Madison, WI

1605 Monroe Street Redevelopment Transportation Study

April 13, 2016

AYRES ASSOCIATES

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Introduction

Gregg Shimanski Realty, Inc. is proposing a mixed use 5-story development on the 1600 block of Monroe Street. The 17,000 square foot site currently contains an office building and a single family home **(Figure 1**). The redevelopment of the site will include housing and office. The development team has been working with the City and the neighborhood to evaluate the parking and traffic implications of the 5-story development with a focus of minimizing these impacts. This report assesses the impacts of both traffic and parking and identifies measures that will be implemented to minimize their impact on the neighborhood.

Proposed Development

The 5-story development will consist of up to 48 rental and condominium units and 5,000 square feet of office space.

The proposed development layout is shown in **Figure 2**. The development will have access on Oakland Avenue as well as the public alley in the back of the development between Monroe Street and Madison Street. There will not be any access on Monroe Street. On- site parking for the development will consist of 65 spaces internal to the development with a structured parking deck that is integrated with the building design. Of these spaces, 15 are for public use and the remaining 50 are for the apartments, condo units, and offices.

Methodology

The parking and traffic requirements for the two uses (office and residential) were determined and compared to existing demand and capacity. In addition to auto demand, the availability and use of alternative modes of transportation including transit (Madison Metro), and bicycle demand was also investigated.

Development

Trip Generation

The number of trips generated by the office and apartment uses was based on ITE trip generation rates and is shown in **Figure 3**. The analysis focused on the morning and afternoon peak hours since those are the times that traffic volumes on the adjacent streets are at their highest. Since there is existing development on the site, trip generation from that development was taken into consideration to provide a net increase in trip generation (**Figure 3**). ***Based on the proposed and existing uses, the net increase in vehicle trips is 12 trips in the morning peak hour and 18 trips in the afternoon peak hour.***

Traffic Analysis

In order to perform the analysis, the existing traffic at the five intersections bordering the development were counted in the morning and afternoon peak hours (7:00 a.m to 8:30 a.m and 4:00 to 5:30 p.m). This included the intersections of Monroe St./S. Breese Terrace; Monroe St./Crazylegs Ln/Oakland Ave; Madison St./Oakland Ave; Madison St./Garfield; and Monroe St./Garfield. In addition, peak hour traffic counts were also taken at the alley drive on Garfield and Oakland Ave. The traffic count locations and traffic control at each of these intersections is shown in **Figure 4**. The traffic and counts are included in the Appendix.

Historically, traffic volumes in the area of the development have been decreasing over the last 30 years. As shown in **Figure 5**, daily traffic volumes on this section of Monroe Street peaked in 2001 and have been trending downward over the past 14 years. Today (2015) they are 27% less than they were at their peak in early 2000.

The peak hour projected traffic from the trip generation table was then distributed to the adjoining streets for inbound and outbound trips and added to the existing traffic to determine the future peak hour development traffic demand. Each of the five intersections surrounding the development (and the

two alley intersections) were then evaluated during the peak hour under existing conditions and future traffic conditions to determine any existing or future problem areas. A summary of this analysis, and comparison for the morning and afternoon peak hours are shown in **Figures 6a and 6b**.

Since the increase in trip generation was so small compared to existing traffic counts, there was very little change in level of service (LOS).

As a part of the analysis, the impact of closing Crazy Legs to traffic was reviewed. In particular the impact was reviewed of reducing traffic volumes on the first block of Oakland between Monroe and Madison Streets. In the morning peak hour it could reduce traffic by as much as 32% (16 vehicles) and in the afternoon it could reduce it by 59% (43 vehicles).

In comparing peak hour traffic volumes on the first block of Oakland and Garfield, Oakland has 48 vehicles in the morning peak hour and 81 in the afternoon. Garfield has 37 vehicles in the morning peak hour and 48 in the evening.

The number of vehicles that may be using the Oakland/Madison corridor as a means of avoiding the signalized intersection of Monroe and Regent Street was also reviewed. In this case, 17% (8 vehicles) of the traffic on Oakland in the first block turned on Madison during the morning peak hour and 19% (15 vehicles) in the evening peak hour. Because these vehicles were not tracked, it is not possible to tell which, if any of these vehicles turned onto Oakland from Monroe Street and were therefore avoiding the signalized intersection at Regent.

Parking Generation

Based on ITE parking generation rates, office use generates 2.8 parking spaces per thousand square feet of floor area, apartments 1.2 parking space per unit. Based on ITE recommendations (which are high) the maximum number of parking spaces needed are 64. Based on the city zoning code, a minimum of 65 parking spaces need to be provided. There are a total of 65 parking spaces being provided which includes 15 for the office component of the project parking. A summary of the on-site parking generation as well as the parking supplied is shown in **Figure 7**.

Parking Analysis

Parking for the development will be located on two separate levels and have three separate access points. The ground level at grade (access to the alley and Oakland Street) will contain 16 residential parking spaces and 15 office/public parking spaces (the current office building and house have 20 parking spaces accessing the alley and 11 parking spaces accessing Oakland Avenue. The below grade parking level, which accesses Oakland Avenue will have 32 parking spaces. Total off-street parking available on-site is 65 parking spaces.

In addition, there will be some limited on-street parking available on Oakland Avenue and Madison Street. This parking is currently unrestricted except on Mondays.

See Figure 8.

Alternative Transportation Modes

Madison Metro provides regular bus service on the following routes near the development site:

Routes 3 & 58 Serve Monroe Street and S. Breese Terrace on weekdays.

Route 7 Serves Monroe Street on weekends.

Routes 6 and 7 serve Regent on the weekends

Routes 3 (and 7 on weekends) serve Monroe Street and Breese Terrace in the evening.

Routes 6 and 82 serve Regent Street in the week day evenings.

Routes 6, 7 and 82 serve Regent Street on the weekend evenings.

See **Figure 9** for weekday and weekend service routes and **Figure 10** for evening service. Both figures also show the location of the bus stops in the vicinity of the development.

The development is adjacent to the Southwest Commuter Trail which runs through the area. The City also reconstructed the first block of Oakland Avenue and provided a striped bike lane. In order to encourage use of biking for both residents and office users, the development is providing a total of 66 bike spaces.

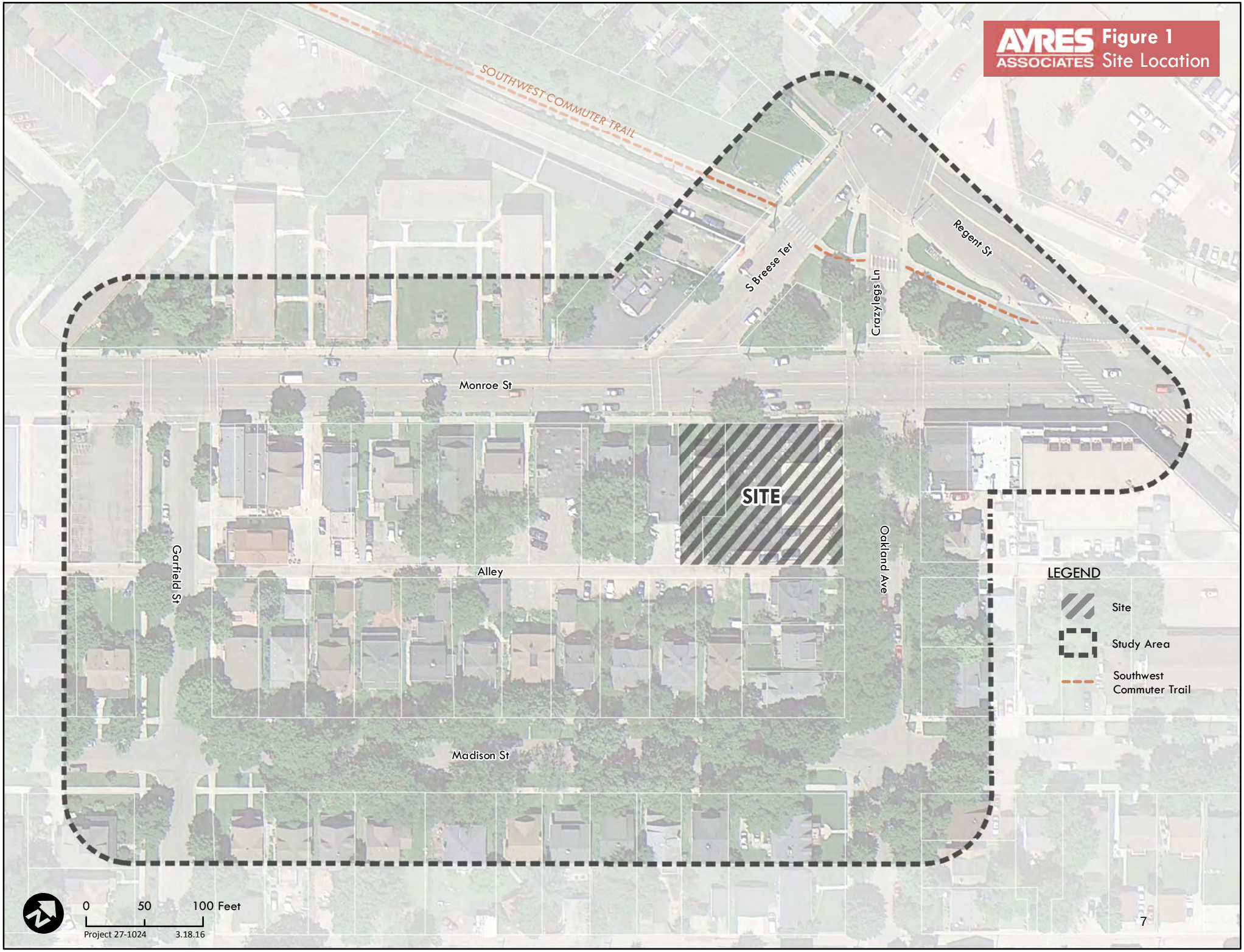
Findings and Recommendations

1. The level of service operations at each of the 7 intersections analyzed remained at an LOS A both before and after the development.
2. Cut through traffic on Oakland Avenue from Crazy Legs Lane could be reduced by vacating Crazy Legs Lane. This improvement is recommended in the neighborhood plan. This vacation would allow expansion of the park area, allow a more direct bike connection from Oakland Avenue to the Southwest Commuter Trail, and allow the S. Breeze Terrace/Monroe Street intersection to be reconfigured at a perpendicular angle.
3. The S. Breeze Terrace/Monroe St. intersection southbound onto Monroe St. should be restricted to right turn only. This would prohibit traffic from cutting over to Oakland Avenue.
4. Slowing traffic speeds on Oakland Avenue in the first two blocks could be further reduced by installing traffic humps in those first two blocks.
5. A “No Left Turn” sign should be installed at the alley at Oakland Avenue and on the exits from the development drives.
6. Add additional on-street metered parking on Monroe Street in front of the building.
7. Install traffic humps in alley.

Summary

The analysis indicates that the additional development will have a negligible effect on current traffic operations in the vicinity of the redevelopment do to the small increase in traffic volumes.

If you do wish to further reduce traffic, then closing off Crazy Legs Lane to traffic should accomplish this. This measure would effectively reduce traffic on Oakland Avenue by 30-50% during the peak hours of the day.


AYRES ASSOCIATES
Figure 1
Site Location
SOUTHWEST COMMUTER TRAIL
S Breese Ter
Crazylegs Ln
Regent St
Monroe St
SITE
Garfield St
Alley
Oakland Ave
Madison St
LEGEND
Site
Study Area
Southwest Commuter Trail
0
50
100 Feet
Project 27-1024
3.18.16

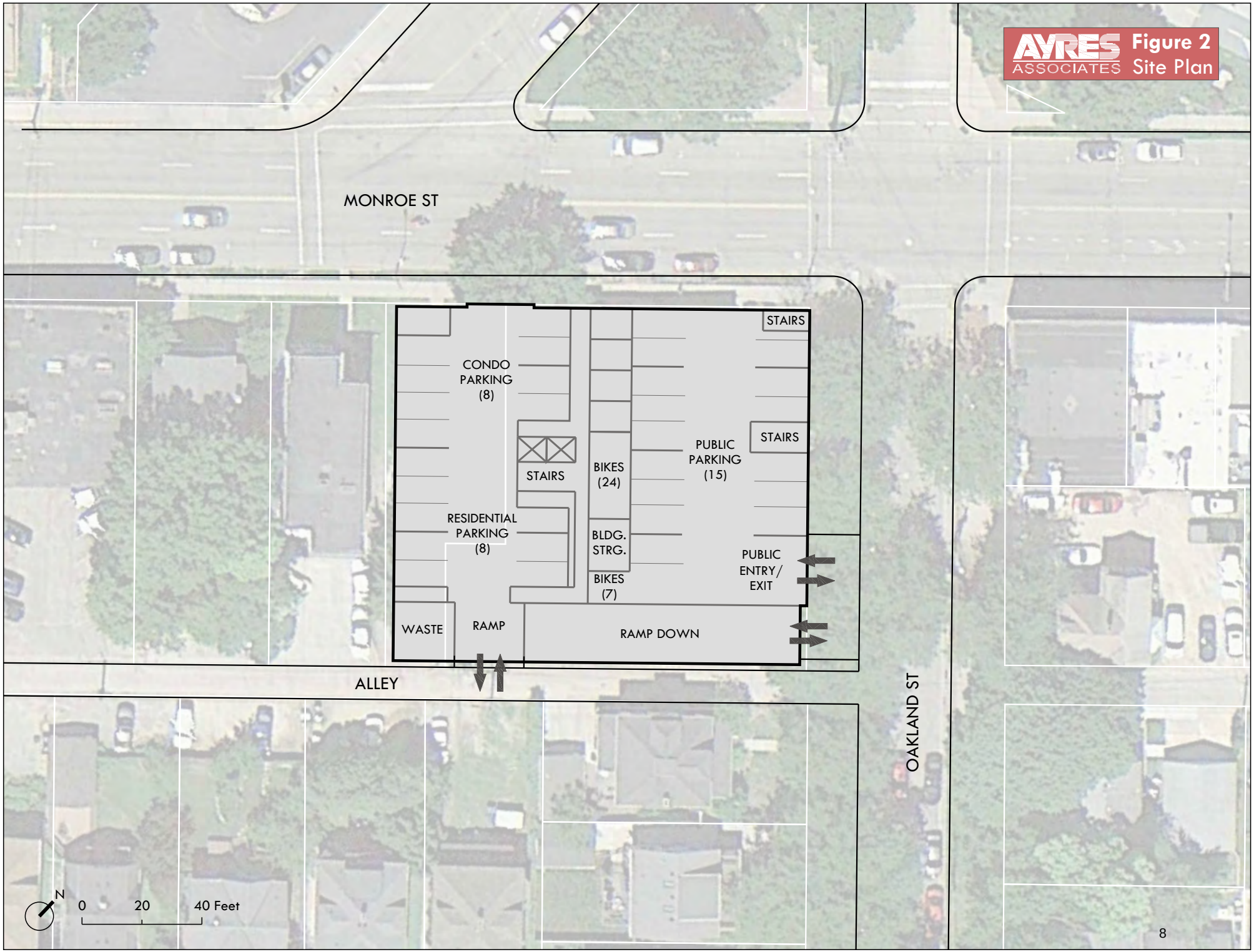

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Figure 2
Site Plan
MONROE ST
CONDO PARKING (8)
STAIRS
STAIRS
BIKES (24)
PUBLIC PARKING (15)
STAIRS
RESIDENTIAL PARKING (8)
BLDG. STRG.
BIKES (7)
PUBLIC ENTRY/ EXIT
WASTE
RAMP
RAMP DOWN
ALLEY
OAKLAND ST
N
0
20
40 Feet

