Traffic

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WESTSIDE SCHOOL
Traffic Impact Analysis

Prepared for: Westside School
Jurisdiction: City of Seattle
April 2013

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42322
REGISTERED
PROFESSIONAL ENGINEER
4/16/13

LAND USE FULL C INST $2000000 10404 34TH AVE SW
Appl:4/16/2013 Prty: Filed at:10404 34TH AVE SW Use:Y
Land Use application to change the use of an existing Religious Institution & Private School to Private School (Westside School) Project includes a 22,000 sq ft addition for a total of 57,000 sq ft. Surface p
Parent: Related AP:6324283 Build ID:NONE 3013663

GTC #12-115

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1. INTRODUCTION

Gibson Traffic Consultants (GTC) has been retained to complete a traffic impact analysis (TIA) for the Westside School. Westside School is proposing to relocate and expand the existing Westside School, which is located at 7740 34th Avenue SW to 10404 34th Avenue SW in the City of Seattle. A site vicinity map is included in Figure 1. The private school currently serves grades Pre-K to 7th Grade and in the future 8th Grade will be added. The maximum enrollment per grade will be 40 students from K to 8th Grade and 30 students in Pre-K. Therefore, the school is anticipated on having a maximum capacity of 390 students. The current school schedule is as follows:

- Pre-K – 9 AM to 2:45 PM
- Kindergarten – 8:30 AM to 2:45 PM
- 1st through 4th Grade – 8:30 AM to 3:15 PM
- Middle School – 8:15 AM to 3:30 PM

There is another school, Arbor Heights elementary school, located on SW 104th Street to the west of the proposed site. Arbor Heights Elementary School's hours are from 8:55 AM to 3:00 PM; therefore, counts were scheduled to include Arbor Heights traffic as well.

To the south of the proposed Westside School site there is a church, New Apostolic Church, located at 3210 SW 106th Street. The church has two services a week, one at 10:30 AM on Sunday and one at 8 PM on Wednesday. The congregation of this church is fairly small and a Sunday observation showed there were only 16 vehicles parked on-site. Therefore, it is not anticipated that there will be a significant overlap of traffic between the two sites.

2. PROPOSED SITE DEVELOPMENT & ACCESS

The Westside School is being designed with a capacity of 390 students with 55 to 57 staff. The square footage of the proposed site will increase from the existing church which had a square footage of 17,432 SF to 24,347 SF. The church currently has two access points to SW 104th Street, with the change to the school the western most access will be closed and the east access will be used as an inbound only access. The current access to 34th Avenue SW will remain; however, it will be used as an outbound only access. The site will be providing curb, gutter, and sidewalk along the sites northern and western frontages per City of Seattle requirements. Also, pull-out parking areas will be constructed along the site frontage of SW 104th Street and 34th Avenue SW. Today there are intermittent sidewalks along SW 104th Street, there is a sidewalk along the west side of 34th Avenue SW between SW 104th Street and SW 106th Street.

The proposed school is scheduled for full facility build-out by the 2016/2017 school year. Therefore, the year 2016 has been used as the opening year in the analysis. As the site is confined to the east by a steep grade the staff parking and parent drop-off/pick-up have had to be combined.

3. METHODOLOGY & ANALYSIS SCOPING

School PM peak-hour level of service (LOS) is determined using the methodology described in the 2010 *Highway Capacity Manual* (HCM), TRB Special Report 209 and *Synchro 7.0* software developed by Trafficware. It is GTC understands that were 314 existing students enrolled at Westside School when the existing traffic counts and parking counts were conducted on January 28, 2013 and February 13, 2013. In order to analyze "worst case" traffic conditions at the school site, GTC has utilized existing driveway and pick-up count data to estimate future School PM peak-hour traffic volumes and peak-hour LOS conditions.

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. A summary of the level of service criteria has been included in **Table 1**.

GTC utilized a 1.0-percent annual compounding growth rate to account for background traffic growth in the site vicinity. Based on the arterial and non-arterial intersections in the area 4 intersections in addition to the access points were looked at for intersection level of service. The acceptable level of service at arterial intersections within the City of Seattle is level of service E.

Matt 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.

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

Based on scoping discussions, GTC analyzed the level of service at these 6 intersections:

1. 35th Avenue SW at SW 104th Street – Minor Leg Stop Control
2. 35th Avenue SW at SW 106th Street – All-Way Stop Control
3. 34th Avenue SW at SW 104th Street – Minor Leg Stop Control
4. 34th Avenue SW at SW 106th Street – Minor Leg Stop Control
5. Inbound Access at SW 104th Street – Minor Leg Stop Control
6. 34th Avenue SW at Outbound Access – Minor Leg Stop Control

[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.

4. EXISTING CONDITIONS

4.1 Existing Parking Utilization

A parking survey was completed by the independent count firm, Traffic Data Gathering (TDG), staff prior to school dismissal at 2:30 PM and again at 4 PM on January 30, 2013. On-site there are a total of 91 spaces split among 2 parking locations (38 in the north lot and 53 in the south lot). Prior to the school dismissal and arrival of parent traffic and after school dismissal, there were a total of 41 parked vehicles on-site (45% occupied) and 48 parked vehicles on-site (53% occupied). The maximum parking generation per student based on 314 existing students is 0.153 vehicles per student, this includes all vehicles parked on-site (staff and visitor).

4.2 *Collision Data*

GTC reviewed collision data provided by the City of Seattle for the 5-year period from January 1, 2008 to December 31, 2012 and found there were no collisions along the site frontage where the proposed accesses are to be located. There were also no pedestrian or cyclist injuries in the study vicinity.

4.3 Existing Volumes and Level of Service

Existing turning movement counts at all the study intersections were obtained by TDG on Wednesday February 13, 2013. The existing peak-hour turning movement volumes are shown at the study intersections during the School PM peak-hour (2:00-4:00 PM) in Figure 2. These count times encompass the school hours for all of schools in the site vicinity. Based on the existing counts, channelization and intersection control; all of the study intersections will operate at LOS C or better during the School PM peak-hour. The existing level of service for the School PM peak-hour is summarized in Table 2. The existing level of service calculations are included in the attachments.

During our observations of the site vehicles currently use the school frontage along 34th Avenue SW and SW Kenyon Street for drop-off/pick-up of students. It should be noted that the level of service that the Synchro model determines is based on the average delay of all vehicles for the entire hour and when the school traffic isn't present the vehicles experience little or no delay; bringing down the average delay.

Table 2: Existing Level of Service Summary – School PM Peak-Hour

Intersections	Existing Conditions	
	LOS	Delay
1. 35th Ave SW at SW 104th St	C	16.9 sec
2. 35th Ave SW at SW 106th St	B	12.6 sec
3. 34th Ave SW at SW 104th St	A	9.5 sec
4. 34th Ave SW at SW 106th St	C	15.1 sec

5. FUTURE CONDITIONS

5.1 Trip Generation

It is GTC's understanding that there are about 314 existing students enrolled at Westside School, per input from the school administration. GTC utilized section 534 of the ITE *Trip Generation* (9th Edition, 2012), private school K-8, to determine the anticipated trip generation for the 390-student school during the Daily, AM peak-hour, and PM peak-hour. For the School PM peak-hour counts at the school entrance and exit as well as vehicles that pick-up on-street were counted on Wednesday January 30, 2013 to determine the trip generation for the site. The counts showed a School PM peak-hour trip generation rate of 0.704 trips per student based on the existing student enrollment of 314 students. GTC has utilized this existing count data to estimate future School PM peak-hour traffic volumes and LOS conditions. The trip generation for the 390 students is summarized below in Table 3. There is currently no bus service to/from the school and that is anticipated to stay the same with the proposed relocation.

Table 3: Trip Generation Summary

Students	Average Daily Trips	AM Peak-Hour			School PM Peak-Hour			PM Peak-Hour		
		Inbound	Outbound	Total	Inbound	Outbound	Total	Inbound	Outbound	Total
390	1,080	193	158	351	131	142	273	48	53	101

5.2 Trip Distribution

The trip distribution is based on the existing traffic counts in the site vicinity and the location of the existing student addresses. It is estimated that 80% of the site traffic will travel to and from the north of the site on 35th Avenu SW. The remaining 20% would utilize SW 106th Street with 10% traveling to and from the east and west. A detailed trip distribution include volumes for the School PM peak-hour is shown in Figure 3.

5.3 2016 Baseline Volumes and Level of Service

The 2016 baseline (future without project) turning movement volumes are estimated by applying a 1.0% annual compounding growth rate to the existing turning movement volumes. This is consistent with the growth rate assumed around other school traffic studies conducted within the City of Seattle. The 2016 baseline turning movement volumes for the School PM peak-hour are shown in Figure 4.

With the addition of baseline growth, all of the study intersections will continue to operate at LOS C or better during the School PM peak-hour. The 2016 baseline level of service results for the School PM peak-hour are summarized in Table 4. The baseline level of service calculations are included in the attachments.

5.4 2016 Future with Project Volumes and Level of Service

The 2016 future with project turning movement volumes are calculated by adding the school traffic based on the trip distribution to the 2016 baseline turning movement volumes. No credit was taken for the existing school trips likely utilizing these intersections to go to the existing school approximately 13 blocks north of the proposed site. The 2016 future with project turning movement volumes for the School PM peak-hour in Figure 5.

With the addition of school traffic, all the study intersections will continue to operate at LOS D or better during the School PM peak-hour. The 2016 future with project level of service results for the School PM peak-hour are summarized in Table 4. The 2016 future with project level of service calculations are included in the attachments.

Table 4: 2016 Future Level of Service Summary – School PM Peak-Hour

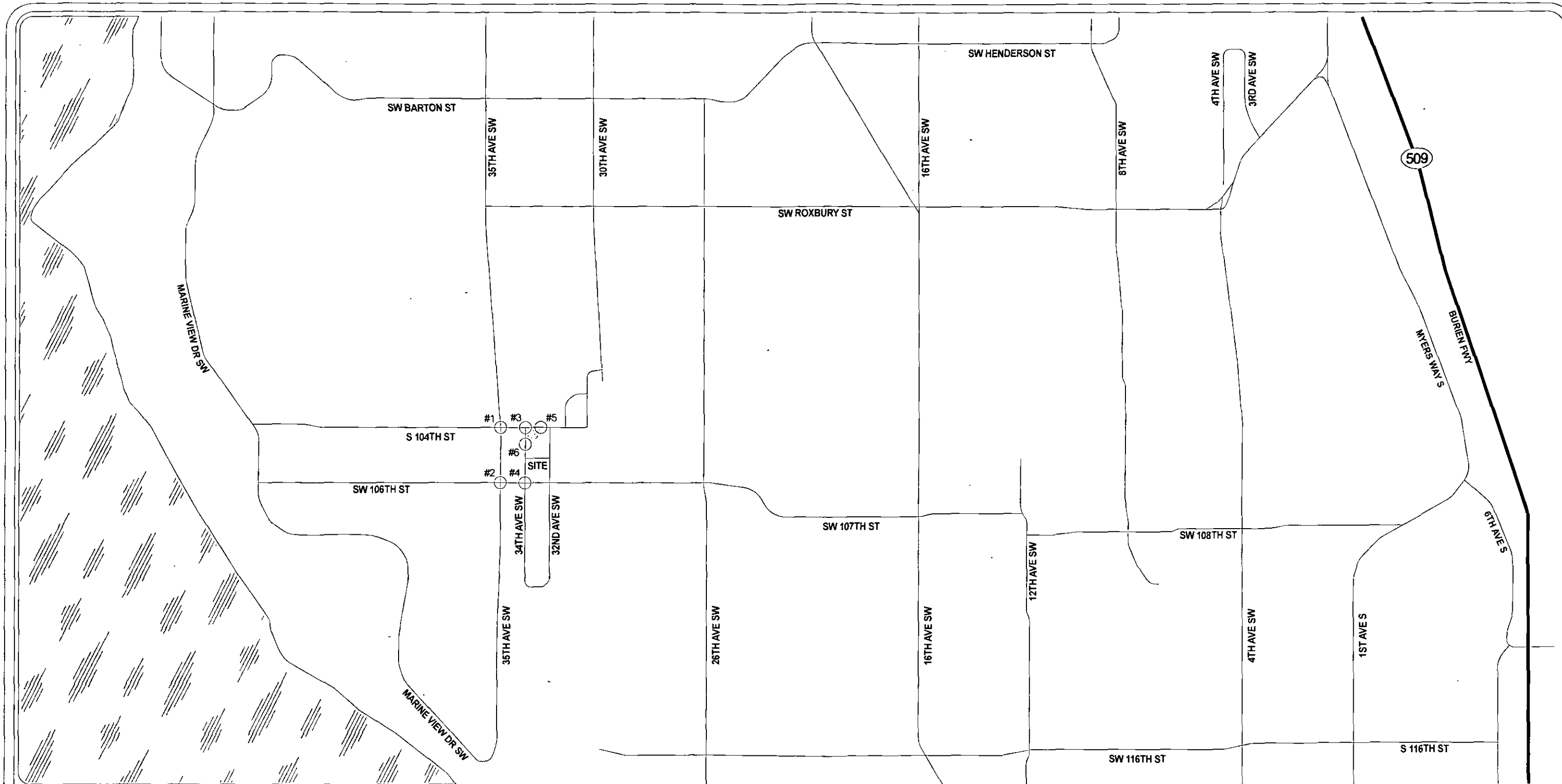
Intersections	Existing Conditions		2016 Future Conditions			
			without Project		With Project	
	LOS	Delay	LOS	Delay	LOS	Delay
1. 35th Ave SW at SW 104th St	C	16.9 sec	C	17.5 sec	D	31.8 sec
2. 35th Ave SW at SW 106th St	B	12.6 sec	B	13.1 sec	B	13.7 sec
3. 34th Ave SW at SW 104th St	A	9.5 sec	A	9.5 sec	C	15.8 sec
4. 34th Ave SW at SW 106th St	C	15.1 sec	C	15.5 sec	C	15.1 sec
5. Inbound Access at SW 104th St	---	---	---	---	---	---
6. 34th Ave SW at Outbound Access	---	---	---	---	A	9.9 sec

5.5 2016 Opening Year Parking Demand

For the future parking assessment, GTC assumed that the student enrollment would increase from 314 existing students (when counts were conducted) to the maximum of 390 students projected by the School. This increase of 76 students represents a projected increase of about 24% in the student enrollment. Existing on-site parking demands for the site from the AM and PM peak utilization surveys at the school site were increased by 24% to estimate future peak parking demands with the school remodel project. The total existing on-site parking during the School PM peak period is 48 vehicles, which is projected to increase to 60 total vehicles with the project. This is consistent with the 55 to 57 staff members with the new school.

The school is proposing 64 on-site parking spaces of which 13 of the parking spaces will be signed to be utilized for peak drop-off/pick-up loading times. There will also be room for another 8 vehicles along the sites frontage to 34th Avene SW and 3 vehicles will be able to queue along the sites frontage on SW 104th Street. The use of double stacking for the drop-off/pick-up will accommodate a total of 30 vehicles on-site during the peak loading times. This along with the improvements to the site frontage will accommodate 41 vehicles without any queuing impact to the local street system. As the school is not adding any additional students to the current maximum pick-up period, grades 1st thru 4th, it is anticipated that the maximum existing queue demand of 36 vehicles witnessed on a rainy December day, will be accommodated with these improvements.

Another 20 vehicles could potentially park on the courts proposed on the east side of the site. Also, the Westside School currently leases another site to Explorer West Middle School located at 10015 28th Avenue SW. This site easily has room for 50 additional vehicles that could be used for overflow parking with a shuttle service to the proposed site approximately ½ mile to the west.



