Traffic Impact Study

Proposed Multi-Family Development

Prepared for:

TRINITAS

July 18, 2018

AMERICAN STRUCTUREPOINT INC.

7260 SHADELAND STATION
INDIANAPOLIS, INDIANA 46256
317.547.5580

www.structurepoint.com

Traffic Impact Study

Proposed Multi-Family Development
Bradley Avenue & 4th Street
Champaign-Urbana, Illinois

July 18, 2018

I certify that this TRAFFIC IMPACT STUDY has been prepared by me or under my immediate supervision and that I have experience and training in the field of traffic and transportation engineering.

Cash E. Canfield, PE
Illinois Registration #062-062914

Jeremy R. Chapman, PTOE, PhD

Rahul M. Rajbhara

AMERICAN STRUCTUREPOINT INC.

7260 SHADELAND STATION
INDIANAPOLIS, INDIANA 46256
317.547.5580

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Study Purpose and Scope

The purpose of this traffic impact study (TIS) is to determine the operational impacts of the proposed multi-family development on the surrounding roadway network in the cities of Champaign and Urbana, Illinois. This study identifies the effects of the proposed development and provides necessary recommendations for roadway improvements.

Background Information

The proposed development that is to be located near the northeast corner of Bradley Avenue & 4th Street will consist of townhomes and duplex residential units. As proposed, Oak Street between Bradley Avenue and property no. 1302 will be closed for public access, while 4th Street will be extended and aligned to intersect with Oak Street, just north of this property. Primary access to the proposed development will be provided via 4th Street, with secondary access provided via 5th Street and an emergency access via Carver Drive.

Traffic Forecast

Traffic has been forecasted by determining the base year (2018) traffic volumes using existing traffic data collected by American Structurepoint in June (while school was not in session) and monthly adjustment factors, then applying an annual linear background traffic growth rate (1.0%) to obtain 2019 and 2029 background traffic volumes, and adding in any new trips attributed to the proposed development to obtain 2019 and 2029 total traffic volumes.

Capacity Analysis

A capacity analysis has been performed for all study intersections for each scenario. The capacity analysis of stop-controlled intersections was performed using Synchro (Version 9.2). All analyses were reported using the methodology outlined in the *Highway Capacity Manual* (TRB 2010). SIDRA Intersection (version 7.0) was utilized for the capacity analysis of roundabout intersections. The operating conditions of intersections were considered to be acceptable if found to operate at LOS D or better for the overall intersection, with no approach operating worse than LOS E. Capacity improvements are identified for the locations not meeting the criteria.

Findings and Recommendations

The following intersection improvements are recommended to achieve acceptable level-of-service during AM and PM peak hour under each scenario, and to facilitate safe ingress and egress to/from the proposed development.

<u>Scenario 1: Existing 2018</u>

- No improvements are required at any of the study intersections

<u>Scenario 2: Opening Year 2019 No-Build</u>

- No improvements are required at any of the study intersections

Scenario 3: Opening Year 2019 Full Build

- *Oak Street & Main Street:*
  - *Northbound approach:* One shared through/right-turn lane
  - *Southbound approach:* One shared left-turn/through lane
  - *Westbound approach:* One shared left-turn/right-turn lane
  - One-way stop-controlled, with Main Street being the minor street
- *Main Street & 5th Street:*
  - Single-lane roundabout, with one-lane entries on all approaches
- *Main Street & Federal Drive:*
  - *Northbound approach:* One shared left-turn/through lane
  - *Southbound approach:* One shared through/right-turn lane
  - *Eastbound approach:* One shared left-turn/right-turn lane
  - One-way stop-controlled, with Main Street being the minor street

Scenario 4: Horizon Year 2029

- No additional improvements are required besides those identified in Scenario 3.

1.0 Study Purpose and Scope

1.1 Purpose

The purpose of this traffic impact study (TIS) is to determine the operational impacts of the proposed multi-family development on the surrounding roadway network in the cities of Champaign and Urbana, Illinois. The proposed development will consist of townhomes and duplex residential units (primarily student housing). This study identifies the effects of the proposed development and provides necessary recommendations for roadway improvements. The study area is shown on **Figure 1.1**.

1.2 Scope

The study area as shown in **Figure 1.1** is bound by Kenyon Road to the north, Bradley Avenue to the south, Oak Street to the west, and Federal Drive to the east. The study intersections are listed below in **Table 1.1**.

Table 1.1 – Study Intersections

No.	Intersection Name
1	Bradley Avenue & 4th Street/Realigned Oak Street
2	Bradley Avenue & 5th Street
3	Bradley Avenue & Carver Drive
4	Oak Street & Main Street
5	Main Street & 5th Street
6	Main Street & Federal Drive

Capacity analysis is performed for the scenarios listed in **Table 1.2**. The study scenarios focus on traffic volumes for the existing year 2018, opening year 2019 and horizon year 2029.

Table 1.2 – Study Scenarios

Scenario	Lane Configuration	Year	Traffic Volumes	
			Typical Weekday	Added Site Traffic Full Build
1	Existing	2018	X	
2	Existing	2019	X[1]	
3	Proposed	2019	X[1]	X[2]
4	Proposed	2029	X[1]	X[2]
5	Proposed	2019	X[1]	X[3]
6	Proposed	2029	X[1]	X[3]

[1] Redistributed traffic at Bradley Avenue & 4th Street (road closure and realignment of Oak Street)
[2] Carver Drive open to development traffic
[3] Carver Drive closed to development traffic (emergency access only)

Figure 1.1 – Study Area

2.0 Background Information

2.1 Surrounding Roadway Network

The sections below document the current roadway conditions of the streets within the study area. The existing and proposed lane configurations and traffic control are shown on **Figure 2.1** and **Figure 2.2** respectively.

2.1.1 Bradley Avenue

Bradley Avenue is an east/west undivided roadway that is currently classified as a Minor Arterial per the Functional Classification Map. Bradley Avenue generally consists of a four-lane section with dedicated turn lanes provided at major intersections. In the vicinity of the study area, the posted speed limit on Bradley Avenue is 30 mph.

2.1.2 4th Street

4th Street is a north/south undivided roadway that is currently classified as a Major Collector per the Functional Classification Map. 4th Street generally consists of a two-lane section with dedicated turn lanes provided at major intersections. In the vicinity of the study area, the posted speed limit on 4th Street is 30 mph.

2.1.3 5th Street

5th Street is a north/south undivided two-lane roadway with a posted speed limit of 30 mph in the vicinity of the study area.

2.1.4 Market Street

Market Street is a north/south undivided roadway that is currently classified as a Minor Arterial per the Functional Classification Map. Market Street generally consists of a two-lane section with dedicated turn lanes provided at major intersections. In the vicinity of the study area, the posted speed limit on Market Street is 35 mph.

2.1.5 Lincoln Avenue

Lincoln Avenue is a north/south undivided roadway that is currently classified as a Principal Arterial per the Functional Classification Map. Lincoln Avenue generally consists of a four-lane section with dedicated turn lanes provided at major intersections. In the vicinity of the study area, the posted speed limit on Lincoln Avenue is 40 mph north of Bradley Avenue, and 35 mph south of Bradley Avenue.

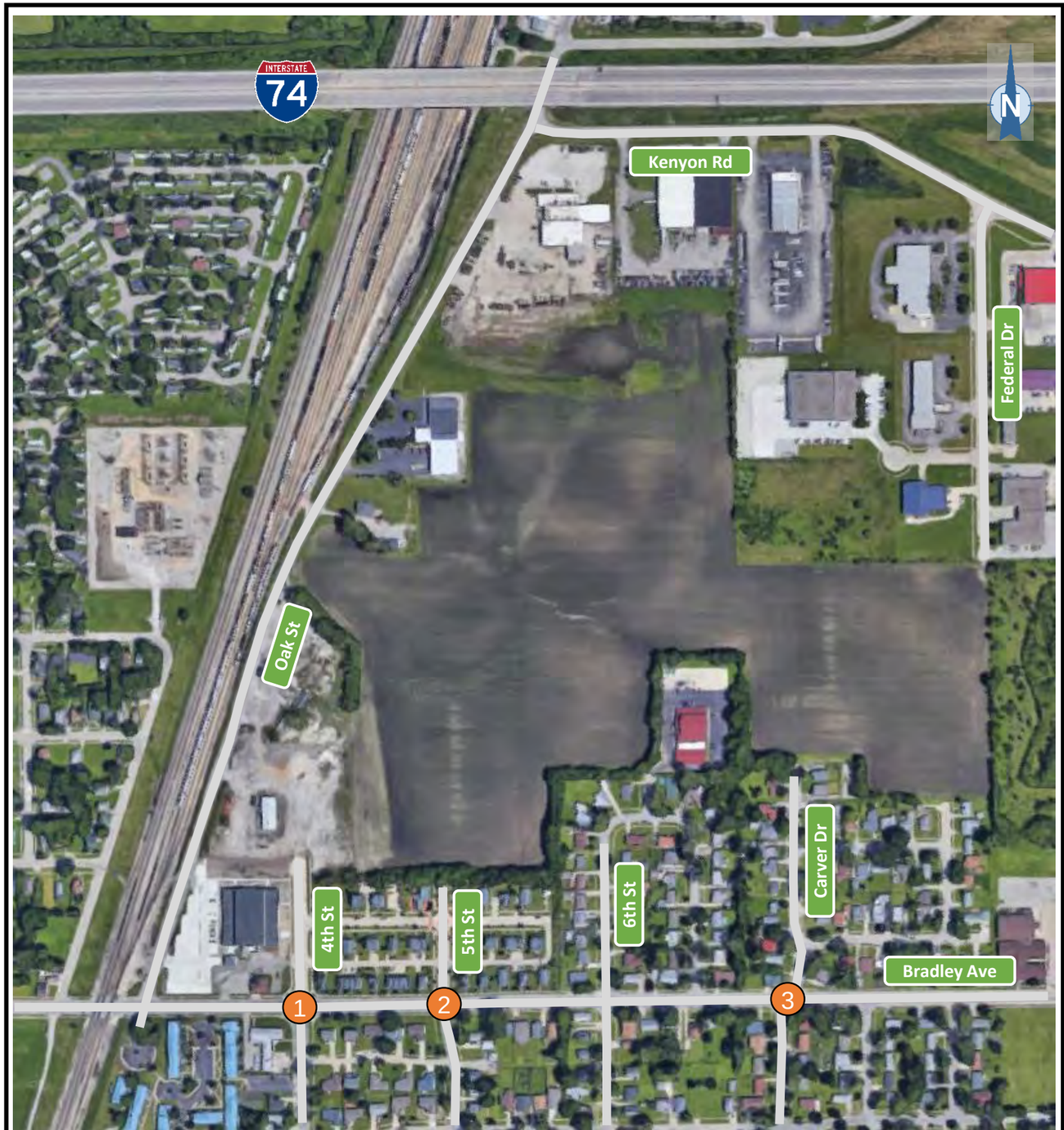
2.1.6 Goodwin Avenue

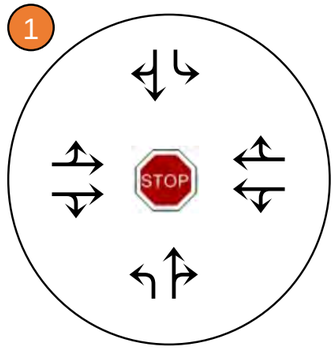
Goodwin Avenue is a north/south undivided roadway that is currently classified as a Minor Collector per the Functional Classification Map. Goodwin Avenue generally consists of a two-lane section with dedicated turn lanes provided at major intersections.

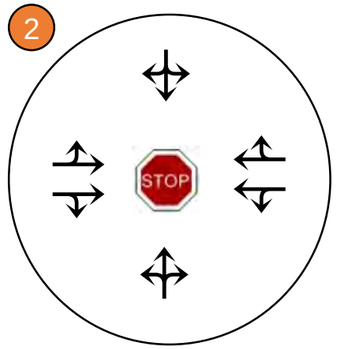
2.2 Proposed Development

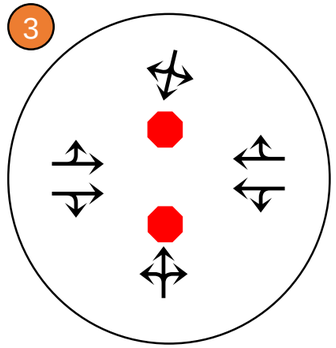
The proposed multi-family residential development is to be located near the northeast corner of Bradley Avenue & 4th Street in the Champaign-Urbana, Illinois. Primary access to this development will be provided from Bradley Avenue via 4th Street, with secondary access provided via 5th Street and emergency access via Carver Drive. In addition, an access drive on Federal Drive will provide a connection to Kenyon Road.

It is assumed that the development will occur in one phase, and completed by the opening year 2019.









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Legend

STOP All Way Stop-Controlled Intersection

Stop-Controlled Movement

1 Existing Intersection

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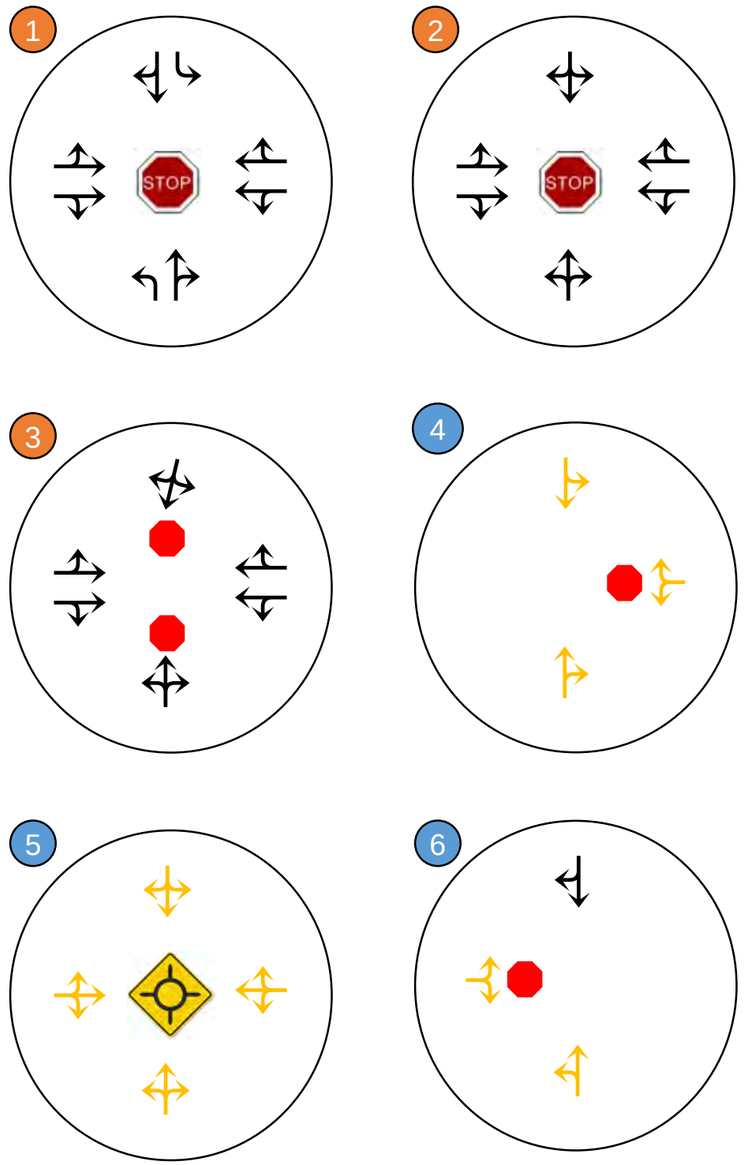
Figure 2.1
Existing Lane Configurations



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Legend

STOP All Way Stop-Controlled Intersection

Stop-Controlled Movement

Roundabout Controlled Intersection

1 Existing Intersection

1 Proposed Intersection

New Turn Lane

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Figure 2.2
Proposed Lane Configurations

3.0 Traffic Forecast

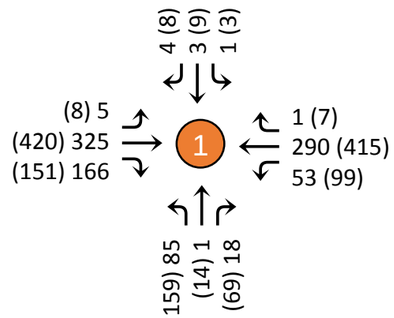
Traffic has been forecasted by determining the base year (2018) traffic volumes using existing traffic data collected by American Structurepoint in June and monthly adjustment factors provided by the City of Champaign, then applying an annual linear background traffic growth rate of 1.0% to obtain 2019 and 2029 background traffic volumes. Additionally, new trips to be generated by the proposed development were added to determine the 2019 and 2029 total traffic volumes. The following sections of the report provide greater detail of these steps.

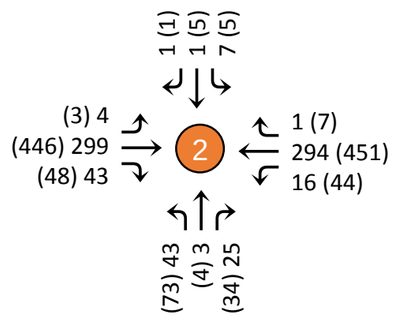
3.1 Existing Traffic Data

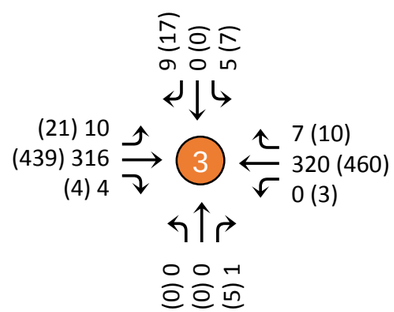
Turning movement counts were collected at each of the existing study intersections (*those listed in* **Table 1.1** *plus Oak Street & Bradley Avenue*) on a typical weekday in June 2018 while school was not in session. A seasonal adjustment factor of 1.3 (based on information provided by the City of Champaign) was applied to the raw traffic volumes to estimate the 2018 existing (adjusted) traffic volumes. These volumes are graphically illustrated on **Figure 3.1**. The raw data from the traffic counts is provided in **Appendix A**.

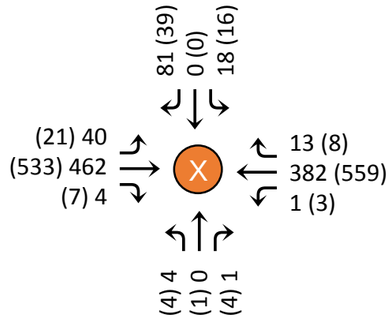
3.2 Background Traffic Growth

A background linear growth rate of 1.0% per year has been selected to project the 2018 existing (adjusted) traffic volumes to 2019 and 2029 background traffic volumes. The traffic volumes at Oak Street & Bradley Avenue were redistributed to Bradley Avenue & 4th Street and Main Street & 4th Street to account for the proposed road closure along Oak Street. The opening year and horizon year background volumes are depicted in **Figure 3.2** and **Figure 3.3**, respectively.

