

Gibson Traffic Consultants, Inc.
2813 Rockefeller Avenue
Suite B
Everett, WA 98201
425.339.8266

Walsh Hills Traffic Impact Analysis

Jurisdiction: City of Snohomish

May 2020



TABLE OF CONTENTS

1. DEVELOPMENT IDENTIFICATION	1
2. METHODOLOGY	1
3. TRIP GENERATION	4
4. TRIP DISTRIBUTION	4
5. INTERSECTION LEVEL OF SERVICE ANALYSIS.....	7
5.1 Turning Movement Volumes	7
5.1.1. Existing Turning Movements	7
5.1.2. 2026 Baseline Turning Movements	7
5.1.3. 2026 Future with Development Turning Movements.....	7
5.2 Intersection Level of Service Analysis Summary.....	11
6. COLLISION ANALYSIS.....	12
7. ACCESS ANALYSIS.....	13
8. MITIGATION.....	13
8.1 Development-Specific Off-Site Mitigation.....	13
8.2 City Mitigation Fee.....	13
9. CONCLUSIONS.....	13

LIST OF FIGURES

Figure 1: Site Vicinity Map	2
Figure 2: AM Peak-Hour Trip Distribution	5
Figure 3: PM Peak-Hour Trip Distribution.....	6
Figure 4: 2019 Existing Turning Movements – PM Peak-hour.....	8
Figure 5: 2026 Baseline Turning Movements – PM Peak-hour	9
Figure 6: 2026 Future with Development Turning Movements – PM Peak-hour.....	10

LIST OF TABLES

Table 1: Level of Service Criteria for Intersections.....	3
Table 2: Trip Generation Summary	4
Table 3: Intersection Level of Service Summary – PM Peak-hour	11
Table 4: 5-Year Collision Rate Calculation (2014-2019).....	12

ATTACHMENTS

Trip Generation Calculations	A
Count Data	B
Turning Movement Calculations	C
2019 Existing Level of Service.....	D
2026 Baseline Level of Service	E
2026 Future with Development Level of Service.....	F
Collision Data	G

1. DEVELOPMENT IDENTIFICATION

Gibson Traffic Consultants, Inc. (GTC) has been retained to provide a traffic impact analysis for the proposed Walsh Hills development. Zach Wieben, responsible for this report and traffic analysis, is a licensed professional engineer (Civil) in the State of Washington and member of the Washington State section of ITE.

The Walsh Hills development is located on the east side of Terrace Avenue south of Stone Ridge Drive. The development is proposed to consist of up to 113 single-family residential detached units. There is an existing 150-bed nursing home/long-term care facility currently on-site that will be removed and credited to the development's trip generation. The proposed residential development is expected to be fully constructed and occupied by the end of 2026. Therefore, 2026 was utilized as the development's horizon year for future analysis. There are two proposed accesses to Terrace Avenue. A site vicinity map has been included in Figure 1.

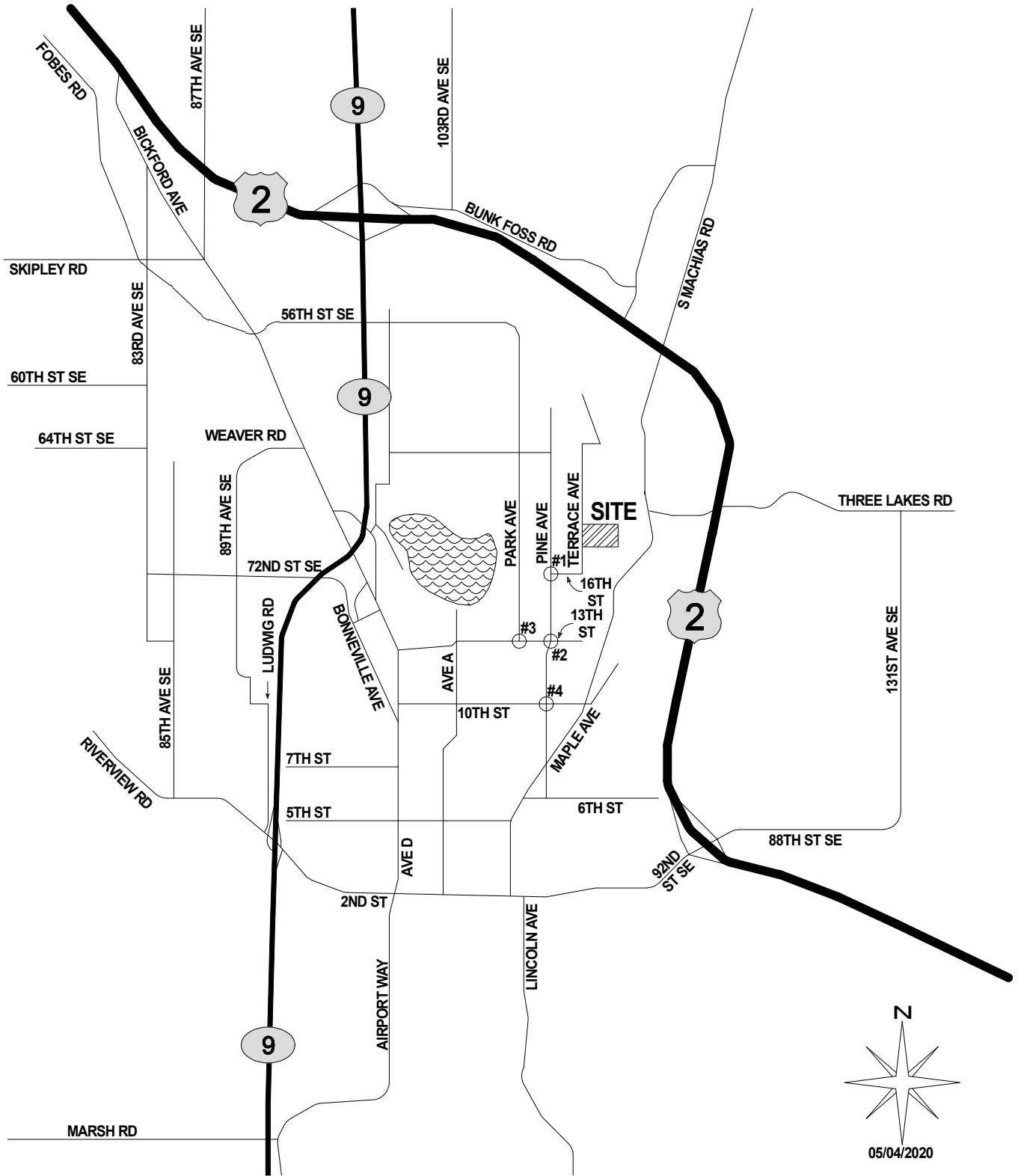
2. METHODOLOGY

Data contained in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 10th Edition (2017)* has been used for the proposed and existing uses. The distribution of trips generated by the site is based on approved distributions for developments within the City of Snohomish and intersection turning movement counts.

According to guidelines for previous traffic studies in the City of Snohomish, this traffic study contains the following elements: trip generation, trip distribution, level of service analysis, collision analysis, and mitigation determination for the proposed residential development. The level of service analysis was completed for four off-site intersections expected to be impacted with the highest percentage of development trips. The four off-site intersections are listed below:

1. Pine Avenue at 16th Street
2. Pine Avenue at 13th Street
3. Park Avenue at 13th Street
4. Pine Avenue at 10th Street

The peak-hour level of service (LOS) analysis calculations were completed using the *Synchro 10.2, Build 0* software. This software applies the operational analysis methodology of the current *Highway Capacity Manual (HCM)*. Traffic congestion is generally measured in terms of level of service. In accordance with the HCM 6th Edition, road facilities and intersections are rated between LOS A and LOS F, with LOS A being free flow and LOS F being forced flow or over-capacity conditions. The level of service criteria is summarized in Table 1. The level of service at two-way stop-controlled intersections is based on the average delay of the worst approach. The level of service at signalized and all-way stop-controlled intersections is based on the average delay for all approaches. Geometric characteristics and conflicting traffic movements are taken into consideration when determining level of service values.



GIBSON TRAFFIC CONSULTANTS

**TRAFFIC IMPACT STUDY
GTC #19-299**

**WALSH HILLS
113 NEW SFD UNITS**

LEGEND



SITE LOCATION



STUDY INTERSECTION

**FIGURE 1
SITE VICINITY MAP**

CITY OF SNOHOMISH

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

The acceptable level of service for arterial intersections within the City of Snohomish is LOS E per the City's 2016 Transportation Master Plan.

¹ **Source:** *Highway Capacity Manual 6th Edition*.

LOS A: Free-flow traffic conditions, with minimal delay to stopped vehicles (no vehicle is delayed longer than one cycle at signalized intersection).

LOS B: Generally stable traffic flow conditions.

LOS C: Occasional back-ups may develop, but delay to vehicles is short term and still tolerable.

LOS D: During short periods of the peak hour, delays to approaching vehicles may be substantial but are tolerable during times of less demand (i.e. vehicles delayed one cycle or less at signal).

LOS E: Intersections operate at or near capacity, with long queues developing on all approaches and long delays.

LOS F: Jammed conditions on all approaches with excessively long delays and vehicles unable to move at times.

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

3. TRIP GENERATION

The Walsh Hills development consists of up to 113 single-family residential detached units created by two separate subdivision applications over different portions of the same site (94 units for the east side and 19 units for the west side). The trip generation calculations for the Walsh Hills development are based on the average trip generation rates for the following ITE Land Use Codes (LUC):

- LUC 210, Single-Family Detached
- LUC 620, Nursing Home

Nursing Home was determined to be the best classification of the existing use because most vehicle trips are made by employees and visitors and patients are not able to drive themselves. The trip generation of the Walsh Hills development is summarized in Table 2.

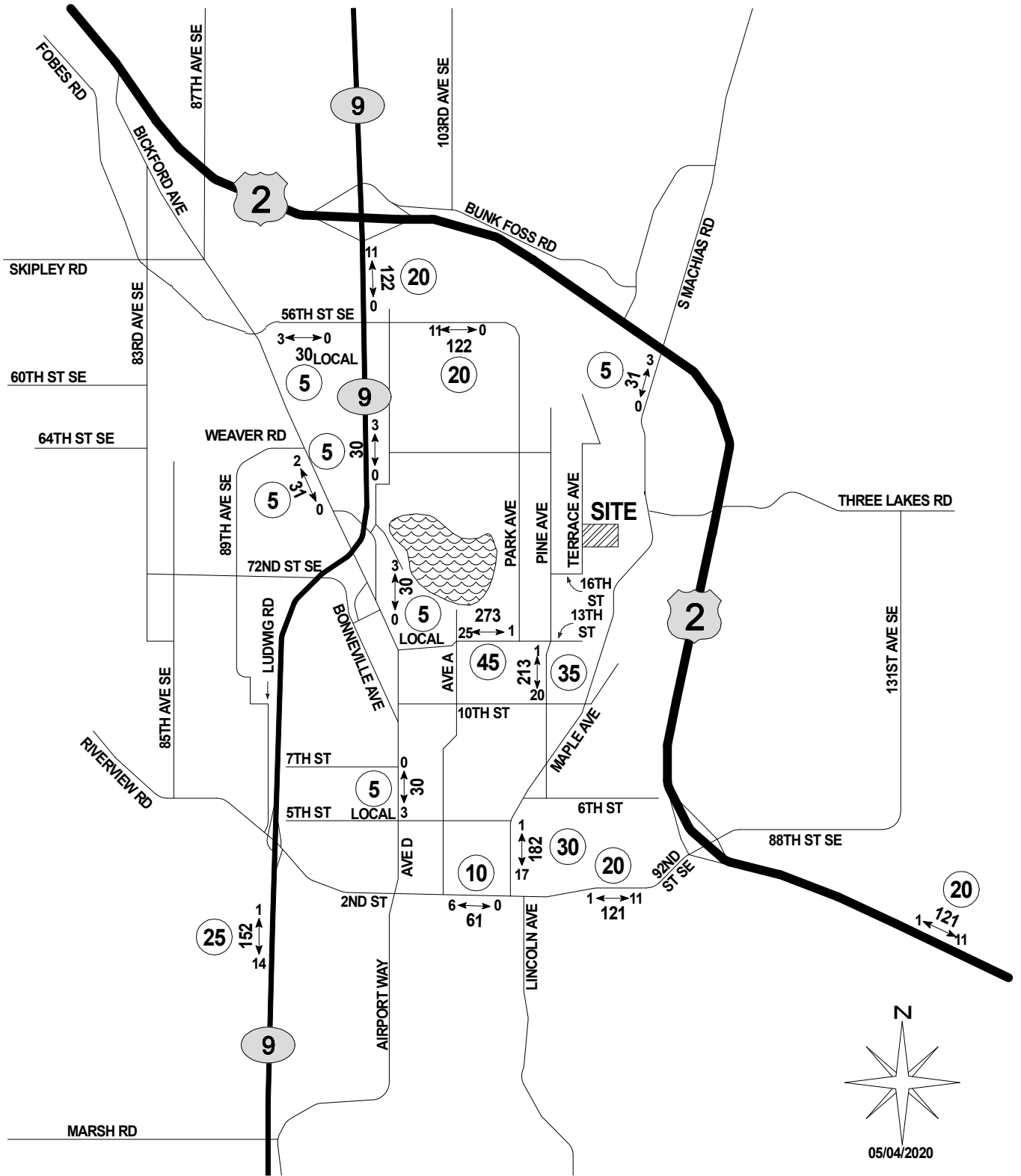
Table 2: Trip Generation Summary

Use	Units	Average Daily Trips	AM Peak-Hour Trips			PM Peak-Hour Trips		
			In	Out	Total	In	Out	Total
Single-Family Residential (West)	19 units (PRD)	180	4	10	14	12	7	19
Single-Family Residential (East)	94 units	887	17	52	70	59	34	93
Nursing Home (removed)	-150 beds	-459	-18	-7	-26	-11	-22	-33
TOTAL		608	3	55	58	60	19	79

The Walsh Hills development is anticipated to generate 608 new average daily trips with 59 new AM peak-hour trips and 79 new PM peak-hour trips. The trip generation calculations are included in the attachments.

