



CHEHALIS HISTORIC SCHOOL APARTMENTS
TRAFFIC IMPACT ANALYSIS

Chehalis, WA



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CHEHALIS HISTORIC SCHOOL APARTMENTS
TRAFFIC IMPACT ANALYSIS

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CHEHALIS HISTORIC SCHOOL APARTMENTS
TRAFFIC IMPACT ANALYSIS

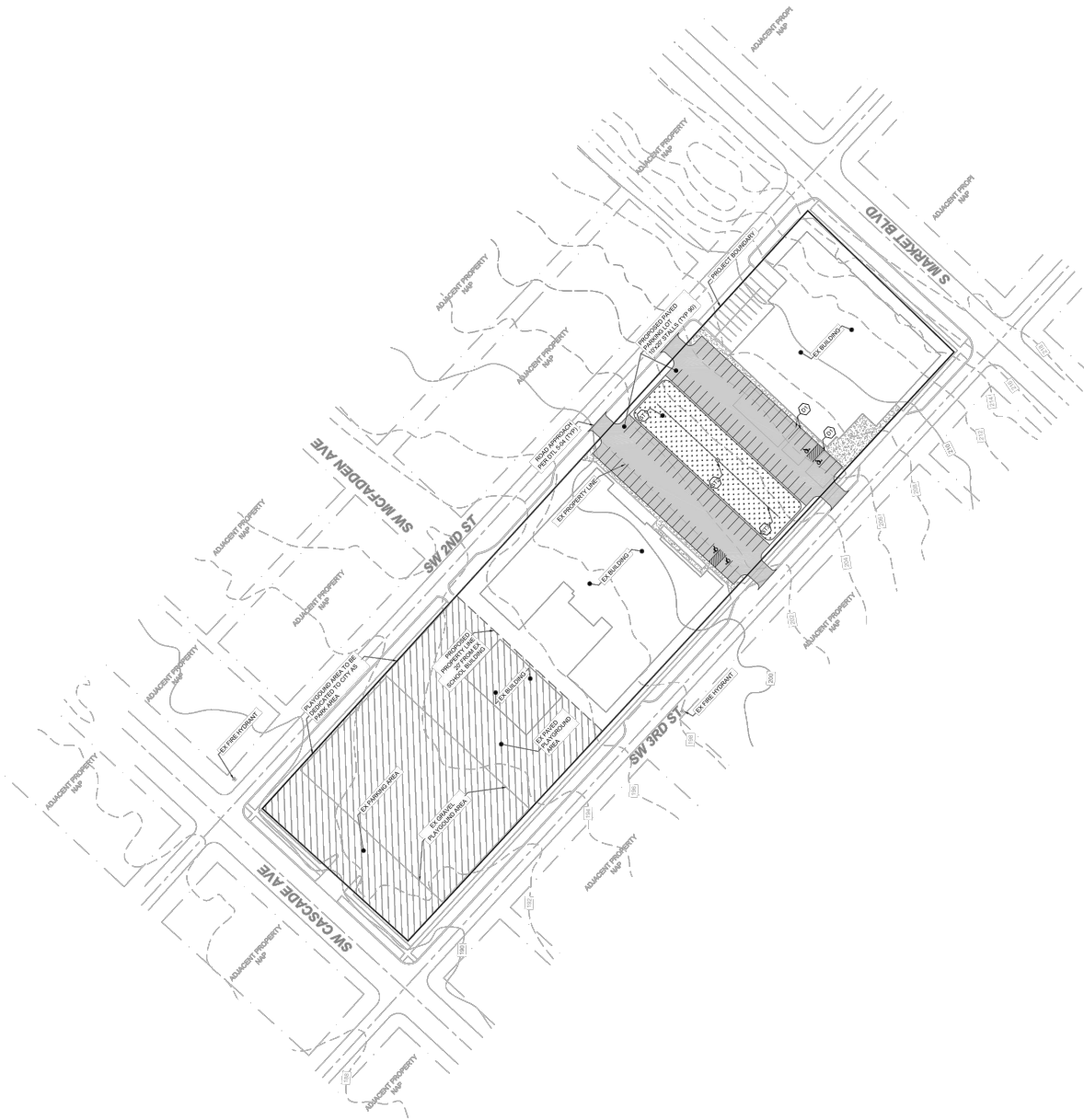
1. INTRODUCTION

The main goals of this study focus on the analysis of existing roadway conditions and forecasts of newly generated project traffic. The first task includes the review of general roadway information on the adjacent street system, baseline vehicular volumes, and entering sight distance data. Forecasts of future traffic and dispersion patterns on the street system are then determined using established trip generation and distribution techniques. As a final step, appropriate conclusions and mitigation measures are defined.

2. PROJECT DESCRIPTION

Chehalis Historic School Apartments proposes for the development of 84 multi-family dwelling units and an auditorium accommodating a capacity of up to 350 people located in the city of Chehalis. The subject site is bordered to the southwest by SW Cascade Avenue, to the southeast by SW 3rd Street, to the northwest by SW 2nd Street and to the northeast by S Market Boulevard. The subject site is located on a cumulative 5.32-acres within tax parcel #'s: 00423600-2000; & -1000. Existing on-site are two historic buildings, formerly known as R.E. Bennett Elementary School and Cascade Elementary School. The buildings are to remain and will be retrofitted to accommodate the 84 dwelling units and auditorium. Site access is proposed via two driveways extending southeast from SW 2nd Street and two driveways extending northwest from SW 3rd Street. Figure 1 depicts the subject site's vicinity and surrounding roadway network. Figure 2 on the following page presents a conceptual site plan and illustrates the access locations.





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CHEHALIS HISTORIC SCHOOL APARTMENTS

SITE PLAN
FIGURE 2

3. EXISTING CONDITIONS

3.1 Surrounding Roadways

The street network serving the proposed project consists of a variety of roadways. The major roadways and arterials defined in the study area are listed and described below.

Table 1: Roadway Network

Functional Classification	Roadway	Speed Limit	Lanes	Street Parking	Sidewalk	Bike Facilities
Principal Arterial	S Market Blvd	25-30 mph	2-3	Some	Yes	No
Minor Arterial	SW Cascade Ave	25 mph	2	Yes	Yes	No
Local	SW 2nd St	20-25* mph	NE-B – 1-way	Yes	Yes	No
	SW 3rd St	15-25* mph	SW-B – 1-way	Yes	Yes	No

*No posted speed limit—25mph assumed.

3.2 Existing Peak Hour Volumes and Patterns

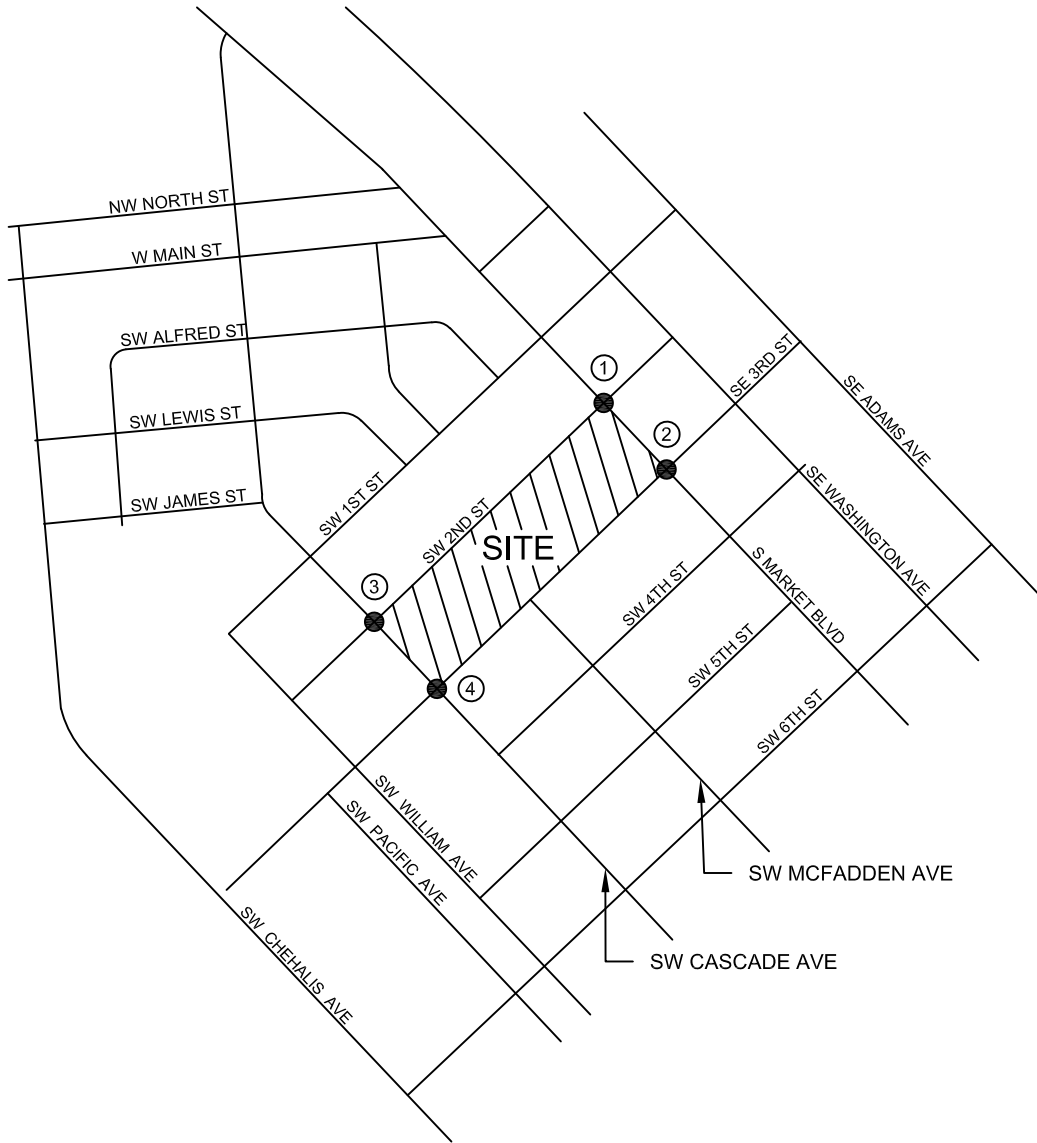
Field data for this study was collected in October of 2021. Traffic counts were administered at the intersections listed below, which would receive the bulk of the anticipated vehicular demands.

- S Market Blvd & SW/SE 2nd St
- S Market Blvd & SW/SE 3rd St
- SW Cascade Ave & SW 2nd St
- SW Cascade Ave & SW 3rd St

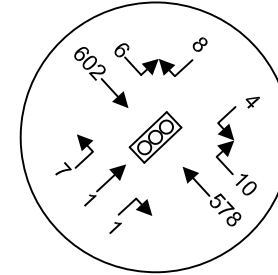
Data was obtained during the evening peak period between the hours of 3:00 PM – 6:00 PM, which generally translates to highest overall roadway volumes in a given 24-hour period. The one hour reflecting highest overall roadway volumes (peak hour) was then derived from these counts. Figure 3 illustrates existing PM peak hour volumes at the outlying study intersections and through-volumes along the project frontage on SW 2nd Street and SW 3rd Street. Full count sheets have been attached in the appendix.

3.3 Pedestrian and Bicycle Activity

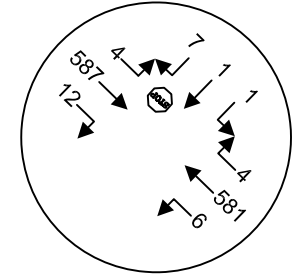
During field observations, non-motorist transport was observed at each of the four study intersections. Figure 4 illustrates recorded bicyclist and pedestrian volumes at the four outlying study intersections. Sidewalk is to be constructed internal to the development. Moreover, complete sidewalk infrastructure is provided in the vicinity of the subject site, providing connections to nearby transit and commercial amenities.



