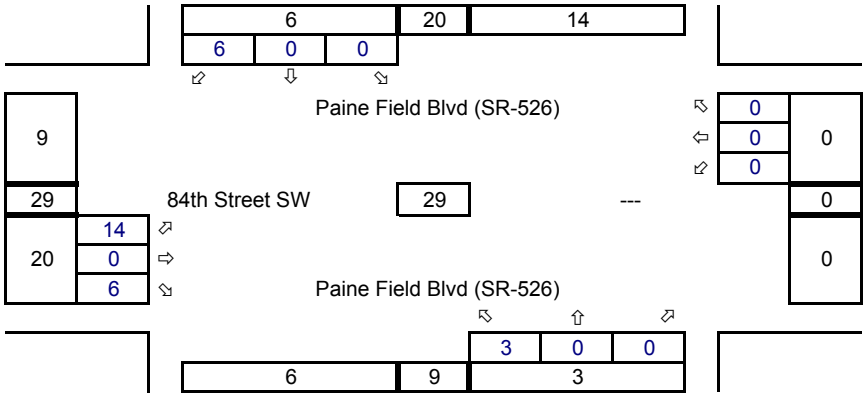


Future without Project
Average Weekday
PM Peak Hour

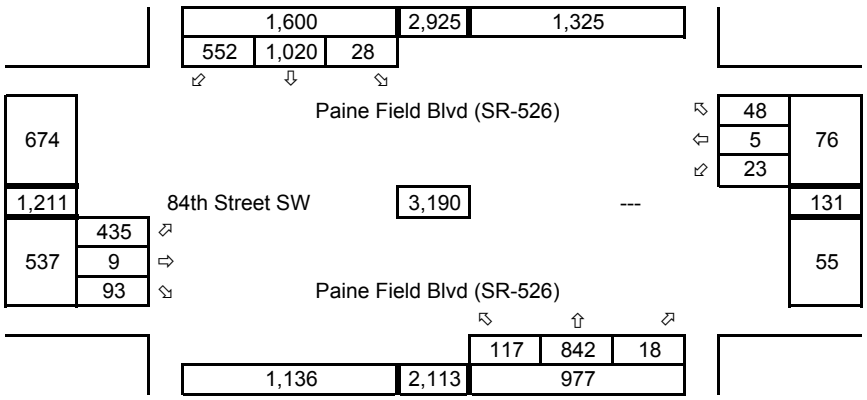
Year: 2017
Growth Rate = 2.0%
Years of Growth = 2
Total Growth = 1.0404



Total Project Trips
Average Weekday
PM Peak Hour



Future with Project
Average Weekday
PM Peak Hour

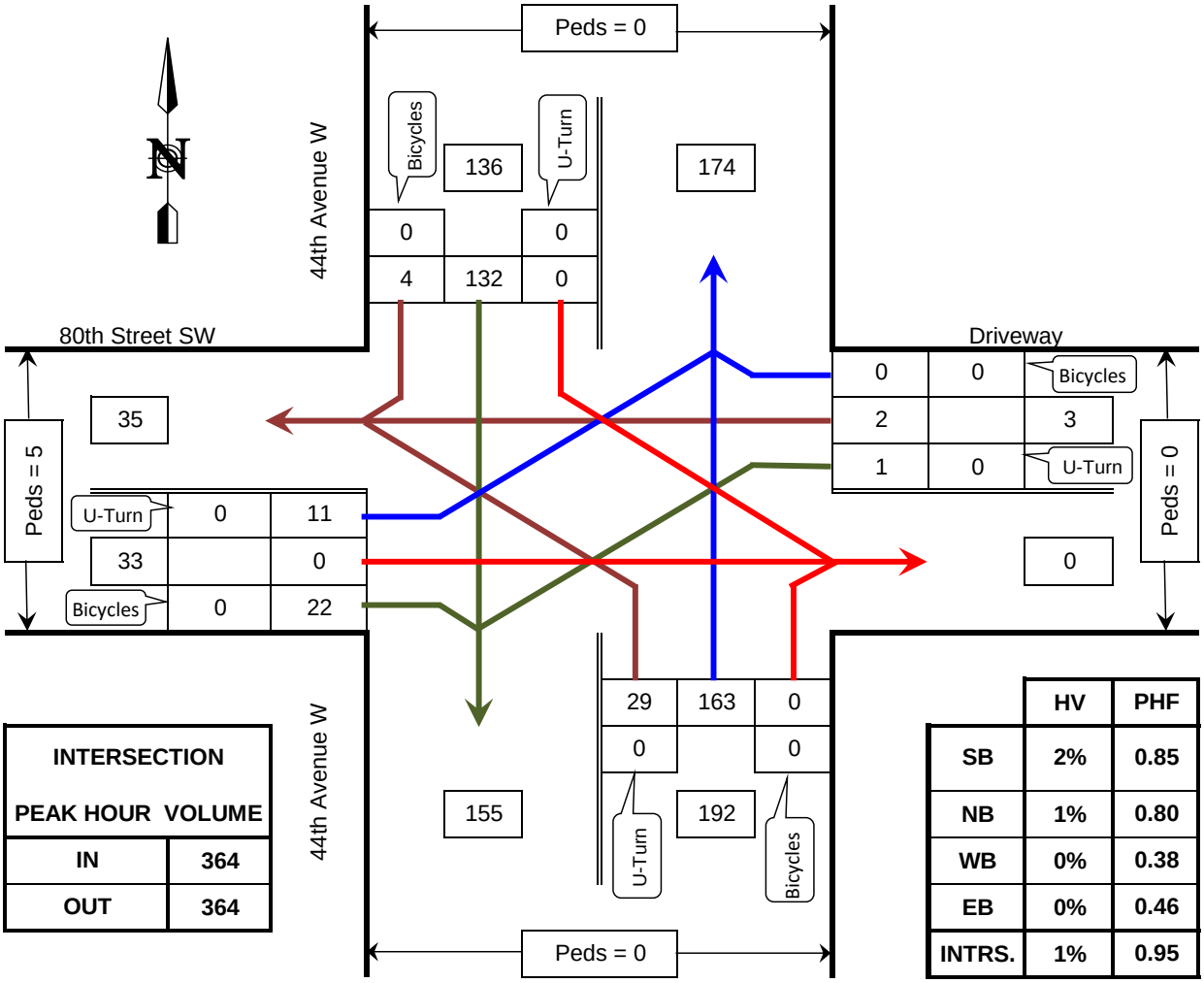


Counts

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

4:00 PM - 6:00 PM PEAK HOUR: 4:30 PM TO 5:30 PM



INTERSECTION PEAK HOUR VOLUME	
IN	364
OUT	364

	HV	PHF
SB	2%	0.85
NB	1%	0.80
WB	0%	0.38
EB	0%	0.46
INTRS.	1%	0.95

PHF = Peak Hour Factor
HV = Heavy Vehicle

80th Street SW @ 44th Avenue W

Mukilteo, WA

COUNTED BY: SF

DATE OF COUNT: Wed. 9/9/15

REDUCED BY: CN

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

REDUCTION DATE: Wed. 9/9/15

WEATHER: Sunny

TRAFFIC DATA GATHERING

LOCATION: 80th Street SW @ 44th Avenue W
Mukilteo, WA

DATE OF COUNT: Wed. 9/9/15
TIME OF COUNT: 4:00 PM - 6:00 PM

COUNTED BY: SF
WEATHER: Sunny

TIME INTERVAL ENDING AT	FROM NORTH ON 44th Avenue W							FROM SOUTH ON 44th Avenue W							FROM EAST ON Driveway							FROM WEST ON 80th Street SW							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	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	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	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	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	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	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	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	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	0	0	0	0
04:15 PM	0	1	1	0	1	44	0	0	0	0	0	5	30	0	0	0	0	0	4	0	0	0	0	0	0	3	0	3	90
04:30 PM	0	2	2	0	0	33	1	0	0	1	0	5	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	66
04:45 PM	0	1	2	0	0	39	1	0	0	0	0	5	32	0	0	0	0	0	1	0	0	2	0	0	0	5	0	13	96
05:00 PM	0	1	0	0	0	27	0	0	2	0	0	13	47	0	0	0	0	0	0	2	0	2	0	0	0	2	0	2	93
05:15 PM	0	0	0	0	0	28	2	0	1	1	0	9	45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	3	89
05:30 PM	0	0	1	0	0	38	1	0	0	0	0	2	39	0	0	0	0	0	0	0	0	1	0	0	0	2	0	4	86
05:45 PM	0	0	2	0	0	33	1	0	1	0	0	8	29	1	0	0	0	0	1	0	0	0	0	1	0	0	0	13	86
06:00 PM	0	0	1	0	0	30	1	0	3	1	0	5	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	65
PEAK HOUR TOTALS	0	2	3	0	0	132	4	0	3	1	0	29	163	0	0	0	0	0	1	2	0	5	0	0	0	11	0	22	INTERSECTION
ALL MOVEMENTS				136							192							3							33				364
% HV			2%							1%							0%							0%					0% , 1%
PEAK HOUR FACTOR				0.85							0.80							0.38							0.46				0.95