4. TRIP DISTRIBUTION

Trip distribution and traffic assignment for the proposed residential development is based on the PM peak-hour intersection counts performed at study intersection as well as regional travel patterns approved in previous distributions for development's in the City of Snohomish. It is estimated that 20% of site traffic will travel to and from the north on Pine Avenue. An additional 45% of the development's trips are expected to travel to and from the west on 13th Street. The remaining 35% of the development's trips are expected to travel to and from the south on Pine Avenue. A detailed trip distribution showing the AM peak-hour trips and the PM peak-hour trips are included in Figure 2 and Figure 3, respectively.



GIBSON TRAFFIC CONSULTANTS

TRAFFIC IMPACT STUDY
GTC #19-299

WALSH HILLS
113 NEW SFD UNITS

LEGEND
AWDT
AM ← PEAK

NEW DAILY TRAFFIC
NEW AM PEAK HOUR TRIPS



TRIP DISTRIBUTION %

FIGURE 2
AM PEAK-HOUR
TRIP DISTRIBUTION

CITY OF SNOHOMISH

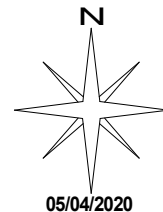


FIGURE 3
PM PEAK-HOUR
TRIP DISTRIBUTION

5. INTERSECTION LEVEL OF SERVICE ANALYSIS

The level of service analysis for the study intersections has been performed using the *Synchro 10.2 Build 0* software. The analysis uses the existing channelization at the study intersections as well as the existing peak-hour factors and heavy-vehicle factors. The 2026 baseline and 2026 future with development level of service analysis has been performed using the same parameters.

5.1 Turning Movement Volumes

5.1.1. Existing Turning Movements

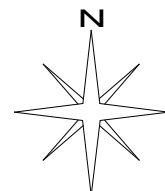
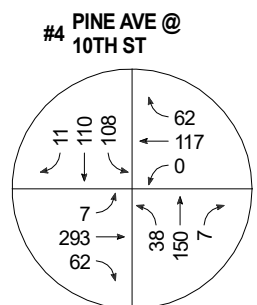
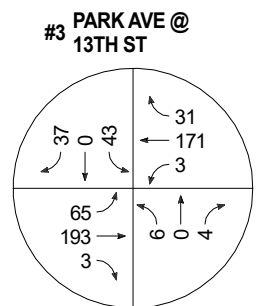
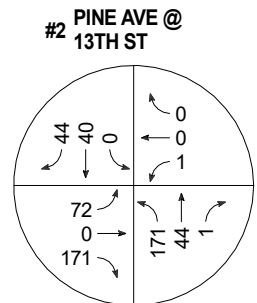
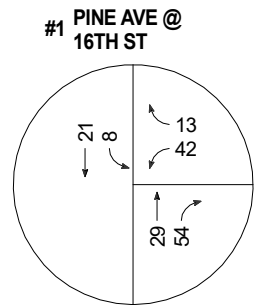
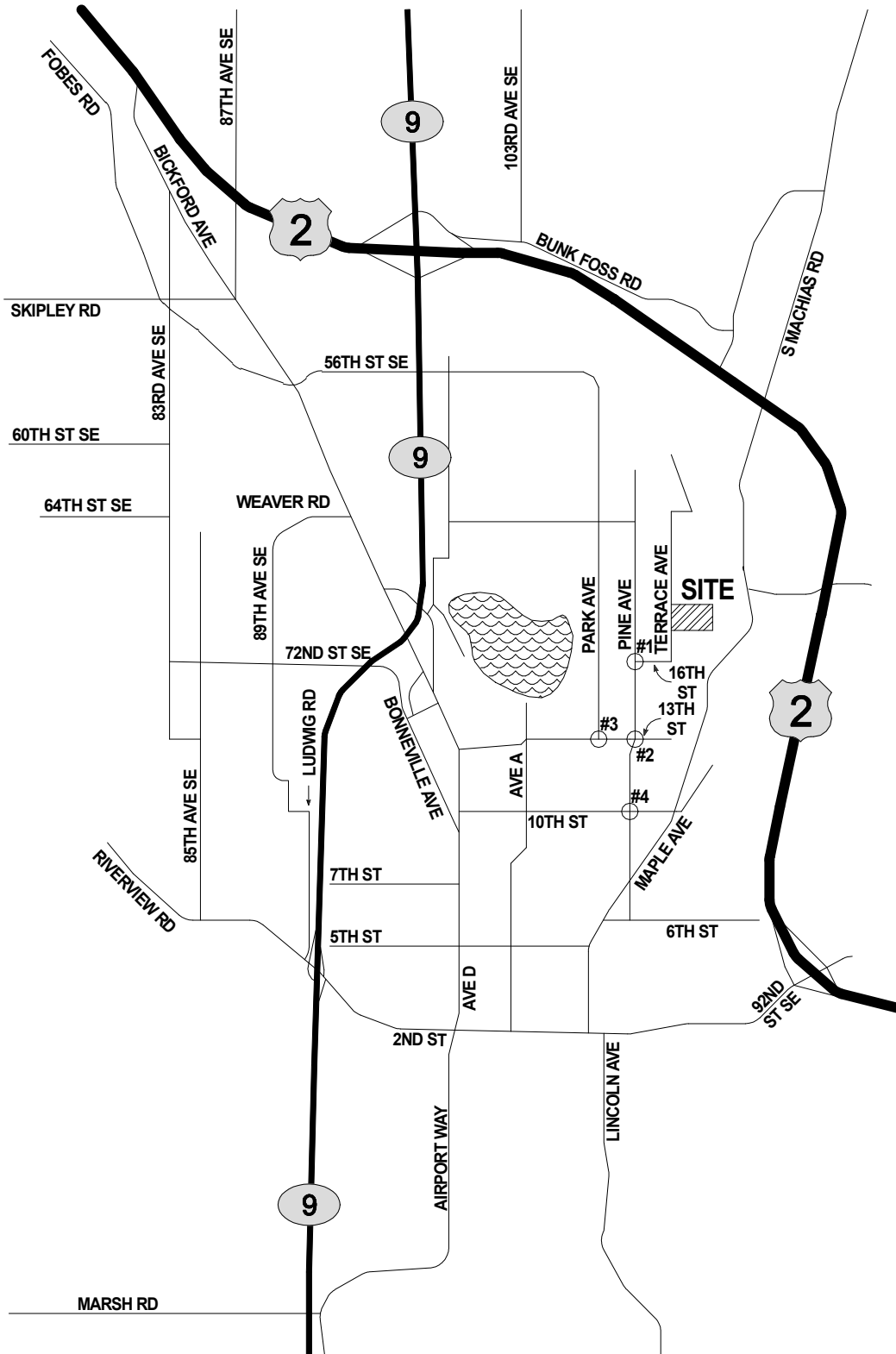
Existing counts were collected by the independent counting firm, Idax Data on Wednesday December 11, 2019 for the PM peak-hour. It should be noted that the Snohomish School District had not yet began Winter Break when counts were collected. Therefore, the counts should reflect typical weekday PM peak-hour operations. The existing turning movement volumes at the study intersection are shown in Figure 4 for the PM peak-hour. The count data is also included in the attachments.

5.1.2. 2026 Baseline Turning Movements

The 2026 baseline turning movements have been calculated by applying a 2% annually compounding growth rate to the existing turning movements. The 2026 baseline turning movements at the study intersections are shown in Figure 5 for the PM peak-hour.

5.1.3. 2026 Future with Development Turning Movements

The 2026 future with development turning movements have been calculated by adding the development's new trips to the 2026 baseline turning movements. Credit for existing nursing home trips is included in these calculations. The 2026 future with development turning movements are shown in Figure 6 for the PM peak-hour.



05/04/2020

GIBSON TRAFFIC CONSULTANTS

TRAFFIC IMPACT STUDY
GTC #19-299

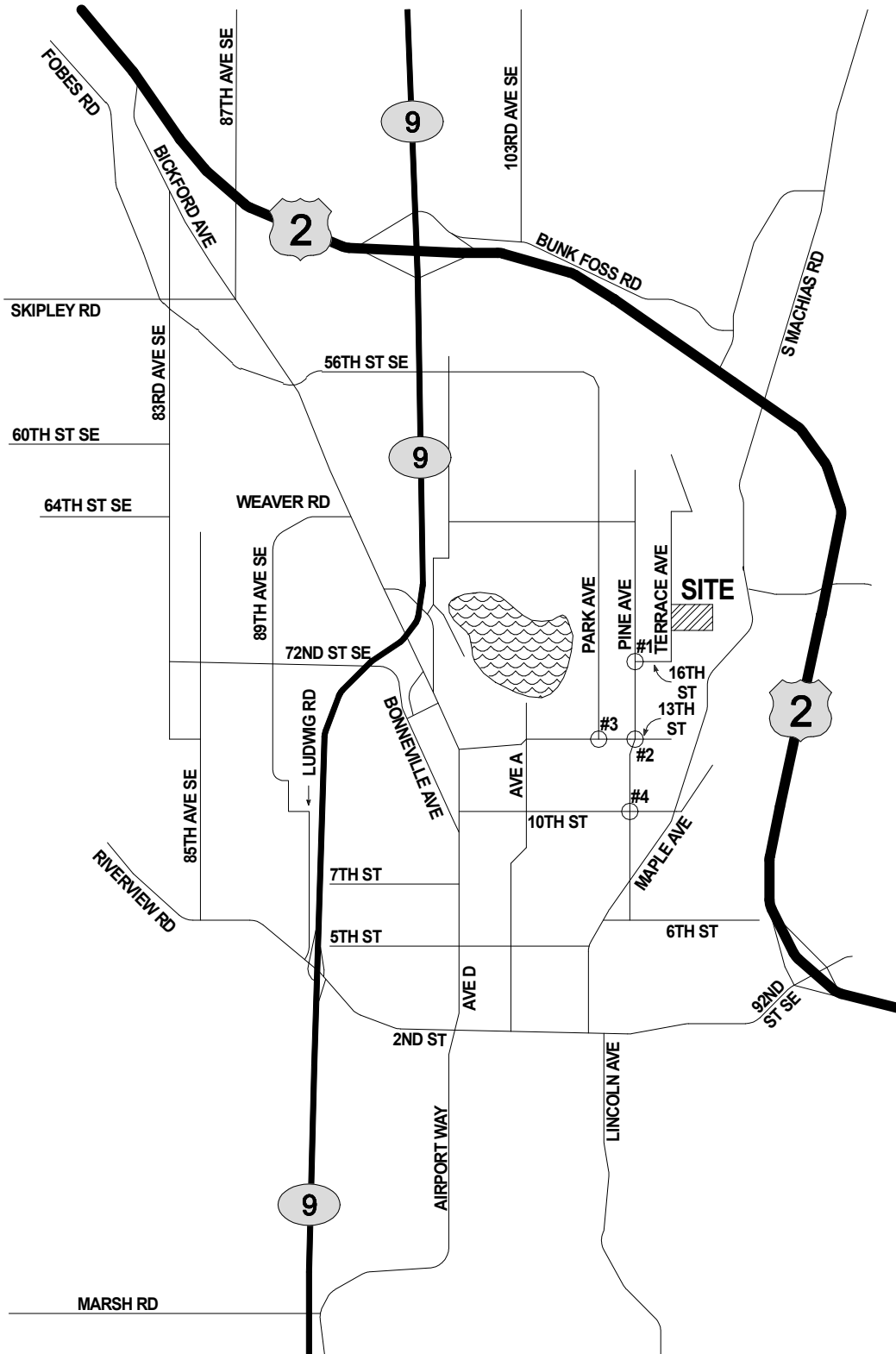
WALSH HILLS
113 NEW SFD UNITS

LEGEND

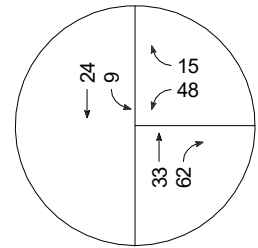
XX → PM PEAK HOUR
TURNING MOVEMENT VOLUMES

CITY OF SNOHOMISH

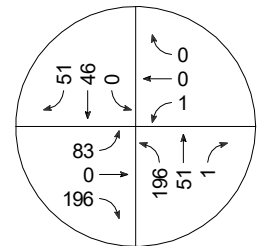
FIGURE 4
2019 EXISTING
TURNING MOVEMENTS
PM PEAK-HOUR



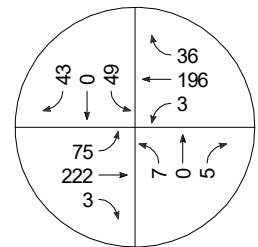
#1 PINE AVE @ 16TH ST



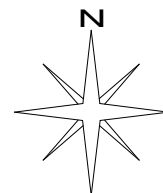
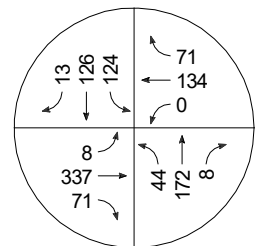
#2 PINE AVE @ 13TH ST