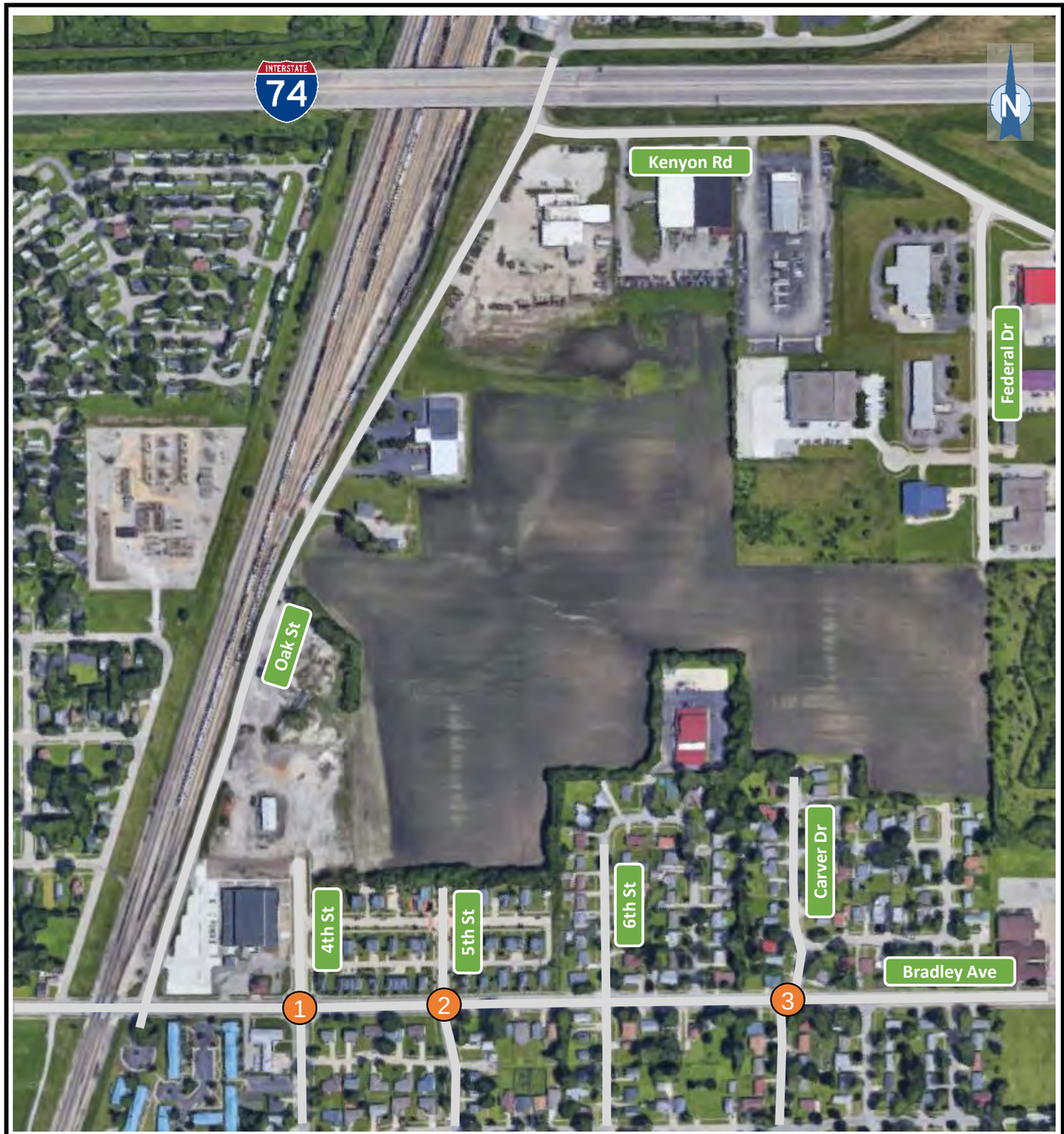


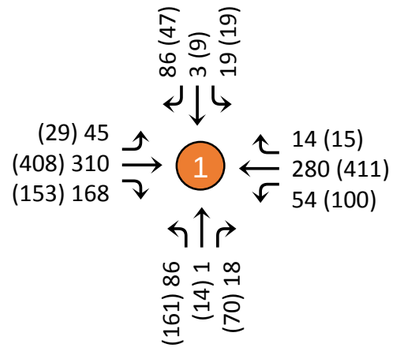


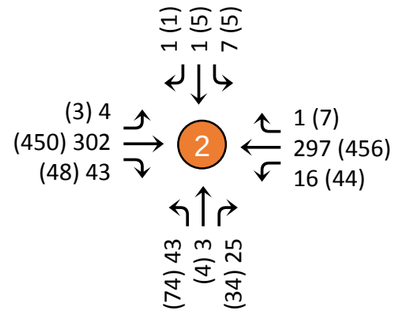


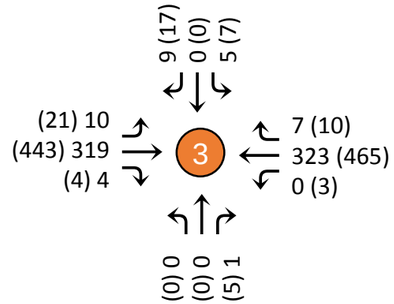


AMERICAN STRUCTUREPOINT INC.	Legend: 1 Existing Intersection	50 (50) AM (PM) Traffic Volumes	Trinitas Traffic Impact Study Urbana-Champaign, IL	Figure 3.1 Existing (Adjusted) Traffic Volumes









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Legend

1 **Existing Intersection** 50 (50) **AM (PM) Traffic Volumes**

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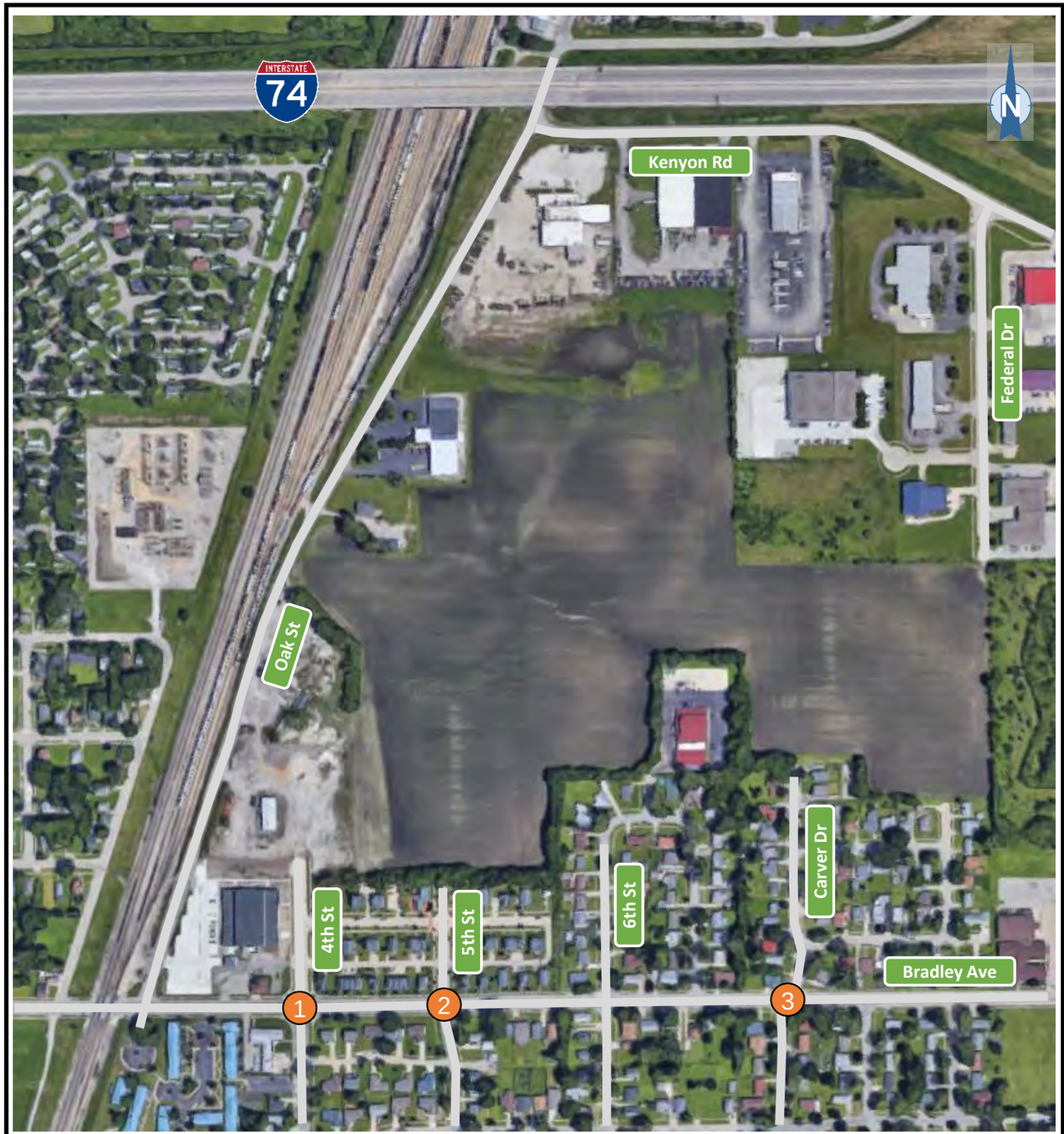
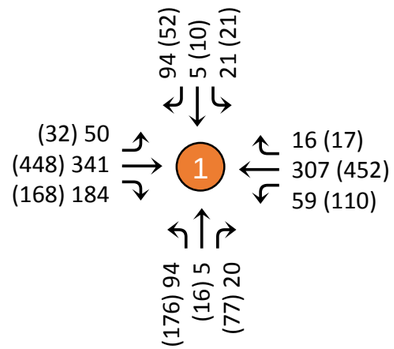
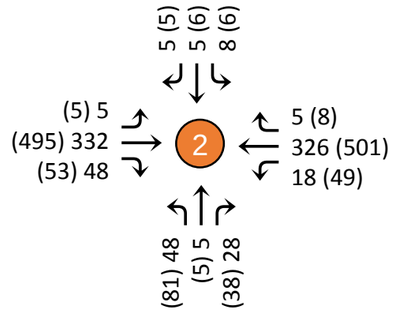
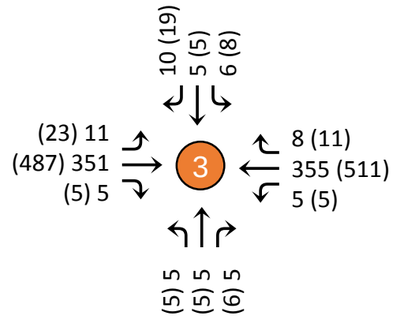
Figure 3.2
2019 Background
Traffic Volumes









Note:
All turning movements with projected volume less than 5 vph set to a minimum of 5 vph for horizon year traffic analysis.

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Legend

1 **Existing Intersection** 50 (50) **AM (PM) Traffic Volumes**

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Figure 3.3
2029 Background
Traffic Volumes

3.3 Trip Generation

The Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition* was used to calculate the generated trips for the proposed development. The size of each land use is based on the latest site plan (as shown in **Appendix B**) and inputs from the developer. A summary of the AM and PM peak hour base trip generation (before applying trip reductions) is provided in **Table 3.1**.

Table 3.1 – Base Trip Generation

ITE Land Use Code	Land Use Type	Size	Independent Variable	Base Vehicle Trips			
				AM Peak		PM Peak	
				Enter	Exit	Enter	Exit
220	**Multifamily (Low-Rise)**	**406**	**DU**	**42**	**139**	**129**	**77**

The following sections describe the methodology used to calculate the trip reductions, which include the following:

- Internal Trips
- Mode Choice Reduction Trips
- Pass-By Trips

The remaining trip total after performing the trip reduction is referred to as the net new site trips. The net new site trips for the proposed development are summarized in **Table 3.2**. The trip reduction calculations are summarized in **Appendix C**.

3.3.1 Internal Trips

Internal trips are trips which have origins and destinations within a development, but never actually travel outside of the development on public roadways. These trips are removed from the total trip ends generated by a development. The proposed development is a single land-use only (residential), therefore internal trip reductions were not applied.

3.3.2 Mode Choice Reduction Trips

Due to the proximity of the proposed development to the University of Illinois at Urbana-Champaign, and other nearby developments, a mode choice reduction was applied. The mode choice reduction is intended to remove vehicle trips to account for those walking, biking, or riding public transportation to/from the development.

2013 ACS Census data was consulted to determine the mode choice reduction for each form of non-vehicle transportation. Based on the Census data in the surrounding area of the study site, the following percentages were applied for the mode choice reduction:

- 6.8% pedestrians
- 2.8% bicyclists
- 20.5% public transit*

*Due to the nature of the proposed development (student housing), and inputs from the developer about provision of a shuttle service to and from the University of Illinois campus, a higher transit utilization is assumed.

This results in a total mode choice reduction of 30.1%, which was applied to the non-internal trips. The mode choice reduction trips are shown in **Table 3.2**.

3.3.3 Pass-By Trips

Pass-by trips consist of those that are an intermediate stop enroute from a trip origin to a trip destination. Pass-by trips begin and end outside the study area and are trips that are currently on the existing roadway network. These trips are typically associated with retail and restaurant land use types. Pass-by trips for the proposed residential development is assumed to be negligible.

Table 3.2 – Net New Site Trips

Trip Type	AM Peak		PM Peak	
	Enter	Exit	Enter	Exit
Base Vehicle Trips	42	139	129	77
Internal Trips	--	--	--	--
Mode Choice Reduction Trips	13	42	39	23
Pass-By Trips	--	--	--	--
Net New Site Trips	**29**	**97**	**90**	**54**

3.4 Trip Distribution and Assignment

Trip distribution percentages were calculated based on daily traffic volumes at the external roadways to the study area. These percentages take into account major origin and destination centers that will likely utilize the proposed development. The trip distribution percentages are provided in **Table 3.3**, and are graphically illustrated in **Figure 3.4**.

The trip distribution percentages were applied to the trip generation totals (net new site trips) and assigned to each study roadway/intersection. The trip assignment was facilitated through the use of Vistro (Version 4), which assigns traffic to intersections based on manually assigned routes. The added site trips at each intersection are shown on **Figure 3.5.**

Figure 3.5 represents the scenario in which Carver Drive serves as a full access to the proposed development. A scenario has been analyzed in which this access is used as a commercial access only in which daily traffic is redistributed to the 4th Street access. This scenario is referred to as “Carver Drive Closed to Development”. The redistributed added site trips are shown in **Figure 3.6**.

Table 3.3 – Trip Distribution Percentages

To/From	Via Roadway	2018* AADT	Distribution Percentage	Assumed Percentage
W	Bradley Ave	10,090	15%	20%
N	Market St	8,670	13%	15%
S	Market St	6,430	10%	5%
S	4th St	3,620	5%	28%
S	5th St	1,170	2%	11%
S	Goodwin Ave	1,790	3%	4%
N	Kenyon Rd	1,630	2%	2%
N	Lincoln Ave	15,860	24%	4%
S	Lincoln Ave	16,580	25%	11%

*Average annual daily traffic (AADT) volumes obtained from Illinois Department of Transportation's Traffic Count Database System (TCDS) projected to 2018 using a 1% background linear growth rate.

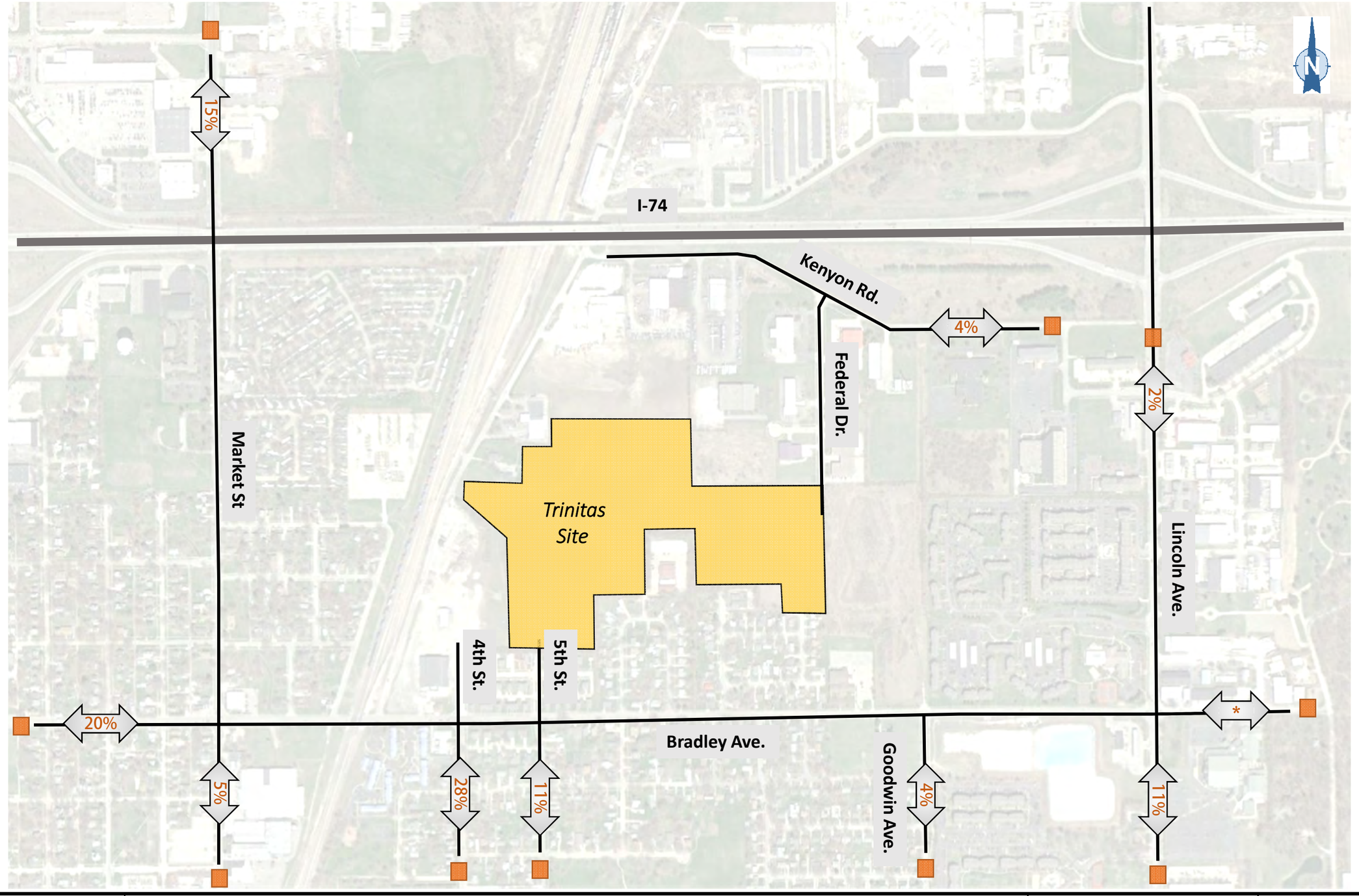
3.5 Total Traffic Volumes

After applying the background growth rate of 1.0% per year to the 2018 adjusted traffic volumes, to calculate 2019 background traffic volumes, and adding trips attributed to the proposed development, the 2019 total traffic volumes were determined. These volumes are graphically illustrated in **Figure 3.7**.

Likewise, the horizon year 2029 background traffic volumes were projected from 2018 adjusted traffic volumes using a linear background growth rate of 1.0% per year. Furthermore, the trips attributed to the proposed development were added to obtain 2029 total traffic volumes, as shown on **Figure 3.8**.

The total traffic volumes at Bradley Avenue & 4th Street, and Main Street & 4th Street includes redistributed volumes from the intersection of Oak Street & Bradley Avenue.

Total traffic volumes for the scenarios in which Carver Drive is closed to the development (5 & 6 in Table 1.2) were calculated in the same manner. The 2019 total traffic volumes for this scenario are shown in **Figure 3.9**. The horizon year 2029 total traffic volumes for this scenario are shown in **Figure 3.10**.



Legend

x% Trip Distribution % (Entering/Exiting)
Note: * negligible

Proposed Development Site

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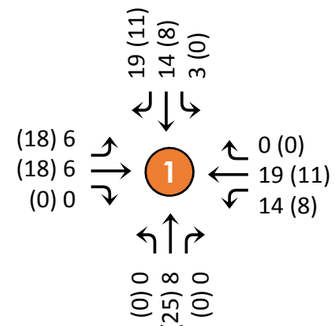
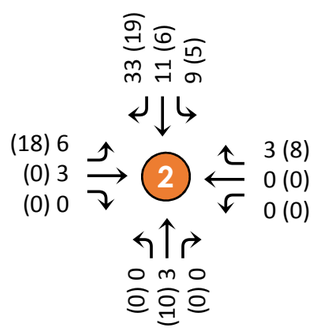
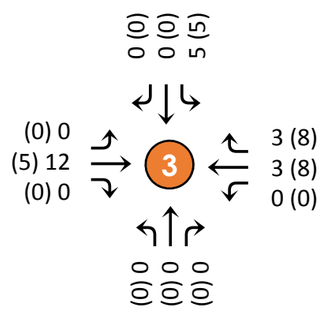
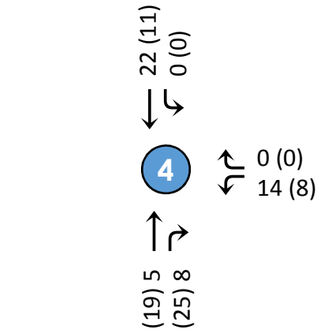
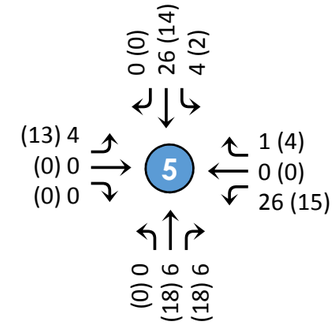
Figure 3.4
Trip Distribution

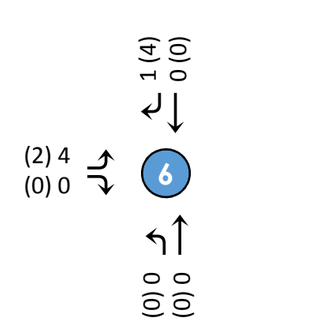












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Legend

1 Existing Intersection

1 Proposed Intersection

50 (50) AM (PM) Traffic Volumes

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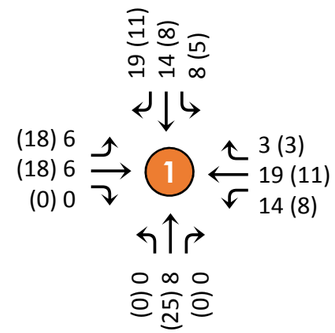
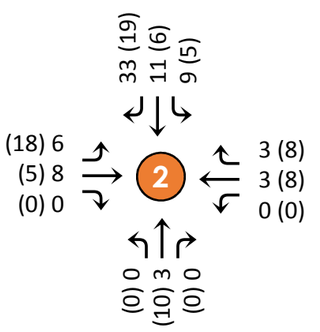
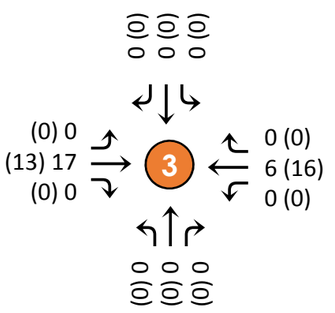
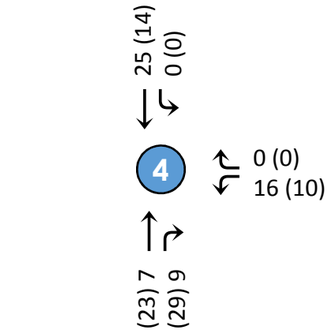
Urbana-Champaign, IL

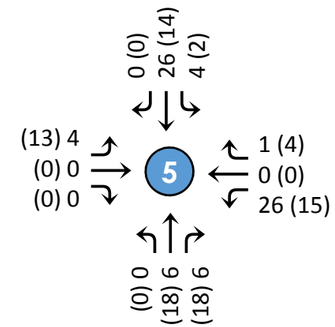
Figure 3.5
Added Site Trips

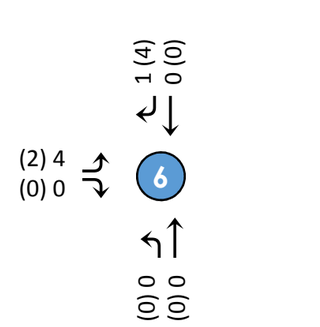












AMERICAN STRUCTUREPOINT INC.

