
Macadoodle
Traffic Impact Study
Lee's Summit, Missouri

September 29th, 2022



Prepared by:



TABLE OF CONTENTS

Introduction.....1

Existing Conditions2

 Street Network and Traffic Control.....2

 Traffic Volumes2

Proposed Conditions4

 Access Plan4

 Sight Distance.....4

 Crash Analysis.....4

 Trip Generation4

 Trip Distribution5

 Existing Plus Site Traffic Volumes.....5

Capacity8

 Existing Conditions8

 Existing Plus Site Conditions..... 12

Recommendations..... 15

Appendix..... 16

LIST OF TABLES

Table 1 – Trip Generation5

Table 2 – Intersection Level of Service8

LIST OF FIGURES

Figure 1 – Development Location.....1

Figure 3 – Existing Traffic Volumes.....3

Figure 3 – Existing plus Site A.M. Peak Hour Volumes5

Figure 4 – Existing plus Site P.M. Peak Hour Volumes7

Figure 5 – Existing A.M. Level of Service 10

Figure 6 – Existing P.M. Level of Service..... 11

Figure 7 – Existing Plus Site A.M. Level of Service..... 13

Figure 8 – Existing plus Site P.M. Level of Service 14

INTRODUCTION

The purpose of this traffic impact study is to assess the potential impact on traffic with the Macadoodle liquor store development in the existing Southport Center. The shopping center is located on the northwest corner of the intersection of Route 291 and SW Market Street/SW 16th Street in Lee's Summit, Missouri. The location of the development in relation to the street network is shown in Figure 1.

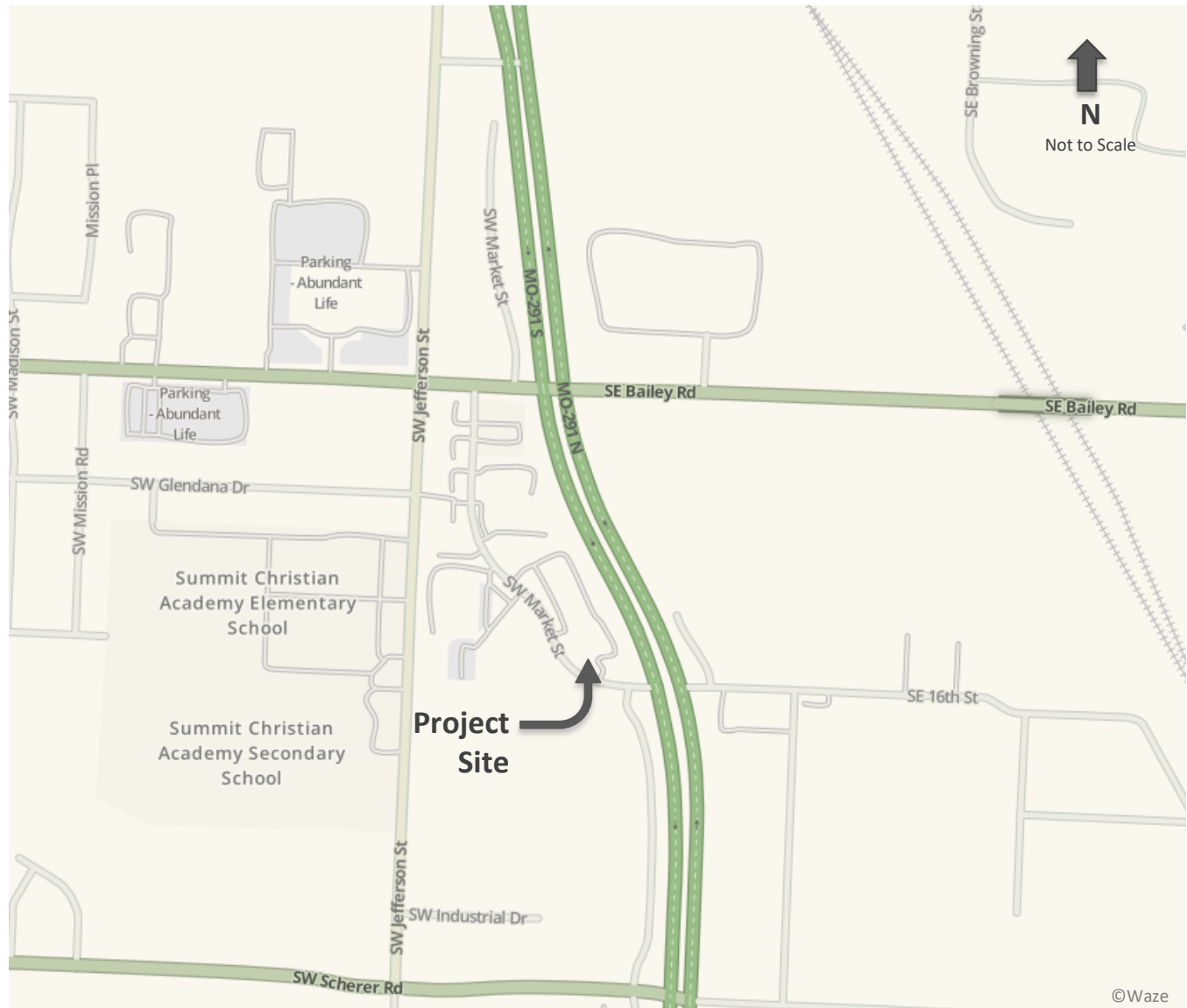


Figure 1–Development Location

EXISTING CONDITIONS

The site is located in Lee's Summit, Missouri, on the northwest corner of the intersection of MO 291 and SW Market Street/SW 16th Street. The Macadoodle liquor store will be going into the existing Summit Park Church location in the Southport Center. The shopping center currently has four vacant sites, two insurance agencies, a taekwondo studio, and a real estate office.

Street Network and Traffic Control

The development is accessed by SW Market Street running north-south at SW Persels Road and tee-ing into southbound MO 291, which is Right-In/Right-Out (RIRO). SW Market Street is a two-lane collector road with a double yellow centerline. There is no posted speed limit.

MO 291 is a north-south four-lane divided highway with a southbound right-turn lane. The posted speed limit is 45 miles per hour (mph). Traffic on SW Market Street is only able to turn right onto MO 291. The intersection of SW Market Street and MO291 is stop controlled with SW Market Street stopping.

SW Persels Road is a two-lane east-west arterial with a left-turn lane and a posted speed limit of 35 mph. The intersection of SW Market Street and SW Persels Road is stop controlled with SW Market Street stopping.

SW Jefferson Street is a two-lane north-south arterial with a two-way left-turn center lane and a posted speed limit of 35 mph. The intersection of SW Jefferson Street and SW Persels Road is signalized.

Traffic Volumes

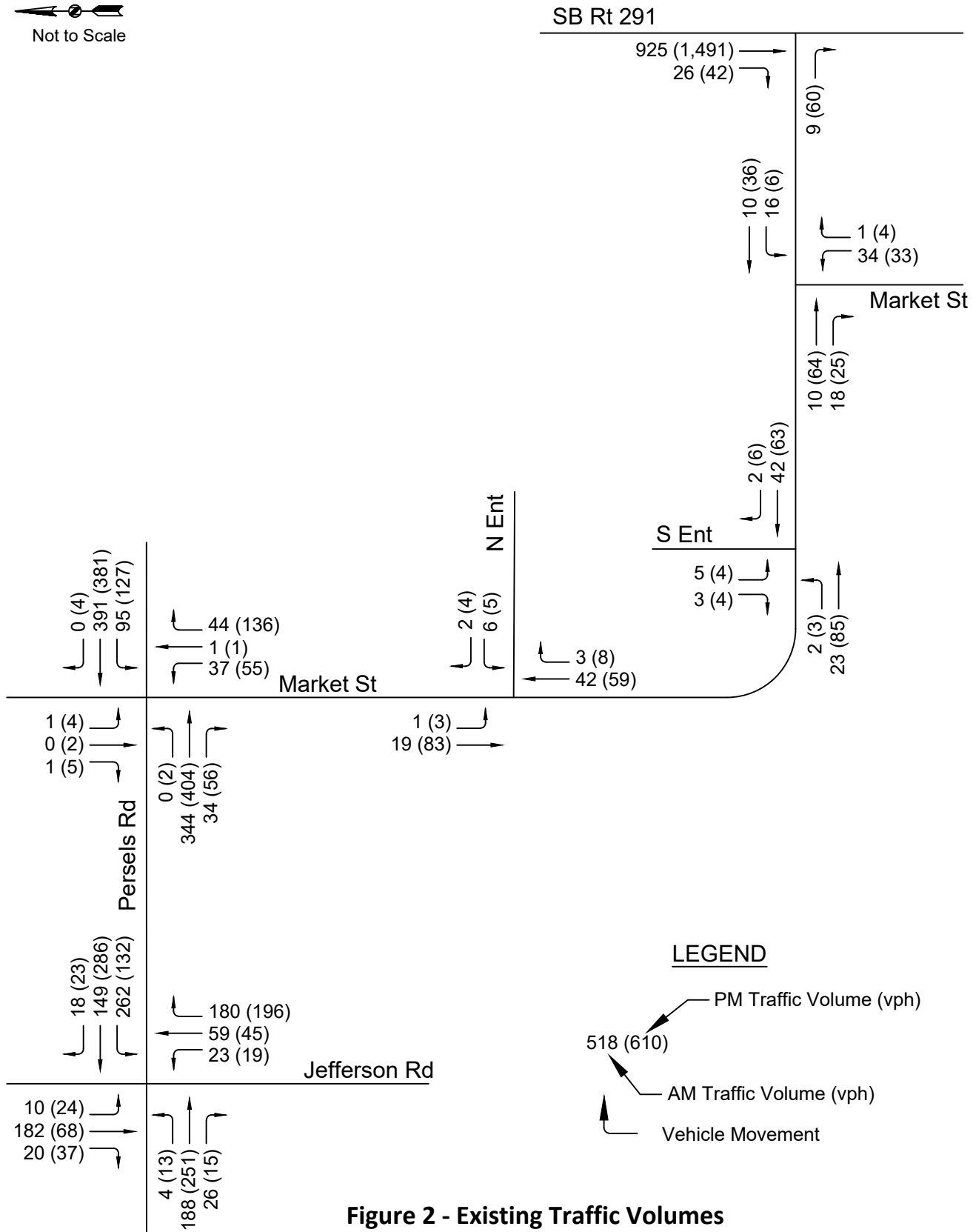
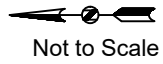
Intersections included in the analysis for this study are:

- SW Market Street and SW Persels Road
- SW Market Street and SW Market Street/US 291
- SW Market Street and two existing access points
- SW Persels Road and SW Jefferson Street

The turning movement traffic counts were completed on Tuesday, February 8th, 2022, for the peak volume time periods. Morning traffic counts were conducted from 7:00 AM until 9:00 AM and afternoon traffic counts were from 4:00 PM until 6:00 PM. The morning peak period was determined to be from 7:15 AM until 8:15 AM and the afternoon peak period was determined to be from 4:00 PM until 5:00 PM.

Turning movement traffic counts were recounted to determine if there was any decrease in traffic along SW Market Street and SW Persels Road and SW Persels Road and SW Jefferson Street intersections due to the opening of the new middle school and the redistribution of grades. Updated traffic counts were completed on Wednesday, September 21st, 2022, for the peak volume time periods. The morning traffic counts were found to be lower than the February counts, however the afternoon counts were higher. The afternoon traffic counts were comparable to City supplied 2012 traffic counts at SW Persels Road and SW Jefferson Street. The study has been updated to include the September 2022 traffic counts.

Existing traffic volumes are shown on Figure 2. Traffic counts are included in the Appendix.



PROPOSED CONDITIONS

The Macadoodle development is a planned 12,000 square foot liquor store with a drive-through lane.

Access Plan

The site will be accessed via two access existing points off SW Market Street. There is a third access point into the development, however, based on the location and design that will primarily be for truck traffic.

Sight Distance

Sight distance was measured at the north and south entrances into the site using the methodology recommending by the American Association of State Highway and Transportation Engineers (AASHTO). City code states that a speed limit of 25 mph governs areas with no posted speed limit. For 25 mph, AASHTO requires a minimum intersection sight distance of 280 feet. AASHTO requires a stopping sight distance of 155 feet for a roadway with a speed limit of 25 mph.

Based on field measurements at the north entrance, the available sight distance will be in excess of 280 feet and is adequate. The measured stopping sight distance is in excess of 155 feet and is adequate.

The south entrance has an available sight distance to the intersection with MO 291 to the east. To the west, the stopping sight distance is adequate. However, the intersection sight distance was only 180 feet and is less than the AASHTO required 280 feet.

Crash Analysis

Crash data was not analyzed as part of this study.

Trip Generation

The expected trip generation for the development was estimated using the 11th Edition of the Trip Generation Handbook published by the Institute of Transportation Engineers. The trip generation was based on AM Peak Hour of Generator along with Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 PM criteria for Liquor Store.

Estimates for the expected trips generated by the development are provided in Table 1.

Table 1 – Trip Generation					
ITE Land Use Code	Units	AM		PM	
		Trips In (vph)	Trips Out (vph)	Trips In (vph)	Trips Out (vph)
899 – Liquor Store	12,000 Sq Ft	28	26	80	80

Trip Distribution

The trip distribution pattern was determined for the site based on the existing directional traffic pattern of the peak period and based on a general analysis of the surrounding area. The detailed distribution patterns can be found in the appendix. Based on the existing traffic patterns, the type of development, and the metropolitan population centers, the new trips were assigned onto the roadway network, as shown below for the morning and afternoon periods.

Trip distribution during the morning peak period:

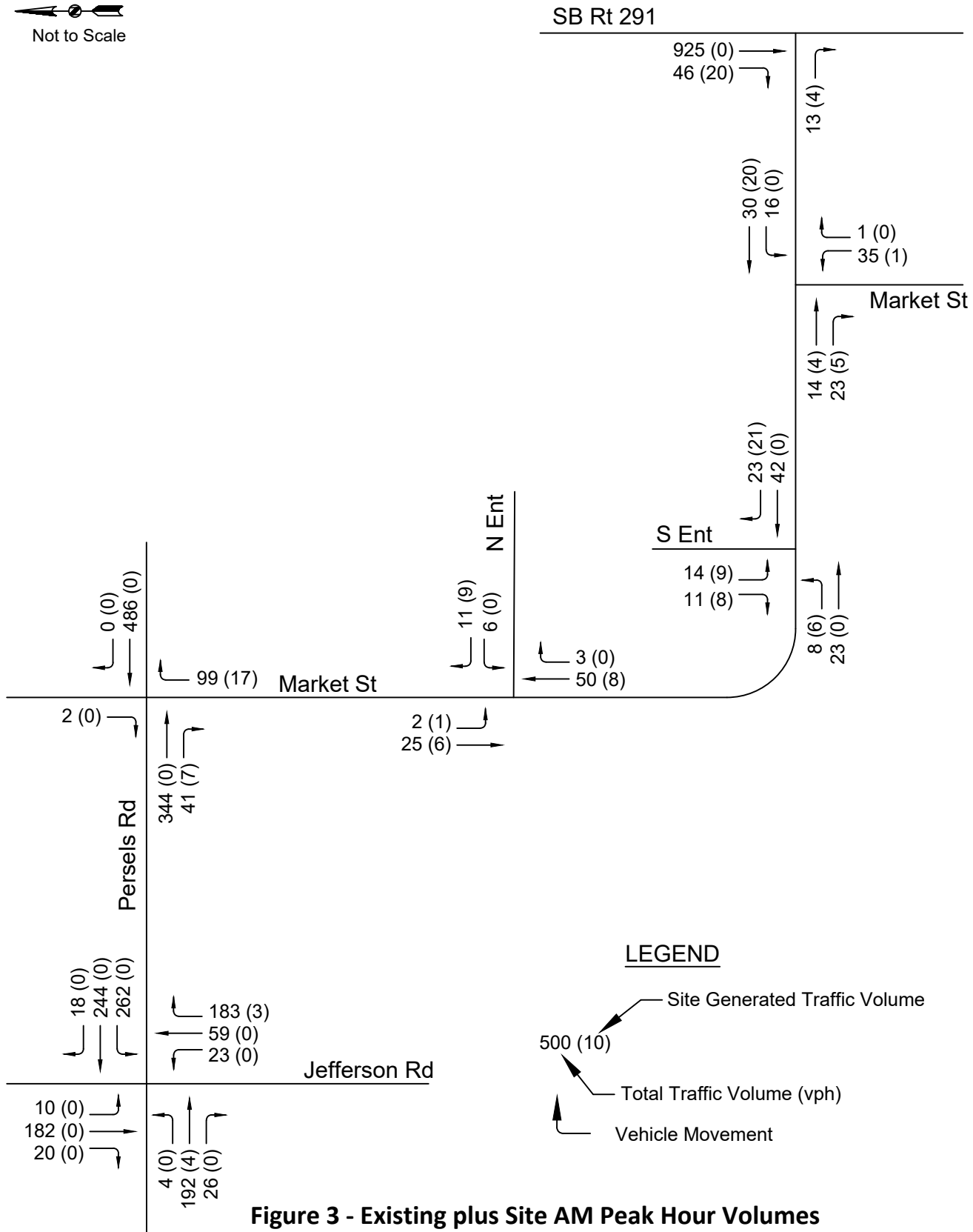
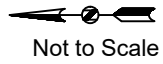
- 65% to/70% from the north & east
- 15% to/5% from the south
- 20% to/25% from the west

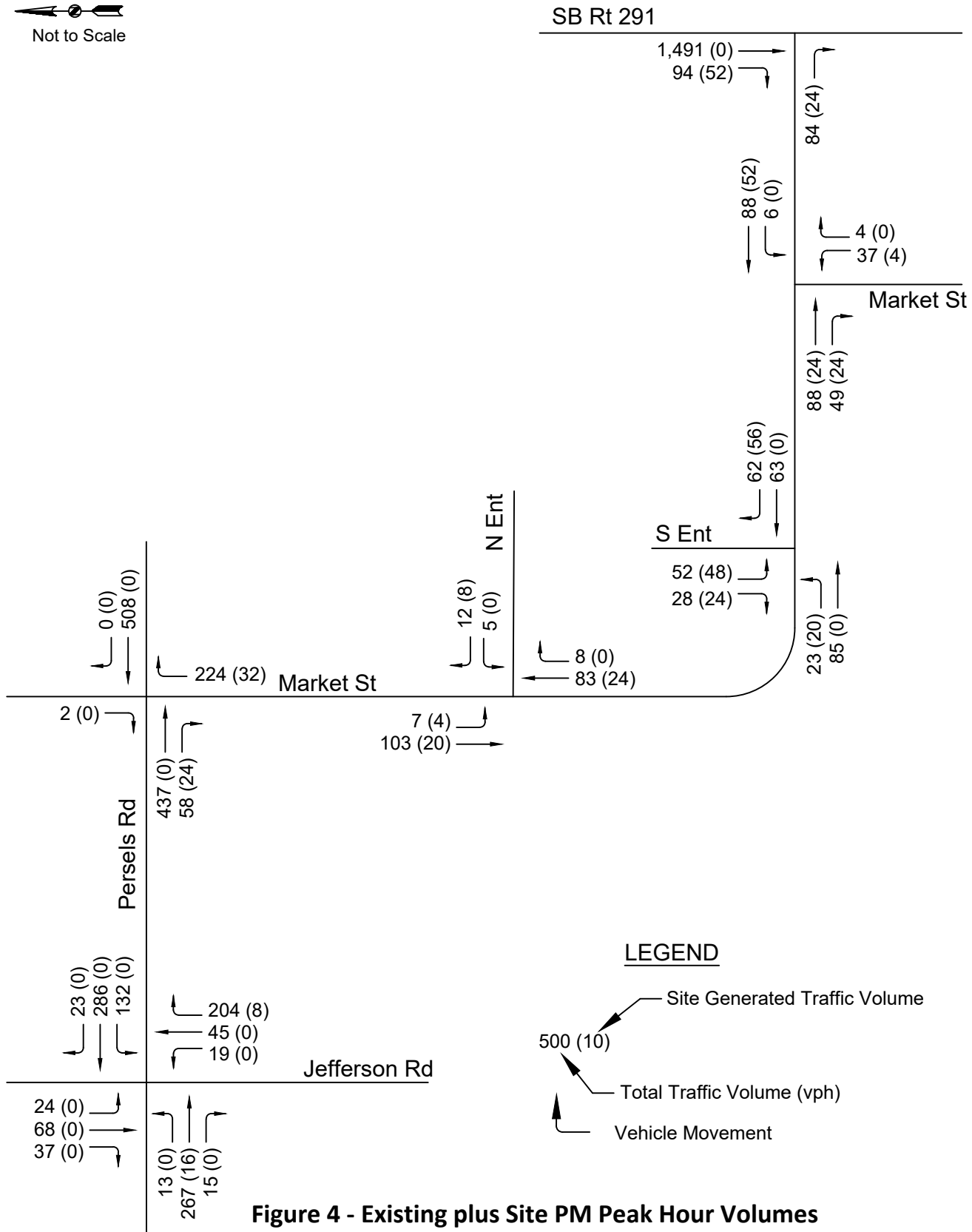
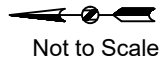
Trip distribution during the afternoon peak period:

- 60% to/65% from the north & east
- 15% to/5% from the south
- 25% to/30% from the west

Existing Plus Site Traffic Volumes

The expected development site-generated traffic volumes were added to the existing traffic. The volumes are shown on Figures 3 and 4.