#3 PARK AVE @ 13TH ST



#4 PINE AVE @ 10TH ST



05/04/2020

GIBSON TRAFFIC CONSULTANTS

TRAFFIC IMPACT STUDY
GTC #19-299

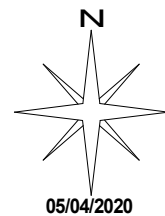
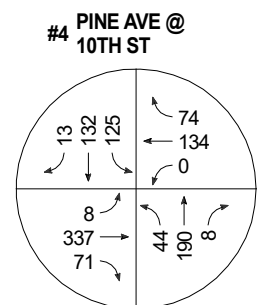
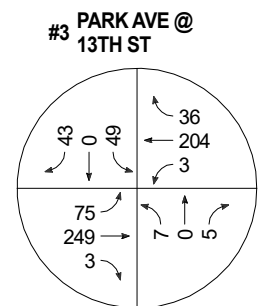
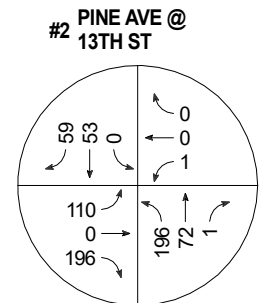
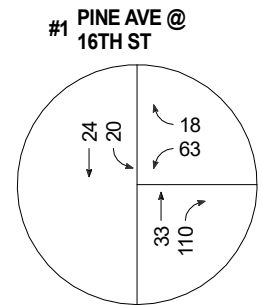
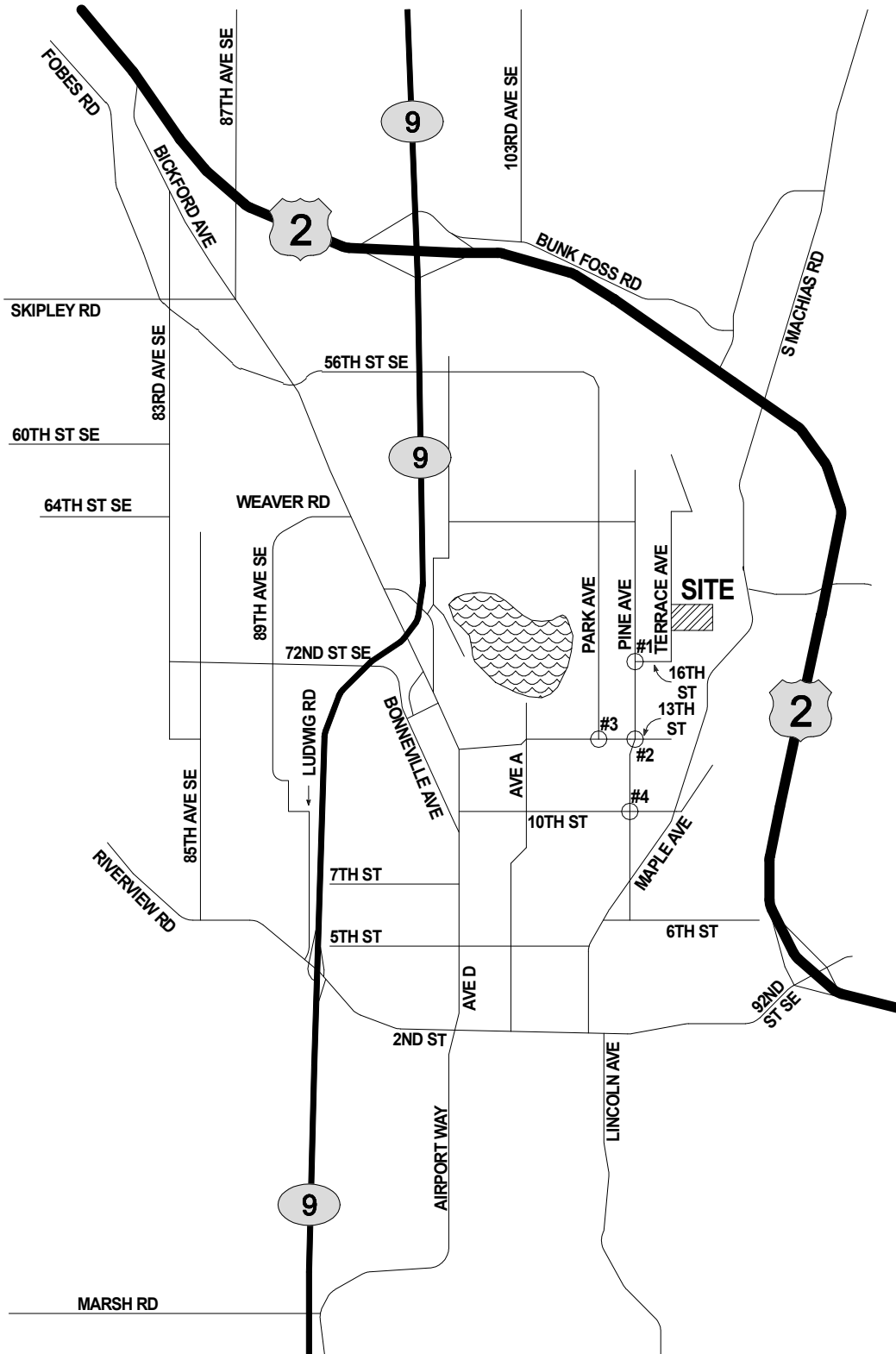
WALSH HILLS
113 NEW SFD UNITS

LEGEND

XX → PM PEAK HOUR
TURNING MOVEMENT VOLUMES

CITY OF SNOHOMISH

FIGURE 5
2026 BASELINE
TURNING MOVEMENTS
PM PEAK-HOUR



05/04/2020

GIBSON TRAFFIC CONSULTANTS

TRAFFIC IMPACT STUDY
GTC #19-299

WALSH HILLS
113 NEW SFD UNITS

LEGEND

XX → PM PEAK HOUR
TURNING MOVEMENT VOLUMES

CITY OF SNOHOMISH

FIGURE 6
2026 FUTURE W/ DEV.
TURNING MOVEMENTS
PM PEAK-HOUR

5.2 Intersection Level of Service Analysis Summary

The PM Peak-hour level of service analysis for the 2019 existing, 2026 baseline, and 2026 future with development conditions for the study intersections is summarized in Table 3.

Table 3: Intersection Level of Service Summary – PM Peak-hour

Intersection	Intersection Control	2019 Existing Conditions		2026 Baseline Conditions		2026 Future w/ Dev. Conditions	
		LOS	Delay	LOS	Delay	LOS	Delay
1. Pine Avenue at 16 th Street	All-Way Stop-Control	A	7.3 sec	A	7.4 sec	A	7.8 sec
2. Pine Avenue at 13 th Street	All-Way Stop-Control	A	9.1 sec	A	9.6 sec	A	10.0 sec
3. Park Avenue at 13 th Street	Minor-Way Stop-Control	B	12.5 sec Southbound	B	13.7 sec Southbound	B	14.1 sec Southbound
4. Pine Avenue at 10 th Street	All-Way Stop-Control	B	13.0 sec	C	16.7 sec	C	17.5 sec

The level of service analysis shows that the development is not anticipated to significantly change the level of service of the off-site study intersections and the intersections will continue to operate at an acceptable LOS C or better with the development.

6. COLLISION ANALYSIS

GTC obtained collision data from WSDOT for the study intersections from January 1, 2014 through 2019. Unsignalized intersections are typically evaluated based on the calculated collision rate (collisions per million entering vehicles) and collision frequency (collisions per year). Typical thresholds that may require further safety analysis are 1.0 collisions per MEV or 5 collisions per year. All study intersections have a collision frequency below 5 collisions per year and a collision rate below 1.0 collision per million entering vehicles except Pine Avenue at 10th Street. The most common collision type at this intersection was “Entering at Angle” (23 of 26 collisions). Of these 23 collisions, the most common contributing circumstance was “Inattention”. There were no reported pedestrian or cyclist collisions and only four collisions were reported with a possible injury. Eastbound queue spillback from the Maple Avenue at 10th Street intersection could be contributing to the increased collision rate at this intersection. The City of Snohomish has identified improvements to the Maple Avenue at 10th Street intersection (roundabout or signal³) that could help alleviate this condition. Therefore, no additional safety analysis or mitigation should be required as part of the Walsh Hills development. Table 4 summarizes the collision data for the study intersections.

Table 4: 5-Year Collision Rate Calculation (2014-2019)

Intersection	Intersection Control	PM Peak-Hour Intersection Volume	Assumed K-Factor	Total Collisions	Fatal/Injury Collisions	Collision Rate ⁴	Collision Frequency ⁵
Pine Avenue at 16 th Street	Unsignalized	167	10	1	0/0	0.33	0.20
Pine Avenue at 13 th Street	Unsignalized	544	10	3	0/2	0.30	0.60
Park Avenue at 13 th Street	Unsignalized	556	10	4	0/1	0.39	0.80
Pine Avenue at 10 th Street	Unsignalized	965	10	26	0/4	1.48	5.2

³ Transportation Master Plan – City of Snohomish (2016)

⁴ The collision rate is based on Million Entering Vehicles.

⁵ Collisions per year

7. ACCESS ANALYSIS

The Walsh Hills development has two proposed access locations to Terrace Avenue. The north access is proposed to be approximately 500 feet south of Stone Ridge Drive (centerline to centerline). The south access is proposed to be approximately 373 feet south of the north access (centerline to centerline).

Terrace Avenue has a posted speed limit of 25 mph which corresponds to minimum AASHTO entering and stopping sight distances of 280 feet and 155 feet, respectively. Both access locations are expected to have sufficient entering and stopping sight distance.

8. MITIGATION

8.1 Development-Specific Off-Site Mitigation

The development will not cause the level of service of the impacted off-site intersection to drop below the City of Snohomish's threshold of LOS E for arterial intersections during the PM peak-hour. The development should therefore not have to construct or contribute towards additional improvements other than required site frontage improvements and standard traffic mitigation fees.

8.2 City Mitigation Fee

The City of Snohomish traffic mitigation fee is \$1,603.00 per new PM peak-hour trip. The Walsh Hills development will generate 79 new PM peak-hour trips, after credit for the existing use is included. The trip generation will result in City of Snohomish traffic mitigation fees of \$126,637.00 which is equivalent to \$1,120.68 per unit for the 113 units constructed. Payment of the traffic mitigation fee may be separated between the east and west sites (\$21,292.95 for 19-lot PRD, \$105,344.05 for 94-lot subdivision) and should be based on this per constructed unit total to account for existing trip credit.

9. CONCLUSIONS

The Walsh Hills development is proposed to consist of up to 113 residential units that will receive credit for the existing 150-bed nursing home currently on the site. The development will generate 608 new average daily trips with 58 new AM peak-hour trips and 79 new PM peak-hour trips. Level of service analysis was conducted at four off-site study intersections, which are all anticipated to operate at an acceptable LOS C or better with the development in the horizon year. As a result, no additional off-site mitigation should be required, and the development should only be required to pay standard traffic mitigation fees. The total traffic mitigation fees for the development should be \$126,637.00 (\$21,292.95 for 19-lot PRD, \$105,344.05 for 94-lot subdivision) after credit for existing uses on-site.