Legend

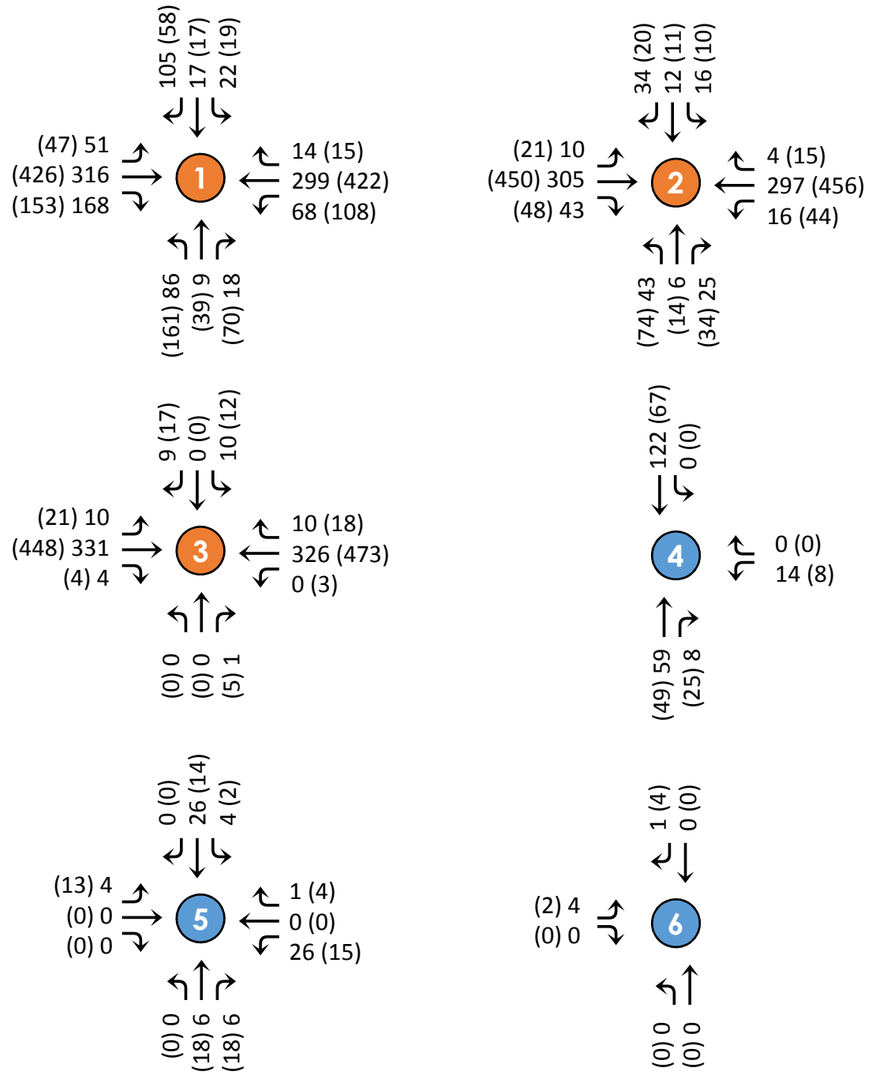
1 Existing Intersection

1 Proposed Intersection

50 (50) AM (PM) Traffic Volumes

Trinitas
Traffic Impact Study
Urbana-Champaign, IL

Figure 3.6
Added Site Trips – Carver Drive Closed to Development



AMERICAN STRUCTUREPOINT INC.

Legend

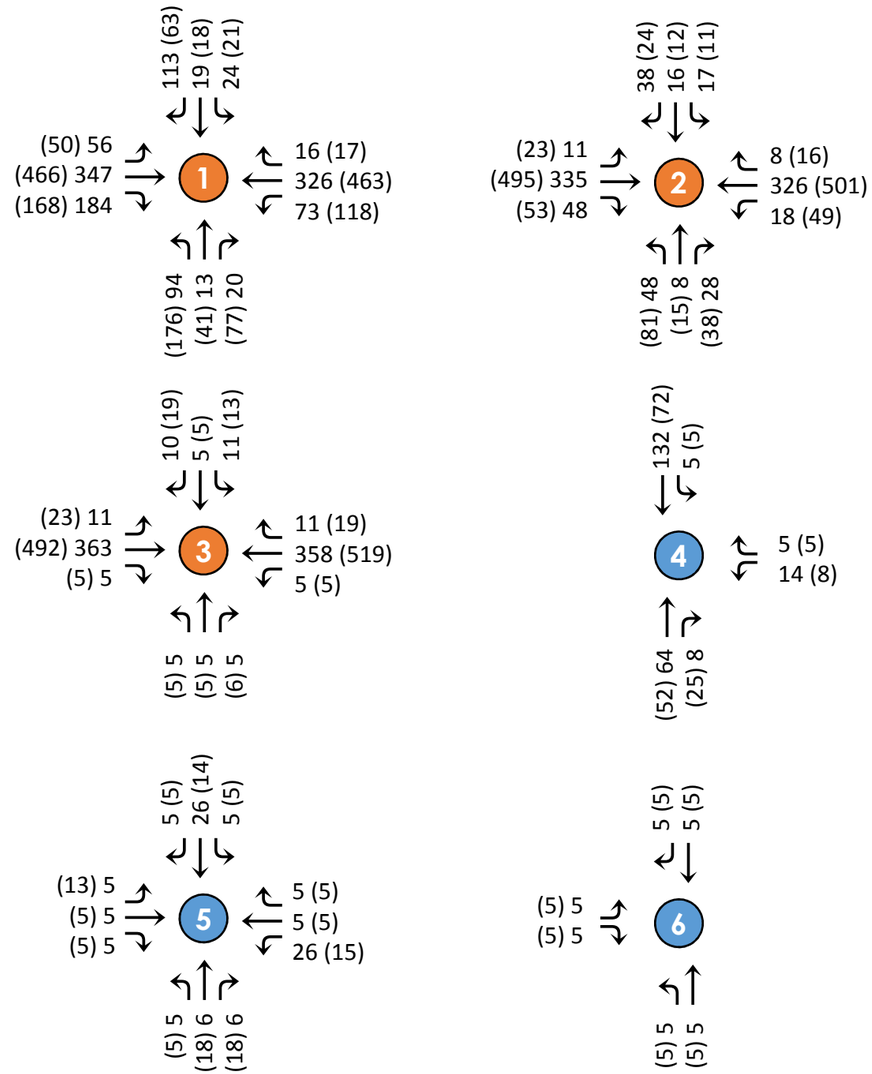
1 Existing Intersection

1 Proposed Intersection

50 (50) AM (PM) Traffic Volumes

Trinitas
Traffic Impact Study
Urbana-Champaign, IL

Figure 3.7
2019 Total Traffic Volumes



Note:
All turning movements with projected volume less than 5 vph set to a minimum of 5 vph for horizon year traffic analysis.

AMERICAN STRUCTUREPOINT INC.

Legend

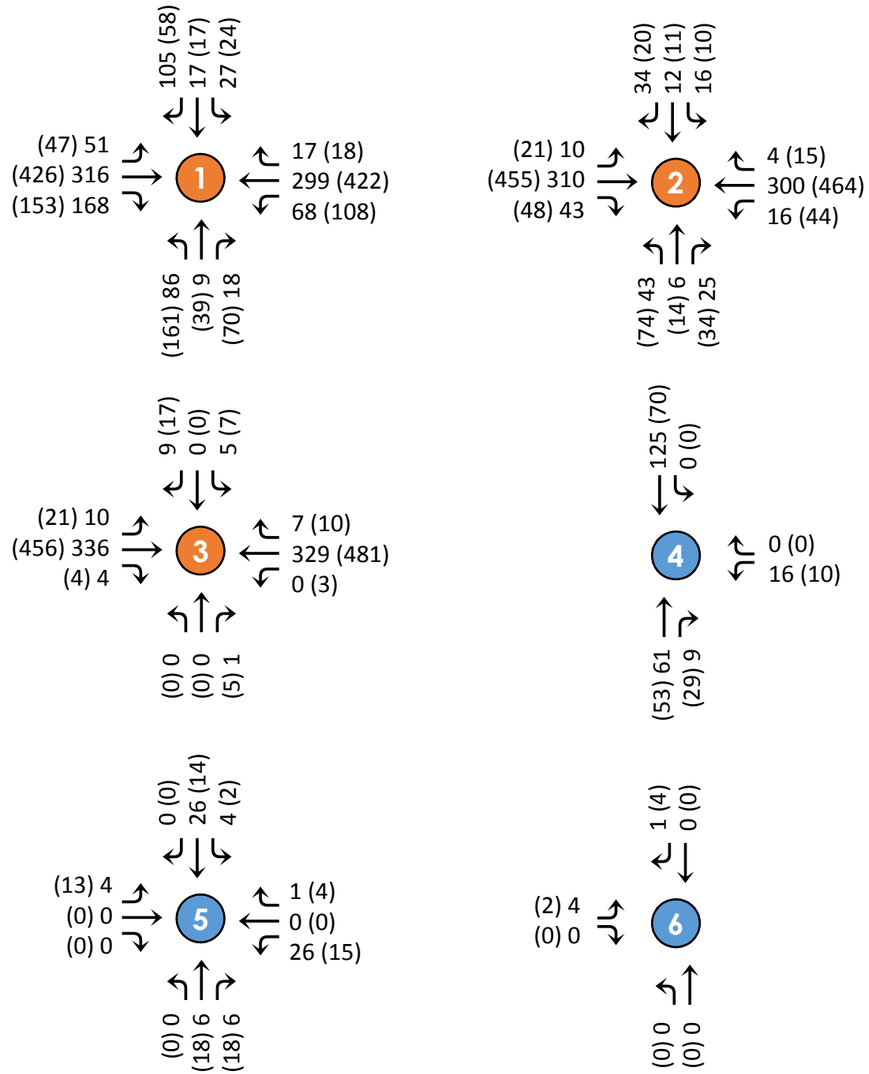
1 **Existing Intersection**

1 **Proposed Intersection**

50 (50) **AM (PM) Traffic Volumes**

Trinitas
Traffic Impact Study
Urbana-Champaign, IL

Figure 3.8
2029 Total Traffic Volumes



AMERICAN STRUCTUREPOINT INC.

Legend

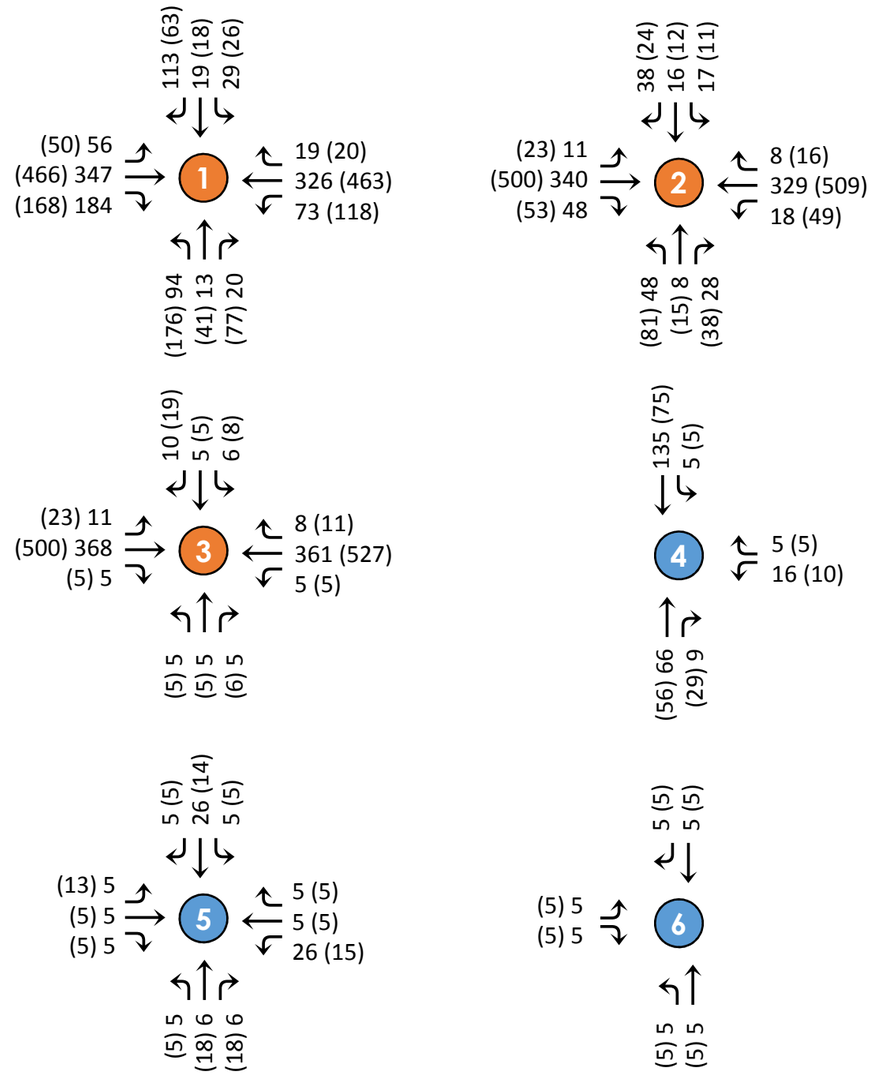
1 Existing Intersection

1 Proposed Intersection

50 (50) AM (PM) Traffic Volumes

Trinitas
Traffic Impact Study
Urbana-Champaign, IL

Figure 3.9
2019 Total Traffic Volumes – Carver Drive Closed to Development



Note:
All turning movements with projected volume less than 5 vph set to a minimum of 5 vph for horizon year traffic analysis.

AMERICAN STRUCTUREPOINT INC.

Legend

1 **Existing Intersection**

1 **Proposed Intersection**

50 (50) **AM (PM) Traffic Volumes**

Trinitas
Traffic Impact Study
Urbana-Champaign, IL

Figure 3.10
2029 Total Traffic Volumes – Carver Drive Closed to Development

4.0 Capacity Analysis

A capacity analysis has been performed for all study intersections for each scenario. The capacity analysis of stop-controlled intersections was performed using Synchro (Version 9.2). All analyses were reported using the methodology outlined in the *Highway Capacity Manual* (TRB 2010). SIDRA Intersection (version 7.0) was utilized for the capacity analysis of the proposed roundabout at Main Street & 5th Street.

The standard parameter used to evaluate traffic operating conditions is referred to as the level-of-service (LOS). There are six LOS (A through F) which relate to driving conditions from best to worst, respectively. LOS for signalized and unsignalized (stop-control and roundabout) intersections is defined in terms of control delay per vehicle, which is a direct correlation to driver discomfort, frustration, fuel consumption, and lost travel time. **Table 4.1** provides the LOS criteria as defined in the *Highway Capacity Manual*.

Table 4.1 – LOS Thresholds

LOS	Signalized Intersection Control Delay per Vehicle (seconds)	Unsignalized Intersection Control Delay per Vehicle (seconds)
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

The operating conditions of intersections were considered to be acceptable if found to operate at LOS D or better for the overall intersection, with no approach operating worse than LOS E. Capacity improvements are identified for the locations not meeting the criteria.

The capacity analysis for Scenario 1 and Scenario 2 is based on the 2018 existing (adjusted) traffic volumes and 2019 background traffic volumes, respectively. Any operational deficiencies identified in these scenarios are considered to be an existing issue and not attributed to the proposed development.

The capacity analysis for Scenario 3 is based on the 2019 total traffic volumes, which includes trips associated with the proposed development. Any operational deficiencies identified in Scenario 3, beyond those identified in the previous scenarios, are considered to be attributed to the proposed development.

The capacity analysis for Scenario 4 is based on the 2029 total build traffic volumes, which includes trips associated with development occurring outside of the study area. Any operational deficiencies identified in Scenario 4, beyond those identified in previous scenarios, are considered to be not attributed to the proposed development.

The capacity analysis for Scenario 5 is based on the 2019 total traffic volumes, which includes trips associated with the proposed development. In this scenario Carver Drive has been closed off from the proposed

development and added site trips redistributed to the 4th Street access. Any operational deficiencies identified in Scenario 5, beyond those identified in Scenario 1 and Scenario 2, are considered to be attributed to the proposed development.

The capacity analysis for Scenario 6 is based on the 2029 total traffic volumes, which includes trips associated with the proposed development. In this scenario Carver Drive has been closed off from the proposed development and added site trips redistributed to the 4th Street access. Any operational deficiencies identified in Scenario 6, beyond those identified in Scenario 1 and Scenario 2, are considered to be attributed to the proposed development.

The capacity analysis results are summarized for all scenarios in **Table 4.2** and **Table 4.3** for the AM and PM peak hours, respectively. The analysis output is provided in **Appendix D**.

Table 4.2 – Capacity Analysis Results: AM Peak Hour

Intersection	Control Type	Approach	Sc1 - 2018 Existing		Sc2 - 2019 No-Build		Sc3 - 2019 Full Build		Sc4 - 2029 Full Build		Sc5 - 2019 Full Build		Sc6 - 2029 Full Build	
			Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Bradley Ave & 4th St/Realigned Oak St	AWSC	EB	11.7	B	13.5	B	14.6	B	17.0	C	14.7	B	17.4	C
		WB	10.7	B	11.8	B	13.0	B	14.2	B	13.0	B	14.5	B
		NB	11.0	B	11.8	B	12.1	B	12.7	B	12.1	B	12.8	B
		SB	9.3	A	10.4	B	11.3	B	12.1	B	11.4	B	12.2	B
		Overall	**11.2**	**B**	**12.5**	**B**	**13.4**	**B**	**15.1**	**C**	**13.5**	**B**	**15.4**	**C**
Bradley Ave & 5th St	AWSC	EB	9.7	A	9.8	A	10.0	A	10.6	B	10.1	B	10.7	B
		WB	9.7	A	9.7	A	10.1	B	10.7	B	10.1	B	10.8	B
		NB	9.2	A	9.3	A	9.5	A	9.9	A	9.5	A	9.9	A
		SB	9.1	A	9.1	A	9.1	A	9.5	A	9.1	A	9.5	A
		Overall	**9.6**	**A**	**9.7**	**A**	**9.9**	**A**	**10.5**	**B**	**10.0**	**A**	**10.6**	**B**
Bradley Ave & Carver Dr	TWSC	EB	FREE	--	FREE	--	FREE	--	FREE	--	FREE	--	FREE	--
		WB	FREE	--	FREE	--	FREE	--	FREE	--	FREE	--	FREE	--
		NB	9.3	A	9.3	A	9.3	A	14.0	B	9.3	A	14.1	B
		SB	11.3	B	11.4	B	12.1	B	13.9	B	11.2	B	13.3	B
		Overall	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Oak St & Main St	OWSC	EB					--	--	--	--	--	--	--	--
		WB					9.7	A	9.6	A	9.7	A	9.7	A
		NB		--		--	FREE	--	FREE	--	FREE	--	FREE	--
		SB					FREE	--	FREE	--	FREE	--	FREE	--
		Overall					**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Main St & 5th St*	Single-lane RAB	EB					7.6	A	6.2	A	7.6	A	6.2	A
		WB					9.2	A	8.0	A	9.2	A	8.0	A
		NB		--		--	4.4	A	5.6	A	4.4	A	5.6	A
		SB					4.8	A	5.0	A	4.8	A	5.0	A
		Overall					**6.5**	**A**	**6.3**	**A**	**6.5**	**A**	**6.3**	**A**
Main St & Federal Dr	OWSC	EB					8.5	A	8.5	A	8.5	A	8.5	A
		WB					--	--	--	--	--	--	--	--
		NB		--		--	FREE	--	FREE	--	FREE	--	FREE	--
		SB					FREE	--	FREE	--	FREE	--	FREE	--
		Overall					**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**

NOTE:
OWSC – One-way stop control
TWSC – Two-way stop control
AWSC – All-way stop control
RAB – Roundabout control
*Intersection analyzed using SIDRA capacity model, with environmental factor of 1.2.