HV = Heavy Vehicle
PHF = Peak Hour Factor

4:00 PM - 6:00 PM PEAK HOUR: 4:30 PM TO 5:30 PM

REDUCED BY: CN

DATE OF REDUCTION: 9/9/2015

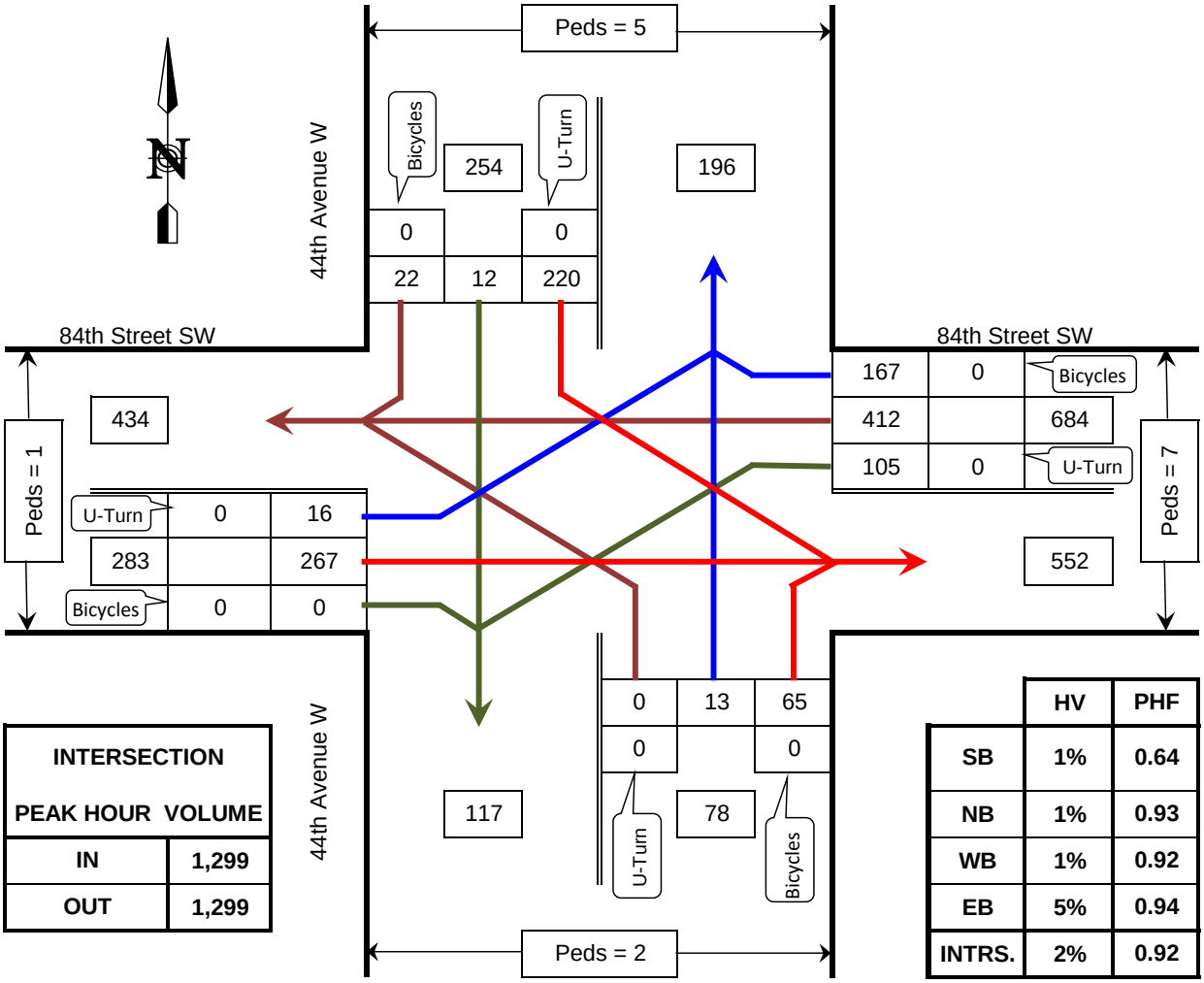
ROLLING HOUR COUNT

	FROM NORTH ON 44th Avenue W							FROM SOUTH ON 44th Avenue W							FROM EAST ON Driveway							FROM WEST ON 80th Street SW							INTERVAL TOTALS
TIME INTERVAL	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
2:00 PM - 3:00 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	0	0	0	0
2:15 PM - 3:15 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	0	0	0	0
2:30 PM - 3:30 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	0	0	0	0
2:45 PM - 3:45 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	0	0	0	0
3:00 PM - 4:00 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	0	0	0	0
3:15 PM - 4:15 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	0	0	0	0
3:30 PM - 4:30 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	0	0	0	0
3:45 PM - 4:45 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	0	0	0	0
4:00 PM - 5:00 PM	0	5	5	0	1	143	2	0	2	1	0	28	130	0	0	0	0	0	5	2	0	4	0	0	0	10	0	24	345
4:15 PM - 5:15 PM	0	4	4	0	0	127	4	0	3	2	0	32	145	0	0	0	0	0	1	2	0	4	0	0	0	9	0	24	344
4:30 PM - 5:30 PM	0	2	3	0	0	132	4	0	3	1	0	29	163	0	0	0	0	0	1	2	0	5	0	0	0	11	0	22	364
4:45 PM - 5:45 PM	0	1	3	0	0	126	4	0	4	1	0	32	160	1	0	0	0	0	1	2	0	3	0	1	0	6	0	22	354
5:00 PM - 6:00 PM	0	0	4	0	0	129	5	0	5	2	0	24	140	1	0	0	0	0	1	0	0	1	0	1	0	4	0	22	326

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

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



INTERSECTION PEAK HOUR VOLUME	
IN	1,299
OUT	1,299

	HV	PHF
SB	1%	0.64
NB	1%	0.93
WB	1%	0.92
EB	5%	0.94
INTRS.	2%	0.92

PHF = Peak Hour Factor
HV = Heavy Vehicle

84th Street SW @ 44th Avenue W

Mukilteo, WA

COUNTED BY: SF

REDUCED BY: CN

REDUCTION DATE: Thu. 9/10/15

DATE OF COUNT: Thu. 9/10/15

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

WEATHER: Sunny

TRAFFIC DATA GATHERING

LOCATION: 84th Street SW @ 44th Avenue W
Mukilteo, WA

DATE OF COUNT: Thu. 9/10/15
TIME OF COUNT: 4:00 PM - 6:00 PM

COUNTED BY: SF
WEATHER: Sunny

TIME INTERVAL ENDING AT	FROM NORTH ON 44th Avenue W							FROM SOUTH ON 44th Avenue W							FROM EAST ON 84th Street SW							FROM WEST ON 84th Street SW							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	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	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	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	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	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	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	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	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	0	0	0	0
04:15 PM	5	0	0	0	55	4	5	0	1	2	0	1	4	17	0	0	1	0	16	113	31	0	1	4	0	3	71	0	320
04:30 PM	0	0	3	0	40	3	4	2	1	0	0	1	0	14	1	0	0	0	21	98	31	2	0	1	0	4	85	0	301
04:45 PM	0	2	1	0	46	0	3	0	1	0	0	2	1	17	0	0	1	0	20	126	36	0	0	3	0	6	58	1	316
05:00 PM	0	0	3	0	39	6	3	0	0	2	0	1	4	16	1	0	2	0	17	105	30	0	1	4	0	2	69	0	292
05:15 PM	2	1	1	0	62	2	6	1	2	0	0	0	3	17	1	1	4	0	26	126	34	1	0	3	0	0	68	0	344
05:30 PM	1	0	0	0	35	4	2	1	0	1	0	0	6	15	3	0	3	0	31	102	53	0	0	3	0	4	71	0	323
05:45 PM	1	2	0	0	33	4	6	0	0	0	0	0	1	15	1	0	0	0	31	80	36	0	0	5	0	4	70	0	280
06:00 PM	1	0	1	0	90	2	8	0	0	0	0	0	3	18	2	0	1	0	17	104	44	0	0	2	0	8	58	0	352
PEAK HOUR TOTALS	5	3	2	0	220	12	22	2	2	1	0	0	13	65	7	1	8	0	105	412	167	1	0	13	0	16	267	0	INTERSECTION
ALL MOVEMENTS				254							78							684							283			1299
% HV			1%							1%							1%							5%				0% , 2%
PEAK HOUR FACTOR				0.64							0.93							0.92							0.94			0.92