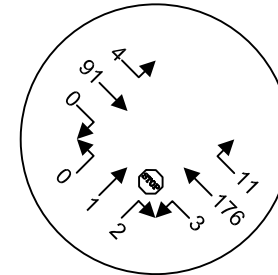
① S MARKET BLVD & SW/SE 2ND ST



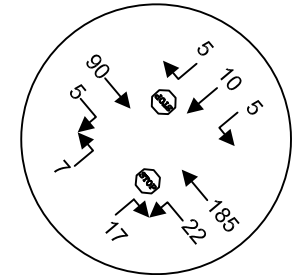
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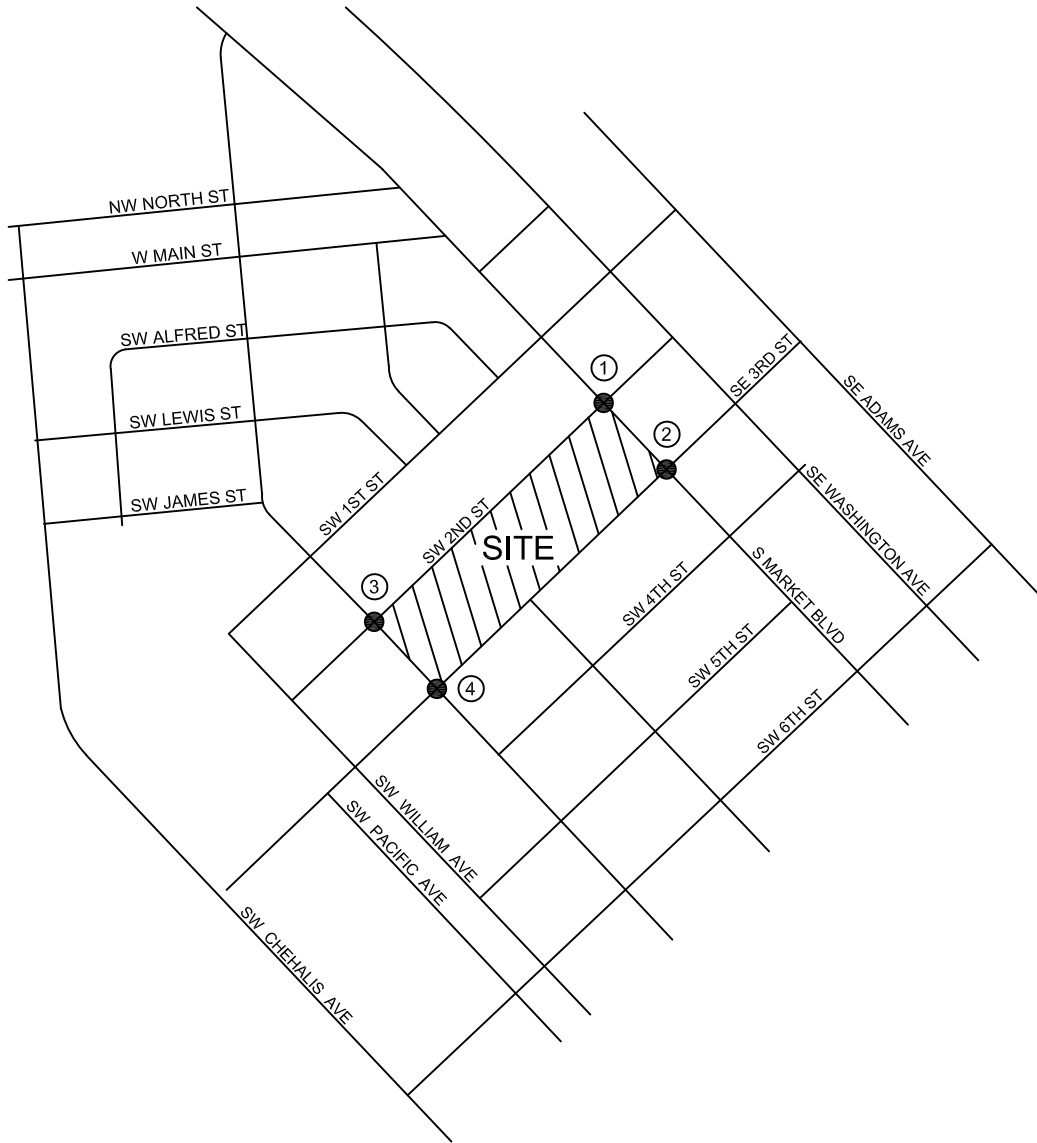


③ SW CASCADE AVE SW 2ND ST

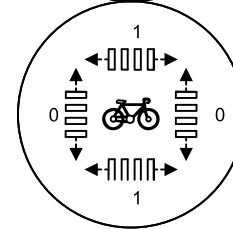
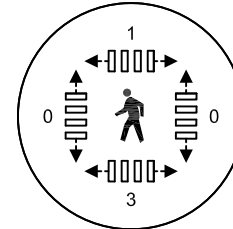


④ SW CASCADE AVE SW 3RD ST

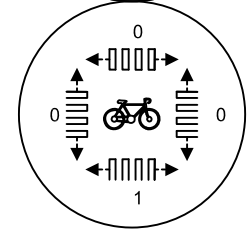
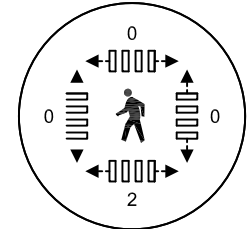




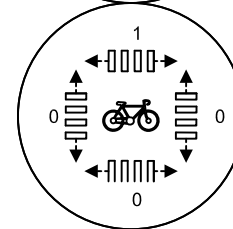
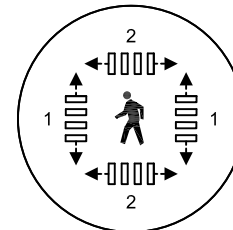
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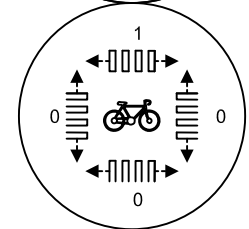
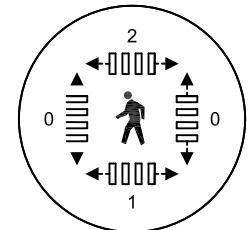
② S MARKET BLVD & SW/SE 3RD ST



③ SW CASCADE AVE & SW 2ND ST



④ SW CASCADE AVE & SW 3RD ST



3.4 Public Transit

A review of the Twin Transit regional bus schedule indicates that transit service is provided within walking distance of the subject site. The nearest bus stop is located at the study intersection of S Market Boulevard & 3rd Street, servicing the Red Line. The Red Line provides service north of I-5 throughout the city of Chehalis. Weekday service is provided from 6:00 AM – 6:50 PM and weekend service is provided from 7:00 AM – 3:50 PM. Refer to Twin Transit’s Routes & Schedules for more detailed information. Given the nature of the proposed project, transit use will be expected from the proposed Chehalis Historic Apartments.

3.5 Roadway Improvements

A review of the City of Chehalis Six-Year (2022-2027) Transportation Improvement Program indicates the following planned projects in the general area. Table 2 provides project descriptions of proposed improvements in the subject site vicinity.

Table 2: Transportation Improvement Projects

Name	Location	Improvement	Cost
S Market Blvd	Park St to N National Ave	Renaissance streetscape planning	\$3,050,000
S Market Blvd	Park St to SE City Limits	Roadway reconstruction and installing pedestrian improvements from 13th to the SE City limits	\$9,800,000
13th St SW	S Market Blvd to I-5	Grind and overlay; ADA compliant upgrades	\$600,000
Cascade Ave	Main St to 13th St	Spot repairs; Grind and inlay	\$2,500,000

3.6 Site Access & Roadway Design

As shown in the provided site plan, four driveways are proposed for access to and from the proposed Chehalis Historic Apartments project. The first two driveways are to extend southeast from SW 2nd Street and the other two driveways are to extend northwest from SW 3rd Street. The upper assumed speed limit on both access roadways is 25-mph. In accordance with established AASHTO standards, a minimum entering sight distance of 280 feet is required. Based on preliminary measurements at the access locations, sight lines are clear looking northeast to both access roadway’s intersections with S Market Boulevard. Looking southwest, sight lines are clear in excess of 350 feet. No sight line deficiencies are identified with the access proposal.

3.7 Level of Service

Existing intersection delays were determined through the use of the *Highway Capacity Manual* 6th Edition. Capacity analysis is used to determine level of service (LOS) which is an established measure of congestion for transportation facilities. The range¹ for intersection level of service is LOS A to LOS F with the former indicating the best operating conditions with low control delays and the latter indicating the worst conditions with heavy control delays. Detailed descriptions of intersection LOS are given in the 2016 Highway Capacity Manual. Level of service calculations were made through the use of the *Synchro 11* analysis program. For side-street, stop-controlled intersections, LOS is determined by the approach with the highest delay. Delays presented represent overall weighted average delays for signalized intersections. Table 3 below presents existing PM peak hour LOS delays for the key intersection of study.

Table 3: Existing PM Peak Hour Level of Service
Delays given in seconds per vehicle

Intersection	Control	Movement	LOS	Delay
S Market Blvd & SW/SE 2nd St	Signal	Overall	A	3.8
S Market Blvd & SW/SE 3rd St	Stop	SWB*	B	13.9
SW Cascade Ave & SW 2nd St	Stop	NEB*	A	9.4
SW Cascade Ave & SW 3rd St	Stop	SWB	B	11.4

*SWB-Southwest Bound *NEB Northeast Bound

Existing PM peak hour conditions are shown to operate with minimal delays at LOS B or better indicating stable operations during the critical PM peak hour of travel.

¹ *Signalized Intersections - Level of Service*

Level of Service	Control Delay per Vehicle (sec)
A	≤ 10
B	> 10 and ≤ 20
C	> 20 and ≤ 35
D	> 35 and ≤ 55
E	> 55 and ≤ 80
F	> 80

Stop Controlled Intersections – Level of Service

Level of Service	Control Delay per Vehicle (sec)
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Highway Capacity Manual, 6th Edition

4. FUTURE TRAFFIC CONDITIONS

4.1 Trip Generation

Trip generation is used to determine the magnitude of project impacts on the surrounding street system. This is usually denoted by the quantity or specific number of new trips that enter and exit a project during a designated time period, such as a specific peak hour (AM or PM) or an entire day. Data presented in this report was taken from the Institute of Transportation Engineer's publication *Trip Generation*, 11th Edition. The designated land use for this project is Multifamily Housing (Low-Rise) –LUC 220. Each building is proposed to encompass 42 dwelling units for a total of 84 dwelling units. Table 4 below summarizes Scenario 1 project trip generation using ITE average rates to determine trips ends with dwelling units as the input variable. Scenario 1 trip estimates reflect an average weekday in which no event is taking place in the proposed auditorium on-site. Included are the average weekday daily traffic (AWDT) and the AM and PM peak hours. Refer to the appendix for trip generation output.

Table 4: Project Trip Generation (Scenario 1)

Land Use	Size	AWDT	AM Peak-Hour Trips			PM Peak-Hour Trips		
			In	Out	Total	In	Out	Total
Multifamily Housing (Low-Rise)	84 Units	566	8	26	34	27	16	43

Based on ITE data, the proposed project can be expected to generate 566 total daily trips, 34 (8 inbound / 26 outbound) AM peak hour trips and 43 (27 inbound / 16 outbound) PM peak hour trips if no event is being held in the proposed on-site auditorium.

The proposed auditorium on-site will provide a place of assembly for infrequent events hosted by the school district or Chehalis Foundation. To provide a conservative trip generation estimate, a second scenario was derived that includes an event held during the PM peak hour. A 2.5 person per vehicle factor was determined appropriate for the 350-person capacity auditorium, yielding 140 PM peak hour trips. As events would likely take place after schools hours, it can be assumed that 80 percent of the auditorium traffic will be arriving trips and 20 percent of the event traffic will be departing. Table 5 on the following page illustrates total site trips associated with an auditorium event and the proposed 84 apartment units, known as Scenario 2.

Table 3: Project Trip Generation (Scenario 2)

Land Use	Size	AWDT	AM Peak-Hour Trips			PM Peak-Hour Trips		
			In	Out	Total	In	Out	Total
Multifamily Housing (Low-Rise)	84 Units	566	8	26	34	27	16	43
Auditorium Event	350 People	280	-	-	-	112	28	140
		846	8	26	34	139	44	183

Based on Scenario 2 estimates, the project can be expected to generate 846 average weekday daily trips, 34 AM peak hour trips (8 inbound / 26 outbound) and 183 PM peak hour trips (139 inbound / 44 outbound) on a day that an event is held in the auditorium.

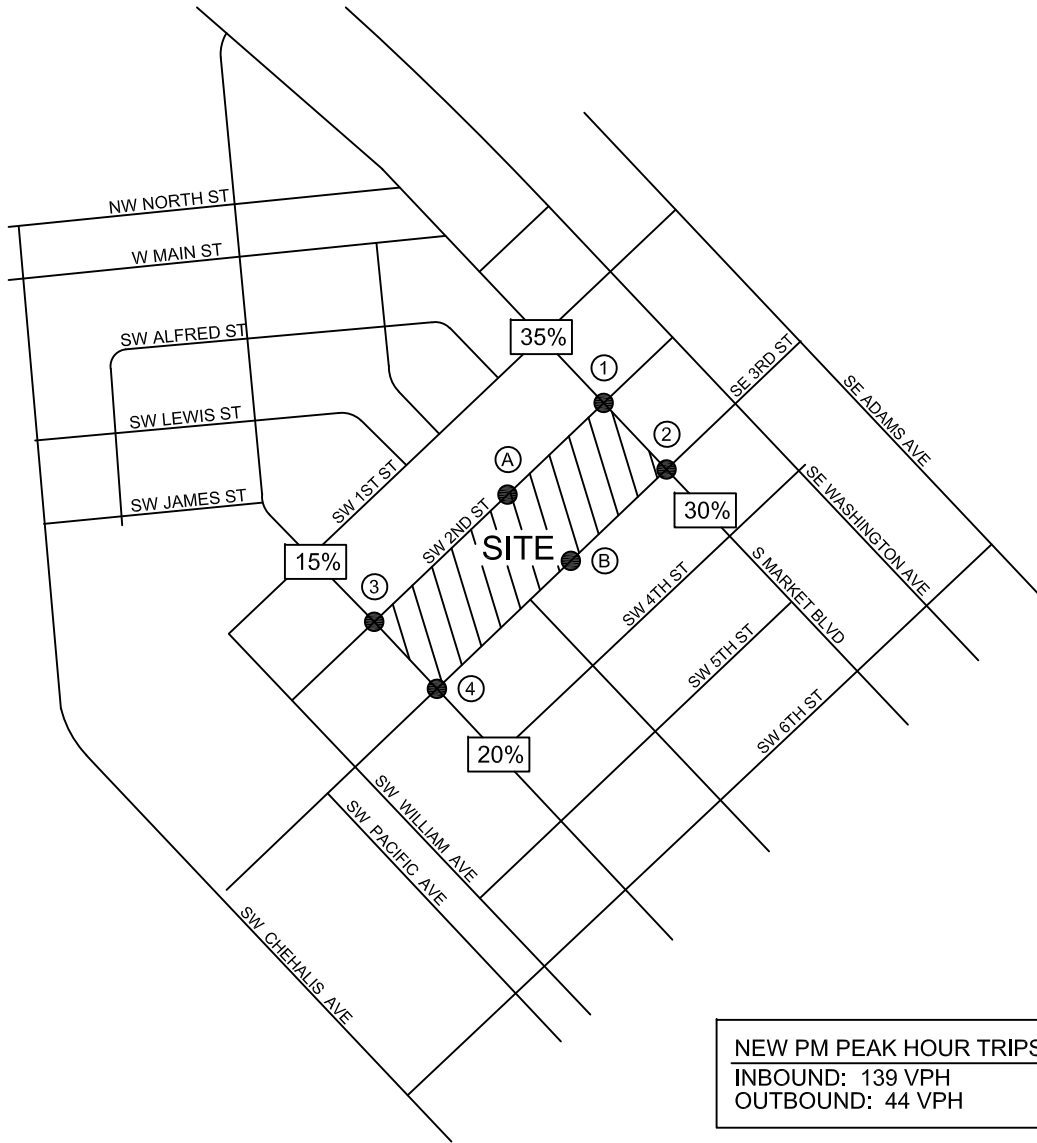
4.2 Trip Distribution and Assignment

Trip distribution describes the process by which project generated trips are dispersed on the street network surrounding the site. PM peak hour trips generated by the project are expected to follow the general trip pattern as shown on Figure 5. Percentages are generally based on locations of nearby roadways and existing travel patterns.