Table 4.3 – Capacity Analysis Results: PM Peak Hour

Intersection	Control Type	Approach	Sc1 - 2018 Existing		Sc2 - 2019 No-Build		Sc3 - 2019 Full Build		Sc4 - 2029 Full Build		Sc5 - 2019 Full Build		Sc6 - 2029 Full Build	
			Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Bradley Ave & 4th St/Realigned Oak St	AWSC	EB	17.7	C	20.4	C	24.2	C	33.7	D	24.5	C	34.3	D
		WB	16.9	C	19.2	C	22.4	C	29.5	D	22.7	C	30.0	D
		NB	14.0	B	15.0	B	15.6	C	17.4	C	15.8	C	17.5	C
		SB	11.0	B	11.8	B	12.7	B	13.5	B	12.8	B	13.5	B
		Overall	**16.6**	**C**	**18.6**	**C**	**21.3**	**C**	**28.1**	**D**	**21.6**	**C**	**28.5**	**D**
Bradley Ave & 5th St	AWSC	EB	11.7	B	11.8	B	12.7	B	14.1	B	12.8	B	14.2	B
		WB	12.2	B	12.3	B	12.9	B	14.5	B	13.1	B	14.7	B
		NB	10.5	B	10.6	B	11.1	B	11.7	B	11.1	B	11.7	B
		SB	10.0	A	10.0	A	10.0	A	10.4	B	10.1	B	10.4	B
		Overall	**11.8**	**B**	**11.9**	**B**	**12.5**	**B**	**13.9**	**B**	**12.7**	**B**	**14.0**	**B**
Bradley Ave & Carver Dr	TWSC	EB	FREE	--	FREE	--	FREE	--	FREE	--	FREE	--	FREE	--
		WB	FREE	--	FREE	--	FREE	--	FREE	--	FREE	--	FREE	--
		NB	9.7	A	9.7	A	9.7	A	18.6	C	9.8	A	18.9	C
		SB	12.7	B	12.7	B	14.2	B	17.4	C	14.3	B	16.3	C
		Overall	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Oak St & Main St	OWSC	EB					--	--	--	--	--	--	--	--
		WB					9.3	A	9.1	A	9.3	A	9.2	A
		NB	--		--		FREE	--	FREE	--	FREE	--	FREE	--
		SB					FREE	--	FREE	--	FREE	--	FREE	--
		Overall					**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Main St & 5th St*	Single-lane RAB	EB					8.5	A	6.5	A	8.5	A	6.5	A
		WB					8.2	A	7.4	A	8.2	A	7.4	A
		NB	--		--		4.1	A	4.7	A	4.1	A	4.7	A
		SB					4.7	A	5.2	A	4.7	A	5.2	A
		Overall					**5.6**	**A**	**5.7**	**A**	**5.6**	**A**	**5.7**	**A**
Main St & Federal Dr	OWSC	EB					8.5	A	8.5	A	8.5	A	8.5	A
		WB					--	--	--	--	--	--	--	--
		NB	--		--		FREE	--	FREE	--	FREE	--	FREE	--
		SB					FREE	--	FREE	--	FREE	--	FREE	--
		Overall					**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**

NOTE:
OWSC – One-way stop control
TWSC – Two-way stop control
AWSC – All-way stop control
RAB – Roundabout control
*Intersection analyzed using SIDRA capacity model, with environmental factor of 1.2.

4.1 Bradley Avenue & 4th Street/Realigned Oak Street

The intersection of Bradley Avenue & 4th Street is currently unsignalized (all-way stop) with a dedicated left-turn lane on the northbound and southbound approach, and shared turn lanes on the eastbound and westbound approach.

It is anticipated that when the proposed development is built, 4th Street will be extended further north and Oak Street will be realigned to 4th Street (as shown in the Site Plan). Furthermore, access to Bradley Avenue from Oak Street will be permanently closed.

Based on the capacity analysis results, the intersection is anticipated to operate at overall LOS D or better under all traffic volume scenarios, with existing intersection geometrics and stop control.

4.2 Bradley Avenue & 5th Street

The intersection of Bradley Avenue & 5th Street is currently unsignalized (all-way stop) with shared turn lanes on all approaches.

A capacity analysis has shown that the intersection is anticipated to operate at LOS B or better under all traffic volume scenarios, with existing intersection geometrics and stop control.

4.3 Bradley Avenue & Carver Drive

The intersection of Bradley Avenue & Carver Drive is currently unsignalized (two-way stop, N-S) with shared turn lanes on all approaches.

Based on the capacity analysis results, the northbound and southbound approaches are anticipated to operate at LOS C or better under all traffic volume scenarios, with the existing intersection geometrics and stop control.

4.4 Oak Street & Main Street

A capacity analysis for the proposed intersection of Oak Street & Main Street has shown that it is anticipated to operate at LOS A under all scenarios, with the proposed intersection conditions:

- *Northbound approach:* One shared through/right-turn lane
- *Southbound approach:* One shared left-turn/through lane
- *Westbound approach:* One shared left-turn/right-turn lane
- One-way stop-controlled, with Main Street being the minor street

4.5 Main Street & 5th Street

A capacity analysis for the proposed intersection of Main Street & 5th Street has shown that it is anticipated to operate at LOS A under all scenarios, with the proposed intersection conditions:

- Single-lane roundabout with one-lane entry on all approaches

4.6 Main Street & Federal Drive

A capacity analysis for the proposed intersection of Main Street & Federal Drive has shown that it is anticipated to operate at LOS A under all scenarios, with the proposed intersection conditions:

- *Northbound approach:* One shared left-turn/through lane
- *Southbound approach:* One shared through/right-turn lane
- *Eastbound approach:* One shared left-turn/right-turn lane
- One-way stop-controlled, with Main Street being the minor street

5.0 Findings & Recommendations

The following intersection improvements are recommended to achieve acceptable level-of-service during AM and PM peak hour under each scenario, and to facilitate safe ingress and egress to/from the proposed development.

Scenario 1: Existing 2018

- No improvements are required at any of the study intersections

Scenario 2: Opening Year 2019 No-Build

- No improvements are required at any of the study intersections

Scenarios 3 & 5: Opening Year 2019 Full Build

- *Oak Street & Main Street:*
  - *Northbound approach:* One shared through/right-turn lane
  - *Southbound approach:* One shared left-turn/through lane
  - *Westbound approach:* One shared left-turn/right-turn lane
  - One-way stop-controlled, with Main Street being the minor street
- *Main Street & 5th Street:*
  - Single-lane roundabout, with one-lane entry on all approaches
- *Main Street & Federal Drive:*
  - *Northbound approach:* One shared left-turn/through lane
  - *Southbound approach:* One shared through/right-turn lane
  - *Eastbound approach:* One shared left-turn/right-turn lane
  - One-way stop-controlled, with Main Street being the minor street

Scenarios 4 & 6: Horizon Year 2029

- No additional improvements are required besides those identified in Scenario 3.

Appendix A – Traffic Data

TRAFFIC VOLUMES

INTERSECTION: **Bradley Ave & Oak St**

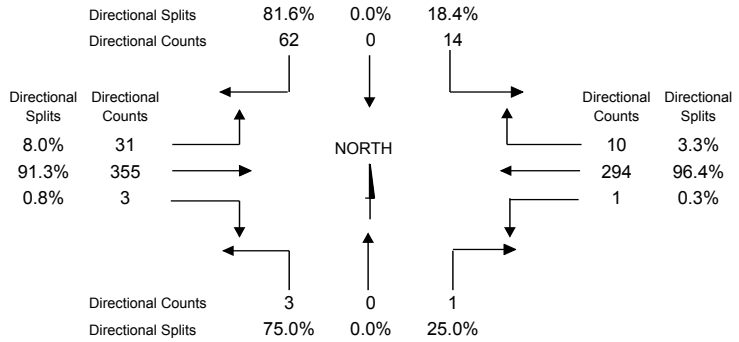
DATA DATE: 6/28/2018 **DURATION:** 6:00 AM - 9:00 AM

VEHICLES - TOTAL **AM Peak**

	NB			SB			EB			WB				
	Oak St			**Oak St**			**Bradley Ave**			**Bradley Ave**				
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT		
TIME BEGIN													INTERVAL TOTAL	HOUR TOTAL
06:00AM	1	0	0	0	0	1	4	20	0	0	16	1	43	206
06:15AM	0	0	0	0	0	0	0	0	0	0	7	1	8	272
06:30AM	0	0	0	0	0	0	5	40	0	1	20	2	68	414
06:45AM	0	0	0	1	0	2	10	43	0	0	28	3	87	523
07:00AM	0	0	0	0	0	3	6	53	0	0	43	4	109	606
07:15AM	0	0	0	2	0	9	10	61	0	0	67	1	150	703
07:30AM	0	0	0	0	0	3	7	92	0	0	73	2	177	732
07:45AM	2	0	0	1	0	7	14	89	0	2	50	5	170	755
08:00AM	1	0	0	5	0	14	8	101	2	0	73	2	206	774
08:15AM	0	0	1	5	0	14	9	80	0	0	69	1	179	--
08:30AM	1	0	0	2	0	14	6	93	0	1	78	5	200	--
08:45AM	1	0	0	2	0	20	8	81	1	0	74	2	189	--

	NB			SB			EB			WB			
	Oak St			**Oak St**			**Bradley Ave**			**Bradley Ave**			
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	TOTAL
2018 PEAK HOUR VOLUMES													
	3	0	1	14	0	62	31	355	3	1	294	10	774
TRUCK PERCENTAGES													
	0%	0%	0%	0%	0%	24%	33%	7%	0%	0%	6%	0%	

YEAR 2018 PEAK HOUR TRAFFIC
Bradley Ave & Oak St
8:00 - 9:00 AM



OVERALL PHF = 0.94

TRAFFIC VOLUMES

INTERSECTION: **Bradley Ave & Oak St**

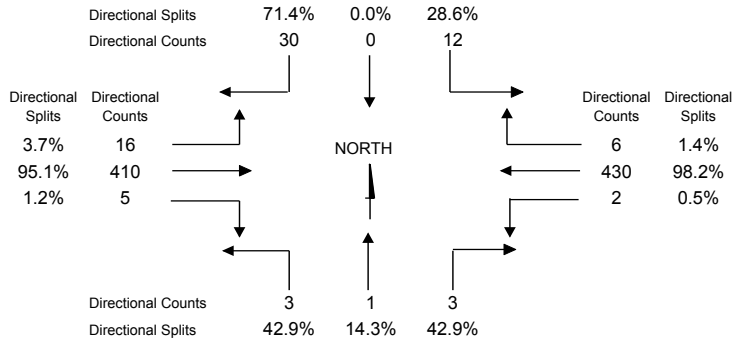
DATA DATE: 6/28/2018 **DURATION:** 3:00 PM - 6:00 PM

VEHICLES - TOTAL **PM Peak**

	NB			SB			EB			WB				
	Oak St			**Oak St**			**Bradley Ave**			**Bradley Ave**				
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT		
TIME BEGIN													INTERVAL TOTAL	HOUR TOTAL
03:00PM	1	0	1	5	0	15	6	122	1	1	108	8	268	911
03:15PM	0	0	1	1	0	7	5	116	1	0	113	4	248	860
03:30PM	0	0	1	7	0	7	1	45	0	1	41	3	106	811
03:45PM	1	0	0	1	0	11	8	117	2	0	148	1	289	768
04:00PM	2	0	1	5	0	21	4	91	0	1	90	2	217	750
04:15PM	1	0	0	4	0	5	4	77	1	1	102	4	199	726
04:30PM	1	0	2	8	0	2	1	16	0	2	30	1	63	744
04:45PM	0	0	1	3	0	12	5	120	0	0	129	1	271	918
05:00PM	2	1	0	6	0	9	1	77	3	0	89	5	193	897
05:15PM	0	0	2	3	0	5	5	85	2	2	113	0	217	--
05:30PM	1	0	0	0	0	4	5	128	0	0	99	0	237	--
05:45PM	0	0	0	0	0	3	4	149	0	0	92	2	250	--

NB			SB			EB			WB			TOTAL
Oak St			**Oak St**			**Bradley Ave**			**Bradley Ave**			
LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
2018 PEAK HOUR VOLUMES												
3	1	3	12	0	30	16	410	5	2	430	6	918
TRUCK PERCENTAGES												
0%	0%	0%	0%	0%	7%	7%	0%	0%	0%	1%	17%	

YEAR 2018 PEAK HOUR TRAFFIC
Bradley Ave & Oak St
4:45 - 5:45 PM



OVERALL PHF = 0.85

TRAFFIC VOLUMES

INTERSECTION: **Bradley Ave & 4th St**

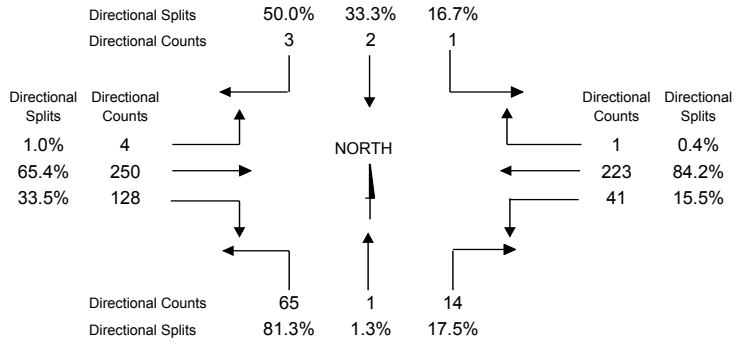
DATA DATE: 6/28/2018 **DURATION:** 6:00 AM - 9:00 AM

VEHICLES - TOTAL **AM Peak**

	NB			SB			EB			WB				
	4th St			**4th St**			**Bradley Ave**			**Bradley Ave**				
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT		
TIME BEGIN													INTERVAL TOTAL	HOUR TOTAL
06:00AM	5	1	1	0	0	0	0	15	4	2	13	0	41	231
06:15AM	1	2	5	2	4	1	0	0	2	10	5	0	32	299
06:30AM	4	0	2	0	2	1	1	30	10	5	20	0	75	402
06:45AM	6	0	0	0	1	0	0	31	13	7	25	0	83	507
07:00AM	7	0	4	0	0	1	0	37	18	2	40	0	109	598
07:15AM	9	2	2	0	0	1	0	49	12	2	57	1	135	680
07:30AM	12	0	4	0	0	2	1	61	34	5	61	0	180	720
07:45AM	14	0	5	0	1	0	0	62	27	17	48	0	174	733
08:00AM	16	0	1	0	0	1	4	63	38	10	57	1	191	725
08:15AM	14	0	4	0	0	2	0	56	33	10	56	0	175	--
08:30AM	21	1	4	1	1	0	0	69	30	4	62	0	193	--
08:45AM	14	0	2	1	0	2	0	65	19	4	59	0	166	--

NB			SB			EB			WB			
4th St			**4th St**			**Bradley Ave**			**Bradley Ave**			
LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	TOTAL
2018 PEAK HOUR VOLUMES												
65	1	14	1	2	3	4	250	128	41	223	1	733
TRUCK PERCENTAGES												
13%	0%	0%	0%	0%	0%	25%	5%	10%	10%	7%	0%	

YEAR 2018 PEAK HOUR TRAFFIC
Bradley Ave & 4th St
7:45 - 8:45 AM



OVERALL PHF = 0.95

AMERICAN STRUCTUREPOINT INC.

Defining the built environment.

TRAFFIC VOLUMES

INTERSECTION: **Bradley Ave & 4th St**

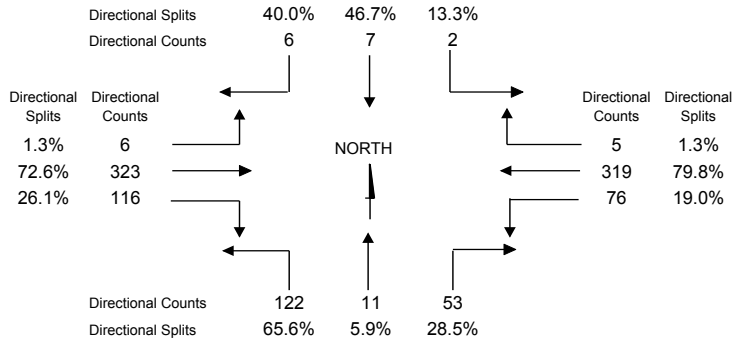
DATA DATE: 6/28/2018 **DURATION:** 3:00 PM - 6:00 PM

VEHICLES - TOTAL **PM Peak**

	NB			SB			EB			WB				
	4th St			**4th St**			**Bradley Ave**			**Bradley Ave**				
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT		
TIME BEGIN													INTERVAL TOTAL	HOUR TOTAL
03:00PM	30	1	5	0	0	3	0	85	39	9	84	0	256	967
03:15PM	34	0	8	1	0	4	2	89	32	9	80	0	259	924
03:30PM	19	1	10	0	0	1	0	41	22	38	48	0	180	885
03:45PM	41	2	7	0	1	0	1	83	33	11	93	0	272	862
04:00PM	23	1	6	1	1	2	1	71	31	6	70	0	213	873
04:15PM	27	0	4	0	0	0	1	61	23	20	84	0	220	924
04:30PM	10	6	15	0	4	0	1	10	24	55	31	1	157	965
04:45PM	38	3	11	0	4	1	5	92	30	9	88	2	283	1046
05:00PM	40	2	14	2	1	2	0	68	25	36	73	1	264	1030
05:15PM	24	6	22	0	2	1	0	64	28	26	86	2	261	--
05:30PM	20	0	6	0	0	2	1	99	33	5	72	0	238	--
05:45PM	27	4	6	1	0	2	5	109	37	3	71	2	267	--

NB			SB			EB			WB			
4th St			**4th St**			**Bradley Ave**			**Bradley Ave**			TOTAL
LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
2018 PEAK HOUR VOLUMES												
122	11	53	2	7	6	6	323	116	76	319	5	1046
TRUCK PERCENTAGES												
3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	20%	

YEAR 2018 PEAK HOUR TRAFFIC
Bradley Ave & 4th St
4:45 - 5:45 PM



OVERALL PHF = 0.92

AMERICAN STRUCTUREPOINT INC.

Defining the built environment.