HV = Heavy Vehicle
PHF = Peak Hour Factor

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

REDUCED BY: CN

DATE OF REDUCTION: 9/10/2015

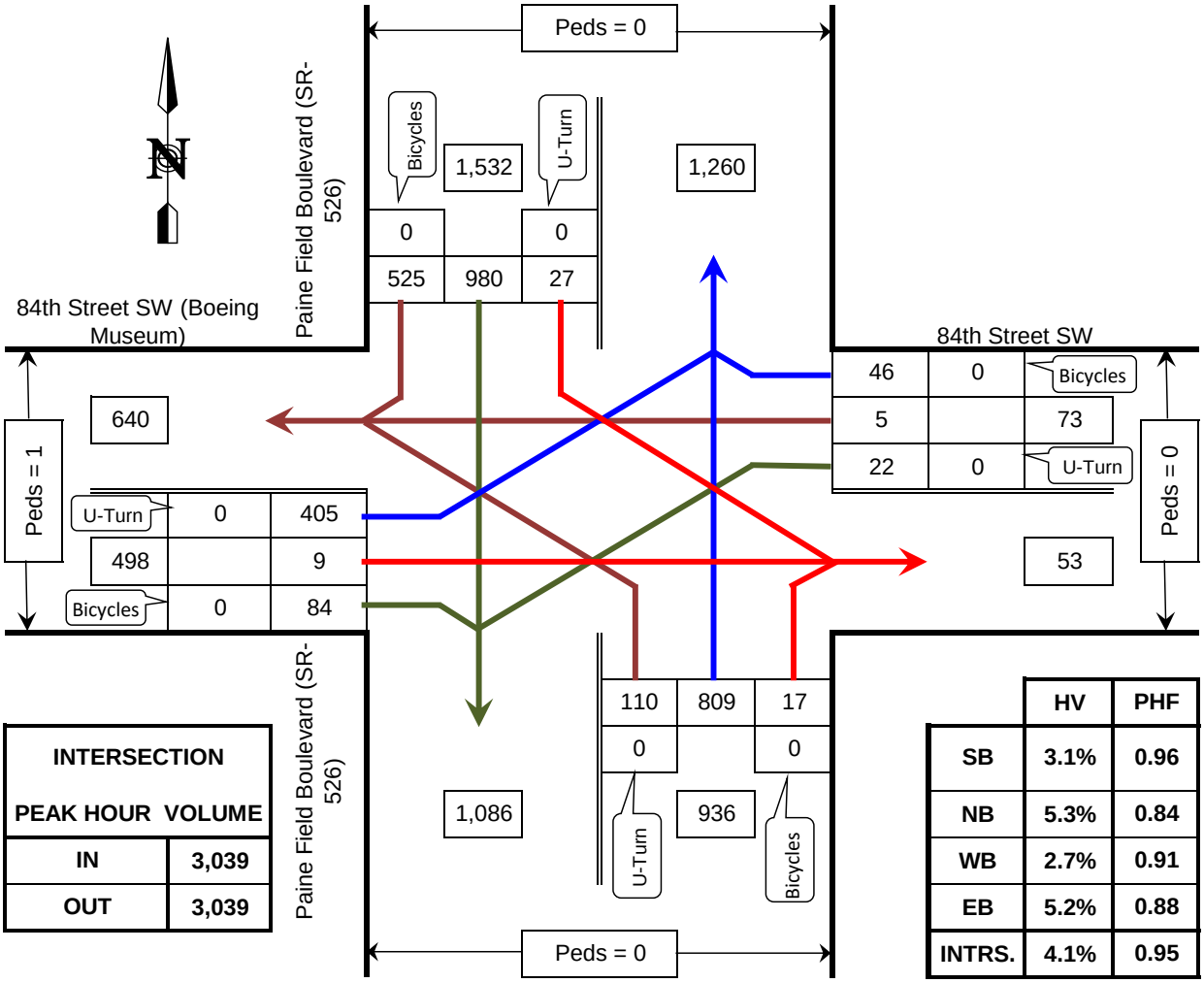
ROLLING HOUR COUNT

	FROM NORTH ON 44th Avenue W							FROM SOUTH ON 44th Avenue W							FROM EAST ON 84th Street SW							FROM WEST ON 84th Street SW							INTERVAL TOTALS
TIME INTERVAL	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
2:00 PM - 3:00 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	0	0	0	0
2:15 PM - 3:15 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	0	0	0	0
2:30 PM - 3:30 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	0	0	0	0
2:45 PM - 3:45 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	0	0	0	0
3:00 PM - 4:00 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	0	0	0	0
3:15 PM - 4:15 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	0	0	0	0
3:30 PM - 4:30 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	0	0	0	0
3:45 PM - 4:45 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	0	0	0	0
4:00 PM - 5:00 PM	5	2	7	0	180	13	15	2	3	4	0	5	9	64	2	0	4	0	74	442	128	2	2	12	0	15	283	1	1229
4:15 PM - 5:15 PM	2	3	8	0	187	11	16	3	4	2	0	4	8	64	3	1	7	0	84	455	131	3	1	11	0	12	280	1	1253
4:30 PM - 5:30 PM	3	3	5	0	182	12	14	2	3	3	0	3	14	65	5	1	10	0	94	459	153	1	1	13	0	12	266	1	1275
4:45 PM - 5:45 PM	4	3	4	0	169	16	17	2	2	3	0	1	14	63	6	1	9	0	105	413	153	1	1	15	0	10	278	0	1239
5:00 PM - 6:00 PM	5	3	2	0	220	12	22	2	2	1	0	0	13	65	7	1	8	0	105	412	167	1	0	13	0	16	267	0	1299

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

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



INTERSECTION PEAK HOUR VOLUME	
IN	3,039
OUT	3,039

	HV	PHF
SB	3.1%	0.96
NB	5.3%	0.84
WB	2.7%	0.91
EB	5.2%	0.88
INTRS.	4.1%	0.95

PHF = Peak Hour Factor
HV = Heavy Vehicle

84th Street SW @ Paine Field Boulevard (SR-526)

Everett, WA

COUNTED BY:	CN/SN	DATE OF COUNT:	Thu. 9/10/15
REDUCED BY:	CN	TIME OF COUNT:	4:00 PM - 6:00 PM
REDUCTION DATE:	Fri. 9/11/15	WEATHER:	Sunny

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: 84th Street SW @ Paine Field Boulevard (SR-526)
Everett, WA

DATE OF COUNT: Thu. 9/10/15
TIME OF COUNT: 4:00 PM - 6:00 PM

COUNTED BY: CN/SN
WEATHER: Sunny

TIME INTERVAL ENDING AT	FROM NORTH ON Paine Field Boulevard (SR-526)							FROM SOUTH ON Paine Field Boulevard (SR-526)							FROM EAST ON 84th Street SW							FROM WEST ON 84th Street SW (Boeing Museum)							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	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	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	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	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	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	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	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	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	0	0	0	0
04:15 PM	0	0	13	0	0	257	141	0	0	17	0	13	184	4	0	0	0	0	4	0	13	1	0	4	0	103	4	21	744
04:30 PM	0	0	14	0	6	253	134	0	0	18	0	28	198	6	0	0	0	0	5	1	12	0	0	7	0	119	3	20	785
04:45 PM	0	0	10	0	14	234	134	0	0	7	0	43	232	4	0	0	2	0	7	2	9	0	0	4	0	92	0	25	796
05:00 PM	0	0	11	0	7	236	116	0	1	8	0	26	195	3	0	0	0	0	6	2	12	0	0	11	0	91	2	18	714
05:15 PM	1	1	5	0	7	210	132	0	0	7	0	35	161	2	0	0	0	0	8	7	6	0	0	5	0	97	3	36	704
05:30 PM	2	0	7	0	7	248	98	0	0	7	1	45	265	1	0	0	1	0	11	8	10	0	0	3	0	100	4	22	820
05:45 PM	0	0	5	1	2	166	135	0	0	4	0	36	164	0	0	0	0	0	5	0	4	0	0	5	0	92	0	22	627
06:00 PM	0	0	3	0	1	144	117	0	0	6	0	39	144	3	0	0	1	0	3	4	2	0	0	1	0	79	2	22	560
PEAK HOUR TOTALS	0	0	48	0	27	980	525	0	1	50	0	110	809	17	0	0	2	0	22	5	46	1	0	26	0	405	9	84	INTERSECTION
ALL MOVEMENTS				1532							936							73							498				3039
% HV			3.1%							5.3%							2.7%							5.2%					4.1%
PEAK HOUR FACTOR				0.96							0.84							0.91							0.88				0.95