30-Mar-16

Figure 3

1605 Monroe Street
Madison, WI

ITE Trip Generation Rates - 9th Edition

Ayres Associates

Residential/Office Development

Description/ITE Code Proposed Development	Units	ITE Vehicle Trip Generation Rates (peak hours are for peak hour of adjacent street traffic unless highlighted)								Expected Units	Total Generated Trips			Total Distribution of Generated Trips					
		Weekday	AM	PM	Pass-By	AM In	AM Out	PM In	PM Out		Daily	AM Hour	PM Hour	AM In	AM Out	Pass-By	PM In	PM Out	Pass-By
Office 710	KSF^2	11.01	1.56	1.49		88%	12%	17%	83%	5.0	55	8	7	7	1	0	1	6	0
Residential 220	DU	6.65	0.51	0.62		65%	35%	58%	42%	50.0	333	26	31	17	9	0	18	13	0
									Total		*388*	*33*	*38*	23	10		*19*	*19*	

RED Rates = Peak Hour of Adjacent Street Traffic, One Hour between 7 and 9 a.m. or 4 and 6 p.m.
Green Rates = Peak Hour of Generator - (no peak rate for the rush hour of adjacent street traffic)

NA = Not Available **KSF^2** = Units of 1,000 square feet **DU** = Dwelling Unit

Description/ITE Code Existing Development	Units	ITE Vehicle Trip Generation Rates (peak hours are for peak hour of adjacent street traffic unless highlighted)								Expected Units	Total Generated Trips			Total Distribution of Generated Trips					
		Weekday	AM	PM	Pass-By	AM In	AM Out	PM In	PM Out		Daily	AM Hour	PM Hour	AM In	AM Out	Pass-By	PM In	PM Out	Pass-By
Office 710	KSF^2	11.01	1.56	1.49		88%	12%	17%	83%	13.0	143	20	19	18	2	0	3	16	0
Residential 210	DU	9.52	0.75	1.00		25%	75%	63%	37%	1.0	10	1	1	0	1	0	1	0	0
									Total		*153*	*21*	*20*	18	3		*4*	*16*	

RED Rates = Peak Hour of Adjacent Street Traffic, One Hour between 7 and 9 a.m. or 4 and 6 p.m.
Green Rates = Peak Hour of Generator - (no peak rate for the rush hour of adjacent street traffic)

NA = Not Available **KSF^2** = Units of 1,000 square feet **DU** = Dwelling Unit

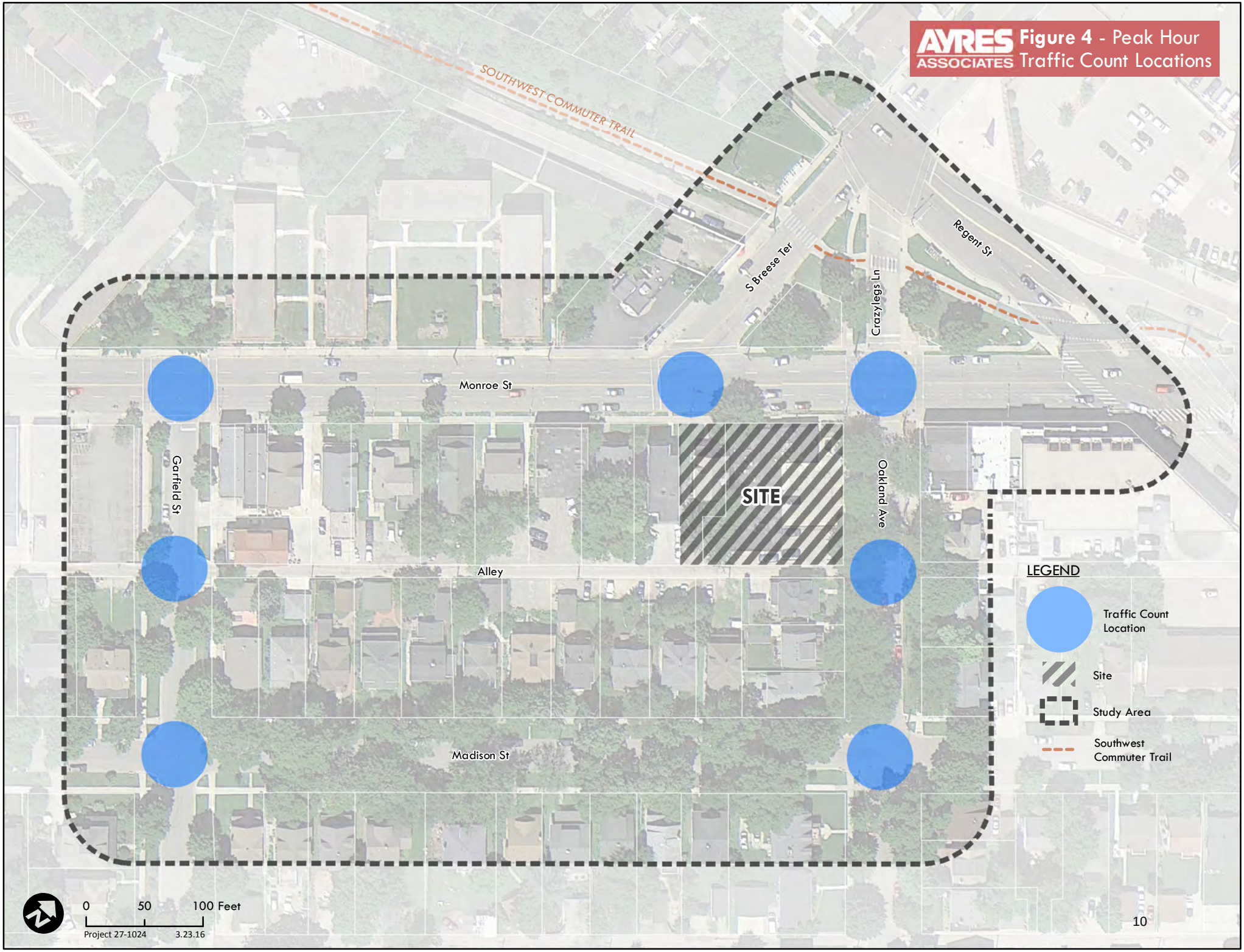
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Figure 4 - Peak Hour Traffic Count Locations
SOUTHWEST COMMUTER TRAIL
S Breese Ter
Crazylegs Ln
Regent St
Monroe St
Garfield St
SITE
Oakland Ave
Alley
Madison St
LEGEND
Traffic Count Location
Site
Study Area
Southwest Commuter Trail
0
50
100 Feet
Project 27-1024
3.23.16
10

Figure 5
Monroe Street Traffic Volumes

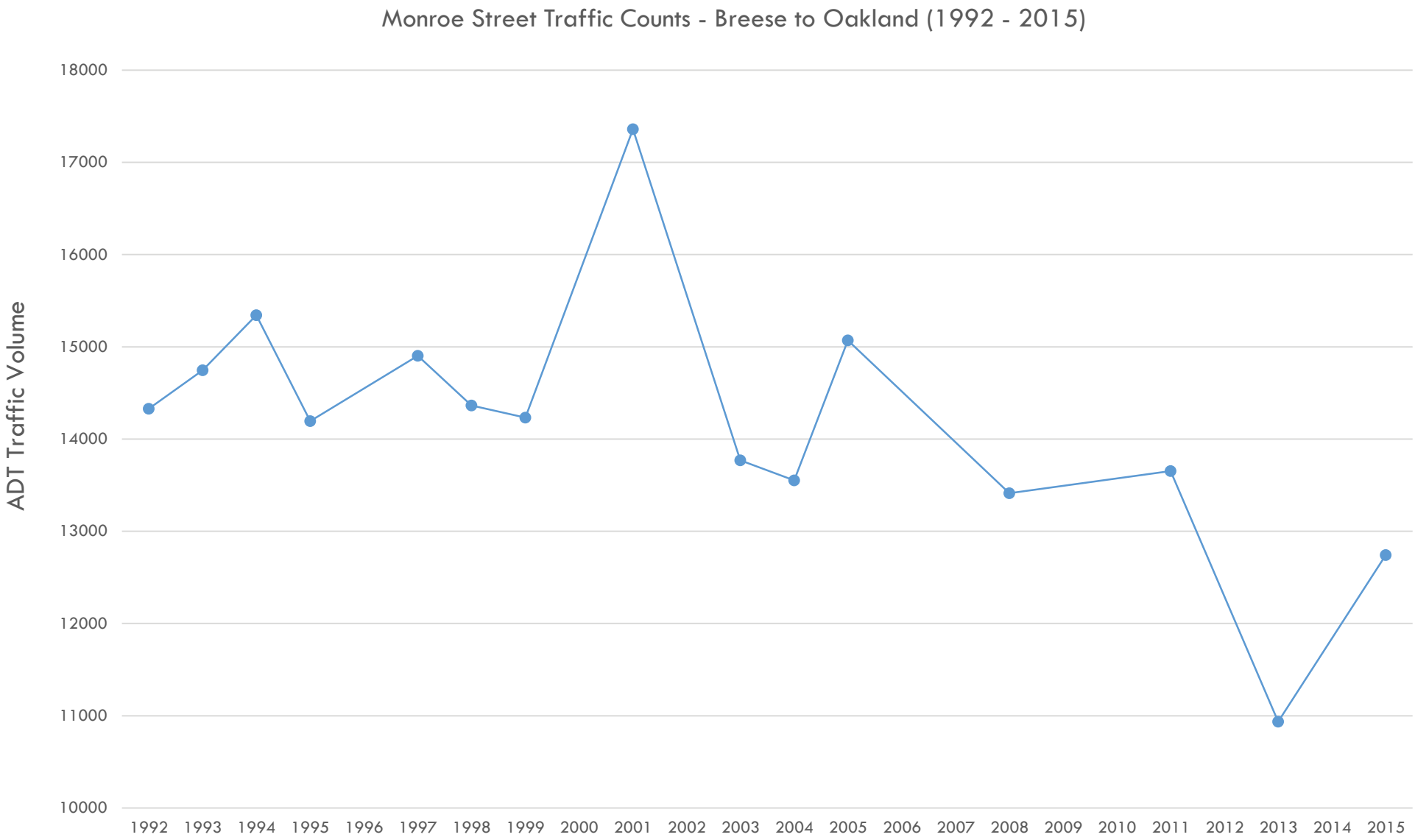


Figure 6a - Intersection Level of Service Analysis - Weekday AM Peak Hour

Development Scenario	Traffic Control	Intersection Level of Service	Southeast-bound			Northwest-bound			Northeast-bound			Southwest-bound		
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Garfield St & Monroe St - Existing	Stop 1-Way			N/A			Garfield St			Monroe St			Monroe St	
		A 0.5					C 16.1 25			A 0.0 0		A 9.3 25	A 0.1 0	
Garfield St & Monroe St - Developed	Stop 1-Way			N/A			Garfield St			Monroe St			Monroe St	
		A 0.6					C 16.6 25			A 0.0 0		A 9.3 25	A 0.1 0	
S Breese Terrace & Monroe St - Existing	Stop 1-Way			S Breese Terrace						Monroe St			Monroe St	
		A 1.0		B 10.3 25					A 8.6 25	A 0.3 0			A 0.0 0	
S Breese Terrace & Monroe St - Developed	Stop 1-Way			S Breese Terrace						Monroe St			Monroe St	
		A 1.0		B 10.6 25					A 8.6 25	A 0.3 0			A 0.0 0	
Oakland Ave & Monroe St – Existing	Stop 2-Way			Crazylegs Lane			Oakland Ave			Monroe St			Monroe St	
		A 0.2		A 9.9 25						A 0.0 0		A 9.1 0	A 0.0 0	
Oakland Ave & Monroe St – Developed	Stop 2-Way			Crazylegs Lane			Oakland Ave			Monroe St			Monroe St	
		A 0.2		A 9.9 25						A 0.0 0		A 9.1 0	A 0.0 0	
Oakland Ave & Madison St – Existing	Stop 2-Way			Oakland Ave			Oakland Ave			Madison St			Madison St	
		A 2.9	A 7.2 0	A 0.0 0	A 7.3 0		A 0.0 0			A 8.6 0				
Oakland Ave & Madison St – Developed	Stop 2-Way			Oakland Ave			Oakland Ave			Madison St			Madison St	
		A 3.0	A 7.2 0	A 0.0 0	A 7.3 0		A 0.0 0			A 8.6 0				
Oakland St & Alley – Existing	None			Oakland Ave			Oakland Ave			Alley			Alley	
		A 0.4		A 0.0 0						A 8.6 0			A 0.0 0	
Oakland St & Alley – Developed	None			Oakland Ave			Oakland Ave			Alley			Alley	
		A 0.4		A 0.0 0						A 8.7 0			A 0.0 0	
Garfield St & Madison St – Existing	Stop 2-Way			Garfield St			Garfield St			Madison St			Madison St	
		A 5.6		A 8.8			A 9.2		A 7.2	A 0.0		A 0.0	A 0.0	

				0		25	0	0	0	0		
				Garfield St		Garfield St		Madison St		Madison St		
Garfield St & Madison St – Developed	Stop 2-Way	A 5.6		A 8.8		A 9.2	A 7.2	A 0.0	A 0.0	A 0.0		
				0		25	0	0	0	0		
				Garfield St		Garfield St		Alley		Alley		
Garfield St & Alley – Existing	None	A 2.7	A 7.3	A 0.0	A 7.2	A 0.0		A 8.6		A 8.5		
			0	0	0	0		0		0		
				Garfield St		Garfield St		Alley		Alley		
Garfield St & Alley – Developed	None	A 2.9	A 7.3	A 0.0	A 7.2	A 0.0		A 8.6		A 8.5		
			0	0	0	0		0		0		

- 95th percentile volume exceeds capacity; queue may be longer.