TRAFFIC VOLUMES

INTERSECTION: **Bradley Ave & 5th St**

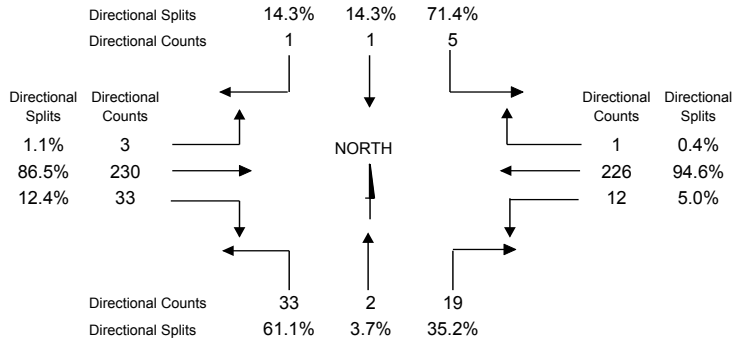
DATA DATE: 6/28/2018 **DURATION:** 6:00 AM - 9:00 AM

VEHICLES - TOTAL **AM Peak**

	NB			SB			EB			WB				
	5th St			**5th St**			**Bradley Ave**			**Bradley Ave**				
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT		
TIME BEGIN													INTERVAL TOTAL	HOUR TOTAL
06:00AM	2	0	0	0	0	1	0	13	3	2	13	1	35	189
06:15AM	3	0	2	0	0	0	0	5	1	2	12	0	25	246
06:30AM	4	0	3	1	0	0	2	30	1	0	20	0	61	337
06:45AM	3	0	2	3	0	1	0	30	0	1	28	0	68	411
07:00AM	5	1	3	0	0	1	0	38	3	3	38	0	92	484
07:15AM	7	0	3	0	0	0	2	45	6	0	53	0	116	532
07:30AM	8	0	1	0	0	0	0	59	6	2	59	0	135	553
07:45AM	7	0	5	0	0	0	0	56	11	3	59	0	141	565
08:00AM	7	0	5	1	0	0	2	56	6	4	59	0	140	566
08:15AM	4	0	7	0	0	1	0	50	10	3	62	0	137	--
08:30AM	14	1	4	4	1	0	1	60	9	4	49	0	147	--
08:45AM	8	1	3	0	0	0	0	64	8	1	56	1	142	--

NB			SB			EB			WB			
5th St			**5th St**			**Bradley Ave**			**Bradley Ave**			
LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	TOTAL
2018 PEAK HOUR VOLUMES												
33	2	19	5	1	1	3	230	33	12	226	1	566
TRUCK PERCENTAGES												
12%	0%	27%	20%	0%	0%	34%	4%	0%	25%	5%	0%	

YEAR 2018 PEAK HOUR TRAFFIC
Bradley Ave & 5th St
8:00 - 9:00 AM



OVERALL PHF = 0.96

TRAFFIC VOLUMES

INTERSECTION: **Bradley Ave & 5th St**

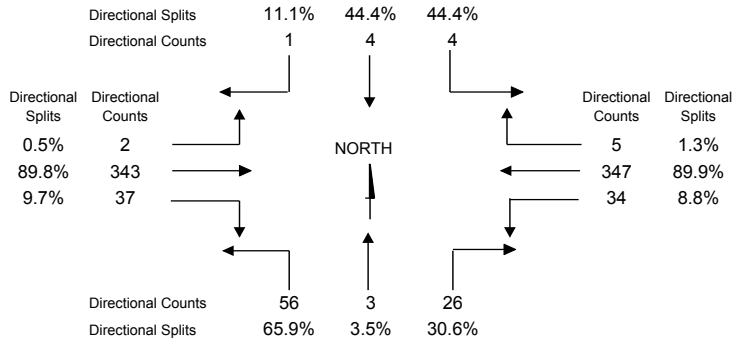
DATA DATE: 6/28/2018 **DURATION:** 3:00 PM - 6:00 PM

VEHICLES - TOTAL **PM Peak**

	NB			SB			EB			WB				
	5th St			**5th St**			**Bradley Ave**			**Bradley Ave**				
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT		
TIME BEGIN													INTERVAL TOTAL	HOUR TOTAL
03:00PM	9	0	9	0	1	1	2	82	4	2	80	2	192	742
03:15PM	10	3	4	1	0	0	0	85	13	3	79	2	200	723
03:30PM	12	1	4	1	0	0	0	46	9	8	70	0	151	697
03:45PM	16	0	3	0	0	1	1	82	5	4	87	0	199	676
04:00PM	8	2	4	0	0	4	1	70	7	9	67	1	173	701
04:15PM	8	1	2	1	0	0	0	56	10	3	93	0	174	749
04:30PM	5	1	7	0	0	0	1	18	2	15	80	1	130	799
04:45PM	14	0	8	0	1	1	0	99	7	6	87	1	224	862
05:00PM	14	1	4	2	2	0	2	72	10	13	98	3	221	847
05:15PM	15	1	8	1	0	0	0	77	9	12	101	0	224	--
05:30PM	13	1	6	1	1	0	0	95	11	3	61	1	193	--
05:45PM	9	2	4	4	0	1	3	101	13	5	67	0	209	--

NB			SB			EB			WB			
5th St			**5th St**			**Bradley Ave**			**Bradley Ave**			TOTAL
LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
2018 PEAK HOUR VOLUMES												
56	3	26	4	4	1	2	343	37	34	347	5	862
TRUCK PERCENTAGES												
0%	0%	8%	25%	0%	0%	0%	1%	0%	6%	1%	0%	

YEAR 2018 PEAK HOUR TRAFFIC
Bradley Ave & 5th St
4:45 - 5:45 PM



OVERALL PHF = 0.96

TRAFFIC VOLUMES

INTERSECTION: **Bradley Ave & 6th St**

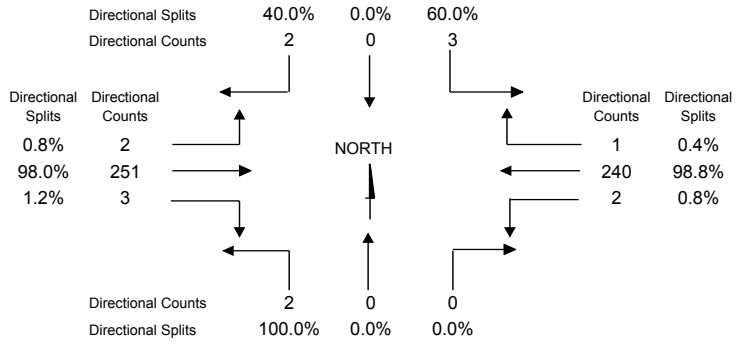
DATA DATE: 6/28/2018 **DURATION:** 6:00 AM - 9:00 AM

VEHICLES - TOTAL **AM Peak**

	NB			SB			EB			WB				
	6th St			**6th St**			**Bradley Ave**			**Bradley Ave**				
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT		
TIME BEGIN													INTERVAL TOTAL	HOUR TOTAL
06:00AM	0	0	0	0	0	2	0	14	0	0	15	1	32	176
06:15AM	0	0	1	0	1	0	0	6	0	0	14	0	22	229
06:30AM	0	0	1	0	0	1	0	32	0	0	19	0	53	304
06:45AM	0	0	1	0	0	0	0	38	0	0	30	0	69	373
07:00AM	0	0	0	0	0	0	0	41	0	1	43	0	85	426
07:15AM	1	0	0	0	0	0	1	46	1	0	48	0	97	474
07:30AM	1	0	1	1	0	0	0	58	1	0	60	0	122	500
07:45AM	0	0	0	0	0	1	0	60	0	0	61	0	122	504
08:00AM	1	0	0	2	0	1	1	63	1	0	63	1	133	506
08:15AM	0	0	0	0	0	0	0	55	1	1	66	0	123	--
08:30AM	1	0	0	1	0	1	0	68	0	1	54	0	126	--
08:45AM	0	0	0	0	0	0	1	65	1	0	57	0	124	--

	NB			SB			EB			WB			
	6th St			**6th St**			**Bradley Ave**			**Bradley Ave**			
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	TOTAL
2018 PEAK HOUR VOLUMES													
	2	0	0	3	0	2	2	251	3	2	240	1	506
TRUCK PERCENTAGES													
	50%	0%	0%	0%	0%	50%	0%	7%	0%	0%	5%	0%	

YEAR 2018 PEAK HOUR TRAFFIC
Bradley Ave & 6th St
8:00 - 9:00 AM



OVERALL PHF = 0.95

TRAFFIC VOLUMES

INTERSECTION: **Bradley Ave & 6th St**

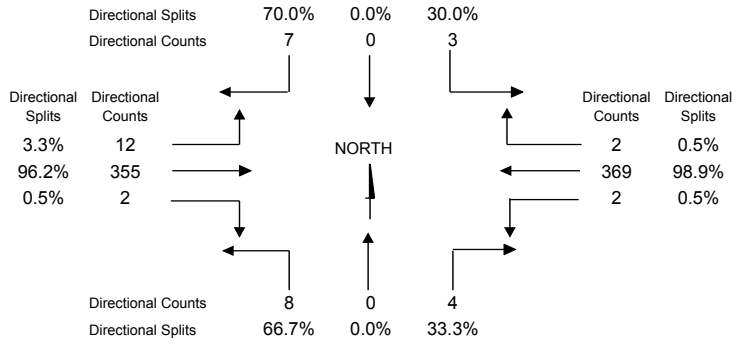
DATA DATE: 6/28/2018 **DURATION:** 3:00 PM - 6:00 PM

VEHICLES - TOTAL **PM Peak**

	NB			SB			EB			WB				
	6th St			**6th St**			**Bradley Ave**			**Bradley Ave**				
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT		
TIME BEGIN													INTERVAL TOTAL	HOUR TOTAL
03:00PM	1	0	1	0	0	3	2	88	0	1	79	0	175	682
03:15PM	1	0	1	1	0	0	2	88	0	2	90	1	186	658
03:30PM	0	0	0	0	0	0	0	53	0	0	85	0	138	630
03:45PM	2	0	0	2	0	1	1	81	3	2	90	1	183	616
04:00PM	0	0	0	0	0	0	1	72	0	0	78	0	151	636
04:15PM	0	0	0	0	1	2	1	60	0	1	92	1	158	678
04:30PM	0	1	1	2	0	3	0	23	0	2	92	0	124	720
04:45PM	6	0	1	0	0	0	2	105	0	0	89	0	203	764
05:00PM	1	0	2	0	0	5	3	73	0	0	108	1	193	745
05:15PM	0	0	0	1	0	2	4	81	2	0	109	1	200	--
05:30PM	1	0	1	2	0	0	3	96	0	2	63	0	168	--
05:45PM	1	0	1	0	0	0	2	103	3	0	74	0	184	--

	NB			SB			EB			WB			
	6th St			**6th St**			**Bradley Ave**			**Bradley Ave**			
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	TOTAL
2018 PEAK HOUR VOLUMES													
	8	0	4	3	0	7	12	355	2	2	369	2	764
TRUCK PERCENTAGES													
	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	2%	0%	

YEAR 2018 PEAK HOUR TRAFFIC
Bradley Ave & 6th St
4:45 - 5:45 PM



OVERALL PHF = 0.94

TRAFFIC VOLUMES

INTERSECTION: **Bradley Ave & Carver Dr**

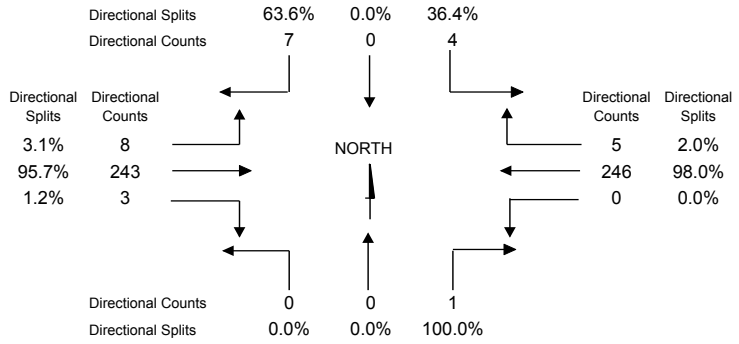
DATA DATE: 6/28/2018 **DURATION:** 6:00 AM - 9:00 AM

VEHICLES - TOTAL **AM Peak**

	NB			SB			EB			WB				
	Carver Dr			**Carver Dr**			**Bradley Ave**			**Bradley Ave**				
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT		
TIME BEGIN													INTERVAL TOTAL	HOUR TOTAL
06:00AM	0	0	0	0	0	1	0	14	0	0	14	0	29	177
06:15AM	0	0	0	1	0	0	0	8	0	0	14	0	23	235
06:30AM	1	0	0	0	0	2	1	34	0	0	17	0	55	308
06:45AM	0	0	0	1	0	5	1	37	0	0	25	1	70	373
07:00AM	1	0	0	0	0	1	0	41	0	1	43	0	87	440
07:15AM	0	0	0	2	0	4	4	39	0	0	45	2	96	479
07:30AM	0	0	0	1	0	3	1	58	0	0	56	1	120	511
07:45AM	0	0	1	1	0	1	2	62	0	0	69	1	137	517
08:00AM	0	0	0	2	0	2	2	60	1	0	59	0	126	504
08:15AM	0	0	0	1	0	2	3	54	0	0	64	4	128	--
08:30AM	0	0	0	0	0	2	1	67	2	0	54	0	126	--
08:45AM	0	0	0	1	0	2	1	64	0	0	55	1	124	--

NB			SB			EB			WB			
Carver Dr			**Carver Dr**			**Bradley Ave**			**Bradley Ave**			TOTAL
LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
2018 PEAK HOUR VOLUMES												
0	0	1	4	0	7	8	243	3	0	246	5	517
TRUCK PERCENTAGES												
0%	0%	0%	25%	0%	15%	25%	6%	0%	0%	7%	0%	

YEAR 2018 PEAK HOUR TRAFFIC
Bradley Ave & Carver Dr
7:45 - 8:45 AM



OVERALL PHF = 0.94

TRAFFIC VOLUMES

INTERSECTION: **Bradley Ave & Carver Dr**

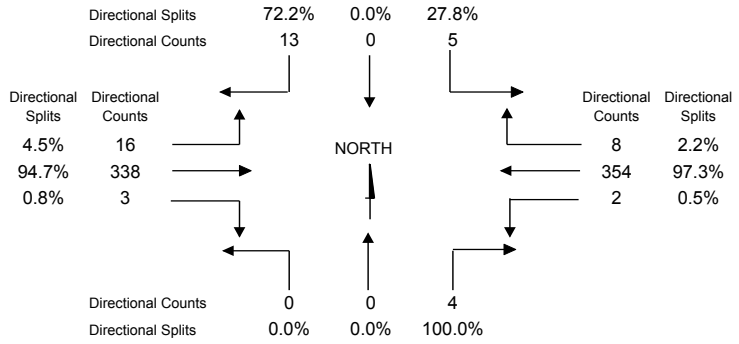
DATA DATE: 6/28/2018 **DURATION:** 3:00 PM - 6:00 PM

VEHICLES - TOTAL **PM Peak**

	NB			SB			EB			WB				
	Carver Dr			**Carver Dr**			**Bradley Ave**			**Bradley Ave**				
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT		
TIME BEGIN													INTERVAL TOTAL	HOUR TOTAL
03:00PM	1	0	0	1	0	5	2	87	1	0	71	4	172	678
03:15PM	1	0	3	0	0	4	4	86	0	0	85	4	187	665
03:30PM	1	0	1	1	1	5	1	50	1	1	79	1	142	633
03:45PM	2	1	0	1	0	1	5	76	1	1	88	1	177	614
04:00PM	0	0	0	2	1	4	3	69	3	1	75	1	159	637
04:15PM	1	0	2	1	0	8	0	59	0	0	83	1	155	664
04:30PM	2	0	0	2	0	4	4	21	0	0	87	3	123	702
04:45PM	0	0	0	2	0	2	2	103	0	1	88	2	200	743
05:00PM	0	0	2	0	0	5	4	71	0	0	101	3	186	724
05:15PM	0	0	2	0	0	5	4	76	1	0	103	2	193	--
05:30PM	0	0	0	3	0	1	6	88	2	1	62	1	164	--
05:45PM	0	0	0	1	0	6	6	98	1	0	65	4	181	--

NB			SB			EB			WB			TOTAL
Carver Dr			**Carver Dr**			**Bradley Ave**			**Bradley Ave**			
LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
2018 PEAK HOUR VOLUMES												
0	0	4	5	0	13	16	338	3	2	354	8	743
TRUCK PERCENTAGES												
0%	0%	0%	0%	0%	8%	0%	1%	0%	0%	1%	13%	

YEAR 2018 PEAK HOUR TRAFFIC
Bradley Ave & Carver Dr
4:45 - 5:45 PM



OVERALL PHF = 0.93

TRAFFIC VOLUMES

INTERSECTION: **Kenyon Rd & Federal Dr**

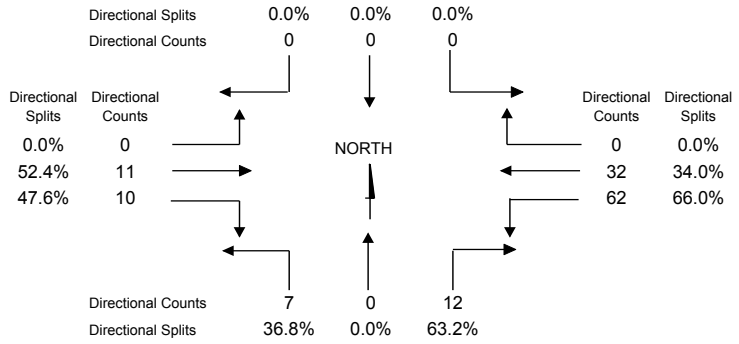
DATA DATE: 6/28/2018 **DURATION:** 6:00 AM - 9:00 AM

VEHICLES - TOTAL **AM Peak**

	NB			SB			EB			WB				
	Federal Dr			**Federal Dr**			**Kenyon Rd**			**Kenyon Rd**				
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT		
TIME BEGIN													INTERVAL TOTAL	HOUR TOTAL
06:00AM	0	0	2	0	0	0	0	2	3	0	2	0	9	100
06:15AM	0	0	1	0	0	0	0	1	2	5	8	0	17	122
06:30AM	2	0	3	0	0	0	0	3	3	14	3	0	28	134
06:45AM	0	0	2	0	0	0	0	2	5	27	10	0	46	128
07:00AM	1	0	5	0	0	0	0	5	0	13	7	0	31	124
07:15AM	4	0	2	0	0	0	0	1	2	8	12	0	29	115
07:30AM	1	0	2	0	0	0	0	5	2	8	4	0	22	110
07:45AM	4	0	7	0	0	0	0	5	5	16	5	0	42	130
08:00AM	5	0	2	0	0	0	0	3	1	3	8	0	22	115
08:15AM	2	0	9	0	0	0	0	6	1	1	5	0	24	--
08:30AM	12	0	15	0	0	0	0	7	3	3	2	0	42	--
08:45AM	4	0	7	0	0	0	0	3	3	6	4	0	27	--

NB			SB			EB			WB			
Federal Dr			**Federal Dr**			**Kenyon Rd**			**Kenyon Rd**			
LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	TOTAL
2018 PEAK HOUR VOLUMES												
7	0	12	0	0	0	0	11	10	62	32	0	134
TRUCK PERCENTAGES												
43%	0%	34%	0%	0%	0%	0%	55%	0%	5%	10%	0%	

YEAR 2018 PEAK HOUR TRAFFIC
Kenyon Rd & Federal Dr
6:30 - 7:30 AM



OVERALL PHF = 0.73

TRAFFIC VOLUMES

INTERSECTION: **Kenyon Rd & Federal Dr**

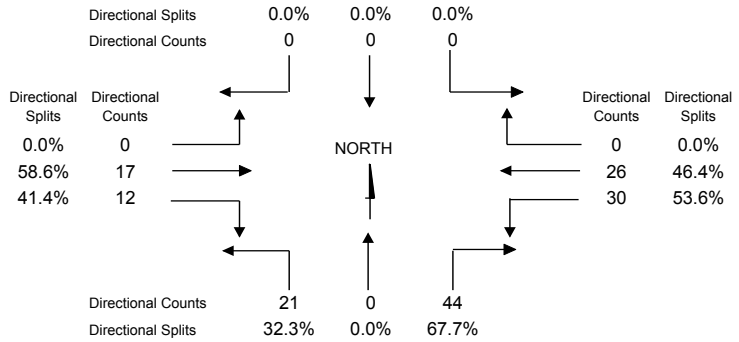
DATA DATE: 6/28/2018 **DURATION:** 3:00 PM - 6:00 PM

VEHICLES - TOTAL **PM Peak**

	NB			SB			EB			WB				
	Federal Dr			**Federal Dr**			**Kenyon Rd**			**Kenyon Rd**				
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT		
TIME BEGIN													INTERVAL TOTAL	HOUR TOTAL
03:00PM	4	0	9	0	0	0	0	5	6	11	9	0	44	150
03:15PM	3	0	6	0	0	0	0	3	3	7	7	0	29	143
03:30PM	11	0	21	0	0	0	0	4	2	6	5	0	49	144
03:45PM	3	0	8	0	0	0	0	5	1	6	5	0	28	129
04:00PM	7	0	13	0	0	0	0	6	2	7	2	0	37	120
04:15PM	3	0	4	0	0	0	0	7	1	7	8	0	30	118
04:30PM	2	0	16	0	0	0	0	3	0	10	3	0	34	104
04:45PM	6	0	5	0	0	0	0	2	1	2	3	0	19	86
05:00PM	5	0	11	0	0	0	0	9	2	4	4	0	35	87
05:15PM	1	0	5	0	0	0	0	3	0	4	3	0	16	--
05:30PM	1	0	5	0	0	0	0	2	1	4	3	0	16	--
05:45PM	0	0	7	0	0	0	0	1	1	10	1	0	20	--

	NB			SB			EB			WB			
	Federal Dr			**Federal Dr**			**Kenyon Rd**			**Kenyon Rd**			
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	TOTAL
2018 PEAK HOUR VOLUMES													
	21	0	44	0	0	0	0	17	12	30	26	0	150
TRUCK PERCENTAGES													
	0%	0%	9%	0%	0%	0%	0%	24%	34%	24%	31%	0%	