HV = Heavy Vehicle
PHF = Peak Hour Factor

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

REDUCED BY: CN

DATE OF REDUCTION: 9/11/2015

ROLLING HOUR COUNT

	FROM NORTH ON Paine Field Boulevard (SR-526)							FROM SOUTH ON Paine Field Boulevard (SR-526)							FROM EAST ON 84th Street SW							FROM WEST ON 84th Street SW (Boeing Museum)							INTERVAL TOTALS
TIME INTERVAL	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
2:00 PM - 3:00 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	0	0	0	0
2:15 PM - 3:15 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	0	0	0	0
2:30 PM - 3:30 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	0	0	0	0
2:45 PM - 3:45 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	0	0	0	0
3:00 PM - 4:00 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	0	0	0	0
3:15 PM - 4:15 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	0	0	0	0
3:30 PM - 4:30 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	0	0	0	0
3:45 PM - 4:45 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	0	0	0	0
4:00 PM - 5:00 PM	0	0	48	0	27	980	525	0	1	50	0	110	809	17	0	0	2	0	22	5	46	1	0	26	0	405	9	84	3039
4:15 PM - 5:15 PM	1	1	40	0	34	933	516	0	1	40	0	132	786	15	0	0	2	0	26	12	39	0	0	27	0	399	8	99	2999
4:30 PM - 5:30 PM	3	1	33	0	35	928	480	0	1	29	1	149	853	10	0	0	3	0	32	19	37	0	0	23	0	380	9	101	3034
4:45 PM - 5:45 PM	3	1	28	1	23	860	481	0	1	26	1	142	785	6	0	0	1	0	30	17	32	0	0	24	0	380	9	98	2865
5:00 PM - 6:00 PM	3	1	20	1	17	768	482	0	0	24	1	155	734	6	0	0	2	0	27	19	22	0	0	14	0	368	9	102	2711

LOS Analysis

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	11	0	22	0	1	2	0	0	29	163	0
Future Vol, veh/h	0	11	0	22	0	1	2	0	0	29	163	0
Peak Hour Factor	0.92	0.46	0.46	0.46	0.92	0.38	0.38	0.38	0.92	0.80	0.80	0.80
Heavy Vehicles, %	2	0	0	0	2	0	0	0	2	1	1	1
Mvmt Flow	0	24	0	48	0	3	5	0	0	36	204	0
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.9	8	9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	15%	33%	33%	0%
Vol Thru, %	85%	0%	67%	97%
Vol Right, %	0%	67%	0%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	192	33	3	136
LT Vol	29	11	1	0
Through Vol	163	0	2	132
RT Vol	0	22	0	4
Lane Flow Rate	240	72	8	160
Geometry Grp	1	1	1	1
Degree of Util (X)	0.281	0.089	0.011	0.193
Departure Headway (Hd)	4.312	4.458	4.942	4.348
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	838	807	726	829
Service Time	2.312	2.468	2.956	2.358
HCM Lane V/C Ratio	0.286	0.089	0.011	0.193
HCM Control Delay	9	7.9	8	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.2	0.3	0	0.7

H:\2015\15-106\Synchro\2015 Existing.syn
1: 44th Avenue W & 80th Street SW
Pacific Seafood

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	132	4
Future Vol, veh/h	0	0	132	4
Peak Hour Factor	0.92	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	0	155	5
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.4
HCM LOS	A

Lane

GTC (SF)
2015 Existing

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	267	0	105	412	167	0	13	65	220	12	22
Future Volume (vph)	16	267	0	105	412	167	0	13	65	220	12	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	110		0	55		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99			1.00	0.99			0.98		0.99	0.99	
Frt					0.957			0.875			0.903	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1719	3438	0	1787	3387	0	1881	1613	0	1787	1684	0
Flt Permitted	0.405			0.574						0.702		
Satd. Flow (perm)	729	3438	0	1076	3387	0	1881	1613	0	1306	1684	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					99			71			24	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		534			453			374			1335	
Travel Time (s)		12.1			10.3			8.5			30.3	
Confl. Peds. (#/hr)	5		2	2		5	1		7	7		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	5%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	17	290	0	114	448	182	0	14	71	239	13	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	17	290	0	114	630	0	0	85	0	239	37	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	65.0	65.0		65.0	65.0		39.6	39.6		39.6	39.6	
Total Split (%)	62.1%	62.1%		62.1%	62.1%		37.9%	37.9%		37.9%	37.9%	
Maximum Green (s)	60.5	60.5		60.5	60.5		35.1	35.1		35.1	35.1	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		Min	Min		Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	14.7	14.7		14.7	14.7			12.2		12.2	12.2	
Actuated g/C Ratio	0.40	0.40		0.40	0.40			0.34		0.34	0.34	
v/c Ratio	0.06	0.21		0.26	0.44			0.14		0.54	0.06	

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2: 44th Avenue W & 84th Street SW
Pacific Seafood

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	7.9	7.8		9.6	7.8			4.7		16.1	6.3	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay	7.9	7.8		9.6	7.8			4.7		16.1	6.3	
LOS	A	A		A	A			A		B	A	
Approach Delay		7.8			8.1			4.7			14.8	
Approach LOS		A			A			A			B	
90th %ile Green (s)	22.7	22.7		22.7	22.7		18.5	18.5		18.5	18.5	
90th %ile Term Code	Hold	Hold		Gap	Gap		Hold	Hold		Gap	Gap	
70th %ile Green (s)	16.9	16.9		16.9	16.9		14.0	14.0		14.0	14.0	
70th %ile Term Code	Hold	Hold		Gap	Gap		Hold	Hold		Gap	Gap	
50th %ile Green (s)	13.8	13.8		13.8	13.8		11.7	11.7		11.7	11.7	
50th %ile Term Code	Hold	Hold		Gap	Gap		Hold	Hold		Gap	Gap	
30th %ile Green (s)	12.1	12.1		12.1	12.1		10.0	10.0		10.0	10.0	
30th %ile Term Code	Hold	Hold		Gap	Gap		Hold	Hold		Gap	Gap	
10th %ile Green (s)	9.3	9.3		9.3	9.3		7.9	7.9		7.9	7.9	
10th %ile Term Code	Hold	Hold		Gap	Gap		Hold	Hold		Gap	Gap	

Intersection Summary

Area Type: Other
Cycle Length: 104.6
Actuated Cycle Length: 36.4
Natural Cycle: 45
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 9.1 — Intersection LOS: A
Intersection Capacity Utilization 51.2% — ICU Level of Service A
Analysis Period (min) 15
90th %ile Actuated Cycle: 50.2
70th %ile Actuated Cycle: 39.9
50th %ile Actuated Cycle: 34.5
30th %ile Actuated Cycle: 31.1
10th %ile Actuated Cycle: 26.2