CAPACITY

The capacity analysis for the study intersections was completed using the methodology outlined in the Highway Capacity Manual, 6th Edition. The volume and capacity analysis was completed using Trafficware SYNCHRO software (latest version). The criteria for determining Level of Service (LOS) for signalized and unsignalized study intersections and access points are based on the average vehicle delay and is outlined in Table 2 below. Level of Service is defined as the measure of the quality of traffic flow and is graded from “A” to “F”—with “A” being the best situation and “F” being the worst.

Table 2 – Intersection Level of Service		
Level of Service (LOS)	Average Control Delay (sec/veh)	
	Unsignalized	Signalized
A	< 10	< 10
B	< 15	< 20
C	< 25	< 35
D	< 35	< 55
E	< 50	< 80
F	≥ 50	≥ 80

Existing Conditions

SW Persels Road and SW Jefferson Street

All approaches operate at a LOS D or above for the morning and afternoon peak periods and the intersection has sufficient capacity for queuing vehicles. The overall LOS for the intersection is a LOS C during the morning peak and afternoon peak period.

SW Market Street and SW Persels Road

During the afternoon peak period, the northbound shared left/through/right lane operates at a LOS E with a 140-foot queue length that extends past the first entrance into the convenience store/gas station. All other movements operate at a LOS D or better.

SW Market Street and SW Market Street/MO 291

The through movements of MO291 at the intersection of SW Market Street is not stop controlled and therefore operates in a free-flow condition. The only allowed turning movements are a right turn onto SW Market Street or a right turn from SW Market Street onto MO291. The southbound right turn operates at a LOS A for both morning and afternoon peak periods. The eastbound right turn operates at a LOS C or better and has sufficient capacity for queuing vehicles.

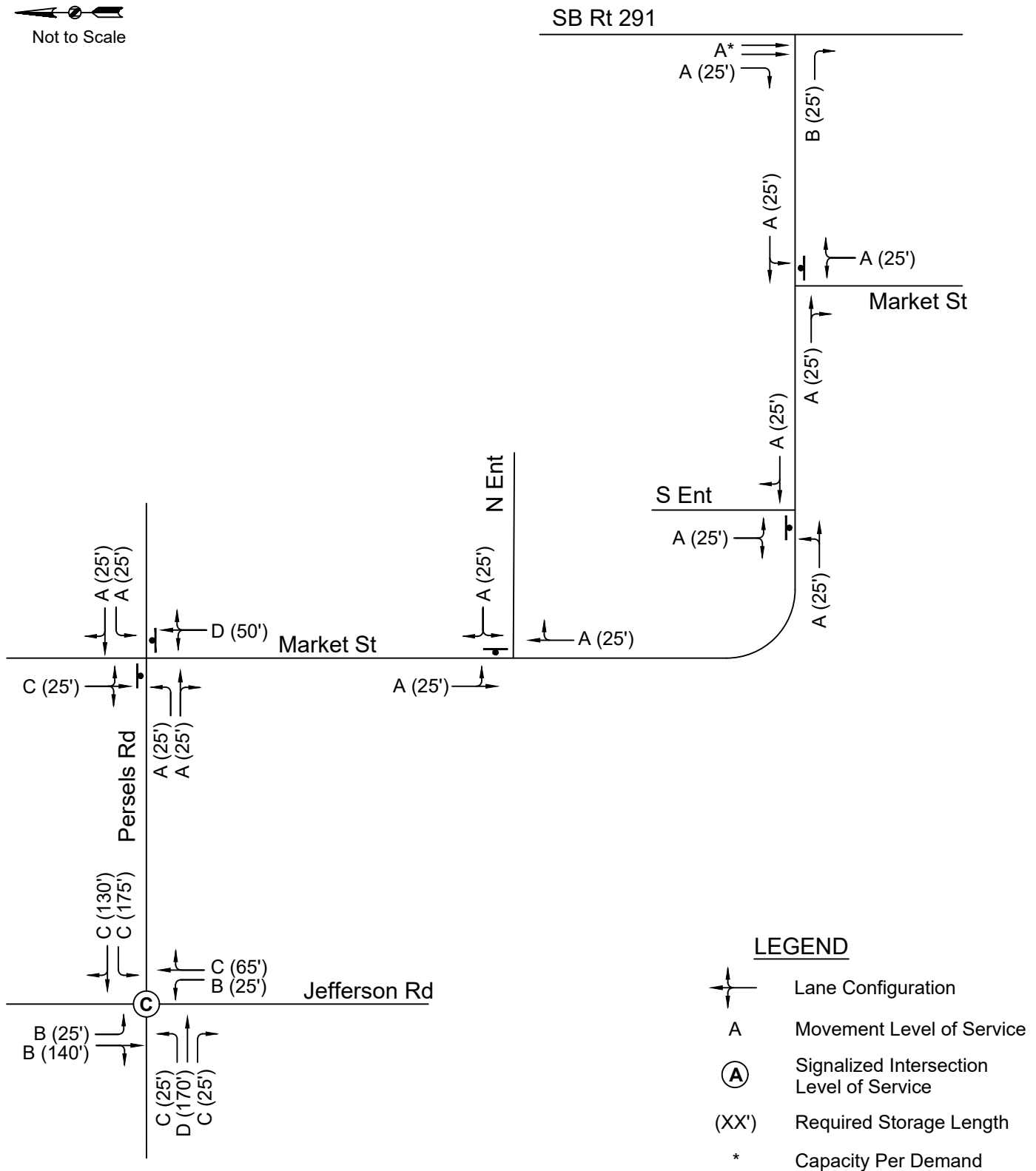
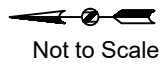
SW Market Street and North Entrance

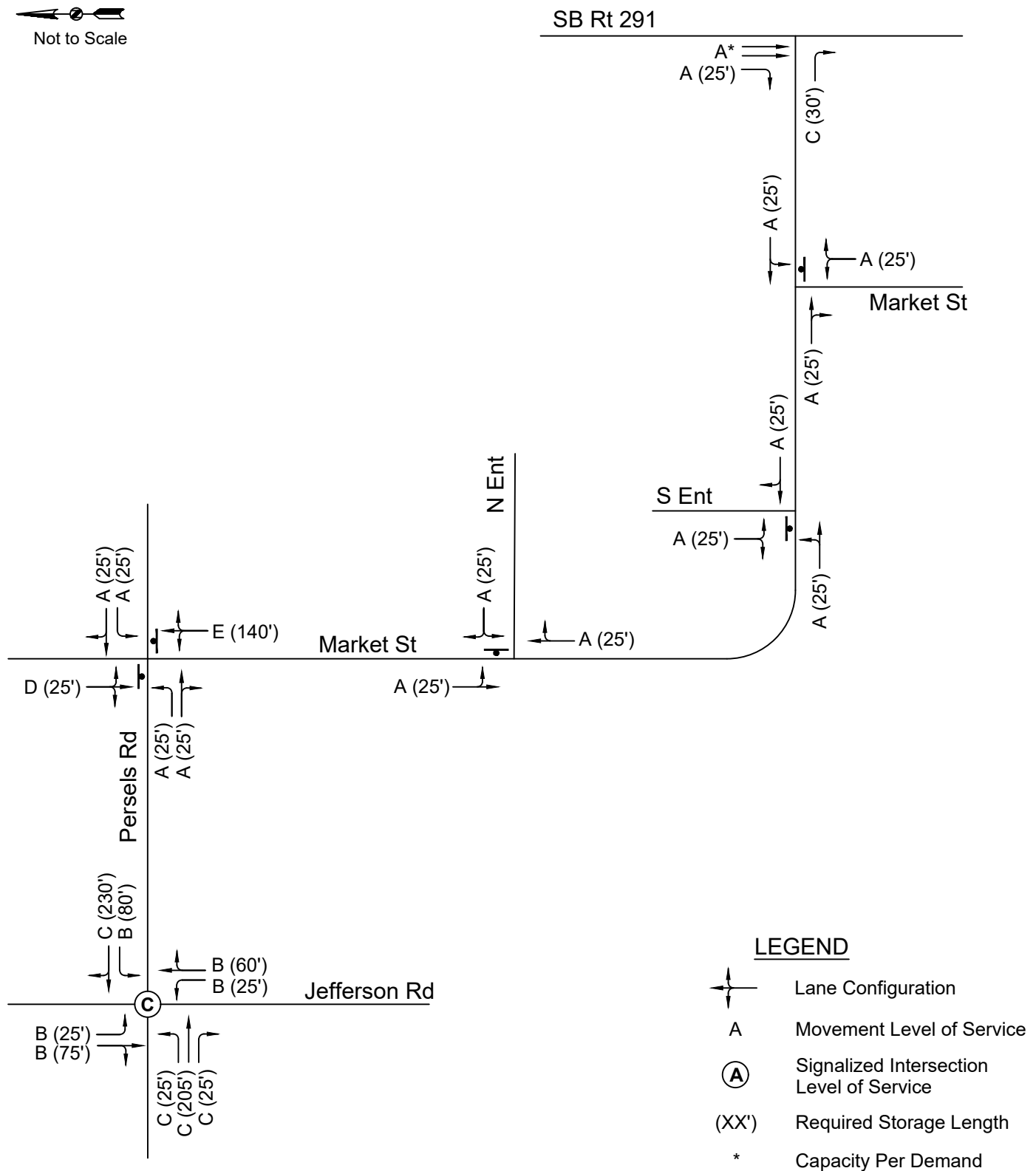
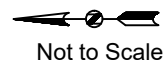
All approaches operate at a LOS A and the intersection has sufficient capacity for queuing vehicles.

SW Market Street and South Entrance

All approaches operate at a LOS A and the intersection has sufficient capacity for queuing vehicles.

The results of the capacity analysis for the existing morning and afternoon peak hour conditions along with lane configuration and queue lengths are shown on Figures 5 and 6.





Existing Plus Site Conditions

SW Persels Road and SW Jefferson Street

Analysis for this intersection was completed with signal timings optimized to account for the additional development traffic. There is no significant change in operations of this intersection from the Existing Conditions. All approaches continue to operate at a LOS D or above for the morning and afternoon peak periods and the intersection has sufficient capacity for queuing vehicles.

SW Market Street and SW Persels Road

Analysis was completed for this intersection with a full median converting the intersection to a right-in/right-out only intersection. This addition of the median would decrease the northbound queue length to 60 feet and the overall LOS for the northbound movement would be a LOS B during the morning peak and a LOS C during the afternoon peak period.

All other approaches operate at a LOS B or better with the additional site traffic and have sufficient capacity for queuing vehicles.

SW Market Street and SW Market Street/MO 291

The through movements of MO291 at the intersection of SW Market Street are not stop controlled and therefore operates in a free-flow condition. The only allowed turning movements are a right turn onto SW Market Street or a right turn from SW Market Street onto Route 291. The southbound right turn operates at a LOS A for both morning and afternoon peak periods. The eastbound right turn operates at a LOS C or better and has sufficient capacity for queuing vehicles.

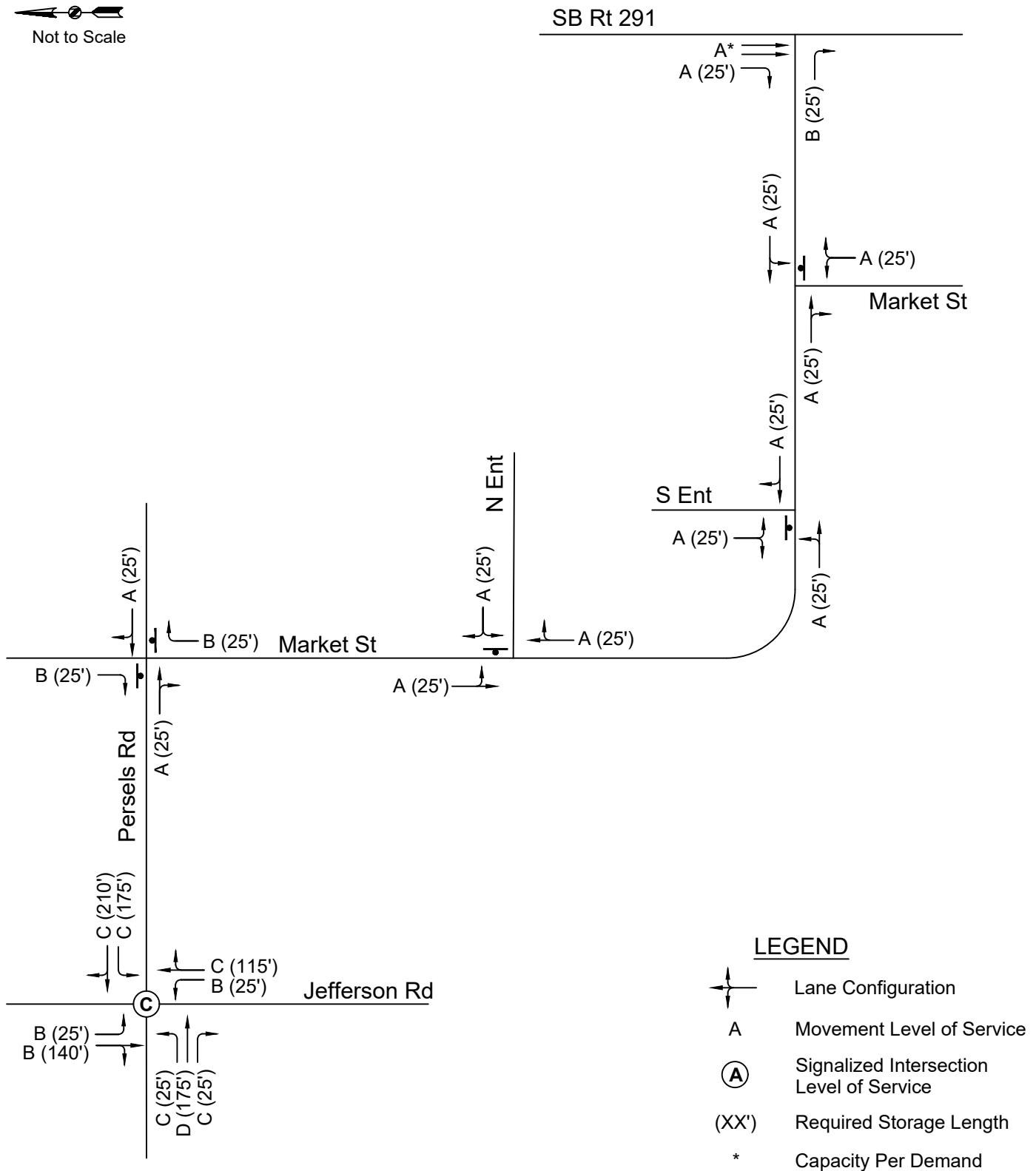
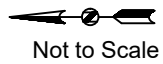
SW Market Street and North Entrance

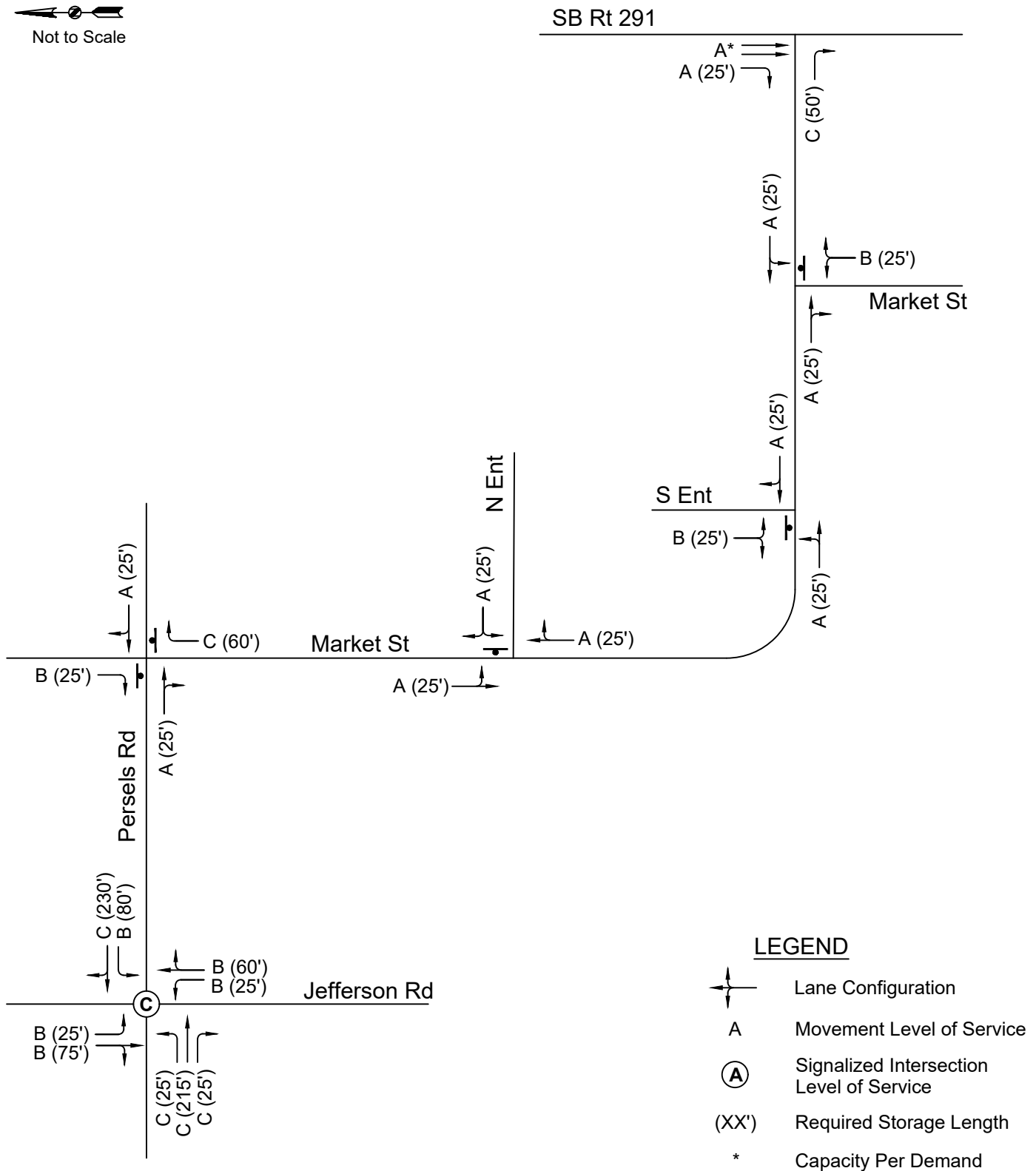
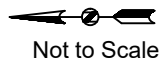
All approaches continue to operate at a LOS A with the additional site traffic and the intersection has sufficient capacity for queuing vehicles.