YEAR 2018 PEAK HOUR TRAFFIC
Kenyon Rd & Federal Dr
3:00 - 4:00 PM



OVERALL PHF = 0.77

Existing Traffic Volumes - 2018 AM Peak Hour

2018

ID	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
--	Bradley Ave & Oak St	3	0	1	14	0	62	31	355	3	1	294	10
1	Bradley Ave & 4th St	65	1	14	1	2	3	4	250	128	41	223	1
2	Bradley Ave & 5th St	33	2	19	5	1	1	3	230	33	12	226	1
--	Bradley Ave & 6th St	2	0	0	3	0	2	2	251	3	2	240	1
3	Bradley Ave & Carver Dr	0	0	1	4	0	7	8	243	3	0	246	5
--	Kenyon Rd & Federal Dr	7	0	12	0	0	0	0	11	10	62	32	0

Adjusted Existing Traffic Volumes - 2018 AM Peak Hour

2018

ID	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
--	Bradley Ave & Oak St	4	0	1	18	0	81	40	462	4	1	382	13
1	Bradley Ave & 4th St	85	1	18	1	3	4	5	325	166	53	290	1
2	Bradley Ave & 5th St	43	3	25	7	1	1	4	299	43	16	294	1
--	Bradley Ave & 6th St	3	0	0	4	0	3	3	326	4	3	312	1
3	Bradley Ave & Carver Dr	0	0	1	5	0	9	10	316	4	0	320	7
--	Kenyon Rd & Federal Dr	9	0	16	0	0	0	0	14	13	81	42	0

Redistributed Existing (Adjusted) Traffic Volumes - 2018 AM Peak Hour

2018

ID	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Bradley Ave & 4th St	85	1	18	19	3	85	45	307	166	53	277	14
2	Bradley Ave & 5th St	43	3	25	7	1	1	4	299	43	16	294	1
3	Bradley Ave & Carver Dr	0	0	1	5	0	9	10	316	4	0	320	7
4	Main St & 4th St/Oak St		53			99							
5	Main St & 5th St												
6	Main St & Federal Dr												

2019 Background Traffic Volumes - 2019 Opening Year AM Peak Hour

ID	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Bradley Ave & 4th St	86	1	18	19	3	86	45	310	168	54	280	14
2	Bradley Ave & 5th St	43	3	25	7	1	1	4	302	43	16	297	1
3	Bradley Ave & Carver Dr	0	0	1	5	0	9	10	319	4	0	323	7
4	Main St & 4th St/Oak St	0	54	0	0	100	0	0	0	0	0	0	0
5	Main St & 5th St	0	0	0	0	0	0	0	0	0	0	0	0
6	Main St & Federal Dr	0	0	0	0	0	0	0	0	0	0	0	0

2019 Added Site Traffic Volumes - AM Peak Hour

ID	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Bradley Ave & 4th St	0	8	0	3	14	19	6	6	0	14	19	0
2	Bradley Ave & 5th St	0	3	0	9	11	33	6	3	0	0	0	3
3	Bradley Ave & Carver Dr	0	0	0	5	0	0	0	12	0	0	3	3
4	Main St & 4th St/Oak St		5	8		22					14		
5	Main St & 5th St	0	6	6	4	26	0	4	0	0	26	0	1
6	Main St & Federal Dr	0	0			0	1	4		0			

2019 Added Site Traffic Volumes - AM Peak Hour - Carver Drive Closed to Development

ID	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Bradley Ave & 4th St	0	8	0	8	14	19	6	6	0	14	19	3
2	Bradley Ave & 5th St	0	3	0	9	11	33	6	8	0	0	3	3
3	Bradley Ave & Carver Dr	0	0	0	0	0	0	0	17	0	0	6	0
4	Main St & 4th St/Oak St		7	9		25					16		
5	Main St & 5th St	0	6	6	4	26	0	4	0	0	26	0	1
6	Main St & Federal Dr	0	0			0	1	4		0			

Changed for Carver closed to Development

2019 Total Traffic Volumes - 2019 Opening Year AM Peak Hour

ID	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Bradley Ave & 4th St	86	9	18	22	17	105	51	316	168	68	299	14
2	Bradley Ave & 5th St	43	6	25	16	12	34	10	305	43	16	297	4
3	Bradley Ave & Carver Dr	0	0	1	10	0	9	10	331	4	0	326	10
4	Main St & 4th St/Oak St	0	59	8	0	122	0	0	0	0	14	0	0
5	Main St & 5th St	0	6	6	4	26	0	4	0	0	26	0	1
6	Main St & Federal Dr	0	0	0	0	0	1	4	0	0	0	0	0

2029 Background Traffic Volumes - 2029 Horizon Year AM Peak Hour

ID	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Bradley Ave & 4th St	94	*5*	20	21	*5*	94	50	341	184	59	307	16
2	Bradley Ave & 5th St	48	*5*	28	8	*5*	*5*	*5*	332	48	18	326	*5*
3	Bradley Ave & Carver Dr	*5*	*5*	*5*	6	*5*	10	11	351	*5*	*5*	355	8
4	Main St & 4th St/Oak St	0	59	0	0	110	0	0	0	0	0	0	0
5	Main St & 5th St	0	0	0	0	0	0	0	0	0	0	0	0
6	Main St & Federal Dr	0	0	0	0	0	0	0	0	0	0	0	0

123 *5 vph assumed for turning movements with no growth or existing volume < 5 vph*

2029 Total Traffic Volumes - 2029 Horizon Year AM Peak Hour

ID	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Bradley Ave & 4th St	94	13	20	24	19	113	56	347	184	73	326	16
2	Bradley Ave & 5th St	48	8	28	17	16	38	11	335	48	18	326	8
3	Bradley Ave & Carver Dr	5	5	5	11	5	10	11	363	5	5	358	11
4	Main St & 4th St/Oak St	0	64	*8*	*5*	132	0	0	0	0	14	0	*5*
5	Main St & 5th St	*5*	6	6	*5*	26	*5*	*5*	*5*	*5*	26	*5*	*5*
6	Main St & Federal Dr	*5*	*5*	0	0	*5*	*5*	*5*	0	*5*	0	0	0

123 *5 vph assumed for turning movements with volume < 5 vph*

2019 Total Traffic Volumes - 2019 Horizon Year AM Peak Hour - Carver Drive Closed to Development

ID	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Bradley Ave & 4th St	86	9	18	27	17	105	51	316	168	68	299	17
2	Bradley Ave & 5th St	43	6	25	16	12	34	10	310	43	16	300	4
3	Bradley Ave & Carver Dr	0	0	1	5	0	9	10	336	4	0	329	7
4	Main St & 4th St/Oak St	0	61	9	0	125	0	0	0	0	16	0	0
5	Main St & 5th St	0	6	6	4	26	0	4	0	0	26	0	1
6	Main St & Federal Dr	0	0	0	0	0	1	4	0	0	0	0	0

123 *5 vph assumed for turning movements with volume < 5 vph*

Changed for Carver closed to Development

2029 Total Traffic Volumes - 2029 Horizon Year AM Peak Hour - Carver Drive Closed to Development

ID	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Bradley Ave & 4th St	94	13	20	29	19	113	56	347	184	73	326	19
2	Bradley Ave & 5th St	48	8	28	17	16	38	11	340	48	18	329	8
3	Bradley Ave & Carver Dr	5	5	5	6	5	10	11	368	5	5	361	8
4	Main St & 4th St/Oak St	0	66	9	5	135	0	0	0	0	16	0	5
5	Main St & 5th St	5	6	6	5	26	5	5	5	5	26	5	5
6	Main St & Federal Dr	5	5	0	0	5	5	5	0	5	0	0	0

123 *5 vph assumed for turning movements with volume < 5 vph*

Changed for Carver closed to Development

Existing Traffic Volumes - 2018 PM Peak Hour

2018 ID	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
--	Bradley Ave & Oak St	3	1	3	12	0	30	16	410	5	2	430	6
1	Bradley Ave & 4th St	122	11	53	2	7	6	6	323	116	76	319	5
2	Bradley Ave & 5th St	56	3	26	4	4	1	2	343	37	34	347	5
--	Bradley Ave & 6th St	8	0	4	3	0	7	12	355	2	2	369	2
3	Bradley Ave & Carver Dr	0	0	4	5	0	13	16	338	3	2	354	8
--	Kenyon Rd & Federal Dr	21	0	44	0	0	0	0	17	12	30	26	0

Adjusted Existing Traffic Volumes - 2018 PM Peak Hour

2018 ID	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
--	Bradley Ave & Oak St	4	1	4	16	0	39	21	533	7	3	559	8
1	Bradley Ave & 4th St	159	14	69	3	9	8	8	420	151	99	415	7
2	Bradley Ave & 5th St	73	4	34	5	5	1	3	446	48	44	451	7
--	Bradley Ave & 6th St	10	0	5	4	0	9	16	462	3	3	480	3
3	Bradley Ave & Carver Dr	0	0	5	7	0	17	21	439	4	3	460	10
--	Kenyon Rd & Federal Dr	27	0	57	0	0	0	0	22	16	39	34	0

Redistributed Existing (Adjusted) Traffic Volumes - 2018 PM Peak Hour

2018 ID	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Bradley Ave & 4th St	159	14	69	19	9	47	29	404	151	99	407	15
2	Bradley Ave & 5th St	73	4	34	5	5	1	3	446	48	44	451	7
3	Bradley Ave & Carver Dr	0	0	5	7	0	17	21	439	4	3	460	10
4	Main St & 4th St/Oak St		30			55							
5	Main St & 5th St												
6	Main St & Federal Dr												

2019 Background Traffic Volumes - 2019 Opening Year PM Peak Hour

ID	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Bradley Ave & 4th St	161	14	70	19	9	47	29	408	153	100	411	15
2	Bradley Ave & 5th St	74	4	34	5	5	1	3	450	48	44	456	7
3	Bradley Ave & Carver Dr	0	0	5	7	0	17	21	443	4	3	465	10
4	Main St & 4th St/Oak St	0	30	0	0	56	0	0	0	0	0	0	0
5	Main St & 5th St	0	0	0	0	0	0	0	0	0	0	0	0
6	Main St & Federal Dr	0	0	0	0	0	0	0	0	0	0	0	0

2019 Added Site Traffic Volumes - PM Peak Hour

ID	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Bradley Ave & 4th St	0	25	0	0	8	11	18	18	0	8	11	0
2	Bradley Ave & 5th St	0	10	0	5	6	19	18	0	0	0	0	8
3	Bradley Ave & Carver Dr	0	0	0	5	0	0	*0*	*5*	*0*	0	8	8
4	Main St & 4th St/Oak St		19	25	0	11					8		0
5	Main St & 5th St	0	18	18	2	14	0	13	0	0	15	0	4
6	Main St & Federal Dr	0	0			0	4	2		0			

2019 Added Site Traffic Volumes - PM Peak Hour - Carver Drive Closed to Development

ID	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Bradley Ave & 4th St	0	25	0	5	8	11	18	18	0	8	11	3
2	Bradley Ave & 5th St	0	10	0	5	6	19	18	5	0	0	8	8
3	Bradley Ave & Carver Dr	0	0	0	0	0	0	*0*	*13*	*0*	0	16	0
4	Main St & 4th St/Oak St		23	29	0	14					10		0
5	Main St & 5th St	0	18	18	2	14	0	13	0	0	15	0	4
6	Main St & Federal Dr	0	0			0	4	2		0			

Changed for Carver closed to Development

2019 Total Traffic Volumes - 2019 Opening Year PM Peak Hour

ID	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Bradley Ave & 4th St	161	39	70	19	17	58	47	426	153	108	422	15
2	Bradley Ave & 5th St	74	14	34	10	11	20	21	450	48	44	456	15
3	Bradley Ave & Carver Dr	0	0	5	12	0	17	21	448	4	3	473	18
4	Main St & 4th St/Oak St	0	49	25	0	67	0	0	0	0	8	0	0
5	Main St & 5th St	0	18	18	2	14	0	13	0	0	15	0	4
6	Main St & Federal Dr	0	0	0	0	0	4	2	0	0	0	0	0

2029 Background Traffic Volumes - 2029 Horizon Year PM Peak Hour

ID	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Bradley Ave & 4th St	176	16	77	21	10	52	32	448	168	110	452	17
2	Bradley Ave & 5th St	81	*5*	38	6	6	*5*	*5*	495	53	49	501	8
3	Bradley Ave & Carver Dr	*5*	*5*	6	8	*5*	19	23	487	*5*	*5*	511	11
4	Main St & 4th St/Oak St	0	33	0	0	61	0	0	0	0	0	0	0
5	Main St & 5th St	0	0	0	0	0	0	0	0	0	0	0	0
6	Main St & Federal Dr	0	0	0	0	0	0	0	0	0	0	0	0
123	*5 vph assumed for turning movements with no growth or existing volume < 5 vph*												

2029 Total Traffic Volumes - 2029 Horizon Year PM Peak Hour

ID	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Bradley Ave & 4th St	176	41	77	21	18	63	50	466	168	118	463	17
2	Bradley Ave & 5th St	81	15	38	11	12	24	23	495	53	49	501	16
3	Bradley Ave & Carver Dr	5	5	6	13	5	19	23	492	5	5	519	19
4	Main St & 4th St/Oak St	0	52	25	*5*	72	0	0	0	0	8	0	*5*
5	Main St & 5th St	*5*	18	18	*5*	14	*5*	13	*5*	*5*	15	*5*	*5*
6	Main St & Federal Dr	*5*	*5*	0	0	*5*	*5*	*5*	0	*5*	0	0	0
123	*5 vph assumed for turning movements with volume < 5 vph*												

2019 Total Traffic Volumes - 2019 Horizon Year PM Peak Hour - Carver Drive Closed to Development

ID	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Bradley Ave & 4th St	161	39	70	24	17	58	47	426	153	108	422	18
2	Bradley Ave & 5th St	74	14	34	10	11	20	21	455	48	44	464	15
3	Bradley Ave & Carver Dr	0	0	5	7	0	17	21	456	4	3	481	10
4	Main St & 4th St/Oak St	0	53	29	0	70	0	0	0	0	10	0	0
5	Main St & 5th St	0	18	18	2	14	0	13	0	0	15	0	4
6	Main St & Federal Dr	0	0	0	0	0	4	2	0	0	0	0	0
123	*5 vph assumed for turning movements with volume < 5 vph*												

Changed for Carver closed to Development

2029 Total Traffic Volumes - 2029 Horizon Year PM Peak Hour - Carver Drive Closed to Development

ID	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Bradley Ave & 4th St	176	41	77	26	18	63	50	466	168	118	463	20
2	Bradley Ave & 5th St	81	15	38	11	12	24	23	500	53	49	509	16
3	Bradley Ave & Carver Dr	5	5	6	8	5	19	23	500	5	5	527	11
4	Main St & 4th St/Oak St	0	56	29	5	75	0	0	0	0	10	0	5
5	Main St & 5th St	5	18	18	5	14	5	13	5	5	15	5	5
6	Main St & Federal Dr	5	5	0	0	5	5	5	0	5	0	0	0
123	*5 vph assumed for turning movements with volume < 5 vph*												

Changed for Carver closed to Development

Appendix B – Site Exhibits

P.I.N.
TRACT 1: 91-21-06-451-005
TRACT 2: 30-21-06-326-015
46-21-06-376-007
TRACT 3: 46-21-06-376-008

SURVEY AREA TABLE
TRACT 1: 494,043 SQUARE FEET (11.342 ACRES±)
TRACT 2: 455,374 SQUARE FEET (10.454 ACRES±)
TRACT 3: 795,274 SQUARE FEET (18.257 ACRES±)
TOTAL: 1,744,691 SQUARE FEET (40.053 ACRES±)

100 0 100 200 300
Scale: 1" = 100'

SITE BENCHMARK: #1
NORTHEAST BOLT (ARROW) ON FIRE HYDRANT AT THE NORTHWEST CORNER OF DORIE MILLER DRIVE & BETHUME COURT.

ELEV: 741.255 (NAVD 88)

SITE BENCHMARK: #2
SOUTHEAST BOLT (ARROW) ON FIRE HYDRANT ALONG THE WEST SIDE OF CARVER DRIVE NEAR THE INTERSECTION OF CARVER DRIVE & BETHUME COURT.

ELEV: 741.114 (NAVD 88)

SITE BENCHMARK #3
STATION #21
ELEV: 736.933 (MEAS.) 736.8 (REC.)

SITE BENCHMARK #4
STATION #30
ELEV: 738.648 (MEAS.) 738.6 (REC.)

Detention 1
Detention 2
CLUB HOUSE
Juniper Dr
E-Roper St
llefontaine St
N Chestnut St
rwood St
N Federal Dr
Bethume Ct
Dorie Miller Dr
Carver Dr
Crispus Dr
N 6th St
Nathaniel Burch Dr
Tawney Ct
Co Rd 1700 N E Bradley Ave

SITE BENCHMARK #1: SEE DESCRIPTION
SITE BENCHMARK #2: SEE DESCRIPTION
SITE BENCHMARK #3: SEE DESCRIPTION
SITE BENCHMARK #4: SEE DESCRIPTION

It's smart It's free It's the law
Call Before You Dig
JULIE ILLINOIS ONE-CALL SYSTEM
Call before you dig 800.892.0123

PROFESSIONAL DESIGN FIRM NUMBER: 184.001186

REVISIONS:					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DRAWN BY: B.L.
CHECKED BY: N.V.
APPROVED BY: J.G.

ENGINEERING RESOURCE ASSOCIATES
3S701 WEST AVENUE, SUITE 150
WARRENVILLE, ILLINOIS 60555
PHONE (630) 393-3060
FAX (630) 393-2152

10 S. RIVERSIDE PLAZA , SUITE 875
CHICAGO, ILLINOIS 60606
PHONE (312) 474-7841
FAX (312) 474-6099

2416 GALEN DRIVE
CchampaIGN, ILLINOIS 61821
PHONE (217) 351-6268
FAX (217) 355-1902

TRINITAS DEVELOPMENT LLC

TITLE: PROPOSED SITE PLAN

SCALE: 1"=100'
DATE: 05/24/18
JOB NO: 180306
SHEET 1 OF 4

G:\PROJECTS\TRINITAS\180306.00 Champaign--Urbana\CADD\180306 Champaign--Urbana.dwg updated by nvarchetto 6/5/2018

Appendix C – Trip Generation

ID	Lot	Category	ITE Land Use Type		Facility Description	Size	Build (1) or No Build (0)	Unit	Base Vehicle Trips					
									AM			PM		
			Code	Description					Entry	Exit	Total	Entry	Exit	Total
1	1	Residential	220	Multifamily Housing (Low-Rise)	Duplexes/Townhomes	406.0	1	Dwelling Units	*42*	*139*	181	*129*	*77*	206
									42	**139**	**181**	**129**	**77**	**206**

Land Use	AM Trips			PM Trips			AM Internal Trips			PM Internal Trips		
	Entry	Exit	Total	Entry	Exit	Total	Entry	Exit	Total	Entry	Exit	Total
Office	0	0	0	0	0	0	0	0	0	0	0	0
Retail	0	0	0	0	0	0	0	0	0	0	0	0
Restaurant	0	0	0	0	0	0	0	0	0	0	0	0
Residential	42	139	181	129	77	206	0	0	0	0	0	0
Hotel	0	0	0	0	0	0	0	0	0	0	0	0
Totals	***42***	***139***	***181***	***129***	***77***	***206***	***0***	***0***	***0***	***0***	***0***	***0***