Splits and Phases: 2: 44th Avenue W & 84th Street SW

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	405	9	84	22	5	46	110	809	17	27	980	525
Future Volume (vph)	405	9	84	22	5	46	110	809	17	27	980	525
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	60		150	225		60	275		150
Storage Lanes	1		1	1		1	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor							1.00					0.99
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950	0.954		0.950			0.950			0.950		
Satd. Flow (prot)	1633	1640	1538	1752	1845	1568	3335	3438	1538	1752	3505	1568
Flt Permitted	0.950	0.954		0.950			0.950			0.950		
Satd. Flow (perm)	1633	1640	1538	1752	1845	1568	3331	3438	1538	1752	3505	1545
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			78			67			67			261
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		453			314			420			687	
Travel Time (s)		10.3			7.1			9.5			15.6	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	5%	5%	5%	3%	3%	3%	5%	5%	5%	3%	3%	3%
Adj. Flow (vph)	426	9	88	23	5	48	116	852	18	28	1032	553
Shared Lane Traffic (%)	49%											
Lane Group Flow (vph)	217	218	88	23	5	48	116	852	18	28	1032	553
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		3	3		5	2		1	6	
Permitted Phases			4			3			2			6
Detector Phase	4	4	4	3	3	3	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	44.8	44.8	44.8	25.0	25.0	25.0	24.0	77.0	77.0	24.0	77.0	77.0
Total Split (%)	26.2%	26.2%	26.2%	14.6%	14.6%	14.6%	14.1%	45.1%	45.1%	14.1%	45.1%	45.1%
Maximum Green (s)	40.3	40.3	40.3	20.5	20.5	20.5	19.5	72.5	72.5	19.5	72.5	72.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0	0		0	0
Act Effct Green (s)	23.1	23.1	23.1	7.3	7.3	7.3	10.0	80.4	80.4	7.7	73.4	73.4
Actuated g/C Ratio	0.18	0.18	0.18	0.06	0.06	0.06	0.08	0.62	0.62	0.06	0.57	0.57
v/c Ratio	0.75	0.75	0.26	0.23	0.05	0.32	0.45	0.40	0.02	0.27	0.52	0.56

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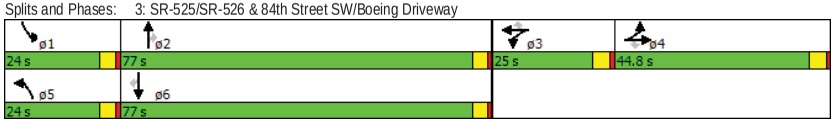
3: SR-525/SR-526 & 84th Street SW/Boeing Driveway
Pacific Seafood

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	67.2	67.1	14.0	68.5	63.8	12.4	65.3	16.2	0.1	69.0	20.6	12.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.2	67.1	14.0	68.5	63.8	12.4	65.3	16.2	0.1	69.0	20.6	12.9
LOS	E	E	B	E	E	B	E	B	A	E	C	B
Approach Delay		58.2			32.8			21.6			18.8	
Approach LOS		E			C			C			B	
90th %ile Green (s)	34.3	34.3	34.3	9.8	9.8	9.8	13.4	75.4	75.4	10.5	72.5	72.5
90th %ile Term Code	Gap	Gap	Gap	Gap	Gap	Gap	Gap	Hold	Hold	Gap	MaxR	MaxR
70th %ile Green (s)	27.3	27.3	27.3	8.2	8.2	8.2	11.3	75.1	75.1	8.7	72.5	72.5
70th %ile Term Code	Gap	Gap	Gap	Gap	Gap	Gap	Gap	Hold	Hold	Gap	MaxR	MaxR
50th %ile Green (s)	23.5	23.5	23.5	7.2	7.2	7.2	10.0	74.9	74.9	7.6	72.5	72.5
50th %ile Term Code	Gap	Gap	Gap	Gap	Gap	Gap	Gap	Hold	Hold	Gap	MaxR	MaxR
30th %ile Green (s)	19.1	19.1	19.1	6.2	6.2	6.2	8.8	85.8	85.8	0.0	72.5	72.5
30th %ile Term Code	Gap	Gap	Gap	Gap	Gap	Gap	Gap	Hold	Hold	Skip	MaxR	MaxR
10th %ile Green (s)	13.8	13.8	13.8	0.0	0.0	0.0	7.2	84.2	84.2	0.0	72.5	72.5
10th %ile Term Code	Gap	Gap	Gap	Skip	Skip	Skip	Gap	Hold	Hold	Skip	MaxR	MaxR

Intersection Summary

Area Type: Other
Cycle Length: 170.8
Actuated Cycle Length: 129.6
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 26.5 — Intersection LOS: C
Intersection Capacity Utilization 60.6% — ICU Level of Service B
Analysis Period (min) 15
90th %ile Actuated Cycle: 148
70th %ile Actuated Cycle: 137.3
50th %ile Actuated Cycle: 131.2
30th %ile Actuated Cycle: 124.6
10th %ile Actuated Cycle: 107

Splits and Phases: 3: SR-525/SR-526 & 84th Street SW/Boeing Driveway



GTC (SF)
2015 Existing

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	11	0	23	0	1	2	0	0	30	170	0
Future Vol, veh/h	0	11	0	23	0	1	2	0	0	30	170	0
Peak Hour Factor	0.92	0.46	0.46	0.46	0.92	0.38	0.38	0.38	0.92	0.80	0.80	0.80
Heavy Vehicles, %	2	0	0	0	2	0	0	0	2	1	1	1
Mvmt Flow	0	24	0	50	0	3	5	0	0	38	213	0
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8	8.1	9.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	15%	32%	33%	0%
Vol Thru, %	85%	0%	67%	97%
Vol Right, %	0%	68%	0%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	200	34	3	141
LT Vol	30	11	1	0
Through Vol	170	0	2	137
RT Vol	0	23	0	4
Lane Flow Rate	250	74	8	166
Geometry Grp	1	1	1	1
Degree of Util (X)	0.293	0.092	0.011	0.201
Departure Headway (Hd)	4.325	4.486	4.983	4.365
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	835	802	721	824
Service Time	2.325	2.496	2.996	2.376
HCM Lane V/C Ratio	0.299	0.092	0.011	0.201
HCM Control Delay	9.1	8	8.1	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.2	0.3	0	0.7

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1: 44th Avenue W & 80th Street SW
Pacific Seafood

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	137	4
Future Vol, veh/h	0	0	137	4
Peak Hour Factor	0.92	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	0	161	5
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.5
HCM LOS	A

Lane

GTC (SF)
2017 Baseline

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	278	0	109	429	174	0	14	68	229	12	23
Future Volume (vph)	17	278	0	109	429	174	0	14	68	229	12	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	110		0	55		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00			1.00	0.99			0.98		0.99	0.99	
Frt					0.957			0.875			0.901	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1719	3438	0	1787	3387	0	1881	1613	0	1787	1680	0
Flt Permitted	0.385			0.568						0.699		
Satd. Flow (perm)	694	3438	0	1064	3387	0	1881	1613	0	1301	1680	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					99			74			25	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		534			453			374			1335	
Travel Time (s)		12.1			10.3			8.5			30.3	
Confl. Peds. (#/hr)	5		2	2		5	1		7	7		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	5%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	18	302	0	118	466	189	0	15	74	249	13	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	302	0	118	655	0	0	89	0	249	38	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	65.0	65.0		65.0	65.0		39.6	39.6		39.6	39.6	
Total Split (%)	62.1%	62.1%		62.1%	62.1%		37.9%	37.9%		37.9%	37.9%	
Maximum Green (s)	60.5	60.5		60.5	60.5		35.1	35.1		35.1	35.1	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		Min	Min		Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	15.3	15.3		15.3	15.3			12.7		12.7	12.7	
Actuated g/C Ratio	0.41	0.41		0.41	0.41			0.34		0.34	0.34	
v/c Ratio	0.06	0.22		0.27	0.46			0.15		0.56	0.06	

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2: 44th Avenue W & 84th Street SW
Pacific Seafood

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	8.2	8.0		10.0	8.1			4.8		16.8	6.3	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay	8.2	8.0		10.0	8.1			4.8		16.8	6.3	
LOS	A	A		A	A			A		B	A	
Approach Delay		8.0			8.4			4.8			15.4	
Approach LOS		A			A			A			B	
90th %ile Green (s)	23.8	23.8		23.8	23.8		19.5	19.5		19.5	19.5	
90th %ile Term Code	Hold	Hold		Gap	Gap		Hold	Hold		Gap	Gap	
70th %ile Green (s)	17.6	17.6		17.6	17.6		14.7	14.7		14.7	14.7	
70th %ile Term Code	Hold	Hold		Gap	Gap		Hold	Hold		Gap	Gap	
50th %ile Green (s)	14.4	14.4		14.4	14.4		12.2	12.2		12.2	12.2	
50th %ile Term Code	Hold	Hold		Gap	Gap		Hold	Hold		Gap	Gap	
30th %ile Green (s)	12.5	12.5		12.5	12.5		10.3	10.3		10.3	10.3	
30th %ile Term Code	Hold	Hold		Gap	Gap		Hold	Hold		Gap	Gap	
10th %ile Green (s)	9.5	9.5		9.5	9.5		8.1	8.1		8.1	8.1	
10th %ile Term Code	Hold	Hold		Gap	Gap		Hold	Hold		Gap	Gap	