Trip Generation Calculations

Walsh Hills
GTC #19-299

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)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips		In+Out (Total)	% of Ext. Trips	In+Out (Total)	In		Out	In+Out (Total)	In	Out	In	Out
Single-Family Residential	113 units	210	9.44	50%	50%	1066.72	0%	0.00	1066.72	0%	0.00	0%	0.00	1066.72	0.00	0.00	0.00	0.00	0.00	533.36	533.36		
Nursing Home (removed)	-150 beds	620	3.06	50%	50%	-459.00	0%	0.00	-459.00	0%	0.00	0%	0.00	-459.00	0.00	0.00	0.00	0.00	0.00	-229.50	-229.50		
Totals						607.72		0.00	607.72		0.00		0.00	607.72	0.00	0.00	0.00	0.00	0.00	303.86	303.86		

Walsh Hills
GTC #19-299

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				PASS-BY		DIVERTED LINK		PASS-BY		DIVERTED LINK		NEW		
LAND USES	VARIABLE	ITE LU code	Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	% of Trips	TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
									In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)		% of Ext. Trips	In	Out	In	Out	In
Single-Family Residential	113 units	210	0.74	25%	75%	83.62	0%	0.00	83.62	0%	0.00	0%	0.00	83.62	0.00	0.00	0.00	0.00	20.91	62.71
Nursing Home (removed)	-150 beds	620	0.17	72%	28%	-25.50	0%	0.00	-25.50	0%	0.00	0%	0.00	-25.50	0.00	0.00	0.00	0.00	-18.36	-7.14
Totals						58.12		0.00	58.12		0.00		0.00	58.12	0.00	0.00	0.00	0.00	2.55	55.57

Walsh Hills
GTC #19-299

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	% of Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
Single-Family Residential	113 units	210	0.99	63%	37%	111.87	0%	0.00	111.87	0%	0.00	0%	0.00	111.87	0.00	0.00	0.00	0.00	70.48	41.39
Nursing Home (removed)	-150 beds	620	0.22	33%	67%	-33.00	0%	0.00	-33.00	0%	0.00	0%	0.00	-33.00	0.00	0.00	0.00	0.00	-10.89	-22.11
Totals						78.87		0.00	78.87		0.00		0.00	78.87	0.00	0.00	0.00	0.00	59.59	19.28

Walsh Hills
GTC #19-299

AM Peak-Hour

%	New ADT	New AM Peak Hour Trips		
		In	Out	Total
100%	608	3	56	58.12
1%	6.08	0.03	0.56	0.58
2%	12.15	0.05	1.11	1.16
3%	18.23	0.08	1.67	1.74
4%	24.31	0.10	2.22	2.32
5%	30.39	0.13	2.78	2.91
6%	36.46	0.15	3.33	3.49
7%	42.54	0.18	3.89	4.07
8%	48.62	0.20	4.45	4.65
9%	54.69	0.23	5.00	5.23
10%	60.77	0.26	5.56	5.81
11%	66.85	0.28	6.11	6.39
12%	72.93	0.31	6.67	6.97
13%	79.00	0.33	7.22	7.56
14%	85.08	0.36	7.78	8.14
15%	91.16	0.38	8.34	8.72
16%	97.24	0.41	8.89	9.30
17%	103.31	0.43	9.45	9.88
18%	109.39	0.46	10.00	10.46
19%	115.47	0.48	10.56	11.04
20%	121.54	0.51	11.11	11.62
21%	127.62	0.54	11.67	12.21
22%	133.70	0.56	12.23	12.79
23%	139.78	0.59	12.78	13.37
24%	145.85	0.61	13.34	13.95
25%	151.93	0.64	13.89	14.53
26%	158.01	0.66	14.45	15.11
27%	164.08	0.69	15.00	15.69
28%	170.16	0.71	15.56	16.27
29%	176.24	0.74	16.12	16.85
30%	182.32	0.77	16.67	17.44
31%	188.39	0.79	17.23	18.02
32%	194.47	0.82	17.78	18.60
33%	200.55	0.84	18.34	19.18
34%	206.62	0.87	18.89	19.76
35%	212.70	0.89	19.45	20.34
36%	218.78	0.92	20.01	20.92
37%	224.86	0.94	20.56	21.50
38%	230.93	0.97	21.12	22.09
39%	237.01	0.99	21.67	22.67
40%	243.09	1.02	22.23	23.25
41%	249.17	1.05	22.78	23.83
42%	255.24	1.07	23.34	24.41
43%	261.32	1.10	23.90	24.99
44%	267.40	1.12	24.45	25.57
45%	273.47	1.15	25.01	26.15
46%	279.55	1.17	25.56	26.74
47%	285.63	1.20	26.12	27.32
48%	291.71	1.22	26.67	27.90
49%	297.78	1.25	27.23	28.48
50%	303.86	1.28	27.79	29.06
51%	309.94	1.30	28.34	29.64
52%	316.01	1.33	28.90	30.22
53%	322.09	1.35	29.45	30.80
54%	328.17	1.38	30.01	31.38
55%	334.25	1.40	30.56	31.97
56%	340.32	1.43	31.12	32.55
57%	346.40	1.45	31.67	33.13
58%	352.48	1.48	32.23	33.71
59%	358.55	1.50	32.79	34.29
60%	364.63	1.53	33.34	34.87
61%	370.71	1.56	33.90	35.45
62%	376.79	1.58	34.45	36.03
63%	382.86	1.61	35.01	36.62
64%	388.94	1.63	35.56	37.20
65%	395.02	1.66	36.12	37.78
66%	401.10	1.68	36.68	38.36
67%	407.17	1.71	37.23	38.94
68%	413.25	1.73	37.79	39.52
69%	419.33	1.76	38.34	40.10
70%	425.40	1.79	38.90	40.68
71%	431.48	1.81	39.45	41.27
72%	437.56	1.84	40.01	41.85
73%	443.64	1.86	40.57	42.43
74%	449.71	1.89	41.12	43.01
75%	455.79	1.91	41.68	43.59
76%	461.87	1.94	42.23	44.17
77%	467.94	1.96	42.79	44.75
78%	474.02	1.99	43.34	45.33
79%	480.10	2.01	43.90	45.91
80%	486.18	2.04	44.46	46.50
81%	492.25	2.07	45.01	47.08
82%	498.33	2.09	45.57	47.66
83%	504.41	2.12	46.12	48.24
84%	510.48	2.14	46.68	48.82
85%	516.56	2.17	47.23	49.40
86%	522.64	2.19	47.79	49.98
87%	528.72	2.22	48.35	50.56
88%	534.79	2.24	48.90	51.15
89%	540.87	2.27	49.46	51.73
90%	546.95	2.30	50.01	52.31
91%	553.03	2.32	50.57	52.89
92%	559.10	2.35	51.12	53.47
93%	565.18	2.37	51.68	54.05
94%	571.26	2.40	52.24	54.63
95%	577.33	2.42	52.79	55.21
96%	583.41	2.45	53.35	55.80
97%	589.49	2.47	53.90	56.38
98%	595.57	2.50	54.46	56.96
99%	601.64	2.52	55.01	57.54
100%	607.72	2.55	55.57	58.12

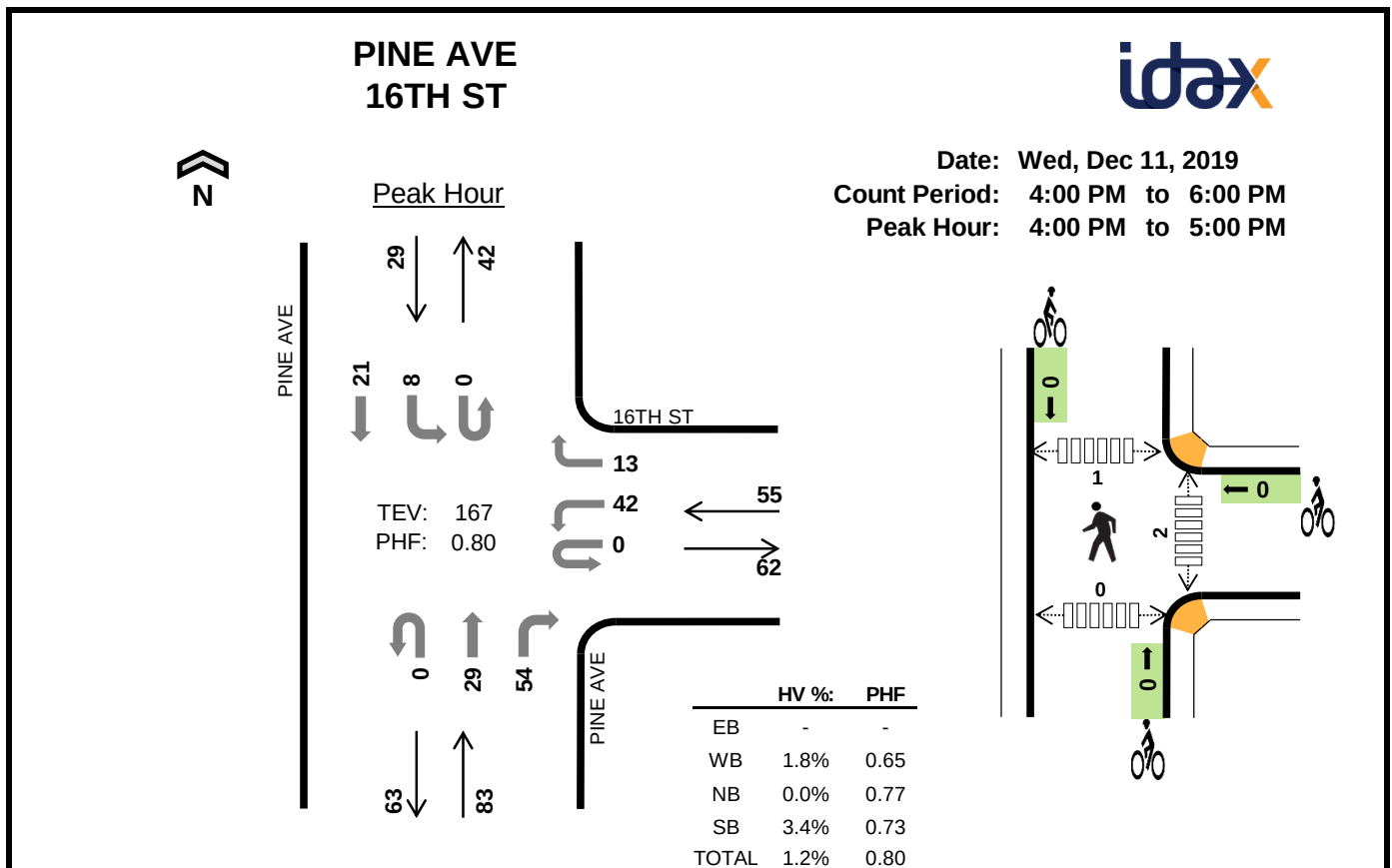
Walsh Hills
GTC #19-299

PM Peak-Hour

%	New ADT	New PM Peak Hour Trips		
		In	Out	Total
100%	608	60	19	78.87
1%	6.08	0.60	0.19	0.79
2%	12.15	1.19	0.39	1.58
3%	18.23	1.79	0.58	2.37
4%	24.31	2.38	0.77	3.15
5%	30.39	2.98	0.96	3.94
6%	36.46	3.58	1.16	4.73
7%	42.54	4.17	1.35	5.52
8%	48.62	4.77	1.54	6.31
9%	54.69	5.36	1.74	7.10
10%	60.77	5.96	1.93	7.89
11%	66.85	6.55	2.12	8.68
12%	72.93	7.15	2.31	9.46
13%	79.00	7.75	2.51	10.25
14%	85.08	8.34	2.70	11.04
15%	91.16	8.94	2.89	11.83
16%	97.24	9.53	3.08	12.62
17%	103.31	10.13	3.28	13.41
18%	109.39	10.73	3.47	14.20
19%	115.47	11.32	3.66	14.99
20%	121.54	11.92	3.86	15.77
21%	127.62	12.51	4.05	16.56
22%	133.70	13.11	4.24	17.35
23%	139.78	13.71	4.43	18.14
24%	145.85	14.30	4.63	18.93
25%	151.93	14.90	4.82	19.72
26%	158.01	15.49	5.01	20.51
27%	164.08	16.09	5.21	21.29
28%	170.16	16.69	5.40	22.08
29%	176.24	17.28	5.59	22.87
30%	182.32	17.88	5.78	23.66
31%	188.39	18.47	5.98	24.45
32%	194.47	19.07	6.17	25.24
33%	200.55	19.66	6.36	26.03
34%	206.62	20.26	6.56	26.82
35%	212.70	20.86	6.75	27.60
36%	218.78	21.45	6.94	28.39
37%	224.86	22.05	7.13	29.18
38%	230.93	22.64	7.33	29.97
39%	237.01	23.24	7.52	30.76
40%	243.09	23.84	7.71	31.55
41%	249.17	24.43	7.90	32.34
42%	255.24	25.03	8.10	33.13
43%	261.32	25.62	8.29	33.91
44%	267.40	26.22	8.48	34.70
45%	273.47	26.82	8.68	35.49
46%	279.55	27.41	8.87	36.28
47%	285.63	28.01	9.06	37.07
48%	291.71	28.60	9.25	37.86
49%	297.78	29.20	9.45	38.65
50%	303.86	29.80	9.64	39.44

%	New ADT	New PM Peak Hour Trips		
		In	Out	Total
100%	608	60	19	79
51%	309.94	30.39	9.83	40.22
52%	316.01	30.99	10.03	41.01
53%	322.09	31.58	10.22	41.80
54%	328.17	32.18	10.41	42.59
55%	334.25	32.77	10.60	43.38
56%	340.32	33.37	10.80	44.17
57%	346.40	33.97	10.99	44.96
58%	352.48	34.56	11.18	45.74
59%	358.55	35.16	11.38	46.53
60%	364.63	35.75	11.57	47.32
61%	370.71	36.35	11.76	48.11
62%	376.79	36.95	11.95	48.90
63%	382.86	37.54	12.15	49.69
64%	388.94	38.14	12.34	50.48
65%	395.02	38.73	12.53	51.27
66%	401.10	39.33	12.72	52.05
67%	407.17	39.93	12.92	52.84
68%	413.25	40.52	13.11	53.63
69%	419.33	41.12	13.30	54.42
70%	425.40	41.71	13.50	55.21
71%	431.48	42.31	13.69	56.00
72%	437.56	42.90	13.88	56.79
73%	443.64	43.50	14.07	57.58
74%	449.71	44.10	14.27	58.36
75%	455.79	44.69	14.46	59.15
76%	461.87	45.29	14.65	59.94
77%	467.94	45.88	14.85	60.73
78%	474.02	46.48	15.04	61.52
79%	480.10	47.08	15.23	62.31
80%	486.18	47.67	15.42	63.10
81%	492.25	48.27	15.62	63.88
82%	498.33	48.86	15.81	64.67
83%	504.41	49.46	16.00	65.46
84%	510.48	50.06	16.20	66.25
85%	516.56	50.65	16.39	67.04
86%	522.64	51.25	16.58	67.83
87%	528.72	51.84	16.77	68.62
88%	534.79	52.44	16.97	69.41
89%	540.87	53.04	17.16	70.19
90%	546.95	53.63	17.35	70.98
91%	553.03	54.23	17.54	71.77
92%	559.10	54.82	17.74	72.56
93%	565.18	55.42	17.93	73.35
94%	571.26	56.01	18.12	74.14
95%	577.33	56.61	18.32	74.93
96%	583.41	57.21	18.51	75.72
97%	589.49	57.80	18.70	76.50
98%	595.57	58.40	18.89	77.29
99%	601.64	58.99	19.09	78.08
100%	607.72	59.59	19.28	78.87