Land Use	Peak Hr		Trips	I.C %	I.C. Trips	Balanced	I.C. Trips	I.C %	Trips		Land Use
Office	AM	Exit	0	28%	0	0	0	32%	0	Entry	Retail
Office	AM	Entry	0	4%	0	0	0	29%	0	Exit	Retail
Office	AM	Exit	0	63%	0	0	0	23%	0	Entry	Restaurant
Office	AM	Entry	0	14%	0	0	0	31%	0	Exit	Restaurant
Office	AM	Exit	0	1%	0	0	0	0%	42	Entry	Residential
Office	AM	Entry	0	3%	0	0	3	2%	139	Exit	Residential
Office	AM	Exit	0	0%	0	0	0	0%	0	Entry	Hotel
Office	AM	Entry	0	3%	0	0	0	75%	0	Exit	Hotel
Office	PM	Exit	0	20%	0	0	0	8%	0	Entry	Retail
Office	PM	Entry	0	31%	0	0	0	2%	0	Exit	Retail
Office	PM	Exit	0	4%	0	0	0	2%	0	Entry	Restaurant
Office	PM	Entry	0	30%	0	0	0	3%	0	Exit	Restaurant
Office	PM	Exit	0	2%	0	0	5	4%	129	Entry	Residential
Office	PM	Entry	0	57%	0	0	3	4%	77	Exit	Residential
Office	PM	Exit	0	0%	0	0	0	0%	0	Entry	Hotel
Office	PM	Entry	0	0%	0	0	0	0%	0	Exit	Hotel
Retail	AM	Exit	0	29%	0	0	0	4%	0	Entry	Office
Retail	AM	Entry	0	32%	0	0	0	28%	0	Exit	Office
Retail	AM	Exit	0	13%	0	0	0	50%	0	Entry	Restaurant
Retail	AM	Entry	0	8%	0	0	0	14%	0	Exit	Restaurant
Retail	AM	Exit	0	14%	0	0	1	2%	42	Entry	Residential
Retail	AM	Entry	0	17%	0	0	1	1%	139	Exit	Residential
Retail	AM	Exit	0	0%	0	0	0	0%	0	Entry	Hotel
Retail	AM	Entry	0	4%	0	0	0	14%	0	Exit	Hotel
Retail	PM	Exit	0	2%	0	0	0	31%	0	Entry	Office
Retail	PM	Entry	0	8%	0	0	0	20%	0	Exit	Office
Retail	PM	Exit	0	29%	0	0	0	29%	0	Entry	Restaurant
Retail	PM	Entry	0	50%	0	0	0	41%	0	Exit	Restaurant
Retail	PM	Exit	0	26%	0	0	59	46%	129	Entry	Residential
Retail	PM	Entry	0	10%	0	0	32	42%	77	Exit	Residential
Retail	PM	Exit	0	5%	0	0	0	17%	0	Entry	Hotel
Retail	PM	Entry	0	2%	0	0	0	16%	0	Exit	Hotel

Land Use	AM Trips			PM Trips			AM Internal Trips			PM Internal Trips		
	Entry	Exit	Total	Entry	Exit	Total	Entry	Exit	Total	Entry	Exit	Total
Office	0	0	0	0	0	0	0	0	0	0	0	0
Retail	0	0	0	0	0	0	0	0	0	0	0	0
Restaurant	0	0	0	0	0	0	0	0	0	0	0	0
Residential	42	139	181	129	77	206	0	0	0	0	0	0
Hotel	0	0	0	0	0	0	0	0	0	0	0	0
Totals	***42***	***139***	***181***	***129***	***77***	***206***	***0***	***0***	***0***	***0***	***0***	***0***

Land Use	Peak Hr		Trips	I.C %	I.C. Trips	Balanced	I.C. Trips	I.C %	Trips		Land Use
Restaurant	AM	Exit	0	31%	0	0	0	14%	0	Entry	Office
Restaurant	AM	Entry	0	23%	0	0	0	63%	0	Exit	Office
Restaurant	AM	Exit	0	14%	0	0	0	8%	0	Entry	Retail
Restaurant	AM	Entry	0	50%	0	0	0	13%	0	Exit	Retail
Restaurant	AM	Exit	0	4%	0	0	2	5%	42	Entry	Residential
Restaurant	AM	Entry	0	20%	0	0	28	20%	139	Exit	Residential
Restaurant	AM	Exit	0	3%	0	0	0	4%	0	Entry	Hotel
Restaurant	AM	Entry	0	6%	0	0	0	9%	0	Exit	Hotel
Restaurant	PM	Exit	0	3%	0	0	0	30%	0	Entry	Office
Restaurant	PM	Entry	0	2%	0	0	0	4%	0	Exit	Office
Restaurant	PM	Exit	0	41%	0	0	0	50%	0	Entry	Retail
Restaurant	PM	Entry	0	29%	0	0	0	29%	0	Exit	Retail
Restaurant	PM	Exit	0	18%	0	0	21	16%	129	Entry	Residential
Restaurant	PM	Entry	0	14%	0	0	16	21%	77	Exit	Residential
Restaurant	PM	Exit	0	7%	0	0	0	71%	0	Entry	Hotel
Restaurant	PM	Entry	0	5%	0	0	0	68%	0	Exit	Hotel
Residential	AM	Exit	139	2%	3	0	0	3%	0	Entry	Office
Residential	AM	Entry	42	0%	0	0	0	1%	0	Exit	Office
Residential	AM	Exit	139	1%	1	0	0	17%	0	Entry	Retail
Residential	AM	Entry	42	2%	1	0	0	14%	0	Exit	Retail
Residential	AM	Exit	139	20%	28	0	0	20%	0	Entry	Restaurant
Residential	AM	Entry	42	5%	2	0	0	4%	0	Exit	Restaurant
Residential	AM	Exit	139	0%	0	0	0	0%	0	Entry	Hotel
Residential	AM	Entry	42	0%	0	0	0	0%	0	Exit	Hotel
Residential	PM	Exit	77	4%	3	0	0	57%	0	Entry	Office
Residential	PM	Entry	129	4%	5	0	0	2%	0	Exit	Office
Residential	PM	Exit	77	42%	32	0	0	10%	0	Entry	Retail
Residential	PM	Entry	129	46%	59	0	0	26%	0	Exit	Retail
Residential	PM	Exit	77	21%	16	0	0	14%	0	Entry	Restaurant
Residential	PM	Entry	129	16%	21	0	0	18%	0	Exit	Restaurant
Residential	PM	Exit	77	3%	2	0	0	12%	0	Entry	Hotel
Residential	PM	Entry	129	0%	0	0	0	2%	0	Exit	Hotel

Land Use	AM Trips			PM Trips			AM Internal Trips			PM Internal Trips		
	Entry	Exit	Total	Entry	Exit	Total	Entry	Exit	Total	Entry	Exit	Total
Office	0	0	0	0	0	0	0	0	0	0	0	0
Retail	0	0	0	0	0	0	0	0	0	0	0	0
Restaurant	0	0	0	0	0	0	0	0	0	0	0	0
Residential	42	139	181	129	77	206	0	0	0	0	0	0
Hotel	0	0	0	0	0	0	0	0	0	0	0	0
Totals	***42***	***139***	***181***	***129***	***77***	***206***	***0***	***0***	***0***	***0***	***0***	***0***

Land Use	Peak Hr		Trips	I.C %	I.C. Trips	Balanced	I.C. Trips	I.C %	Trips		Land Use
Hotel	AM	Exit	0	75%	0	0	0	3%	0	Entry	Office
Hotel	AM	Entry	0	0%	0	0	0	0%	0	Exit	Office
Hotel	AM	Exit	0	14%	0	0	0	4%	0	Entry	Retail
Hotel	AM	Entry	0	0%	0	0	0	0%	0	Exit	Retail
Hotel	AM	Exit	0	9%	0	0	0	6%	0	Entry	Restaurant
Hotel	AM	Entry	0	4%	0	0	0	3%	0	Exit	Restaurant
Hotel	AM	Exit	0	0%	0	0	0	0%	42	Entry	Residential
Hotel	AM	Entry	0	0%	0	0	0	0%	139	Exit	Residential
Hotel	PM	Exit	0	0%	0	0	0	0%	0	Entry	Office
Hotel	PM	Entry	0	0%	0	0	0	0%	0	Exit	Office
Hotel	PM	Exit	0	16%	0	0	0	2%	0	Entry	Retail
Hotel	PM	Entry	0	17%	0	0	0	5%	0	Exit	Retail
Hotel	PM	Exit	0	68%	0	0	0	5%	0	Entry	Restaurant
Hotel	PM	Entry	0	71%	0	0	0	7%	0	Exit	Restaurant
Hotel	PM	Exit	0	2%	0	0	0	0%	129	Entry	Residential
Hotel	PM	Entry	0	12%	0	0	2	3%	77	Exit	Residential

ID	Land Use	Lot	ITE Land Use Code	Description	Size	Unit		Net Vehicle Trips					
								AM			PM		
								Entry	Exit	Total	Entry	Exit	Total
1	Residential	1	220	Multifamily Housing (Low-Rise)	406	Dwelling Units	Total	*42*	*139*	181	*129*	*77*	206
							Internal	*0*	*0*	0	*0*	*0*	0
							Mode Reduction	*13*	*42*	*54*	*39*	*23*	*62*
							Pass-By	*0*	*0*	*0*	*0*	*0*	*0*
							New Vehicle Trips	*29*	*97*	*127*	*90*	*54*	*144*
							Total	**42**	**139**	**181**	**129**	**77**	**206**
							Internal	**0**	**0**	**0**	**0**	**0**	**0**
							Mode Reduction	**13**	**42**	**54**	**39**	**23**	**62**
							Pass-By	**0**	**0**	**0**	**0**	**0**	**0**
							New Vehicle Trips	**29**	**97**	**127**	**90**	**54**	**144**

Appendix D – Capacity Analysis Output

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	325	166	53	290	1	85	1	18	1	3	4
Future Vol, veh/h	5	325	166	53	290	1	85	1	18	1	3	4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	20	4	8	8	5	0	10	0	0	0	0	0
Mvmt Flow	5	342	175	56	305	1	89	1	19	1	3	4
Number of Lanes	0	2	0	0	2	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	11.7	10.7	11	9.3
HCM LOS	B	B	B	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	3%	0%	27%	0%	100%	0%
Vol Thru, %	0%	5%	97%	49%	73%	99%	0%	43%
Vol Right, %	0%	95%	0%	51%	0%	1%	0%	57%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	85	19	168	329	198	146	1	7
LT Vol	85	0	5	0	53	0	1	0
Through Vol	0	1	163	163	145	145	0	3
RT Vol	0	18	0	166	0	1	0	4
Lane Flow Rate	89	20	176	346	208	154	1	7
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.18	0.033	0.275	0.478	0.328	0.234	0.002	0.013
Departure Headway (Hd)	7.253	5.899	5.617	4.973	5.669	5.478	7.337	6.419
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	497	611	635	716	627	649	490	561
Service Time	4.953	3.599	3.399	2.754	3.462	3.271	5.042	4.124
HCM Lane V/C Ratio	0.179	0.033	0.277	0.483	0.332	0.237	0.002	0.012
HCM Control Delay	11.5	8.8	10.5	12.3	11.2	10	10.1	9.2
HCM Lane LOS	B	A	B	B	B	A	B	A
HCM 95th-tile Q	0.7	0.1	1.1	2.6	1.4	0.9	0	0

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	299	43	16	294	1	43	3	25	7	1	1
Future Vol, veh/h	4	299	43	16	294	1	43	3	25	7	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	26	3	0	19	4	0	9	0	21	18	0	0
Mvmt Flow	4	311	45	17	306	1	45	3	26	7	1	1
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	9.7	9.7	9.2	9.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	61%	3%	0%	10%	0%	78%
Vol Thru, %	4%	97%	78%	90%	99%	11%
Vol Right, %	35%	0%	22%	0%	1%	11%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	71	154	193	163	148	9
LT Vol	43	4	0	16	0	7
Through Vol	3	150	150	147	147	1
RT Vol	25	0	43	0	1	1
Lane Flow Rate	74	160	201	170	154	9
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.113	0.244	0.275	0.257	0.22	0.015
Departure Headway (Hd)	5.481	5.492	4.929	5.439	5.128	5.941
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	652	652	728	659	698	599
Service Time	3.536	3.232	2.668	3.179	2.869	4.011
HCM Lane V/C Ratio	0.113	0.245	0.276	0.258	0.221	0.015
HCM Control Delay	9.2	10	9.5	10.1	9.3	9.1
HCM Lane LOS	A	A	A	B	A	A
HCM 95th-tile Q	0.4	1	1.1	1	0.8	0

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	316	4	0	320	7	0	0	1	5	0	9
Future Vol, veh/h	10	316	4	0	320	7	0	0	1	5	0	9
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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	20	5	0	0	5	0	2	2	2	20	0	12
Mvmt Flow	11	336	4	0	340	7	0	0	1	5	0	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	348	0	0	340	0	0	530	708	170	533	706	174
Stage 1	-	-	-	-	-	-	360	360	-	344	344	-
Stage 2	-	-	-	-	-	-	170	348	-	189	362	-
Critical Hdwy	4.5	-	-	4.1	-	-	7.54	6.54	6.94	7.9	6.5	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.9	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.9	5.5	-
Follow-up Hdwy	2.4	-	-	2.2	-	-	3.52	4.02	3.32	3.7	4	3.42
Pot Cap-1 Maneuver	1088	-	-	1230	-	-	432	358	844	392	363	809
Stage 1	-	-	-	-	-	-	631	625	-	597	640	-
Stage 2	-	-	-	-	-	-	815	633	-	745	629	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1088	-	-	1230	-	-	423	354	844	388	359	809
Mov Cap-2 Maneuver	-	-	-	-	-	-	423	354	-	388	359	-
Stage 1	-	-	-	-	-	-	623	618	-	590	640	-
Stage 2	-	-	-	-	-	-	805	633	-	735	621	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0	9.3	11.3
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	844	1088	-	-	1230	-	-	583
HCM Lane V/C Ratio	0.001	0.01	-	-	-	-	-	0.026
HCM Control Delay (s)	9.3	8.3	0	-	0	-	-	11.3
HCM Lane LOS	A	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection	
Intersection Delay, s/veh	16.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	420	151	99	415	7	159	14	69	3	9	8
Future Vol, veh/h	8	420	151	99	415	7	159	14	69	3	9	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	1	14	2	0	0	0	0	0
Mvmt Flow	9	457	164	108	451	8	173	15	75	3	10	9
Number of Lanes	0	2	0	0	2	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	17.7	16.9	14	11
HCM LOS	C	C	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	4%	0%	32%	0%	100%	0%
Vol Thru, %	0%	17%	96%	58%	68%	97%	0%	53%
Vol Right, %	0%	83%	0%	42%	0%	3%	0%	47%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	159	83	218	361	307	215	3	17
LT Vol	159	0	8	0	99	0	3	0
Through Vol	0	14	210	210	208	208	0	9
RT Vol	0	69	0	151	0	7	0	8
Lane Flow Rate	173	90	237	392	333	233	3	18
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.381	0.17	0.421	0.662	0.609	0.415	0.008	0.04
Departure Headway (Hd)	7.932	6.79	6.391	6.075	6.584	6.414	8.729	7.871
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	451	525	559	593	546	557	412	458
Service Time	5.715	4.572	4.167	3.851	4.362	4.192	6.429	5.571
HCM Lane V/C Ratio	0.384	0.171	0.424	0.661	0.61	0.418	0.007	0.039
HCM Control Delay	15.6	11	13.8	20.1	19.2	13.7	11.5	10.9
HCM Lane LOS	C	B	B	C	C	B	B	B
HCM 95th-tile Q	1.8	0.6	2.1	4.9	4.1	2	0	0.1

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	446	48	44	451	7	73	4	34	5	5	1
Future Vol, veh/h	3	446	48	44	451	7	73	4	34	5	5	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	1	0	5	1	0	0	0	6	20	0	0
Mvmt Flow	3	465	50	46	470	7	76	4	35	5	5	1
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	11.7	12.2	10.5	10
HCM LOS	B	B	B	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	66%	1%	0%	16%	0%	45%
Vol Thru, %	4%	99%	82%	84%	97%	45%
Vol Right, %	31%	0%	18%	0%	3%	9%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	111	226	271	270	233	11
LT Vol	73	3	0	44	0	5
Through Vol	4	223	223	226	226	5
RT Vol	34	0	48	0	7	1
Lane Flow Rate	116	235	282	281	242	11
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.194	0.361	0.424	0.442	0.37	0.022
Departure Headway (Hd)	6.054	5.527	5.413	5.668	5.496	6.796
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	593	654	669	637	656	527
Service Time	4.083	3.24	3.125	3.379	3.207	4.832
HCM Lane V/C Ratio	0.196	0.359	0.422	0.441	0.369	0.021
HCM Control Delay	10.5	11.3	12.1	12.8	11.4	10
HCM Lane LOS	B	B	B	B	B	A
HCM 95th-tile Q	0.7	1.6	2.1	2.3	1.7	0.1

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	439	4	3	460	10	0	0	5	7	0	17
Future Vol, veh/h	21	439	4	3	460	10	0	0	5	7	0	17
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	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	1	0	0	1	10	0	0	0	0	0	6
Mvmt Flow	23	472	4	3	495	11	0	0	5	8	0	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	505	0	0	476	0	0	773	1031	238	787	1028	253
Stage 1	-	-	-	-	-	-	519	519	-	506	506	-
Stage 2	-	-	-	-	-	-	254	512	-	281	522	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	7.02
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.36
Pot Cap-1 Maneuver	1070	-	-	1097	-	-	292	235	769	286	236	734
Stage 1	-	-	-	-	-	-	513	536	-	522	543	-
Stage 2	-	-	-	-	-	-	734	540	-	708	534	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1070	-	-	1097	-	-	278	227	769	277	228	734
Mov Cap-2 Maneuver	-	-	-	-	-	-	278	227	-	277	228	-
Stage 1	-	-	-	-	-	-	498	520	-	507	541	-
Stage 2	-	-	-	-	-	-	713	538	-	683	519	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.1	9.7	12.7
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	769	1070	-	-	1097	-	-	496
HCM Lane V/C Ratio	0.007	0.021	-	-	0.003	-	-	0.052
HCM Control Delay (s)	9.7	8.4	0.1	-	8.3	0	-	12.7
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.2

Intersection	
Intersection Delay, s/veh	12.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	310	168	54	280	14	86	1	18	19	3	86
Future Vol, veh/h	45	310	168	54	280	14	86	1	18	19	3	86
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	23	4	8	8	5	0	10	0	0	0	0	17
Mvmt Flow	47	326	177	57	295	15	91	1	19	20	3	91
Number of Lanes	0	2	0	0	2	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	13.5	11.8	11.8	10.4
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	23%	0%	28%	0%	100%	0%
Vol Thru, %	0%	5%	78%	48%	72%	91%	0%	3%
Vol Right, %	0%	95%	0%	52%	0%	9%	0%	97%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	86	19	200	323	194	154	19	89
LT Vol	86	0	45	0	54	0	19	0
Through Vol	0	1	155	155	140	140	0	3
RT Vol	0	18	0	168	0	14	0	86
Lane Flow Rate	91	20	211	340	204	162	20	94
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.193	0.035	0.368	0.518	0.356	0.271	0.042	0.165
Departure Headway (Hd)	7.687	6.326	6.292	5.484	6.274	6.017	7.543	6.342
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	466	564	573	656	572	597	474	564
Service Time	5.446	4.085	4.032	3.223	4.019	3.762	5.303	4.101
HCM Lane V/C Ratio	0.195	0.035	0.368	0.518	0.357	0.271	0.042	0.167
HCM Control Delay	12.3	9.3	12.7	14	12.5	11	10.6	10.4
HCM Lane LOS	B	A	B	B	B	B	B	B
HCM 95th-tile Q	0.7	0.1	1.7	3	1.6	1.1	0.1	0.6

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	302	43	16	297	1	43	3	25	7	1	1
Future Vol, veh/h	4	302	43	16	297	1	43	3	25	7	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	26	3	0	19	4	0	9	0	21	18	0	0
Mvmt Flow	4	315	45	17	309	1	45	3	26	7	1	1
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	9.8	9.7	9.3	9.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	61%	3%	0%	10%	0%	78%
Vol Thru, %	4%	97%	78%	90%	99%	11%
Vol Right, %	35%	0%	22%	0%	1%	11%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	71	155	194	165	150	9
LT Vol	43	4	0	16	0	7
Through Vol	3	151	151	149	149	1
RT Vol	25	0	43	0	1	1
Lane Flow Rate	74	161	202	171	156	9
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.113	0.246	0.277	0.259	0.222	0.016
Departure Headway (Hd)	5.493	5.495	4.933	5.441	5.131	5.953
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	650	652	728	660	698	598
Service Time	3.547	3.237	2.675	3.184	2.874	4.021
HCM Lane V/C Ratio	0.114	0.247	0.277	0.259	0.223	0.015
HCM Control Delay	9.3	10	9.6	10.1	9.3	9.1
HCM Lane LOS	A	A	A	B	A	A
HCM 95th-tile Q	0.4	1	1.1	1	0.8	0