Key:	
Intersection	Lane
Intersection LOS	Lane LOS
Average Delay (seconds)	Control Delay (seconds)
	Queue Length 95th Percentile (feet, rounded to 25')

Figure 6b - Intersection Level of Service Analysis - Weekday PM Peak Hour

Development Scenario	Traffic Control	Intersection Level of Service	Southeast-bound			Northwest-bound			Northeast-bound			Southwest-bound		
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Garfield St & Monroe St - Existing	Stop 1-Way			N/A			Garfield St			Monroe St			Monroe St	
		A 0.6					C 19.8 25			A 0.0 0		A 8.8 25	A 0.2 0	
Garfield St & Monroe St - Developed	Stop 1-Way			N/A			Garfield St			Monroe St			Monroe St	
		A 0.6					C 20.0 25			A 0.0 0		A 8.8 25	A 0.2 0	
S Breese Terrace & Monroe St - Existing	Stop 1-Way			S Breese Terrace						Monroe St			Monroe St	
		A 1.2		B 13.6 25					B 10.1 25	A 0.4 0			A 0.0 0	
S Breese Terrace & Monroe St - Developed	Stop 1-Way			S Breese Terrace						Monroe St			Monroe St	
		A 1.2		B 13.6 25					B 10.1 25	A 0.4 0			A 0.0 0	
Oakland Ave & Monroe St – Existing	Stop 2-Way			Crazylegs Lane			Oakland Ave			Monroe St			Monroe St	
		A 0.6		B 11.9 25						A 0.0 0		A 8.5 0	A 0.1 0	
Oakland Ave & Monroe St – Developed	Stop 2-Way			Crazylegs Lane			Oakland Ave			Monroe St			Monroe St	
		A 0.7		B 12.0 25						A 0.0 0		A 8.6 0	A 0.1 0	
Oakland Ave & Madison St – Existing	Stop 2-Way			Oakland Ave			Oakland Ave			Madison St			Madison St	
		A 2.7	A 7.2 0	A 0.0 0		A 7.4 0		A 0.0 0		A 8.7 0				
Oakland Ave & Madison St – Developed	Stop 2-Way			Oakland Ave			Oakland Ave			Madison St			Madison St	
		A 2.7	A 7.3 0	A 0.0 0		A 7.4 0		A 0.0 0		A 8.7 0				
Oakland St & Alley – Existing	None			Oakland Ave			Oakland Ave			Alley			Alley	
		A 0.3		A 0.0 0						A 8.8 0		A 0.0 0		
Oakland St & Alley – Developed	None			Oakland Ave			Oakland Ave			Alley			Alley	
		A 0.3		A 0.0 0						A 8.8 0		A 0.0 0		
Garfield St & Madison St – Existing	Stop 2-Way			Garfield St			Garfield St			Madison St			Madison St	
		A 4.9		A 9.1			A 9.3		A 7.3	A 0.0		A 0.0	A 0.0	

				25		25		0	0	0	0	
				Garfield St		Garfield St			Madison St		Madison St	
Garfield St & Madison St – Developed	Stop 2-Way	A 4.9		A 9.1		A 9.3		A 7.3	A 0.0	A 0.0	A 0.0	
				25		25		0	0	0	0	
				Garfield St		Garfield St			Alley		Alley	
Garfield St & Alley – Existing	None	A 2.0	A 0.0	A 0.0	A 0.0	A 0.0			A 8.7		A 8.7	
			0	0	0	0			0		0	
				Garfield St		Garfield St			Alley		Alley	
Garfield St & Alley – Developed	None	A 2.0	A 0.0	A 0.0	A 0.0	A 0.0			A 8.7		A 8.7	
			0	0	0	0			0		0	

- 95th percentile volume exceeds capacity; queue may be longer.

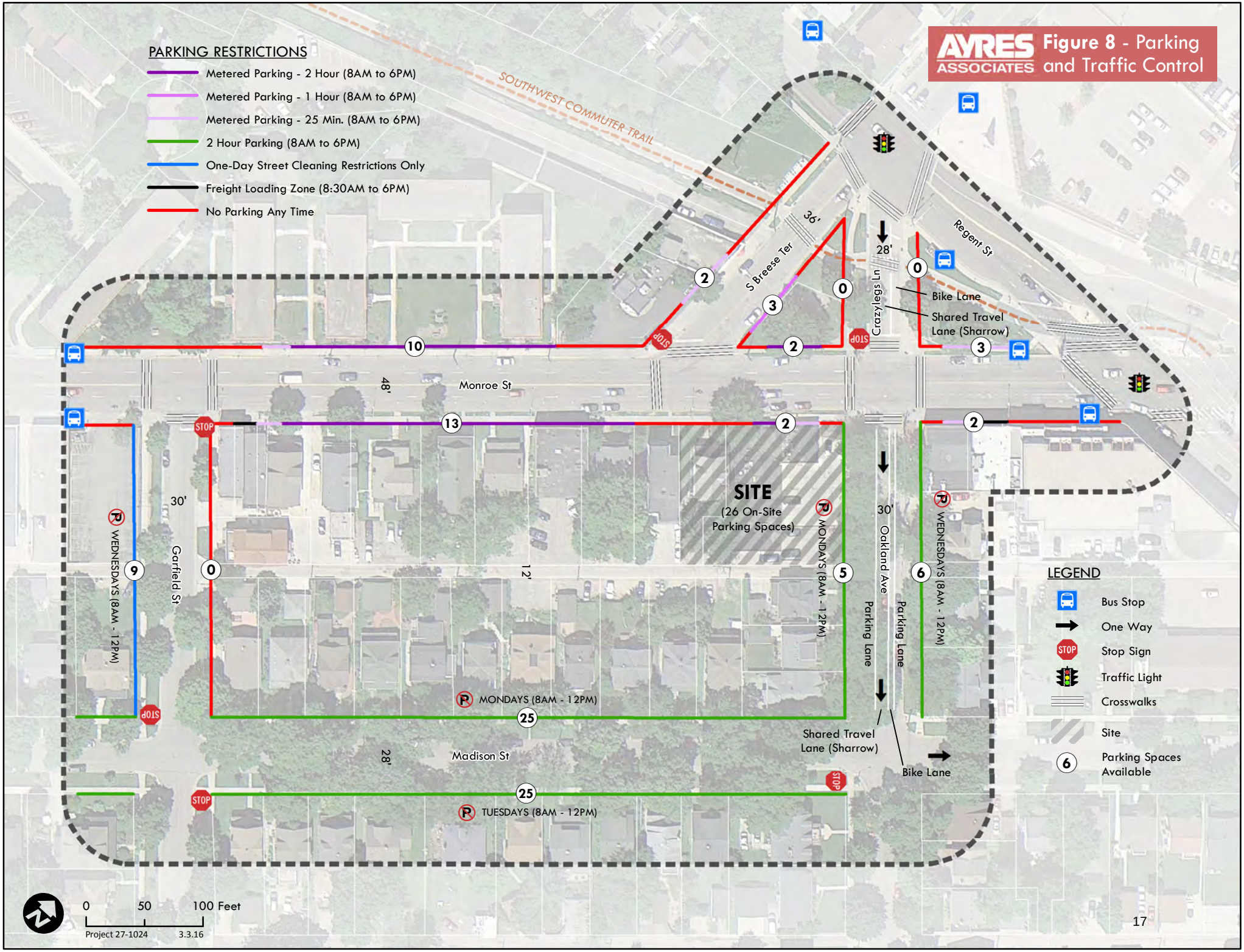
Key:	
Intersection	Lane
Intersection LOS	Lane LOS
Average Delay (seconds)	Control Delay (seconds)
	Queue Length 95th Percentile (feet, rounded to 25')

Figure 7 Parking Demand and Supply Comparison

Land Use (ITE Code)	Parking Generation		Parking Spaces ITE		Parking Spaces per Code			Parking Spaces Provided	Provided
	Units	No of Units	Spaces/Unit	Parking Spaces	Spaces/Unit	Auto Spaces	Bike Spaces	Auto	Bike
Office (701)	KSF*	6	2.4	14	1 per 400 sf	15			
Residential (221)	DU**	50	1	50	1 per unit	50			
On-Street									
Total				64		65		65	66

* 1000 square feet

** dwelling units


AYRES ASSOCIATES
Figure 8 - Parking and Traffic Control
PARKING RESTRICTIONS
Metered Parking - 2 Hour (8AM to 6PM)
Metered Parking - 1 Hour (8AM to 6PM)
Metered Parking - 25 Min. (8AM to 6PM)
2 Hour Parking (8AM to 6PM)
One-Day Street Cleaning Restrictions Only
Freight Loading Zone (8:30AM to 6PM)
No Parking Any Time
SOUTHWEST COMMUTER TRAIL
S Breese Ter
Cralegs Ln
Regent St
Bike Lane
Shared Travel Lane (Sharrow)
Monroe St
48'
30'
28'
SITE
(26 On-Site Parking Spaces)
Garfield St
Oakland Ave
Parking Lane
Madison St
MONDAYS (8AM - 12PM)
TUESDAYS (8AM - 12PM)
WEDNESDAYS (8AM - 12PM)
STOP
LEGEND
Bus Stop
One Way
Stop Sign
Traffic Light
Crosswalks
Site
Parking Spaces Available
0 50 100 Feet
Project 27-1024 3.3.16

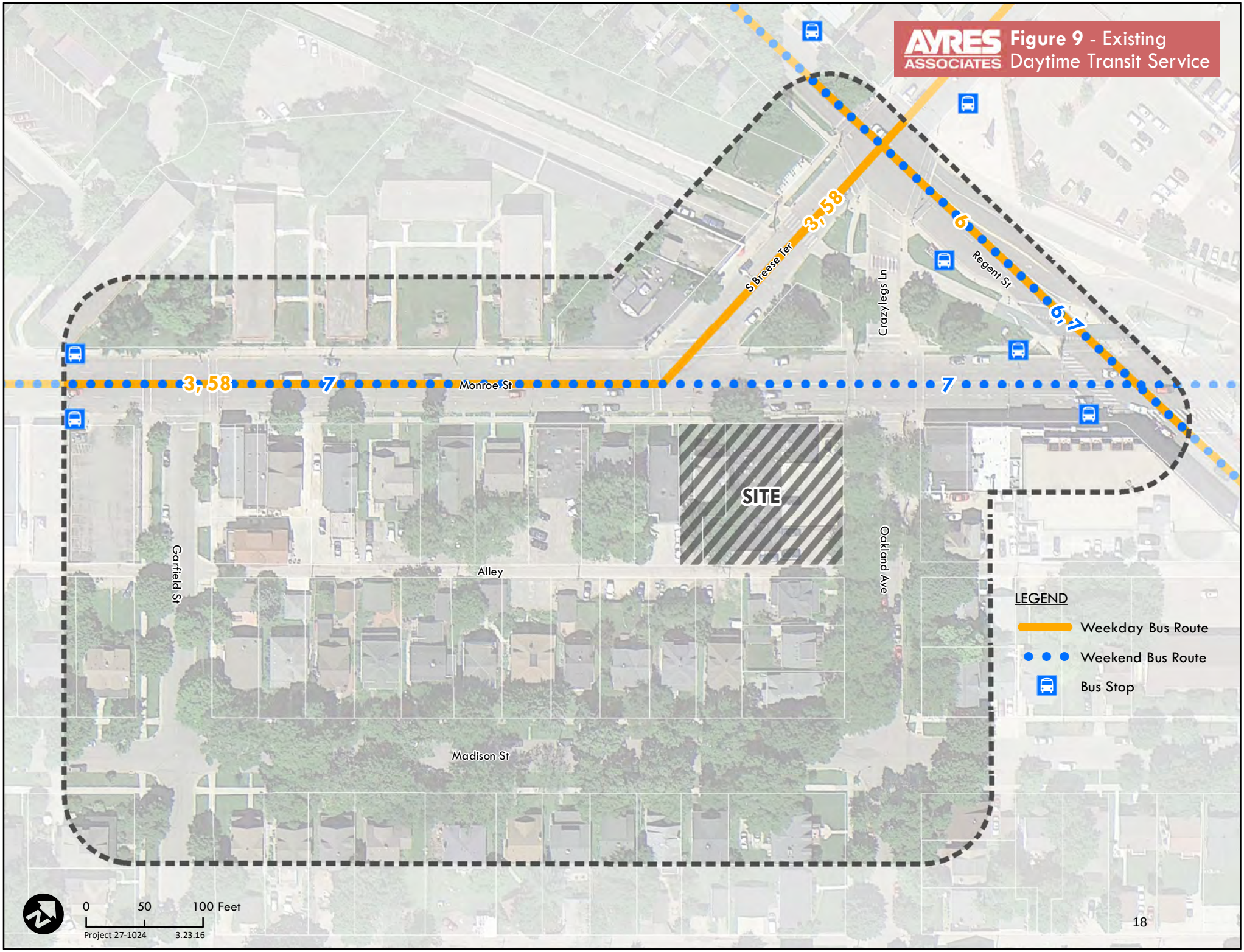

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Figure 9 - Existing Daytime Transit Service
3, 58
7
Monroe St
S Breese Ter
3, 58
6
6, 7
Regent St
Crazylegs Ln
7
SITE
Garfield St
Alley
Oakland Ave
Madison St
LEGEND
Weekday Bus Route
Weekend Bus Route
Bus Stop
0
50
100 Feet
Project 27-1024
3.23.16

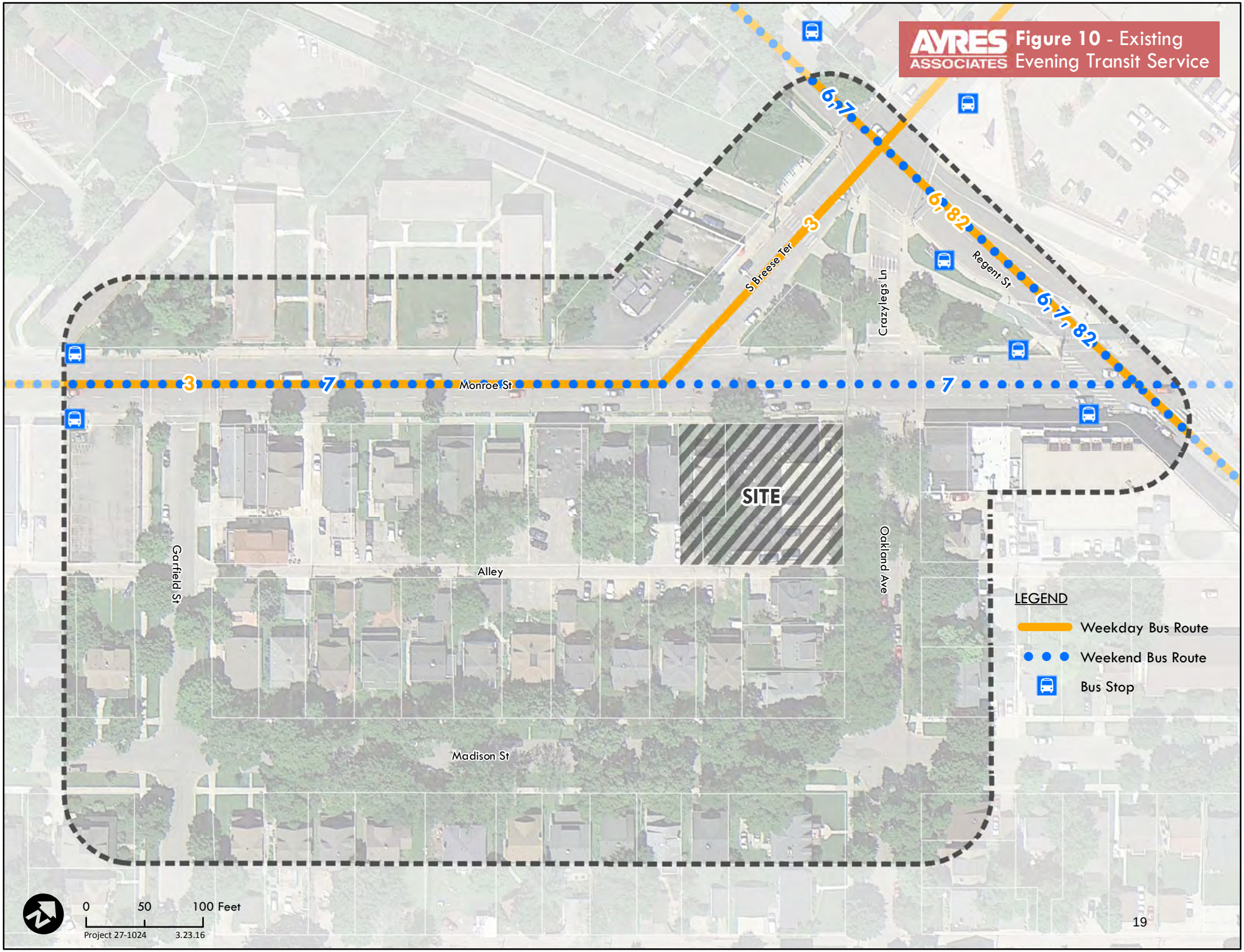
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Figure 10 - Existing Evening Transit Service
6, 7
6, 82
6, 7, 82
3
7
Monroe St
S Breese Ter
Crazylegs Ln
Regent St
SITE
Garfield St
Alley
Oakland Ave
Madison St
LEGEND
Weekday Bus Route
Weekend Bus Route
Bus Stop
0
50
100 Feet
Project 27-1024
3.23.16