4.3 Future Peak Hour Volumes

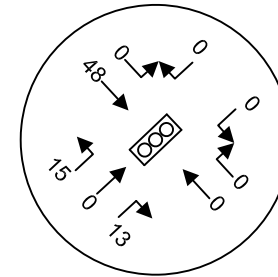
A 5-year horizon of 2027 was used for future traffic delay analysis. The proposed development is located within the Chehalis city limits. The City is forecasted to grow at an annual rate of 1.50%² according to the Chehalis Comprehensive Plan (2017). A compound annual growth rate of 2.0% was utilized to present a conservative analysis. Additionally, Pipeline volumes associated with the nearby Jackson Meadows, Smith Medical, Jackson Highway Warehouse, Jackson Villa's 4, Jackson Tiny Homes, Jackson Heights and Washington Avenue Townhomes were added to the roadway network and included in forecast analysis. PM peak hour pipeline volumes are illustrated in Figure 6. Forecast 2027 PM peak hour volumes without and with the addition of project-generated traffic are shown in Figures 7 and 8, respectively.

² Chehalis Comprehensive Plan 2017: Chapter 3 Land Use, pg. 4

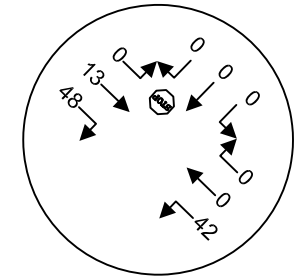


NEW PM PEAK HOUR TRIPS
 INBOUND: 139 VPH
 OUTBOUND: 44 VPH

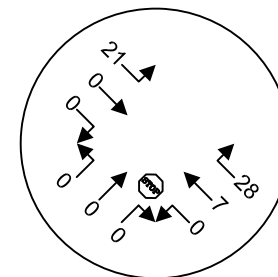
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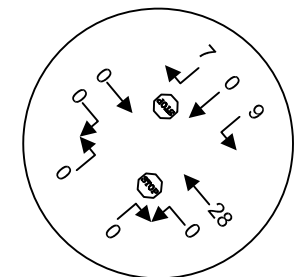
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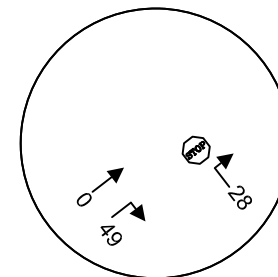
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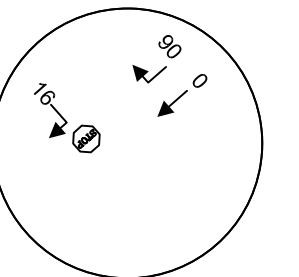
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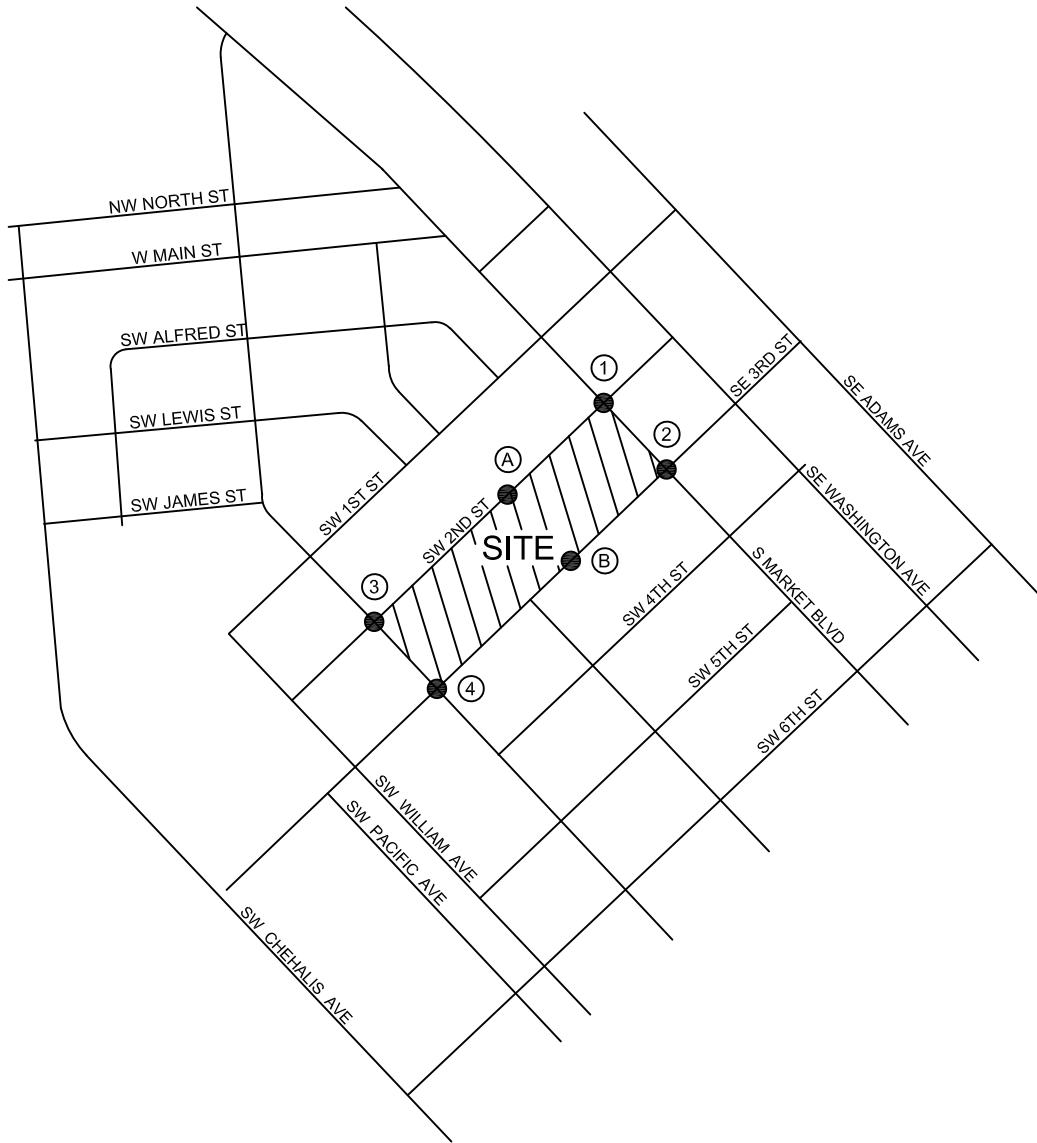


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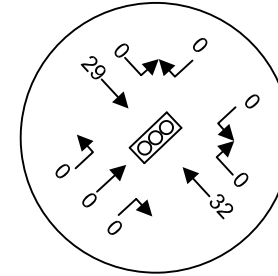


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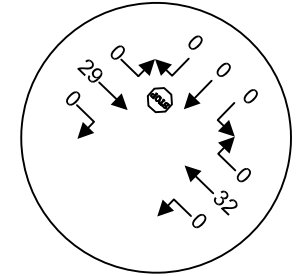




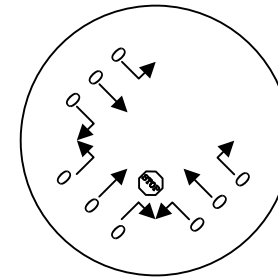
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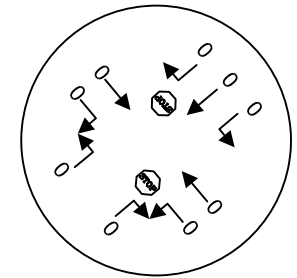
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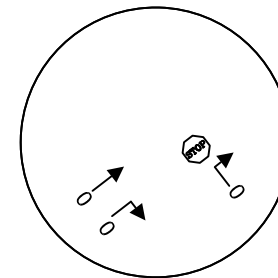
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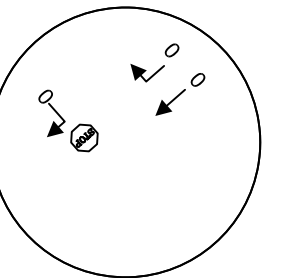
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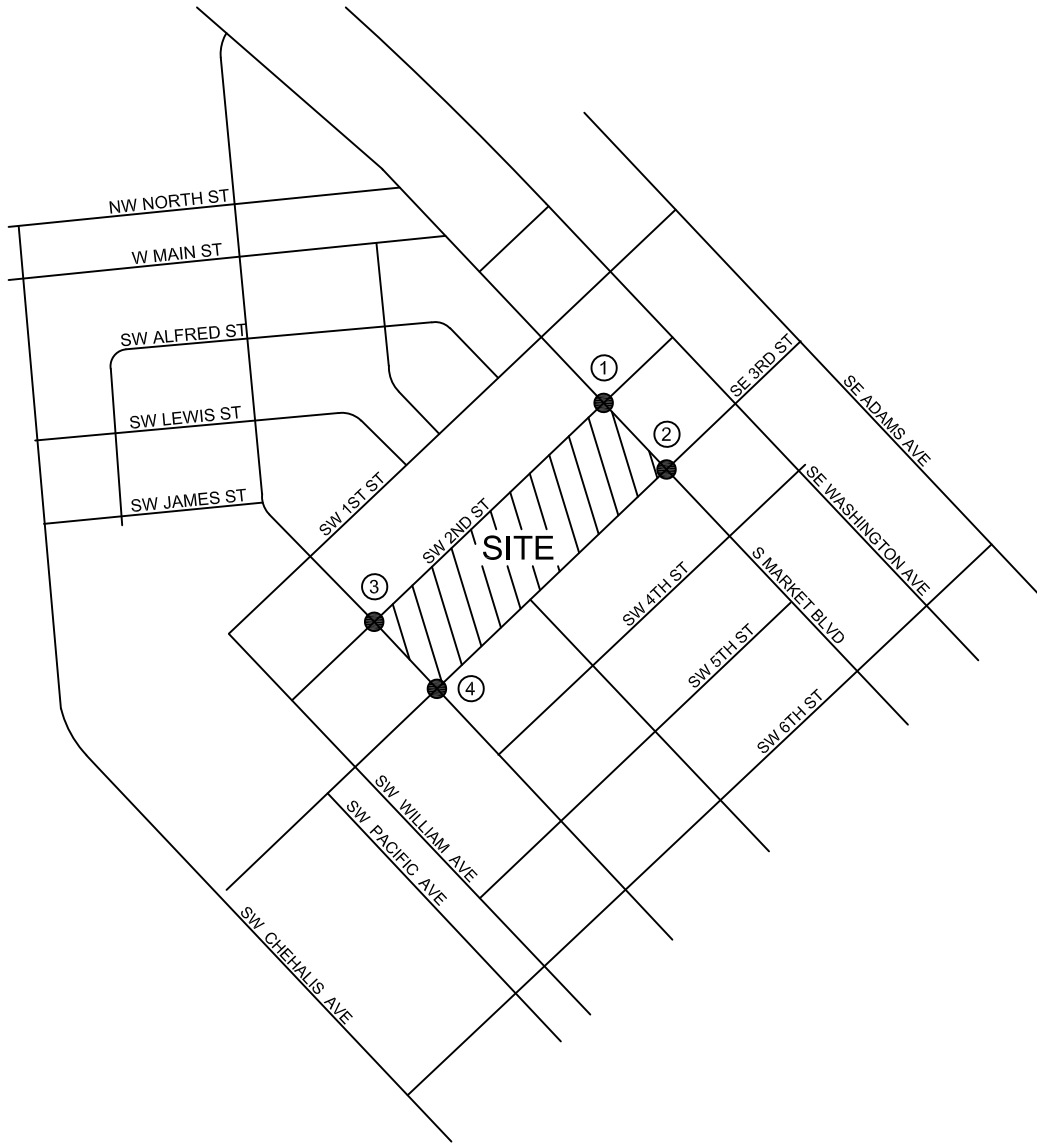


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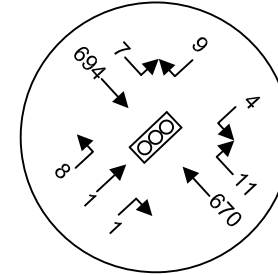


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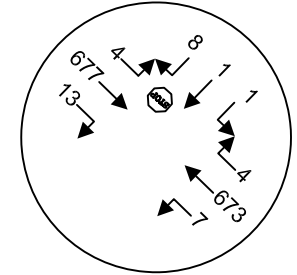