SW Market Street and South Entrance

All approaches continue to operate at a LOS A with the additional site traffic and the intersection has sufficient capacity for queuing vehicles.

The results of the analysis are shown for the morning and afternoon peak hour conditions along with lane configuration and queue lengths in Figures 7 and 8.





RECOMMENDATIONS

This study documents the findings of the traffic analysis of the expected traffic for the Macadoodle development in Lee's Summit, Missouri. The study includes an analysis of the existing conditions, existing plus site conditions, and future conditions.

Based on the results of the SYNCHRO analysis, observations from the field, and engineering judgment, the following recommendations are made:

- Monitor the signalized SW Persels Road and SW Jefferson Road intersection as additional development occurs and adjust signal timings as necessary.
- Construct a median at the intersection of SW Market Street and SW Persels Road to convert the intersection to right-in/right-out only.

APPENDIX

2/8/2022

Rt 291 & Market
AM

Time	Eastbound				Westbound				Northbound				Southbound				Int. Total
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	
7:00	0	0	5	5	0	0	0	0	0	0	0	0	0	179	1	180	185
7:15	0	0	4	4	0	0	0	0	0	0	0	0	0	258	3	261	265
7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	235	4	239	239
7:45	0	0	2	2	0	0	0	0	0	0	0	0	0	246	5	251	253
8:00	0	0	3	3	0	0	0	0	0	0	0	0	0	186	14	200	203
8:15	0	0	6	6	0	0	0	0	0	0	0	0	0	224	1	225	231
8:30	0	0	3	3	0	0	0	0	0	0	0	0	0	234	4	238	241
8:45	0	0	7	7	0	0	0	0	0	0	0	0	0	207	10	217	224
Total	0	0	30	30	0	0	0	0	0	0	0	0	0	1769	42	1811	1841

PHF																					Int. Total
Time	EB Left	EB Thru	EB Right	EB Total	PHF	WB Left	WB Thru	WB Right	WB Total	PHF	NB Left	NB Thru	NB Right	NB Total	PHF	SB Left	SB Thru	SB Right	SB Total	PHF	
7:15	0	0	4	4	0.56	0	0	0	0	#DIV/0!	0	0	0	0	#DIV/0!	0	258	3	261	0.91	265
7:30	0	0	0	0		0	0	0	0		0	0	0	0		0	235	4	239		239
7:45	0	0	2	2		0	0	0	0		0	0	0	0		0	246	5	251		253
8:00	0	0	3	3		0	0	0	0		0	0	0	0		0	186	14	200		203
Total	0	0	9	9		0	0	0	0		0	0	0	0		0	925	26	951		960

Persels & Jefferson
AM

Time	Eastbound				Westbound				Northbound				Southbound				Int. Total
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	
7:00	2	52	2	56	27	42	3	72	2	2	19	23	0	9	1	10	161
7:15	2	39	9	50	64	36	2	102	2	5	27	34	1	25	5	31	217
7:30	4	27	10	41	84	34	2	120	6	21	78	105	2	67	4	73	339
7:45	0	44	7	51	51	49	4	104	3	2	24	29	1	30	2	33	217
8:00	5	58	15	78	69	54	5	128	16	54	69	139	3	50	9	62	407
8:15	1	63	3	67	32	41	3	76	5	22	45	72	4	8	6	18	233
8:30	1	27	0	28	23	27	1	51	0	3	15	18	2	3	1	6	103
8:45	1	39	4	44	23	29	3	55	2	3	16	21	1	4	4	9	129
Total	16	349	50	415	373	312	23	708	36	112	293	441	14	196	32	242	1806

PHF																					Int. Total
Time	EB Left	EB Thru	EB Right	EB Total	PHF	WB Left	WB Thru	WB Right	WB Total	PHF	NB Left	NB Thru	NB Right	NB Total	PHF	SB Left	SB Thru	SB Right	SB Total	PHF	
7:15	2	39	9	50	0.71	64	36	2	102	0.89	2	5	27	34	0.55	1	25	5	31	0.68	217
7:30	4	27	10	41		84	34	2	120		6	21	78	105		2	67	4	73		339
7:45	0	44	7	51		51	49	4	104		3	2	24	29		1	30	2	33		217
8:00	5	58	15	78		69	54	5	128		16	54	69	139		3	50	9	62		407
Total	11	168	41	220		268	173	13	454		27	82	198	307		7	172	20	199		1180

Persels & Market
AM

Time	Eastbound				Westbound				Northbound				Southbound				Int. Total
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	
7:00	0	62	9	71	14	67	1	82	4	0	6	10	0	0	0	0	163
7:15	0	67	6	73	19	101	0	120	2	0	12	14	0	0	0	0	207
7:30	1	101	6	108	24	123	0	147	1	0	13	14	0	0	1	1	270
7:45	0	60	6	66	36	92	1	129	6	0	16	22	1	1	0	2	219
8:00	0	113	18	131	23	129	1	153	6	0	13	19	0	0	0	0	303
8:15	0	99	16	115	15	70	1	86	5	0	19	24	0	0	0	0	225
8:30	0	40	9	49	17	50	2	69	3	0	20	23	1	0	1	2	143
8:45	0	51	8	59	28	50	1	79	5	2	19	26	3	1	1	5	169
Total	1	593	78	672	176	682	7	865	32	2	118	152	5	2	3	10	1699

PHF																					Int. Total
Time	EB Left	EB Thru	EB Right	EB Total	PHF	WB Left	WB Thru	WB Right	WB Total	PHF	NB Left	NB Thru	NB Right	NB Total	PHF	SB Left	SB Thru	SB Right	SB Total	PHF	
7:15	0	67	6	73	0.72	19	101	0	120	0.9	2	0	12	14	0.78	0	0	0	0	0.38	207
7:30	1	101	6	108		24	123	0	147		1	0	13	14		0	0	1	1		270
7:45	0	60	6	66		36	92	1	129		6	0	16	22		1	1	0	2		219
8:00	0	113	18	131		23	129	1	153		6	0	13	19		0	0	0	0		303
Total	1	341	36	378		102	445	2	549		15	0	54	69		1	1	1	3		999

2/8/2022

Rt 291 & Market
PM

Time	Eastbound				Westbound				Northbound				Southbound				Int. Total
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	
16:00	0	0	9	9	0	0	0	0	0	0	0	0	0	306	9	315	324
16:15	0	0	10	10	0	0	0	0	0	0	0	0	0	413	5	418	428
16:30	0	0	18	18	0	0	0	0	0	0	0	0	0	383	22	405	423
16:45	0	0	23	23	0	0	0	0	0	0	0	0	0	389	6	395	418
17:00	0	0	14	14	0	0	0	0	0	0	0	0	0	426	4	430	444
17:15	0	0	9	9	0	0	0	0	1	0	0	1	0	413	4	417	427
17:30	0	0	6	6	0	0	0	0	0	0	0	0	0	395	5	400	406
17:45	0	0	2	2	0	0	0	0	0	0	0	0	0	290	6	296	298
Total	0	0	91	91	0	0	0	0	1	0	0	1	0	3015	61	3076	3168

PHF																					Int. Total
Time	EB Left	EB Thru	EB Right	EB Total	PHF	WB Left	WB Thru	WB Right	WB Total	PHF	NB Left	NB Thru	NB Right	NB Total	PHF	SB Left	SB Thru	SB Right	SB Total	PHF	
4:00	0	0	9	9	0.65	0	0	0	0	#DIV/0!	0	0	0	0	#DIV/0!	0	306	9	315	0.92	324
4:15	0	0	10	10		0	0	0	0		0	0	0	0		0	413	5	418		428
4:30	0	0	18	18		0	0	0	0		0	0	0	0		0	383	22	405		423
4:45	0	0	23	23		0	0	0	0		0	0	0	0		0	389	6	395		418
Total	0	0	60	60		0	0	0	0		0	0	0	0		0	1491	42	1533		1593

Persels & Jefferson
PM

Time	Eastbound				Westbound				Northbound				Southbound				Int. Total
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	
16:00	2	57	1	60	31	53	7	91	3	10	57	70	5	15	3	23	244
16:15	2	53	3	58	40	52	3	95	7	2	36	45	3	6	3	12	210
16:30	2	55	1	58	30	49	5	84	3	4	44	51	3	14	2	19	212
16:45	1	60	3	64	33	66	2	101	4	6	25	35	4	13	1	18	218
17:00	1	36	3	40	20	67	5	92	2	10	46	58	4	6	1	11	201
17:15	3	57	3	63	33	48	7	88	1	1	31	33	4	2	7	13	197
17:30	1	39	3	43	14	74	3	91	2	4	28	34	3	1	4	8	176
17:45	1	41	2	44	24	88	5	117	0	2	10	12	3	4	5	12	185
Total	13	398	19	430	225	497	37	759	22	39	277	338	29	61	26	116	1643

PHF																					Int. Total
Time	EB Left	EB Thru	EB Right	EB Total	PHF	WB Left	WB Thru	WB Right	WB Total	PHF	NB Left	NB Thru	NB Right	NB Total	PHF	SB Left	SB Thru	SB Right	SB Total	PHF	
4:00	2	57	1	60	0.94	31	53	7	91	0.92	3	10	57	70	0.72	5	15	3	23	0.78	244
4:15	2	53	3	58		40	52	3	95		7	2	36	45		3	6	3	12		210
4:30	2	55	1	58		30	49	5	84		3	4	44	51		3	14	2	19		212
4:45	1	60	3	64		33	66	2	101		4	6	25	35		4	13	1	18		218
Total	7	225	8	240		134	220	17	371		17	22	162	201		15	48	9	72		884

Persels & Market
PM

Time	Eastbound				Westbound				Northbound				Southbound				Int. Total
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	
16:00	2	100	8	110	27	76	1	104	17	2	39	58	6	1	1	8	280
16:15	0	87	11	98	34	85	4	123	7	3	39	49	3	3	6	12	282
16:30	0	92	17	109	35	60	2	97	8	1	41	50	2	1	4	7	263
16:45	1	70	15	86	32	102	2	136	6	1	37	44	3	0	2	5	271
17:00	0	79	9	88	24	78	1	103	11	0	30	41	1	0	0	1	233
17:15	1	78	12	91	21	82	4	107	9	0	21	30	2	1	1	4	232
17:30	0	70	8	78	17	79	0	96	9	0	19	28	2	0	1	3	205
17:45	0	40	6	46	18	108	1	127	8	0	16	24	2	0	2	4	201
Total	4	616	86	706	208	670	15	893	75	7	242	324	21	6	17	44	1967

PHF																					Int. Total
Time	EB Left	EB Thru	EB Right	EB Total	PHF	WB Left	WB Thru	WB Right	WB Total	PHF	NB Left	NB Thru	NB Right	NB Total	PHF	SB Left	SB Thru	SB Right	SB Total	PHF	
4:00	2	100	8	110	0.92	27	76	1	104	0.85	17	2	39	58	0.87	6	1	1	8	0.67	280
4:15	0	87	11	98		34	85	4	123		7	3	39	49		3	3	6	12		282
4:30	0	92	17	109		35	60	2	97		8	1	41	50		2	1	4	7		263
4:45	1	70	15	86		32	102	2	136		6	1	37	44		3	0	2	5		271
Total	3	349	51	403		128	323	9	460		38	7	156	201		14	5	13	32		1096

9/21/2022
Pensels & Jefferson
AM

Time	Eastbound				Westbound				Northbound				Southbound				Int. Total
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	
7:00	0	46	6	52	26	31	2	59	31	26	1	58	1	50	6	57	168
7:15	0	46	6	52	74	31	2	107	5	14	48	67	1	50	6	57	283
7:30	0	26	8	34	66	24	5	95	12	22	81	115	2	41	3	47	207
7:45	0	41	6	47	55	35	5	115	4	8	44	55	5	31	5	41	230
8:00	1	60	5	67	56	39	6	111	6	15	37	58	2	17	6	25	301
8:15	4	46	0	50	24	22	7	53	7	13	37	57	4	1	4	15	178
8:30	0	10	0	10	20	28	1	54	3	3	10	16	2	1	4	7	107
8:45	0	2	0	2	4	4	0	8	0	0	0	0	0	0	0	0	12
Total	12	346	40	398	360	281	33	674	34	81	259	374	17	209	33	259	1202

PHF																				Int. Total	
Time	EB Left	EB Thru	EB Right	EB Total	PHF	WB Left	WB Thru	WB Right	WB Total	PHF	NB Left	NB Thru	NB Right	NB Total	PHF	SB Left	SB Thru	SB Right	SB Total		PHF
7:15	0	46	6	52	0.91	74	31	2	107	0.93	5	14	48	67	0.97	1	50	6	57	0.92	283
7:30	3	38	8	49		66	24	5	95		12	22	81	115		3	41	3	47		307
7:45	0	41	6	47		55	35	5	115		4	8	44	55		5	31	5	41		230
8:00	1	60	5	67		56	39	6	111		6	15	37	58		2	17	6	25		305
Total	4	188	25	218		262	140	18	420		23	59	180	262		10	182	20	212		1221

2/8/2022
Pensels & Jefferson
AM

Time	Eastbound				Westbound				Northbound				Southbound				Int. Total
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	
7:00	2	52	9	63	37	42	7	86	7	5	19	21	0	0	0	19	161
7:15	2	39	0	39	64	36	2	102	2	5	27	34	3	25	5	33	217
7:30	4	27	10	41	86	34	2	120	6	21	78	105	2	67	4	73	199
7:45	0	44	7	51	53	49	4	104	3	2	24	29	1	30	2	33	217
8:00	5	38	15	58	54	44	5	103	6	14	69	89	0	0	0	89	240
8:15	1	63	3	67	32	41	3	76	5	22	45	72	4	8	6	18	233
8:30	1	27	0	28	23	27	1	51	0	1	15	16	1	2	4	6	103
8:45	1	19	4	24	4	28	0	32	2	3	16	21	0	4	0	10	129
Total	16	349	50	415	373	312	23	708	36	112	293	440	14	106	32	242	1806

PHF																				Int. Total	
Time	EB Left	EB Thru	EB Right	EB Total	PHF	WB Left	WB Thru	WB Right	WB Total	PHF	NB Left	NB Thru	NB Right	NB Total	PHF	SB Left	SB Thru	SB Right	SB Total	PHF	
7:15	2	39	9	50	0.71	64	36	2	102	0.89	2	5	27	34	0.55	3	25	5	33	0.68	217
7:30	4	27	10	41		84	34	6	121		6	21	78	105		2	67	4	73		199
7:45	0	44	7	51		51	49	4	104		3	2	24	29		1	30	2	33		217
8:00	5	38	15	58		54	44	5	103		6	14	69	89		0	0	0	0		240
Total	11	168	41	220		268	175	13	454		27	42	208	307		7	177	20	199		1380

9/21/2022
Pensels & Market
AM

Time	Eastbound				Westbound				Northbound				Southbound				Int. Total
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	
7:00	0	64	4	68	37	74	0	96	7	0	10	17	1	0	0	1	178
7:15	0	90	4	94	16	112	0	128	3	0	5	8	0	0	0	0	230
7:30	0	96	10	108	25	86	0	110	4	0	10	14	1	0	1	1	234
7:45	0	38	9	47	28	87	0	115	19	1	11	31	0	0	0	0	193
8:00	0	83	11	94	27	84	0	111	11	0	18	29	0	0	0	0	234
8:15	0	67	16	83	21	42	0	63	9	0	28	37	1	0	0	1	184
8:30	0	2	0	2	4	4	0	8	0	0	0	0	0	0	0	0	14
8:45	0	27	4	31	25	52	1	88	4	0	21	26	0	0	1	1	105
Total	0	529	64	593	180	594	2	776	60	1	119	180	3	1	3	7	1556

PHF																				Int. Total	
Time	EB Left	EB Thru	EB Right	EB Total	PHF	WB Left	WB Thru	WB Right	WB Total	PHF	NB Left	NB Thru	NB Right	NB Total	PHF	SB Left	SB Thru	SB Right	SB Total		PHF
7:15	0	90	0	90	0.79	16	112	0	128	0.93	3	0	5	8	0.46	0	0	0	0	0.26	230
7:30	0	86	0	86		24	86	0	110		4	0	10	14		1	0	1	2		234
7:45	0	38	9	47		28	87	0	115		19	1	11	31		0	0	0	0		193
8:00	0	83	11	94		27	84	0	111		11	0	18	29		0	0	0	0		234
Total	0	309	34	343		95	369	0	464		37	1	44	82		1	0	1	2		467

2/8/2022
Pensels & Market
AM

Time	Eastbound				Westbound				Northbound				Southbound				Int. Total
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	
7:00	0	62	9	71	14	67	1	82	4	0	6	10	0	0	0	0	163
7:15	0	67	6	79	19	101	0	120	2	0	12	14	0	0	0	0	207
7:30	1	101	6	108	24	123	0	147	1	0	13	14	0	0	1	1	270
7:45	0	60	6	66	36	93	1	129	5	0	16	21	0	0	1	1	218
8:00	0	113	18	131	23	129	1	153	6	0	41	48	0	0	0	0	308
8:15	0	39	16	55	15	70	1	86	5	0	10	15	0	0	0	0	125
8:30	0	12	9	21	1	50	1	52	0	0	23	23	1	0	1	1	163
8:45	0	51	8	59	28	50	1	79	5	2	19	26	3	1	1	5	189
Total	1	555	78	632	176	683	7	865	32	2	118	152	5	2	3	10	1699

PHF																				Int. Total	
Time	EB Left	EB Thru	EB Right	EB Total	PHF	WB Left	WB Thru	WB Right	WB Total	PHF	NB Left	NB Thru	NB Right	NB Total	PHF	SB Left	SB Thru	SB Right	SB Total	PHF	
7:15	0	67	6	79	0.72	19	101	0	120	0.9	3	0	12	15	0.76	0	0	0	0	0.38	207
7:30	1	101	6	108		24	123	0	147		1	0	13	14		0	0	1	1		270
7:45	0	60	6	66		36	92	1	129		6	0	16	22		0	1	0	2		219
8:00	0	113	18	131		23	129	1	153		6	0	41	48		0	0	0	0		303
8:15	0	94	11	105		10	102	0	112		0	0	14	14		0	0	0	0		219
Total	1	341	36	378		102	445	2	549		15	0	34	60		1	1	1	3		990

9/21/2022
Pereels & Jefferson
PM

Time	Eastbound				Westbound				Northbound				Southbound				Int. Total
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	
19:00	2	26	6	34	32	68	5	105	5	39	21	65	5	0	3	38	244
19:15	2	61	6	69	32	68	6	106	6	6	36	48	2	20	12	34	257
19:30	4	65	5	74	29	65	1	95	3	13	67	83	4	16	8	28	280
19:45	4	71	3	78	35	71	5	111	1	8	51	60	5	9	31	45	280
20:00	3	54	1	58	32	82	8	122	9	18	51	78	9	17	8	34	292
20:15	2	69	4	74	32	77	10	119	3	8	36	47	8	5	5	18	298
20:30	1	64	3	68	19	55	8	82	2	7	41	50	6	9	9	24	224
20:45	2	64	1	67	15	61	6	82	2	10	39	51	6	9	9	24	224
Total	19	465	32	516	217	543	57	617	28	73	377	428	52	69	48	214	1375

PHP																		Int. Total			
Time	EB Left	EB Thru	EB Right	EB Total	PHP	WB Left	WB Thru	WB Right	WB Total	PHP	NB Left	NB Thru	NB Right	NB Total	PHP	SB Left	SB Thru	SB Right	SB Total	PHP	
19:15	2	61	6	69	0.89	32	68	6	106	0.8	6	6	36	48	0.74	4	16	8	28	0.96	257
19:30	4	71	5	80		25	65	1	91		3	13	67	81		4	16	8	28		280
19:45	4	71	3	78		35	71	5	111		1	8	42	51		5	9	31	40		280
20:00	3	54	1	58		32	82	8	122		9	18	51	78		9	17	8	34		292
Total	13	251	15	279		132	286	23	441		19	45	196	260		24	68	37	129		1380