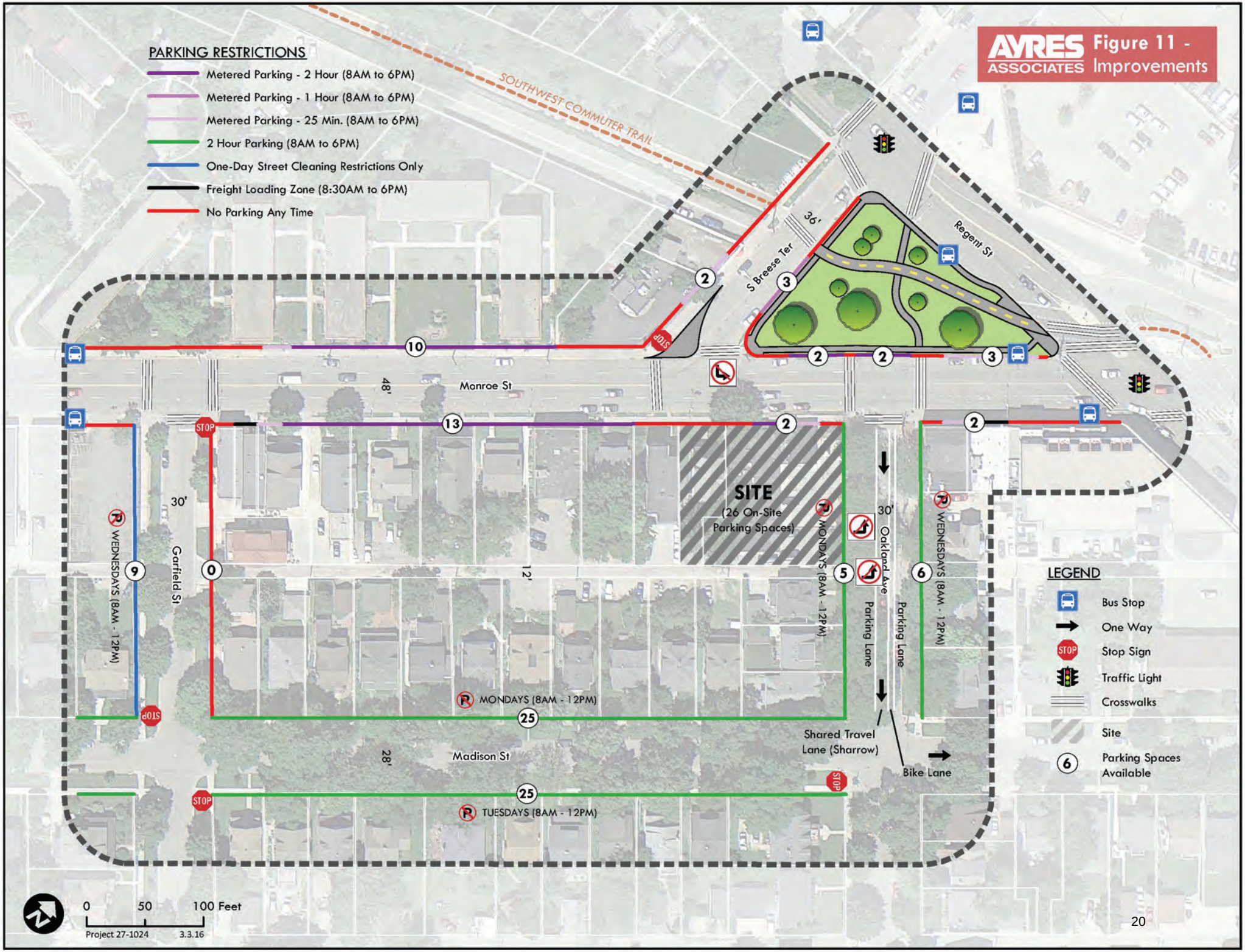
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Figure 11 - Improvements
PARKING RESTRICTIONS
Metered Parking - 2 Hour (8AM to 6PM)
Metered Parking - 1 Hour (8AM to 6PM)
Metered Parking - 25 Min. (8AM to 6PM)
2 Hour Parking (8AM to 6PM)
One-Day Street Cleaning Restrictions Only
Freight Loading Zone (8:30AM to 6PM)
No Parking Any Time
SOUTHWEST COMMUTER TRAIL
S Breese Ter
Regent St
36'
Monroe St
48'
Garfield St
30'
Madison St
28'
12'
SITE
(26 On-Site Parking Spaces)
Oakland Ave
30'
Parking Lane
Parking Lane
Shared Travel Lane (Sharrow)
Bike Lane
STOP
WEDNESDAYS (8AM - 12PM)
MONDAYS (8AM - 12PM)
TUESDAYS (8AM - 12PM)
LEGEND
Bus Stop
One Way
Stop Sign
Traffic Light
Crosswalks
Site
Parking Spaces Available
0 50 100 Feet
Project 27-1024 3.3.16

Appendix

- Traffic Counts
- Synchro Signalized Intersection Reports

Intersection Traffic Volume Report

Count Basics		*Page 3 of 11*
Start Date: Wednesday, March 02, 2016	Weekday	Schools in Session
Total Number of Hours Counted: 3	Non-Holiday	No Special Events

Peak Hour Volume Summary

Garfield Street and Alley

All Motor Vehicles

Peak Hour Volumes, Truck Percentages, and PHFs

Wednesday, March 02, 2016		From North (↓)					From East (←)					From South (↑)					From West (→)					
	AM Peak Hour	Alley					Garfield Street					Alley					Garfield Street					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
AM Peak Hour	7:30 AM	2	0	0	0	2	0	2	0	0	2	1	0	2	0	3	0	0	0	0	0	7
	7:45 AM	0	0	0	0	0	1	9	0	0	10	0	0	1	0	1	0	2	2	0	4	15
	8:00 AM	2	0	1	0	3	0	7	0	0	7	2	0	1	0	3	0	1	1	0	2	15
	8:15 AM	0	0	0	0	0	1	7	1	0	9	0	0	0	0	0	1	2	0	0	3	12
	Peak Hour Volume	4	0	1	0	5	2	25	1	0	28	3	0	4	0	7	1	5	3	0	9	49
	Rounded Hourly Volume	5	0	0	0	5	0	25	0	0	25	5	0	5	0	10	0	5	5	0	10	50
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.50	0.00	0.25	0.00	0.42	0.50	0.69	0.25	0.00	0.70	0.37	0.00	0.50	0.00	0.58	0.25	0.62	0.37	0.00	0.56	0.82

N/A		From North (↓)					From East (←)					From South (↑)					From West (→)					
	MD Peak Hour	Alley					Garfield Street					Alley					Garfield Street					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
Midday (MD) Peak Hour	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Wednesday, March 02, 2016		From North (↓)					From East (←)					From South (↑)					From West (→)					
	PM Peak Hour	Alley					Garfield Street					Alley					Garfield Street					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
PM Peak Hour	4:30 PM	3	1	0	0	4	2	2	0	0	4	0	0	1	0	1	1	5	0	0	6	15
	4:45 PM	2	0	0	0	2	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	10
	5:00 PM	1	1	0	0	2	0	4	0	0	4	3	0	1	0	4	1	9	0	0	10	20
	5:15 PM	0	1	0	0	1	0	7	0	0	7	0	0	0	0	0	1	8	0	0	9	17
	Peak Hour Volume	6	3	0	0	9	2	17	0	0	19	3	0	2	0	5	3	26	0	0	29	62
	Rounded Hourly Volume	5	5	0	0	10	0	15	0	0	15	5	0	0	0	5	5	25	0	0	30	60
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.50	0.75	0.00	0.00	0.56	0.25	0.61	0.00	0.00	0.68	0.25	0.00	0.50	0.00	0.31	0.75	0.72	0.00	0.00	0.72	0.77

Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		Alley			Garfield Street			Alley			Garfield Street			
	15-Minute Start Time	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

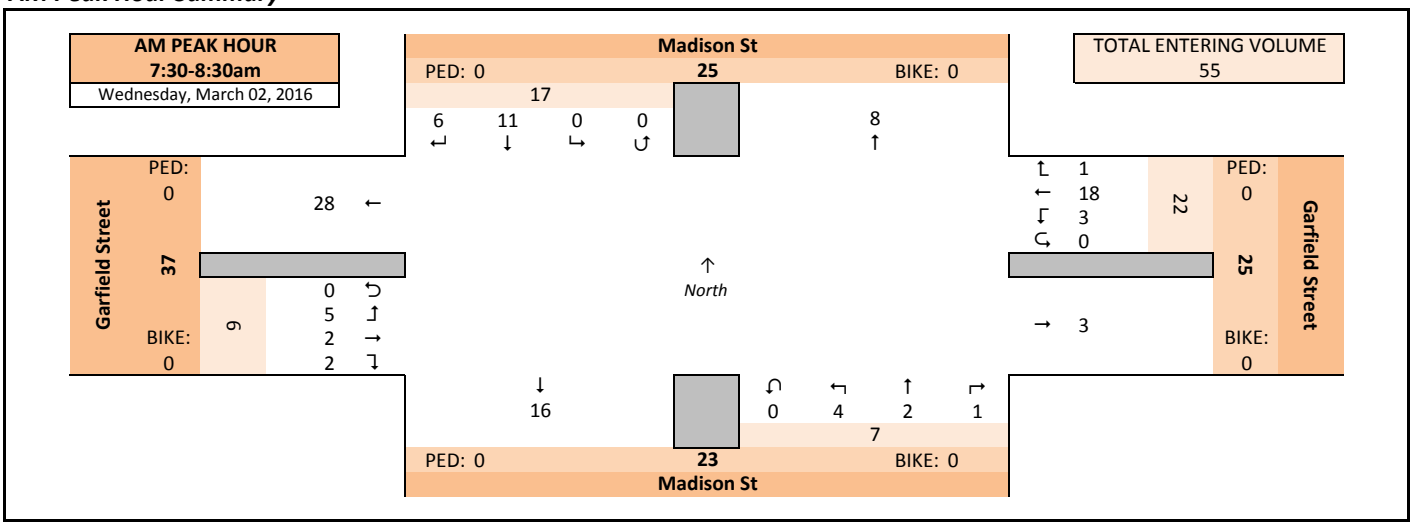
Count Basics			Page 2 of 11
Start Date:	Wednesday, March 02, 2016	Weekday	Schools in Session
Total Number of Hours Counted: 3		Non-Holiday	No Special Events

Peak Hour Volume Graphical Summary

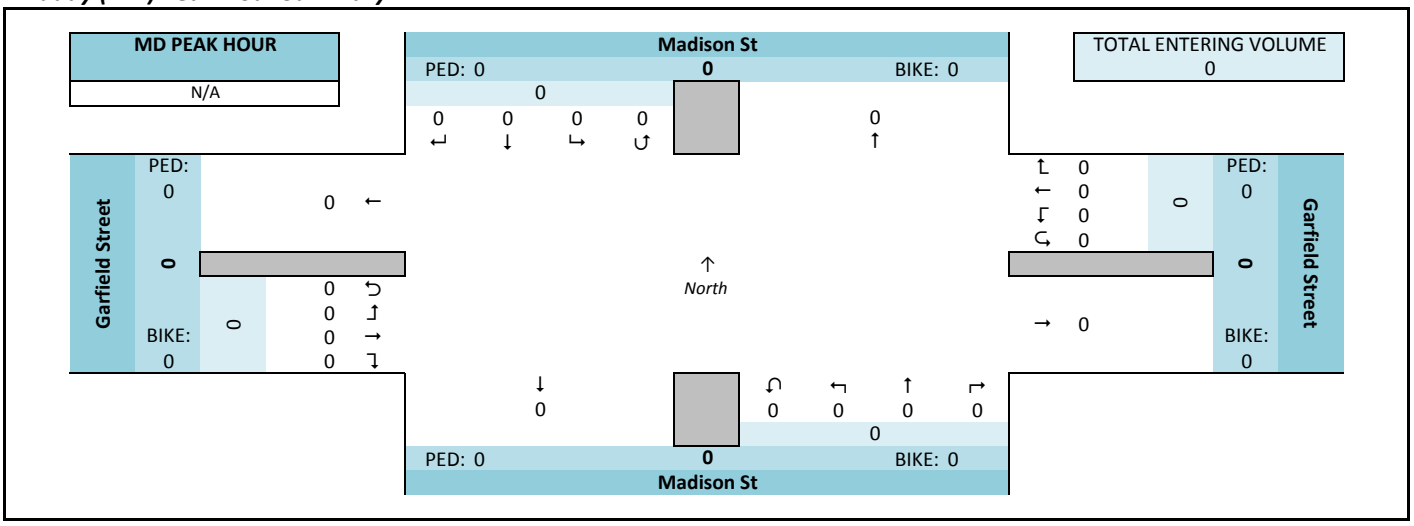
Garfield Street and Madison St

All Motor Vehicles

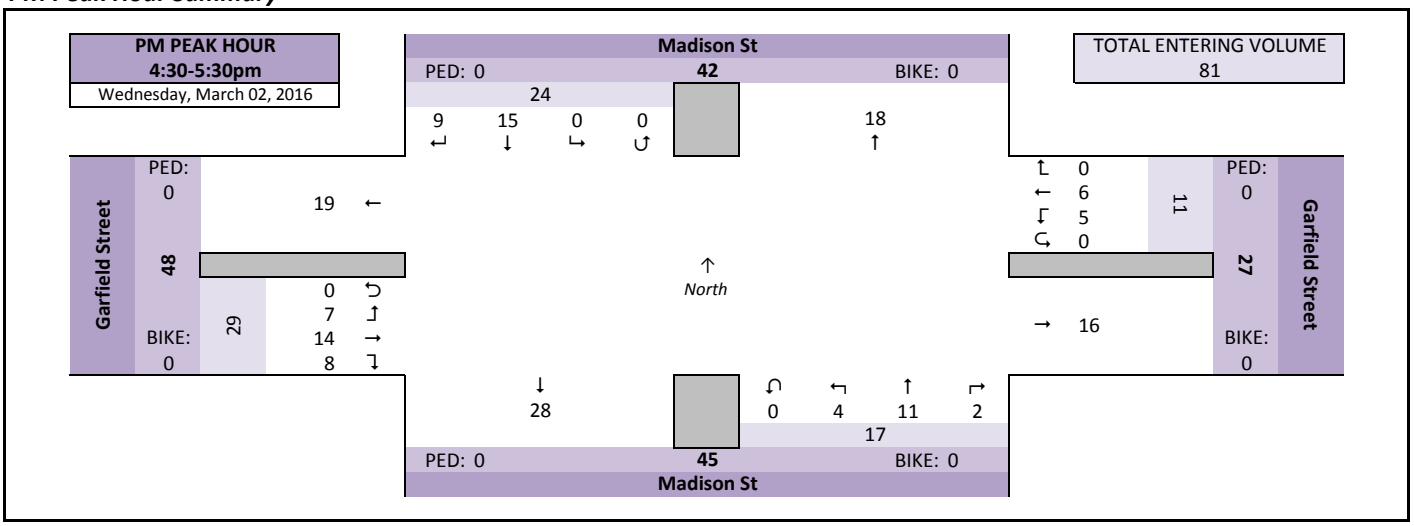
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary



Intersection Traffic Volume Report

Count Basics	Version 2011.M2		Page 1 of 11
Start Date:	Wednesday, March 02, 2016	Weekday	Schools in Session
Total Number of Hours Counted: 3		Non-Holiday	No Special Events

Base Information, Observed (3) Hour and Estimated (24) Hour Volume Summaries

Intersection of: Oakland Avenue and Alley

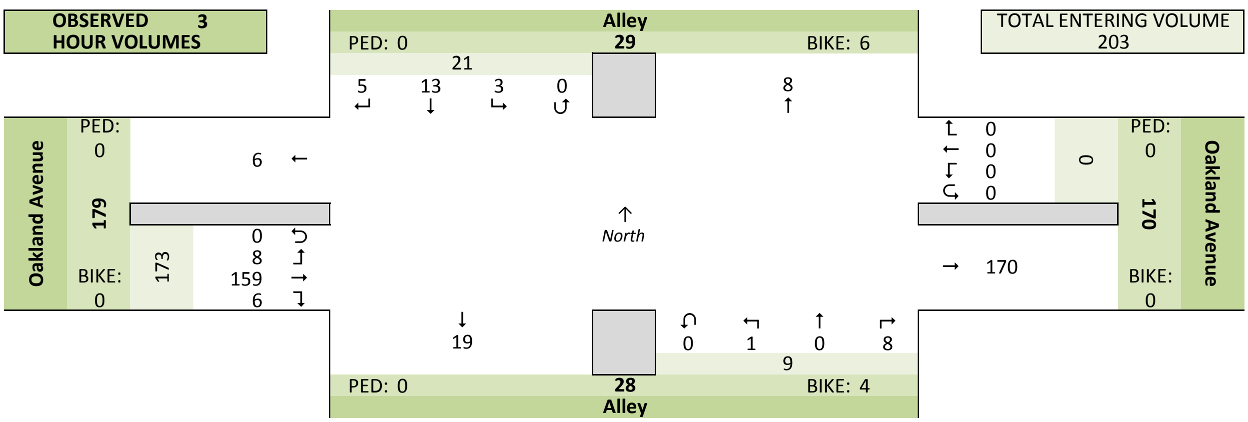
Site Information

Municipality	Madison		
County	Dane	WisDOT Region	SW-M
Traffic Control	Traffic Signal		
Roadway Names		North Direction	↑
North Leg	Alley		
East Leg	Oakland Avenue		
South Leg	Alley		
West Leg	Oakland Avenue		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementry school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe) None	None		

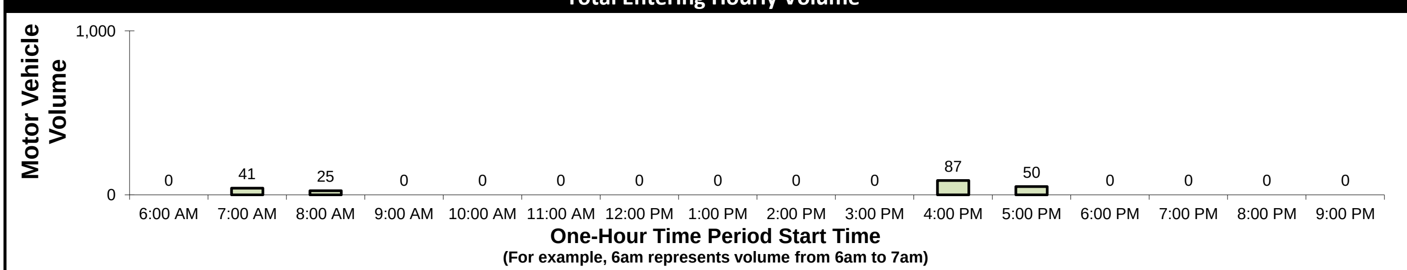
Count Information

Hrs Counted:	7:00 AM-8:30 AM and 4:00 PM-5:30 PM		
Count Dates		Weather	
AM Peak Period	Wednesday, March 02, 2016	Clear & Dry	
Midday Peak Period	Wednesday, March 02, 2016	Clear & Dry	
PM Peak Period	Wednesday, March 02, 2016	Clear & Dry	
Calculated Peak Hours			
AM 7:30-8:30am	MD	PM 4:30-5:30pm	
Peak Hours Selected for Analysis			
AM 7:30-8:30am	MD	PM 4:30-5:30pm	
Daily/Seasonal Adjustment Group	Other		
Count Expansion Group	Other		
Daily/Seasonal Adjustment Factor	#N/A	Count Expansion Factor	#N/A
Company Name	Ayres Associates	Manual Adj.	1.000
Observers: AM Peak Period	MioVision		
Midday Peak Period	MioVision		
PM Peak Period	MioVision		
Comments	Version 2011.M2		

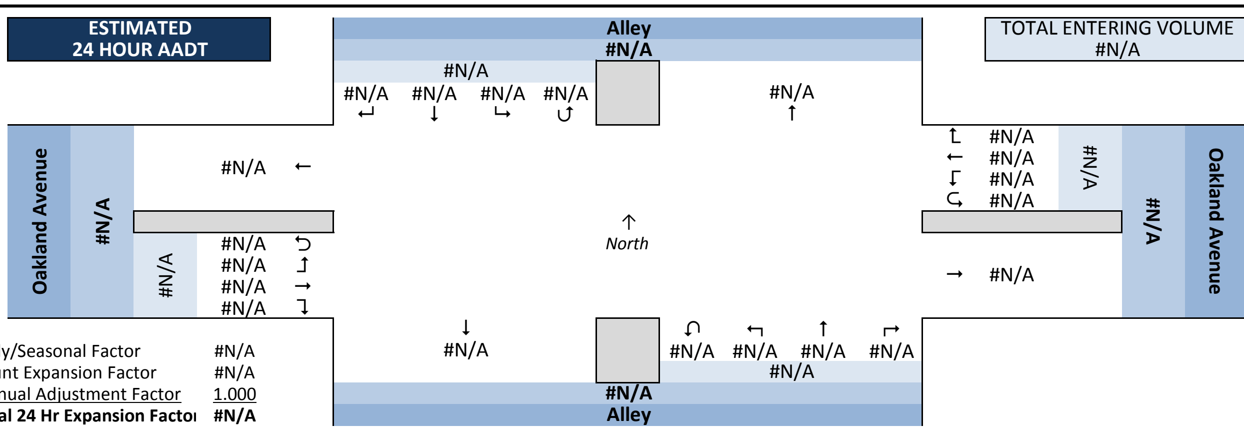
Observed 3 Hour Volume Summary



Total Entering Hourly Volume



Estimated 24 Hour AADT



Daily/Seasonal Factor	#N/A
Count Expansion Factor	#N/A
Manual Adjustment Factor	1.000
Total 24 Hr Expansion Factor	**#N/A**

Intersection Traffic Volume Report

Count Basics	Version 2011.M2		Page 1 of 11
Start Date:	Wednesday, March 02, 2016	Weekday	Schools in Session
Total Number of Hours Counted: 3		Non-Holiday	No Special Events

Base Information, Observed (3) Hour and Estimated (24) Hour Volume Summaries

Intersection of: Oakland Avenue and Madison Street

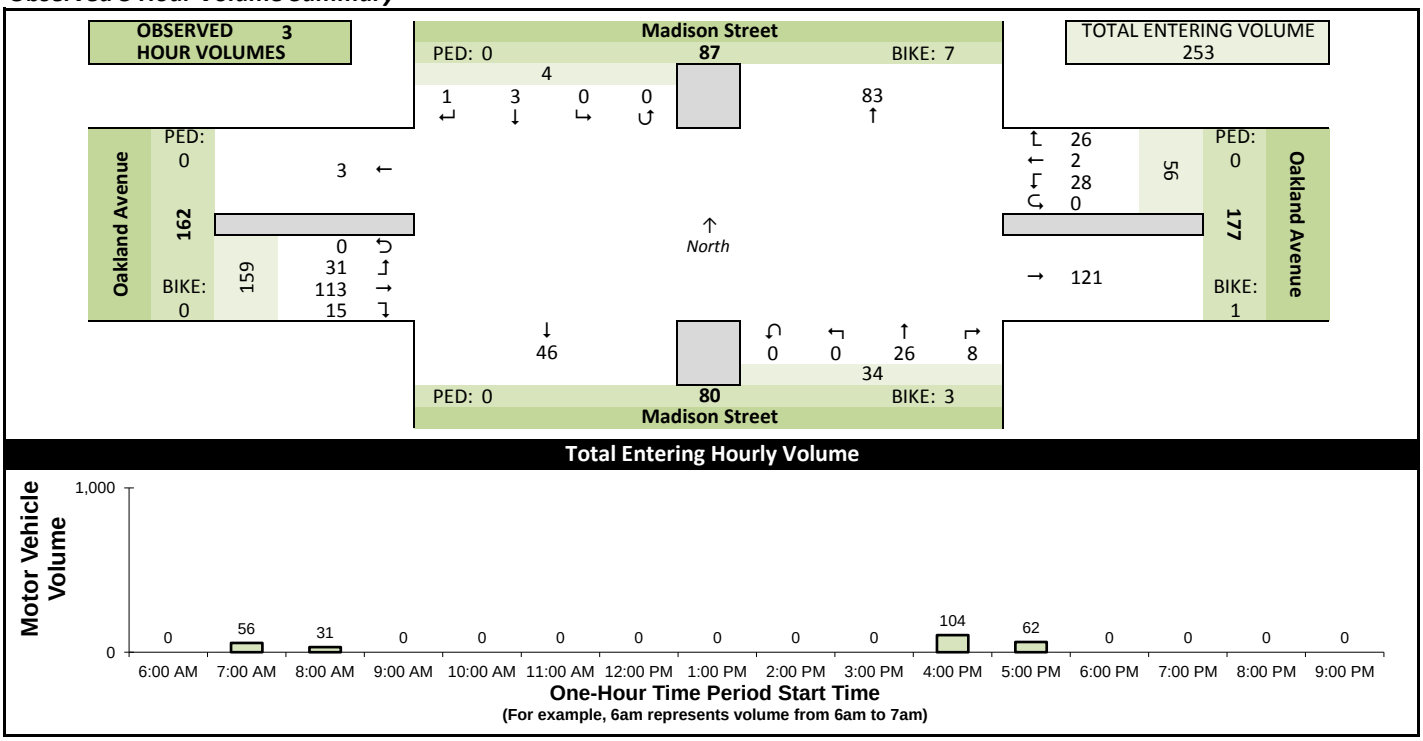
Site Information

Municipality	Madison		
County	Dane	WisDOT Region	SW-M
Traffic Control	Traffic Signal		
Roadway Names		North Direction	↑
North Leg	Madison Street		
East Leg	Oakland Avenue		
South Leg	Madison Street		
West Leg	Oakland Avenue		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementry school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None	None	

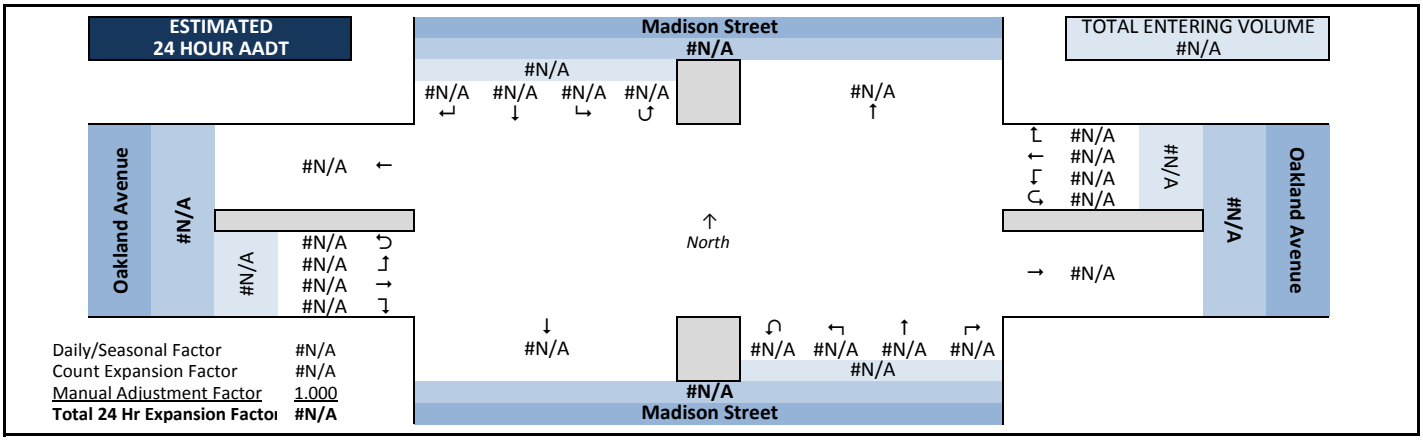
Count Information

Hrs Counted:	7:00 AM-8:30 AM and 4:00 PM-5:30 PM				
Count Dates				Weather	
AM Peak Period	Wednesday, March 02, 2016			Clear & Dry	
Midday Peak Period	Wednesday, March 02, 2016			Clear & Dry	
PM Peak Period	Wednesday, March 02, 2016			Clear & Dry	
Calculated Peak Hours					
AM	7:30-8:30am	MD		PM	4:30-5:30pm
Peak Hours Selected for Analysis					
AM	7:30-8:30am	MD		PM	4:30-5:30pm
Daily/Seasonal Adjustment Group	Other				
Count Expansion Group	Other				
Daily/Seasonal Adjustment Factor	#N/A	Count Expansion Factor	#N/A		
Company Name	Ayres Associates			Manual Adj.	1.000
Observers	AM Peak Period	MioVision			
	Midday Peak Period	MioVision			
	PM Peak Period	MioVision			
Comments	Version 2011.M2				

Observed 3 Hour Volume Summary



Estimated 24 Hour AADT



Intersection Traffic Volume Report

Count Basics	Version 2011.M2		Page 1 of 11
Start Date:	Wednesday, March 02, 2016	Weekday	Schools in Session
Total Number of Hours Counted: 3		Non-Holiday	No Special Events

Base Information, Observed (3) Hour and Estimated (24) Hour Volume Summaries

Intersection of: Monroe Street and S Breese Terrace

Site Information

Municipality	Madison		
County	Dane	WisDOT Region	SW-M
Traffic Control	Traffic Signal		
Roadway Names		North Direction	↑
North Leg	Monroe Street		
East Leg			
South Leg	Monroe Street		
West Leg	S Breese Terrace		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementry school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None	None	

Count Information

Hrs Counted:	7:00 AM-8:30 AM and 4:00 PM-5:30 PM		
Count Dates		Weather	
AM Peak Period	Wednesday, March 02, 2016	Clear & Dry	
Midday Peak Period	Wednesday, March 02, 2016	Clear & Dry	
PM Peak Period	Wednesday, March 02, 2016	Clear & Dry	
Calculated Peak Hours			
AM 7:30-8:30am	MD	PM 4:30-5:30pm	
Peak Hours Selected for Analysis			
AM 7:30-8:30am	MD	PM 4:30-5:30pm	
Daily/Seasonal Adjustment Group	Other		
Count Expansion Group	Other		
Daily/Seasonal Adjustment Factor	#N/A	Count Expansion Factor	#N/A
Company Name	Ayres Associates	Manual Adj.	1.000
Observers: AM Peak Period	MioVision		
Midday Peak Period	MioVision		
PM Peak Period	MioVision		
Comments	Version 2011.M2		