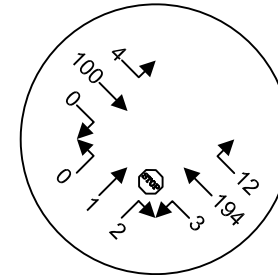
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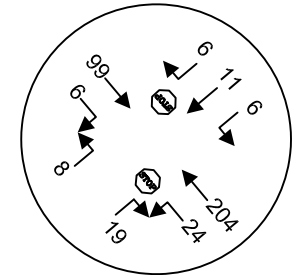
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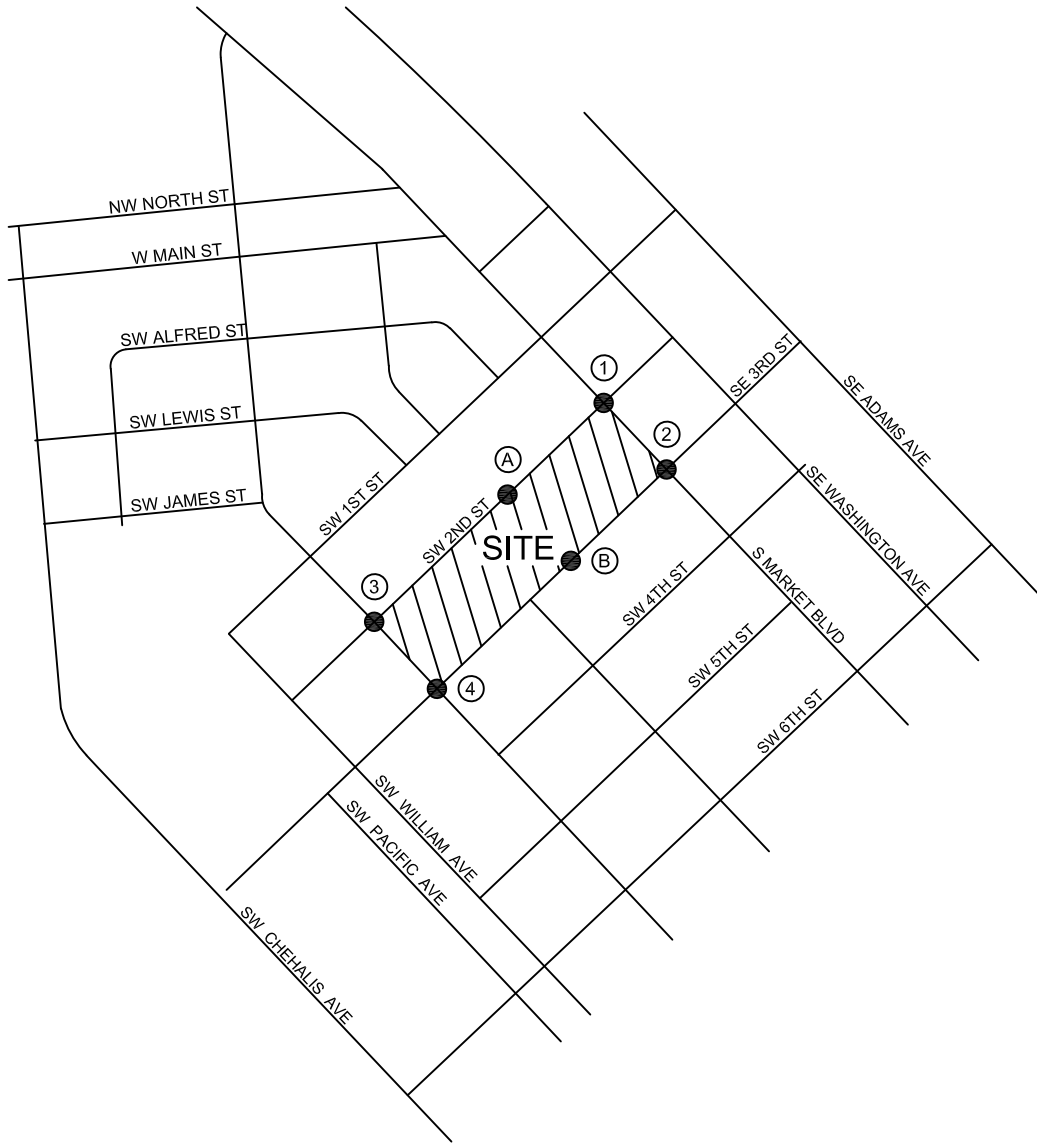


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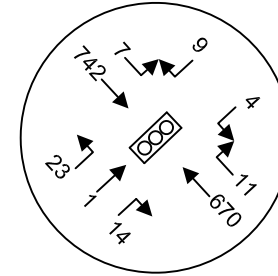


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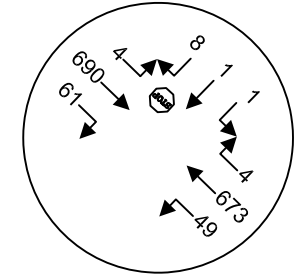




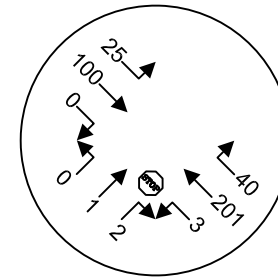
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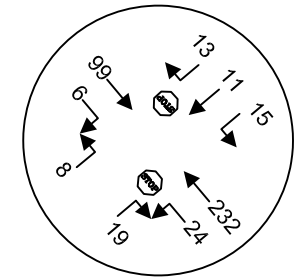
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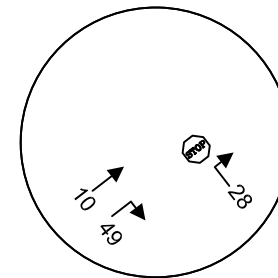
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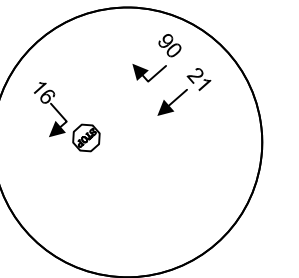
④ SW CASCADE AVE SW 3RD ST



Ⓐ SW CASCADE AVE SW 2ND ST



Ⓑ SW CASCADE AVE SW 3RD ST



4.4 Future Level of Service

Level of service analyses were made of the future PM peak hour volumes without (background) and with project related trips added to the key roadways and intersections. This analysis once again involved the use of the *Synchro 11* analysis program. Delays for the study intersections under future conditions are shown below in Table 5 below.

Table 5: Forecast 2027 PM Peak Hour Level of Service

Delays given in seconds per vehicle

Intersection	Control	<u>Without Project</u>		<u>With Project</u>	
		LOS	Delay	LOS	Delay
S Market Blvd & SW 2nd St	Signal	A	3.8	A	4.3
S Market Blvd & SW 3rd St	Stop	C	16.1	C	16.3
SW Cascade Ave & SW 2nd St	Stop	A	9.4	A	9.4
SW Cascade Ave & SW 3rd St	Stop	B	11.8	B	12.0
Project Access & SW 2nd St	Stop	-	-	A	8.6
Project Access & SW 3rd St	Stop	-	-	A	8.7

Forecast 2027 PM peak hour level of service at the outlying study intersections are shown to operate with LOS C or better conditions. Moreover, the proposed accesses are shown to operate with minimal delays at LOS A. No operational deficiencies are identified as a result of the proposed development.

5. SUMMARY

Chehalis Historic School Apartments is a proposed residential development comprising approximately 84 dwelling units within two retrofitted historic buildings located in the city of Chehalis. The development will also include an auditorium within one of the buildings to be used for school district or Chehalis Foundation events, encompassing a 350-person capacity. The subject site is located on a cumulative 5.32-acres within tax parcel #'s: 00423600-2000; & -1000. Access is proposed via two driveways extending southeast from SW 2nd Street and two driveways extending northwest from SW 3rd Street. A conceptual site plan is provided in Figure 2.

Based on ITE data and trip generation estimates for the proposed auditorium, the project would be anticipated to generate 846 average weekday daily trips, 34 AM peak hour trips (8 inbound / 26 outbound) and 183 PM peak hour trips (139 inbound / 44 outbound). For forecast analyses, a five-year horizon was evaluated to assess impacts under future conditions. Table 4 summarizes forecast 2027 PM peak hour LOS delays without and with the project. Forecast 2027 conditions are shown to continue to operate satisfactorily with LOS C or better conditions indicating no operational deficiencies.

Based on the analysis above, no mitigation is identified at this time.

CHEHALIS HISTORIC SCHOOL APARTMENTS
TRAFFIC IMPACT ANALYSIS

APPENDIX

Heath & Associates

PO Box 397
Puyallup, WA 98371

File Name : 4764b
Site Code : 00004764
Start Date : 10/26/2021
Page No : 1

Groups Printed- Passenger + - Heavy

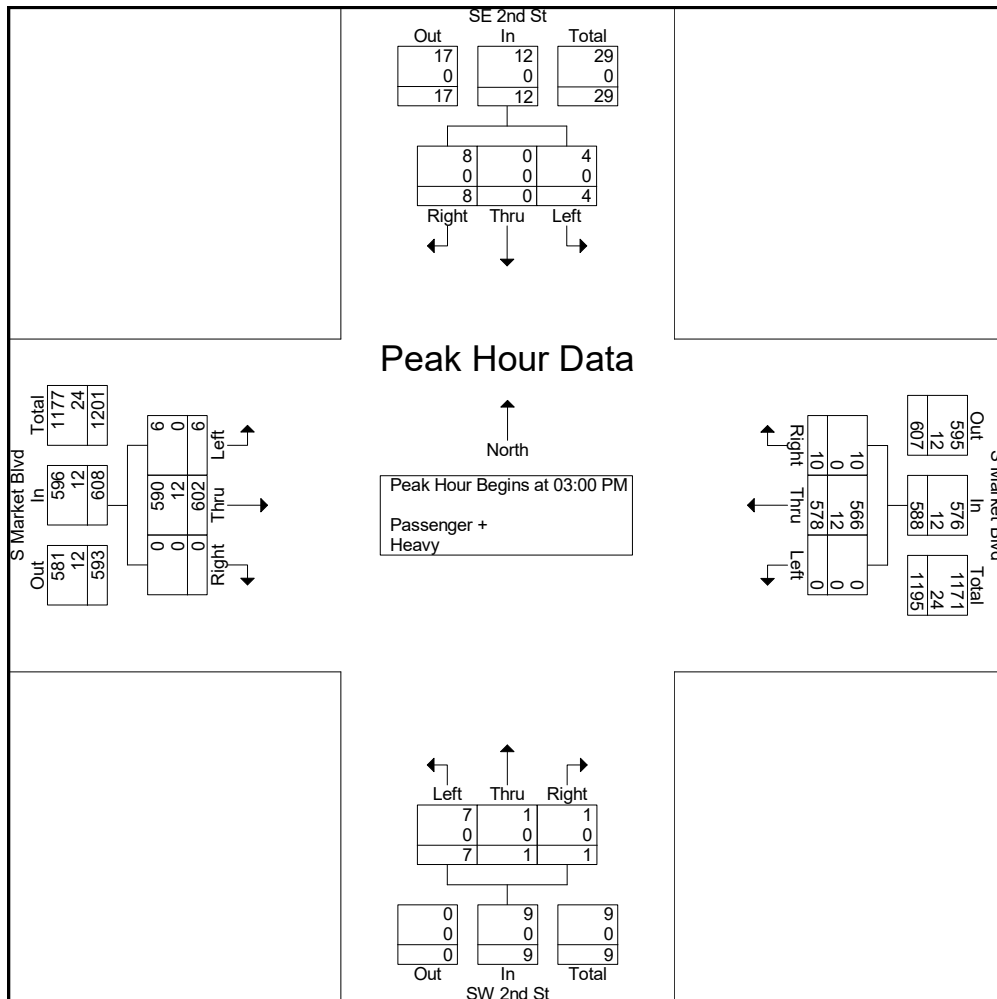
Start Time	SE 2nd St Southbound				S Market Blvd Westbound				SW 2nd St Northbound				S Market Blvd Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
03:00 PM	3	0	2	5	3	142	0	145	1	0	2	3	0	159	1	160	313
03:15 PM	2	0	1	3	5	136	0	141	0	0	2	2	0	154	2	156	302
03:30 PM	1	0	1	2	0	156	0	156	0	1	1	2	0	145	2	147	307
03:45 PM	2	0	0	2	2	144	0	146	0	0	2	2	0	144	1	145	295
Total	8	0	4	12	10	578	0	588	1	1	7	9	0	602	6	608	1217
04:00 PM	1	0	1	2	2	120	1	123	0	0	0	0	0	135	2	137	262
04:15 PM	1	0	1	2	1	115	0	116	0	0	0	0	0	136	0	136	254
04:30 PM	3	0	1	4	0	135	0	135	1	1	0	2	0	187	4	191	332
04:45 PM	1	0	3	4	3	124	0	127	2	0	4	6	0	150	2	152	289
Total	6	0	6	12	6	494	1	501	3	1	4	8	0	608	8	616	1137
05:00 PM	4	0	1	5	3	116	0	119	1	0	0	1	0	181	0	181	306
05:15 PM	1	0	3	4	1	115	0	116	1	0	1	2	0	156	3	159	281
05:30 PM	1	0	1	2	0	90	0	90	1	0	0	1	0	120	0	120	213
05:45 PM	3	0	0	3	0	87	0	87	1	0	0	1	0	106	2	108	199
Total	9	0	5	14	4	408	0	412	4	0	1	5	0	563	5	568	999
Grand Total	23	0	15	38	20	1480	1	1501	8	2	12	22	0	1773	19	1792	3353
Apprch %	60.5	0	39.5		1.3	98.6	0.1		36.4	9.1	54.5		0	98.9	1.1		
Total %	0.7	0	0.4	1.1	0.6	44.1	0	44.8	0.2	0.1	0.4	0.7	0	52.9	0.6	53.4	
Passenger +	23	0	15	38	20	1462	1	1483	8	2	12	22	0	1745	19	1764	3307
% Passenger +	100	0	100	100	100	98.8	100	98.8	100	100	100	100	0	98.4	100	98.4	98.6
Heavy	0	0	0	0	0	18	0	18	0	0	0	0	0	28	0	28	46
% Heavy	0	0	0	0	0	1.2	0	1.2	0	0	0	0	0	1.6	0	1.6	1.4