2/8/2022
Pereels & Jefferson
PM

Time	Eastbound				Westbound				Northbound				Southbound				Int. Total
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	
19:00	2	26	6	34	32	68	5	105	5	39	21	65	5	0	3	38	244
19:15	2	53	3	58	40	52	3	95	7	2	36	45	3	6	3	12	230
19:30	2	55	1	58	35	49	5	89	2	4	55	61	4	14	2	19	212
19:45	1	60	3	64	35	66	6	101	1	6	4	11	1	13	1	15	208
20:00	1	36	3	40	20	67	5	92	2	10	46	58	4	6	1	11	205
20:15	1	37	3	40	13	48	8	69	31	33	4	7	7	13	7	33	197
20:30	1	39	3	43	14	74	3	91	2	4	28	34	3	1	4	8	176
20:45	1	41	2	44	24	86	9	117	9	7	36	52	5	10	12	27	192
Total	13	358	19	430	225	497	37	759	52	39	277	338	28	61	26	115	1643

PHP																				
Time	EB Left	EB Thru	EB Right	EB Total	PHP	WB Left	WB Thru	WB Right	WB Total	PHP	NB Left	NB Thru	NB Right	NB Total	PHP	SB Left	SB Thru	SB Right	SB Total	PHP
19:15	2	51	3	56	0.86	40	57	3	95	0.82	7	7	36	45	0.61	3	6	3	12	0.75
19:30	2	55	1	58		32	48	5	85		2	2	32	36		3	6	2	11	
19:45	1	60	2	63		33	66	2	101		4	6	25	35		5	13	1	19	
20:00	1	36	3	40		20	67	5	92		2	10	46	58		4	6	1	11	
Total	6	204	10	220		123	234	15	372		16	22	151	189		14	39	7	60	

9/21/2022
Pereels & Market
PM

Time	Eastbound				Westbound				Northbound				Southbound				Int. Total
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	
19:00	0	75	33	108	33	78	0	111	11	0	30	31	0	0	0	1	231
19:15	0	94	16	110	34	102	0	136	17	0	30	47	1	1	0	2	295
19:30	0	121	22	143	35	89	0	123	8	0	38	46	1	0	0	1	313
19:45	1	113	16	130	33	96	1	130	16	1	31	48	1	1	2	4	312
20:00	1	110	13	123	26	127	1	156	14	0	37	51	1	0	3	4	333
20:15	4	112	8	124	27	105	0	132	11	0	26	37	0	0	1	1	294
20:30	1	95	7	103	25	96	2	123	12	0	36	48	0	0	1	1	284
20:45	1	87	7	95	15	91	1	107	6	0	17	23	4	0	1	5	235
Total	8	823	105	936	227	766	8	1001	95	1	217	313	9	3	8	20	2270

PHP																				Int. Total	
Time	EB Left	EB Thru	EB Right	EB Total	PHP	WB Left	WB Thru	WB Right	WB Total	PHP	NB Left	NB Thru	NB Right	NB Total	PHP	SB Left	SB Thru	SB Right	SB Total	PHP	Int. Total
19:15	0	94	16	110	0.89	34	102	0	136	0.87	17	0	30	47	0.64	1	1	0	2	0.88	295
19:30	0	121	22	143		34	89	0	123		8	0	38	46		1	0	0	1		313
19:45	1	113	16	130		33	96	1	130		16	1	31	48		1	1	2	4		312
20:00	1	110	13	123		26	127	1	156		14	0	37	51		1	0	3	4		333
20:15	4	112	8	124		27	105	0	132		11	0	26	37		0	0	1	1		294
20:30	1	95	7	103		25	96	2	123		12	0	36	48		0	0	1	1		284
20:45	1	87	7	95		15	91	1	107		6	0	17	23		4	0	1	5		235
Total	8	823	105	936		227	766	8	1001		95	1	217	313		9	3	8	20		2270

2/8/2022
Pereels & Market
PM

Time	Eastbound				Westbound				Northbound				Southbound				Int. Total
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	
19:00	2	100	8	110	27	76	4	104	27	2	39	58	6	1	1	8	280
19:15	0	87	11	98	34	85	4	123	7	3	39	49	3	3	6	12	282
19:30	0	92	17	109	30	60	2	92	8	1	41	50	2	1	4	7	263
19:45	1	70	15	86	32	103	1	136	5	1	27	44	3	0	3	6	271
20:00	0	79	9	88	24	78	1	103	11	0	30	41	1	0	0	1	233
20:15	1	76	14	91	21	82	4	107	9	0	21	30	2	0	1	4	232
20:30	0	75	8	83	15	78	3	96	8	0	16	26	1	1	1	3	205
20:45	0	40	6	46	18	108	1	127	8	0	16	24	2	0	2	4	201
Total	4	616	86	706	208	678	15	893	75	7	242	324	21	6	17	44	1863

PHP																				Int. Total
Time	EB Left	EB Thru	EB Right	EB Total	PHP	WB Left	WB Thru	WB Right	WB Total	PHP	NB Left	NB Thru	NB Right	NB Total	PHP	SB Left	SB Thru	SB Right	SB Total	PHP
19:15	0	87	11	98	0.87	34	85	4	123	0.84	8	3	39	49	0.92	3	3	6	12	0.92
19:30	0	92	17	109		35	60	2	97		8	1	41	50		2	1	4	7	
19:45	1	70	15	86		32	102	2	136		5	1	27	44		3	0	2	5	
20:00	0	79	9	88		24	78	1	103		11	0	30	41		1	0	3	4	
Total	1	328	52	381		125	325	9	459		32	5	147	184		9	4	12	25	

Ashton Farms Site Trip Generation

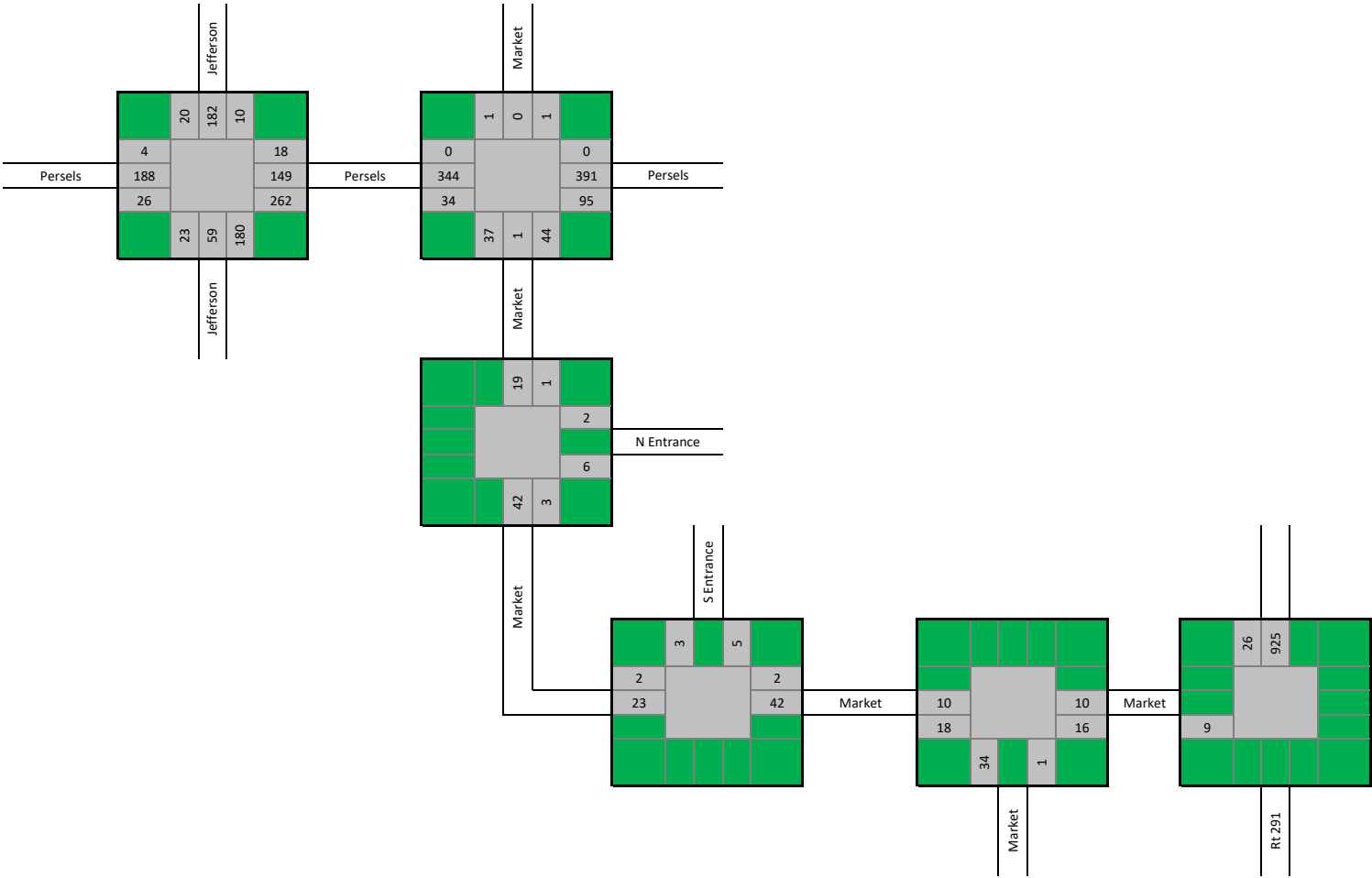
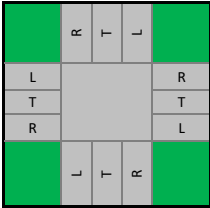
ITE Trip Generation Manual - 11th Edition

Highlighted text indicates trips used in Synchro and Warrant Analysis

Land Use	ITE Code	Size	Units	Equation	Trips (Eq.)	Av. Rate	Trips (Av. Rate)	In%	Out%	Trips In	Trips Out
Liquor Store (Weekday)	899	12	1000 Sq Ft	$\ln(T)=0.52\ln(X)+5.75$	1144	107.21	1287	50%	50%	572	572
Liquor Store (AM Peak Hour of Generator)	899	12	1000 Sq Ft	$\ln(T)=0.82\ln(X)+1.95$	54	5.08	61	51%	49%	28	26
Liquor Store (PM)	899	12	1000 Sq Ft	$\ln(T)=0.47\ln(X)+3.91$	160	16.62	199	50%	50%	80	80

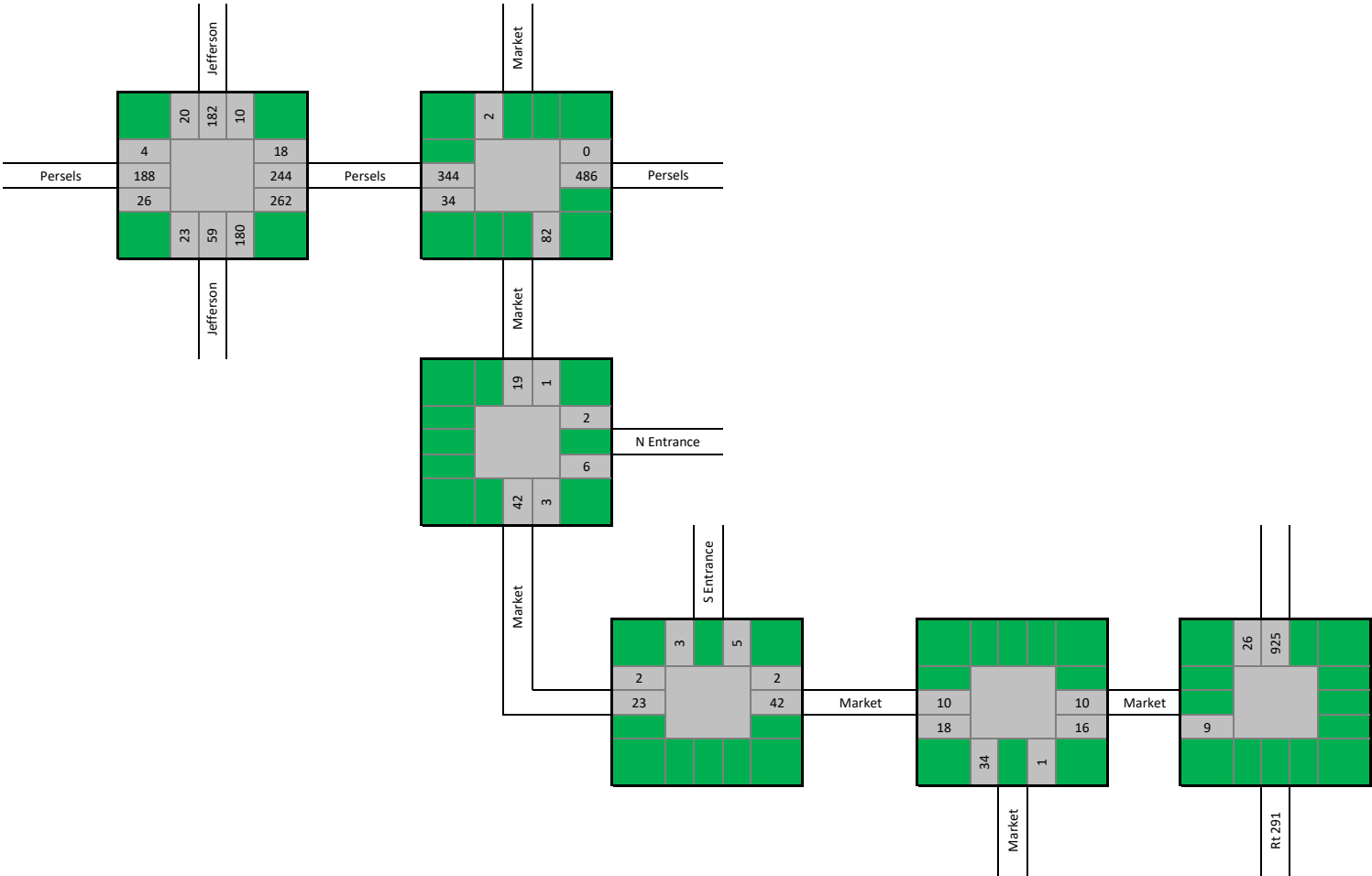
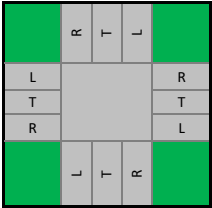
Existing AM Peak Hour Traffic

Legend



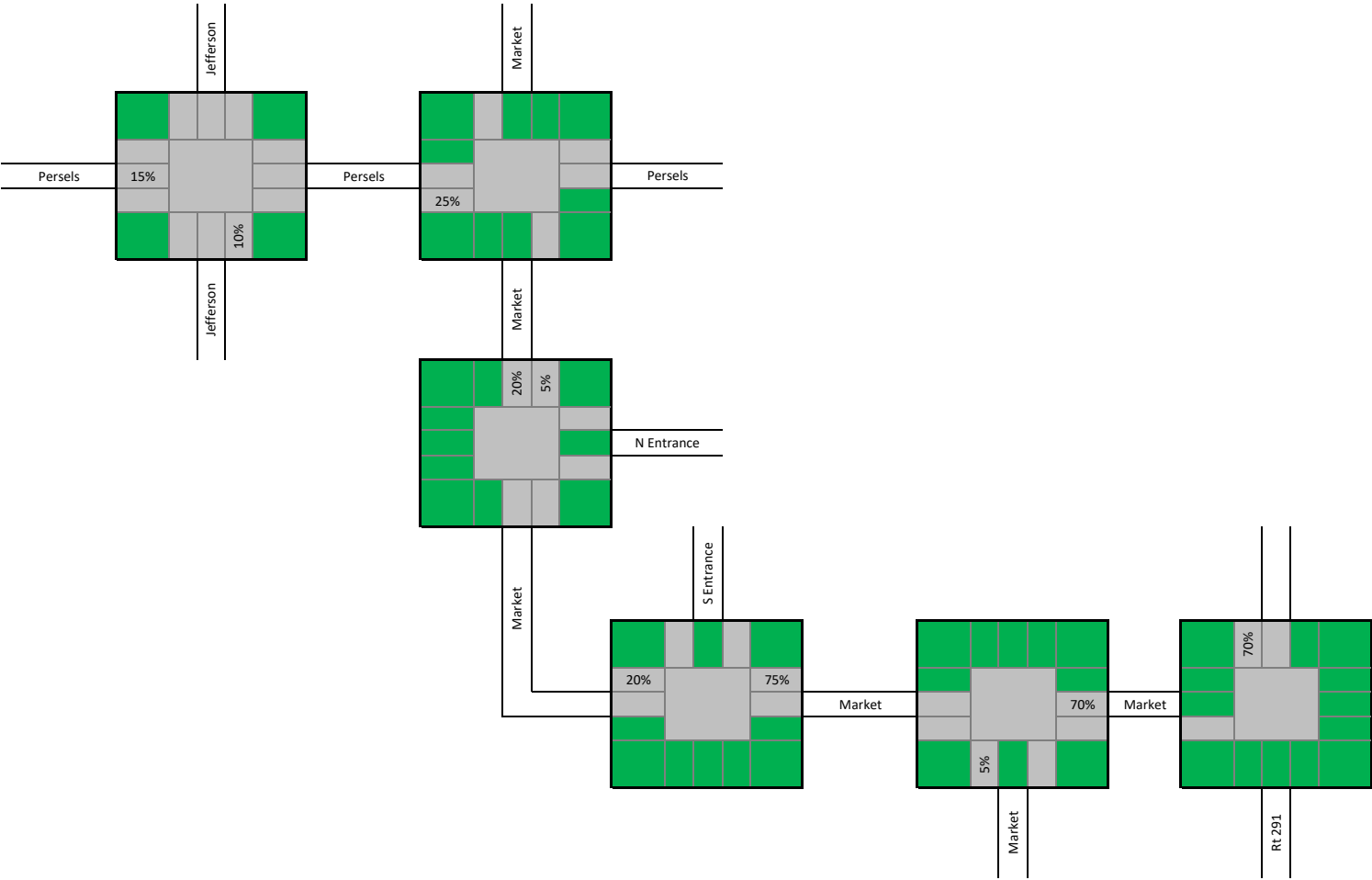
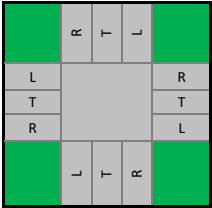
Existing AM Peak Hour Traffic with Median