Observed 3 Hour Volume Summary

OBSERVED 3 HOUR VOLUMES

TOTAL ENTERING VOLUME 3,574

Monroe Street (North Leg): PED: 7 | **3,273** | BIKE: 0
Exiting 1582 ↑; Entering 1691: 7 ↵, 1684 ↓, 0 ↳, 0 U-turn

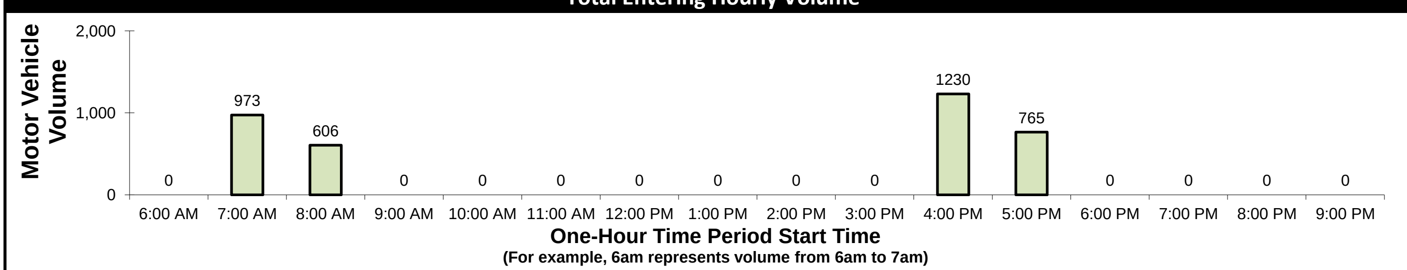
S Breese Terrace (West Leg): PED: 50 | **312** | BIKE: 2
Exiting 123 ←; Entering 189: 0 U-turn, 4 left, 0 →, 185 right

East Leg: PED: 0 | **0** | BIKE: 0
Entering 0: 0, 0, 0, 0; Exiting 0 →

North

Monroe Street (South Leg): PED: 6 | **3,563** | BIKE: 0
Exiting 1869 ↓; Entering 1694: 0 U-turn, 116 left, 1578 ↑, 0 right

Total Entering Hourly Volume



Estimated 24 Hour AADT

ESTIMATED 24 HOUR AADT

TOTAL ENTERING VOLUME #N/A

Monroe Street (North Leg): **#N/A**
Exiting #N/A ↑; Entering #N/A: #N/A ↵, #N/A ↓, #N/A ↳, #N/A U-turn

S Breese Terrace (West Leg): **#N/A**
Exiting #N/A ←; Entering #N/A: #N/A, #N/A, #N/A, #N/A

East Leg: **#N/A** | 0
Entering #N/A: #N/A, #N/A, #N/A, #N/A; Exiting #N/A →

North

Monroe Street (South Leg): **#N/A**
Exiting #N/A ↓; Entering #N/A: #N/A, #N/A, #N/A, #N/A

Daily/Seasonal Factor	#N/A
Count Expansion Factor	#N/A
Manual Adjustment Factor	1.000
Total 24 Hr Expansion Factor	**#N/A**

Intersection Traffic Volume Report

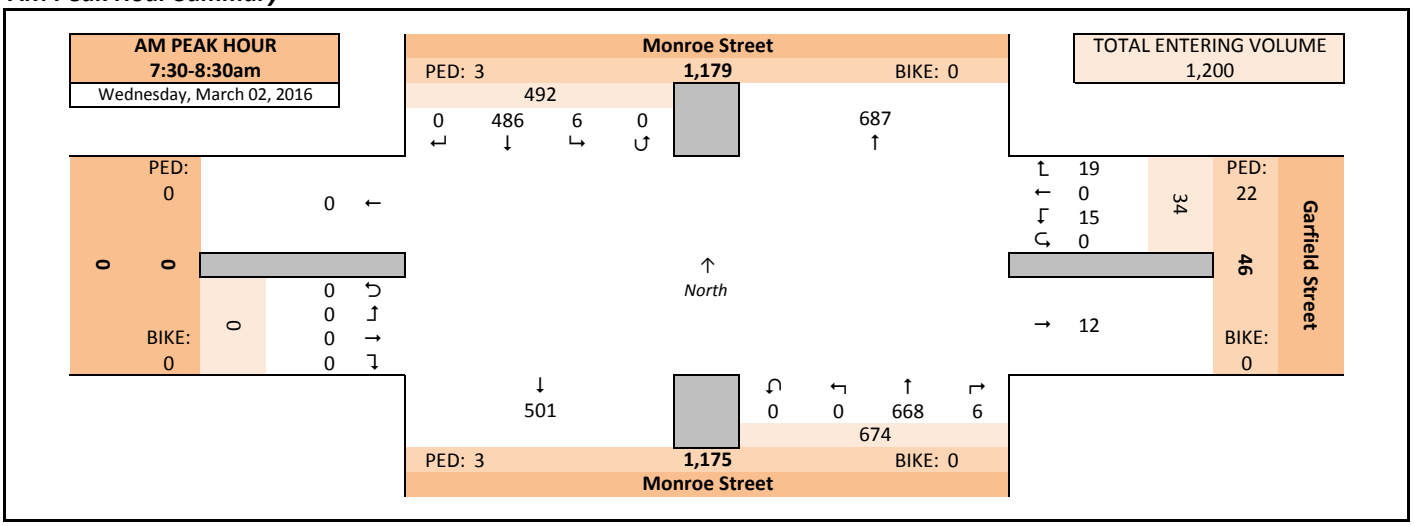
Count Basics			Page 2 of 11
Start Date:	Wednesday, March 02, 2016	Weekday	Schools in Session
Total Number of Hours Counted: 3		Non-Holiday	No Special Events

Peak Hour Volume Graphical Summary

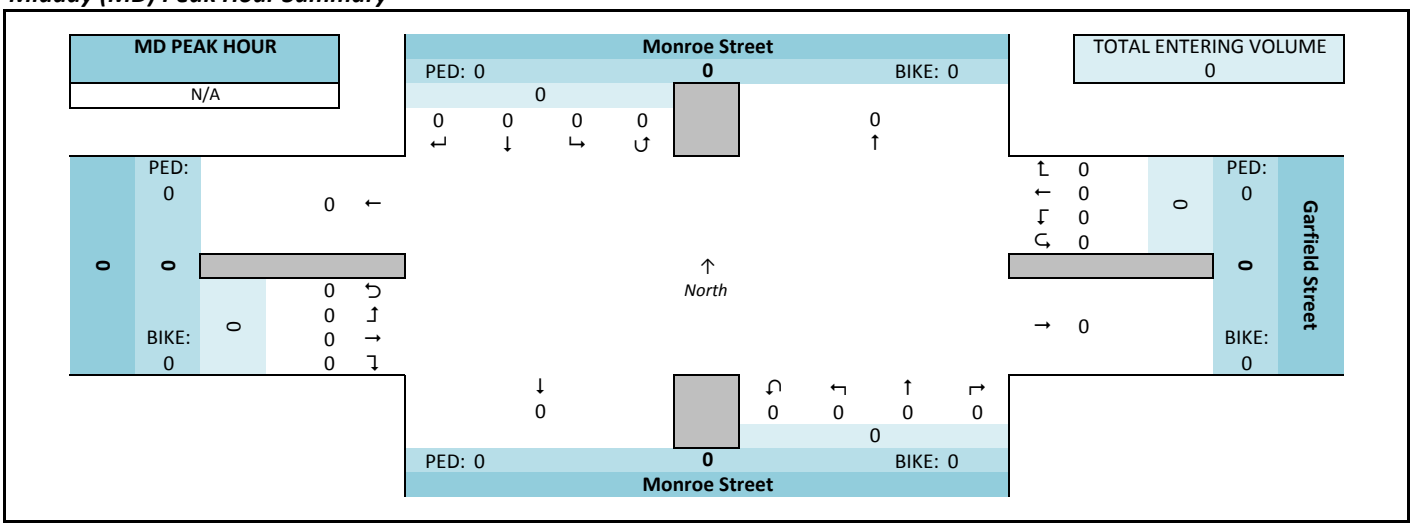
All Motor Vehicles

Monroe Street and Garfield Street

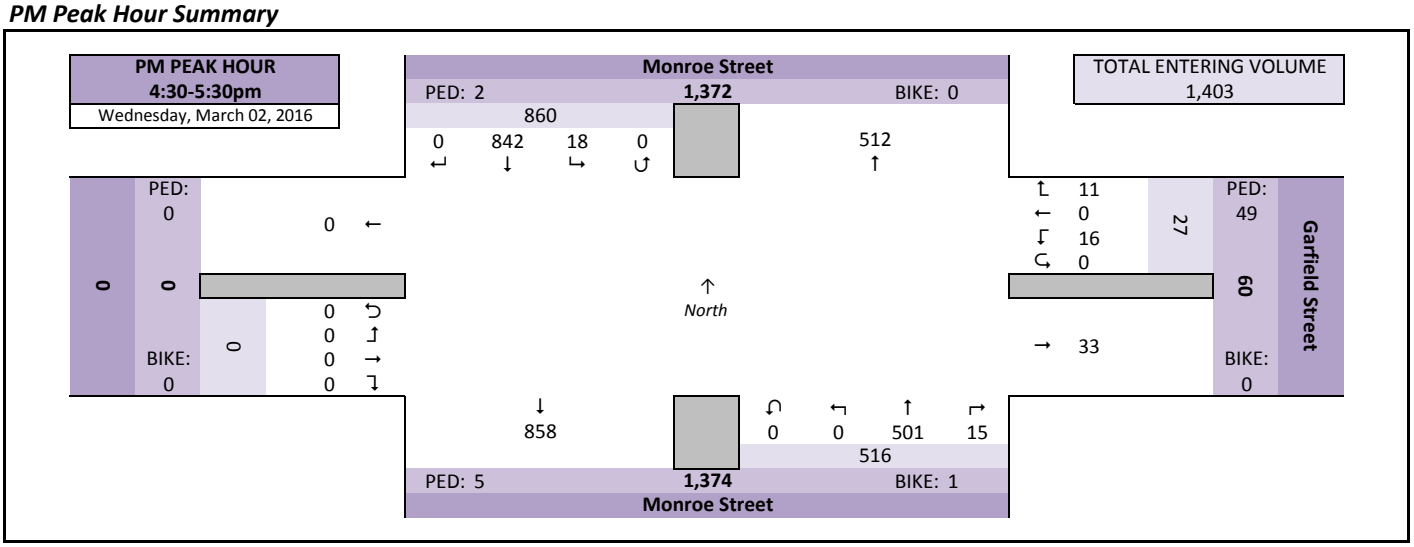
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary



Intersection Traffic Volume Report

Count Basics	Version 2011.M2		Page 1 of 11
Start Date:	Wednesday, March 02, 2016	Weekday	Schools in Session
Total Number of Hours Counted: 3		Non-Holiday	No Special Events

Base Information, Observed (3) Hour and Estimated (24) Hour Volume Summaries

Intersection of: Monroe Street and Crazylegs Lane/Oakland Avenue

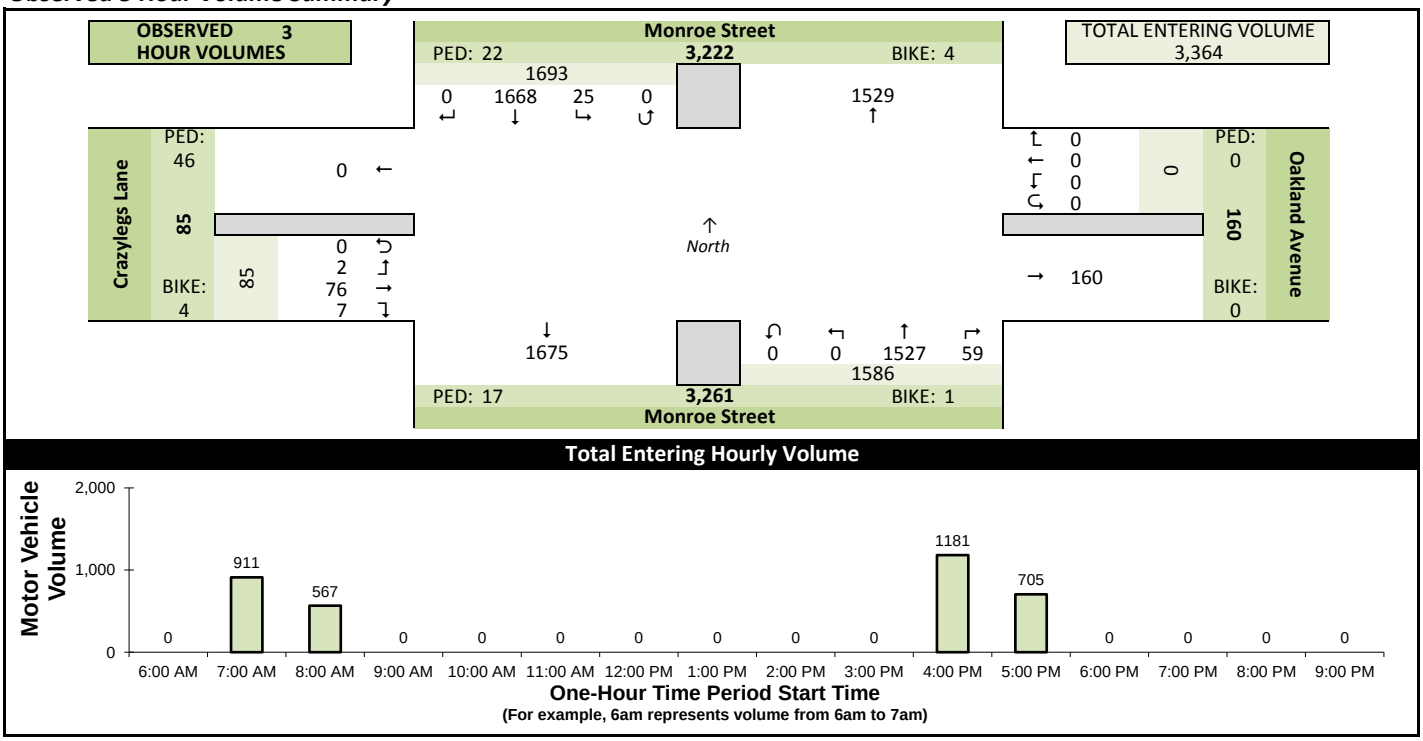
Site Information

Municipality	Madison		
County	Dane	WisDOT Region	SW-M
Traffic Control	Traffic Signal		
Roadway Names		North Direction	↑
North Leg	Monroe Street		
East Leg	Oakland Avenue		
South Leg	Monroe Street		
West Leg	Crazylegs Lane		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementry school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None		