Count Data

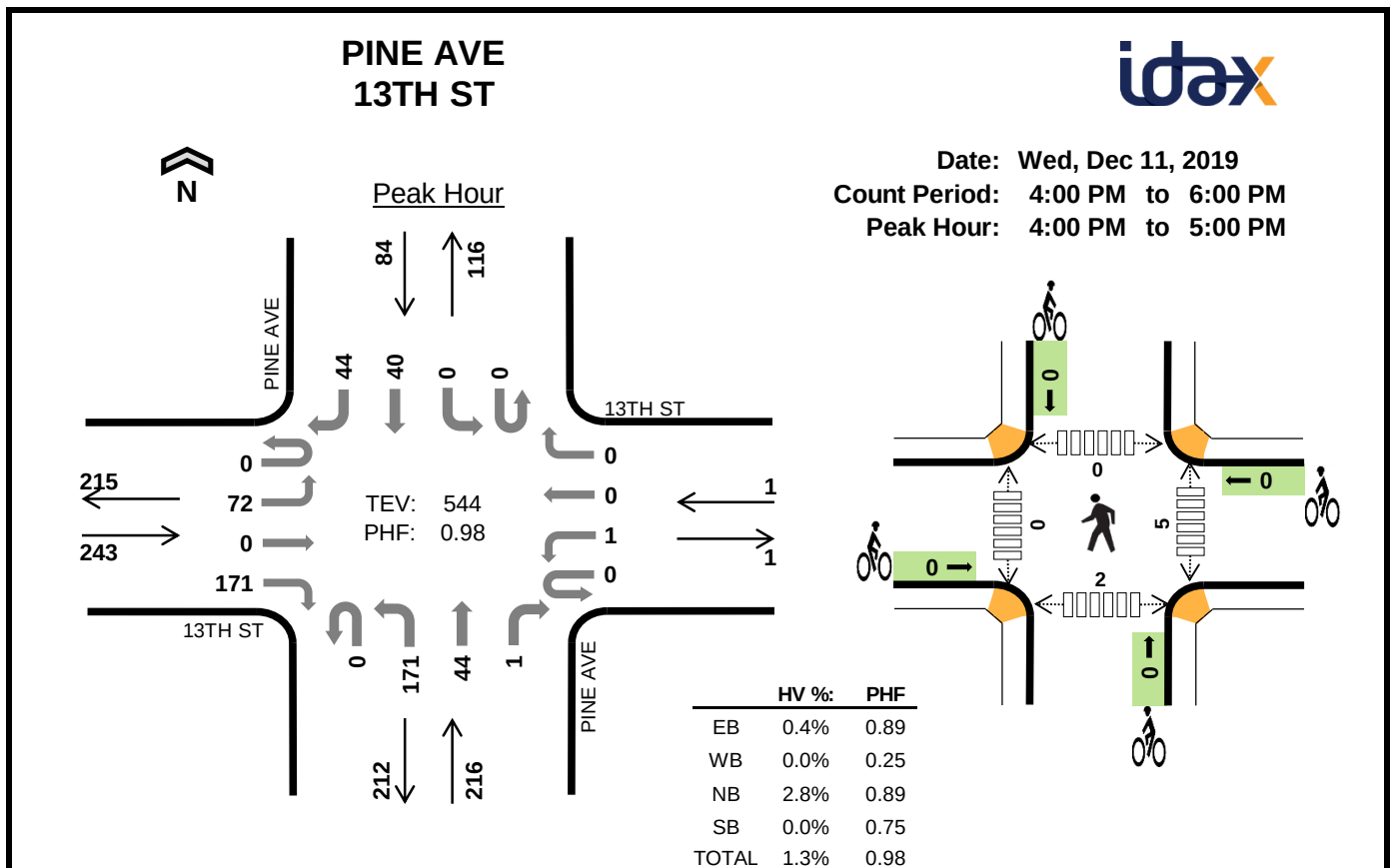


Two-Hour Count Summaries

Interval Start	0				16TH ST				PINE AVE				PINE AVE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	11	0	1	0	0	3	14	0	0	5	0	34	0
4:15 PM	0	0	0	0	0	15	0	6	0	0	9	12	0	3	7	0	52	0
4:30 PM	0	0	0	0	0	7	0	6	0	0	5	13	0	2	5	0	38	0
4:45 PM	0	0	0	0	0	9	0	0	0	0	12	15	0	3	4	0	43	167
5:00 PM	0	0	0	0	0	1	0	1	0	0	3	7	0	5	3	0	20	153
5:15 PM	0	0	0	0	0	7	0	2	0	0	11	10	0	3	3	0	36	137
5:30 PM	0	0	0	0	0	8	0	0	0	0	15	15	0	0	4	0	42	141
5:45 PM	0	0	0	0	0	8	0	1	0	0	7	11	0	2	8	0	37	135
Count Total	0	0	0	0	0	66	0	17	0	0	65	97	0	18	39	0	302	0
Peak Hour	0	0	0	0	0	42	0	13	0	0	29	54	0	8	21	0	167	0

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

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

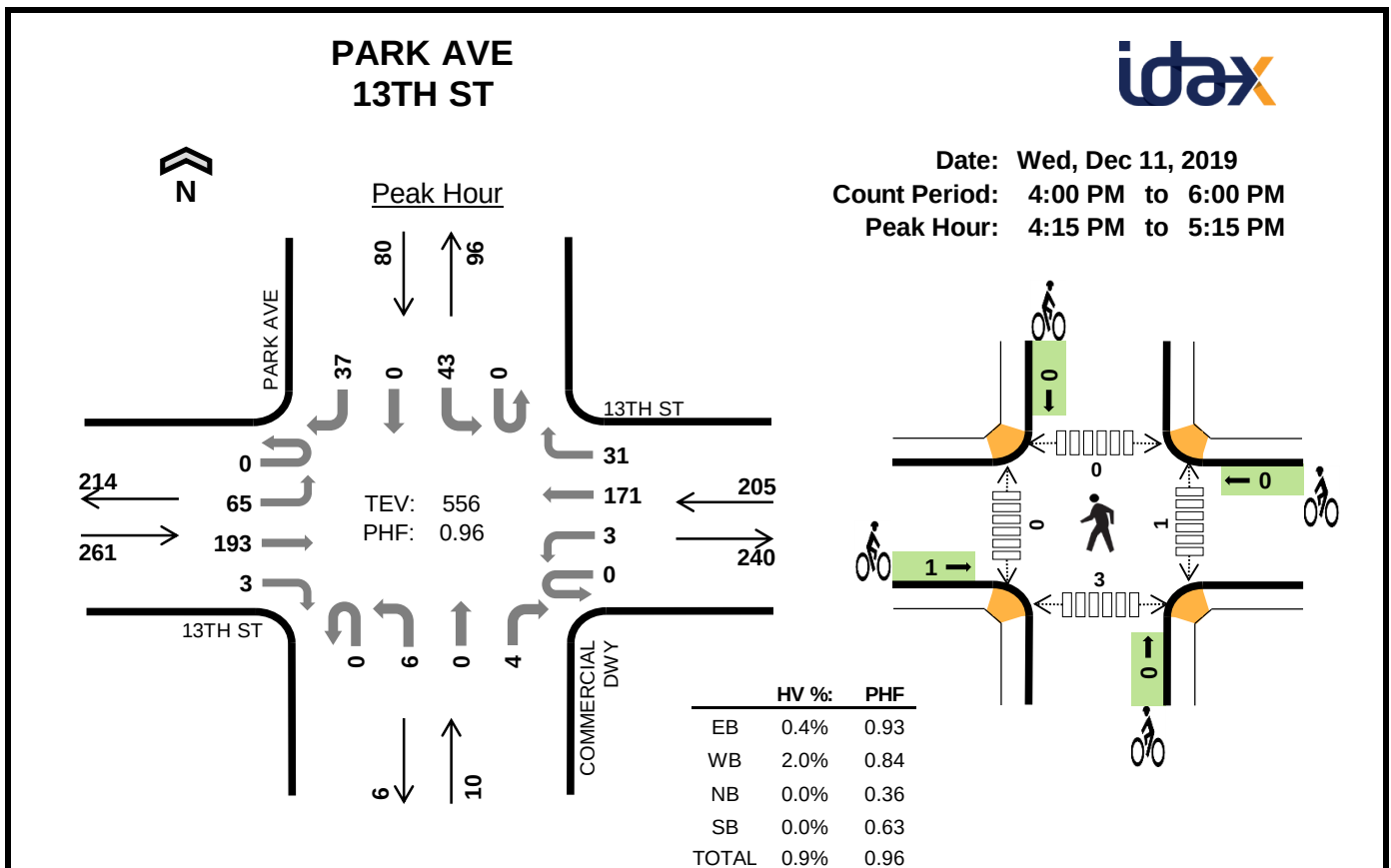


Two-Hour Count Summaries

Interval Start	13TH ST Eastbound				13TH ST Westbound				PINE AVE Northbound				PINE AVE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	19	0	49	0	0	0	0	0	41	7	0	0	0	11	12	139	0
4:15 PM	0	17	0	38	0	0	0	0	0	39	11	1	0	0	13	15	134	0
4:30 PM	0	16	0	52	0	1	0	0	0	40	16	0	0	0	7	7	139	0
4:45 PM	0	20	0	32	0	0	0	0	0	51	10	0	0	0	9	10	132	544
5:00 PM	1	13	0	48	0	1	0	0	0	36	4	0	0	0	3	4	110	515
5:15 PM	0	19	3	45	0	0	0	0	0	21	7	1	0	0	7	6	109	490
5:30 PM	0	22	0	43	0	0	0	0	0	27	16	1	0	0	11	6	126	477
5:45 PM	0	17	0	37	0	0	0	0	0	37	12	0	0	0	6	8	117	462
Count Total	1	143	3	344	0	2	0	0	0	292	83	3	0	0	67	68	1,006	0
Peak Hour	0	72	0	171	0	1	0	0	0	171	44	1	0	0	40	44	544	0