Legend



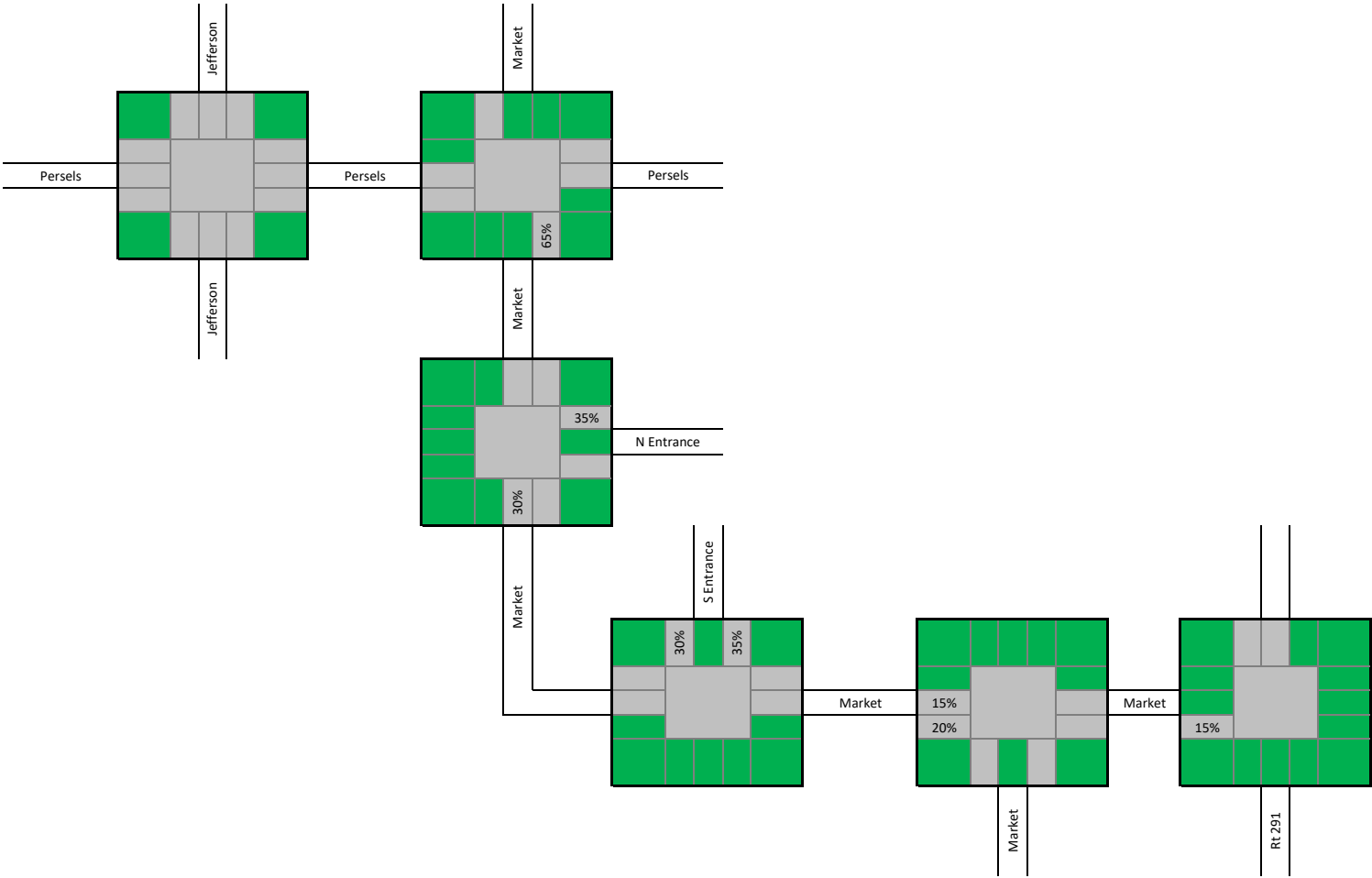
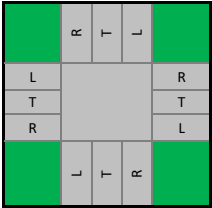
AM Distribution In

Legend



AM Distribution Out

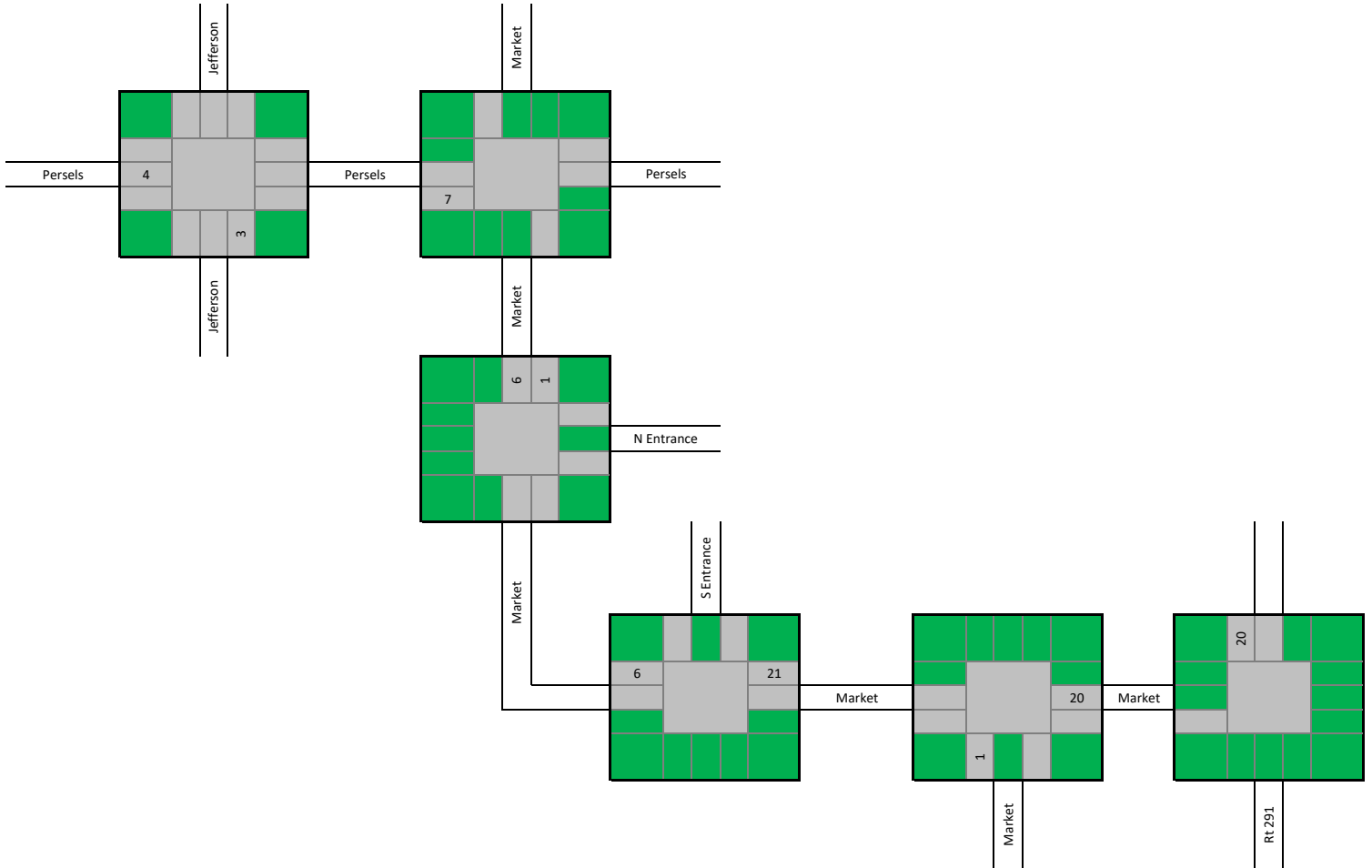
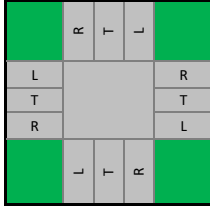
Legend



AM Trips In

Trips
28

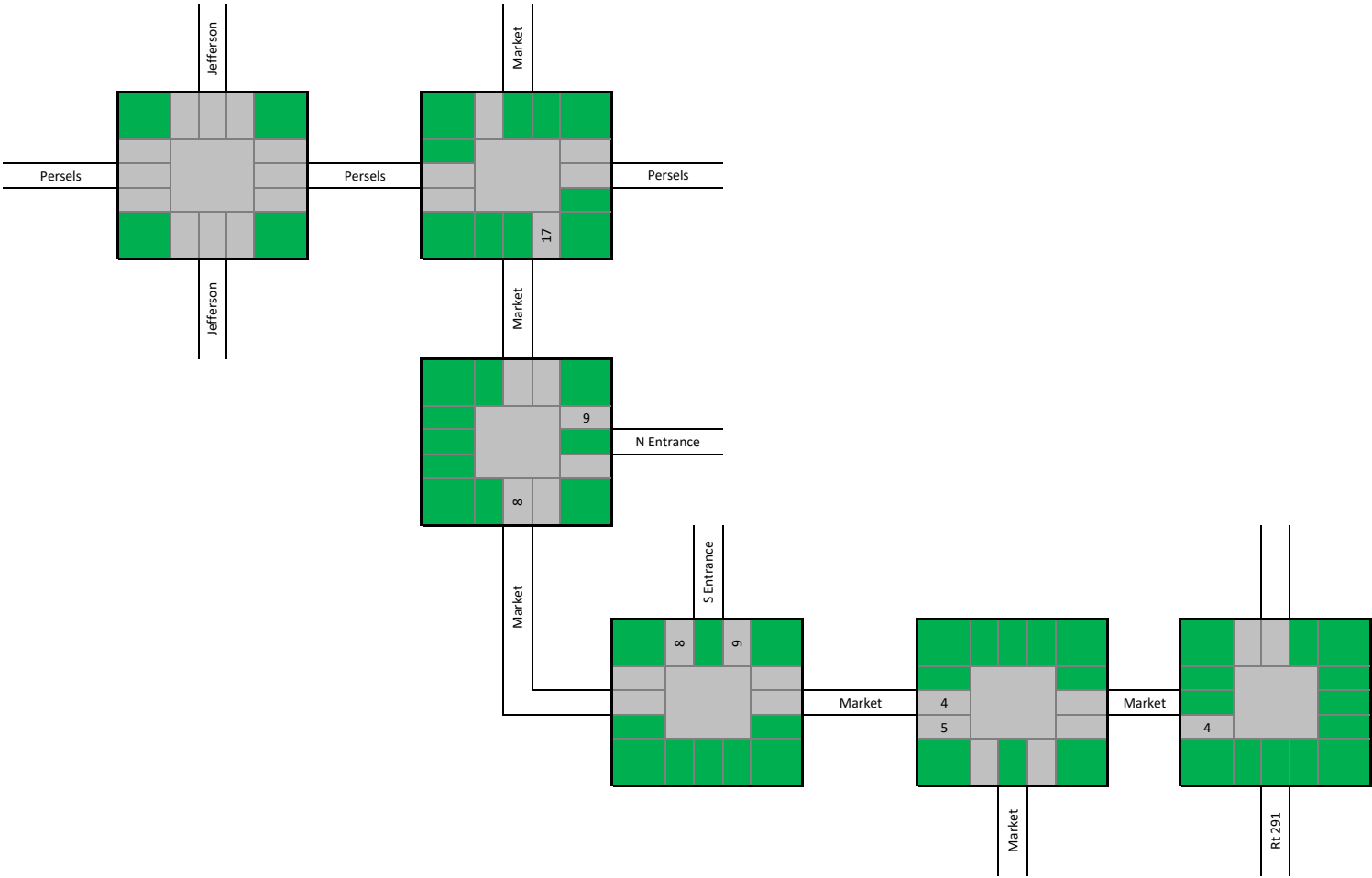
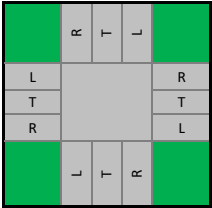
Legend



AM Trips Out

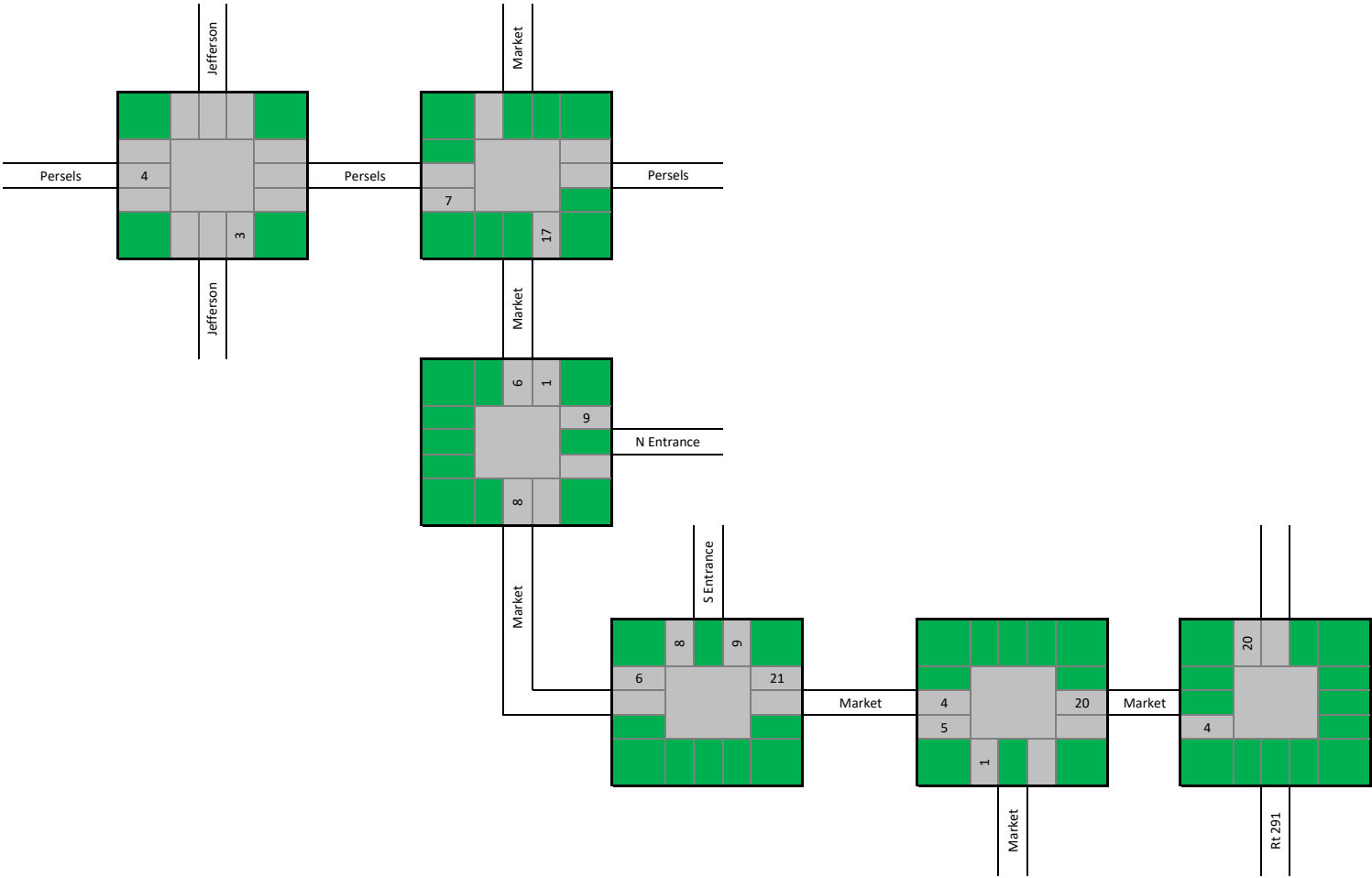
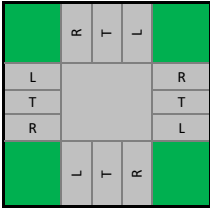
Trips
26

Legend



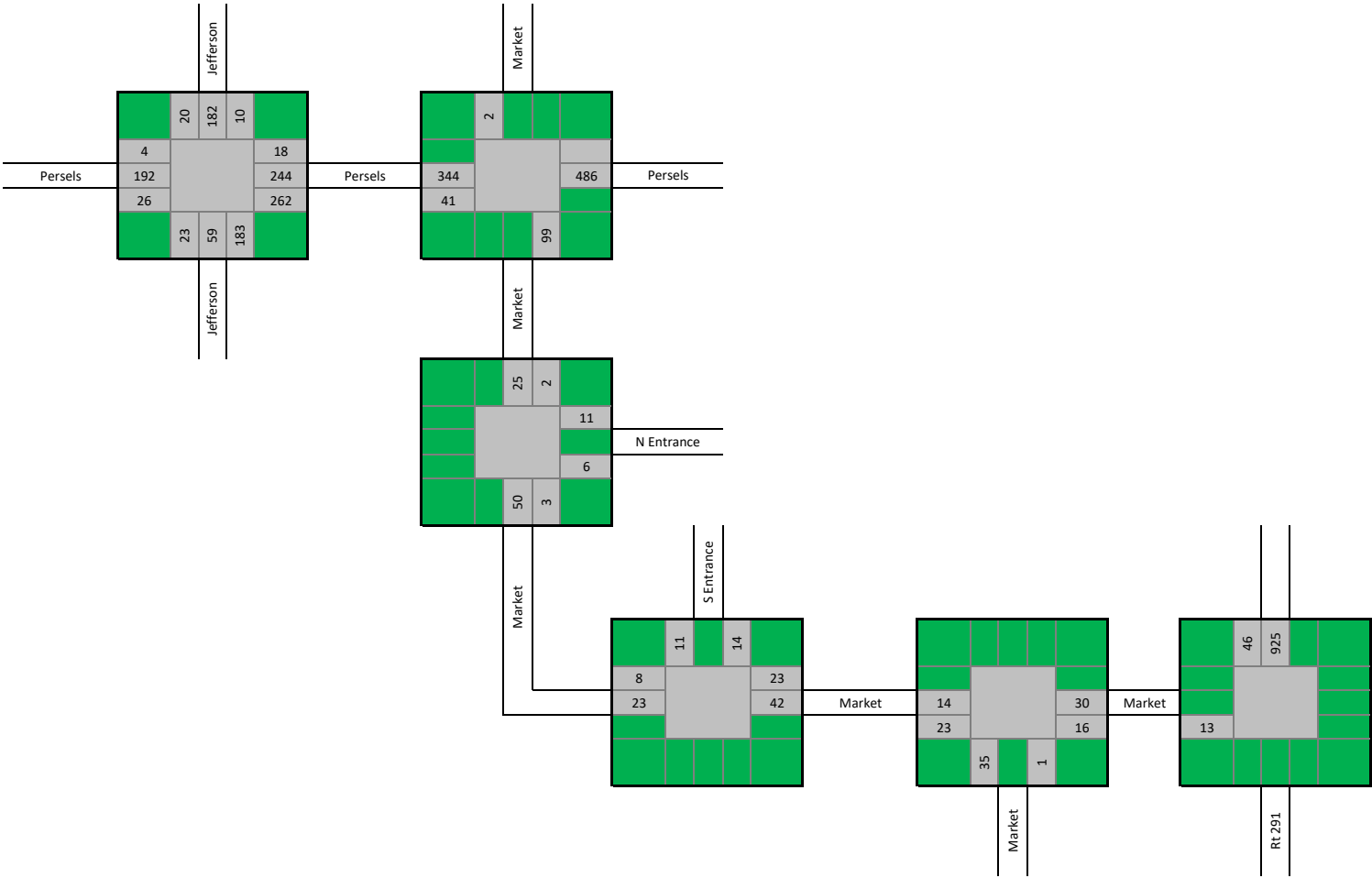
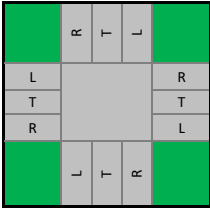
AM Total Trips