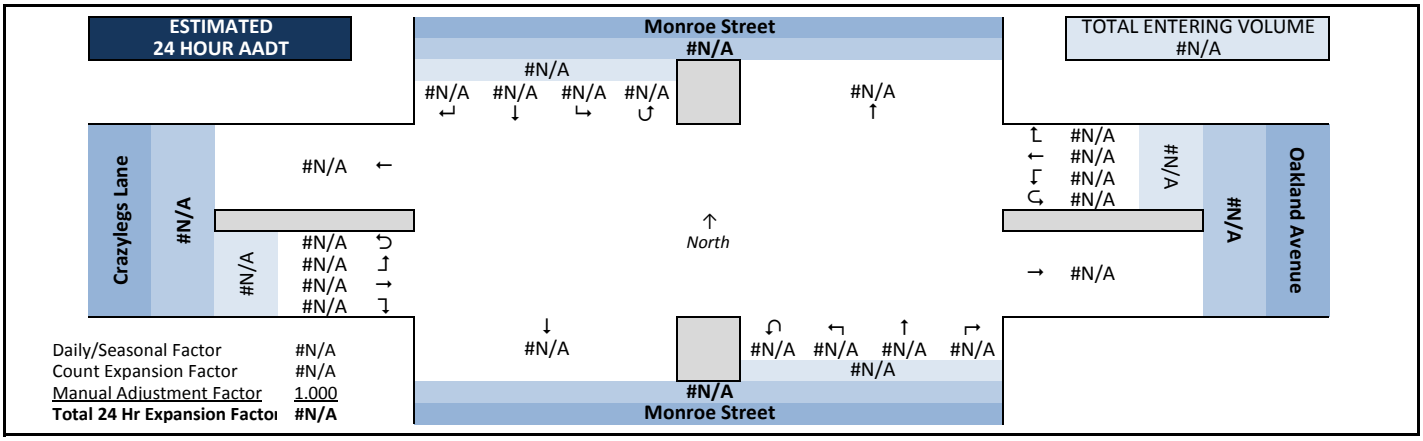
Count Information

Hrs Counted:	7:00 AM-8:30 AM and 4:00 PM-5:30 PM				
Count Dates				Weather	
AM Peak Period	Wednesday, March 02, 2016			Clear & Dry	
Midday Peak Period	Wednesday, March 02, 2016			Clear & Dry	
PM Peak Period	Wednesday, March 02, 2016			Clear & Dry	
Calculated Peak Hours					
AM	7:30-8:30am	MD		PM	4:30-5:30pm
Peak Hours Selected for Analysis					
AM	7:30-8:30am	MD		PM	4:30-5:30pm
Daily/Seasonal Adjustment Group	Other				
Count Expansion Group	Other				
Daily/Seasonal Adjustment Factor	#N/A	Count Expansion Factor	#N/A		
Company Name	Ayres Associates			Manual Adj.	1.000
Observers	AM Peak Period	MioVision			
	Midday Peak Period	MioVision			
	PM Peak Period	MioVision			
Comments	Version 2011.M2				

Observed 3 Hour Volume Summary



Estimated 24 Hour AADT



Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	18	1	0	0	0	0	610	31	6	447	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	1	1	1	3	3	3
Mvmt Flow	0	20	1	0	0	0	0	670	34	7	491	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	839	1208	246	491	0	0	704	0	0
Stage 1	504	504	-	-	-	-	-	-	-
Stage 2	335	704	-	-	-	-	-	-	-
Critical Hdwy	6.8	6.5	6.9	4.12	-	-	4.16	-	-
Critical Hdwy Stg 1	5.8	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	2.21	-	-	2.23	-	-
Pot Cap-1 Maneuver	308	185	760	1076	-	-	883	-	-
Stage 1	578	544	-	-	-	-	-	-	-
Stage 2	702	443	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	305	0	760	1076	-	-	883	-	-
Mov Cap-2 Maneuver	305	0	-	-	-	-	-	-	-
Stage 1	572	0	-	-	-	-	-	-	-
Stage 2	702	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	1076	-	-	760	883	-	-
HCM Lane V/C Ratio	-	-	-	0.027	0.007	-	-
HCM Control Delay (s)	0	-	-	9.9	9.1	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	17	19	670	6	6	486
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	91	91	91	91	91	91
Heavy Vehicles, %	0	0	2	2	4	4
Mvmt Flow	19	21	736	7	7	534

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1020	371	0	0	743	0
Stage 1	740	-	-	-	-	-
Stage 2	280	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.18	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.24	-
Pot Cap-1 Maneuver	236	632	-	-	847	-
Stage 1	438	-	-	-	-	-
Stage 2	748	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	233	632	-	-	847	-
Mov Cap-2 Maneuver	233	-	-	-	-	-
Stage 1	438	-	-	-	-	-
Stage 2	739	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.6	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	349	847	-
HCM Lane V/C Ratio	-	-	0.113	0.008	-
HCM Control Delay (s)	-	-	16.6	9.3	0.1
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	1	48	50	639	445	4
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	91	91	91	91	91	91
Heavy Vehicles, %	10	10	2	2	2	2
Mvmt Flow	1	53	55	702	489	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	952	247	493	0	-	0
Stage 1	491	-	-	-	-	-
Stage 2	461	-	-	-	-	-
Critical Hdwy	7	7.1	4.14	-	-	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.6	3.4	2.22	-	-	-
Pot Cap-1 Maneuver	244	729	1067	-	-	-
Stage 1	558	-	-	-	-	-
Stage 2	579	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	223	729	1067	-	-	-
Mov Cap-2 Maneuver	223	-	-	-	-	-
Stage 1	558	-	-	-	-	-
Stage 2	530	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1067	-	697	-	-
HCM Lane V/C Ratio	0.051	-	0.077	-	-
HCM Control Delay (s)	8.6	0.3	10.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	4	53	2	0	0	0	0	1	2	2	2	0
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	6	82	3	0	0	0	0	2	3	3	3	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	97	95	83	98	97	0
Stage 1	-	-	-	95	95	-	0	0	-
Stage 2	-	-	-	2	0	-	98	97	-
Critical Hdwy	-	-	-	6.4	6.5	6.2	6.4	6.5	-
Critical Hdwy Stg 1	-	-	-	5.4	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	-	-	-	3.5	4	3.3	3.5	4	-
Pot Cap-1 Maneuver	-	-	-	907	799	982	906	797	-
Stage 1	-	-	-	934	820	-	-	-	-
Stage 2	-	-	-	-	-	-	931	819	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	907	0	982	906	0	-
Mov Cap-2 Maneuver	-	-	-	907	0	-	906	0	-
Stage 1	-	-	-	934	0	-	-	0	-
Stage 2	-	-	-	-	0	-	931	0	-

Approach	EB	NB	SB
HCM Control Delay, s		8.7	
HCM LOS		A	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	982	-	-	-	-
HCM Lane V/C Ratio	0.005	-	-	-	-
HCM Control Delay (s)	8.7	-	-	-	-
HCM Lane LOS	A	-	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	3	5	1	1	25	2	4	0	3	1	0	6
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	6	1	1	30	2	5	0	4	1	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	33	0	0	7	0	0	52	49	7	50	49	32
Stage 1	-	-	-	-	-	-	14	14	-	34	34	-
Stage 2	-	-	-	-	-	-	38	35	-	16	15	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1592	-	-	1627	-	-	952	846	1081	955	846	1048
Stage 1	-	-	-	-	-	-	1011	888	-	987	871	-
Stage 2	-	-	-	-	-	-	982	870	-	1009	887	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1592	-	-	1627	-	-	942	843	1081	949	843	1048
Mov Cap-2 Maneuver	-	-	-	-	-	-	942	843	-	949	843	-
Stage 1	-	-	-	-	-	-	1008	885	-	984	870	-
Stage 2	-	-	-	-	-	-	974	869	-	1003	884	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.4	0.3	8.6	8.5
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	997	1592	-	-	1627	-	-	1033
HCM Lane V/C Ratio	0.009	0.002	-	-	0.001	-	-	0.008
HCM Control Delay (s)	8.6	7.3	0	-	7.2	0	-	8.5
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	11	35	7	11	0	4	0	5	3	0	0	0
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	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	66	66	66	66	66	66	66	66	66
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	17	53	11	17	0	6	0	8	5	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	6	0	0	64	0	0	128	131	58
Stage 1	-	-	-	-	-	-	92	92	-
Stage 2	-	-	-	-	-	-	36	39	-
Critical Hdwy	4.1	-	-	4.1	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1628	-	-	1551	-	-	871	763	1014
Stage 1	-	-	-	-	-	-	937	823	-
Stage 2	-	-	-	-	-	-	992	866	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1628	-	-	1551	-	-	852	0	1014
Mov Cap-2 Maneuver	-	-	-	-	-	-	852	0	-
Stage 1	-	-	-	-	-	-	927	0	-
Stage 2	-	-	-	-	-	-	981	0	-

Approach	EB	WB	NB
HCM Control Delay, s	1.5	5.4	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	1014	1628	-	-	1551	-	-
HCM Lane V/C Ratio	0.012	0.01	-	-	0.011	-	-
HCM Control Delay (s)	8.6	7.2	0	-	7.3	0	-
HCM Lane LOS	A	A	A	-	A	A	-
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	2	2	3	18	1	4	2	1	0	11	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	6	2	2	4	22	1	5	2	1	0	14	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	42	31	17	33	34	3	21	0	0	4	0	0
Stage 1	17	17	-	13	13	-	-	-	-	-	-	-
Stage 2	25	14	-	20	21	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	966	866	1068	979	863	1087	1608	-	-	1631	-	-
Stage 1	1008	885	-	1013	889	-	-	-	-	-	-	-
Stage 2	998	888	-	1004	882	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	944	863	1068	972	860	1087	1608	-	-	1631	-	-
Mov Cap-2 Maneuver	944	863	-	972	860	-	-	-	-	-	-	-
Stage 1	1005	885	-	1010	886	-	-	-	-	-	-	-
Stage 2	969	885	-	999	882	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.8	9.2	4.1	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1608	-	-	949	882	1631	-	-
HCM Lane V/C Ratio	0.003	-	-	0.012	0.031	-	-	-
HCM Control Delay (s)	7.2	0	-	8.8	9.2	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	47	5	0	0	0	0	461	26	15	765	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
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, %	0	0	0	0	0	0	1	1	1	1	1	1
Mvmt Flow	0	53	6	0	0	0	0	524	30	17	869	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1165	1456	435	869	0	0	553	0	0
Stage 1	903	903	-	-	-	-	-	-	-
Stage 2	262	553	-	-	-	-	-	-	-
Critical Hdwy	6.8	6.5	6.9	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.8	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	2.21	-	-	2.21	-	-
Pot Cap-1 Maneuver	190	131	575	777	-	-	1020	-	-
Stage 1	361	359	-	-	-	-	-	-	-
Stage 2	764	518	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	184	0	575	777	-	-	1020	-	-
Mov Cap-2 Maneuver	184	0	-	-	-	-	-	-	-
Stage 1	349	0	-	-	-	-	-	-	-
Stage 2	764	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	777	-	-	575	1020	-	-
HCM Lane V/C Ratio	-	-	-	0.103	0.017	-	-
HCM Control Delay (s)	0	-	-	12	8.6	0.1	-
HCM Lane LOS	A	-	-	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.1	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	16	11	508	15	18	842
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	86	86	86	86	86	86
Heavy Vehicles, %	0	0	2	2	1	1
Mvmt Flow	19	13	591	17	21	979

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1130	304	0	0	608	0
Stage 1	599	-	-	-	-	-
Stage 2	531	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.12	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.21	-
Pot Cap-1 Maneuver	201	698	-	-	973	-
Stage 1	517	-	-	-	-	-
Stage 2	560	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	192	698	-	-	973	-
Mov Cap-2 Maneuver	192	-	-	-	-	-
Stage 1	517	-	-	-	-	-
Stage 2	534	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	272	973	-
HCM Lane V/C Ratio	-	-	0.115	0.022	-
HCM Control Delay (s)	-	-	20	8.8	0.2
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	1	86	34	484	777	2
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	85	85	85	85	85	85
Heavy Vehicles, %	6	6	2	2	1	1
Mvmt Flow	1	101	40	569	914	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1280	458	916	0	-	0
Stage 1	915	-	-	-	-	-
Stage 2	365	-	-	-	-	-
Critical Hdwy	6.92	7.02	4.14	-	-	-
Critical Hdwy Stg 1	5.92	-	-	-	-	-
Critical Hdwy Stg 2	5.92	-	-	-	-	-
Follow-up Hdwy	3.56	3.36	2.22	-	-	-
Pot Cap-1 Maneuver	152	539	740	-	-	-
Stage 1	341	-	-	-	-	-
Stage 2	661	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	140	539	740	-	-	-
Mov Cap-2 Maneuver	140	-	-	-	-	-
Stage 1	341	-	-	-	-	-
Stage 2	609	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.6	1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	740	-	522	-	-
HCM Lane V/C Ratio	0.054	-	0.196	-	-
HCM Control Delay (s)	10.1	0.4	13.6	-	-
HCM Lane LOS	B	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.7	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	11	83	1	0	0	0	0	0	4	2	8	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	101	1	0	0	0	0	0	5	2	10	6

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	137	129	102	131	129	0
Stage 1	-	-	-	129	129	-	0	0	-
Stage 2	-	-	-	8	0	-	131	129	-
Critical Hdwy	-	-	-	6.4	6.5	6.2	6.4	6.5	-
Critical Hdwy Stg 1	-	-	-	5.4	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	-	-	-	3.5	4	3.3	3.5	4	-
Pot Cap-1 Maneuver	-	-	-	861	765	959	868	765	-
Stage 1	-	-	-	902	793	-	-	-	-
Stage 2	-	-	-	-	-	-	900	793	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	861	0	959	868	0	-
Mov Cap-2 Maneuver	-	-	-	861	0	-	868	0	-
Stage 1	-	-	-	902	0	-	-	0	-
Stage 2	-	-	-	-	0	-	900	0	-

Approach	EB	NB	SB
HCM Control Delay, s		8.8	
HCM LOS		A	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	959	-	-	-	-
HCM Lane V/C Ratio	0.005	-	-	-	-
HCM Control Delay (s)	8.8	-	-	-	-
HCM Lane LOS	A	-	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	26	3	0	17	2	2	0	3	0	3	6
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	34	4	0	22	3	3	0	4	0	4	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	25	0	0	38	0	0	65	61	36	61	61	23
Stage 1	-	-	-	-	-	-	36	36	-	23	23	-
Stage 2	-	-	-	-	-	-	29	25	-	38	38	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1603	-	-	1585	-	-	934	834	1042	939	834	1060
Stage 1	-	-	-	-	-	-	985	869	-	1000	880	-
Stage 2	-	-	-	-	-	-	993	878	-	982	867	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1603	-	-	1585	-	-	924	834	1042	935	834	1060
Mov Cap-2 Maneuver	-	-	-	-	-	-	924	834	-	935	834	-
Stage 1	-	-	-	-	-	-	985	869	-	1000	880	-
Stage 2	-	-	-	-	-	-	981	878	-	978	867	-

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

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	991	1603	-	-	1585	-	-	972
HCM Lane V/C Ratio	0.007	-	-	-	-	-	-	0.012
HCM Control Delay (s)	8.7	0	-	-	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	16	61	6	12	1	12	0	10	4	0	1	0
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	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	18	67	7	13	1	13	0	11	4	0	1	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	14	0	0	74	0	0	139	146	70
Stage 1	-	-	-	-	-	-	105	105	-
Stage 2	-	-	-	-	-	-	34	41	-
Critical Hdwy	4.1	-	-	4.1	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1617	-	-	1538	-	-	859	749	998
Stage 1	-	-	-	-	-	-	924	812	-
Stage 2	-	-	-	-	-	-	994	865	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1617	-	-	1538	-	-	841	0	998
Mov Cap-2 Maneuver	-	-	-	-	-	-	841	0	-
Stage 1	-	-	-	-	-	-	913	0	-
Stage 2	-	-	-	-	-	-	985	0	-