Heath & Associates

PO Box 397
Puyallup, WA 98371

File Name : 4764b
Site Code : 00004764
Start Date : 10/26/2021
Page No : 2

Start Time	SE 2nd St Southbound				S Market Blvd Westbound				SW 2nd St Northbound				S Market Blvd Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	3	0	2	5	3	142	0	145	1	0	2	3	0	159	1	160	313
03:15 PM	2	0	1	3	5	136	0	141	0	0	2	2	0	154	2	156	302
03:30 PM	1	0	1	2	0	156	0	156	0	1	1	2	0	145	2	147	307
03:45 PM	2	0	0	2	2	144	0	146	0	0	2	2	0	144	1	145	295
Total Volume	8	0	4	12	10	578	0	588	1	1	7	9	0	602	6	608	1217
% App. Total	66.7	0	33.3		1.7	98.3	0		11.1	11.1	77.8		0	99	1		
PHF	.667	.000	.500	.600	.500	.926	.000	.942	.250	.250	.875	.750	.000	.947	.750	.950	.972
Passenger +	8	0	4	12	10	566	0	576	1	1	7	9	0	590	6	596	1193
% Passenger +	100	0	100	100	100	97.9	0	98.0	100	100	100	100	0	98.0	100	98.0	98.0
Heavy	0	0	0	0	0	12	0	12	0	0	0	0	0	12	0	12	24
% Heavy	0	0	0	0	0	2.1	0	2.0	0	0	0	0	0	2.0	0	2.0	2.0



Heath & Associates

PO Box 397
Puyallup, WA 98371

File Name : 4764c
Site Code : 00004764
Start Date : 10/26/2021
Page No : 1

Groups Printed- Passenger + - Heavy

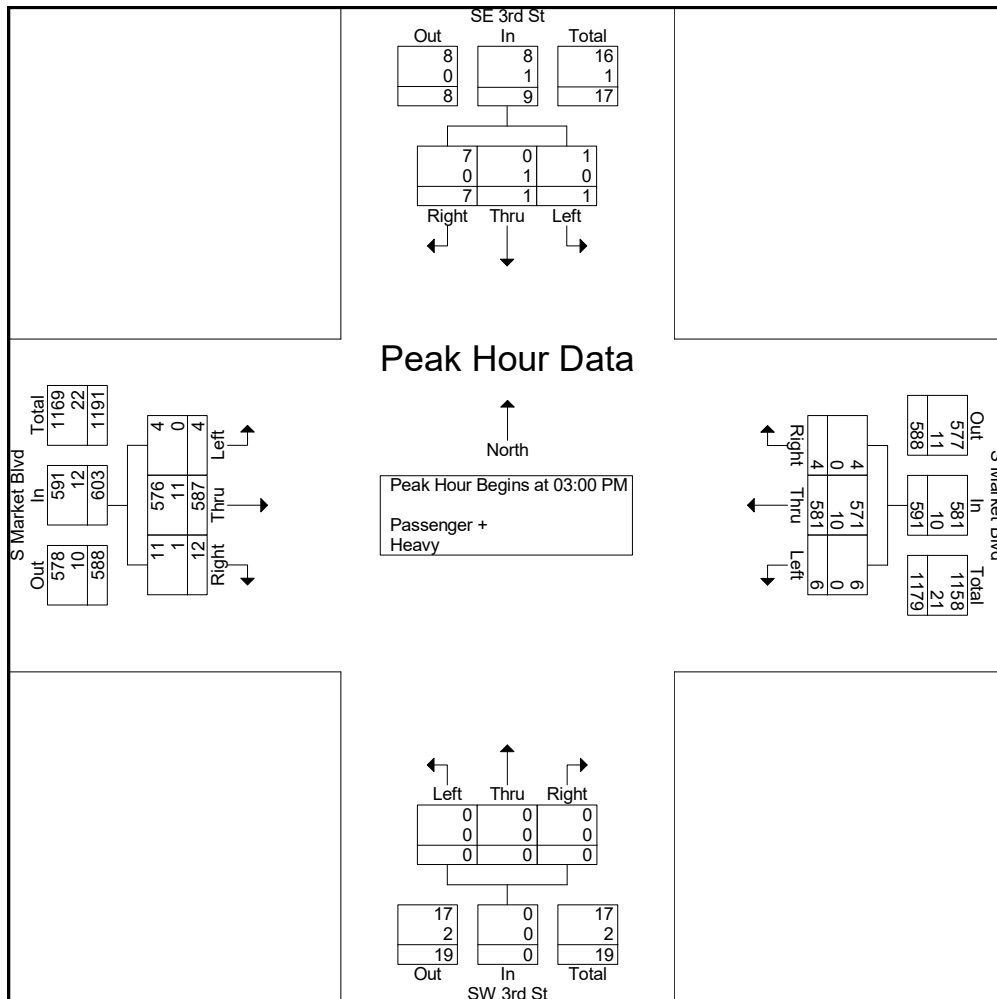
Start Time	SE 3rd St Southbound				S Market Blvd Westbound				SW 3rd St Northbound				S Market Blvd Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
03:00 PM	2	0	1	3	2	148	0	150	0	0	0	0	2	157	1	160	313
03:15 PM	1	1	0	2	1	136	1	138	0	0	0	0	2	151	1	154	294
03:30 PM	2	0	0	2	1	156	2	159	0	0	0	0	3	143	0	146	307
03:45 PM	2	0	0	2	0	141	3	144	0	0	0	0	5	136	2	143	289
Total	7	1	1	9	4	581	6	591	0	0	0	0	12	587	4	603	1203
04:00 PM	2	1	4	7	3	122	2	127	0	0	0	0	1	138	1	140	274
04:15 PM	4	0	1	5	1	114	1	116	0	0	0	0	2	132	1	135	256
04:30 PM	1	0	0	1	1	130	0	131	0	0	0	0	3	180	6	189	321
04:45 PM	6	0	1	7	0	121	1	122	0	0	0	0	2	146	4	152	281
Total	13	1	6	20	5	487	4	496	0	0	0	0	8	596	12	616	1132
05:00 PM	2	0	0	2	0	116	1	117	1	0	0	1	1	180	5	186	306
05:15 PM	0	0	0	0	2	116	1	119	0	0	0	0	1	159	2	162	281
05:30 PM	1	0	1	2	2	88	3	93	1	0	0	1	3	119	0	122	218
05:45 PM	1	0	2	3	1	86	3	90	0	0	0	0	1	106	0	107	200
Total	4	0	3	7	5	406	8	419	2	0	0	2	6	564	7	577	1005
Grand Total	24	2	10	36	14	1474	18	1506	2	0	0	2	26	1747	23	1796	3340
Apprch %	66.7	5.6	27.8		0.9	97.9	1.2		100	0	0		1.4	97.3	1.3		
Total %	0.7	0.1	0.3	1.1	0.4	44.1	0.5	45.1	0.1	0	0	0.1	0.8	52.3	0.7	53.8	
Passenger +	24	1	10	35	14	1456	18	1488	2	0	0	2	24	1722	23	1769	3294
% Passenger +	100	50	100	97.2	100	98.8	100	98.8	100	0	0	100	92.3	98.6	100	98.5	98.6
Heavy	0	1	0	1	0	18	0	18	0	0	0	0	2	25	0	27	46
% Heavy	0	50	0	2.8	0	1.2	0	1.2	0	0	0	0	7.7	1.4	0	1.5	1.4

Heath & Associates

PO Box 397
Puyallup, WA 98371

File Name : 4764c
Site Code : 00004764
Start Date : 10/26/2021
Page No : 2

Start Time	SE 3rd St Southbound				S Market Blvd Westbound				SW 3rd St Northbound				S Market Blvd Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	2	0	1	3	2	148	0	150	0	0	0	0	2	157	1	160	313
03:15 PM	1	1	0	2	1	136	1	138	0	0	0	0	2	151	1	154	294
03:30 PM	2	0	0	2	1	156	2	159	0	0	0	0	3	143	0	146	307
03:45 PM	2	0	0	2	0	141	3	144	0	0	0	0	5	136	2	143	289
Total Volume	7	1	1	9	4	581	6	591	0	0	0	0	12	587	4	603	1203
% App. Total	77.8	11.1	11.1		0.7	98.3	1		0	0	0		2	97.3	0.7		
PHF	.875	.250	.250	.750	.500	.931	.500	.929	.000	.000	.000	.000	.600	.935	.500	.942	.961
Passenger +	7	0	1	8	4	571	6	581	0	0	0	0	11	576	4	591	1180
% Passenger +	100	0	100	88.9	100	98.3	100	98.3	0	0	0	0	91.7	98.1	100	98.0	98.1
Heavy	0	1	0	1	0	10	0	10	0	0	0	0	1	11	0	12	23
% Heavy	0	100	0	11.1	0	1.7	0	1.7	0	0	0	0	8.3	1.9	0	2.0	1.9



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PO Box 397
Puyallup, WA 98371

File Name : 4764d
Site Code : 00004764
Start Date : 10/26/2021
Page No : 1

Groups Printed- Passenger + - Heavy

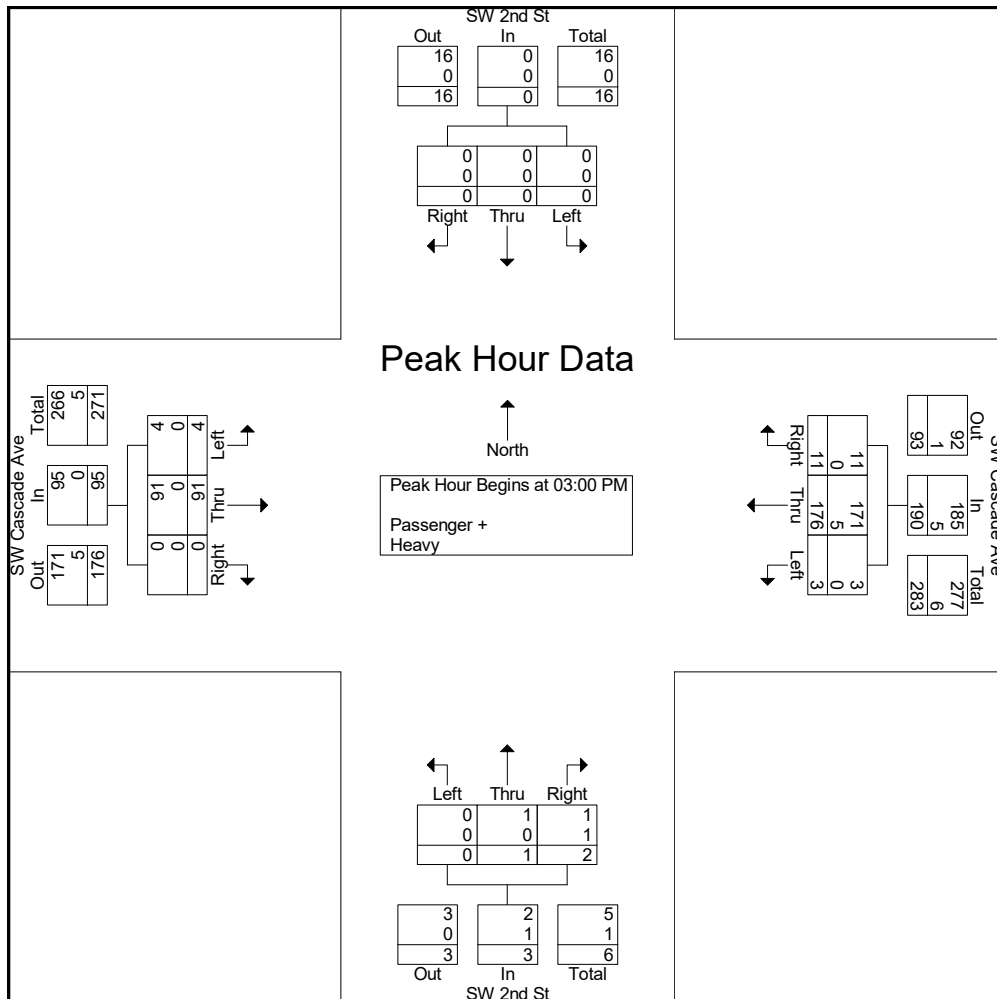
Start Time	SW 2nd St Southbound				SW Cascade Ave Westbound				SW 2nd St Northbound				SW Cascade Ave Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
03:00 PM	0	0	0	0	2	53	1	56	1	0	0	1	0	27	1	28	85
03:15 PM	0	0	0	0	4	39	1	44	0	0	0	0	0	22	2	24	68
03:30 PM	0	0	0	0	3	43	0	46	1	1	0	2	0	19	0	19	67
03:45 PM	0	0	0	0	2	41	1	44	0	0	0	0	0	23	1	24	68
Total	0	0	0	0	11	176	3	190	2	1	0	3	0	91	4	95	288
04:00 PM	0	0	0	0	0	26	1	27	0	0	0	0	2	15	0	17	44
04:15 PM	0	0	0	0	1	29	0	30	0	0	1	1	1	35	3	39	70
04:30 PM	0	0	0	0	0	31	1	32	0	0	0	0	1	24	1	26	58
04:45 PM	0	0	0	0	1	27	0	28	0	0	0	0	0	21	1	22	50
Total	0	0	0	0	2	113	2	117	0	0	1	1	4	95	5	104	222
05:00 PM	0	0	0	0	1	36	2	39	0	1	0	1	1	54	2	57	97
05:15 PM	0	1	0	1	1	26	0	27	1	0	0	1	0	26	0	26	55
05:30 PM	0	0	0	0	1	28	0	29	0	0	0	0	3	12	1	16	45
05:45 PM	0	0	0	0	2	18	1	21	0	0	1	1	1	10	0	11	33
Total	0	1	0	1	5	108	3	116	1	1	1	3	5	102	3	110	230
Grand Total	0	1	0	1	18	397	8	423	3	2	2	7	9	288	12	309	740
Apprch %	0	100	0		4.3	93.9	1.9		42.9	28.6	28.6		2.9	93.2	3.9		
Total %	0	0.1	0	0.1	2.4	53.6	1.1	57.2	0.4	0.3	0.3	0.9	1.2	38.9	1.6	41.8	
Passenger +	0	1	0	1	18	392	8	418	2	1	2	5	9	284	12	305	729
% Passenger +	0	100	0	100	100	98.7	100	98.8	66.7	50	100	71.4	100	98.6	100	98.7	98.5
Heavy	0	0	0	0	0	5	0	5	1	1	0	2	0	4	0	4	11
% Heavy	0	0	0	0	0	1.3	0	1.2	33.3	50	0	28.6	0	1.4	0	1.3	1.5