Legend



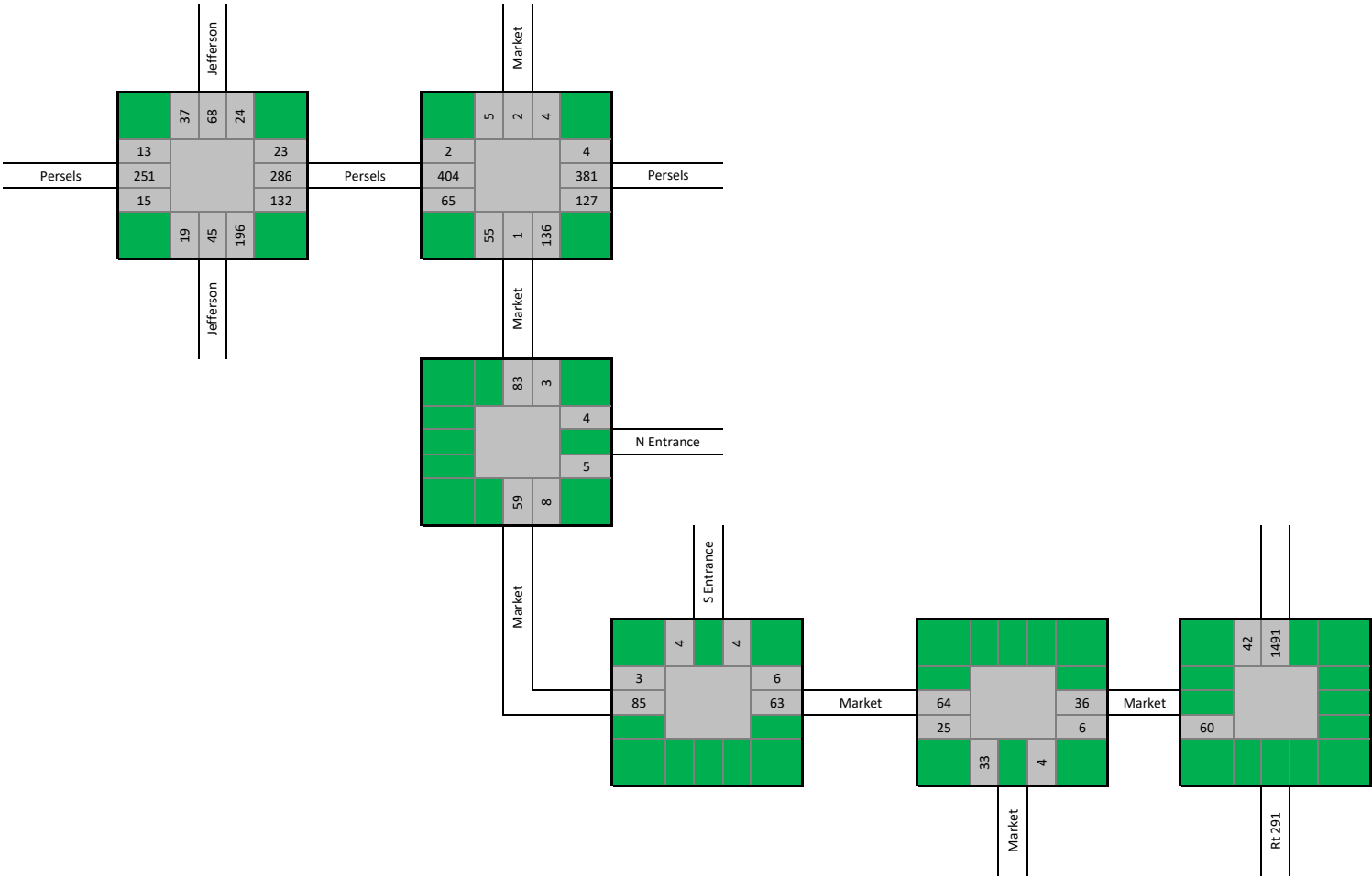
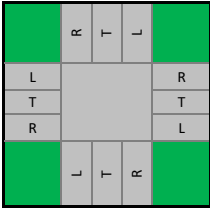
AM Ex Medianisting plus

Legend



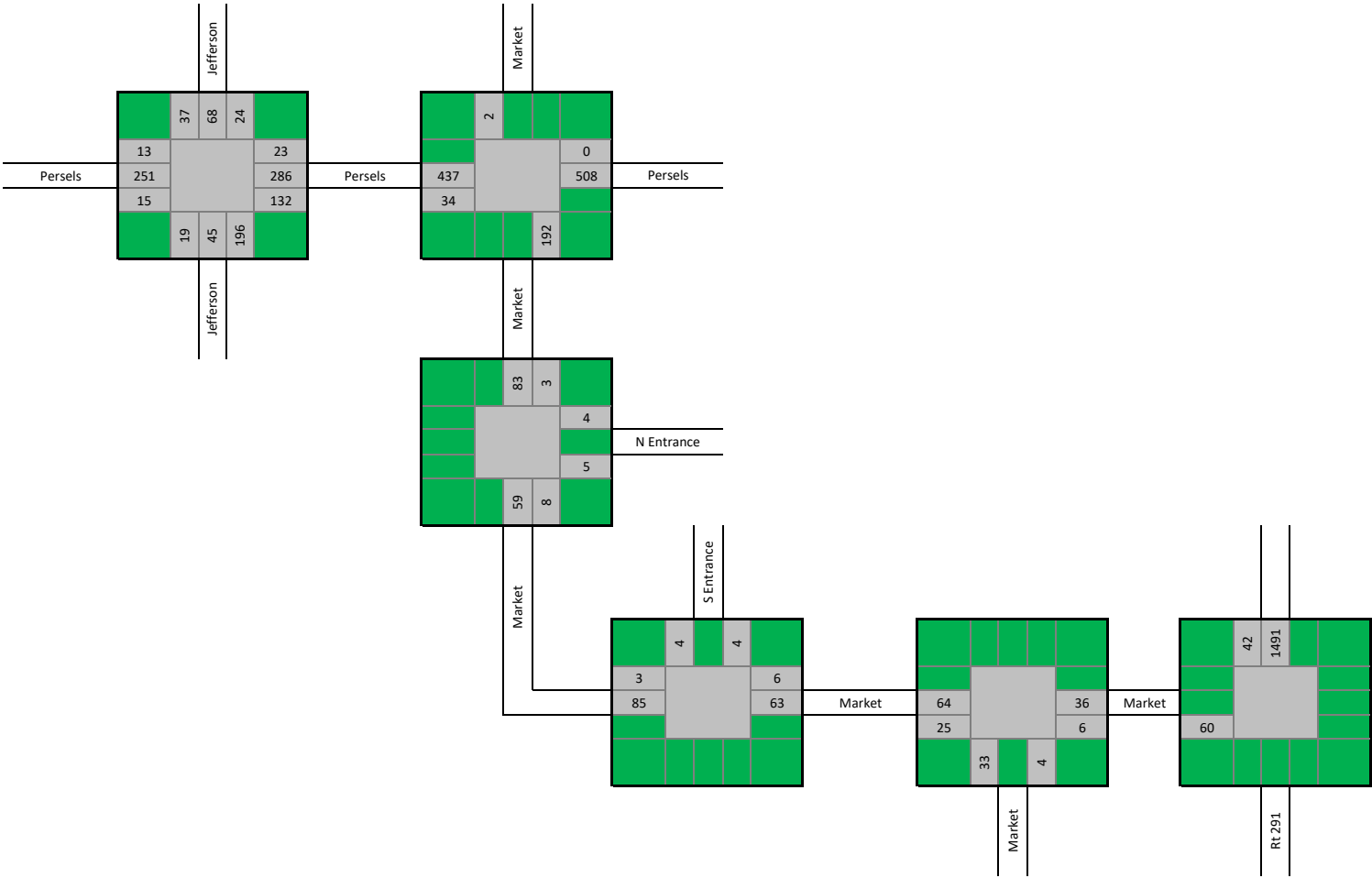
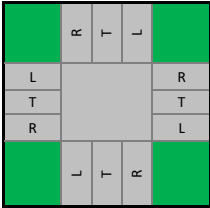
Existing PM Peak Hour Traffic

Legend



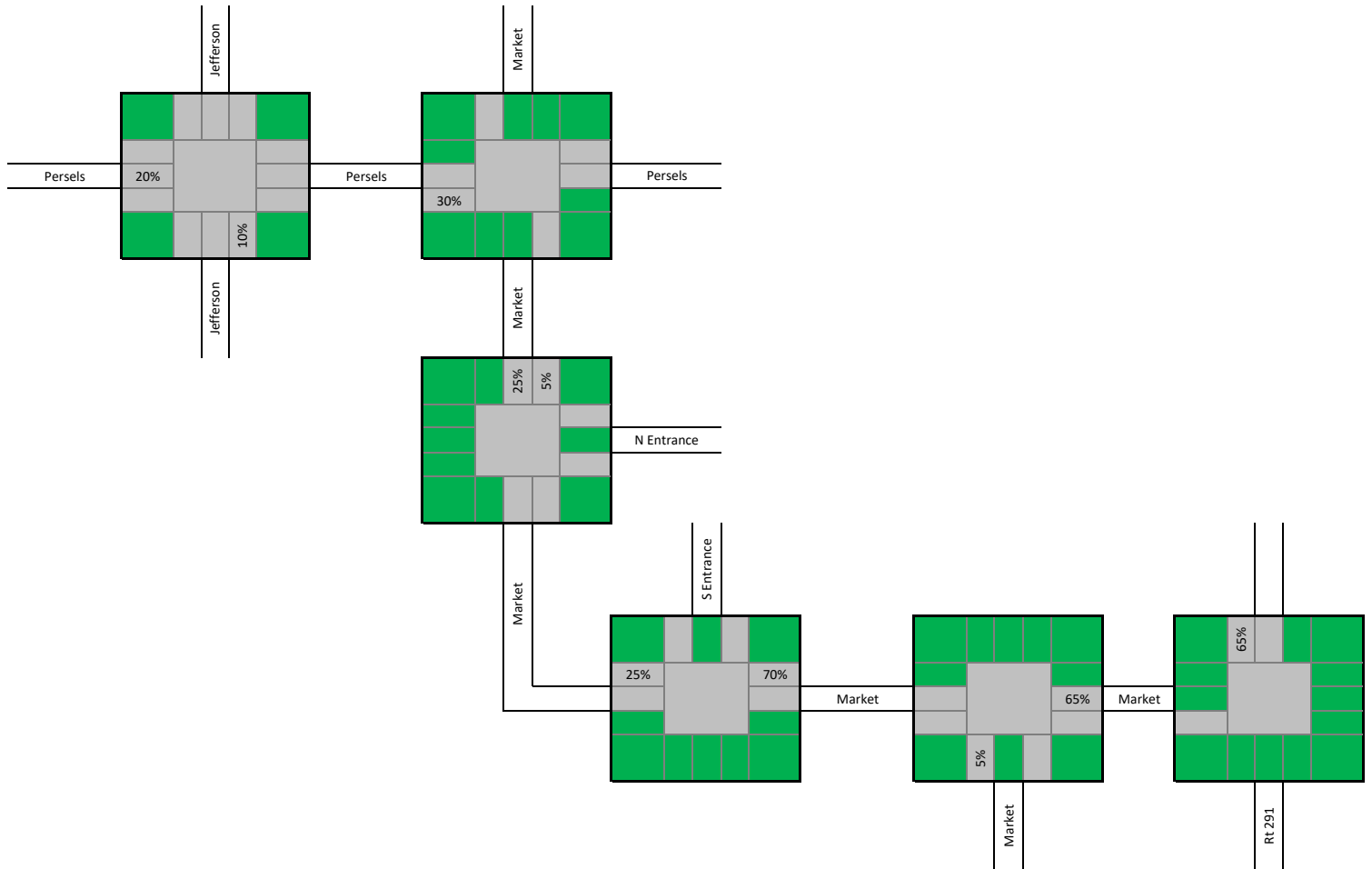
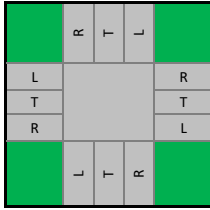
Existing PM Peak Hour Traffic with Median

Legend



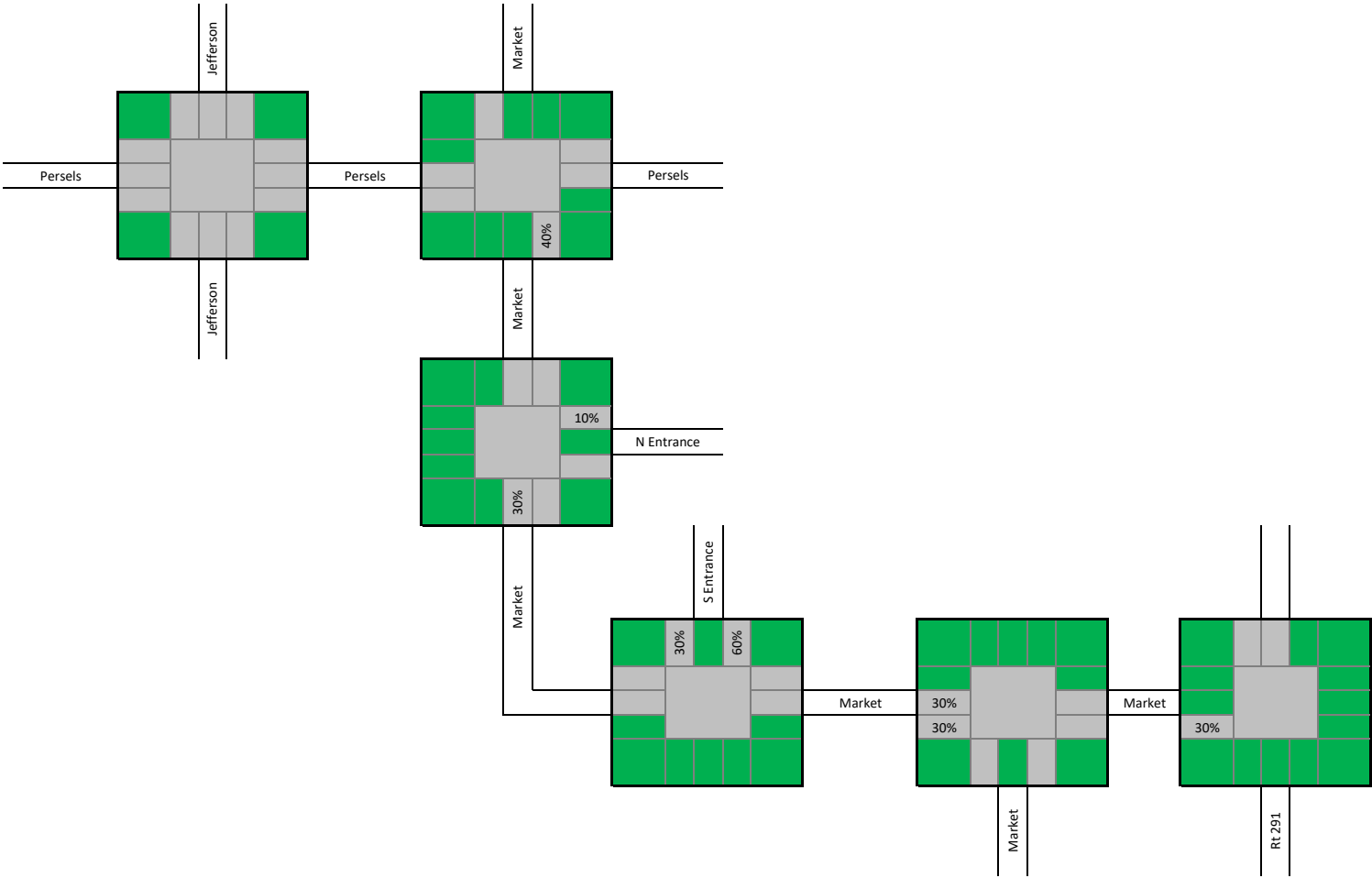
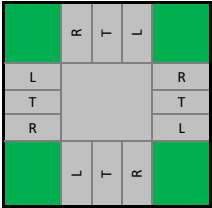
PM Distribution In

Legend



PM Distribution Out

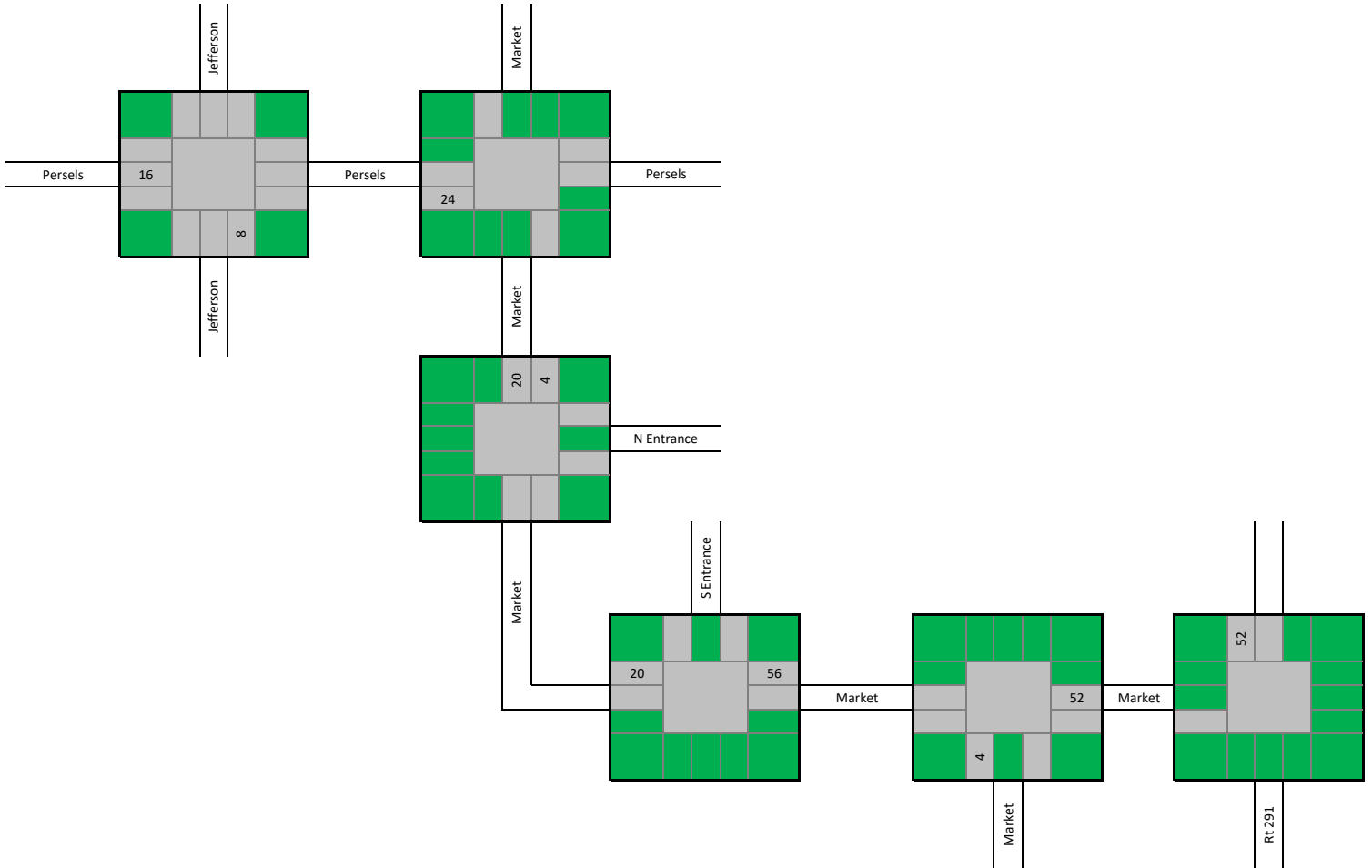
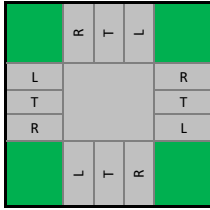
Legend