GIBSON TRAFFIC CONSULTANTS

TRAFFIC IMPACT STUDY
GTC 12-115

WESTSIDE SCHOOL RELOCATION
(390 STUDENTS)

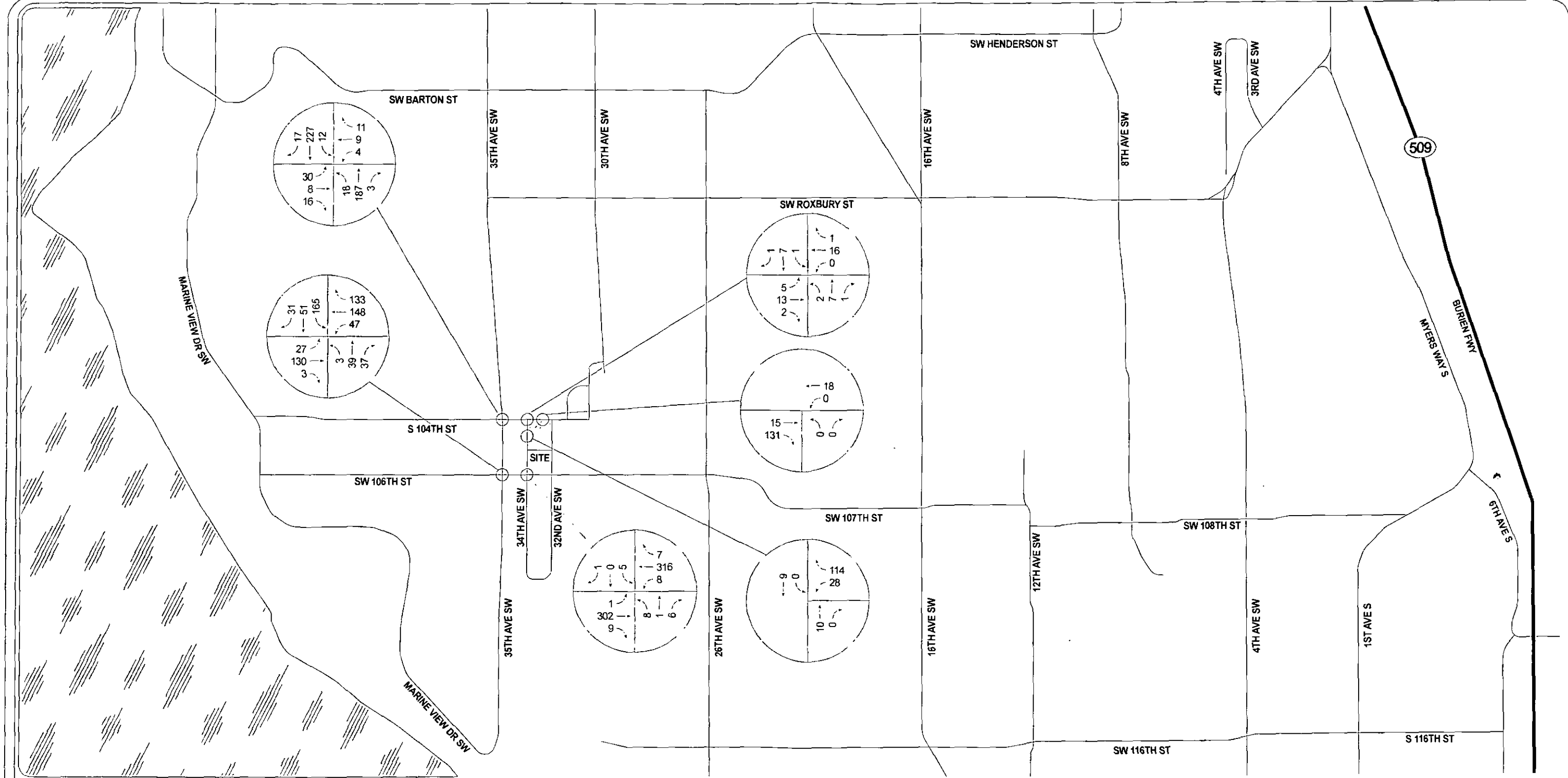
CITY OF SEATTLE

LEGEND

DEVELOPMENT SITE

#5 STUDY INTERSECTION

FIGURE 1
SITE VICINITY



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TRAFFIC IMPACT STUDY
GTC 12-115

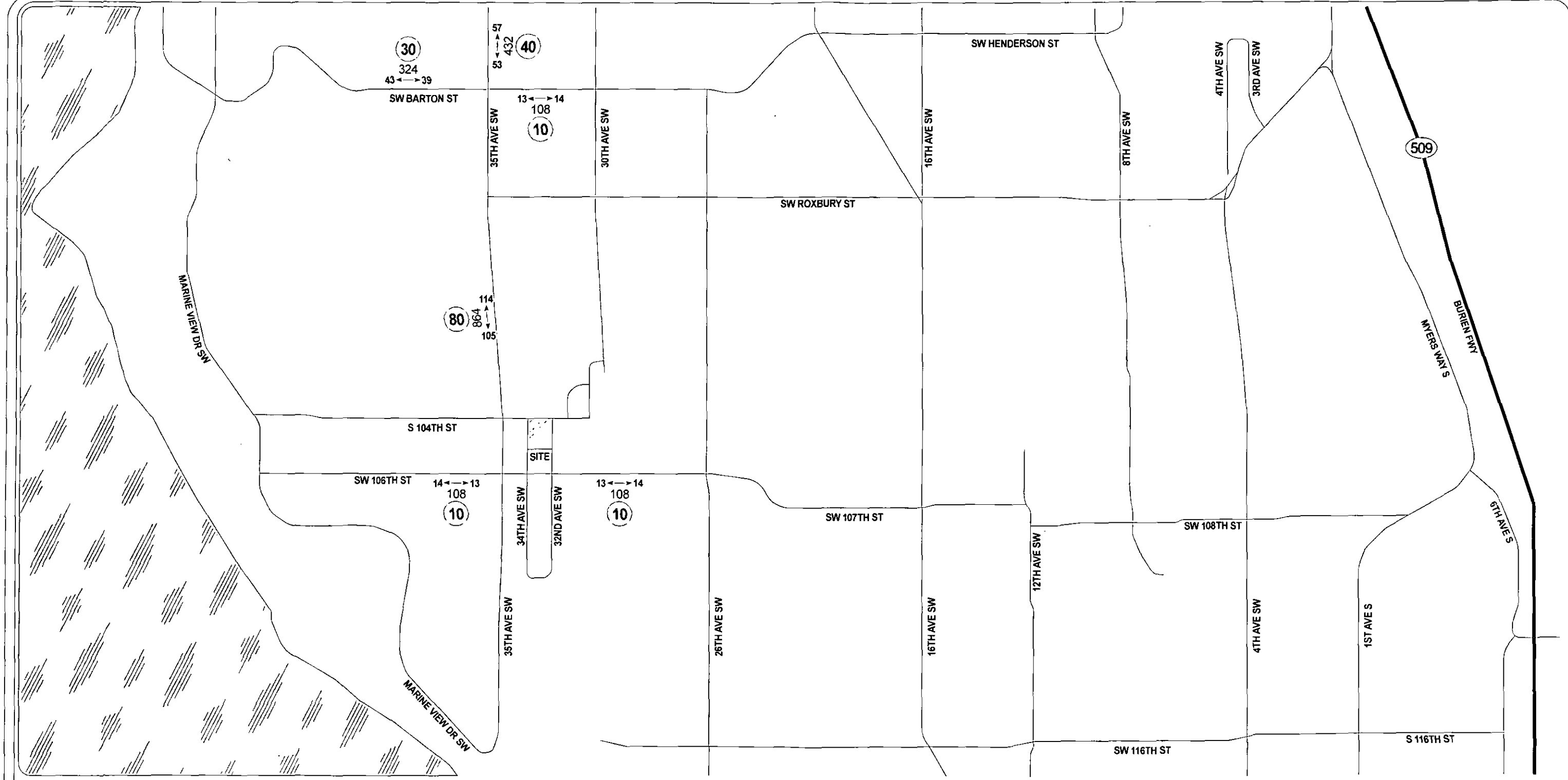
WESTSIDE SCHOOL RELOCATION
(390 STUDENTS)

CITY OF SEATTLE

LEGEND

XXX → TURNING MOVEMENTS

FIGURE 2
EXISTING 2013
TRAFFIC VOLUMES



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TRAFFIC IMPACT STUDY
GTC 12-115

WESTSIDE SCHOOL RELOCATION
(390 STUDENTS)

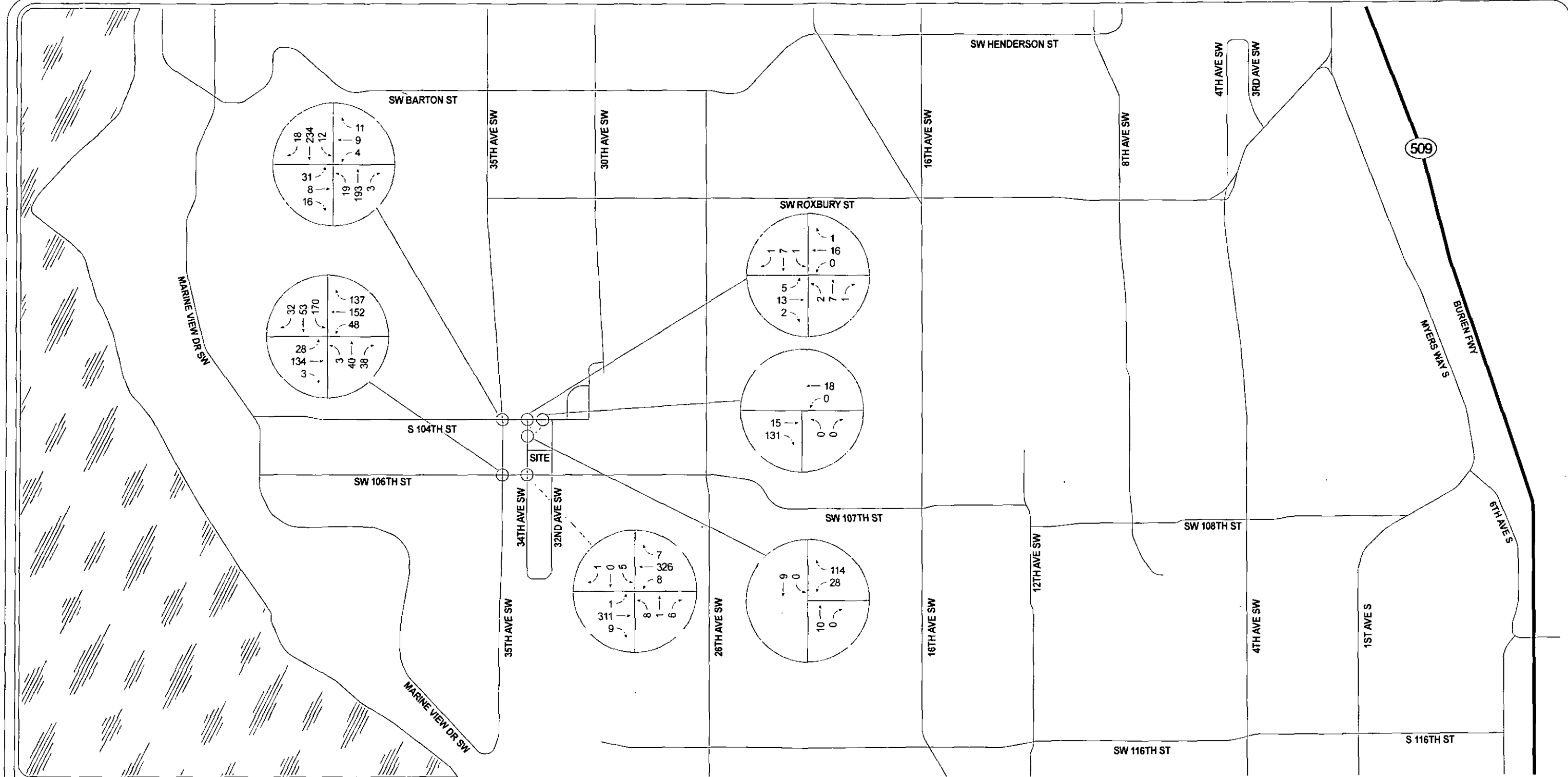
CITY OF SEATTLE

LEGEND

PM ◄——► PEAK
AWDT — NEW SITE TRAFFIC (DAILY/PEAK HOUR)

(25) — TRIP DISTRIBUTION %

FIGURE 3
SCHOOL PM PEAK-HOUR
TRIP DISTRIBUTION



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TRAFFIC IMPACT STUDY
GTC 12-115

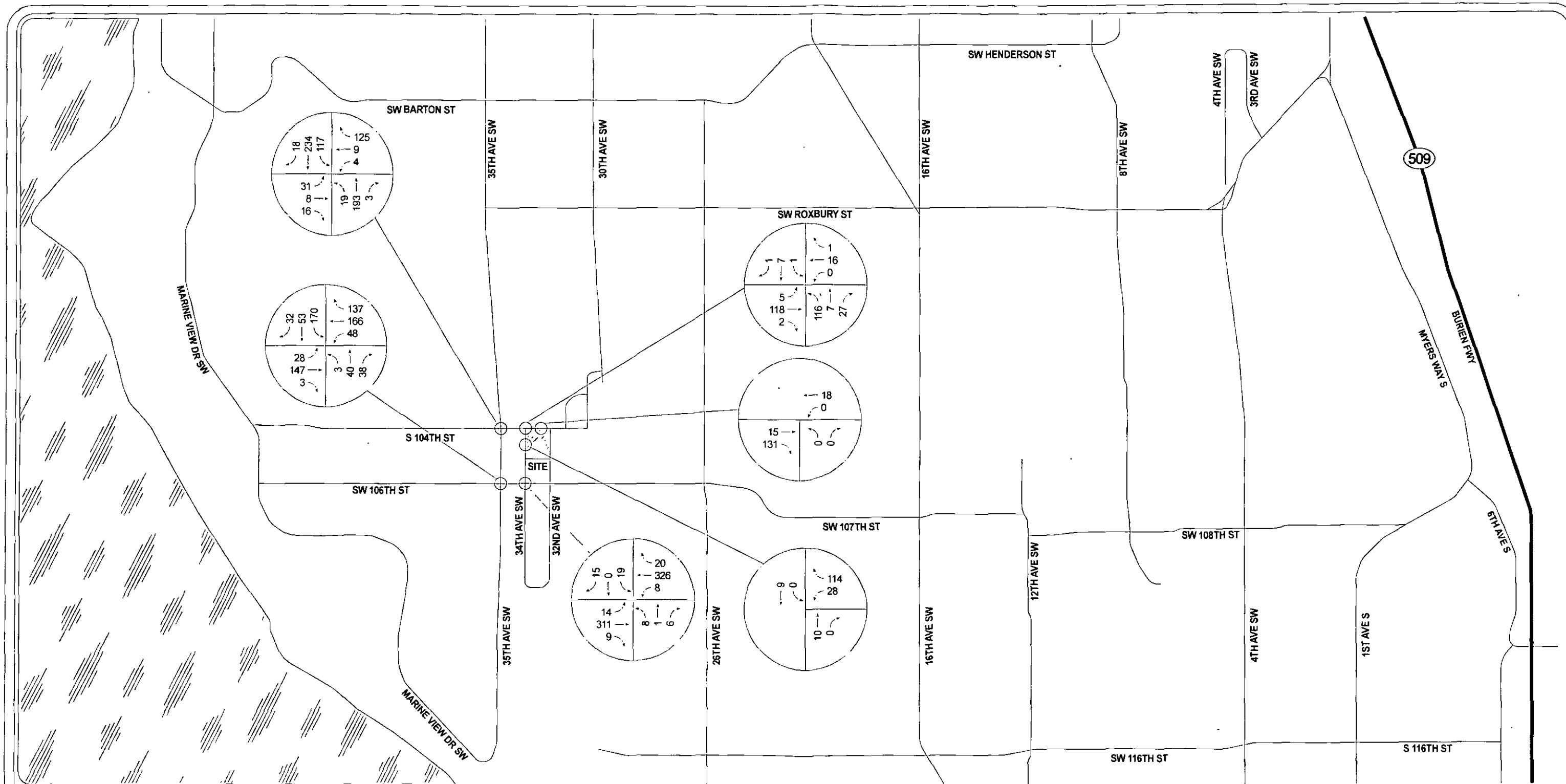
WESTSIDE SCHOOL RELOCATION
(390 STUDENTS)

CITY OF SEATTLE

LEGEND

XXX —- TURNING MOVEMENTS

FIGURE 4
BASELINE 2016
WITHOUT PROJECT
TRAFFIC VOLUMES



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TRAFFIC IMPACT STUDY
GTC 12-115

WESTSIDE SCHOOL RELOCATION
(390 STUDENTS)

CITY OF SEATTLE

LEGEND

XXX → TURNING MOVEMENTS

FIGURE 5
FUTURE 2016
WITH PROJECT
TRAFFIC VOLUMES

6. SCREENLINE ANALYSIS

The development is anticipated to add measurable project trips to the following screenline:

6.1 Screenline 4.12: South City Limit – Marine Dr SW to Meyers Way S

The roadways crossing Screenline 4.12 have a maximum roadway capacity of 8,940 vehicles in both the northbound and southbound directions during the peak commute period. The required level of service threshold at Screenline 4.12 is a volume-to-capacity (v/c) ratio of 1.00. The existing volumes, based on the 2008 traffic volumes, are 3,445 in the northbound direction and 4,170 in the southbound direction. It is anticipated that 80% of the development's new trips will impact Screenline 4.12, which is 114 northbound trips and 105 southbound trips, utilizing the higher School PM peak-hour volumes. The analysis for Screenline 4.12 shows that the v/c ratios will remain below 1.00 with the development. The v/c calculations for Screenline 4.12 are summarized in Table 5.

Table 5: Screenline 4.12 Summary

Direction	2008 Capacity	2008 Volume	v/c Ratio	v/c Threshold	Development Volumes	with Development	
						Volume	v/c Ratio
Northbound	8,940	3,445	0.39	1.00	114	3,559	0.40
Southbound	8,940	4,170	0.47	1.00	105	4,275	0.48

7. TRAFFIC MITIGATION

7.1 Mitigation/Improvements

The church currently has two access points to SW 104th Street, with the change to the school the western most access will be closed and the east access will be used as an inbound only access. The current access to 34th Avenue SW will remain; however, it will be used as an outbound only access.