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

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

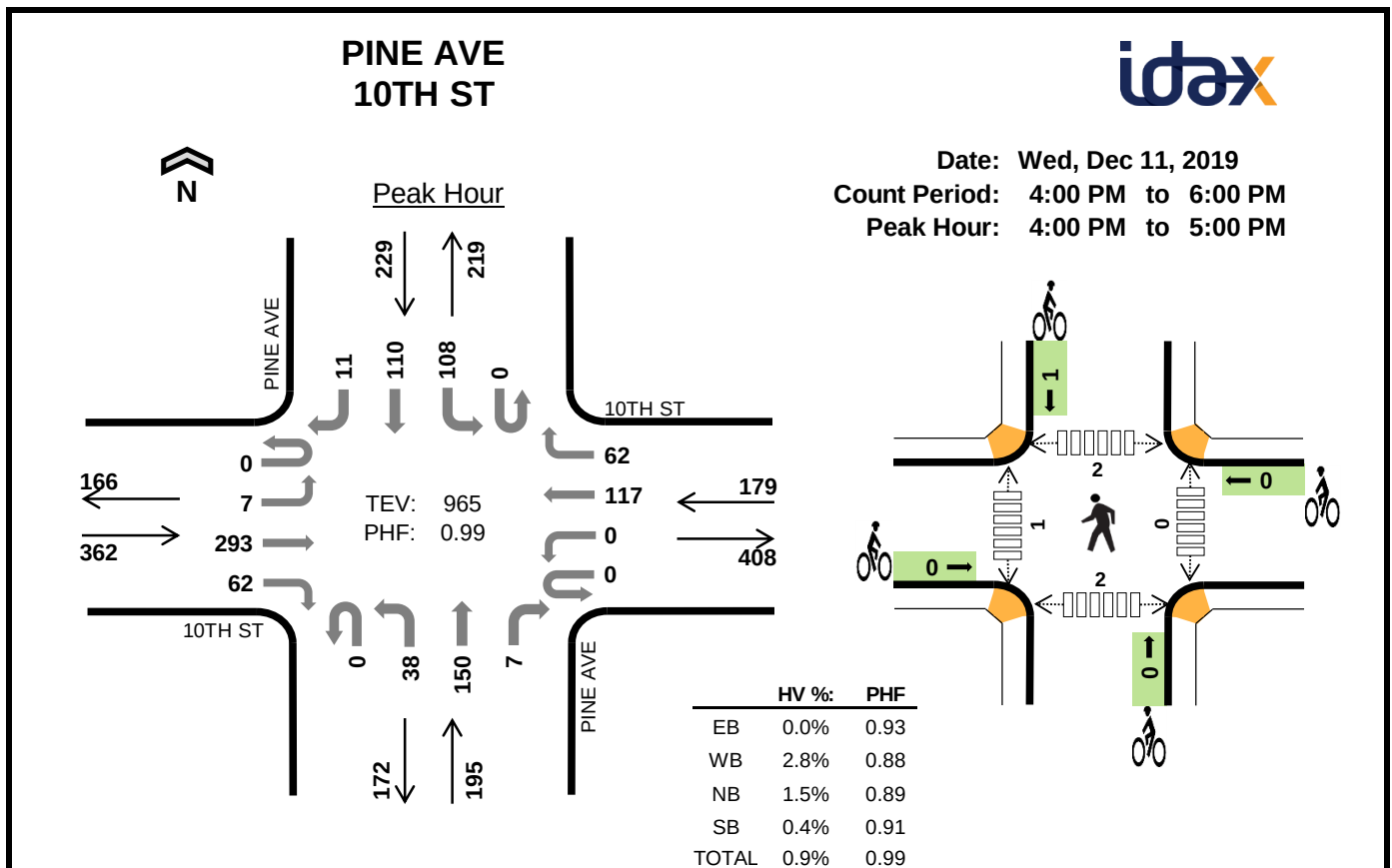


Two-Hour Count Summaries

Interval Start	13TH ST Eastbound				13TH ST Westbound				COMMERCIAL DWY Northbound				PARK AVE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	6	52	0	0	0	46	8	0	0	0	1	0	11	0	11	135	0
4:15 PM	0	20	50	0	0	0	45	7	0	1	0	1	0	5	0	7	136	0
4:30 PM	0	12	50	1	0	0	40	9	0	1	0	0	0	18	0	14	145	0
4:45 PM	0	15	43	1	0	3	54	4	0	0	0	0	0	11	0	8	139	555
5:00 PM	0	18	50	1	0	0	32	11	0	4	0	3	0	9	0	8	136	556
5:15 PM	0	16	57	0	0	0	25	3	0	1	0	0	0	11	0	6	119	539
5:30 PM	0	13	57	0	0	0	24	9	0	0	1	0	0	7	0	10	121	515
5:45 PM	0	13	48	0	0	0	32	5	0	0	1	0	0	8	1	10	118	494
Count Total	0	113	407	3	0	3	298	56	0	7	2	5	0	80	1	74	1,049	0
Peak Hour	0	65	193	3	0	3	171	31	0	6	0	4	0	43	0	37	556	0

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

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



Two-Hour Count Summaries

Interval Start	10TH ST Eastbound				10TH ST Westbound				PINE AVE Northbound				PINE AVE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	2	71	11	0	0	35	16	0	9	32	3	0	29	29	3	240	0
4:15 PM	0	1	78	18	0	0	27	11	0	13	39	3	0	26	23	2	241	0
4:30 PM	0	3	73	15	0	0	20	21	0	9	36	1	0	25	37	1	241	0
4:45 PM	0	1	71	18	0	0	35	14	0	7	43	0	0	28	21	5	243	965
5:00 PM	0	2	75	18	0	0	23	8	0	11	32	1	0	29	27	0	226	951
5:15 PM	0	3	66	20	0	0	32	7	0	10	24	2	0	28	21	2	215	925
5:30 PM	0	2	58	16	0	0	24	16	0	11	25	1	0	32	19	1	205	889
5:45 PM	0	1	62	6	0	0	18	16	0	11	27	1	0	23	21	1	187	833
Count Total	0	15	554	122	0	0	214	109	0	81	258	12	0	220	198	15	1,798	0
Peak Hour	0	7	293	62	0	0	117	62	0	38	150	7	0	108	110	11	965	0