Intersection Summary

Area Type: Other
Cycle Length: 104.6
Actuated Cycle Length: 37.5
Natural Cycle: 45
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 9.5 — Intersection LOS: A
Intersection Capacity Utilization 52.3% — ICU Level of Service A
Analysis Period (min) 15
90th %ile Actuated Cycle: 52.3
70th %ile Actuated Cycle: 41.3
50th %ile Actuated Cycle: 35.6
30th %ile Actuated Cycle: 31.8
10th %ile Actuated Cycle: 26.6

Splits and Phases: 2: 44th Avenue W & 84th Street SW

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	421	9	87	23	5	48	114	842	18	28	1020	546
Future Volume (vph)	421	9	87	23	5	48	114	842	18	28	1020	546
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	60		150	225		60	275		150
Storage Lanes	1		1	1		1	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor							1.00					0.99
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950	0.954		0.950			0.950			0.950		
Satd. Flow (prot)	1633	1640	1538	1752	1845	1568	3335	3438	1538	1752	3505	1568
Flt Permitted	0.950	0.954		0.950			0.950			0.950		
Satd. Flow (perm)	1633	1640	1538	1752	1845	1568	3332	3438	1538	1752	3505	1545
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			79			67			67			261
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		453			314			420			687	
Travel Time (s)		10.3			7.1			9.5			15.6	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	5%	5%	5%	3%	3%	3%	5%	5%	5%	3%	3%	3%
Adj. Flow (vph)	443	9	92	24	5	51	120	886	19	29	1074	575
Shared Lane Traffic (%)	49%											
Lane Group Flow (vph)	226	226	92	24	5	51	120	886	19	29	1074	575
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		3	3		5	2		1	6	
Permitted Phases			4			3			2			6
Detector Phase	4	4	4	3	3	3	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	44.8	44.8	44.8	25.0	25.0	25.0	24.0	77.0	77.0	24.0	77.0	77.0
Total Split (%)	26.2%	26.2%	26.2%	14.6%	14.6%	14.6%	14.1%	45.1%	45.1%	14.1%	45.1%	45.1%
Maximum Green (s)	40.3	40.3	40.3	20.5	20.5	20.5	19.5	72.5	72.5	19.5	72.5	72.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0	0		0	0
Act Effct Green (s)	24.4	24.4	24.4	7.4	7.4	7.4	10.3	80.7	80.7	7.8	73.4	73.4
Actuated g/C Ratio	0.19	0.19	0.19	0.06	0.06	0.06	0.08	0.61	0.61	0.06	0.56	0.56
v/c Ratio	0.75	0.74	0.26	0.24	0.05	0.34	0.46	0.42	0.02	0.28	0.55	0.59

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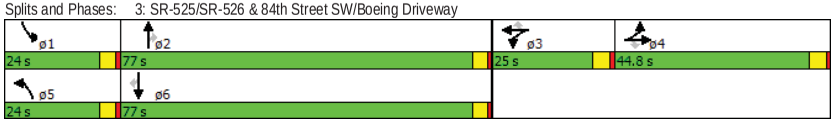
3: SR-525/SR-526 & 84th Street SW/Boeing Driveway
Pacific Seafood

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	66.7	66.4	14.5	69.8	64.8	14.5	66.3	17.2	0.1	70.4	22.1	14.3
Queue Delay	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.8	66.5	14.5	69.8	64.8	14.5	66.3	17.2	0.1	70.4	22.1	14.3
LOS	E	E	B	E	E	B	E	B	A	E	C	B
Approach Delay		57.8			34.2			22.6			20.2	
Approach LOS		E			C			C			C	
90th %ile Green (s)	36.4	36.4	36.4	10.1	10.1	10.1	13.8	75.6	75.6	10.7	72.5	72.5
90th %ile Term Code	Gap	Gap	Gap	Gap	Gap	Gap	Gap	Hold	Hold	Gap	MaxR	MaxR
70th %ile Green (s)	29.3	29.3	29.3	8.4	8.4	8.4	11.6	75.3	75.3	8.8	72.5	72.5
70th %ile Term Code	Gap	Gap	Gap	Gap	Gap	Gap	Gap	Hold	Hold	Gap	MaxR	MaxR
50th %ile Green (s)	24.4	24.4	24.4	7.3	7.3	7.3	10.2	75.0	75.0	7.7	72.5	72.5
50th %ile Term Code	Gap	Gap	Gap	Gap	Gap	Gap	Gap	Hold	Hold	Gap	MaxR	MaxR
30th %ile Green (s)	19.9	19.9	19.9	6.3	6.3	6.3	9.0	86.0	86.0	0.0	72.5	72.5
30th %ile Term Code	Gap	Gap	Gap	Gap	Gap	Gap	Gap	Hold	Hold	Skip	MaxR	MaxR
10th %ile Green (s)	14.4	14.4	14.4	0.0	0.0	0.0	7.3	84.3	84.3	0.0	72.5	72.5
10th %ile Term Code	Gap	Gap	Gap	Skip	Skip	Skip	Gap	Hold	Hold	Skip	MaxR	MaxR

Intersection Summary

Area Type: Other
Cycle Length: 170.8
Actuated Cycle Length: 131.3
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 27.4 — Intersection LOS: C
Intersection Capacity Utilization 62.2% — ICU Level of Service B
Analysis Period (min) 15
90th %ile Actuated Cycle: 150.8
70th %ile Actuated Cycle: 139.8
50th %ile Actuated Cycle: 132.4
30th %ile Actuated Cycle: 125.7
10th %ile Actuated Cycle: 107.7

Splits and Phases: 3: SR-525/SR-526 & 84th Street SW/Boeing Driveway



GTC (SF)
2017 Baseline

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	11	0	23	0	1	2	0	0	31	172	0
Future Vol, veh/h	0	11	0	23	0	1	2	0	0	31	172	0
Peak Hour Factor	0.92	0.46	0.46	0.46	0.92	0.38	0.38	0.38	0.92	0.80	0.80	0.80
Heavy Vehicles, %	2	0	0	0	2	0	0	0	2	1	1	1
Mvmt Flow	0	24	0	50	0	3	5	0	0	39	215	0
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8	8.1	9.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	15%	32%	33%	0%
Vol Thru, %	85%	0%	67%	97%
Vol Right, %	0%	68%	0%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	203	34	3	142
LT Vol	31	11	1	0
Through Vol	172	0	2	138
RT Vol	0	23	0	4
Lane Flow Rate	254	74	8	167
Geometry Grp	1	1	1	1
Degree of Util (X)	0.297	0.092	0.011	0.203
Departure Headway (Hd)	4.327	4.495	4.992	4.369
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	835	800	719	825
Service Time	2.327	2.506	3.008	2.379
HCM Lane V/C Ratio	0.304	0.092	0.011	0.202
HCM Control Delay	9.1	8	8.1	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.2	0.3	0	0.8

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1: 44th Avenue W & 80th Street SW
Pacific Seafood

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	138	4
Future Vol, veh/h	0	0	138	4
Peak Hour Factor	0.92	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	0	162	5
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.5
HCM LOS	A

Lane

GTC (SF)
2017 Future With Development

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	278	0	109	429	183	0	15	68	249	14	25
Future Volume (vph)	18	278	0	109	429	183	0	15	68	249	14	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	110		0	55		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00			1.00	0.99			0.98		0.99	0.99	
Frt					0.955			0.877			0.904	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1719	3438	0	1787	3378	0	1881	1617	0	1787	1686	0
Flt Permitted	0.373			0.568						0.699		
Satd. Flow (perm)	672	3438	0	1064	3378	0	1881	1617	0	1301	1686	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					108			74			27	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		534			453			374			1335	
Travel Time (s)		12.1			10.3			8.5			30.3	
Confl. Peds. (#/hr)	5		2	2		5	1		7	7		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	5%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	20	302	0	118	466	199	0	16	74	271	15	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	20	302	0	118	665	0	0	90	0	271	42	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	65.0	65.0		65.0	65.0		39.6	39.6		39.6	39.6	
Total Split (%)	62.1%	62.1%		62.1%	62.1%		37.9%	37.9%		37.9%	37.9%	
Maximum Green (s)	60.5	60.5		60.5	60.5		35.1	35.1		35.1	35.1	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		Min	Min		Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	16.1	16.1		16.1	16.1			13.8		13.8	13.8	
Actuated g/C Ratio	0.41	0.41		0.41	0.41			0.35		0.35	0.35	
v/c Ratio	0.07	0.22		0.27	0.46			0.15		0.60	0.07	