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PO Box 397
Puyallup, WA 98371

File Name : 4764d
Site Code : 00004764
Start Date : 10/26/2021
Page No : 2

Start Time	SW 2nd St Southbound				SW Cascade Ave Westbound				SW 2nd St Northbound				SW Cascade Ave Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	0	0	0	0	2	53	1	56	1	0	0	1	0	27	1	28	85
03:15 PM	0	0	0	0	4	39	1	44	0	0	0	0	0	22	2	24	68
03:30 PM	0	0	0	0	3	43	0	46	1	1	0	2	0	19	0	19	67
03:45 PM	0	0	0	0	2	41	1	44	0	0	0	0	0	23	1	24	68
Total Volume	0	0	0	0	11	176	3	190	2	1	0	3	0	91	4	95	288
% App. Total	0	0	0	0	5.8	92.6	1.6		66.7	33.3	0		0	95.8	4.2		
PHF	.000	.000	.000	.000	.688	.830	.750	.848	.500	.250	.000	.375	.000	.843	.500	.848	.847
Passenger +	0	0	0	0	11	171	3	185	1	1	0	2	0	91	4	95	282
% Passenger +	0	0	0	0	100	97.2	100	97.4	50.0	100	0	66.7	0	100	100	100	97.9
Heavy	0	0	0	0	0	5	0	5	1	0	0	1	0	0	0	0	6
% Heavy	0	0	0	0	0	2.8	0	2.6	50.0	0	0	33.3	0	0	0	0	2.1



Heath & Associates

PO Box 397
Puyallup, WA 98371

File Name : 4764a
Site Code : 00004764
Start Date : 10/26/2021
Page No : 1

Groups Printed- Passenger + - Heavy

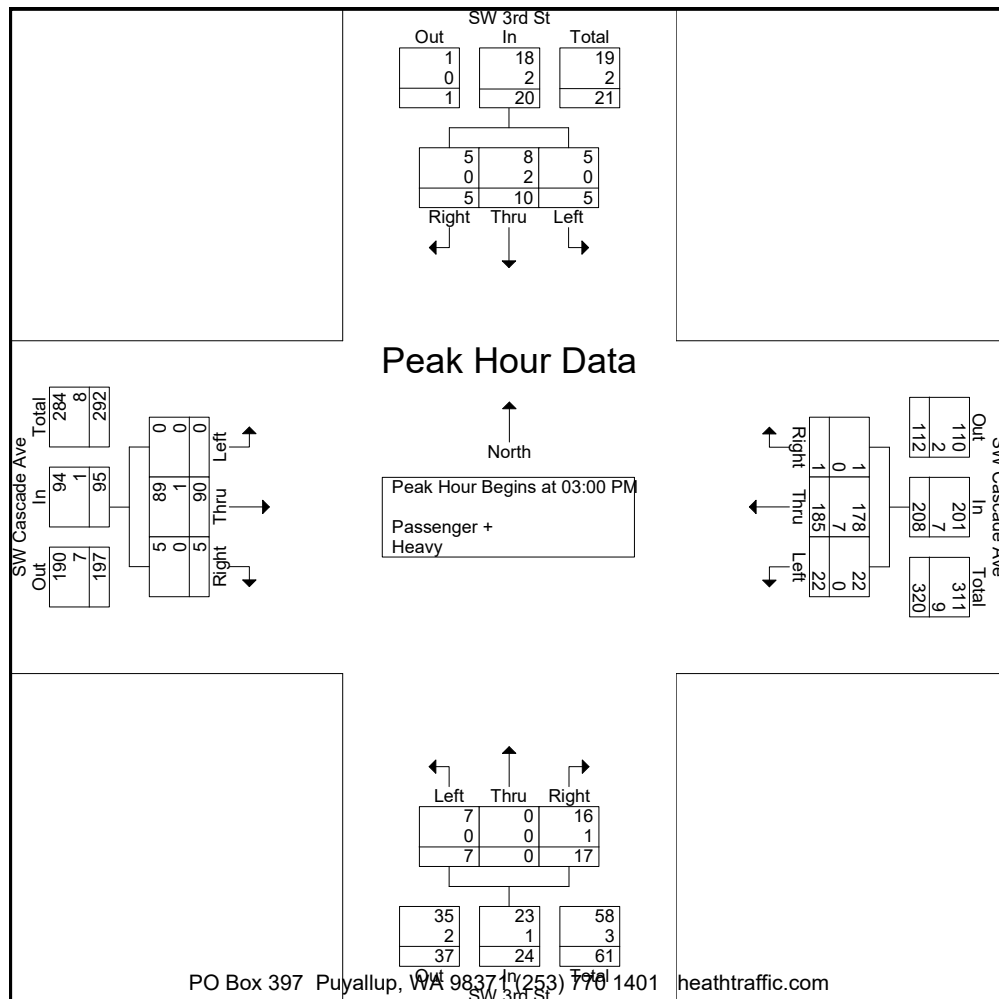
Start Time	SW 3rd St Southbound				SW Cascade Ave Westbound				SW 3rd St Northbound				SW Cascade Ave Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
03:00 PM	2	2	0	4	1	55	1	57	7	0	2	9	1	28	0	29	99
03:15 PM	0	2	3	5	0	41	7	48	2	0	2	4	2	19	0	21	78
03:30 PM	1	1	1	3	0	49	5	54	4	0	1	5	1	19	0	20	82
03:45 PM	2	5	1	8	0	40	9	49	4	0	2	6	1	24	0	25	88
Total	5	10	5	20	1	185	22	208	17	0	7	24	5	90	0	95	347
04:00 PM	0	2	0	2	0	30	4	34	8	0	0	8	0	15	0	15	59
04:15 PM	2	2	1	5	1	29	5	35	1	0	0	1	1	34	0	35	76
04:30 PM	1	2	0	3	0	36	5	41	3	0	0	3	1	27	0	28	75
04:45 PM	0	3	1	4	0	28	5	33	5	0	1	6	2	18	0	20	63
Total	3	9	2	14	1	123	19	143	17	0	1	18	4	94	0	98	273
05:00 PM	1	0	1	2	0	37	3	40	7	0	0	7	1	54	0	55	104
05:15 PM	1	0	1	2	0	24	2	26	6	0	1	7	1	26	0	27	62
05:30 PM	2	5	1	8	0	24	5	29	6	0	2	8	0	12	0	12	57
05:45 PM	0	3	0	3	0	21	5	26	6	0	3	9	0	10	0	10	48
Total	4	8	3	15	0	106	15	121	25	0	6	31	2	102	0	104	271
Grand Total	12	27	10	49	2	414	56	472	59	0	14	73	11	286	0	297	891
Apprch %	24.5	55.1	20.4		0.4	87.7	11.9		80.8	0	19.2		3.7	96.3	0		
Total %	1.3	3	1.1	5.5	0.2	46.5	6.3	53	6.6	0	1.6	8.2	1.2	32.1	0	33.3	
Passenger +	12	24	10	46	2	400	56	458	58	0	14	72	11	281	0	292	868
% Passenger +	100	88.9	100	93.9	100	96.6	100	97	98.3	0	100	98.6	100	98.3	0	98.3	97.4
Heavy	0	3	0	3	0	14	0	14	1	0	0	1	0	5	0	5	23
% Heavy	0	11.1	0	6.1	0	3.4	0	3	1.7	0	0	1.4	0	1.7	0	1.7	2.6

Heath & Associates

PO Box 397
Puyallup, WA 98371

File Name : 4764a
Site Code : 00004764
Start Date : 10/26/2021
Page No : 2

Start Time	SW 3rd St Southbound				SW Cascade Ave Westbound				SW 3rd St Northbound				SW Cascade Ave Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	2	2	0	4	1	55	1	57	7	0	2	9	1	28	0	29	99
03:15 PM	0	2	3	5	0	41	7	48	2	0	2	4	2	19	0	21	78
03:30 PM	1	1	1	3	0	49	5	54	4	0	1	5	1	19	0	20	82
03:45 PM	2	5	1	8	0	40	9	49	4	0	2	6	1	24	0	25	88
Total Volume	5	10	5	20	1	185	22	208	17	0	7	24	5	90	0	95	347
% App. Total	25	50	25		0.5	88.9	10.6		70.8	0	29.2		5.3	94.7	0		
PHF	.625	.500	.417	.625	.250	.841	.611	.912	.607	.000	.875	.667	.625	.804	.000	.819	.876
Passenger +	5	8	5	18	1	178	22	201	16	0	7	23	5	89	0	94	336
% Passenger +	100	80.0	100	90.0	100	96.2	100	96.6	94.1	0	100	95.8	100	98.9	0	98.9	96.8
Heavy	0	2	0	2	0	7	0	7	1	0	0	1	0	1	0	1	11
% Heavy	0	20.0	0	10.0	0	3.8	0	3.4	5.9	0	0	4.2	0	1.1	0	1.1	3.2



Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

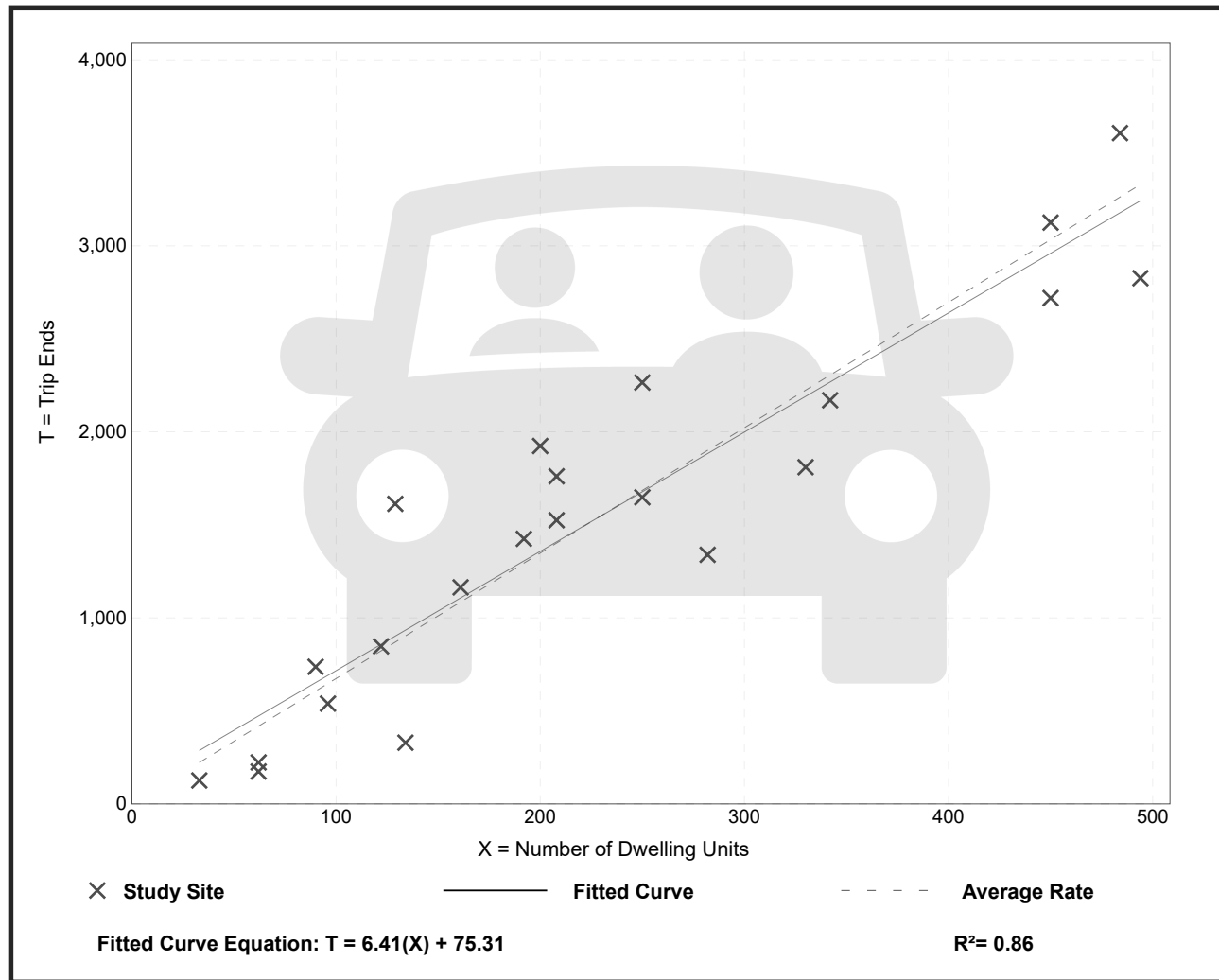
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 22
Avg. Num. of Dwelling Units: 229
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
6.74	2.46 - 12.50	1.79