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

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

Turning Movement Calculations

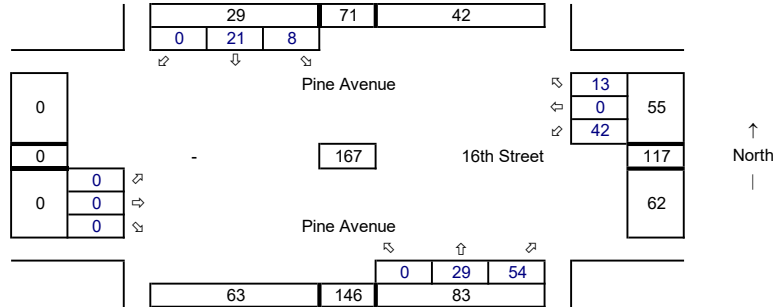
1 Pine Ave @ 16th Street

Synchro ID: 1

Existing
Average Weekday
PM Peak Hour

Year: 12/11/19

Data Source: Idax



Future without Project

Average Weekday
PM Peak Hour

Year: 2026

Growth Rate = 2.0%

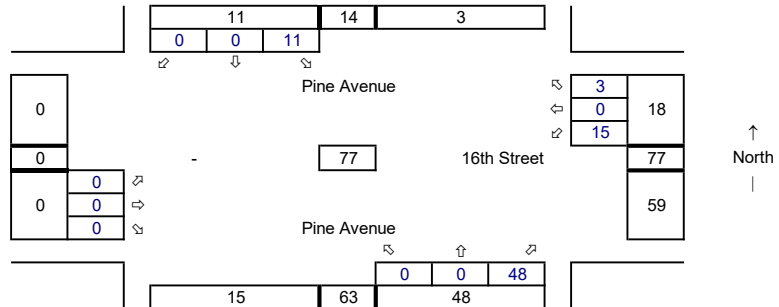
Years of Growth = 7

Total Growth = 1.1487



Total Project Trips

Average Weekday
PM Peak Hour



Future with Project

Average Weekday
PM Peak Hour



2 Pine Ave @ 13th Street

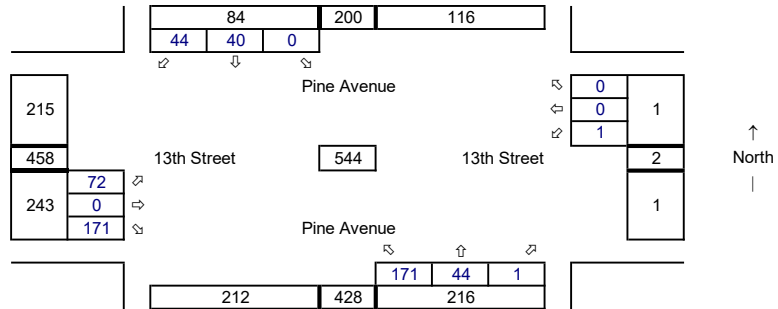
Synchro ID: 2

Existing

Average Weekday
PM Peak Hour

Year: 12/11/19

Data Source: Idax



Future without Project

Average Weekday
PM Peak Hour

Year: 2026

Growth Rate = 2.0%

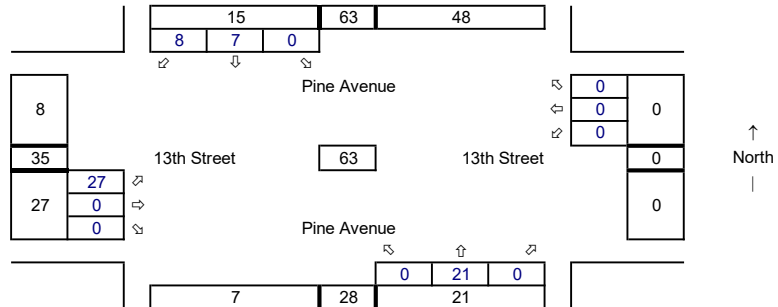
Years of Growth = 7

Total Growth = 1.1487



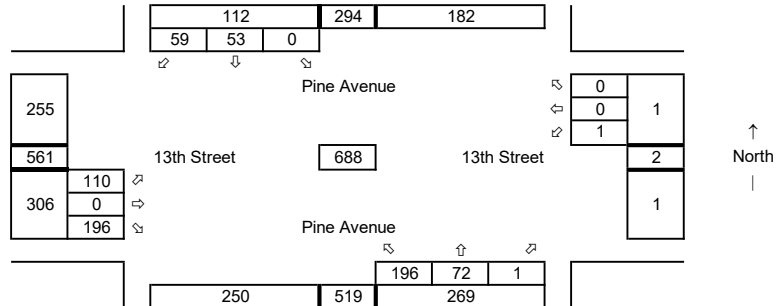
Total Project Trips

Average Weekday
PM Peak Hour



Future with Project

Average Weekday
PM Peak Hour



3 Park Ave @ 13th Street

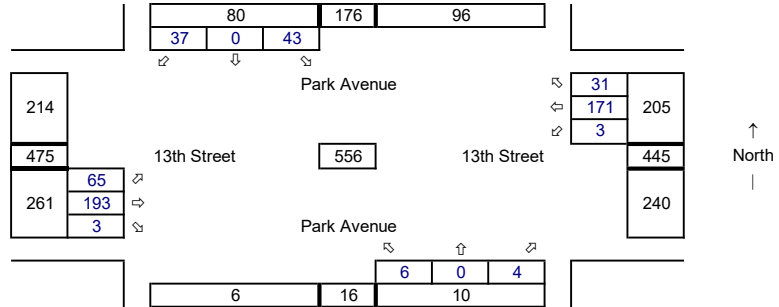
Synchro ID: 3

Existing

Average Weekday
PM Peak Hour

Year: 12/11/19

Data Source: Idax



Future without Project

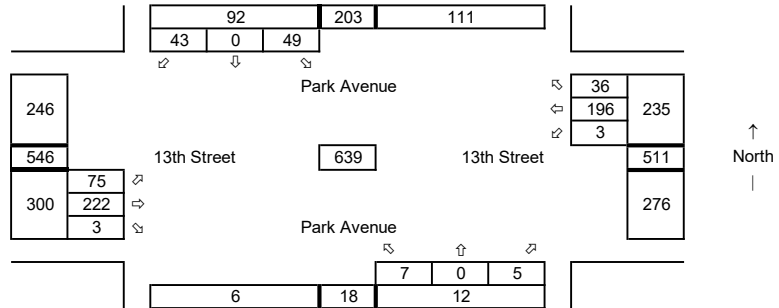
Average Weekday
PM Peak Hour

Year: 2026

Growth Rate = 2.0%

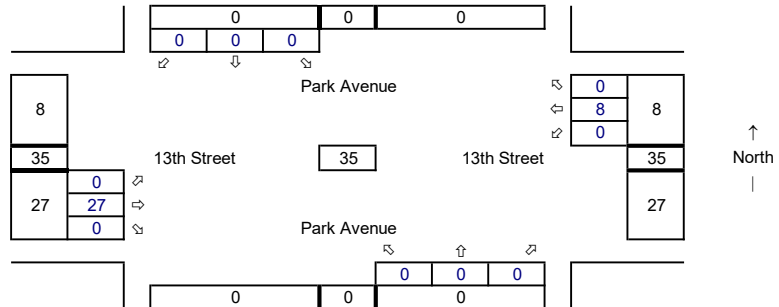
Years of Growth = 7

Total Growth = 1.1487



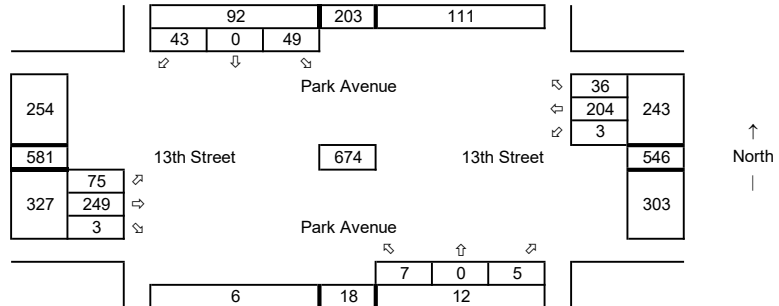
Total Project Trips

Average Weekday
PM Peak Hour



Future with Project

Average Weekday
PM Peak Hour



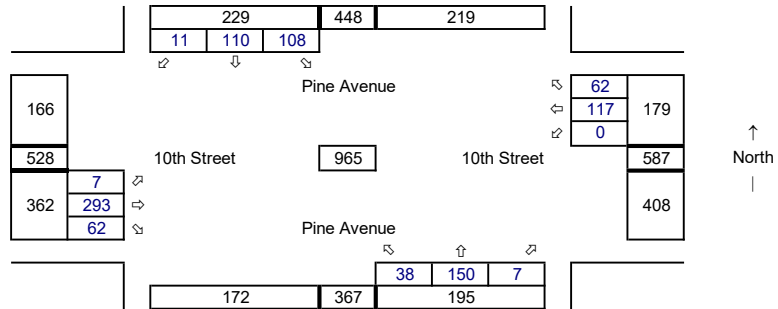
4 13th Street @ Ave A

Synchro ID: 4

Existing
Average Weekday
PM Peak Hour

Year: 12/11/19

Data Source: Idax



Future without Project

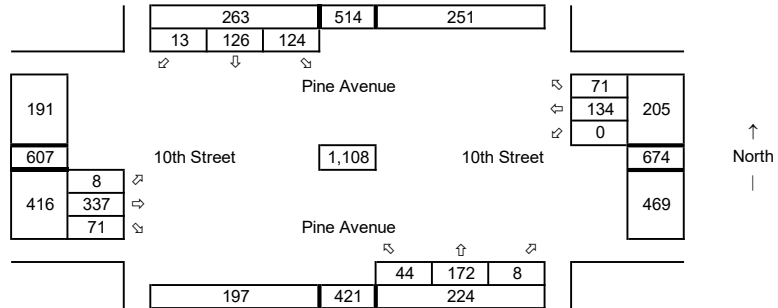
Average Weekday
PM Peak Hour

Year: 2026

Growth Rate = 2.0%

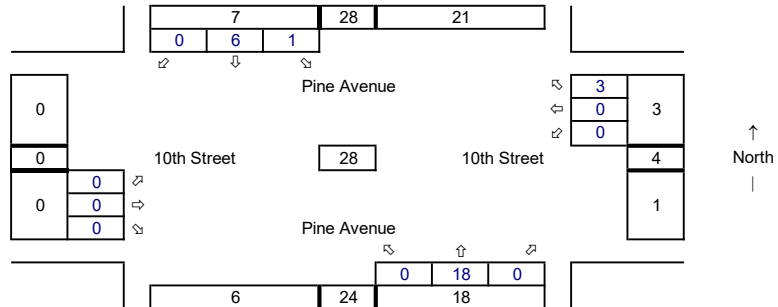
Years of Growth = 7

Total Growth = 1.1487



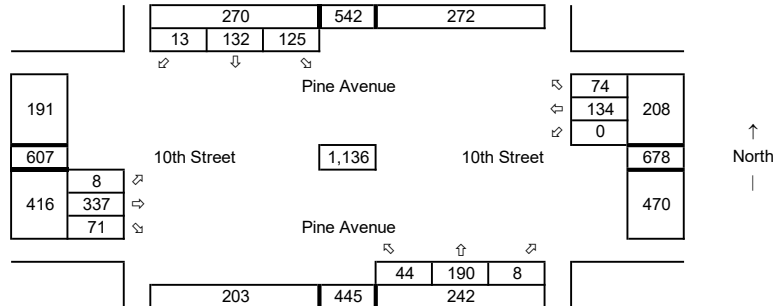
Total Project Trips

Average Weekday
PM Peak Hour



Future with Project

Average Weekday
PM Peak Hour



2019 Existing Level of Service

HCM 6th AWSC

1: Pine Avenue & 16th Street

Walsh Hills Development

Intersection

Intersection Delay, s/veh 7.3
Intersection LOS A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	42	13	29	54	8	21
Future Vol, veh/h	42	13	29	54	8	21
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles, %	2	2	0	0	3	3
Mvmt Flow	53	16	36	68	10	26
Number of Lanes	1	0	1	0	0	1
Approach	WB		NB		SB	
Opposing Approach			SB		NB	
Opposing Lanes	0		1		1	
Conflicting Approach Left	NB				WB	
Conflicting Lanes Left	1		0		1	
Conflicting Approach Right	SB		WB			
Conflicting Lanes Right	1		1		0	
HCM Control Delay	7.6		7.1		7.4	
HCM LOS	A		A		A	

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	76%	28%
Vol Thru, %	35%	0%	72%
Vol Right, %	65%	24%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	83	55	29
LT Vol	0	42	8
Through Vol	29	0	21
RT Vol	54	13	0
Lane Flow Rate	104	69	36
Geometry Grp	1	1	1
Degree of Util (X)	0.105	0.08	0.042
Departure Headway (Hd)	3.657	4.185	4.206
Convergence, Y/N	Yes	Yes	Yes
Cap	974	853	846
Service Time	1.703	2.229	2.255
HCM Lane V/C Ratio	0.107	0.081	0.043
HCM Control Delay	7.1	7.6	7.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.4	0.3	0.1

2019 Existing
PM Peak-Hour

Gibson Traffic Consultants, Inc. [ZJW #19-299]
2019 Existing - PM Peak.syn

HCM 6th AWSC

2: Pine Avenue & 13th Street

Walsh Hills Development

Intersection

Intersection Delay, s/veh 9.1
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	72	0	171	1	0	0	171	44	1	0	40	44
Future Vol, veh/h	72	0	171	1	0	0	171	44	1	0	40	44
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	0	0	2	2	2	0	0	0	0	0	0
Mvmt Flow	75	0	178	1	0	0	178	46	1	0	42	46
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			2			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			2			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			2		
HCM Control Delay	8.8			8.4			9.8			8		
HCM LOS	A			A			A			A		

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	79%	100%	0%	100%	0%
Vol Thru, %	20%	0%	0%	0%	48%
Vol Right, %	0%	0%	100%	0%	52%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	216	72	171	1	84
LT Vol	171	72	0	1	0
Through Vol	44	0	0	0	40
RT Vol	1	0	171	0	44
Lane Flow Rate	225	75	178	1	88
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.297	0.12	0.224	0.002	0.108
Departure Headway (Hd)	4.746	5.744	4.537	5.29	4.45
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	756	624	791	674	803
Service Time	2.779	3.481	2.272	3.342	2.491
HCM Lane V/C Ratio	0.298	0.12	0.225	0.001	0.11
HCM Control Delay	9.8	9.3	8.6	8.4	8
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	1.2	0.4	0.9	0	0.4

2019 Existing
PM Peak-Hour

Gibson Traffic Consultants, Inc. [ZJW #19-299]
2019 Existing - PM Peak.syn

HCM 6th TWSC

3: Driveway/Park Avenue & 13th Street

Walsh Hills Development

Intersection

Int Delay, s/veh 2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
----------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	65	193	3	3	171	31	6	0	4	43	0	37
Future Vol, veh/h	65	193	3	3	171	31	6	0	4	43	0	37
Conflicting Peds, #/hr	0	0	2	2	0	0	0	0	5	5	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	0	0	0
Mvmt Flow	66	197	3	3	174	32	6	0	4	44	0	38

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	206	0	0	202	0	0	548	545	206	534	530	190
Stage 1	-	-	-	-	-	-	333	333	-	196	196	-
Stage 2	-	-	-	-	-	-	215	212	-	338	334	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.13	6.53	6.23	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.527	4.027	3.327	3.5	4	3.3
Pot Cap-1 Maneuver	1377	-	-	1382	-	-	446	444	832	460	457	857
Stage 1	-	-	-	-	-	-	679	642	-	810	742	-
Stage 2	-	-	-	-	-	-	785	725	-	681	647	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1377	-	-	1379	-	-	407	418	826	436	430	857
Mov Cap-2 Maneuver	-	-	-	-	-	-	407	418	-	436	430	-
Stage 1	-	-	-	-	-	-	641	606	-	766	741	-
Stage 2	-	-	-	-	-	-	749	724	-	638	611	-

Approach	EB		WB		NB		SB
HCM Control Delay, s	1.9		0.1		12.2		12.5
HCM LOS					B		B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	511	1377	-	-	1379	-	-	564
HCM Lane V/C Ratio	0.02	0.048	-	-	0.002	-	-	0.145
HCM Control Delay (s)	12.2	7.7	0	-	7.6	0	-	12.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.5

2019 Existing
PM Peak-Hour

Gibson Traffic Consultants, Inc. [ZJW #19-299]
2019 Existing - PM Peak.syn

HCM 6th AWSC
4: Pine Avenue & 10th Street

Walsh Hills Development

Intersection

Intersection Delay, s/veh 13
Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	293	62	0	117	62	38	150	7	108	110	11
Future Vol, veh/h	7	293	62	0	117	62	38	150	7	108	110	11
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	296	63	0	118	63	38	152	7	109	111	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	15			10.9			11.8			12.6		
HCM LOS	B			B			B			B		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	2%	0%	47%
Vol Thru, %	77%	81%	65%	48%
Vol Right, %	4%	17%	35%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	195	362	179	229
LT Vol	38	7	0	108
Through Vol	150	293	117	110
RT Vol	7	62	62	11
Lane Flow Rate	197	366	181	231
Geometry Grp	1	1	1	1
Degree of Util (X)	0.324	0.55	0.283	0.379
Departure Headway (Hd)	5.913	5.419	5.631	5.892
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	605	662	633	608
Service Time	3.988	3.483	3.707	3.962
HCM Lane V/C Ratio	0.326	0.553	0.286	0.38
HCM Control Delay	11.8	15	10.9	12.6
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.4	3.4	1.2	1.8

2019 Existing
PM Peak-Hour

Gibson Traffic Consultants, Inc. [ZJW #19-299]
2019 Existing - PM Peak.syn

2026 Baseline Level of Service

HCM 6th AWSC

1: Pine Avenue & 16th Street

Walsh Hills Development

Intersection

Intersection Delay, s/veh 7.4
Intersection LOS A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	48	15	33	62	9	24
Future Vol, veh/h	48	15	33	62	9	24
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles, %	2	2	0	0	3	3
Mvmt Flow	60	19	41	78	11	30
Number of Lanes	1	0	1	0	0	1
Approach	WB		NB		SB	
Opposing Approach			SB		NB	
Opposing Lanes	0		1		1	
Conflicting Approach Left	NB				WB	
Conflicting Lanes Left	1		0		1	
Conflicting Approach Right	SB		WB			
Conflicting Lanes Right	1		1		0	
HCM Control Delay	7.7		7.2		7.5	
HCM LOS	A		A		A	

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	76%	27%
Vol Thru, %	35%	0%	73%
Vol Right, %	65%	24%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	95	63	33
LT Vol	0	48	9
Through Vol	33	0	24
RT Vol	62	15	0
Lane Flow Rate	119	79	41
Geometry Grp	1	1	1
Degree of Util (X)	0.121	0.092	0.049
Departure Headway (Hd)	3.678	4.22	4.235
Convergence, Y/N	Yes	Yes	Yes
Cap	967	844	839
Service Time	1.732	2.272	2.293
HCM Lane V/C Ratio	0.123	0.094	0.049
HCM Control Delay	7.2	7.7	7.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.4	0.3	0.2

HCM 6th AWSC

2: Pine Avenue & 13th Street

Walsh Hills Development

Intersection

Intersection Delay, s/veh 9.6
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	83	0	196	1	0	0	196	51	1	0	46	51
Future Vol, veh/h	83	0	196	1	0	0	196	51	1	0	46	51
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	0	0	2	2	2	0	0	0	0	0	0
Mvmt Flow	86	0	204	1	0	0	204	53	1	0	48	53
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			2			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			2			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			2		
HCM Control Delay	9.2			8.6			10.5			8.3		
HCM LOS	A			A			B			A		

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	79%	100%	0%	100%	0%
Vol Thru, %	21%	0%	0%	0%	47%
Vol Right, %	0%	0%	100%	0%	53%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	248	83	196	1	97
LT Vol	196	83	0	1	0
Through Vol	51	0	0	0	46
RT Vol	1	0	196	0	51
Lane Flow Rate	258	86	204	1	101
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.349	0.141	0.264	0.002	0.129
Departure Headway (Hd)	4.857	5.866	4.656	5.473	4.592
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	739	610	768	649	776
Service Time	2.901	3.616	2.407	3.547	2.647
HCM Lane V/C Ratio	0.349	0.141	0.266	0.002	0.13
HCM Control Delay	10.5	9.6	9.1	8.6	8.3
HCM Lane LOS	B	A	A	A	A
HCM 95th-tile Q	1.6	0.5	1.1	0	0.4

HCM 6th TWSC

3: Driveway/Park Avenue & 13th Street

Walsh Hills Development

Intersection

Int Delay, s/veh 3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
----------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	75	222	3	3	196	36	7	0	5	49	0	43
Future Vol, veh/h	75	222	3	3	196	36	7	0	5	49	0	43
Conflicting Peds, #/hr	0	0	2	2	0	0	0	0	5	5	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	0	0	0
Mvmt Flow	77	227	3	3	200	37	7	0	5	50	0	44

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	237	0	0	232	0	0	632	628	236	615	611	219
Stage 1	-	-	-	-	-	-	385	385	-	225	225	-
Stage 2	-	-	-	-	-	-	247	243	-	390	386	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.13	6.53	6.23	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.527	4.027	3.327	3.5	4	3.3
Pot Cap-1 Maneuver	1342	-	-	1348	-	-	392	398	801	406	411	826
Stage 1	-	-	-	-	-	-	636	609	-	782	721	-
Stage 2	-	-	-	-	-	-	755	703	-	638	614	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1342	-	-	1345	-	-	351	370	796	380	382	826
Mov Cap-2 Maneuver	-	-	-	-	-	-	351	370	-	380	382	-
Stage 1	-	-	-	-	-	-	593	568	-	730	719	-
Stage 2	-	-	-	-	-	-	713	701	-	589	572	-

Approach	EB		WB		NB		SB
HCM Control Delay, s	2		0.1		13.1		13.7
HCM LOS					B		B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	458	1342	-	-	1345	-	-	508
HCM Lane V/C Ratio	0.027	0.057	-	-	0.002	-	-	0.185
HCM Control Delay (s)	13.1	7.8	0	-	7.7	0	-	13.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.7