The following on-site/access improvement will be constructed by the school to enhance the traffic flow and safety conditions:

- Create an inbound access off of SW 104th Street and outbound access to 34th Avenue SW to restrict drop-off/pick-up conflicts
- Construct 64 on-site parking spaces and 11 off-site parking spaces.
- Construct a parent drop-off/pick-up loop with room for a 30-36 vehicles.
- Provide sidewalks along the site frontage.

7.2 Off-Site Mitigation/Improvements

The school should provide clearing of the bushes and trees within the right-of-way along SW 104th Street at the intersection of 34th Avenue SW (northeast and southwest corners). In addition, the school should work with the Seattle Department of Transportation (SDOT) to install stop signs on the northbound and southbound legs of the intersection of 34th Avenue SW at SW 104th Street. This will help enforce the stopping movements with the increase in traffic from the school. The school should also work with SDOT on getting school zone signage along the schools frontage on 34th Avenue SW and SW 104th Street to help relay the reduction in speed along these roadway for the safety of students and neighbors.

8. CONCLUSIONS

The private school will increase the capacity of the school to a maximum of 390 students. The school will also accept 8th Graders. The school hours are likely to continue to be from 8:30 AM and to 3:30 PM for the various grades.

The school is estimated to generate a total of 1,080 average daily trips with 351 trips during the AM peak-hour, 273 trips during the School PM peak-hour, and 101 PM peak-hour trips.

In 2016 future with the expansion of the proposed school, all the off-site study intersections will continue to operate at LOS D or better during the School PM peak-hour, thus meeting the City of Seattle standards. In addition the one impacted screenline would still continue to operate with an acceptable volume/capacity ratio.

Trip Generation Calculations

Westside School
GTC #12-115

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
Private School - K-8	390 students	534	2.77	50%	50%	1080	0%	0	1080	0%	0	0%	0	1080	0	0	0	0	540	540
Total						1080		0	1080		0		0	1080	0	0	0	0	540	540

Westside School
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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
Private School - K-8	390 students	534	0.90	55%	45%	351	0%	0	351	0%	0	0%	0	351	0	0	0	0	193	158
Total						351		0	351		0		0	351	0	0	0	0	193	158

Westside School
GTC #12-115

Trip Generation for: Weekday, Peak Hour of Generator
(a.k.a.): Weekday PM Peak Hour of Generator

									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
Private School - K-8	390 students	GTC	0.70	48%	52%	273	0%	0	273	0%	0	0%	0	273	0	0	0	0	131	142
Total						273		0	273		0		0	273	0	0	0	0	131	142

Westside School
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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
Private School - K-8	390 students	534	0.26	47%	53%	101	0%	0	101	0%	0	0%	0	101	0	0	0	0	48	53
Total						101		0	101		0		0	101	0	0	0	0	48	53

Westside School
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PM Peak-Hour

%	New ADT	New PM Peak Hour Trips In	Out	Total
100%	1080	131.00	142.00	273.00
1%	10.80	1.31	1.42	2.73
2%	21.61	2.62	2.84	5.46
3%	32.41	3.93	4.26	8.19
4%	43.21	5.24	5.68	10.92
5%	**54.02**	**6.55**	**7.10**	**13.65**
6%	64.82	7.86	8.52	16.38
7%	75.62	9.17	9.94	19.11
8%	86.42	10.48	11.36	21.84
9%	97.23	11.79	12.78	24.57
10%	**108.03**	**13.10**	**14.20**	**27.30**
11%	118.83	14.41	15.62	30.03
12%	129.64	15.72	17.04	32.76
13%	140.44	17.03	18.46	35.49
14%	151.24	18.34	19.88	38.22
15%	**162.05**	**19.65**	**21.30**	**40.95**
16%	172.85	20.96	22.72	43.68
17%	183.65	22.27	24.14	46.41
18%	194.45	23.58	25.56	49.14
19%	205.26	24.89	26.98	51.87
20%	**216.06**	**26.20**	**28.40**	**54.60**
21%	226.86	27.51	29.82	57.33
22%	237.67	28.82	31.24	60.06
23%	248.47	30.13	32.66	62.79
24%	259.27	31.44	34.08	65.52
25%	**270.08**	**32.75**	**35.50**	**68.25**
26%	280.88	34.06	36.92	70.98
27%	291.68	35.37	38.34	73.71
28%	302.48	36.68	39.76	76.44
29%	313.29	37.99	41.18	79.17
30%	**324.09**	**39.30**	**42.60**	**81.90**
31%	334.89	40.61	44.02	84.63
32%	345.70	41.92	45.44	87.36
33%	356.50	43.23	46.86	90.09
34%	367.30	44.54	48.28	92.82
35%	**378.11**	**45.85**	**49.70**	**95.55**
36%	388.91	47.16	51.12	98.28
37%	399.71	48.47	52.54	101.01
38%	410.51	49.78	53.96	103.74
39%	421.32	51.09	55.38	106.47
40%	**432.12**	**52.40**	**56.80**	**109.20**
41%	442.92	53.71	58.22	111.93
42%	453.73	55.02	59.64	114.66
43%	464.53	56.33	61.06	117.39
44%	475.33	57.64	62.48	120.12
45%	**486.14**	**58.95**	**63.90**	**122.85**
46%	496.94	60.26	65.32	125.58
47%	507.74	61.57	66.74	128.31
48%	518.54	62.88	68.16	131.04
49%	529.35	64.19	69.58	133.77
50%	**540.15**	**65.50**	**71.00**	**136.50**

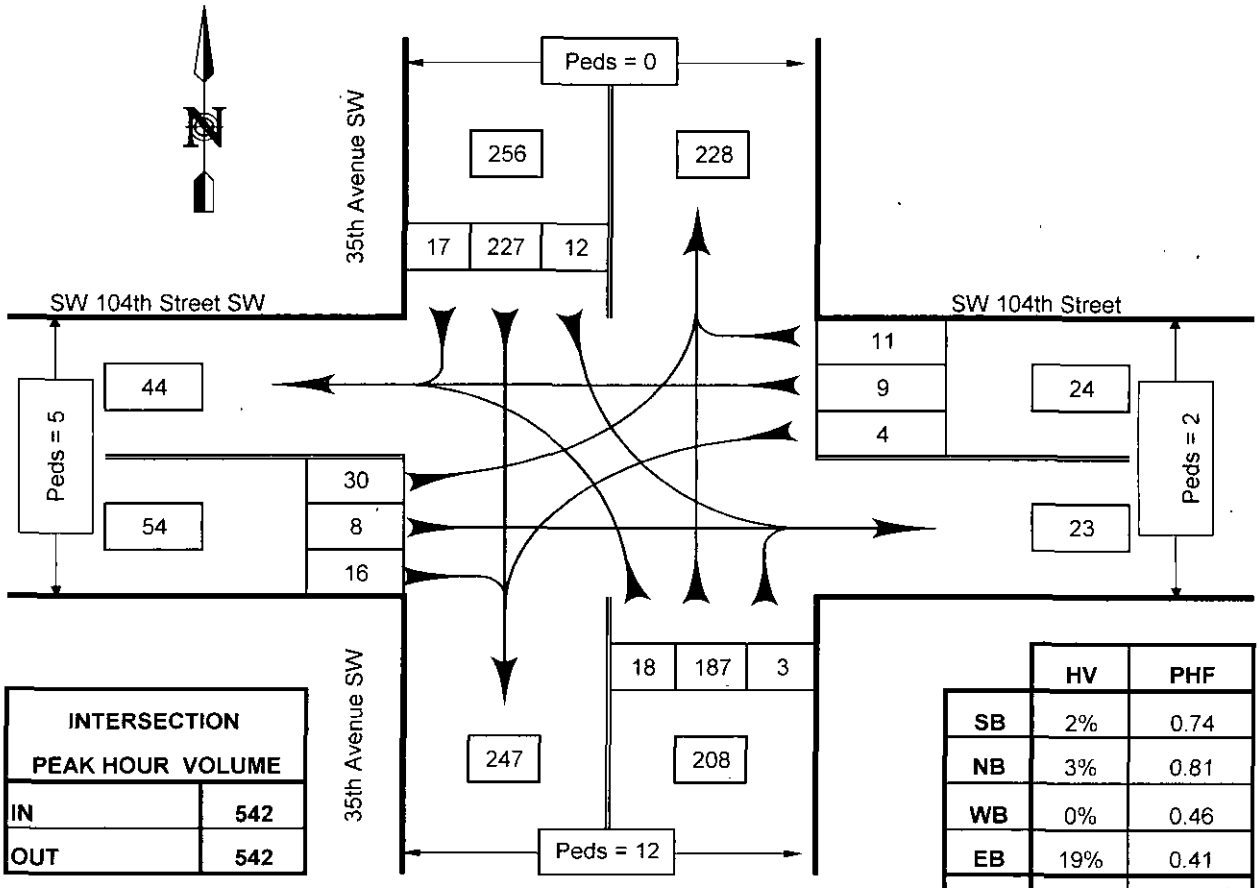
%	New ADT	New PM Peak Hour Trips In	Out	Total
100%	1080.30	131.00	142.00	273.00
51%	550.95	66.81	72.42	139.23
52%	561.76	68.12	73.84	141.96
53%	572.56	69.43	75.26	144.69
54%	583.36	70.74	76.68	147.42
55%	**594.17**	**72.05**	**78.10**	**150.15**
56%	604.97	73.36	79.52	152.88
57%	615.77	74.67	80.94	155.61
58%	626.57	75.98	82.36	158.34
59%	637.38	77.29	83.78	161.07
60%	**648.18**	**78.60**	**85.20**	**163.80**
61%	658.98	79.91	86.62	166.53
62%	669.79	81.22	88.04	169.26
63%	680.59	82.53	89.46	171.99
64%	691.39	83.84	90.88	174.72
65%	**702.20**	**85.15**	**92.30**	**177.45**
66%	713.00	86.46	93.72	180.18
67%	723.80	87.77	95.14	182.91
68%	734.60	89.08	96.56	185.64
69%	745.41	90.39	97.98	188.37
70%	**756.21**	**91.70**	**99.40**	**191.10**
71%	767.01	93.01	100.82	193.83
72%	777.82	94.32	102.24	196.56
73%	788.62	95.63	103.66	199.29
74%	799.42	96.94	105.08	202.02
75%	**810.23**	**98.25**	**106.50**	**204.75**
76%	821.03	99.56	107.92	207.48
77%	831.83	100.87	109.34	210.21
78%	842.63	102.18	110.76	212.94
79%	853.44	103.49	112.18	215.67
80%	**864.24**	**104.80**	**113.60**	**218.40**
81%	875.04	106.11	115.02	221.13
82%	885.85	107.42	116.44	223.86
83%	896.65	108.73	117.86	226.59
84%	907.45	110.04	119.28	229.32
85%	**918.26**	**111.35**	**120.70**	**232.05**
86%	929.06	112.66	122.12	234.78
87%	939.86	113.97	123.54	237.51
88%	950.66	115.28	124.96	240.24
89%	961.47	116.59	126.38	242.97
90%	**972.27**	**117.90**	**127.80**	**245.70**
91%	983.07	119.21	129.22	248.43
92%	993.88	120.52	130.64	251.16
93%	1004.68	121.83	132.06	253.89
94%	1015.48	123.14	133.48	256.62
95%	**1026.29**	**124.45**	**134.90**	**259.35**
96%	1037.09	125.76	136.32	262.08
97%	1047.89	127.07	137.74	264.81
98%	1058.69	128.38	139.16	267.54
99%	1069.50	129.69	140.58	270.27
100%	**1080.30**	**131.00**	**142.00**	**273.00**

Count Data

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

2:00 PM - 4:00 PM PEAK HOUR: 2:45 PM TO 3:45 PM



INTERSECTION PEAK HOUR VOLUME	
IN	542
OUT	542

	HV	PHF
SB	2%	0.74
NB	3%	0.81
WB	0%	0.46
EB	19%	0.41
INTRS.	4%	0.69

HV = Heavy Vehicles
PHF = Peak Hour Factor

35th Avenue SW @ S 104th Street

Seattle, WA

COUNTED BY: RH

REDUCED BY: CN

DATE: Wed. 2/13/13

DATE OF COUNT: Wed. 2/13/13

TIME OF COUNT: 2:00 PM - 4:00 PM

WEATHER: Overcast

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: 35th Avenue SW @ S 104th Street
Seattle, WA

DATE OF COUNT: Wed. 2/13/13
TIME OF COUNT: 2:00 PM - 4:00 PM

COUNTED BY: RH
WEATHER: Overcast

TIME INTERVAL ENDING AT	FROM NORTH ON 35th Avenue SW					FROM SOUTH ON 35th Avenue SW					FROM EAST ON SW 104th Street					FROM WEST ON SW 104th Street SW					INTERVAL TOTALS
	Peds	HV	Left	Thru	Right	Peds	HV	Left	Thru	Right	Peds	HV	Left	Thru	Right	Peds	HV	Left	Thru	Right	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	3	1	47	2	0	0	1	43	0	1	0	0	0	0	0	0	3	0	1	98
02:30 PM	0	0	0	45	2	0	0	3	40	1	1	0	1	0	1	0	0	2	0	0	95
02:45 PM	1	1	1	46	5	0	5	6	32	0	2	0	0	0	3	0	1	1	2	1	97
03:00 PM	0	4	4	46	10	2	1	10	41	2	0	0	1	3	2	2	0	1	1	1	122
03:15 PM	0	1	6	77	3	8	1	5	59	0	1	0	3	4	6	1	8	17	6	10	196
03:30 PM	0	1	0	48	3	2	1	1	40	0	1	0	0	2	2	0	2	11	0	5	112
03:45 PM	0	0	2	56	1	0	3	2	47	1	0	0	0	0	1	2	0	1	1	0	112
04:00 PM	0	1	0	50	4	1	0	1	50	0	0	0	2	2	2	0	0	5	2	0	118
PEAK HOUR TOTALS	0	6	12	227	17	12	6	18	187	3	2	0	4	9	11	5	10	30	8	16	INTERSECTION
ALL MOVEMENTS	256					208					24					54					542
% HV	2%					3%					0%					19%					4%
PEAK HOUR FACTOR	0.74					0.81					0.46					0.41					0.69

PHF = Peak Hour Factor

2:00 PM - 4:00 PM PEAK HOUR: 2:45 PM TO 3:45 PM

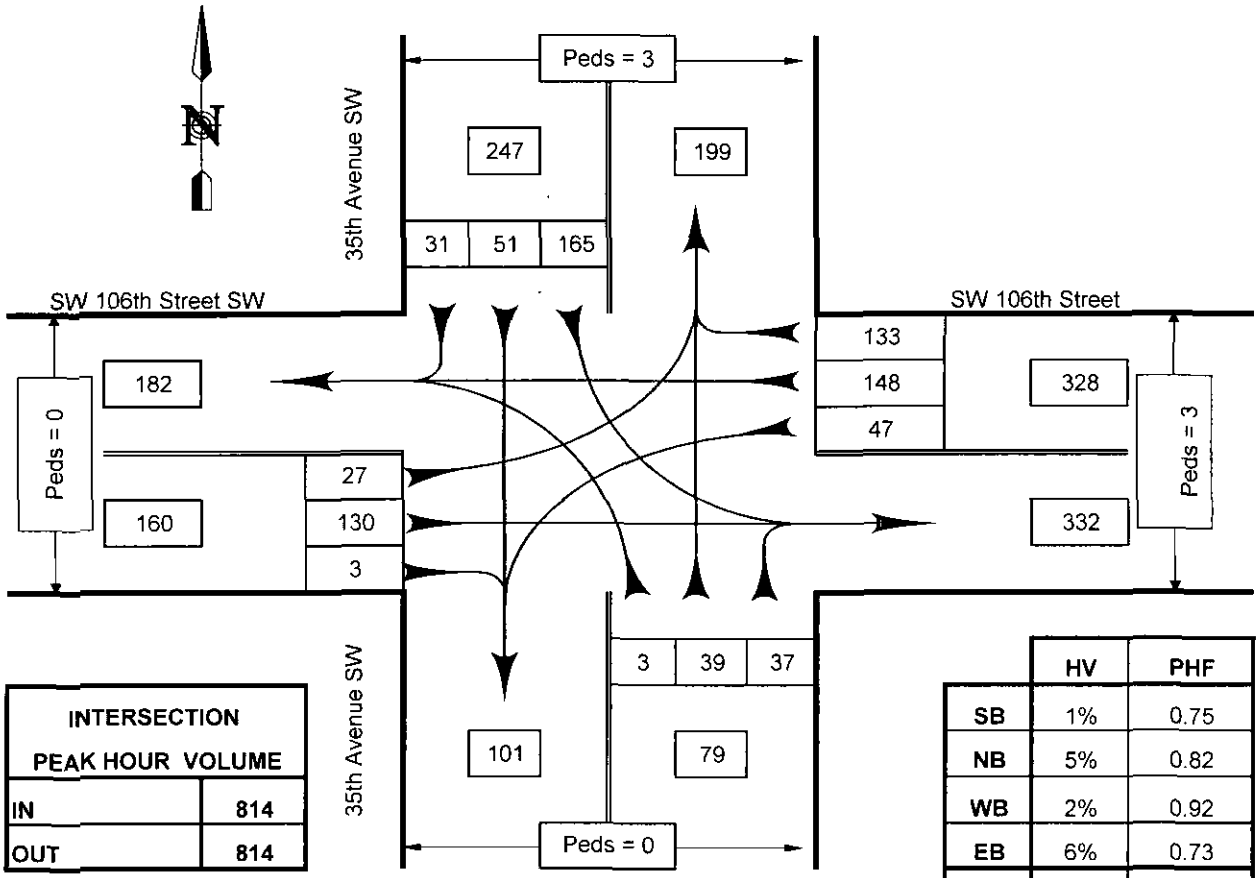
REDUCED BY: CN

DATE OF REDUCTION: 2/13/2013

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

2:00 PM - 4:00 PM PEAK HOUR: 3:00 PM TO 4:00 PM



INTERSECTION PEAK HOUR VOLUME	
IN	814
OUT	814

	HV	PHF
SB	1%	0.75
NB	5%	0.82
WB	2%	0.92
EB	6%	0.73
INTRS.	3%	0.88

HV = Heavy Vehicles
PHF = Peak Hour Factor

35th Avenue SW @ S 106th Street

Seattle, WA

COUNTED BY: JH

REDUCED BY: CN

DATE: Wed. 2/13/13

DATE OF COUNT: Wed. 2/13/13

TIME OF COUNT: 2:00 PM - 4:00 PM

WEATHER: Overcast

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: 35th Avenue SW @ S 106th Street
Seattle, WA