Data Plot and Equation



Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

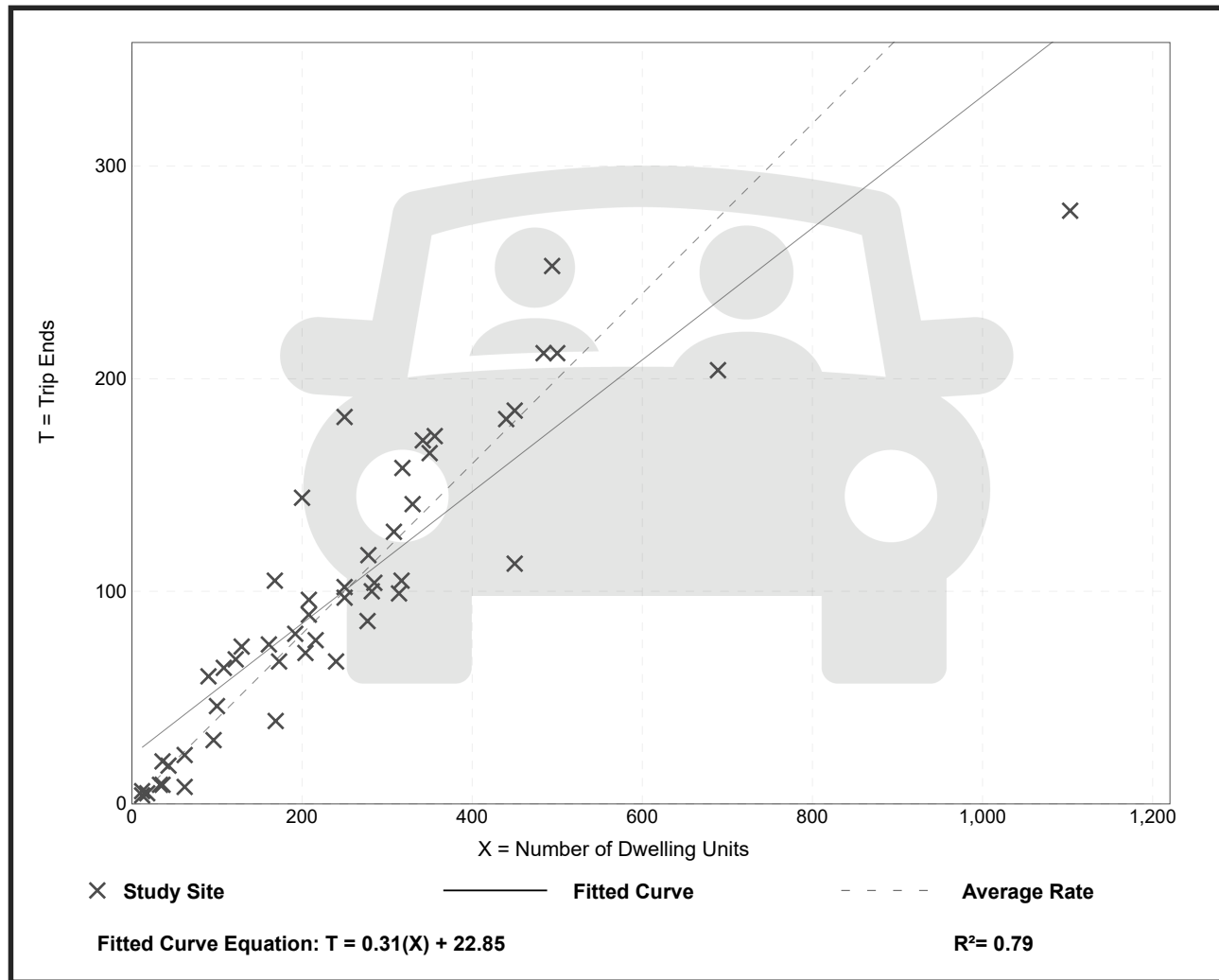
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban
 Number of Studies: 49
 Avg. Num. of Dwelling Units: 249
 Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.40	0.13 - 0.73	0.12

Data Plot and Equation



Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

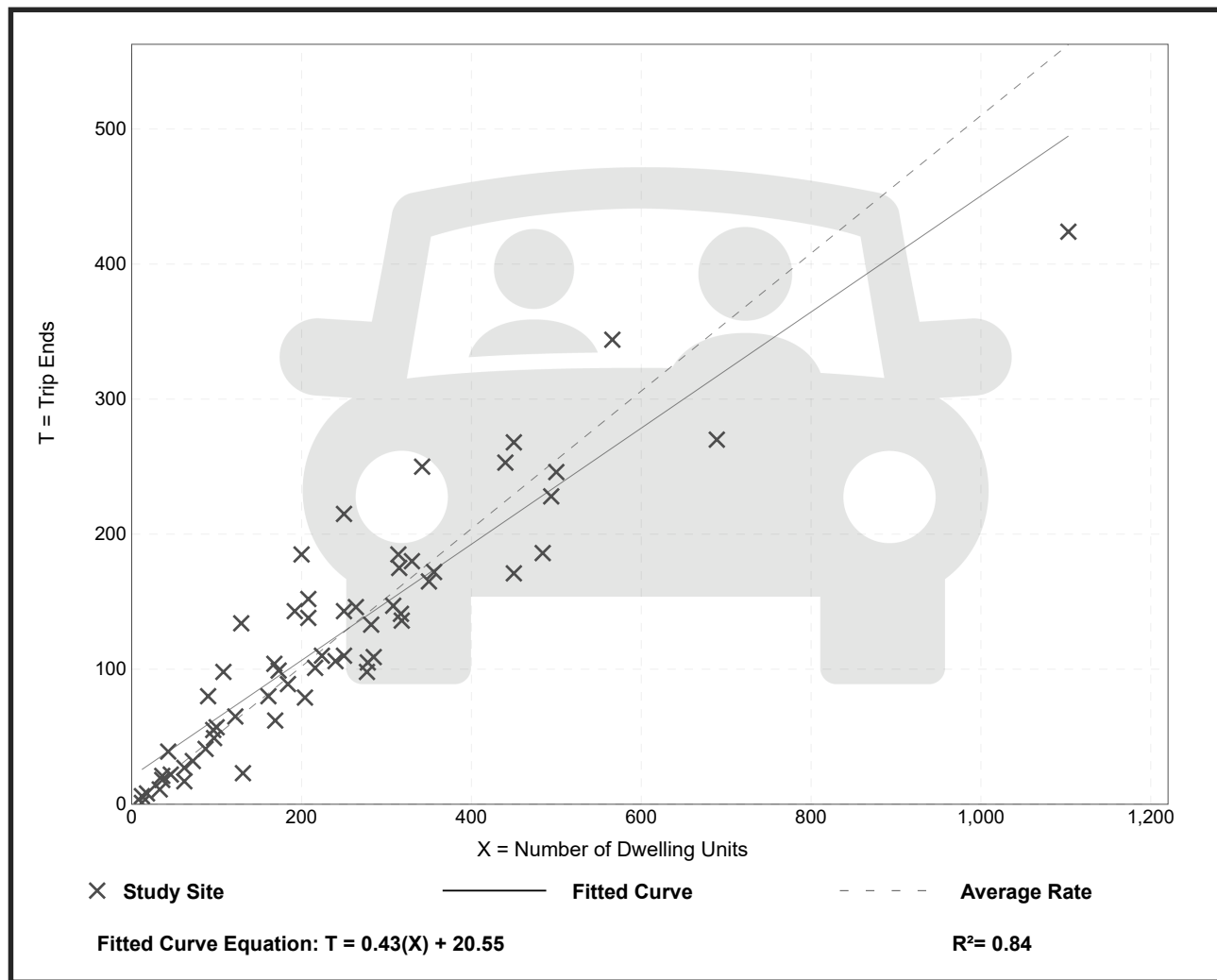
Setting/Location: General Urban/Suburban

Number of Studies: 59
 Avg. Num. of Dwelling Units: 241
 Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

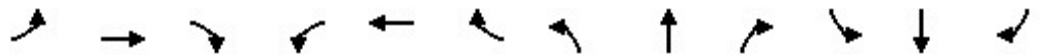
Average Rate	Range of Rates	Standard Deviation
0.51	0.08 - 1.04	0.15

Data Plot and Equation



HCM 6th Signalized Intersection Summary
 1: SW 3rd St/SE 3rd St & S Market Blvd /S Market Blvd

Existing PM Peak Hour
 01/31/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	602	0	0	578	10	7	1	1	4	0	8
Future Volume (veh/h)	6	602	0	0	578	10	7	1	1	4	0	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1870	0	0	1870	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	6	621	0	0	596	10	7	1	1	4	0	8
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	2	0	0	2	1	1	1	1	1	1	1
Cap, veh/h	616	1047	0	0	1026	17	327	5	5	235	0	29
Arrive On Green	0.56	0.56	0.00	0.00	0.56	0.56	0.03	0.03	0.03	0.03	0.00	0.03
Sat Flow, veh/h	821	1870	0	0	1834	31	1213	173	173	531	0	1062
Grp Volume(v), veh/h	6	621	0	0	0	606	9	0	0	12	0	0
Grp Sat Flow(s),veh/h/ln	821	1870	0	0	0	1865	1559	0	0	1592	0	0
Q Serve(g_s), s	0.1	4.8	0.0	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.7	4.8	0.0	0.0	0.0	4.6	0.1	0.0	0.0	0.1	0.0	0.0
Prop In Lane	1.00		0.00	0.00		0.02	0.78		0.11	0.33		0.67
Lane Grp Cap(c), veh/h	616	1047	0	0	0	1043	336	0	0	264	0	0
V/C Ratio(X)	0.01	0.59	0.00	0.00	0.00	0.58	0.03	0.00	0.00	0.05	0.00	0.00
Avail Cap(c_a), veh/h	4733	10430	0	0	0	10399	1618	0	0	1597	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.7	3.2	0.0	0.0	0.0	3.1	10.4	0.0	0.0	10.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.7	3.7	0.0	0.0	0.0	3.6	10.4	0.0	0.0	10.4	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h		627			606			9				12
Approach Delay, s/veh		3.7			3.6			10.4				10.4
Approach LOS		A			A			B				B
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		16.7		5.1		16.7		5.1				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		121.5		19.5		121.5		19.5				
Max Q Clear Time (g_c+I1), s		6.8		2.1		6.6		2.1				
Green Ext Time (p_c), s		5.4		0.0		5.2		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				3.8								
HCM 6th LOS				A								

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗						↕	
Traffic Vol, veh/h	4	587	12	6	581	4	0	0	0	1	1	7
Future Vol, veh/h	4	587	12	6	581	4	0	0	0	1	1	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	8	2	2	2	2	2	2	2	100	2
Mvmt Flow	4	611	13	6	605	4	0	0	0	1	1	7

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	609	0	0	624	0	0	1245	1251	607
Stage 1	-	-	-	-	-	-	619	619	-
Stage 2	-	-	-	-	-	-	626	632	-
Critical Hdwy	4.12	-	-	4.12	-	-	6.42	7.5	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	6.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	6.5	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.9	3.318
Pot Cap-1 Maneuver	970	-	-	957	-	-	192	113	496
Stage 1	-	-	-	-	-	-	537	356	-
Stage 2	-	-	-	-	-	-	533	350	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	970	-	-	957	-	-	190	0	496
Mov Cap-2 Maneuver	-	-	-	-	-	-	190	0	-
Stage 1	-	-	-	-	-	-	535	0	-
Stage 2	-	-	-	-	-	-	530	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0.1	13.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	970	-	-	957	-	-	413
HCM Lane V/C Ratio	0.004	-	-	0.007	-	-	0.023
HCM Control Delay (s)	8.7	-	-	8.8	-	-	13.9
HCM Lane LOS	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0.1

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕				
Traffic Vol, veh/h	4	91	0	3	176	11	0	1	2	0	0	0
Future Vol, veh/h	4	91	0	3	176	11	0	1	2	0	0	0
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
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	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	3	2	2	2	50	2	2	2
Mvmt Flow	5	107	0	4	207	13	0	1	2	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	222	0	0	109	0	0	342	349	110
Stage 1	-	-	-	-	-	-	119	119	-
Stage 2	-	-	-	-	-	-	223	230	-
Critical Hdwy	4.12	-	-	4.12	-	-	6.42	6.52	6.7
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.75
Pot Cap-1 Maneuver	1347	-	-	1481	-	-	654	575	828
Stage 1	-	-	-	-	-	-	906	797	-
Stage 2	-	-	-	-	-	-	814	714	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1347	-	-	1478	-	-	647	0	826
Mov Cap-2 Maneuver	-	-	-	-	-	-	647	0	-
Stage 1	-	-	-	-	-	-	901	0	-
Stage 2	-	-	-	-	-	-	811	0	-

Approach	EB			WB			NB		
HCM Control Delay, s	0.3			0.1			9.4		
HCM LOS							A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	826	1347	-	-	1478	-	-
HCM Lane V/C Ratio	0.004	0.003	-	-	0.002	-	-
HCM Control Delay (s)	9.4	7.7	0	-	7.4	0	-
HCM Lane LOS	A	A	A	-	A	A	-
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-

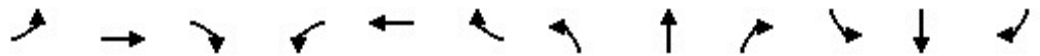
Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	90	5	22	185	1	7	0	17	5	10	5
Future Vol, veh/h	0	90	5	22	185	1	7	0	17	5	10	5
Conflicting Peds, #/hr	2	0	1	1	0	2	0	0	0	0	0	0
Sign Control	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	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	4	2	2	2	6	2	20	2
Mvmt Flow	0	102	6	25	210	1	8	0	19	6	11	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	213	0	0	109	0	0	375	369	106	378	372	213
Stage 1	-	-	-	-	-	-	106	106	-	263	263	-
Stage 2	-	-	-	-	-	-	269	263	-	115	109	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.26	7.12	6.7	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.7	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.7	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.354	3.518	4.18	3.318
Pot Cap-1 Maneuver	1357	-	-	1481	-	-	582	560	937	580	531	827
Stage 1	-	-	-	-	-	-	900	807	-	742	659	-
Stage 2	-	-	-	-	-	-	737	691	-	890	772	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1354	-	-	1480	-	-	559	548	936	559	519	825
Mov Cap-2 Maneuver	-	-	-	-	-	-	559	548	-	559	519	-
Stage 1	-	-	-	-	-	-	899	806	-	741	645	-
Stage 2	-	-	-	-	-	-	705	676	-	872	771	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.8			9.8			11.4		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	782	1354	-	-	1480	-	-	584
HCM Lane V/C Ratio	0.035	-	-	-	0.017	-	-	0.039
HCM Control Delay (s)	9.8	0	-	-	7.5	0	-	11.4
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