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2: 44th Avenue W & 84th Street SW
Pacific Seafood

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	9.0	8.5		10.6	8.5			4.7		17.6	6.3	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay	9.0	8.5		10.6	8.5			4.7		17.6	6.3	
LOS	A	A		B	A			A		B	A	
Approach Delay		8.5			8.8			4.7			16.1	
Approach LOS		A			A			A			B	
90th %ile Green (s)	24.3	24.3		24.3	24.3		22.1	22.1		22.1	22.1	
90th %ile Term Code	Hold	Hold		Gap	Gap		Hold	Hold		Gap	Gap	
70th %ile Green (s)	19.3	19.3		19.3	19.3		16.0	16.0		16.0	16.0	
70th %ile Term Code	Hold	Hold		Gap	Gap		Hold	Hold		Gap	Gap	
50th %ile Green (s)	15.8	15.8		15.8	15.8		13.2	13.2		13.2	13.2	
50th %ile Term Code	Hold	Hold		Gap	Gap		Hold	Hold		Gap	Gap	
30th %ile Green (s)	12.9	12.9		12.9	12.9		10.9	10.9		10.9	10.9	
30th %ile Term Code	Hold	Hold		Gap	Gap		Hold	Hold		Gap	Gap	
10th %ile Green (s)	9.7	9.7		9.7	9.7		8.5	8.5		8.5	8.5	
10th %ile Term Code	Hold	Hold		Gap	Gap		Hold	Hold		Gap	Gap	

Intersection Summary

Area Type: Other
Cycle Length: 104.6
Actuated Cycle Length: 39.5
Natural Cycle: 45
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 10.0 — Intersection LOS: B
Intersection Capacity Utilization 53.8% — ICU Level of Service A
Analysis Period (min) 15
90th %ile Actuated Cycle: 55.4
70th %ile Actuated Cycle: 44.3
50th %ile Actuated Cycle: 38
30th %ile Actuated Cycle: 32.8
10th %ile Actuated Cycle: 27.2

Splits and Phases: 2: 44th Avenue W & 84th Street SW

GTC (SF)
2017 Future With Development

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	435	9	93	23	5	48	117	842	18	28	1020	552
Future Volume (vph)	435	9	93	23	5	48	117	842	18	28	1020	552
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	60		150	225		60	275		150
Storage Lanes	1		1	1		1	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor							1.00					0.99
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950	0.954		0.950			0.950			0.950		
Satd. Flow (prot)	1633	1640	1538	1752	1845	1568	3335	3438	1538	1752	3505	1568
Flt Permitted	0.950	0.954		0.950			0.950			0.950		
Satd. Flow (perm)	1633	1640	1538	1752	1845	1568	3332	3438	1538	1752	3505	1545
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			81			67			67			264
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		453			314			420			687	
Travel Time (s)		10.3			7.1			9.5			15.6	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	5%	5%	5%	3%	3%	3%	5%	5%	5%	3%	3%	3%
Adj. Flow (vph)	458	9	98	24	5	51	123	886	19	29	1074	581
Shared Lane Traffic (%)	49%											
Lane Group Flow (vph)	234	233	98	24	5	51	123	886	19	29	1074	581
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		3	3		5	2		1	6	
Permitted Phases			4			3			2			6
Detector Phase	4	4	4	3	3	3	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	44.8	44.8	44.8	25.0	25.0	25.0	24.0	77.0	77.0	24.0	77.0	77.0
Total Split (%)	26.2%	26.2%	26.2%	14.6%	14.6%	14.6%	14.1%	45.1%	45.1%	14.1%	45.1%	45.1%
Maximum Green (s)	40.3	40.3	40.3	20.5	20.5	20.5	19.5	72.5	72.5	19.5	72.5	72.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	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	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0	0		0	0
Act Effct Green (s)	25.1	25.1	25.1	7.4	7.4	7.4	10.4	80.8	80.8	7.8	73.5	73.5
Actuated g/C Ratio	0.19	0.19	0.19	0.06	0.06	0.06	0.08	0.61	0.61	0.06	0.56	0.56
v/c Ratio	0.75	0.75	0.27	0.24	0.05	0.34	0.47	0.42	0.02	0.28	0.55	0.60

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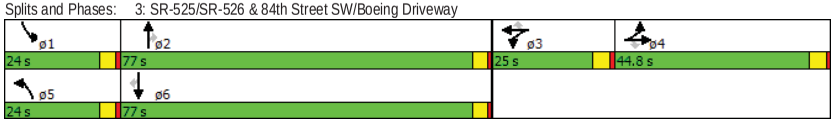
3: SR-525/SR-526 & 84th Street SW/Boeing Driveway
Pacific Seafood

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	67.0	66.5	15.1	70.5	65.4	14.6	66.8	17.6	0.1	70.9	22.6	14.7
Queue Delay	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.1	66.6	15.1	70.5	65.4	14.6	66.8	17.6	0.1	70.9	22.6	14.7
LOS	E	E	B	E	E	B	E	B	A	E	C	B
Approach Delay		57.9			34.6			23.1			20.7	
Approach LOS		E			C			C			C	
90th %ile Green (s)	37.6	37.6	37.6	10.1	10.1	10.1	14.0	75.7	75.7	10.8	72.5	72.5
90th %ile Term Code	Gap	Gap	Gap	Gap	Gap	Gap	Gap	Hold	Hold	Gap	MaxR	MaxR
70th %ile Green (s)	30.2	30.2	30.2	8.4	8.4	8.4	11.8	75.4	75.4	8.9	72.5	72.5
70th %ile Term Code	Gap	Gap	Gap	Gap	Gap	Gap	Gap	Hold	Hold	Gap	MaxR	MaxR
50th %ile Green (s)	25.2	25.2	25.2	7.3	7.3	7.3	10.4	75.2	75.2	7.7	72.5	72.5
50th %ile Term Code	Gap	Gap	Gap	Gap	Gap	Gap	Gap	Hold	Hold	Gap	MaxR	MaxR
30th %ile Green (s)	20.5	20.5	20.5	6.3	6.3	6.3	9.1	86.1	86.1	0.0	72.5	72.5
30th %ile Term Code	Gap	Gap	Gap	Gap	Gap	Gap	Gap	Hold	Hold	Skip	MaxR	MaxR
10th %ile Green (s)	14.8	14.8	14.8	0.0	0.0	0.0	7.3	84.3	84.3	0.0	72.5	72.5
10th %ile Term Code	Gap	Gap	Gap	Skip	Skip	Skip	Gap	Hold	Hold	Skip	MaxR	MaxR

Intersection Summary

Area Type: Other
Cycle Length: 170.8
Actuated Cycle Length: 132.2
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 28.0 — Intersection LOS: C
Intersection Capacity Utilization 62.6% — ICU Level of Service B
Analysis Period (min) 15
90th %ile Actuated Cycle: 152.2
70th %ile Actuated Cycle: 140.9
50th %ile Actuated Cycle: 133.4
30th %ile Actuated Cycle: 126.4
10th %ile Actuated Cycle: 108.1