DATE OF COUNT: Wed. 2/13/13
TIME OF COUNT: 2:00 PM - 4:00 PM

COUNTED BY: JH
WEATHER: Overcast

TIME INTERVAL ENDING AT	FROM NORTH ON 35th Avenue SW					FROM SOUTH ON 35th Avenue SW					FROM EAST ON SW 106th Street					FROM WEST ON SW 106th Street SW					INTERVAL TOTALS
	Peds	HV	Left	Thru	Right	Peds	HV	Left	Thru	Right	Peds	HV	Left	Thru	Right	Peds	HV	Left	Thru	Right	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	3	31	10	3	0	2	2	11	10	0	1	12	29	26	0	1	3	23	0	160
02:30 PM	0	0	30	6	4	0	0	0	8	6	1	0	8	27	29	0	2	3	24	0	145
02:45 PM	0	1	30	13	4	3	0	0	9	8	2	2	11	27	24	0	2	6	25	0	157
03:00 PM	0	4	29	11	4	0	1	1	11	10	0	2	11	35	40	0	2	5	26	0	183
03:15 PM	1	1	59	14	9	0	3	3	9	12	1	1	13	34	42	0	1	8	25	2	230
03:30 PM	0	1	35	17	5	0	0	0	5	12	0	4	18	36	33	0	2	3	21	1	186
03:45 PM	2	0	36	6	9	0	1	0	12	10	2	1	11	36	33	0	4	6	39	0	198
04:00 PM	0	1	35	14	8	0	0	0	13	3	0	1	5	42	25	0	3	10	45	0	200
PEAK HOUR TOTALS	3	3	165	51	31	0	4	3	39	37	3	7	47	148	133	0	10	27	130	3	INTERSECTION
ALL MOVEMENTS	247					79					328					160					814
% HV	1%					5%					2%					6%					3%
PEAK HOUR FACTOR	0.75					0.82					0.92					0.73					0.88

PHF = Peak Hour Factor

2:00 PM - 4:00 PM PEAK HOUR: 3:00 PM TO 4:00 PM

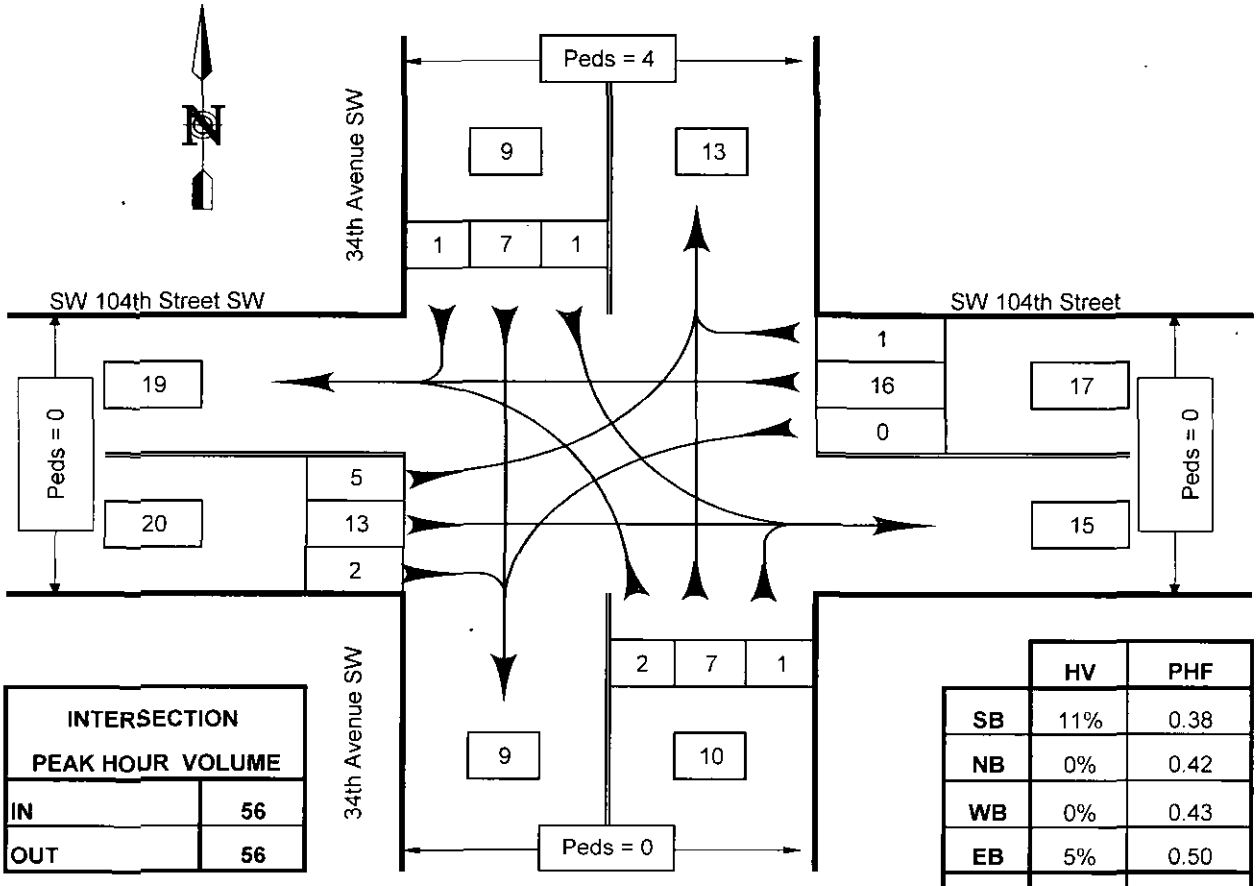
REDUCED BY: CN

DATE OF REDUCTION: 2/13/2013

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

2:00 PM - 4:00 PM PEAK HOUR: 2:45 PM TO 3:45 PM



INTERSECTION PEAK HOUR VOLUME	
IN	56
OUT	56

	HV	PHF
SB	11%	0.38
NB	0%	0.42
WB	0%	0.43
EB	5%	0.50
INTRS.	4%	0.48

HV = Heavy Vehicles
PHF = Peak Hour Factor

34th Avenue SW @ S 104th Street

Seattle, WA

COUNTED BY: RN

REDUCED BY: CN

DATE: Wed. 2/13/13

DATE OF COUNT: Wed. 2/13/13

TIME OF COUNT: 2:00 PM - 4:00 PM

WEATHER: Overcast

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: 34th Avenue SW @ S 104th Street
Seattle, WA

DATE OF COUNT: Wed. 2/13/13
TIME OF COUNT: 2:00 PM - 4:00 PM

COUNTED BY: RN
WEATHER: Overcast

TIME INTERVAL ENDING AT	FROM NORTH ON 34th Avenue SW					FROM SOUTH ON 34th Avenue SW					FROM EAST ON SW 104th Street					FROM WEST ON SW 104th Street SW					INTERVAL TOTALS
	Peds	HV	Left	Thru	Right	Peds	HV	Left	Thru	Right	Peds	HV	Left	Thru	Right	Peds	HV	Left	Thru	Right	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	3
02:30 PM	0	0	0	1	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	4
02:45 PM	0	0	0	2	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1	1	6
03:00 PM	0	0	1	4	1	0	0	0	1	0	0	0	0	4	0	0	0	0	5	0	16
03:15 PM	4	1	0	3	0	0	0	1	5	0	0	0	0	10	0	0	1	5	5	0	29
03:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	3
03:45 PM	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0	3	2	8
04:00 PM	0	0	0	2	0	0	0	1	1	0	0	0	1	2	0	0	0	0	0	0	7
PEAK HOUR TOTALS	4	1	1	7	1	0	0	2	7	1	0	0	0	16	1	0	1	5	13	2	INTERSECTION
ALL MOVEMENTS	9					10					17					20					56
% HV	11%					0%					0%					5%					4%
PEAK HOUR FACTOR	0.38					0.42					0.43					0.50					0.48

PHF = Peak Hour Factor

2:00 PM - 4:00 PM PEAK HOUR: 2:45 PM TO 3:45 PM

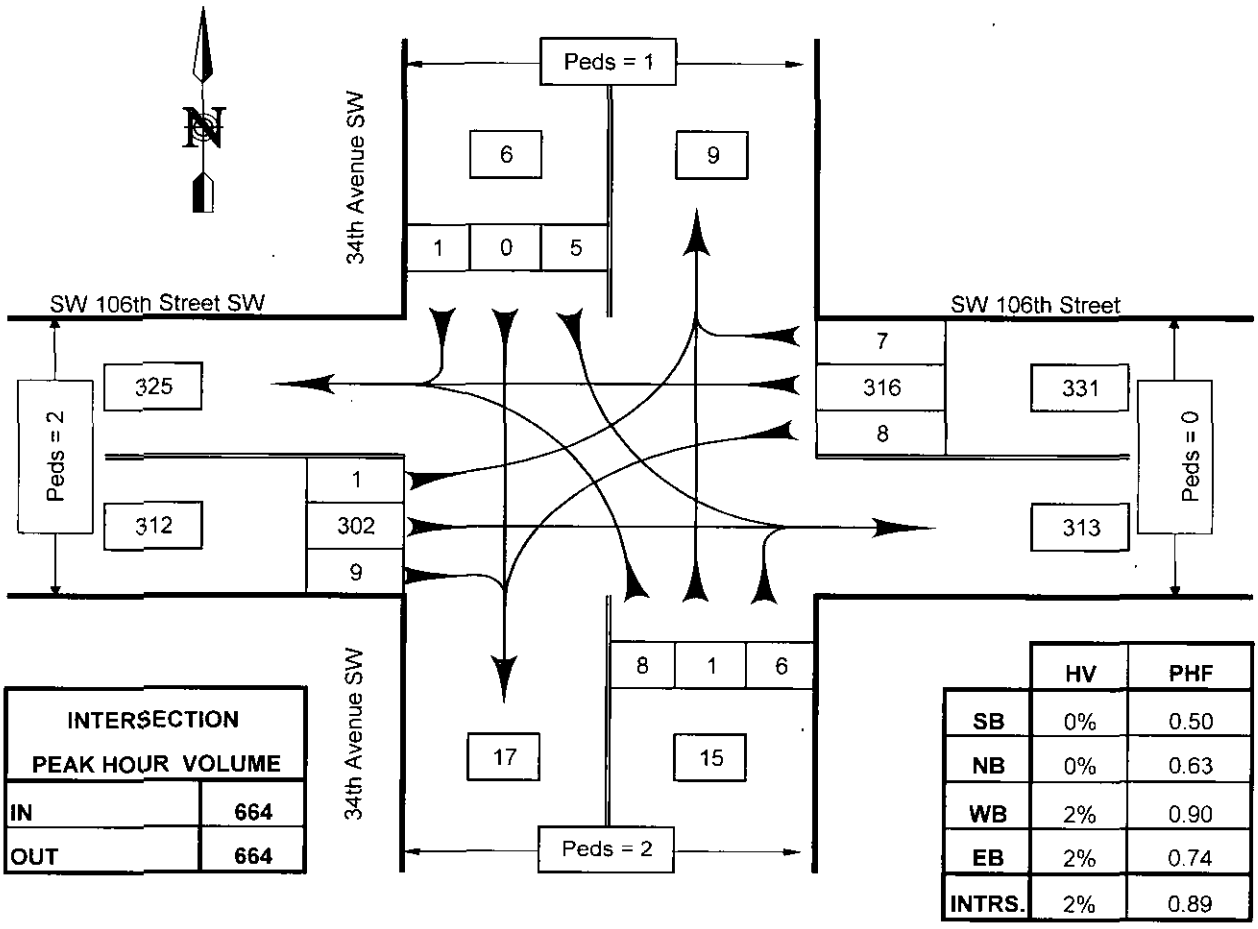
REDUCED BY: CN

DATE OF REDUCTION: 2/13/2013

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

2:00 PM - 4:00 PM PEAK HOUR: 2:45 PM TO 3:45 PM



INTERSECTION PEAK HOUR VOLUME	
IN	664
OUT	664

	HV	PHF
SB	0%	0.50
NB	0%	0.63
WB	2%	0.90
EB	2%	0.74
INTRS.	2%	0.89

HV = Heavy Vehicles
PHF = Peak Hour Factor

34th Avenue SW @ S 106th Street

Seattle, WA

COUNTED BY: CN

REDUCED BY: CN

DATE: Wed. 2/13/13

DATE OF COUNT: Wed. 2/13/13

TIME OF COUNT: 2:00 PM - 4:00 PM

WEATHER: Overcast

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: 34th Avenue SW @ S 106th Street
Seattle, WA

DATE OF COUNT: Wed. 2/13/13
TIME OF COUNT: 2:00 PM - 4:00 PM

COUNTED BY: CN
WEATHER: Overcast

TIME INTERVAL ENDING AT	FROM NORTH ON 34th Avenue SW					FROM SOUTH ON 34th Avenue SW					FROM EAST ON SW 106th Street					FROM WEST ON SW 106th Street SW					INTERVAL TOTALS
	Peds	HV	Left	Thru	Right	Peds	HV	Left	Thru	Right	Peds	HV	Left	Thru	Right	Peds	HV	Left	Thru	Right	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	1	0	0	0	0	1	0	0	1	63	1	0	2	0	56	1	124
02:30 PM	1	0	0	0	0	0	0	2	0	1	1	1	4	64	1	0	3	0	67	2	141
02:45 PM	0	0	0	1	0	1	0	0	0	2	0	2	3	55	1	0	2	0	68	1	131
03:00 PM	0	0	3	0	0	0	0	3	0	2	0	2	3	87	2	0	2	1	57	5	163
03:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	76	3	0	0	0	103	3	187
03:30 PM	1	0	1	0	0	2	0	2	1	3	0	4	2	74	1	0	0	0	63	0	147
03:45 PM	0	0	0	0	1	0	0	3	0	1	0	1	2	79	1	2	3	0	79	1	167
04:00 PM	0	0	1	0	0	0	0	0	0	2	0	0	3	72	2	0	2	0	76	2	158
PEAK HOUR TOTALS	1	0	5	0	1	2	0	8	1	6	0	7	8	316	7	2	5	1	302	9	INTERSECTION
ALL MOVEMENTS	6					15					331					312					664
% HV	0%					0%					2%					2%					2%
PEAK HOUR FACTOR	0.50					0.63					0.90					0.74					0.89

PHF = Peak Hour Factor

2:00 PM - 4:00 PM PEAK HOUR: 2:45 PM TO 3:45 PM

REDUCED BY: CN

DATE OF REDUCTION: 2/13/2013

TRAFFIC DATA GATHERING

REDUCTION SHEET

LOCATION:	Westside School, 7740 34th Avenue SW	DATE OF COUNT:	Wed. 1/30/13
	Seattle, WA	TIME OF COUNT:	2:30 - 4:00 PM
COUNTED BY:	CN/RH	WEATHER:	Rainy

Existing Students 314

			Rate per Student
Vehicle Parked at 2:30 PM	25 (North Driveway)	16 (South Driveway)	0.131
Vehicle Parked at 4:00 PM	20 (North Driveway)	28 (South Driveway)	0.153