PM Trips In

Trips
80

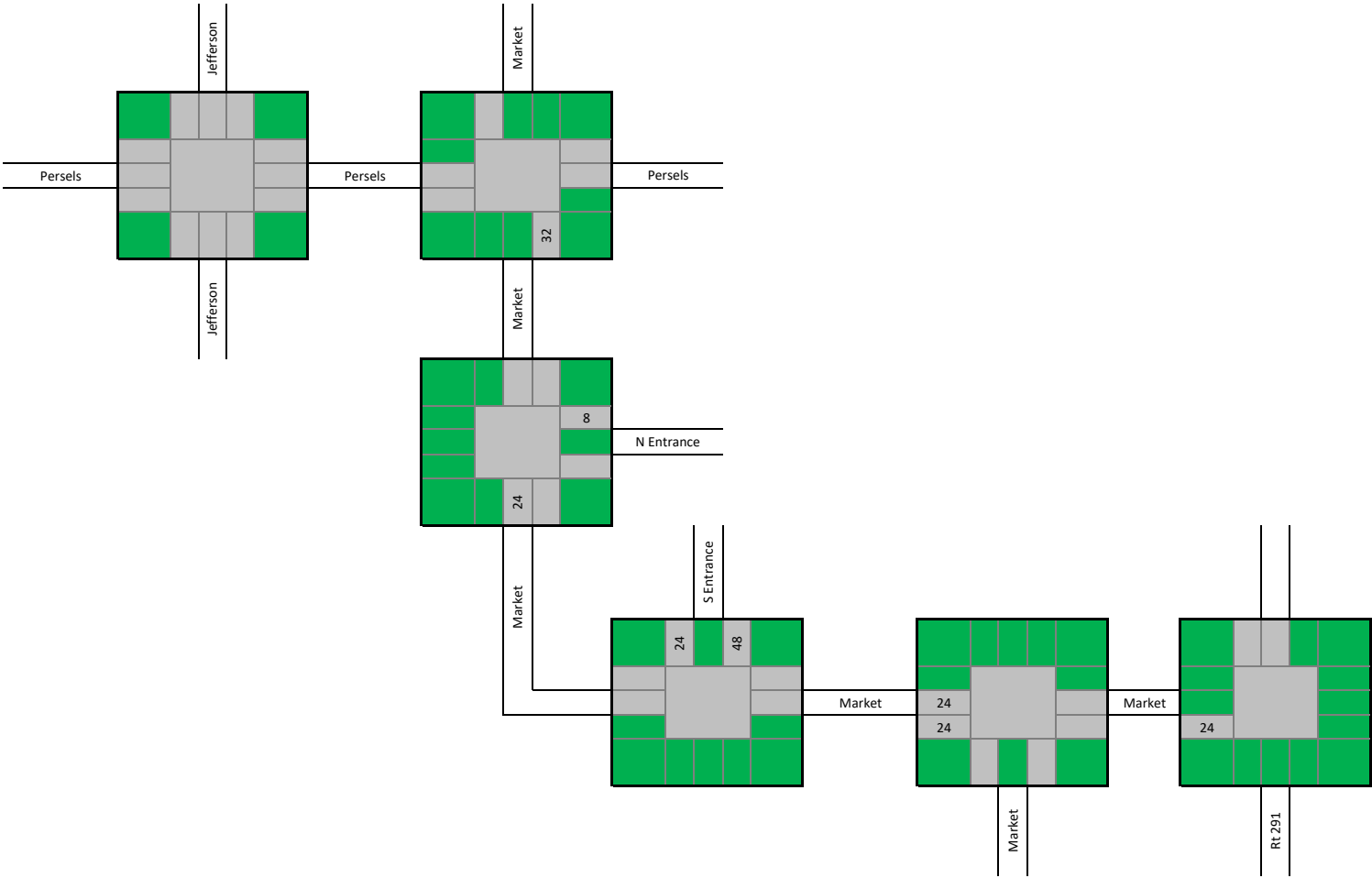
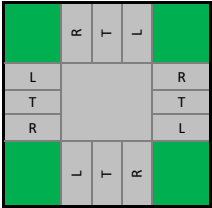
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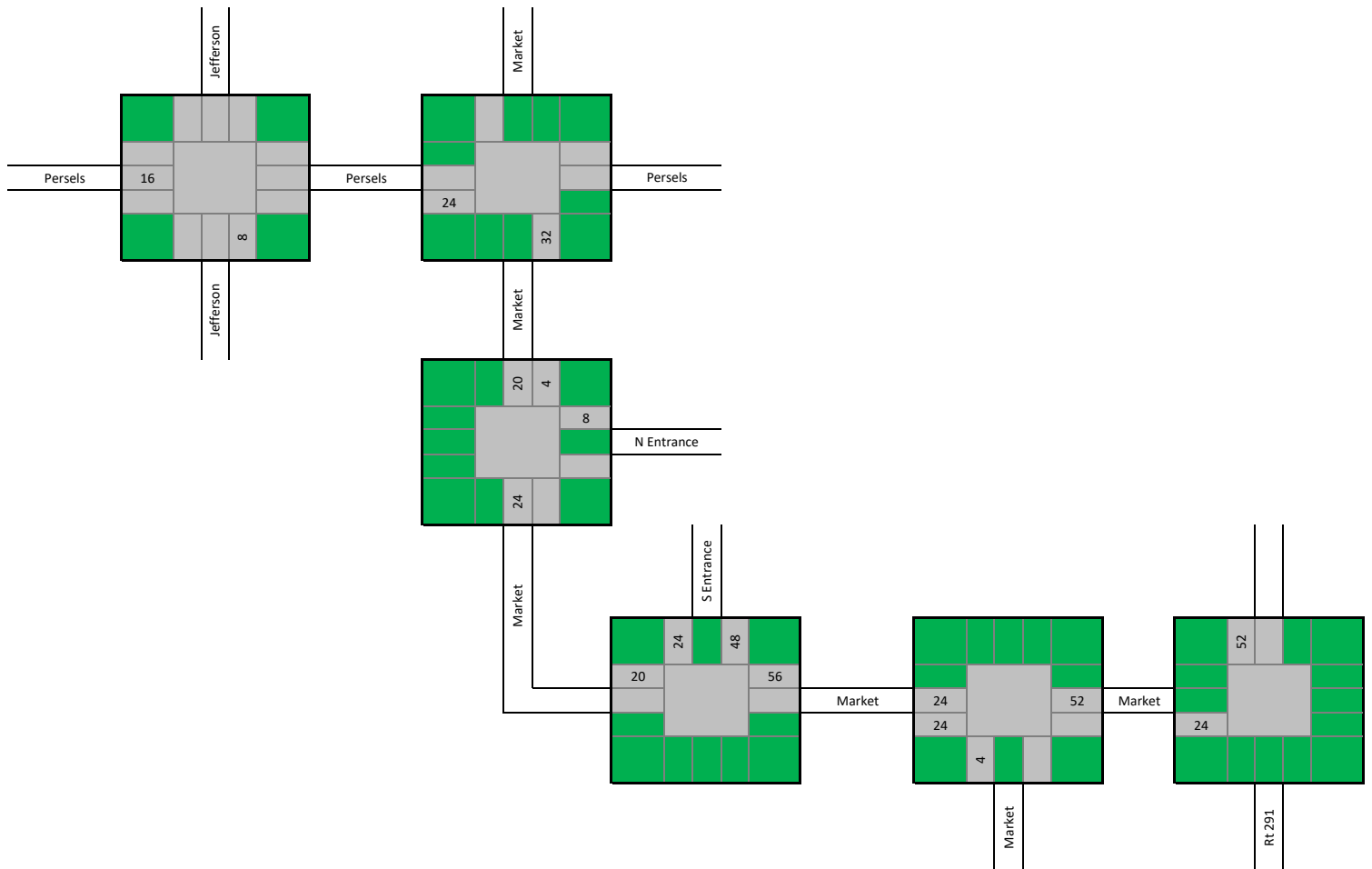
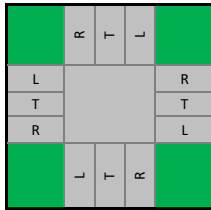
PM Trips Out

Trips
80

Legend

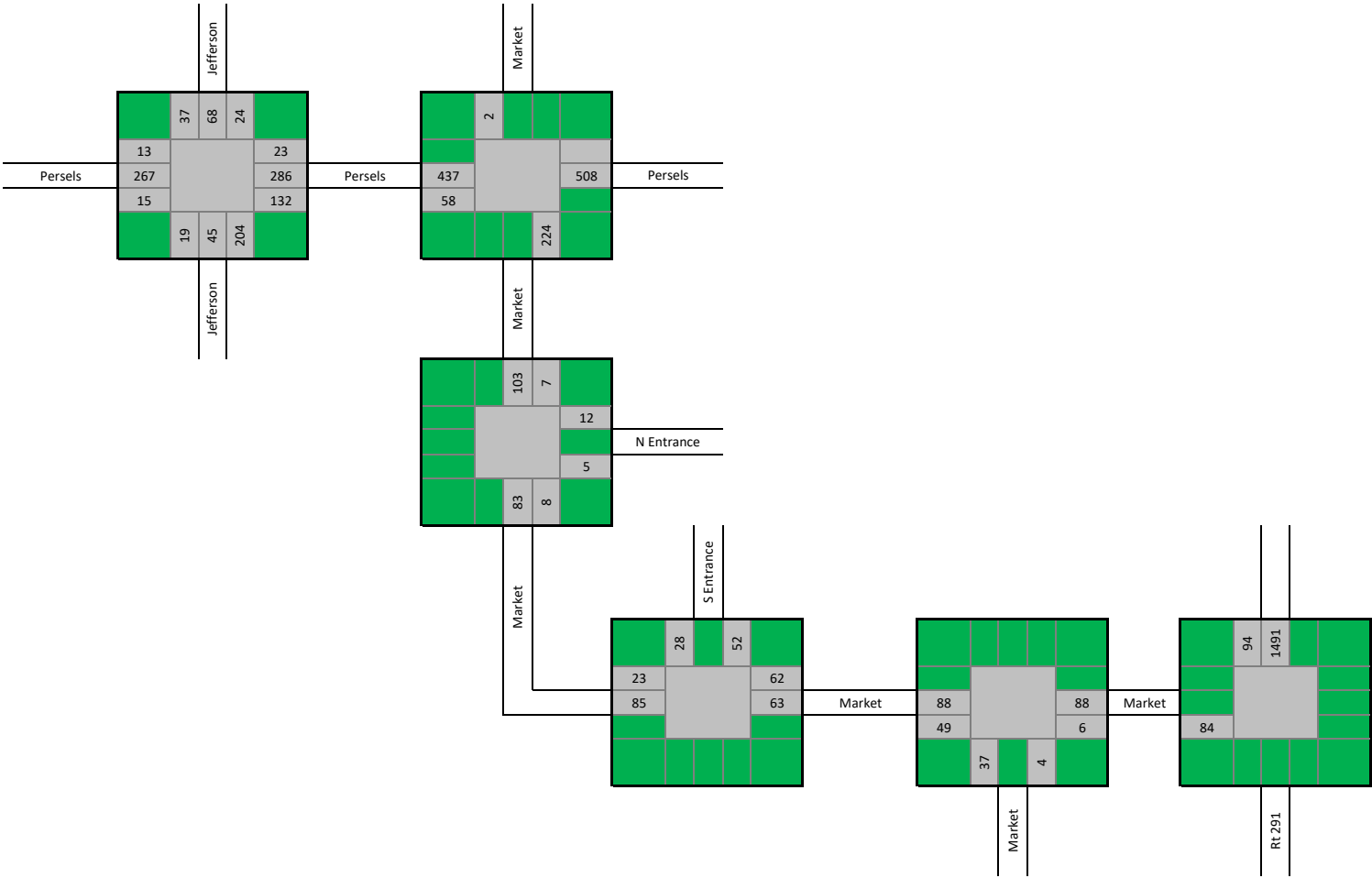
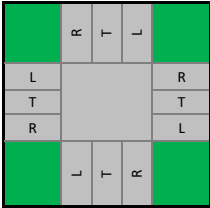


Legend



PM Ex Medianisting plus

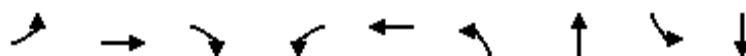
Legend



Queues

5: SW Jefferson St & W Persels Rd

Existing AM



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	6	265	37	294	187	42	434	15	297
v/c Ratio	0.02	0.75	0.08	0.69	0.26	0.09	0.51	0.04	0.39
Control Delay	16.2	46.3	0.3	26.3	18.8	13.3	12.0	13.0	20.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	46.3	0.3	26.3	18.8	13.3	12.0	13.0	20.7
Queue Length 50th (ft)	2	141	0	111	63	12	82	4	121
Queue Length 95th (ft)	7	168	0	174	130	18	65	11	136
Internal Link Dist (ft)		207			246		1925		147
Turn Bay Length (ft)	115		115	175		115		150	
Base Capacity (vph)	339	430	505	463	747	452	855	372	758
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.62	0.07	0.63	0.25	0.09	0.51	0.04	0.39
Intersection Summary									

HCM 6th Signalized Intersection Summary

5: SW Jefferson St & W Persels Rd

Existing AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	188	26	262	149	18	23	59	180	10	182	20
Future Volume (veh/h)	4	188	26	262	149	18	23	59	180	10	182	20
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	6	265	37	294	167	20	42	107	327	15	268	29
Peak Hour Factor	0.71	0.71	0.71	0.89	0.89	0.89	0.55	0.55	0.55	0.68	0.68	0.68
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	308	320	271	405	524	63	478	175	534	338	680	74
Arrive On Green	0.01	0.17	0.17	0.16	0.32	0.32	0.04	0.43	0.43	0.02	0.41	0.41
Sat Flow, veh/h	1781	1870	1585	1781	1639	196	1781	406	1241	1781	1659	179
Grp Volume(v), veh/h	6	265	37	294	0	187	42	0	434	15	0	297
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1835	1781	0	1647	1781	0	1838
Q Serve(g_s), s	0.2	11.0	1.6	10.3	0.0	6.2	1.1	0.0	16.3	0.4	0.0	9.1
Cycle Q Clear(g_c), s	0.2	11.0	1.6	10.3	0.0	6.2	1.1	0.0	16.3	0.4	0.0	9.1
Prop In Lane	1.00		1.00	1.00		0.11	1.00		0.75	1.00		0.10
Lane Grp Cap(c), veh/h	308	320	271	405	0	587	478	0	709	338	0	754
V/C Ratio(X)	0.02	0.83	0.14	0.73	0.00	0.32	0.09	0.00	0.61	0.04	0.00	0.39
Avail Cap(c_a), veh/h	408	431	366	471	0	661	524	0	709	419	0	754
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	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.1	32.1	28.2	21.5	0.0	20.7	13.0	0.0	17.7	14.6	0.0	16.6
Incr Delay (d2), s/veh	0.0	9.5	0.2	4.7	0.0	0.3	0.1	0.0	3.9	0.1	0.0	1.5
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	0.1	5.7	0.6	4.5	0.0	2.6	0.4	0.0	6.4	0.2	0.0	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.1	41.6	28.4	26.2	0.0	21.0	13.1	0.0	21.6	14.7	0.0	18.2
LnGrp LOS	C	D	C	C	A	C	B	A	C	B	A	B
Approach Vol, veh/h	308			481			476			312		
Approach Delay, s/veh	39.7			24.1			20.8			18.0		
Approach LOS	D			C			C			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.9	39.0	17.0	18.2	7.5	37.4	5.1	30.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.1	32.9	15.5	18.5	5.1	32.9	5.1	28.9				
Max Q Clear Time (g_c+I1), s	2.4	18.3	12.3	13.0	3.1	11.1	2.2	8.2				
Green Ext Time (p_c), s	0.0	2.4	0.3	0.8	0.0	1.7	0.0	0.9				
Intersection Summary												
HCM 6th Ctrl Delay	25.0											
HCM 6th LOS	C											

HCM 6th TWSC
8: SW Market St & W Persels Rd

Existing AM

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	344	34	95	391	0	37	1	44	1	0	1
Future Vol, veh/h	0	344	34	95	391	0	37	1	44	1	0	1
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	165	-	-	40	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	90	90	90	78	78	78	38	38	38
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	478	47	106	434	0	47	1	56	3	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	434	0	0	525	0	0	1150	1148	502	1176	1171	434
Stage 1	-	-	-	-	-	-	502	502	-	646	646	-
Stage 2	-	-	-	-	-	-	648	646	-	530	525	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1126	-	-	1042	-	-	175	199	569	168	193	622
Stage 1	-	-	-	-	-	-	552	542	-	460	467	-
Stage 2	-	-	-	-	-	-	459	467	-	533	529	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1126	-	-	1042	-	-	161	179	569	139	173	622
Mov Cap-2 Maneuver	-	-	-	-	-	-	161	179	-	139	173	-
Stage 1	-	-	-	-	-	-	552	542	-	460	419	-
Stage 2	-	-	-	-	-	-	411	419	-	479	529	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.7			27.7			21.2		
HCM LOS							D			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	262	1126	-	-	1042	-	-	227
HCM Lane V/C Ratio	0.401	-	-	-	0.101	-	-	0.023
HCM Control Delay (s)	27.7	0	-	-	8.8	-	-	21.2
HCM Lane LOS	D	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1.8	0	-	-	0.3	-	-	0.1

HCM 6th TWSC
10: SB 291 & SW Market St

Existing AM

Intersection

Int Delay, s/veh 0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↗↗	↗
Traffic Vol, veh/h	0	9	0	0	925	6
Future Vol, veh/h	0	9	0	0	925	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	250
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	56	56	92	92	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	16	0	0	1016	7

Major/Minor	Minor2	Major2
Conflicting Flow All	- 508	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.94	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.32	- -
Pot Cap-1 Maneuver	0 510	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 510	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	12.3	0
HCM LOS	B	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	510	-	-
HCM Lane V/C Ratio	0.032	-	-
HCM Control Delay (s)	12.3	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-

HCM 6th TWSC
12: SW Market St & N Entrance

Existing AM

Intersection

Int Delay, s/veh 1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	2	42	3	1	19
Future Vol, veh/h	6	2	42	3	1	19
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	7	2	46	3	1	21

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	71	48	0
Stage 1	48	-	-
Stage 2	23	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	933	1021	-
Stage 1	974	-	-
Stage 2	1000	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	932	1021	-
Mov Cap-2 Maneuver	932	-	-
Stage 1	974	-	-
Stage 2	999	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	0.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	953	1558
HCM Lane V/C Ratio	-	-	0.009	0.001
HCM Control Delay (s)	-	-	8.8	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

HCM 6th TWSC
14: SW Market St & S Entrance

Existing AM

Intersection

Int Delay, s/veh 1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	23	42	2	5	3
Future Vol, veh/h	2	23	42	2	5	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	2	25	46	2	5	3

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	48	0	76
Stage 1	-	-	47
Stage 2	-	-	29
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1559	-	927
Stage 1	-	-	975
Stage 2	-	-	994
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1559	-	926
Mov Cap-2 Maneuver	-	-	926
Stage 1	-	-	974
Stage 2	-	-	994

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1559	-	-	-	960
HCM Lane V/C Ratio	0.001	-	-	-	0.009
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 6th TWSC
15: SW Market St

Existing AM

Intersection

Int Delay, s/veh 4.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	10	18	16	10	34	1
Future Vol, veh/h	10	18	16	10	34	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	11	20	17	11	37	1

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	31
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1582
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1582
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

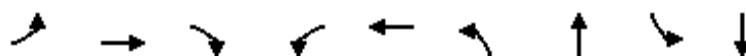
Approach	EB	WB	NB
HCM Control Delay, s	0	4.5	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	932	-	-	1582	-
HCM Lane V/C Ratio	0.041	-	-	0.011	-
HCM Control Delay (s)	9	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Queues

5: SW Jefferson St & W Persels Rd

Existing PM



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	14	267	16	143	336	26	335	31	134
v/c Ratio	0.04	0.62	0.03	0.35	0.50	0.04	0.41	0.07	0.18
Control Delay	13.3	31.8	0.1	15.7	20.0	13.2	8.0	13.3	15.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.3	31.8	0.1	15.7	20.0	13.2	8.0	13.3	15.4
Queue Length 50th (ft)	3	92	0	32	83	6	21	7	24
Queue Length 95th (ft)	14	201	0	79	227	18	56	22	71
Internal Link Dist (ft)		207			246		1925		147
Turn Bay Length (ft)	115		115	175		115		150	
Base Capacity (vph)	386	773	763	479	948	611	822	462	750
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.35	0.02	0.30	0.35	0.04	0.41	0.07	0.18
Intersection Summary									