Splits and Phases: 3: SR-525/SR-526 & 84th Street SW/Boeing Driveway



Collision Data

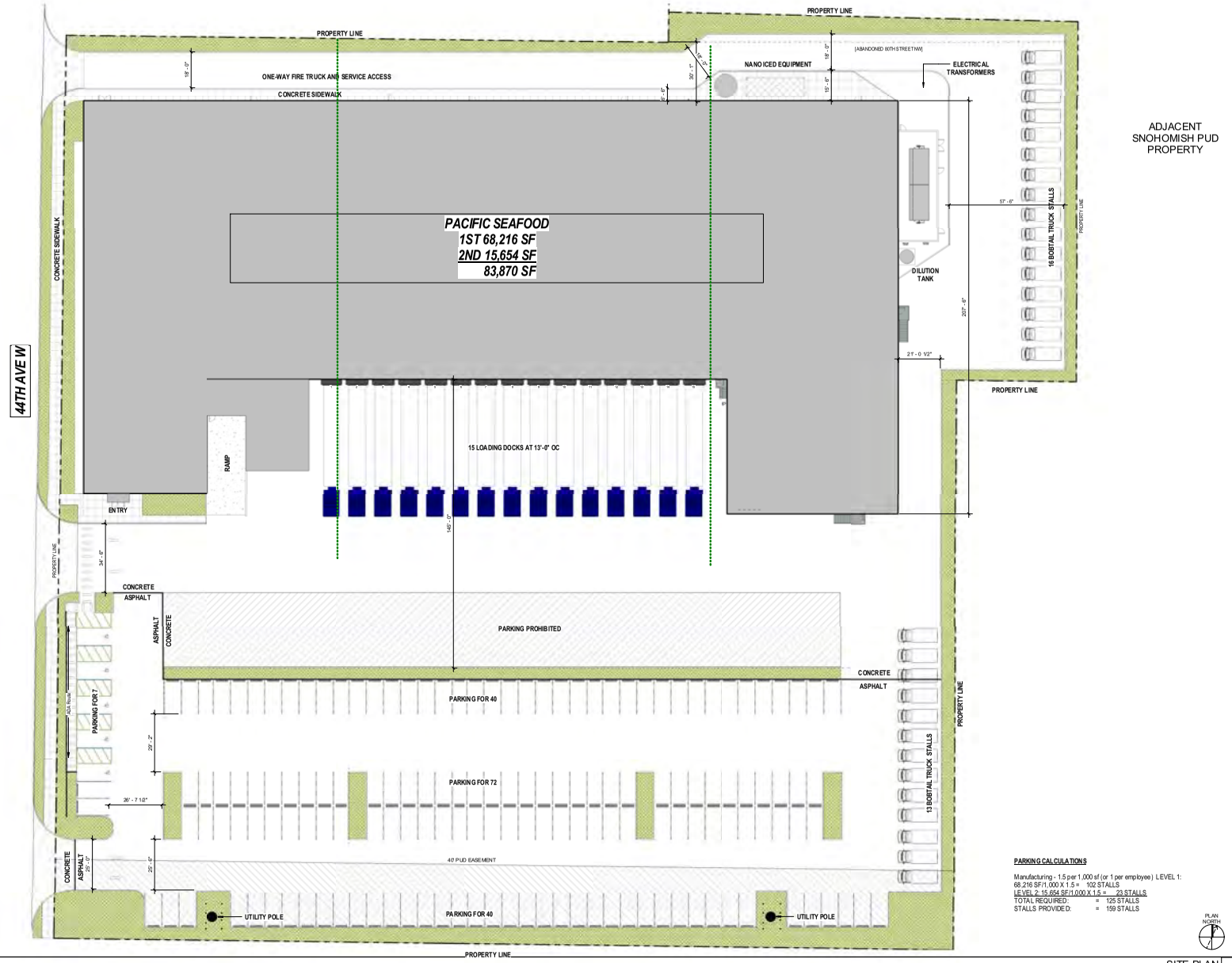
OFFICER REPORTED CRASHES THAT OCCURRED ON ALL ROADS IN THE CITY OF MUKILTEO
1/1/2012 - available 2015 *(2015 data is partial and preliminary)*

UNDER 23 UNITED STATES CODE – SECTION 409, THIS DATA CANNOT BE USED IN DISCOVERY OR AS EVIDENCE AT TRIAL IN ANY ACTION FOR DAMAGES AGAINST THE WSDOT, OR ANY JURISDICTIONS INVOLVED IN THE DATA

PRIMARY TRAFFICWAY	MILE POST	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PEDS	# PEDAL	JUNCTION RELATIONSHIP	FIRST COLLISION TYPE / OBJECT STRUCK
526	0.32	2668911	7/30/2012	13:03	No Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - both moving - sideswipe
526	0.32	E174698	6/9/2012	13:00	Possible Injury	1	0	2	0	0	At Intersection and Not Related	From same direction - both going straight - one stopped - rear-end
526	0.32	E250462	6/14/2013	12:37	No Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - both moving - rear-end
526	0.32	E267426	8/29/2013	18:55	No Injury	0	0	2	0	0	At Driveway within Major Intersection	From same direction - one left turn - one straight
526	0.32	E341590	7/14/2014	17:20	No Injury	0	0	2	0	0	At Intersection and Related	Entering at angle
526	0.32	E435560	6/20/2015	19:50	No Injury	0	0	2	0	0	At Intersection and Related	Entering at angle
526	0.39	2669263	3/22/2015	15:28	No Injury	0	0	1	0	0	At Intersection and Related	Tree or Stump (stationary)
526	0.39	2669292	2/4/2015	19:30	No Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight
526	0.39	E429457	6/1/2015	17:22	Possible Injury	1	0	2	0	0	At Intersection and Related	Entering at angle
526	0.40	2491722	7/15/2013	15:30	No Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - both moving - sideswipe
526	0.40	2668120	12/12/2013	18:55	No Injury	0	0	2	0	0	At Intersection and Related	Entering at angle
526	0.40	2668926	8/29/2012	16:30	No Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - both moving - sideswipe
526	0.40	2668930	11/28/2012	14:38	Possible Injury	1	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end
526	0.40	2668983	4/22/2014	23:49	Possible Injury	2	0	2	0	0	At Intersection and Related	Entering at angle
526	0.40	2669258	1/14/2015	17:47	Possible Injury	1	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end
526	0.40	3216328	4/27/2013	12:23	No Injury	0	0	2	0	0	At Intersection and Related	Same direction -- both turning left -- both moving -- sideswipe
526	0.40	3216348	9/6/2013	17:29	No Injury	0	0	2	0	0	At Intersection and Not Related	From same direction - all others
526	0.40	E229856	3/1/2013	19:04	Possible Injury	1	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight
526	0.40	E235610	3/28/2013	9:06	No Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end
526	0.40	E237772	4/12/2013	18:35	No Injury	0	0	2	0	0	At Intersection and Related	From same direction - all others
526	0.40	E355059	8/4/2014	10:02	Possible Injury	1	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end
526	0.40	E402034	2/18/2015	18:21	No Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end
526	0.40	E402930	2/23/2015	14:55	No Injury	0	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one right turn
526	0.40	E438139	6/25/2015	16:57	No Injury	0	0	3	0	0	At Intersection and Related	From same direction - both going straight - both moving - sideswipe
526	0.40	E446501	7/27/2015	13:35	Possible Injury	1	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end
526	0.40	E448720	8/3/2015	20:38	Evident Injury	1	0	2	0	0	At Intersection and Not Related	From same direction - both going straight - both moving - rear-end
525SPPAINE	6.45	E248510	6/5/2013	8:37	Possible Injury	2	0	2	0	0	At Intersection and Not Related	From same direction - both going straight - both moving - rear-end
525SPPAINE	6.45	E295501	12/18/2013	17:15	No Injury	0	0	2	0	0	At Intersection and Related	From same direction - both going straight - both moving - rear-end
525SPPAINE	6.45	E317695	3/21/2014	12:56	Possible Injury	1	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end
525SPPAINE	6.46	E189152	8/29/2012	23:02	Evident Injury	3	0	2	0	0	At Intersection and Related	From opposite direction - one left turn - one straight
525SPPAINE	6.46	E201544	10/28/2012	10:20	No Injury	0	0	1	0	0	At Intersection and Related	Curb, Raised Traffic Island or Raised Median Curb
525SPPAINE	6.46	E242435	5/3/2013	0:58	Possible Injury	1	0	2	0	0	At Intersection and Related	Entering at angle
525SPPAINE	6.46	E336280	6/17/2014	11:05	Evident Injury	2	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end
525SPPAINE	6.46	E356654	7/17/2014	9:50	Possible Injury	1	0	2	0	0	At Intersection and Related	From same direction - both going straight - one stopped - rear-end

Site Plan

8/3/2015 7:18:30 AM



PARKING CALCULATIONS

Manufacturing - 1.5 per 1,000 sf (or 1 per employee) LEVEL 1:
68,216 SF/1,000 X 1.5 = 102 STALLS
LEVEL 2: 15,654 SF/1,000 X 1.5 = 23 STALLS
TOTAL REQUIRED: = 125 STALLS
STALLS PROVIDED: = 159 STALLS

SITE PLAN 1
1" = 20'-0" A2.6

625 Fisher Lane
Burlington, WA 98233
T: 360.757.4094
F: 360.757.4005
www.fishercgi.com

REV	DATE
REV A	2015-07-09
REV B	2015-07-27
REV C	2015-08-10
REV D	2015-08-17
REV E	2015-08-25

PacificSeafood

8007 44th Ave. West
Mukilteo, WA

Stamp:

Drawing Title:

JOB #: 15F045

Drawing No:

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