TIME INTERVAL ENDING AT	Westside School							
	On-Street Parking		North Driveway		South Driveway		Total	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT
02:45 PM	16	1	0	0	8	8	24	9
03:00 PM	9	13	0	0	5	5	14	18
03:15 PM	17	0	1	0	22	2	40	2
03:30 PM	17	44	1	2	23	22	41	68
03:45 PM	2	3	0	1	10	22	12	26
04:00 PM	3	3	0	4	6	4	9	11
04:15 PM	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0

	Hourly			Trip Gen/Student		
	IN	OUT	Total	Rate	In	Out
2:30 to 3:30	119	97	216	0.688	55%	45%
2:45 to 3:45	107	114	221	0.704	48%	52%
3:00 to 4:00	102	107	209	0.666	49%	51%
	0	0	0	0	0	0

Turning Movement Calculations

Synchro ID: 1

Existing
Average Weekday
School PM Peak Hour

Year: **2/13/13**

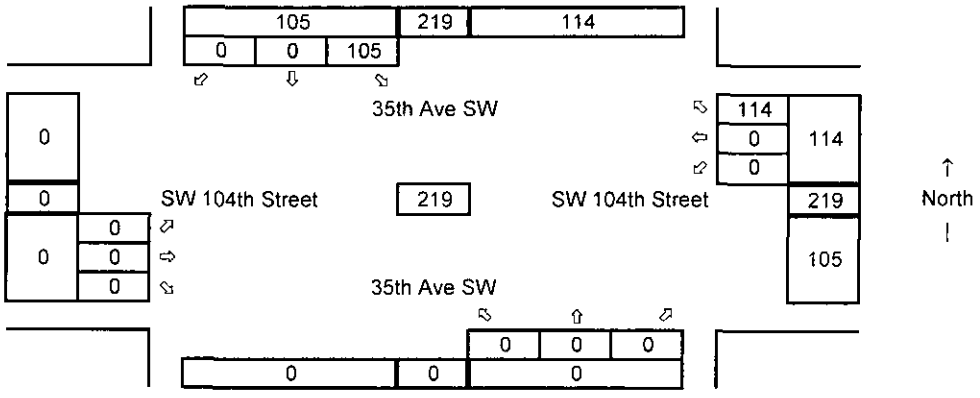
Data Source: TDG

HV 4%
PHF 0.69

Future without Project
Average Weekday
School PM Peak Hour

Year: 2016
Growth Rate = 1.0%
Years of Growth = 3
Total Growth = 1.0303

Total Project Trips
Average Weekday
School PM Peak Hour



Future with Project
Average Weekday
School PM Peak Hour

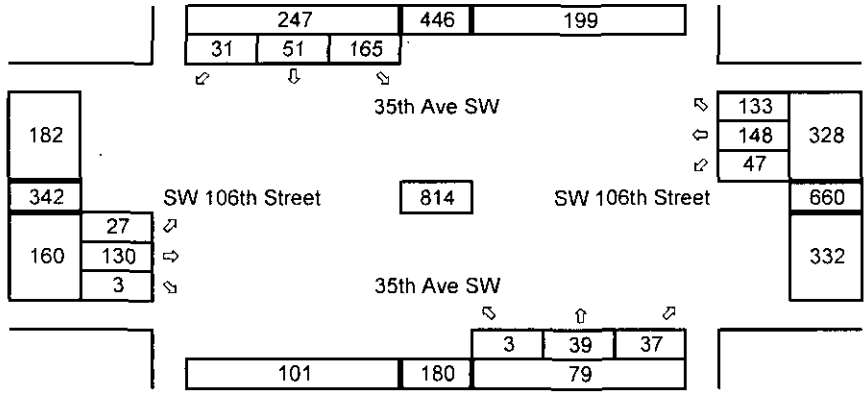
Synchro ID: 2

Existing
Average Weekday
School PM Peak Hour

Year: **2/13/13**

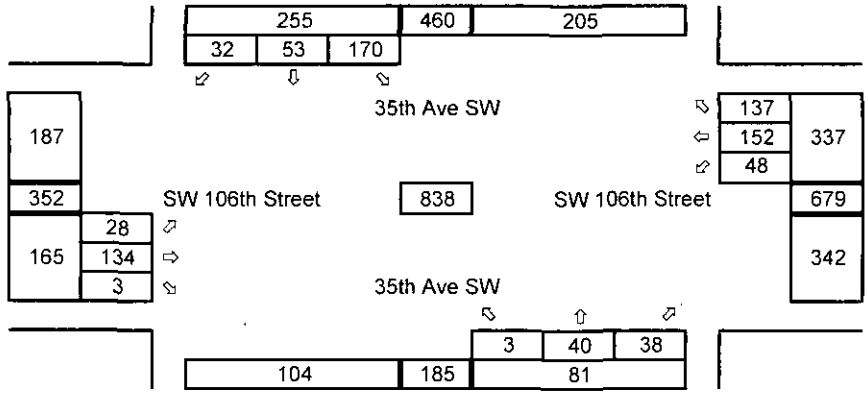
Data Source: TDG

HV 3%
PHF 0.88

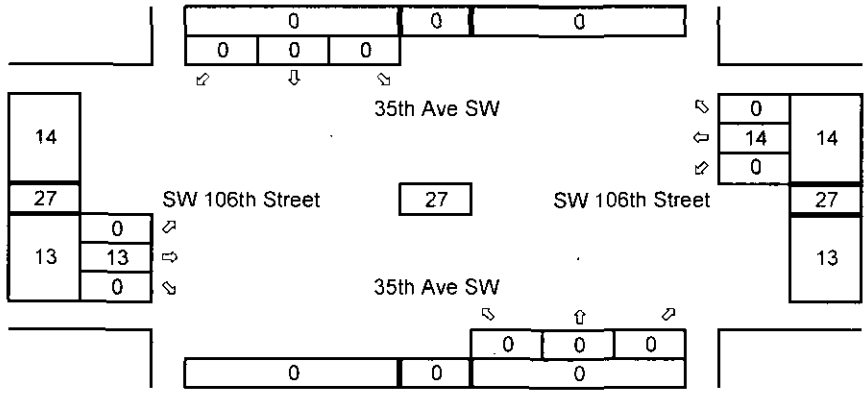


Future without Project
Average Weekday
School PM Peak Hour

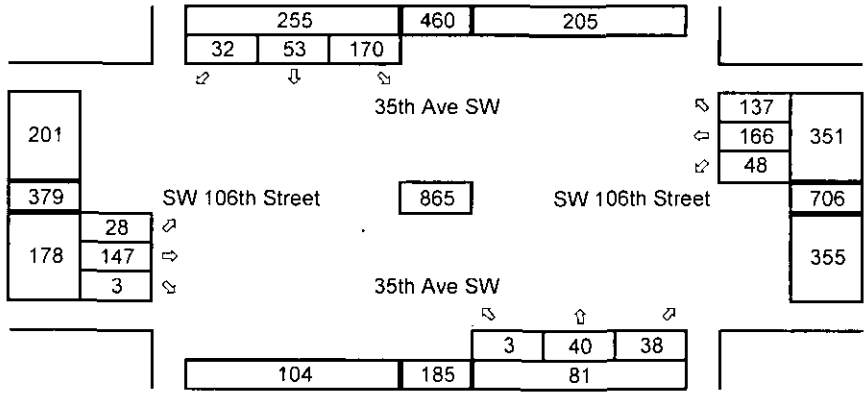
Year: 2016
Growth Rate = 1.0%
Years of Growth = 3
Total Growth = 1.0303



Total Project Trips
Average Weekday
School PM Peak Hour



Future with Project
Average Weekday
School PM Peak Hour



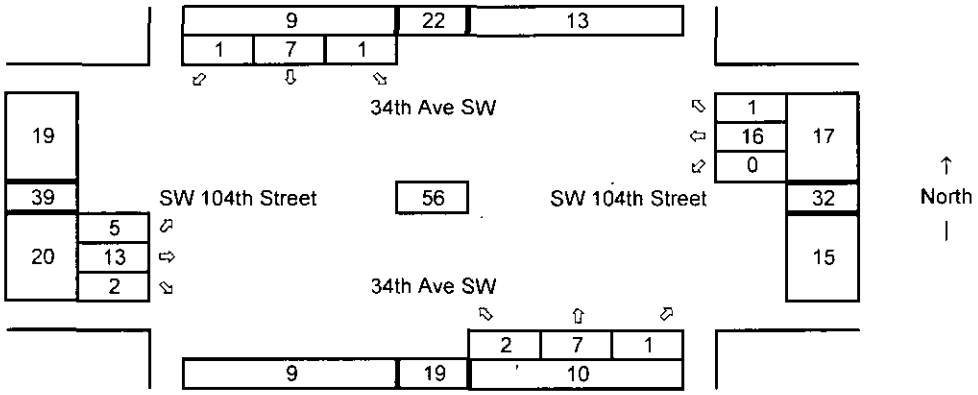
Synchro ID: 3

Existing
Average Weekday
School PM Peak Hour

Year: **2/13/13**

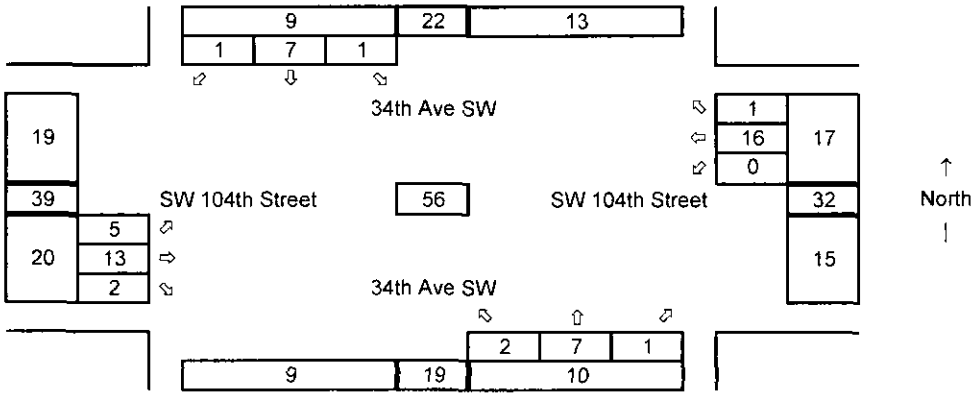
Data Source: TDG

HV 4%
PHF 0.48

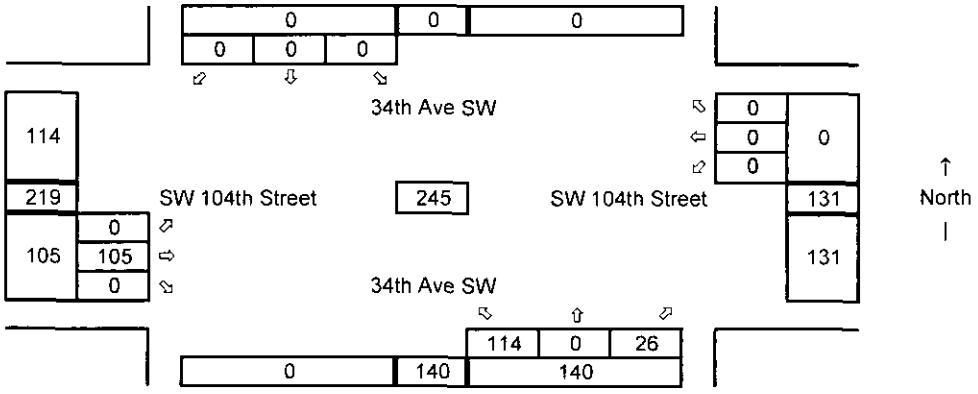


Future without Project
Average Weekday
School PM Peak Hour

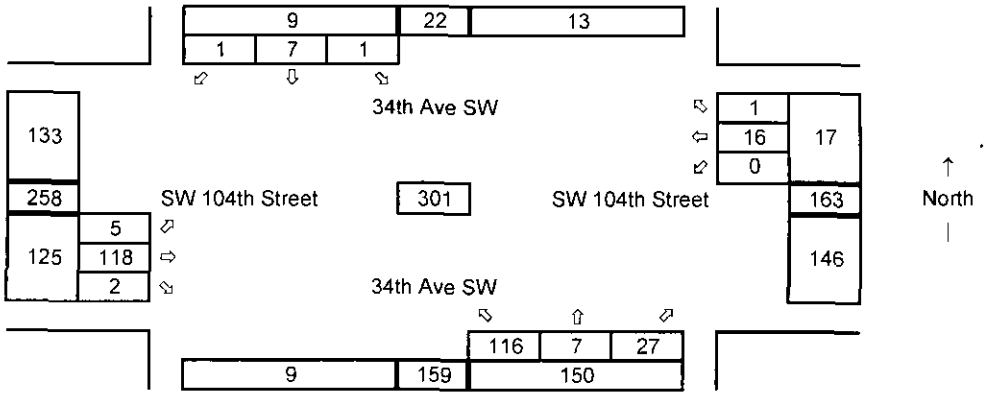
Year: 2016
Growth Rate = 1.0%
Years of Growth = 3
Total Growth = 1.0303



Total Project Trips
Average Weekday
School PM Peak Hour



Future with Project
Average Weekday
School PM Peak Hour



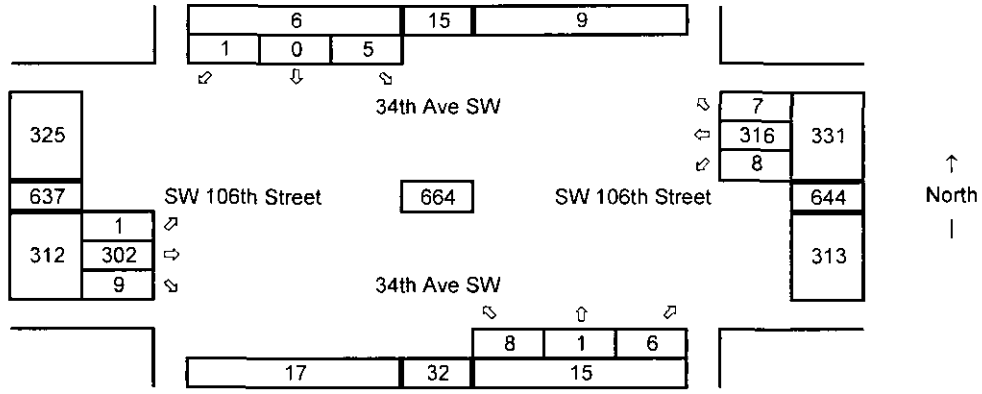
Synchro ID: 4

Existing
Average Weekday
School PM Peak Hour

Year: **2/13/13**

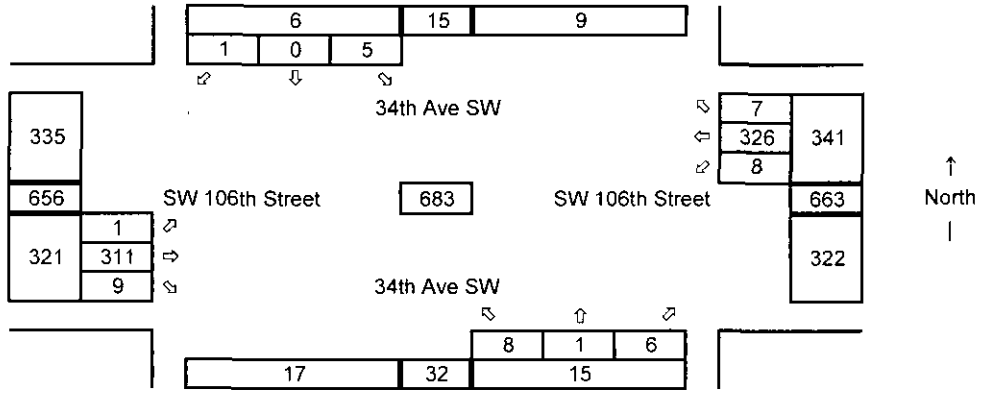
Data Source: TDG

HV 2%
PHF 0.89

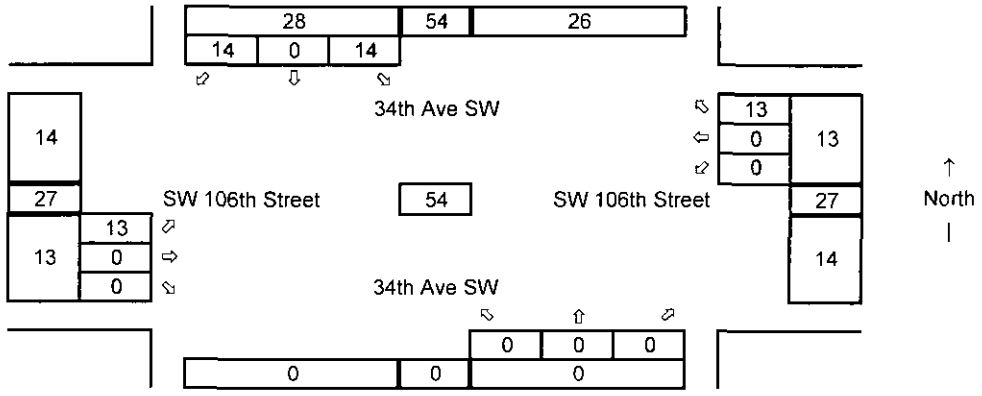


Future without Project
Average Weekday
School PM Peak Hour

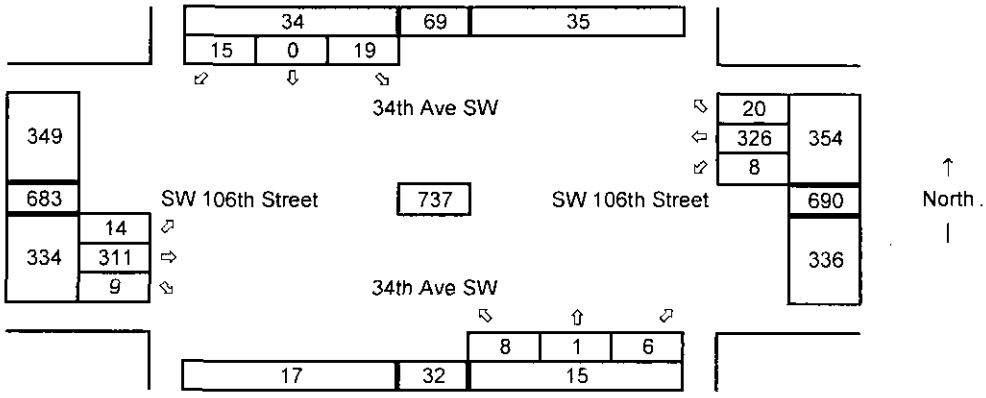
Year: 2016
Growth Rate = 1.0%
Years of Growth = 3
Total Growth = 1.0303