Approach	EB	WB	NB
HCM Control Delay, s	1.4	3.5	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	998	1617	-	-	1538	-	-
HCM Lane V/C Ratio	0.015	0.011	-	-	0.009	-	-
HCM Control Delay (s)	8.7	7.3	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	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	7	14	8	5	6	0	4	11	2	0	15	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	20	11	7	9	0	6	16	3	0	21	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	61	58	28	73	63	17	34	0	0	19	0	0
Stage 1	28	28	-	29	29	-	-	-	-	-	-	-
Stage 2	33	30	-	44	34	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	939	837	1053	923	832	1068	1591	-	-	1611	-	-
Stage 1	994	876	-	993	875	-	-	-	-	-	-	-
Stage 2	988	874	-	975	871	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	929	834	1053	894	829	1068	1591	-	-	1611	-	-
Mov Cap-2 Maneuver	929	834	-	894	829	-	-	-	-	-	-	-
Stage 1	990	876	-	989	872	-	-	-	-	-	-	-
Stage 2	974	871	-	942	871	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.1	9.3	1.7	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1591	-	-	909	857	1611	-	-
HCM Lane V/C Ratio	0.004	-	-	0.046	0.018	-	-	-
HCM Control Delay (s)	7.3	0	-	9.1	9.3	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	16	1	0	0	0	0	610	29	5	447	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	1	1	1	3	3	3
Mvmt Flow	0	18	1	0	0	0	0	670	32	5	491	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	837	1204	246	491	0	0	702	0	0
Stage 1	502	502	-	-	-	-	-	-	-
Stage 2	335	702	-	-	-	-	-	-	-
Critical Hdwy	6.8	6.5	6.9	4.12	-	-	4.16	-	-
Critical Hdwy Stg 1	5.8	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	2.21	-	-	2.23	-	-
Pot Cap-1 Maneuver	309	186	760	1076	-	-	885	-	-
Stage 1	579	545	-	-	-	-	-	-	-
Stage 2	702	443	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	307	0	760	1076	-	-	885	-	-
Mov Cap-2 Maneuver	307	0	-	-	-	-	-	-	-
Stage 1	574	0	-	-	-	-	-	-	-
Stage 2	702	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	1076	-	-	760	885	-	-
HCM Lane V/C Ratio	-	-	-	0.025	0.006	-	-
HCM Control Delay (s)	0	-	-	9.9	9.1	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	15	19	668	6	6	486
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	91	91	91	91	91	91
Heavy Vehicles, %	0	0	2	2	4	4
Mvmt Flow	16	21	734	7	7	534

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1017	370	0	0	741	0
Stage 1	737	-	-	-	-	-
Stage 2	280	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.18	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.24	-
Pot Cap-1 Maneuver	237	633	-	-	849	-
Stage 1	439	-	-	-	-	-
Stage 2	748	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	234	633	-	-	849	-
Mov Cap-2 Maneuver	234	-	-	-	-	-
Stage 1	439	-	-	-	-	-
Stage 2	739	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.1	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	361	849	-
HCM Lane V/C Ratio	-	-	0.103	0.008	-
HCM Control Delay (s)	-	-	16.1	9.3	0.1
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	1	48	50	637	445	4
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	91	91	91	91	91	91
Heavy Vehicles, %	10	10	2	2	2	2
Mvmt Flow	1	53	55	700	489	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	951	247	493	0	-	0
Stage 1	491	-	-	-	-	-
Stage 2	460	-	-	-	-	-
Critical Hdwy	7	7.1	4.14	-	-	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.6	3.4	2.22	-	-	-
Pot Cap-1 Maneuver	244	729	1067	-	-	-
Stage 1	558	-	-	-	-	-
Stage 2	580	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	224	729	1067	-	-	-
Mov Cap-2 Maneuver	224	-	-	-	-	-
Stage 1	558	-	-	-	-	-
Stage 2	531	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1067	-	697	-	-
HCM Lane V/C Ratio	0.051	-	0.077	-	-
HCM Control Delay (s)	8.6	0.3	10.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	4	48	1	0	0	0	0	1	2	2	2	0
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	6	74	2	0	0	0	0	2	3	3	3	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	89	87	75	89	88	0
Stage 1	-	-	-	87	87	-	0	0	-
Stage 2	-	-	-	2	0	-	89	88	-
Critical Hdwy	-	-	-	6.4	6.5	6.2	6.4	6.5	-
Critical Hdwy Stg 1	-	-	-	5.4	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	-	-	-	3.5	4	3.3	3.5	4	-
Pot Cap-1 Maneuver	-	-	-	917	807	992	917	806	-
Stage 1	-	-	-	941	827	-	-	-	-
Stage 2	-	-	-	-	-	-	940	826	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	917	0	992	917	0	-
Mov Cap-2 Maneuver	-	-	-	917	0	-	917	0	-
Stage 1	-	-	-	941	0	-	-	0	-
Stage 2	-	-	-	-	0	-	940	0	-

Approach	EB	NB	SB
HCM Control Delay, s		8.6	
HCM LOS		A	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	992	-	-	-	-
HCM Lane V/C Ratio	0.005	-	-	-	-
HCM Control Delay (s)	8.6	-	-	-	-
HCM Lane LOS	A	-	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	3	5	1	1	25	2	4	0	3	1	0	4
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	6	1	1	30	2	5	0	4	1	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	33	0	0	7	0	0	51	49	7	50	49	32
Stage 1	-	-	-	-	-	-	14	14	-	34	34	-
Stage 2	-	-	-	-	-	-	37	35	-	16	15	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1592	-	-	1627	-	-	953	846	1081	955	846	1048
Stage 1	-	-	-	-	-	-	1011	888	-	987	871	-
Stage 2	-	-	-	-	-	-	984	870	-	1009	887	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1592	-	-	1627	-	-	946	843	1081	949	843	1048
Mov Cap-2 Maneuver	-	-	-	-	-	-	946	843	-	949	843	-
Stage 1	-	-	-	-	-	-	1008	885	-	984	870	-
Stage 2	-	-	-	-	-	-	978	869	-	1003	884	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.4	0.3	8.6	8.5
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	999	1592	-	-	1627	-	-	1027
HCM Lane V/C Ratio	0.009	0.002	-	-	0.001	-	-	0.006
HCM Control Delay (s)	8.6	7.3	0	-	7.2	0	-	8.5
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	8	34	6	11	0	4	0	5	3	0	0	0
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	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	66	66	66	66	66	66	66	66	66
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	12	52	9	17	0	6	0	8	5	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	6	0	0	61	0	0	116	119	56
Stage 1	-	-	-	-	-	-	80	80	-
Stage 2	-	-	-	-	-	-	36	39	-
Critical Hdwy	4.1	-	-	4.1	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1628	-	-	1555	-	-	885	775	1016
Stage 1	-	-	-	-	-	-	948	832	-
Stage 2	-	-	-	-	-	-	992	866	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1628	-	-	1555	-	-	868	0	1016
Mov Cap-2 Maneuver	-	-	-	-	-	-	868	0	-
Stage 1	-	-	-	-	-	-	940	0	-
Stage 2	-	-	-	-	-	-	981	0	-

Approach	EB	WB	NB
HCM Control Delay, s	1.2	5.4	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	1016	1628	-	-	1555	-	-
HCM Lane V/C Ratio	0.012	0.007	-	-	0.011	-	-
HCM Control Delay (s)	8.6	7.2	0	-	7.3	0	-
HCM Lane LOS	A	A	A	-	A	A	-
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	2	2	3	18	1	4	2	1	0	11	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	6	2	2	4	22	1	5	2	1	0	14	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	42	31	17	33	34	3	21	0	0	4	0	0
Stage 1	17	17	-	13	13	-	-	-	-	-	-	-
Stage 2	25	14	-	20	21	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	966	866	1068	979	863	1087	1608	-	-	1631	-	-
Stage 1	1008	885	-	1013	889	-	-	-	-	-	-	-
Stage 2	998	888	-	1004	882	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	944	863	1068	972	860	1087	1608	-	-	1631	-	-
Mov Cap-2 Maneuver	944	863	-	972	860	-	-	-	-	-	-	-
Stage 1	1005	885	-	1010	886	-	-	-	-	-	-	-
Stage 2	969	885	-	999	882	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.8	9.2	4.1	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1608	-	-	949	882	1631	-	-
HCM Lane V/C Ratio	0.003	-	-	0.012	0.031	-	-	-
HCM Control Delay (s)	7.2	0	-	8.8	9.2	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	43	5	0	0	0	0	461	19	11	765	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
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, %	0	0	0	0	0	0	1	1	1	1	1	1
Mvmt Flow	0	49	6	0	0	0	0	524	22	12	869	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1156	1439	435	869	0	0	545	0	0
Stage 1	894	894	-	-	-	-	-	-	-
Stage 2	262	545	-	-	-	-	-	-	-
Critical Hdwy	6.8	6.5	6.9	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.8	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	2.21	-	-	2.21	-	-
Pot Cap-1 Maneuver	193	134	575	777	-	-	1027	-	-
Stage 1	365	362	-	-	-	-	-	-	-
Stage 2	764	522	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	188	0	575	777	-	-	1027	-	-
Mov Cap-2 Maneuver	188	0	-	-	-	-	-	-	-
Stage 1	356	0	-	-	-	-	-	-	-
Stage 2	764	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	777	-	-	575	1027	-	-
HCM Lane V/C Ratio	-	-	-	0.095	0.012	-	-
HCM Control Delay (s)	0	-	-	11.9	8.5	0.1	-
HCM Lane LOS	A	-	-	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	16	11	501	15	18	842
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	86	86	86	86	86	86
Heavy Vehicles, %	0	0	2	2	1	1
Mvmt Flow	19	13	583	17	21	979

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1122	300	0	0	600	0
Stage 1	591	-	-	-	-	-
Stage 2	531	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.12	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.21	-
Pot Cap-1 Maneuver	203	702	-	-	980	-
Stage 1	522	-	-	-	-	-
Stage 2	560	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	193	702	-	-	980	-
Mov Cap-2 Maneuver	193	-	-	-	-	-
Stage 1	522	-	-	-	-	-
Stage 2	534	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.8	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	274	980	-
HCM Lane V/C Ratio	-	-	0.115	0.021	-
HCM Control Delay (s)	-	-	19.8	8.8	0.2
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	1	86	34	477	777	2
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	85	85	85	85	85	85
Heavy Vehicles, %	6	6	2	2	1	1
Mvmt Flow	1	101	40	561	914	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1276	458	916	0	-	0
Stage 1	915	-	-	-	-	-
Stage 2	361	-	-	-	-	-
Critical Hdwy	6.92	7.02	4.14	-	-	-
Critical Hdwy Stg 1	5.92	-	-	-	-	-
Critical Hdwy Stg 2	5.92	-	-	-	-	-
Follow-up Hdwy	3.56	3.36	2.22	-	-	-
Pot Cap-1 Maneuver	153	539	740	-	-	-
Stage 1	341	-	-	-	-	-
Stage 2	664	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	141	539	740	-	-	-
Mov Cap-2 Maneuver	141	-	-	-	-	-
Stage 1	341	-	-	-	-	-
Stage 2	612	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.6	1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	740	-	522	-	-
HCM Lane V/C Ratio	0.054	-	0.196	-	-
HCM Control Delay (s)	10.1	0.4	13.6	-	-
HCM Lane LOS	B	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.7	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	80	1	0	0	0	0	0	4	2	8	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	98	1	0	0	0	0	0	5	2	10	6

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	109	101	98	103	101	0
Stage 1	-	-	-	101	101	-	0	0	-
Stage 2	-	-	-	8	0	-	103	101	-
Critical Hdwy	-	-	-	6.4	6.5	6.2	6.4	6.5	-
Critical Hdwy Stg 1	-	-	-	5.4	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	-	-	-	3.5	4	3.3	3.5	4	-
Pot Cap-1 Maneuver	-	-	-	893	793	963	900	793	-
Stage 1	-	-	-	928	815	-	-	-	-
Stage 2	-	-	-	-	-	-	926	815	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	893	0	963	900	0	-
Mov Cap-2 Maneuver	-	-	-	893	0	-	900	0	-
Stage 1	-	-	-	928	0	-	-	0	-
Stage 2	-	-	-	-	0	-	926	0	-

Approach	EB	NB	SB
HCM Control Delay, s		8.8	
HCM LOS		A	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	963	-	-	-	-
HCM Lane V/C Ratio	0.005	-	-	-	-
HCM Control Delay (s)	8.8	-	-	-	-
HCM Lane LOS	A	-	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	26	3	0	17	2	2	0	3	0	3	6
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	34	4	0	22	3	3	0	4	0	4	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	25	0	0	38	0	0	65	61	36	61	61	23
Stage 1	-	-	-	-	-	-	36	36	-	23	23	-
Stage 2	-	-	-	-	-	-	29	25	-	38	38	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1603	-	-	1585	-	-	934	834	1042	939	834	1060
Stage 1	-	-	-	-	-	-	985	869	-	1000	880	-
Stage 2	-	-	-	-	-	-	993	878	-	982	867	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1603	-	-	1585	-	-	924	834	1042	935	834	1060
Mov Cap-2 Maneuver	-	-	-	-	-	-	924	834	-	935	834	-
Stage 1	-	-	-	-	-	-	985	869	-	1000	880	-
Stage 2	-	-	-	-	-	-	981	878	-	978	867	-

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

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	991	1603	-	-	1585	-	-	972
HCM Lane V/C Ratio	0.007	-	-	-	-	-	-	0.012
HCM Control Delay (s)	8.7	0	-	-	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	15	60	5	12	1	12	0	10	4	0	1	0
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	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	16	66	5	13	1	13	0	11	4	0	1	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	14	0	0	71	0	0	136	143	69
Stage 1	-	-	-	-	-	-	102	102	-
Stage 2	-	-	-	-	-	-	34	41	-
Critical Hdwy	4.1	-	-	4.1	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1617	-	-	1542	-	-	862	752	1000
Stage 1	-	-	-	-	-	-	927	815	-
Stage 2	-	-	-	-	-	-	994	865	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1617	-	-	1542	-	-	846	0	1000
Mov Cap-2 Maneuver	-	-	-	-	-	-	846	0	-
Stage 1	-	-	-	-	-	-	918	0	-
Stage 2	-	-	-	-	-	-	985	0	-

Approach	EB	WB	NB
HCM Control Delay, s	1.4	3.5	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	1000	1617	-	-	1542	-	-
HCM Lane V/C Ratio	0.015	0.01	-	-	0.009	-	-
HCM Control Delay (s)	8.7	7.2	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	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	7	14	8	5	6	0	4	11	2	0	15	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	20	11	7	9	0	6	16	3	0	21	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	61	58	28	73	63	17	34	0	0	19	0	0
Stage 1	28	28	-	29	29	-	-	-	-	-	-	-
Stage 2	33	30	-	44	34	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	939	837	1053	923	832	1068	1591	-	-	1611	-	-
Stage 1	994	876	-	993	875	-	-	-	-	-	-	-
Stage 2	988	874	-	975	871	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	929	834	1053	894	829	1068	1591	-	-	1611	-	-
Mov Cap-2 Maneuver	929	834	-	894	829	-	-	-	-	-	-	-
Stage 1	990	876	-	989	872	-	-	-	-	-	-	-
Stage 2	974	871	-	942	871	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.1	9.3	1.7	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1591	-	-	909	857	1611	-	-
HCM Lane V/C Ratio	0.004	-	-	0.046	0.018	-	-	-
HCM Control Delay (s)	7.3	0	-	9.1	9.3	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-