HCM 6th Signalized Intersection Summary Forecast 2027 PM Peak Hour Without Project
 1: SW 2nd St/SE 2nd St & S Market Blvd /S Market Blvd 01/31/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	694	0	0	670	11	8	1	1	4	0	9
Future Volume (veh/h)	7	694	0	0	670	11	8	1	1	4	0	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1870	0	0	1870	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	7	715	0	0	691	11	8	1	1	4	0	9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	2	0	0	2	1	1	1	1	1	1	1
Cap, veh/h	567	1128	0	0	1107	18	301	5	5	207	0	33
Arrive On Green	0.60	0.60	0.00	0.00	0.60	0.60	0.03	0.03	0.03	0.03	0.00	0.03
Sat Flow, veh/h	751	1870	0	0	1836	29	1242	155	155	492	0	1106
Grp Volume(v), veh/h	7	715	0	0	0	702	10	0	0	13	0	0
Grp Sat Flow(s),veh/h/ln	751	1870	0	0	0	1865	1553	0	0	1598	0	0
Q Serve(g_s), s	0.1	6.0	0.0	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.0	6.0	0.0	0.0	0.0	5.9	0.1	0.0	0.0	0.2	0.0	0.0
Prop In Lane	1.00		0.00	0.00		0.02	0.80		0.10	0.31		0.69
Lane Grp Cap(c), veh/h	567	1128	0	0	0	1125	310	0	0	239	0	0
V/C Ratio(X)	0.01	0.63	0.00	0.00	0.00	0.62	0.03	0.00	0.00	0.05	0.00	0.00
Avail Cap(c_a), veh/h	3835	9271	0	0	0	9245	1437	0	0	1419	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.0	3.1	0.0	0.0	0.0	3.1	11.6	0.0	0.0	11.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.0	3.7	0.0	0.0	0.0	3.7	11.6	0.0	0.0	11.7	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h		722			702			10				13
Approach Delay, s/veh		3.7			3.7			11.6				11.7
Approach LOS		A			A			B				B
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		19.3		5.2		19.3		5.2				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		121.5		19.5		121.5		19.5				
Max Q Clear Time (g_c+I1), s		8.0		2.2		7.9		2.1				
Green Ext Time (p_c), s		6.8		0.0		6.5		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				3.8								
HCM 6th LOS				A								

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗						↕	
Traffic Vol, veh/h	4	677	13	7	673	4	0	0	0	1	1	8
Future Vol, veh/h	4	677	13	7	673	4	0	0	0	1	1	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	8	2	2	2	2	2	2	2	100	2
Mvmt Flow	4	705	14	7	701	4	0	0	0	1	1	8

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	705	0	0	719	0	0	1437	1444	703
Stage 1	-	-	-	-	-	-	717	717	-
Stage 2	-	-	-	-	-	-	720	727	-
Critical Hdwy	4.12	-	-	4.12	-	-	6.42	7.5	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	6.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	6.5	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.9	3.318
Pot Cap-1 Maneuver	893	-	-	882	-	-	147	83	438
Stage 1	-	-	-	-	-	-	484	315	-
Stage 2	-	-	-	-	-	-	482	311	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	893	-	-	882	-	-	145	0	438
Mov Cap-2 Maneuver	-	-	-	-	-	-	145	0	-
Stage 1	-	-	-	-	-	-	482	0	-
Stage 2	-	-	-	-	-	-	478	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0.1	15.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	893	-	-	882	-	-	358
HCM Lane V/C Ratio	0.005	-	-	0.008	-	-	0.029
HCM Control Delay (s)	9.1	-	-	9.1	-	-	15.4
HCM Lane LOS	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0.1

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕				
Traffic Vol, veh/h	4	100	0	3	194	12	0	1	2	0	0	0
Future Vol, veh/h	4	100	0	3	194	12	0	1	2	0	0	0
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
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	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	3	2	2	2	50	2	2	2
Mvmt Flow	5	118	0	4	228	14	0	1	2	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	244	0	0	120	0	0	374	382	121
Stage 1	-	-	-	-	-	-	130	130	-
Stage 2	-	-	-	-	-	-	244	252	-
Critical Hdwy	4.12	-	-	4.12	-	-	6.42	6.52	6.7
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.75
Pot Cap-1 Maneuver	1322	-	-	1468	-	-	627	551	816
Stage 1	-	-	-	-	-	-	896	789	-
Stage 2	-	-	-	-	-	-	797	698	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1322	-	-	1465	-	-	621	0	814
Mov Cap-2 Maneuver	-	-	-	-	-	-	621	0	-
Stage 1	-	-	-	-	-	-	891	0	-
Stage 2	-	-	-	-	-	-	794	0	-

Approach	EB			WB			NB		
HCM Control Delay, s	0.3			0.1			9.4		
HCM LOS							A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	814	1322	-	-	1465	-	-
HCM Lane V/C Ratio	0.004	0.004	-	-	0.002	-	-
HCM Control Delay (s)	9.4	7.7	0	-	7.5	0	-
HCM Lane LOS	A	A	A	-	A	A	-
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	99	6	24	204	0	8	0	19	6	11	6
Future Vol, veh/h	0	99	6	24	204	0	8	0	19	6	11	6
Conflicting Peds, #/hr	2	0	1	1	0	2	0	0	0	0	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	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	4	2	2	2	6	2	20	2
Mvmt Flow	0	113	7	27	232	0	9	0	22	7	13	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	234	0	0	121	0	0	414	406	118	416	409	234
Stage 1	-	-	-	-	-	-	118	118	-	288	288	-
Stage 2	-	-	-	-	-	-	296	288	-	128	121	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.26	7.12	6.7	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.7	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.7	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.354	3.518	4.18	3.318
Pot Cap-1 Maneuver	1333	-	-	1467	-	-	549	534	923	547	505	805
Stage 1	-	-	-	-	-	-	887	798	-	720	642	-
Stage 2	-	-	-	-	-	-	712	674	-	876	762	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1330	-	-	1466	-	-	525	521	922	525	493	803
Mov Cap-2 Maneuver	-	-	-	-	-	-	525	521	-	525	493	-
Stage 1	-	-	-	-	-	-	886	797	-	719	627	-
Stage 2	-	-	-	-	-	-	677	658	-	855	761	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.8	10	11.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	753	1330	-	-	1466	-	-	558
HCM Lane V/C Ratio	0.041	-	-	-	0.019	-	-	0.047
HCM Control Delay (s)	10	0	-	-	7.5	0	-	11.8
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

HCM 6th Signalized Intersection Summary

Forecast 2027 PM Peak Hour With Project

1: SW 2nd St/SE 2nd St & S Market Blvd /S Market Blvd

02/02/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↖			↘			↕			↕	
Traffic Volume (veh/h)	7	742	0	0	670	11	23	1	14	4	0	9
Future Volume (veh/h)	7	742	0	0	670	11	23	1	14	4	0	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1870	0	0	1870	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	7	765	0	0	691	11	24	1	14	4	0	9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	2	0	0	2	1	1	1	1	1	1	1
Cap, veh/h	547	1149	0	0	1128	18	267	2	33	201	0	69
Arrive On Green	0.61	0.61	0.00	0.00	0.61	0.61	0.06	0.06	0.06	0.06	0.00	0.06
Sat Flow, veh/h	751	1870	0	0	1836	29	938	39	547	512	0	1151
Grp Volume(v), veh/h	7	765	0	0	0	702	39	0	0	13	0	0
Grp Sat Flow(s),veh/h/ln	751	1870	0	0	0	1865	1525	0	0	1663	0	0
Q Serve(g_s), s	0.2	7.4	0.0	0.0	0.0	6.4	0.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.6	7.4	0.0	0.0	0.0	6.4	0.7	0.0	0.0	0.2	0.0	0.0
Prop In Lane	1.00		0.00	0.00		0.02	0.62		0.36	0.31		0.69
Lane Grp Cap(c), veh/h	547	1149	0	0	0	1146	302	0	0	270	0	0
V/C Ratio(X)	0.01	0.67	0.00	0.00	0.00	0.61	0.13	0.00	0.00	0.05	0.00	0.00
Avail Cap(c_a), veh/h	3391	8235	0	0	0	8212	1264	0	0	1263	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.3	3.5	0.0	0.0	0.0	3.3	12.5	0.0	0.0	12.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.0	0.0	0.5	0.2	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.6	0.0	0.0	0.0	0.5	0.2	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.3	4.1	0.0	0.0	0.0	3.8	12.7	0.0	0.0	12.4	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h		772			702			39				13
Approach Delay, s/veh		4.2			3.8			12.7				12.4
Approach LOS		A			A			B				B
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		21.5		6.1		21.5		6.1				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		121.5		19.5		121.5		19.5				
Max Q Clear Time (g_c+1), s		9.4		2.2		8.4		2.7				
Green Ext Time (p_c), s		7.6		0.0		6.5		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				4.3								
HCM 6th LOS				A								

PM Peak Hour Without (Signal) 3:03 pm 01/31/2022

Synchro 11 Report
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Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗						↕	
Traffic Vol, veh/h	4	690	61	49	673	4	0	0	0	1	1	8
Future Vol, veh/h	4	690	61	49	673	4	0	0	0	1	1	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	8	2	2	2	2	2	2	2	100	2
Mvmt Flow	4	719	64	51	701	4	0	0	0	1	1	8

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	705	0	0	783	0	0	1564	1596	703
Stage 1	-	-	-	-	-	-	805	805	-
Stage 2	-	-	-	-	-	-	759	791	-
Critical Hdwy	4.12	-	-	4.12	-	-	6.42	7.5	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	6.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	6.5	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.9	3.318
Pot Cap-1 Maneuver	893	-	-	835	-	-	123	65	438
Stage 1	-	-	-	-	-	-	440	283	-
Stage 2	-	-	-	-	-	-	462	288	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	893	-	-	835	-	-	115	0	438
Mov Cap-2 Maneuver	-	-	-	-	-	-	115	0	-
Stage 1	-	-	-	-	-	-	438	0	-
Stage 2	-	-	-	-	-	-	434	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.6	16.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	893	-	-	835	-	-	334
HCM Lane V/C Ratio	0.005	-	-	0.061	-	-	0.031
HCM Control Delay (s)	9.1	-	-	9.6	-	-	16.1
HCM Lane LOS	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	0.2	-	-	0.1

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕				
Traffic Vol, veh/h	25	100	0	3	201	40	0	1	2	0	0	0
Future Vol, veh/h	25	100	0	3	201	40	0	1	2	0	0	0
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
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	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	3	2	2	2	50	2	2	2
Mvmt Flow	29	118	0	4	236	47	0	1	2	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	285	0	0	120	0	0	447	471	121
Stage 1	-	-	-	-	-	-	178	178	-
Stage 2	-	-	-	-	-	-	269	293	-
Critical Hdwy	4.12	-	-	4.12	-	-	6.42	6.52	6.7
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.75
Pot Cap-1 Maneuver	1277	-	-	1468	-	-	569	491	816
Stage 1	-	-	-	-	-	-	853	752	-
Stage 2	-	-	-	-	-	-	776	670	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1277	-	-	1465	-	-	552	0	814
Mov Cap-2 Maneuver	-	-	-	-	-	-	552	0	-
Stage 1	-	-	-	-	-	-	831	0	-
Stage 2	-	-	-	-	-	-	773	0	-

Approach	EB	WB	NB
HCM Control Delay, s	1.6	0.1	9.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	814	1277	-	-	1465	-	-
HCM Lane V/C Ratio	0.004	0.023	-	-	0.002	-	-
HCM Control Delay (s)	9.4	7.9	0	-	7.5	0	-
HCM Lane LOS	A	A	A	-	A	A	-
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	99	6	24	232	0	8	0	19	15	11	13
Future Vol, veh/h	0	99	6	24	232	0	8	0	19	15	11	13
Conflicting Peds, #/hr	2	0	1	1	0	2	0	0	0	0	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	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	4	2	2	2	6	2	20	2
Mvmt Flow	0	113	7	27	264	0	9	0	22	17	13	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	266	0	0	121	0	0	450	438	118	448	441	266
Stage 1	-	-	-	-	-	-	118	118	-	320	320	-
Stage 2	-	-	-	-	-	-	332	320	-	128	121	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.26	7.12	6.7	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.7	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.7	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.354	3.518	4.18	3.318
Pot Cap-1 Maneuver	1298	-	-	1467	-	-	519	512	923	521	484	773
Stage 1	-	-	-	-	-	-	887	798	-	692	621	-
Stage 2	-	-	-	-	-	-	681	652	-	876	762	-
Platoon blocked, %		-	-	-	-	-						
Mov Cap-1 Maneuver	1296	-	-	1466	-	-	490	499	922	499	472	772
Mov Cap-2 Maneuver	-	-	-	-	-	-	490	499	-	499	472	-
Stage 1	-	-	-	-	-	-	886	797	-	691	606	-
Stage 2	-	-	-	-	-	-	640	636	-	855	761	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.7			10.1			12		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	731	1296	-	-	1466	-	-	556
HCM Lane V/C Ratio	0.042	-	-	-	0.019	-	-	0.08
HCM Control Delay (s)	10.1	0	-	-	7.5	0	-	12
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.3

Intersection						
Int Delay, s/veh	2.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↘			
Traffic Vol, veh/h	0	28	10	49	0	0
Future Vol, veh/h	0	28	10	49	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	30	11	53	0	0

Major/Minor	Minor1	Major1		
Conflicting Flow All	-	38	0	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	6.22	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	3.318	-	-
Pot Cap-1 Maneuver	0	1034	-	-
Stage 1	0	-	-	-
Stage 2	0	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	-	1034	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	NB
HCM Control Delay, s	8.6	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	NBRWBLn1
Capacity (veh/h)	-	- 1034
HCM Lane V/C Ratio	-	- 0.029
HCM Control Delay (s)	-	- 8.6
HCM Lane LOS	-	- A
HCM 95th %tile Q(veh)	-	- 0.1

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↘	
Traffic Vol, veh/h	0	16	0	0	21	90
Future Vol, veh/h	0	16	0	0	21	90
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	17	0	0	23	98

Major/Minor	Minor2	Major2
Conflicting Flow All	- 76	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 985	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 983	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	8.7	0
HCM LOS	A	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	983	-	-
HCM Lane V/C Ratio	0.018	-	-
HCM Control Delay (s)	8.7	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-