Total Project Trips
Average Weekday
School PM Peak Hour



Future with Project
Average Weekday
School PM Peak Hour



Synchro ID: 5

Existing

Average Weekday

School PM Peak Hour

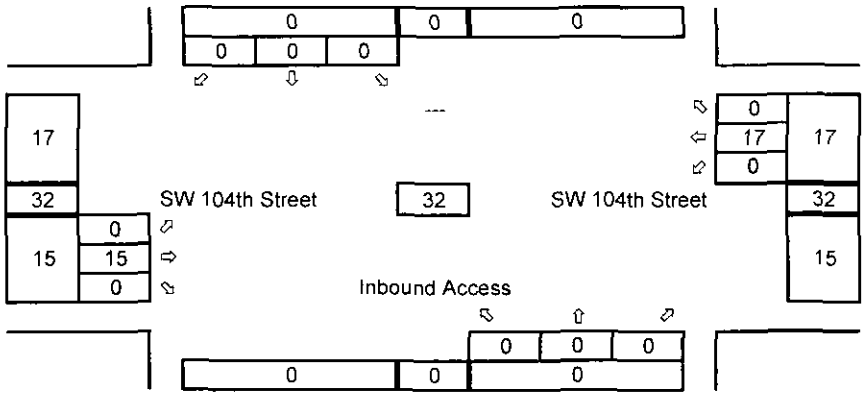
Year: **2/13/13**

Data Source: TDG

Extrapolated 34th at 104th

HV 4%

PHF 0.48



Future without Project

Average Weekday

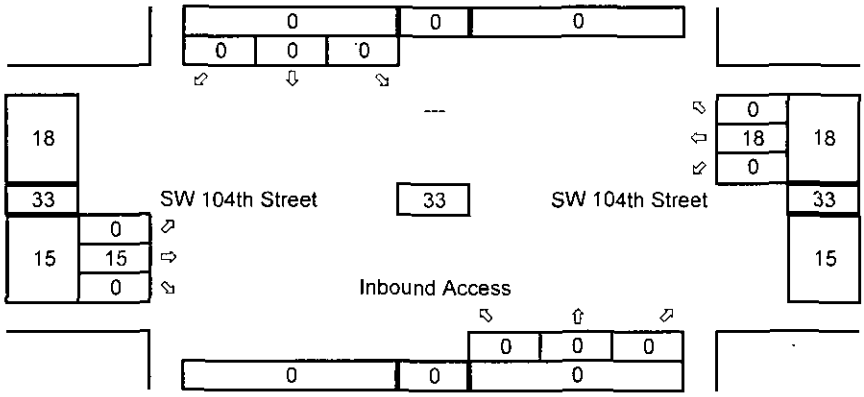
School PM Peak Hour

Year: 2016

Growth Rate = 1.0%

Years of Growth = 3

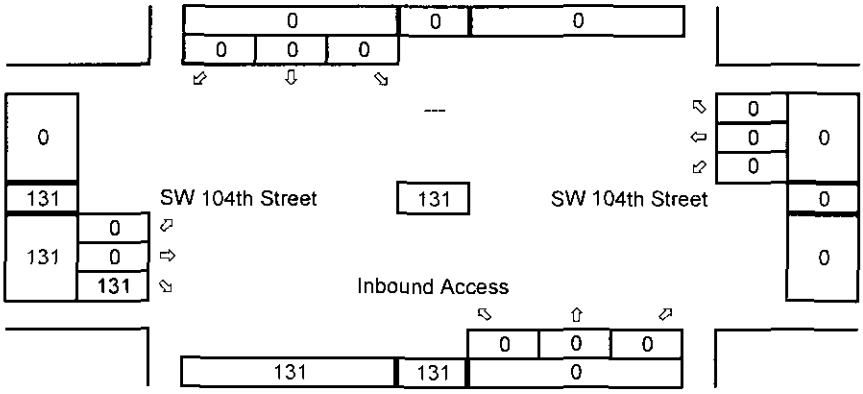
Total Growth = 1.0303



Total Project Trips

Average Weekday

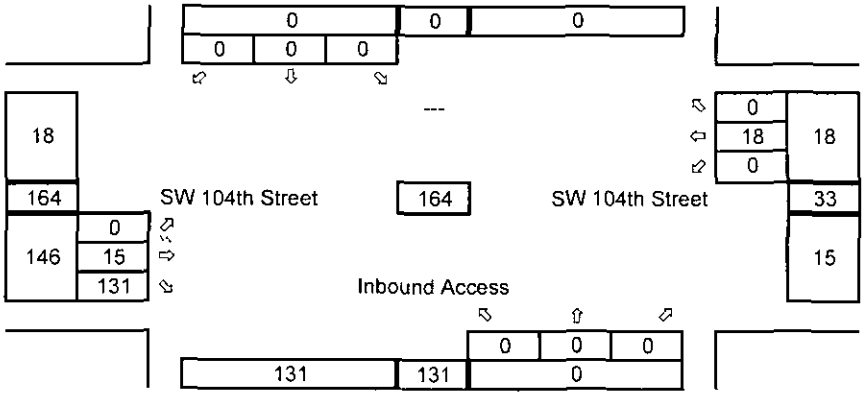
School PM Peak Hour



Future with Project

Average Weekday

School PM Peak Hour

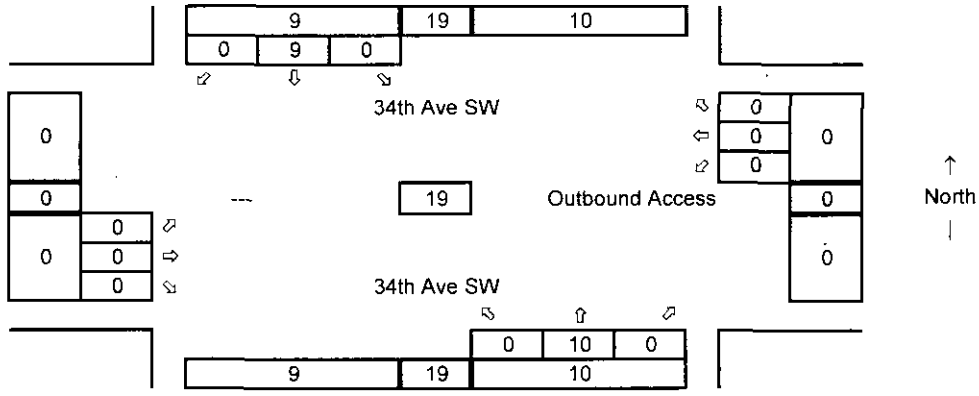


Synchro ID: 6

Existing
Average Weekday
School PM Peak Hour

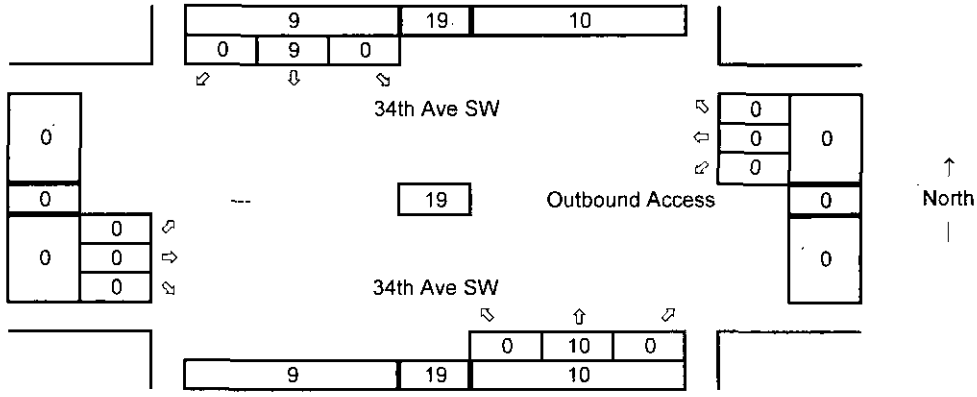
Year: **2/13/13**

Data Source: TDG
Extrapolated 34th at 104th
HV 4%
PHF 0.48

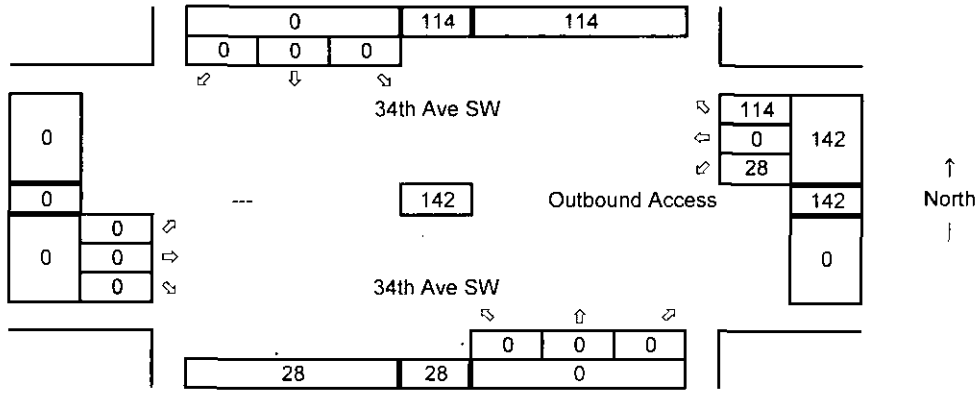


Future without Project
Average Weekday
School PM Peak Hour

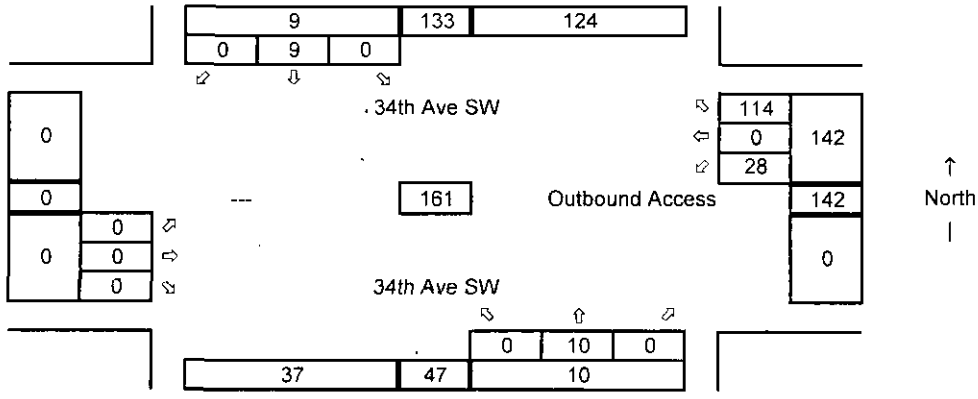
Year: 2016
Growth Rate = 1.0%
Years of Growth = 3
Total Growth = 1.0303



Total Project Trips
Average Weekday
School PM Peak Hour



Future with Project
Average Weekday
School PM Peak Hour



Existing School PM Peak-Hour Level of Service Analysis

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	8	16	4	9	11	18	187	3	12	227	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Hourly flow rate (vph)	43	12	23	6	13	16	26	271	4	17	329	25
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	724	704	341	730	714	273	354			275		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	724	704	341	730	714	273	354			275		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	86	97	97	98	96	98	98			99		
cM capacity (veh/h)	313	347	697	307	342	761	1194			1276		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	78	35	301	371
Volume Left	43	6	26	17
Volume Right	23	16	4	25
cSH	381	446	1194	1276
Volume to Capacity	0.21	0.08	0.02	0.01
Queue Length 95th (ft)	19	6	2	1
Control Delay (s)	16.9	13.8	0.9	0.5
Lane LOS	C	B	A	A
Approach Delay (s)	16.9	13.8	0.9	0.5
Approach LOS	C	B		

Intersection Summary			
Average Delay	2.9		
Intersection Capacity Utilization	31.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	27	130	3	47	148	133	3	39	37	165	51	31
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
Hourly flow rate (vph)	31	148	3	53	168	151	3	44	42	188	58	35

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	182	373	90	281
Volume Left (vph)	31	53	3	188
Volume Right (vph)	3	151	42	35
Hadj (s)	0.07	-0.16	-0.22	0.11
Departure Headway (s)	5.7	5.1	5.7	5.7
Degree Utilization, x	0.29	0.53	0.14	0.44
Capacity (veh/h)	578	663	535	588
Control Delay (s)	10.9	13.8	9.7	13.1
Approach Delay (s)	10.9	13.8	9.7	13.1
Approach LOS	B	B	A	B

Intersection Summary			
Delay	12.6		
HCM Level of Service	B		
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	13	2	0	16	1	2	7	1	1	7	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48
Hourly flow rate (vph)	10	27	4	0	33	2	4	15	2	2	15	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	35			31			94	85	29	94	86	34
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	35			31			94	85	29	94	86	34
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	98	100	100	98	100
cM capacity (veh/h)	1563			1568			866	796	1040	866	795	1033

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	42	35	21	19
Volume Left	10	0	4	2
Volume Right	4	2	2	2
cSH	1563	1568	829	823
Volume to Capacity	0.01	0.00	0.03	0.02
Queue Length 95th (ft)	1	0	2	2
Control Delay (s)	1.9	0.0	9.5	9.5
Lane LOS	A		A	A
Approach Delay (s)	1.9	0.0	9.5	9.5
Approach LOS			A	A

Intersection Summary			
Average Delay	3.9		
Intersection Capacity Utilization	15.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	302	9	8	316	7	8	1	6	5	0	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	1	339	10	9	355	8	9	1	7	6	0	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	363			349			725	728	344	731	729	359
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	363			349			725	728	344	731	729	359
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			97	100	99	98	100	100
cM capacity (veh/h)	1196			1209			338	347	698	331	347	685

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	351	372	17	7
Volume Left	1	9	9	6
Volume Right	10	8	7	1
cSH	1196	1209	427	362
Volume to Capacity	0.00	0.01	0.04	0.02
Queue Length 95th (ft)	0	1	3	1
Control Delay (s)	0.0	0.3	13.8	15.1
Lane LOS	A	A	B	C
Approach Delay (s)	0.0	0.3	13.8	15.1
Approach LOS			B	C

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	33.0%	ICU Level of Service	A
Analysis Period (min)	15		

2016 Baseline School PM Peak-Hour Level of Service Analysis

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	31	8	16	4	9	11	19	193	3	12	234	18
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Hourly flow rate (vph)	45	12	23	6	13	16	28	280	4	17	339	26
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	746	726	352	753	737	282	365			284		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	746	726	352	753	737	282	365			284		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	85	97	97	98	96	98	98			99		
cM capacity (veh/h)	302	336	687	296	331	752	1182			1267		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	80	35	312	383
Volume Left	45	6	28	17
Volume Right	23	16	4	26
cSH	367	434	1182	1267
Volume to Capacity	0.22	0.08	0.02	0.01
Queue Length 95th (ft)	20	7	2	1
Control Delay (s)	17.5	14.0	0.9	0.5
Lane LOS	C	B	A	A
Approach Delay (s)	17.5	14.0	0.9	0.5
Approach LOS	C	B		

Intersection Summary				
Average Delay	2.9			
Intersection Capacity Utilization	32.3%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	28	134	3	48	152	137	3	40	38	170	53	32
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
Hourly flow rate (vph)	32	152	3	55	173	156	3	45	43	193	60	36