HCM 6th AWSC
4: Pine Avenue & 10th Street

Walsh Hills Development

Intersection

Intersection Delay, s/veh 16.7
Intersection LOS C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	337	71	0	134	71	44	172	8	124	126	13
Future Vol, veh/h	8	337	71	0	134	71	44	172	8	124	126	13
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	340	72	0	135	72	44	174	8	125	127	13
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	21			12.8			14			15.3		
HCM LOS	C			B			B			C		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	2%	0%	47%
Vol Thru, %	77%	81%	65%	48%
Vol Right, %	4%	17%	35%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	224	416	205	263
LT Vol	44	8	0	124
Through Vol	172	337	134	126
RT Vol	8	71	71	13
Lane Flow Rate	226	420	207	266
Geometry Grp	1	1	1	1
Degree of Util (X)	0.409	0.688	0.358	0.476
Departure Headway (Hd)	6.503	5.891	6.231	6.449
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	552	613	576	558
Service Time	4.559	3.938	4.289	4.505
HCM Lane V/C Ratio	0.409	0.685	0.359	0.477
HCM Control Delay	14	21	12.8	15.3
HCM Lane LOS	B	C	B	C
HCM 95th-tile Q	2	5.4	1.6	2.5

2026 Future with Development Level of Service

HCM 6th AWSC

1: Pine Avenue & 16th Street

Terrace Ave Development

Intersection

Intersection Delay, s/veh 7.8
Intersection LOS A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	63	18	33	110	20	24
Future Vol, veh/h	63	18	33	110	20	24
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles, %	2	2	0	0	3	3
Mvmt Flow	79	23	41	138	25	30
Number of Lanes	1	0	1	0	0	1
Approach	WB		NB		SB	
Opposing Approach			SB		NB	
Opposing Lanes	0		1		1	
Conflicting Approach Left	NB				WB	
Conflicting Lanes Left	1		0		1	
Conflicting Approach Right	SB		WB			
Conflicting Lanes Right	1		1		0	
HCM Control Delay	8.1		7.6		7.8	
HCM LOS	A		A		A	

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	78%	45%
Vol Thru, %	23%	0%	55%
Vol Right, %	77%	22%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	143	81	44
LT Vol	0	63	20
Through Vol	33	0	24
RT Vol	110	18	0
Lane Flow Rate	179	101	55
Geometry Grp	1	1	1
Degree of Util (X)	0.182	0.123	0.067
Departure Headway (Hd)	3.658	4.357	4.358
Convergence, Y/N	Yes	Yes	Yes
Cap	965	813	811
Service Time	1.739	2.434	2.446
HCM Lane V/C Ratio	0.185	0.124	0.068
HCM Control Delay	7.6	8.1	7.8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.7	0.4	0.2

2026 Future with Dev
PM Peak-Hour

Gibson Traffic Consultants, Inc. [ZJW #19-299]
2026 Future with Development - PM Peak.syn

HCM 6th AWSC

2: Pine Avenue & 13th Street

Terrace Ave Development

Intersection

Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	110	0	196	1	0	0	196	72	1	0	53	59
Future Vol, veh/h	110	0	196	1	0	0	196	72	1	0	53	59
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	0	0	2	2	2	0	0	0	0	0	0
Mvmt Flow	115	0	204	1	0	0	204	75	1	0	55	61
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			2			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			2			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			2		
HCM Control Delay	9.6			8.7			11.1			8.6		
HCM LOS	A			A			B			A		

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	73%	100%	0%	100%	0%
Vol Thru, %	27%	0%	0%	0%	47%
Vol Right, %	0%	0%	100%	0%	53%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	269	110	196	1	112
LT Vol	196	110	0	1	0
Through Vol	72	0	0	0	53
RT Vol	1	0	196	0	59
Lane Flow Rate	280	115	204	1	117
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.385	0.19	0.269	0.002	0.152
Departure Headway (Hd)	4.941	5.959	4.749	5.62	4.702
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	726	599	751	630	757
Service Time	2.992	3.724	2.513	3.714	2.767
HCM Lane V/C Ratio	0.386	0.192	0.272	0.002	0.155
HCM Control Delay	11.1	10.1	9.3	8.7	8.6
HCM Lane LOS	B	B	A	A	A
HCM 95th-tile Q	1.8	0.7	1.1	0	0.5

HCM 6th TWSC

3: Driveway/Park Avenue & 13th Street

Terrace Ave Development

Intersection

Int Delay, s/veh 3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
----------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	75	249	3	3	204	36	7	0	5	49	0	43
Future Vol, veh/h	75	249	3	3	204	36	7	0	5	49	0	43
Conflicting Peds, #/hr	0	0	2	2	0	0	0	0	5	5	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	0	0	0
Mvmt Flow	77	254	3	3	208	37	7	0	5	50	0	44

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	245	0	0	259	0	0	667	663	263	650	646	227
Stage 1	-	-	-	-	-	-	412	412	-	233	233	-
Stage 2	-	-	-	-	-	-	255	251	-	417	413	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.13	6.53	6.23	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.527	4.027	3.327	3.5	4	3.3
Pot Cap-1 Maneuver	1333	-	-	1317	-	-	371	380	773	385	393	817
Stage 1	-	-	-	-	-	-	615	593	-	775	716	-
Stage 2	-	-	-	-	-	-	747	697	-	617	597	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1333	-	-	1314	-	-	332	353	768	360	365	817
Mov Cap-2 Maneuver	-	-	-	-	-	-	332	353	-	360	365	-
Stage 1	-	-	-	-	-	-	573	552	-	723	714	-
Stage 2	-	-	-	-	-	-	705	695	-	569	556	-

Approach	EB		WB		NB		SB
HCM Control Delay, s	1.8		0.1		13.5		14.1
HCM LOS					B		B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	435	1333	-	-	1314	-	-	487
HCM Lane V/C Ratio	0.028	0.057	-	-	0.002	-	-	0.193
HCM Control Delay (s)	13.5	7.9	0	-	7.7	0	-	14.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.7

2026 Future with Dev
PM Peak-Hour

Gibson Traffic Consultants, Inc. [ZJW #19-299]
2026 Future with Development - PM Peak.syn

HCM 6th AWSC
4: Pine Avenue & 10th Street

Terrace Ave Development

Intersection

Intersection Delay, s/veh 17.5
Intersection LOS C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	337	71	0	134	74	44	190	8	125	132	13
Future Vol, veh/h	8	337	71	0	134	74	44	190	8	125	132	13
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	340	72	0	135	75	44	192	8	126	133	13
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	22.1			13.2			14.9			16		
HCM LOS	C			B			B			C		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	2%	0%	46%
Vol Thru, %	79%	81%	64%	49%
Vol Right, %	3%	17%	36%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	242	416	208	270
LT Vol	44	8	0	125
Through Vol	190	337	134	132
RT Vol	8	71	74	13
Lane Flow Rate	244	420	210	273
Geometry Grp	1	1	1	1
Degree of Util (X)	0.447	0.702	0.371	0.496
Departure Headway (Hd)	6.578	6.016	6.365	6.552
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	545	601	563	548
Service Time	4.644	4.07	4.434	4.616
HCM Lane V/C Ratio	0.448	0.699	0.373	0.498
HCM Control Delay	14.9	22.1	13.2	16
HCM Lane LOS	B	C	B	C
HCM 95th-tile Q	2.3	5.6	1.7	2.7

Collision Data

Collision Data Date Range

Start 1/1/2015
End 12/31/2019
Total Years 5.00

Intersection	No. Collisions	No. Injury Collisions	Estimated ADT	Collisions per Year	Collisions per MEV
#1: Pine Ave at 16th St	1	0	1,670	0.2	0.33
#2: Pine Ave at 13th St	3	2	5,440	0.6	0.30
#3: Park Ave at 13th St	4	1	5,560	0.8	0.39
#4: Pine Ave at 10th St	26	4	9,650	5.2	1.48

PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY/REFERENCE POINT NAME	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# J	# T	# I	# F	# P	# B	FIRST COLLISION TYPE / OBJECT STRUCK	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)
13TH ST	200	PINE AVE	0	0			E467563	2015-08-17	22:57	Possible Injury	1	0	1	0	0	0	Utility Pole	Disregard Stop Sign - Flashing Red
13TH ST	200	PINE AVE	0	0			E422306	2015-05-06	01:55	Possible Injury	2	0	1	0	0	0	Fence	Other
PINE AVE	1000	10TH ST	0	0			E434215	2015-06-16	17:40	No Apparent Injury	0	2	0	0	0	0	Entering at angle	Disregard Stop Sign - Flashing Red
PINE AVE	1000	10TH ST	0	0			E469470	2015-10-04	19:27	No Apparent Injury	0	2	0	0	0	0	Entering at angle	Inattention
PINE AVE	1000	10TH ST	0	0			3607790	2015-03-10	20:38	No Apparent Injury	0	2	0	0	0	0	Entering at angle	Did Not Grant RW to Vehicle
PINE AVE	1000	10TH ST	0	0			E468811	2015-11-26	13:19	No Apparent Injury	0	2	0	0	0	0	Entering at angle	Inattention
10TH ST	300	PINE AVE	0	0			E528792	2016-03-21	08:18	No Apparent Injury	0	2	0	0	0	0	From same direction - both going straight - one stopped - sideswipe	Other
10TH ST	0	PINE AVE	0	0			E628382	2016-12-31	18:02	No Apparent Injury	0	2	0	0	0	0	Entering at angle	Inattention
10TH ST	300	PINE AVE	0	0			E557681	2016-06-12	07:43	Possible Injury	1	0	2	0	0	0	From same direction - both going straight - one stopped - rear-end	Inattention
13TH ST	500	PARK AVE	0	0			E504187	2016-01-05	15:28	No Apparent Injury	0	2	0	0	0	0	Entering at angle	Unknown Driver Distraction
16TH ST	300	PINE AVE	0	0			E519631	2016-02-23	15:38	No Apparent Injury	0	2	0	0	0	0	From same direction - both going straight - one stopped - rear-end	Follow Too Closely
PINE AVE	0	10TH ST	0	0			E613025	2016-11-22	19:08	No Apparent Injury	0	2	0	0	0	0	Entering at angle	Exceeding Reas. Safe Speed
PINE AVE	1000	10TH ST	0	0			E519469	2016-02-17	20:31	No Apparent Injury	0	2	0	0	0	0	Entering at angle	None
10TH ST	0	PINE AVE	0	0			3635363	2017-06-29	08:52	No Apparent Injury	0	2	0	0	0	0	Entering at angle	Inattention
10TH ST	0	PINE AVE	0	0			E723561	2017-10-10	13:46	Possible Injury	1	0	2	0	0	0	Entering at angle	None
PARK AVE	0	13TH ST	0	0			E746167	2017-12-04	23:03	No Apparent Injury	0	1	0	0	0	0	Other Objects	Under Influence of Alcohol
PARK AVE	0	13TH ST	0	0			E656263	2017-03-28	23:05	No Apparent Injury	0	1	0	0	0	0	Fence	Under Influence of Alcohol
PINE AVE	0	10TH ST	0	0			E752301	2017-12-18	17:46	No Apparent Injury	0	2	0	0	0	0	Entering at angle	Disregard Stop Sign - Flashing Red
PINE AVE	0	10TH ST	0	0			E655001	2017-03-24	15:16	No Apparent Injury	0	2	0	0	0	0	Entering at angle	Inattention
10TH ST	0	PINE AVE	0	0			E790957	2018-02-19	19:18	No Apparent Injury	0	2	0	0	0	0	Entering at angle	Disregard Stop Sign - Flashing Red
10TH ST	0	PINE AVE	0	0			E783818	2018-03-28	12:29	No Apparent Injury	0	3	0	0	0	0	From same direction - both going straight - rear-end	Failing to Signal
13TH ST	600	PARK AVE	35	F	W		E828367	2018-08-10	15:20	Possible Injury	1	0	2	0	0	0	From same direction - both going straight - rear-end	Inattention
PINE AVE	0	10TH ST	0	0			E836736	2018-09-04	10:55	No Apparent Injury	0	2	0	0	0	0	Entering at angle	Inattention
PINE AVE	0	10TH ST	0	0			E830147	2018-08-17	13:30	No Apparent Injury	0	2	0	0	0	0	Entering at angle	Inattention
10TH ST	0	PINE AVE	0	0			E949522	2019-07-29	13:37	No Apparent Injury	0	2	0	0	0	0	Entering at angle	None
10TH ST	0	PINE AVE	0	0			E986451	2019-11-25	18:35	Possible Injury	1	0	2	0	0	0	Entering at angle	Inattention
10TH ST	0	PINE AVE	0	0			E914086	2019-04-24	15:45	No Apparent Injury	0	2	0	0	0	0	Entering at angle	Inattention
PINE AVE	900	10TH ST	125	F	S		E891017	2019-02-02	19:30	No Apparent Injury	0	1	0	0	0	0	Linear Curb	None
PINE AVE	0	10TH ST	0	0			E951676	2019-08-18	21:07	No Apparent Injury	0	2	0	0	0	0	Entering at angle	Other Contributing Circ Not Listed
PINE AVE	0	10TH ST	0	0			E961300	2019-08-16	16:47	No Apparent Injury	0	2	0	0	0	0	Entering at angle	Inattention
PINE AVE	0	10TH ST	0	0			E973558	2019-09-23	6:21	No Apparent Injury	0	2	0	0	0	0	Entering at angle	Inattention
PINE AVE	0	10TH ST	0	0			E945219	2019-07-24	17:46	No Apparent Injury	0	2	0	0	0	0	Entering at angle	Did Not Grant RW to Vehicle
PINE AVE	0	10TH ST	0	0			E959589	2019-09-10	14:23	Possible Injury	2	0	2	0	0	0	Entering at angle	Inattention
PINE AVE	0	13TH ST	0	0			E931892	2019-06-04	19:12	Unknown	0	1	0	0	0	0	Utility Pole	Other Contributing Circ Not Listed