HCM 6th Signalized Intersection Summary

5: SW Jefferson St & W Persels Rd

Existing PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	251	15	132	286	23	19	45	196	24	68	37
Future Volume (veh/h)	13	251	15	132	286	23	19	45	196	24	68	37
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	267	16	143	311	25	26	62	272	31	87	47
Peak Hour Factor	0.94	0.94	0.94	0.92	0.92	0.92	0.72	0.72	0.72	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	239	351	298	325	440	35	626	125	547	444	476	257
Arrive On Green	0.02	0.19	0.19	0.09	0.26	0.26	0.03	0.41	0.41	0.03	0.42	0.42
Sat Flow, veh/h	1781	1870	1585	1781	1708	137	1781	303	1328	1781	1142	617
Grp Volume(v), veh/h	14	267	16	143	0	336	26	0	334	31	0	134
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1846	1781	0	1631	1781	0	1759
Q Serve(g_s), s	0.4	8.7	0.5	3.9	0.0	10.6	0.5	0.0	9.7	0.6	0.0	3.1
Cycle Q Clear(g_c), s	0.4	8.7	0.5	3.9	0.0	10.6	0.5	0.0	9.7	0.6	0.0	3.1
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.81	1.00		0.35
Lane Grp Cap(c), veh/h	239	351	298	325	0	476	626	0	672	444	0	732
V/C Ratio(X)	0.06	0.76	0.05	0.44	0.00	0.71	0.04	0.00	0.50	0.07	0.00	0.18
Avail Cap(c_a), veh/h	389	771	653	516	0	933	754	0	672	565	0	732
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	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.8	24.7	21.4	17.9	0.0	21.7	10.3	0.0	14.0	10.8	0.0	11.9
Incr Delay (d2), s/veh	0.1	3.4	0.1	0.9	0.0	1.9	0.0	0.0	2.6	0.1	0.0	0.5
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	0.2	4.0	0.2	1.5	0.0	4.4	0.2	0.0	3.6	0.2	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.9	28.1	21.5	18.8	0.0	23.6	10.3	0.0	16.6	10.9	0.0	12.4
LnGrp LOS	C	C	C	B	A	C	B	A	B	B	A	B
Approach Vol, veh/h	297			479			360			165		
Approach Delay, s/veh	27.4			22.2			16.1			12.1		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.6	31.0	10.1	16.6	6.4	31.3	5.6	21.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.5	26.5	12.5	26.5	6.5	26.5	6.5	32.5				
Max Q Clear Time (g_c+I1), s	2.6	11.7	5.9	10.7	2.5	5.1	2.4	12.6				
Green Ext Time (p_c), s	0.0	1.8	0.2	1.4	0.0	0.7	0.0	1.9				
Intersection Summary												
HCM 6th Ctrl Delay	20.4											
HCM 6th LOS	C											

HCM 6th TWSC
8: SW Market St & W Persels Rd

Existing PM

Intersection												
Int Delay, s/veh	8.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	404	65	127	381	4	55	1	136	4	2	5
Future Vol, veh/h	2	404	65	127	381	4	55	1	136	4	2	5
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	165	-	-	40	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	85	85	85	87	87	87	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	439	71	149	448	5	63	1	156	4	2	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	453	0	0	510	0	0	1231	1230	475	1306	1263	451
Stage 1	-	-	-	-	-	-	479	479	-	749	749	-
Stage 2	-	-	-	-	-	-	752	751	-	557	514	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1108	-	-	1055	-	-	154	178	590	137	170	608
Stage 1	-	-	-	-	-	-	568	555	-	404	419	-
Stage 2	-	-	-	-	-	-	402	418	-	515	535	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1108	-	-	1055	-	-	134	153	590	89	146	608
Mov Cap-2 Maneuver	-	-	-	-	-	-	134	153	-	89	146	-
Stage 1	-	-	-	-	-	-	567	554	-	403	360	-
Stage 2	-	-	-	-	-	-	340	359	-	377	534	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.2			45.3			28.5		
HCM LOS							E			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	297	1108	-	-	1055	-	-	165
HCM Lane V/C Ratio	0.743	0.002	-	-	0.142	-	-	0.072
HCM Control Delay (s)	45.3	8.3	-	-	9	-	-	28.5
HCM Lane LOS	E	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	5.5	0	-	-	0.5	-	-	0.2

HCM 6th TWSC
10: SB 291 & SW Market St

Existing PM

Intersection

Int Delay, s/veh 1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	60	0	0	1491	42
Future Vol, veh/h	0	60	0	0	1491	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	250
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	65	65	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	92	0	0	1621	46

Major/Minor	Minor2	Major2
Conflicting Flow All	- 811	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.94	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.32	- -
Pot Cap-1 Maneuver	0 322	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 322	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	20.6	0
HCM LOS	C	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	322	-	-
HCM Lane V/C Ratio	0.287	-	-
HCM Control Delay (s)	20.6	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	1.2	-	-

HCM 6th TWSC
12: SW Market St & N Entrance

Existing PM

Intersection

Int Delay, s/veh 0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	4	59	8	3	83
Future Vol, veh/h	5	4	59	8	3	83
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	5	4	64	9	3	90

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	165	69	0
Stage 1	69	-	-
Stage 2	96	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	826	994	-
Stage 1	954	-	-
Stage 2	928	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	824	994	-
Mov Cap-2 Maneuver	824	-	-
Stage 1	954	-	-
Stage 2	926	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	892	1527
HCM Lane V/C Ratio	-	-	0.011	0.002
HCM Control Delay (s)	-	-	9.1	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

HCM 6th TWSC
14: SW Market St & S Entrance

Existing PM

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	85	63	6	4	4
Future Vol, veh/h	3	85	63	6	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	3	92	68	7	4	4
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	75	0	-	0	170	72
Stage 1	-	-	-	-	72	-
Stage 2	-	-	-	-	98	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1524	-	-	-	820	990
Stage 1	-	-	-	-	951	-
Stage 2	-	-	-	-	926	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1524	-	-	-	818	990
Mov Cap-2 Maneuver	-	-	-	-	818	-
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	926	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.3	0		9.1		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1524	-	-	-	-	896
HCM Lane V/C Ratio	0.002	-	-	-	-	0.01
HCM Control Delay (s)	7.4	0	-	-	-	9.1
HCM Lane LOS	A	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-	0

HCM 6th TWSC
15: SW Market St

Existing PM

Intersection

Int Delay, s/veh 2.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	64	25	6	36	33	4
Future Vol, veh/h	64	25	6	36	33	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	70	27	7	39	36	4

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	97
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1496
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1496
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	9.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	864	-	-	1496	-
HCM Lane V/C Ratio	0.047	-	-	0.004	-
HCM Control Delay (s)	9.4	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Queues

5: SW Jefferson St & W Persels Rd

Existing plus Site AM

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	6	270	37	294	294	42	440	15	297
v/c Ratio	0.02	0.75	0.08	0.69	0.41	0.09	0.52	0.04	0.39
Control Delay	16.2	46.7	0.3	26.5	21.1	13.3	12.2	13.1	20.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	46.7	0.3	26.5	21.1	13.3	12.2	13.1	20.8
Queue Length 50th (ft)	2	144	0	111	109	12	85	4	122
Queue Length 95th (ft)	7	171	0	174	206	18	66	11	136
Internal Link Dist (ft)		207			246		1925		147
Turn Bay Length (ft)	115		115	175		115		150	
Base Capacity (vph)	320	429	504	460	750	450	854	366	756
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.63	0.07	0.64	0.39	0.09	0.52	0.04	0.39
Intersection Summary									

HCM 6th Signalized Intersection Summary

5: SW Jefferson St & W Persels Rd

Existing plus Site AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	192	26	262	244	18	23	59	183	10	182	20
Future Volume (veh/h)	4	192	26	262	244	18	23	59	183	10	182	20
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	6	270	37	294	274	20	42	107	333	15	268	29
Peak Hour Factor	0.71	0.71	0.71	0.89	0.89	0.89	0.55	0.55	0.55	0.68	0.68	0.68
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	292	325	275	404	554	40	476	172	535	331	678	73
Arrive On Green	0.01	0.17	0.17	0.16	0.32	0.32	0.04	0.43	0.43	0.02	0.41	0.41
Sat Flow, veh/h	1781	1870	1585	1781	1722	126	1781	400	1246	1781	1659	179
Grp Volume(v), veh/h	6	270	37	294	0	294	42	0	440	15	0	297
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1848	1781	0	1646	1781	0	1838
Q Serve(g_s), s	0.2	11.2	1.6	10.3	0.0	10.3	1.1	0.0	16.8	0.4	0.0	9.2
Cycle Q Clear(g_c), s	0.2	11.2	1.6	10.3	0.0	10.3	1.1	0.0	16.8	0.4	0.0	9.2
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.76	1.00		0.10
Lane Grp Cap(c), veh/h	292	325	275	404	0	594	476	0	706	331	0	752
V/C Ratio(X)	0.02	0.83	0.13	0.73	0.00	0.49	0.09	0.00	0.62	0.05	0.00	0.40
Avail Cap(c_a), veh/h	391	430	365	469	0	664	522	0	706	412	0	752
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	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.0	32.1	28.1	21.5	0.0	22.0	13.1	0.0	17.9	14.8	0.0	16.8
Incr Delay (d2), s/veh	0.0	10.1	0.2	4.8	0.0	0.6	0.1	0.0	4.1	0.1	0.0	1.6
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	0.1	5.8	0.6	4.5	0.0	4.3	0.4	0.0	6.6	0.2	0.0	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.1	42.2	28.3	26.3	0.0	22.7	13.2	0.0	22.0	14.8	0.0	18.3
LnGrp LOS	C	D	C	C	A	C	B	A	C	B	A	B
Approach Vol, veh/h	313			588			482			312		
Approach Delay, s/veh	40.3			24.5			21.2			18.1		
Approach LOS	D			C			C			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.9	39.0	17.0	18.5	7.5	37.4	5.1	30.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.1	32.9	15.5	18.5	5.1	32.9	5.1	28.9				
Max Q Clear Time (g_c+I1), s	2.4	18.8	12.3	13.2	3.1	11.2	2.2	12.3				
Green Ext Time (p_c), s	0.0	2.5	0.3	0.7	0.0	1.7	0.0	1.5				
Intersection Summary												
HCM 6th Ctrl Delay	25.3											
HCM 6th LOS	C											

HCM 6th TWSC
8: SW Market St & W Persels Rd

Existing plus Site AM

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱			↱				↱			↱
Traffic Vol, veh/h	0	344	41	0	486	0	0	0	99	0	0	2
Future Vol, veh/h	0	344	41	0	486	0	0	0	99	0	0	2
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	72	72	72	90	90	90	78	78	78	38	38	38
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	478	57	0	540	0	0	0	127	0	0	5
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	507	-	-	540
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.22	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.318	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	566	0	0	542
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	566	-	-	542
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			13.2			11.7		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1						
Capacity (veh/h)	566	-	-	-	-	542						
HCM Lane V/C Ratio	0.224	-	-	-	-	0.01						
HCM Control Delay (s)	13.2	-	-	-	-	11.7						
HCM Lane LOS	B	-	-	-	-	B						
HCM 95th %tile Q(veh)	0.9	-	-	-	-	0						

HCM 6th TWSC
10: SB 291 & SW Market St

Existing plus Site AM

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↗↗	↗
Traffic Vol, veh/h	0	13	0	0	925	46
Future Vol, veh/h	0	13	0	0	925	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	250
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	56	56	92	92	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	23	0	0	1016	51

Major/Minor	Minor2	Major2
Conflicting Flow All	- 508	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.94	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.32	- -
Pot Cap-1 Maneuver	0 510	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 510	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	12.4	0
HCM LOS	B	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	510	-	-
HCM Lane V/C Ratio	0.046	-	-
HCM Control Delay (s)	12.4	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-

HCM 6th TWSC
12: SW Market St & N Entrance

Existing plus Site AM

Intersection

Int Delay, s/veh 1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	11	50	3	2	25
Future Vol, veh/h	6	11	50	3	2	25
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	7	12	54	3	2	27

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	87	56	0
Stage 1	56	-	-
Stage 2	31	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	914	1011	-
Stage 1	967	-	-
Stage 2	992	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	913	1011	-
Mov Cap-2 Maneuver	913	-	-
Stage 1	967	-	-
Stage 2	991	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	974	1547
HCM Lane V/C Ratio	-	-	0.019	0.001
HCM Control Delay (s)	-	-	8.8	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 6th TWSC
14: SW Market St & S Entrance

Existing plus Site AM

Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	23	42	23	14	11
Future Vol, veh/h	8	23	42	23	14	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	9	25	46	25	15	12
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	71	0	-	0	102	59
Stage 1	-	-	-	-	59	-
Stage 2	-	-	-	-	43	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1529	-	-	-	896	1007
Stage 1	-	-	-	-	964	-
Stage 2	-	-	-	-	979	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1529	-	-	-	891	1007
Mov Cap-2 Maneuver	-	-	-	-	891	-
Stage 1	-	-	-	-	958	-
Stage 2	-	-	-	-	979	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.9	0		8.9		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1529	-	-	-	939	
HCM Lane V/C Ratio	0.006	-	-	-	0.029	
HCM Control Delay (s)	7.4	0	-	-	8.9	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Intersection

Int Delay, s/veh 3.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	14	23	16	30	35	1
Future Vol, veh/h	14	23	16	30	35	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	15	25	17	33	38	1

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	40
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1570
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1570
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

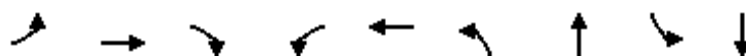
Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	899	-	-	1570	-
HCM Lane V/C Ratio	0.044	-	-	0.011	-
HCM Control Delay (s)	9.2	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Queues

5: SW Jefferson St & W Persels Rd

Existing plus Site PM



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	14	284	16	143	336	26	346	31	134
v/c Ratio	0.04	0.63	0.03	0.36	0.49	0.04	0.42	0.07	0.18
Control Delay	13.0	31.8	0.1	15.6	19.6	13.8	8.2	14.0	15.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.0	31.8	0.1	15.6	19.6	13.8	8.2	14.0	15.9
Queue Length 50th (ft)	3	99	0	32	83	6	22	7	25
Queue Length 95th (ft)	14	213	0	79	226	19	57	23	73
Internal Link Dist (ft)		207			246		1925		147
Turn Bay Length (ft)	115		115	175		115		150	
Base Capacity (vph)	392	766	758	475	943	604	822	447	743
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.37	0.02	0.30	0.36	0.04	0.42	0.07	0.18
Intersection Summary									

HCM 6th Signalized Intersection Summary

5: SW Jefferson St & W Persels Rd

Existing plus Site PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	267	15	132	286	23	19	45	204	24	68	37
Future Volume (veh/h)	13	267	15	132	286	23	19	45	204	24	68	37
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			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	284	16	143	311	25	26	62	283	31	87	47
Peak Hour Factor	0.94	0.94	0.94	0.92	0.92	0.92	0.72	0.72	0.72	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	248	368	312	322	454	37	618	119	544	426	470	254
Arrive On Green	0.02	0.20	0.20	0.09	0.27	0.27	0.03	0.41	0.41	0.03	0.41	0.41
Sat Flow, veh/h	1781	1870	1585	1781	1708	137	1781	293	1337	1781	1142	617
Grp Volume(v), veh/h	14	284	16	143	0	336	26	0	345	31	0	134
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1846	1781	0	1630	1781	0	1759
Q Serve(g_s), s	0.4	9.4	0.5	3.9	0.0	10.6	0.5	0.0	10.4	0.6	0.0	3.2
Cycle Q Clear(g_c), s	0.4	9.4	0.5	3.9	0.0	10.6	0.5	0.0	10.4	0.6	0.0	3.2
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.82	1.00		0.35
Lane Grp Cap(c), veh/h	248	368	312	322	0	491	618	0	664	426	0	724
V/C Ratio(X)	0.06	0.77	0.05	0.44	0.00	0.68	0.04	0.00	0.52	0.07	0.00	0.19
Avail Cap(c_a), veh/h	396	762	646	510	0	922	744	0	664	546	0	724
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	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.6	24.7	21.2	17.8	0.0	21.4	10.6	0.0	14.5	11.2	0.0	12.2
Incr Delay (d2), s/veh	0.1	3.4	0.1	1.0	0.0	1.7	0.0	0.0	2.9	0.1	0.0	0.6
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	0.2	4.2	0.2	1.5	0.0	4.4	0.2	0.0	3.9	0.2	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.6	28.2	21.3	18.8	0.0	23.1	10.6	0.0	17.4	11.3	0.0	12.8
LnGrp LOS	C	C	C	B	A	C	B	A	B	B	A	B
Approach Vol, veh/h	314				479				371			
Approach Delay, s/veh	27.5				21.8				16.9			
Approach LOS	C				C				B			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.6	31.0	10.1	17.3	6.4	31.3	5.6	21.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.5	26.5	12.5	26.5	6.5	26.5	6.5	32.5				
Max Q Clear Time (g_c+I1), s	2.6	12.4	5.9	11.4	2.5	5.2	2.4	12.6				
Green Ext Time (p_c), s	0.0	1.8	0.2	1.5	0.0	0.7	0.0	1.9				
Intersection Summary												
HCM 6th Ctrl Delay	20.6											
HCM 6th LOS	C											

HCM 6th TWSC
8: SW Market St & W Persels Rd

Existing plus Site PM

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	0	437	58	0	508	0	0	0	224	0	0	2
Future Vol, veh/h	0	437	58	0	508	0	0	0	224	0	0	2
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	92	92	92	85	85	85	87	87	87	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	475	63	0	598	0	0	0	257	0	0	2
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	507	-	-	598
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.22	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.318	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	566	0	0	502
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	566	-	-	502
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			16.6			12.2		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1						
Capacity (veh/h)	566	-	-	-	-	502						
HCM Lane V/C Ratio	0.455	-	-	-	-	0.004						
HCM Control Delay (s)	16.6	-	-	-	-	12.2						
HCM Lane LOS	C	-	-	-	-	B						
HCM 95th %tile Q(veh)	2.4	-	-	-	-	0						

HCM 6th TWSC
10: SB 291 & SW Market St

Existing plus Site PM

Intersection

Int Delay, s/veh 1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	84	0	0	1491	94
Future Vol, veh/h	0	84	0	0	1491	94
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	250
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	65	65	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	129	0	0	1621	102

Major/Minor	Minor2	Major2
Conflicting Flow All	- 811	- 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.94	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.32	- -
Pot Cap-1 Maneuver	0 322	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 322	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay, s	23.5	0
HCM LOS	C	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	322	-	-
HCM Lane V/C Ratio	0.401	-	-
HCM Control Delay (s)	23.5	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	1.9	-	-

HCM 6th TWSC
12: SW Market St & N Entrance

Existing plus Site PM

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	12	83	8	7	103
Future Vol, veh/h	5	12	83	8	7	103
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	5	13	90	9	8	112
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	223	95	0	0	99	0
Stage 1	95	-	-	-	-	-
Stage 2	128	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	765	962	-	-	1494	-
Stage 1	929	-	-	-	-	-
Stage 2	898	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	760	962	-	-	1494	-
Mov Cap-2 Maneuver	760	-	-	-	-	-
Stage 1	929	-	-	-	-	-
Stage 2	893	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.1	0		0.5		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	892		1494	-	
HCM Lane V/C Ratio	-	0.021		0.005	-	
HCM Control Delay (s)	-	9.1		7.4	0	
HCM Lane LOS	-	A		A	A	
HCM 95th %tile Q(veh)	-	0.1		0	-	

HCM 6th TWSC
14: SW Market St & S Entrance

Existing plus Site PM

Intersection

Int Delay, s/veh 3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
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Lane Configurations						
Traffic Vol, veh/h	23	85	63	62	52	28
Future Vol, veh/h	23	85	63	62	52	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	25	92	68	67	57	30

Major/Minor	Major1	Major2	Minor2
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Conflicting Flow All	135	0	0	244	102
Stage 1	-	-	-	102	-
Stage 2	-	-	-	142	-
Critical Hdwy	4.12	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	3.518	3.318
Pot Cap-1 Maneuver	1449	-	-	744	953
Stage 1	-	-	-	922	-
Stage 2	-	-	-	885	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1449	-	-	731	953
Mov Cap-2 Maneuver	-	-	-	731	-
Stage 1	-	-	-	905	-
Stage 2	-	-	-	885	-

Approach	EB	WB	SB
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HCM Control Delay, s	1.6	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
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Capacity (veh/h)	1449	-	-	-	796
HCM Lane V/C Ratio	0.017	-	-	-	0.109
HCM Control Delay (s)	7.5	0	-	-	10.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

Intersection

Int Delay, s/veh 1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	88	49	6	88	37	4
Future Vol, veh/h	88	49	6	88	37	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	96	53	7	96	40	4

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	149
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1432
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1432
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	765	-	-	1432	-
HCM Lane V/C Ratio	0.058	-	-	0.005	-
HCM Control Delay (s)	10	-	-	7.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-