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	188	383	92	290
Volume Left (vph)	32	55	3	193
Volume Right (vph)	3	156	43	36
Hadj (s)	0.07	-0.16	-0.22	0.11
Departure Headway (s)	5.7	5.2	5.8	5.7
Degree *Utilization, x*	*0.30*	*0.55*	*0.15*	*0.46*
Capacity (veh/h)	570	655	522	582
Control Delay (s)	11.2	14.5	9.8	13.6
Approach Delay (s)	11.2	14.5	9.8	13.6
Approach LOS	B	B	A	B

Intersection Summary			
Delay	13.1		
HCM Level of Service	B		
Intersection Capacity Utilization	51.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	13	2	0	16	1	2	7	1	1	7	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48
Hourly flow rate (vph)	10	27	4	0	33	2	4	15	2	2	15	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	35			31			94	85	29	94	86	34
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	35			31			94	85	29	94	86	34
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	98	100	100	98	100
cM capacity (veh/h)	1563			1568			866	796	1040	866	795	1033

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	42	35	21	19
Volume Left	10	0	4	2
Volume Right	4	2	2	2
cSH	1563	1568	829	823
Volume to Capacity	0.01	0.00	0.03	0.02
Queue Length 95th (ft)	1	0	2	2
Control Delay (s)	1.9	0.0	9.5	9.5
Lane LOS	A		A	A
Approach Delay (s)	1.9	0.0	9.5	9.5
Approach LOS			A	A

Intersection Summary			
Average Delay	3.9		
Intersection Capacity Utilization	15.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	311	9	8	326	7	8	1	6	5	0	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	1	349	10	9	366	8	9	1	7	6	0	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	374			360			746	749	354	752	750	370
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	374			360			746	749	354	752	750	370
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			97	100	99	98	100	100
cM capacity (veh/h)	1184			1199			327	338	689	320	337	675

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	361	383	17	7
Volume Left	1	9	9	6
Volume Right	10	8	7	1
cSH	1184	1199	415	351
Volume to Capacity	0.00	0.01	0.04	0.02
Queue Length 95th (ft)	0	1	3	1
Control Delay (s)	0.0	0.3	14.0	15.5
Lane LOS	A	A	B	C
Approach Delay (s)	0.0	0.3	14.0	15.5
Approach LOS			B	C

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	33.5%	ICU Level of Service	A
Analysis Period (min)	15		

2016 Future With Project School PM Peak-Hour Level of Service Analysis

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	31	8	16	4	9	125	19	193	3	117	234	18
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	39	10	20	5	11	156	24	241	4	146	292	22
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1049	889	304	912	898	243	315			245		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1049	889	304	912	898	243	315			245		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	73	96	97	98	95	80	98			89		
cM capacity (veh/h)	142	244	731	215	241	791	1234			1309		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	69	172	269	461
Volume Left	39	5	24	146
Volume Right	20	156	4	22
cSH	202	645	1234	1309
Volume to Capacity	0.34	0.27	0.02	0.11
Queue Length 95th (ft)	36	27	1	9
Control Delay (s)	31.8	12.6	0.9	3.3
Lane LOS	D	B	A	A
Approach Delay (s)	31.8	12.6	0.9	3.3
Approach LOS	D	B		

Intersection Summary				
Average Delay	6.3			
Intersection Capacity Utilization	56.4%	ICU Level of Service	B	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	14	311	9	8	326	20	8	1	6	19	0	15
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	16	349	10	9	366	22	9	1	7	21	0	17
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	389			360			798	793	354	789	787	378
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	389			360			798	793	354	789	787	378
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			97	100	99	93	100	97
cM capacity (veh/h)	1170			1199			292	315	689	300	317	669

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	375	398	17	38
Volume Left	16	9	9	21
Volume Right	10	22	7	17
cSH	1170	1199	381	396
Volume to Capacity	0.01	0.01	0.04	0.10
Queue Length 95th (ft)	1	1	3	8
Control Delay (s)	0.5	0.3	14.9	15.1
Lane LOS	A	A	B	C
Approach Delay (s)	0.5	0.3	14.9	15.1
Approach LOS			B	C

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	33.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	15	131	0	18	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.48	0.48	0.48	0.48	0.48	0.48
Hourly flow rate (vph)	31	273	0	38	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			304		205	168
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			304		205	168
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1245		779	871

Direction, Lane #	EB 1	WB 1
Volume Total	304	38
Volume Left	0	0
Volume Right	273	0
cSH	1700	1245
Volume to Capacity	0.18	0.00
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	12.2%	ICU Level of Service	A
Analysis Period (min)	15		

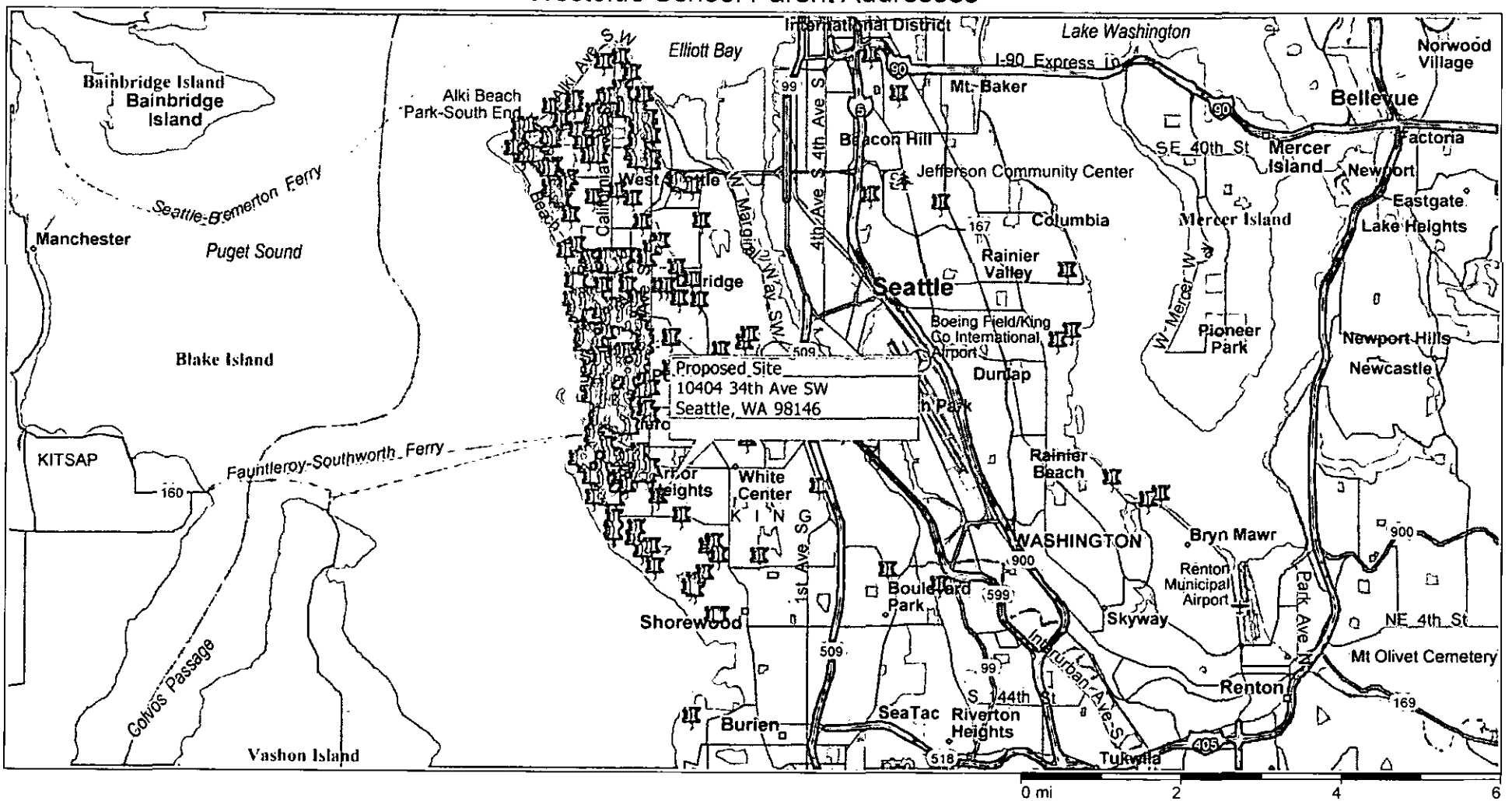
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	28	114	10	0	0	9
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.48	0.48	0.48	0.48	0.48	0.48
Hourly flow rate (vph)	58	238	21	0	0	19
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	40	21			21	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	40	21			21	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	94	77			100	
cM capacity (veh/h)	967	1051			1582	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	296	21	19
Volume Left	58	0	0
Volume Right	238	0	0
cSH	1033	1700	1700
Volume to Capacity	0.29	0.01	0.01
Queue Length 95th (ft)	30	0	0
Control Delay (s)	9.9	0.0	0.0
Lane LOS	A		
Approach Delay (s)	9.9	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	8.7		
Intersection Capacity Utilization	18.6%	ICU Level of Service	A
Analysis Period (min)	15		

Parent Address Map

Westside School Parent Addresses



Collision Data

Seattle Department of Transportation Collision Diagram Report

01/01/2008 thru 03/13/2013* 300301**

35TH AVE SW BETWEEN SW 102ND ST AND SW 104TH ST - MAP #:300

ACC NUM	State Report #	DATE	DOW	TIME	WEATHER	ROAD COND	LITE COND	INJ	FATAL
09176034	3326715	06/25/2009	Thu	12:30	NT STATED	UNKNWN	UNKNOWN	0	0

ACC NUM	State Report #	DATE	DOW	TIME	WEATHER	ROAD COND	LITE COND	INJ	FATAL
09064025	3295987	03/05/2009	Thu	22:55	CLEAR	DRY	DARK SLON	2	0

* Temporary record pending inclusion in the final database as determined by WSDOT using minimum damage criteria

** Reported collision which does not meet USDOT minimum damage criteria for inclusion in records.

*** Not all collision reports have been received and/or processed through date indicated

Seattle Department of Transportation Collision Diagram Report

01/01/2008 thru 03/13/2013* 300301**

35TH AVE SW BETWEEN SW 104TH ST AND SW 105TH ST - MAP #:300

ACC NUM	State Report #	DATE	DOW	TIME	WEATHER	ROAD COND	LITE COND	INJ	FATAL
11020005	3331434	01/20/2011	Thu	03:10	CLEAR	DRY	DARK SLON	1	0

* *Temporary record pending inclusion in the final database as determined by WSDOT using minimum damage criteria*

** Reported collision which does not meet USDOT minimum damage criteria for inclusion in records.

*** Not all collision reports have been received and/or processed through date indicated

Seattle Department of Transportation Collision Diagram Report

01/01/2008 thru 03/13/2013* 300320**

35TH AVE SW AND SW 106TH ST - MAP #:300 - NO SIGNAL

ACC NUM	State Report #	DATE	DOW	TIME	WEATHER	ROAD COND	LITE COND	INJ	FATAL
12172022	3547320	06/20/2012	Wed	18:52	CLEAR	DRY	DAY	0	0
12310014*		11/05/2012	Mon	00:00					

ACC NUM	State Report #	DATE	DOW	TIME	WEATHER	ROAD COND	LITE COND	INJ	FATAL
08053042	C700599	02/22/2008	Fri	07:50	NT STATED	DRY	DAY	1	0

ACC NUM	State Report #	DATE	DOW	TIME	WEATHER	ROAD COND	LITE COND	INJ	FATAL
10241001	2620043	08/29/2010	Sun	03:04	CLEAR	DRY	DARK SLOF	0	0

ACC NUM	State Report #	DATE	DOW	TIME	WEATHER	ROAD COND	LITE COND	INJ	FATAL
11028025	3331535	01/28/2011	Fri	13:00	OVERCAST	WET	DAY	1	0

* Temporary record pending inclusion in the final database as determined by WSDOT using minimum damage criteria

** Reported collision which does not meet USDOT minimum damage criteria for inclusion in records.

*** Not all collision reports have been received and/or processed through date indicated

Seattle Department of Transportation Collision Diagram Report

01/01/2008 thru 03/13/2013* 300320**

35TH AVE SW BETWEEN SW 106TH ST AND SW 107TH ST - MAP #:300

ACC NUM	State Report #	DATE	DOW	TIME	WEATHER	ROAD COND	LITE COND	INJ	FATAL
09070020	3296181	03/11/2009	Wed	16:16	CLEAR	DRY	DAY	0	0

ACC NUM	State Report #	DATE	DOW	TIME	WEATHER	ROAD COND	LITE COND	INJ	FATAL
08324018	2804362	11/19/2008	Wed	00:37	CLEAR	DRY	DARK SLON	0	0

* Temporary record pending inclusion in the final database as determined by WSDOT using minimum damage criteria

** Reported collision which does not meet USDOT minimum damage criteria for inclusion in records.

*** Not all collision reports have been received and/or processed through date indicated

Seattle Department of Transportation Collision Diagram Report

01/01/2008 thru 03/13/2013* 300320**

SW 106TH ST BETWEEN 34TH AVE SW AND 35TH AVE SW - MAP #:301

No Diagram

ACC NUM	State Report #	DATE	DOW	TIME	WEATHER	ROAD COND	LITE COND	INJ	FATAL
08341033	3289107	12/06/2008	Sat	00:01	NT STATED	UNKNWN	UNKNOWN	0	0

ACC NUM	State Report #	DATE	DOW	TIME	WEATHER	ROAD COND	LITE COND	INJ	FATAL
12095016	3342588	04/04/2012	Wed	08:45	CLEAR	DRY	DAY	0	0

ACC NUM	State Report #	DATE	DOW	TIME	WEATHER	ROAD COND	LITE COND	INJ	FATAL
08320045	C714076	11/15/2008	Sat	18:30	CLEAR	DRY	DARK SLON	0	0

* Temporary record pending inclusion in the final database as determined by WSDOT using minimum damage criteria

** Reported collision which does not meet USDOT minimum damage criteria for inclusion in records.

*** Not all collision reports have been received and/or processed through date indicated

Seattle Department of Transportation Collision Diagram Report

01/01/2008 thru 03/13/2013* 300320**

SW 106TH ST BETWEEN 35TH AVE SW AND 39TH AVE SW - MAP #:300

No Diagram

ACC NUM	State Report #	DATE	DOW	TIME	WEATHER	ROAD COND	LITE COND	INJ	FATAL
11348005	3563814	12/14/2011	Wed	13:30	NT STATED	UNKNWN	UNKNOWN	0	0

* Temporary record pending inclusion in the final database as determined by WSDOT using minimum damage criteria

** Reported collision which does not meet USDOT minimum damage criteria for inclusion in records.

*** Not all collision reports have been received and/or processed through date indicated

Seattle Department of Transportation Collision Diagram Report

01/01/2008 thru 03/13/2013* 301704**

32ND AVE SW BETWEEN SW 103RD ST AND SW 104TH E ST - MAP #:301

ACC NUM	State Report #	DATE	DOW	TIME	WEATHER	ROAD COND	LITE COND	INJ	FATAL
09099025	3295804	04/09/2009	Thu	02:00	NT STATED	UNKNWN	UNKNOWN	0	0

* Temporary record pending inclusion in the final database as determined by WSDOT using minimum damage criteria

** Reported collision which does not meet USDOT minimum damage criteria for inclusion in records.

*** Not all collision reports have been received and/or processed through date indicated

Seattle Department of Transportation Collision Diagram Report

01/01/2008 thru 03/13/2013* 301709**

34TH AVE SW BETWEEN SW 106TH ST AND SW 108TH ST - MAP #:301

No Diagram

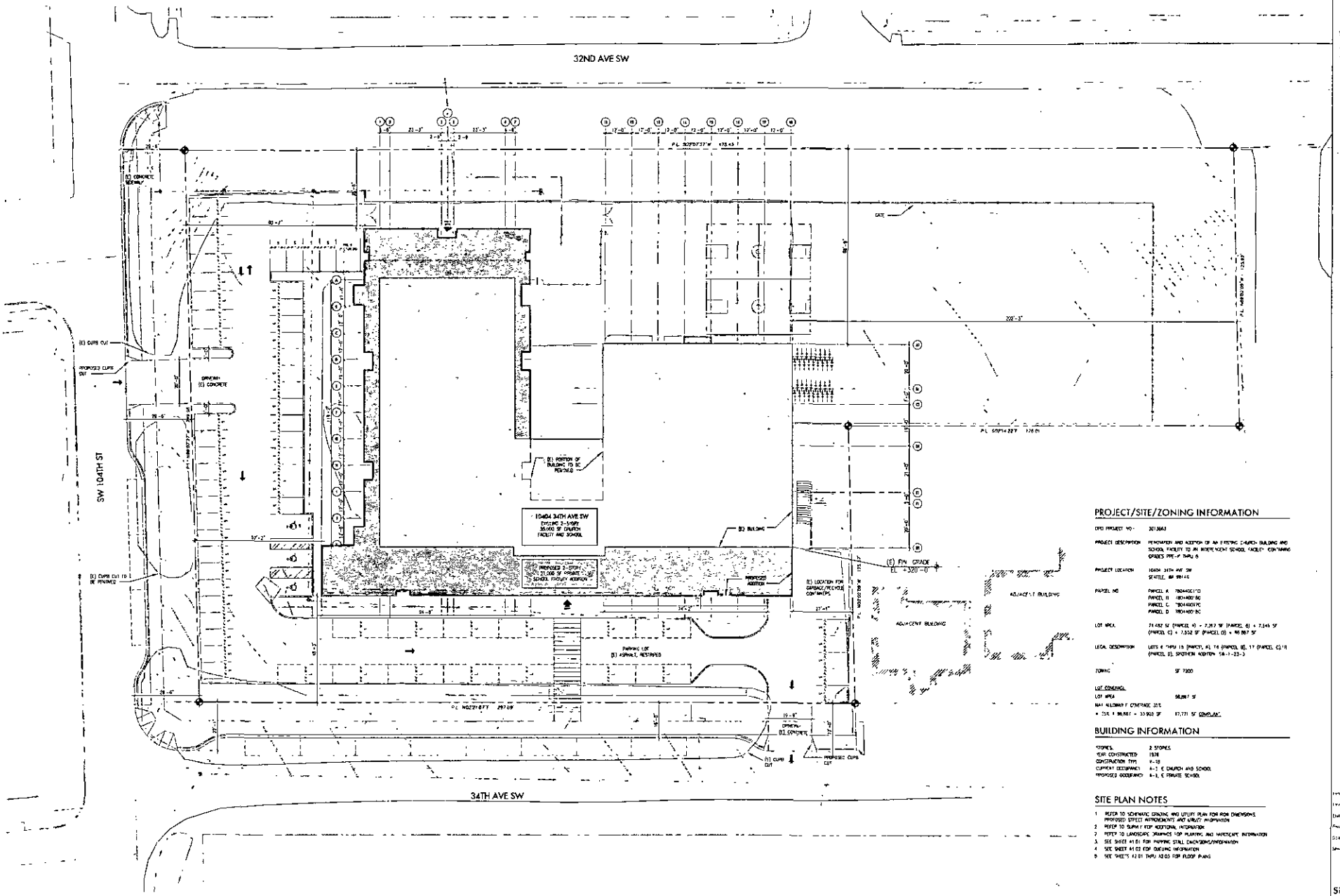
ACC NUM	State Report #	DATE	DOW	TIME	WEATHER	ROAD COND	LITE COND	INJ	FATAL
11318005	3546780	11/14/2011	Mon	17:50	NT STATED	UNKNWN	UNKNOWN	0	0

* Temporary record pending inclusion in the final database as determined by WSDOT using minimum damage criteria

** Reported collision which does not meet USDOT minimum damage criteria for inclusion in records.

*** Not all collision reports have been received and/or processed through date indicated

Site Plan



1 Site Plan
Scale 1/16" = 1'-0"

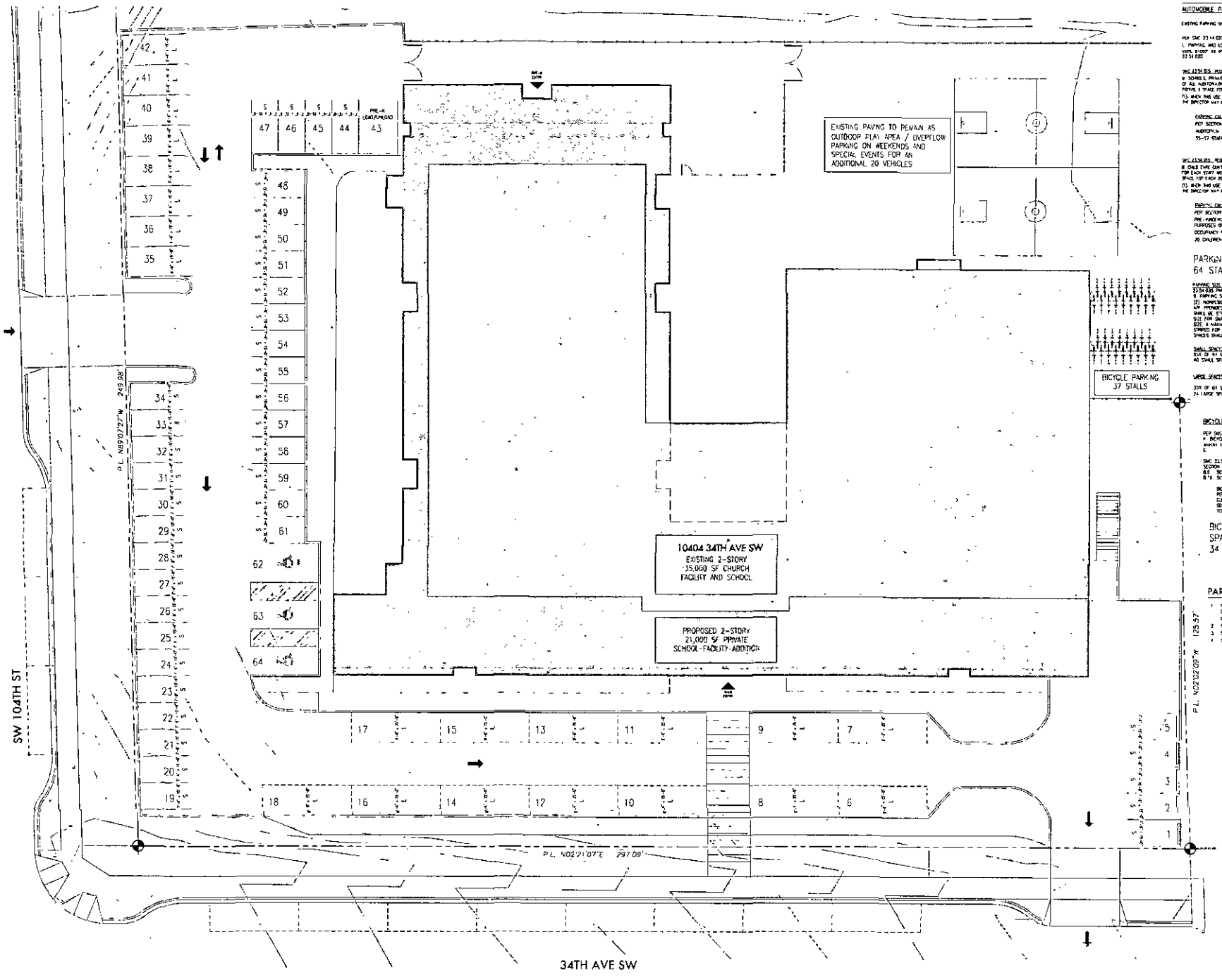
SUNDBERG KENNEDY LY-AU YOUNG ARCHITECTS
SKLARCHITECTS.COM

Westside School
10404 34TH AVE SW, SEATTLE, WA 98146

MASTER USE PERMIT

Site Plan

A1.00



1 Parking Plan
Scale 1" = 10'

PARKING ANALYSIS

AUTOMOBILE PARKING

EXISTING PARKING SPACES 39 + 9 = 48 STALLS

PER SMC 23.44.022 I.
I. PARKING AND LOADING BERTH REQS. Table C for 23.54.015 for institutional uses, except as otherwise provided in this Section 23.54.015 and Section 23.54.020

SMC 23.54.015 PERMITTED PARKING TABLE C FOR SECTION 23.54.015
B SCHOOLS, PRIVATE ELEMENTARY AND SECONDARY (1) 1 SPACE FOR EACH 80 SF OF ALL AUDITORIA/PUBLIC ASSEMBLY ROOMS, IF NO AUDITORIUM OR PUBLIC ASSEMBLY ROOMS, 1 SPACE FOR EACH STAFF MEMBER
F(1) WHEN THIS USE IS PERMITTED IN A SINGLE-FAMILY ZONE AS A CONDITIONAL USE THE DIRECTOR MAY MODIFY THE PARKING RATES PURSUANT TO SECTION 23.44.020

PARKING CALCULATIONS
PER SECTION 23.54.015 TABLE C
AUDITORIUM 4635 SF = 58 SPACES
55-57 STAFF MEMBERS ANTICIPATED = 57 SPACES

SMC 23.54.015 REQUIRED PARKING TABLE C FOR SECTION 23.54.015
B CHILD CARE CENTERS (1), (2), (3) 1 SPACE FOR EACH 10 CHILDREN OR 1 SPACE FOR EACH STAFF MEMBER, WHICHEVER IS GREATER PLUS 1 LOADING AND UNLOADING SPACE FOR EACH 20 CHILDREN
(1) WHEN THIS USE IS PERMITTED IN A SINGLE-FAMILY ZONE AS A CONDITIONAL USE THE DIRECTOR MAY MODIFY THE PARKING RATES PURSUANT TO SECTION 23.44.020

PARKING CALCULATIONS
PER SECTION 23.54.015 TABLE C
PRE-KINDERGARTEN (CLASSIFIED AS CHILD CARE CENTERS FOR THE PURPOSES OF SEATTLE PARKING AND ZONING CODES).
OCCUPANCY = 64 PERSONS
20 CHILDREN ANTICIPATED 2 40 KIDS = 2 SPACES
1 LOADING/UNLOAD SPACE

PARKING SPACES PROVIDED.
64 STALLS COMPLIANT

PARKING SITE PLAN AND SIZE
23.54.030 PARKING SPACE STANDARDS
B PARKING SPACE SIZES
(2) NONRESIDENTIAL USES: WHEN 20 OR MORE PARKING SPACES ARE PROVIDED, A MINIMUM OF 35 PERCENT OF THE PARKING SPACES SHALL BE STRIPED FOR SMALL VEHICLES THE MINIMUM REQUIRED SIZE FOR SMALL PARKING SPACES SHALL ALSO BE THE MAXIMUM SIZE. A MAXIMUM OF 65 PERCENT OF THE PARKING SPACES MAY BE STRIPED FOR SMALL VEHICLES. A MINIMUM OF 35 PERCENT OF THE SPACES SHALL BE STRIPED FOR LARGE VEHICLES

SMALL SPACES
65% OF 64 SPACES PROVIDED = .65 x 64 = 41 SPACES MAXIMUM
40 SMALL SPACES PROVIDED COMPLIANT

LARGE SPACES
35% OF 64 SPACES PROVIDED = .35 x 64 = 23 SPACES MINIMUM
24 LARGE SPACES (INCLUDING ADA) PROVIDED COMPLIANT

BICYCLE PARKING

PER SMC 23.54.022 F
F. BICYCLE PARKING. The minimum number of off-street parking spaces for bicycles required for specified uses is set forth in Table E

SMC 23.54.015 REQUIRED PARKING FOR BICYCLES TABLE E FOR SECTION 23.54.015
B8. SCHOOLS, ELEMENTARY 1 SPACE PER CLASSROOM
B10. SCHOOLS, SECONDARY 2 SPACES PER CLASSROOM

BICYCLE PARKING CALCULATIONS
PER SECTION 23.54.015 TABLE E
ELEMENTARY: 12 SPACES REQUIRED
SECONDARY: 20 SPACES REQUIRED
TOTAL SPACES REQUIRED: 32 SPACES.

BICYCLE PARKING SPACES PROVIDED.
34 STALLS COMPLIANT

PARKING PLAN NOTES

1. REFER TO SCHEMATIC GRADING AND UTILITY PLAN FOR PGN DIMENSIONS, PROPOSED STREET IMPROVEMENTS AND UTILITY INFORMATION.
2. SEE SHEET A1.00 FOR ADDITIONAL SITE INFORMATION
3. SEE SHEET A1.01 FOR PARKING INFORMATION
4. SEE SHEETS A2.01 THRU A2.03 FOR FLOOR PLANS.

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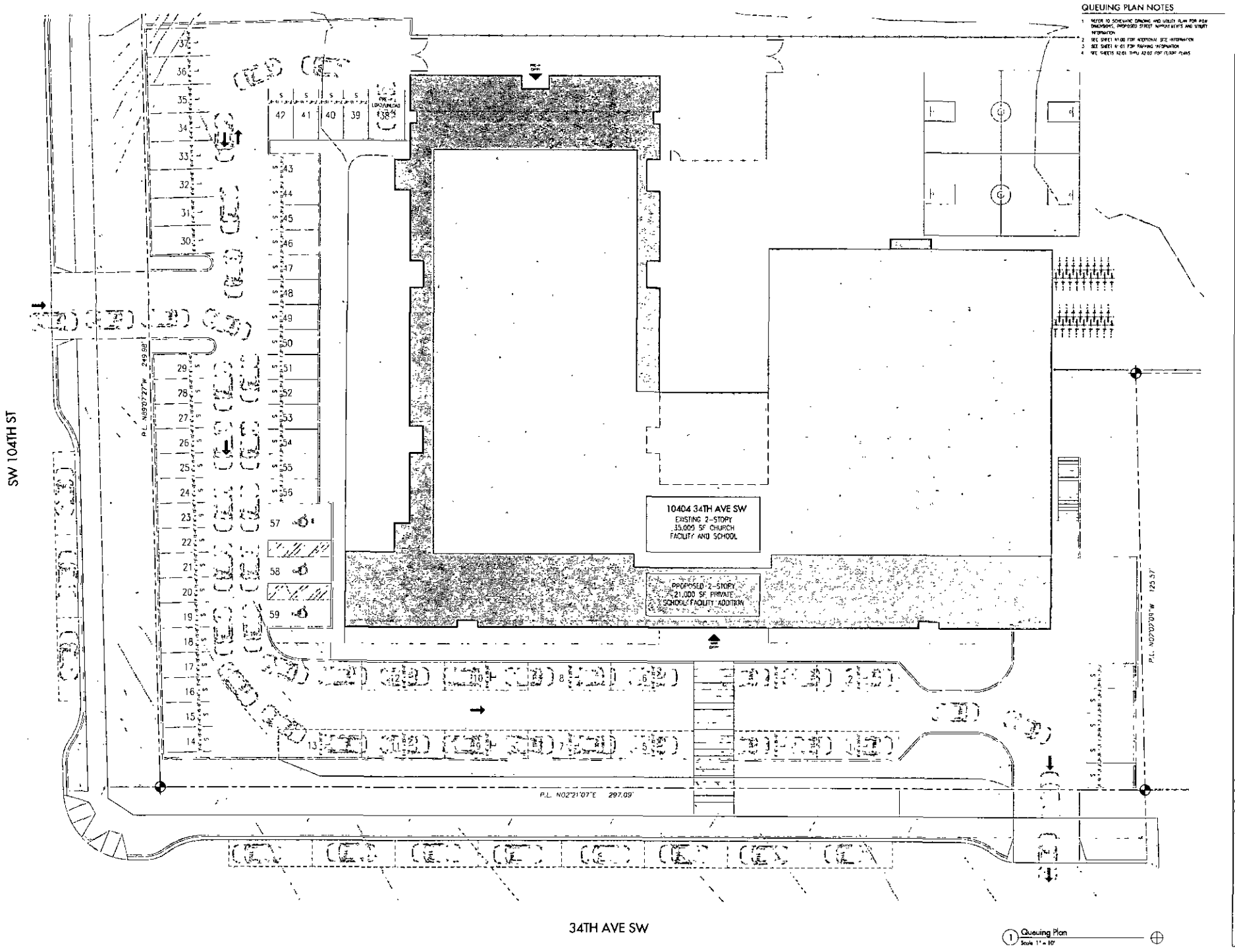
Parking Plan

A1.01



1 Queuing Plan
Scale 1" = 10'

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MASTER USE
PERMIT

Queuing Plan

A1.02

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	28	147	3	48	166	137	3	40	38	170	53	32
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
Hourly flow rate (vph)	32	167	3	55	189	156	3	45	43	193	60	36

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	202	399	92	290
Volume Left (vph)	32	55	3	193
Volume Right (vph)	3	156	43	36
Hadj (s)	0.07	-0.16	-0.22	0.11
Departure Headway (s)	5.8	5.3	6.0	5.8
Degree Utilization, x	0.33	0.58	0.15	0.47
Capacity (veh/h)	565	649	506	570
Control Delay (s)	11.6	15.4	10.0	13.9
Approach Delay (s)	11.6	15.4	10.0	13.9
Approach LOS	B	C	B	B

Intersection Summary			
Delay	13.7		
HCM Level of Service	B		
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	118	2	0	16	1	116	7	27	1	7	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48
Hourly flow rate (vph)	10	246	4	0	33	2	242	15	56	2	15	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	35			250			312	304	248	367	305	34
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	35			250			312	304	248	367	305	34
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			61	98	93	100	98	100
cM capacity (veh/h)	1563			1304			620	602	786	531	601	1033

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	260	35	312	19
Volume Left	10	0	242	2
Volume Right	4	2	56	2
cSH	1563	1304	644	621
Volume to Capacity	0.01	0.00	0.49	0.03
Queue Length 95th (ft)	1	0	67	2
Control Delay (s)	0.3	0.0	15.8	11.0
Lane LOS	A		C	B
Approach Delay (s)	0.3	0.0	15.8	11.0
Approach LOS			C	B

Intersection Summary			
Average Delay	8.3		
Intersection Capacity Utilization	32.2%	ICU Level of Service	A
Analysis Period (min)	15		