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	319	4	0	323	7	0	0	1	5	0	9
Future Vol, veh/h	10	319	4	0	323	7	0	0	1	5	0	9
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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	20	5	0	0	5	0	2	2	2	20	0	12
Mvmt Flow	11	339	4	0	344	7	0	0	1	5	0	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	351	0	0	344	0	0	535	714	172	538	712	176
Stage 1	-	-	-	-	-	-	363	363	-	347	347	-
Stage 2	-	-	-	-	-	-	172	351	-	191	365	-
Critical Hdwy	4.5	-	-	4.1	-	-	7.54	6.54	6.94	7.9	6.5	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.9	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.9	5.5	-
Follow-up Hdwy	2.4	-	-	2.2	-	-	3.52	4.02	3.32	3.7	4	3.42
Pot Cap-1 Maneuver	1085	-	-	1226	-	-	428	355	842	389	360	806
Stage 1	-	-	-	-	-	-	628	623	-	595	638	-
Stage 2	-	-	-	-	-	-	813	631	-	743	627	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1085	-	-	1226	-	-	419	350	842	385	355	806
Mov Cap-2 Maneuver	-	-	-	-	-	-	419	350	-	385	355	-
Stage 1	-	-	-	-	-	-	620	615	-	587	638	-
Stage 2	-	-	-	-	-	-	803	631	-	732	619	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0	9.3	11.4
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	842	1085	-	-	1226	-	-	580
HCM Lane V/C Ratio	0.001	0.01	-	-	-	-	-	0.026
HCM Control Delay (s)	9.3	8.4	0.1	-	0	-	-	11.4
HCM Lane LOS	A	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection	
Intersection Delay, s/veh	18.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	29	408	153	100	411	15	161	14	70	19	9	47
Future Vol, veh/h	29	408	153	100	411	15	161	14	70	19	9	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	4	0	0	0	1	14	2	0	0	0	0	4
Mvmt Flow	32	443	166	109	447	16	175	15	76	21	10	51
Number of Lanes	0	2	0	0	2	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	20.4	19.2	15	11.8
HCM LOS	C	C	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	12%	0%	33%	0%	100%	0%
Vol Thru, %	0%	17%	88%	57%	67%	93%	0%	16%
Vol Right, %	0%	83%	0%	43%	0%	7%	0%	84%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	161	84	233	357	306	221	19	56
LT Vol	161	0	29	0	100	0	19	0
Through Vol	0	14	204	204	206	206	0	9
RT Vol	0	70	0	153	0	15	0	47
Lane Flow Rate	175	91	253	388	332	240	21	61
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.406	0.183	0.489	0.702	0.651	0.456	0.051	0.132
Departure Headway (Hd)	8.362	7.213	6.952	6.513	7.054	6.856	8.918	7.791
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	431	498	519	555	511	525	402	460
Service Time	6.104	4.954	4.689	4.25	4.792	4.594	6.667	5.539
HCM Lane V/C Ratio	0.406	0.183	0.487	0.699	0.65	0.457	0.052	0.133
HCM Control Delay	16.7	11.6	16.2	23.2	22.1	15.2	12.1	11.7
HCM Lane LOS	C	B	C	C	C	C	B	B
HCM 95th-tile Q	1.9	0.7	2.7	5.6	4.6	2.4	0.2	0.5

Intersection	
Intersection Delay, s/veh	11.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	450	48	44	456	7	74	4	34	5	5	1
Future Vol, veh/h	3	450	48	44	456	7	74	4	34	5	5	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	1	0	5	1	0	0	0	6	20	0	0
Mvmt Flow	3	469	50	46	475	7	77	4	35	5	5	1
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	11.8	12.3	10.6	10
HCM LOS	B	B	B	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	66%	1%	0%	16%	0%	45%
Vol Thru, %	4%	99%	82%	84%	97%	45%
Vol Right, %	30%	0%	18%	0%	3%	9%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	112	228	273	272	235	11
LT Vol	74	3	0	44	0	5
Through Vol	4	225	225	228	228	5
RT Vol	34	0	48	0	7	1
Lane Flow Rate	117	238	284	283	245	11
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.197	0.366	0.429	0.447	0.375	0.022
Departure Headway (Hd)	6.073	5.542	5.428	5.681	5.509	6.818
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	592	651	665	638	656	525
Service Time	4.104	3.254	3.141	3.394	3.222	4.859
HCM Lane V/C Ratio	0.198	0.366	0.427	0.444	0.373	0.021
HCM Control Delay	10.6	11.4	12.2	12.9	11.5	10
HCM Lane LOS	B	B	B	B	B	A
HCM 95th-tile Q	0.7	1.7	2.2	2.3	1.7	0.1

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	21	443	4	3	465	10	0	0	5	7	0	17
Future Vol, veh/h	21	443	4	3	465	10	0	0	5	7	0	17
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	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	1	0	0	1	10	0	0	0	0	0	6
Mvmt Flow	23	476	4	3	500	11	0	0	5	8	0	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	511	0	0	481	0	0	780	1041	240	795	1038	255
Stage 1	-	-	-	-	-	-	524	524	-	512	512	-
Stage 2	-	-	-	-	-	-	256	517	-	283	526	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	7.02
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.36
Pot Cap-1 Maneuver	1065	-	-	1092	-	-	289	232	767	282	233	732
Stage 1	-	-	-	-	-	-	510	533	-	518	540	-
Stage 2	-	-	-	-	-	-	732	537	-	706	532	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1065	-	-	1092	-	-	275	224	767	273	225	732
Mov Cap-2 Maneuver	-	-	-	-	-	-	275	224	-	273	225	-
Stage 1	-	-	-	-	-	-	495	518	-	503	538	-
Stage 2	-	-	-	-	-	-	711	535	-	681	517	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.1	9.7	12.7
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	767	1065	-	-	1092	-	-	491
HCM Lane V/C Ratio	0.007	0.021	-	-	0.003	-	-	0.053
HCM Control Delay (s)	9.7	8.5	0.1	-	8.3	0	-	12.7
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.2

Intersection	
Intersection Delay, s/veh	13.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	51	316	168	68	299	14	86	9	18	22	17	105
Future Vol, veh/h	51	316	168	68	299	14	86	9	18	22	17	105
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	20	4	8	7	5	0	10	0	0	0	0	14
Mvmt Flow	54	333	177	72	315	15	91	9	19	23	18	111
Number of Lanes	0	2	0	0	2	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	14.6	13	12.1	11.3
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	24%	0%	31%	0%	100%	0%
Vol Thru, %	0%	33%	76%	48%	69%	91%	0%	14%
Vol Right, %	0%	67%	0%	52%	0%	9%	0%	86%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	86	27	209	326	218	164	22	122
LT Vol	86	0	51	0	68	0	22	0
Through Vol	0	9	158	158	150	150	0	17
RT Vol	0	18	0	168	0	14	0	105
Lane Flow Rate	91	28	220	343	229	172	23	128
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.2	0.054	0.398	0.548	0.414	0.299	0.05	0.236
Departure Headway (Hd)	7.949	6.785	6.512	5.747	6.514	6.26	7.73	6.603
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	450	525	550	625	549	571	461	541
Service Time	5.732	4.567	4.274	3.509	4.285	4.03	5.511	4.382
HCM Lane V/C Ratio	0.202	0.053	0.4	0.549	0.417	0.301	0.05	0.237
HCM Control Delay	12.7	10	13.6	15.3	13.9	11.7	10.9	11.4
HCM Lane LOS	B	A	B	C	B	B	B	B
HCM 95th-tile Q	0.7	0.2	1.9	3.3	2	1.2	0.2	0.9

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	305	43	16	297	4	43	6	25	16	12	34
Future Vol, veh/h	10	305	43	16	297	4	43	6	25	16	12	34
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	13	3	0	19	4	0	9	0	21	5	0	0
Mvmt Flow	10	318	45	17	309	4	45	6	26	17	13	35
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	10	10.1	9.5	9.1
HCM LOS	A	B	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	58%	6%	0%	10%	0%	26%
Vol Thru, %	8%	94%	78%	90%	97%	19%
Vol Right, %	34%	0%	22%	0%	3%	55%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	74	163	196	165	153	62
LT Vol	43	10	0	16	0	16
Through Vol	6	153	153	149	149	12
RT Vol	25	0	43	0	4	34
Lane Flow Rate	77	169	204	171	159	65
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.121	0.257	0.289	0.268	0.234	0.097
Departure Headway (Hd)	5.637	5.475	5.117	5.628	5.304	5.407
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	631	652	696	634	672	656
Service Time	3.722	3.243	2.886	3.398	3.074	3.495
HCM Lane V/C Ratio	0.122	0.259	0.293	0.27	0.237	0.099
HCM Control Delay	9.5	10.1	10	10.5	9.7	9.1
HCM Lane LOS	A	B	A	B	A	A
HCM 95th-tile Q	0.4	1	1.2	1.1	0.9	0.3

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	331	4	0	326	10	0	0	1	10	0	9
Future Vol, veh/h	10	331	4	0	326	10	0	0	1	10	0	9
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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	20	5	0	0	5	0	2	2	2	6	0	12
Mvmt Flow	11	352	4	0	347	11	0	0	1	11	0	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	357	0	0	356	0	0	549	733	178	549	730	179
Stage 1	-	-	-	-	-	-	376	376	-	352	352	-
Stage 2	-	-	-	-	-	-	173	357	-	197	378	-
Critical Hdwy	4.5	-	-	4.1	-	-	7.54	6.54	6.94	7.62	6.5	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.62	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.62	5.5	-
Follow-up Hdwy	2.4	-	-	2.2	-	-	3.52	4.02	3.32	3.56	4	3.42
Pot Cap-1 Maneuver	1079	-	-	1214	-	-	419	346	834	410	352	803
Stage 1	-	-	-	-	-	-	617	615	-	627	635	-
Stage 2	-	-	-	-	-	-	812	627	-	775	619	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1079	-	-	1214	-	-	410	342	834	405	347	803
Mov Cap-2 Maneuver	-	-	-	-	-	-	410	342	-	405	347	-
Stage 1	-	-	-	-	-	-	609	607	-	619	635	-
Stage 2	-	-	-	-	-	-	802	627	-	764	611	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0	9.3	12.1
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	834	1079	-	-	1214	-	-	529
HCM Lane V/C Ratio	0.001	0.01	-	-	-	-	-	0.038
HCM Control Delay (s)	9.3	8.4	0.1	-	0	-	-	12.1
HCM Lane LOS	A	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	0	59	8	0	122
Future Vol, veh/h	14	0	59	8	0	122
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	15	0	64	9	0	133

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	201	68	0	0	73	0
Stage 1	68	-	-	-	-	-
Stage 2	133	-	-	-	-	-
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	788	995	-	-	1527	-
Stage 1	955	-	-	-	-	-
Stage 2	893	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	788	995	-	-	1527	-
Mov Cap-2 Maneuver	788	-	-	-	-	-
Stage 1	955	-	-	-	-	-
Stage 2	893	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	788	1527	-
HCM Lane V/C Ratio	-	-	0.019	-	-
HCM Control Delay (s)	-	-	9.7	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

LANE LEVEL OF SERVICE

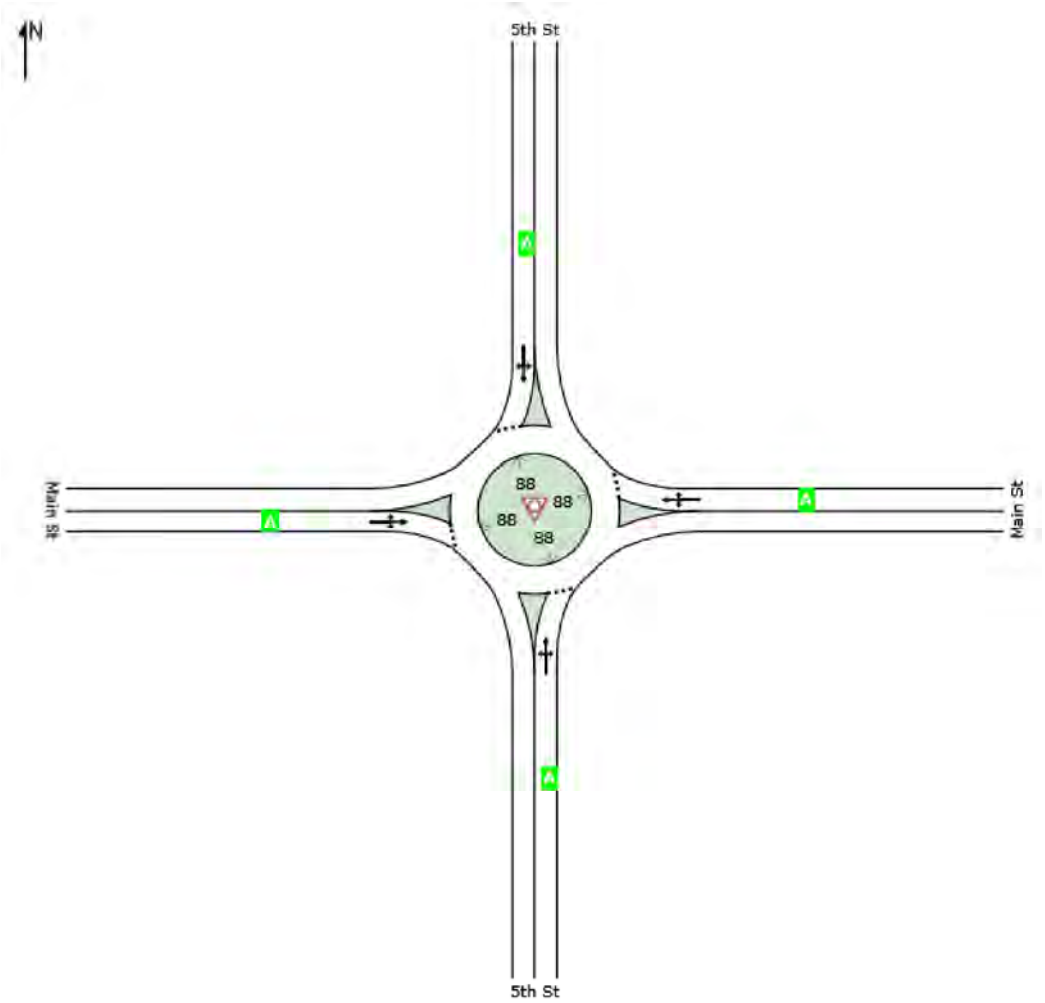
Lane Level of Service

Site: 101 [S3 Opening Yr Build - AM]

Int. 5 Main St & 5th St
Roundabout

All Movement Classes

	South	East	North	West	Intersection
LOS	A	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

MOVEMENT SUMMARY

Site: 101 [S3 Opening Yr Build - AM]

Int. 5 Main St & 5th St
Roundabout

Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: 5th St											
3	L2	1	1.0	0.013	9.6	LOS A	0.1	1.6	0.07	0.45	37.4
8	T1	7	1.0	0.013	4.0	LOS A	0.1	1.6	0.07	0.45	37.4
18	R2	8	1.0	0.013	4.0	LOS A	0.1	1.6	0.07	0.45	36.3
Approach		15	1.0	0.013	4.4	LOS A	0.1	1.6	0.07	0.45	36.9
East: Main St											
1	L2	27	1.0	0.025	9.6	LOS A	0.1	3.1	0.08	0.63	34.8
6	T1	1	1.0	0.025	4.0	LOS A	0.1	3.1	0.08	0.63	34.8
16	R2	1	1.0	0.025	4.0	LOS A	0.1	3.1	0.08	0.63	33.9
Approach		29	1.0	0.025	9.2	LOS A	0.1	3.1	0.08	0.63	34.7
North: 5th St											
7	L2	4	1.0	0.028	9.7	LOS A	0.1	3.5	0.14	0.43	37.0
4	T1	27	1.0	0.028	4.1	LOS A	0.1	3.5	0.14	0.43	37.0
14	R2	1	1.0	0.028	4.1	LOS A	0.1	3.5	0.14	0.43	35.9
Approach		33	1.0	0.028	4.8	LOS A	0.1	3.5	0.14	0.43	36.9
West: Main St											
5	L2	3	1.0	0.005	9.9	LOS A	0.0	0.6	0.20	0.55	35.4
2	T1	1	1.0	0.005	4.3	LOS A	0.0	0.6	0.20	0.55	35.4
12	R2	1	1.0	0.005	4.3	LOS A	0.0	0.6	0.20	0.55	34.5
Approach		5	1.0	0.005	7.6	LOS A	0.0	0.6	0.20	0.55	35.2
All Vehicles		83	1.0	0.028	6.5	LOS A	0.1	3.5	0.11	0.51	36.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	0	0	0	0	1
Future Vol, veh/h	4	0	0	0	0	1
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	4	0	0	0	0	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
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	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1022	-	-
HCM Lane V/C Ratio	-	-	0.004	-	-
HCM Control Delay (s)	0	-	8.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Intersection Delay, s/veh	21.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	47	426	153	108	422	15	161	39	70	19	17	58
Future Vol, veh/h	47	426	153	108	422	15	161	39	70	19	17	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	0	0	0	1	14	2	0	0	0	0	4
Mvmt Flow	51	463	166	117	459	16	175	42	76	21	18	63
Number of Lanes	0	2	0	0	2	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	24.2	22.4	15.6	12.7
HCM LOS	C	C	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	18%	0%	34%	0%	100%	0%
Vol Thru, %	0%	36%	82%	58%	66%	93%	0%	23%
Vol Right, %	0%	64%	0%	42%	0%	7%	0%	77%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	161	109	260	366	319	226	19	75
LT Vol	161	0	47	0	108	0	19	0
Through Vol	0	39	213	213	211	211	0	17
RT Vol	0	70	0	153	0	15	0	58
Lane Flow Rate	175	118	283	398	347	246	21	82
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.42	0.251	0.569	0.754	0.711	0.49	0.053	0.184
Departure Headway (Hd)	8.64	7.625	7.248	6.822	7.386	7.183	9.217	8.135
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	417	470	497	529	489	501	388	440
Service Time	6.39	5.375	4.996	4.569	5.136	4.933	6.978	5.895
HCM Lane V/C Ratio	0.42	0.251	0.569	0.752	0.71	0.491	0.054	0.186
HCM Control Delay	17.5	12.9	19.2	27.7	26.4	16.7	12.5	12.7
HCM Lane LOS	C	B	C	D	D	C	B	B
HCM 95th-tile Q	2	1	3.5	6.5	5.6	2.7	0.2	0.7

Intersection	
Intersection Delay, s/veh	12.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	450	48	44	456	15	74	14	34	10	11	20
Future Vol, veh/h	21	450	48	44	456	15	74	14	34	10	11	20
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	1	0	5	1	0	0	0	6	7	0	0
Mvmt Flow	22	469	50	46	475	16	77	15	35	10	11	21
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	12.7	12.9	11.1	10
HCM LOS	B	B	B	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	61%	9%	0%	16%	0%	24%
Vol Thru, %	11%	91%	82%	84%	94%	27%
Vol Right, %	28%	0%	18%	0%	6%	49%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	122	246	273	272	243	41
LT Vol	74	21	0	44	0	10
Through Vol	14	225	225	228	228	11
RT Vol	34	0	48	0	15	20
Lane Flow Rate	127	256	284	283	253	43
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.221	0.41	0.444	0.463	0.4	0.076
Departure Headway (Hd)	6.258	5.767	5.617	5.885	5.69	6.441
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	573	625	643	612	633	555
Service Time	4.298	3.499	3.349	3.617	3.422	4.491
HCM Lane V/C Ratio	0.222	0.41	0.442	0.462	0.4	0.077
HCM Control Delay	11.1	12.5	12.8	13.6	12.2	10
HCM Lane LOS	B	B	B	B	B	A
HCM 95th-tile Q	0.8	2	2.3	2.4	1.9	0.2

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	21	448	4	3	473	18	0	0	5	12	0	17
Future Vol, veh/h	21	448	4	3	473	18	0	0	5	12	0	17
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	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	1	0	0	1	4	0	0	0	0	0	6
Mvmt Flow	23	482	4	3	509	19	0	0	5	13	0	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	528	0	0	486	0	0	790	1063	243	811	1056	264
Stage 1	-	-	-	-	-	-	529	529	-	525	525	-
Stage 2	-	-	-	-	-	-	261	534	-	286	531	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	7.02
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.36
Pot Cap-1 Maneuver	1049	-	-	1087	-	-	284	225	764	274	227	722
Stage 1	-	-	-	-	-	-	506	530	-	509	533	-
Stage 2	-	-	-	-	-	-	727	528	-	703	529	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1049	-	-	1087	-	-	270	217	764	265	219	722
Mov Cap-2 Maneuver	-	-	-	-	-	-	270	217	-	265	219	-
Stage 1	-	-	-	-	-	-	491	514	-	494	531	-
Stage 2	-	-	-	-	-	-	706	526	-	677	513	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.1	9.7	14.2
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	764	1049	-	-	1087	-	-	421
HCM Lane V/C Ratio	0.007	0.022	-	-	0.003	-	-	0.074
HCM Control Delay (s)	9.7	8.5	0.1	-	8.3	0	-	14.2
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	0	49	25	0	67
Future Vol, veh/h	8	0	49	25	0	67
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	9	0	53	27	0	73

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	140	67	0	0	80	0
Stage 1	67	-	-	-	-	-
Stage 2	73	-	-	-	-	-
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	853	997	-	-	1518	-
Stage 1	956	-	-	-	-	-
Stage 2	950	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	853	997	-	-	1518	-
Mov Cap-2 Maneuver	853	-	-	-	-	-
Stage 1	956	-	-	-	-	-
Stage 2	950	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	853	1518	-
HCM Lane V/C Ratio	-	-	0.01	-	-
HCM Control Delay (s)	-	-	9.3	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

LANE LEVEL OF SERVICE

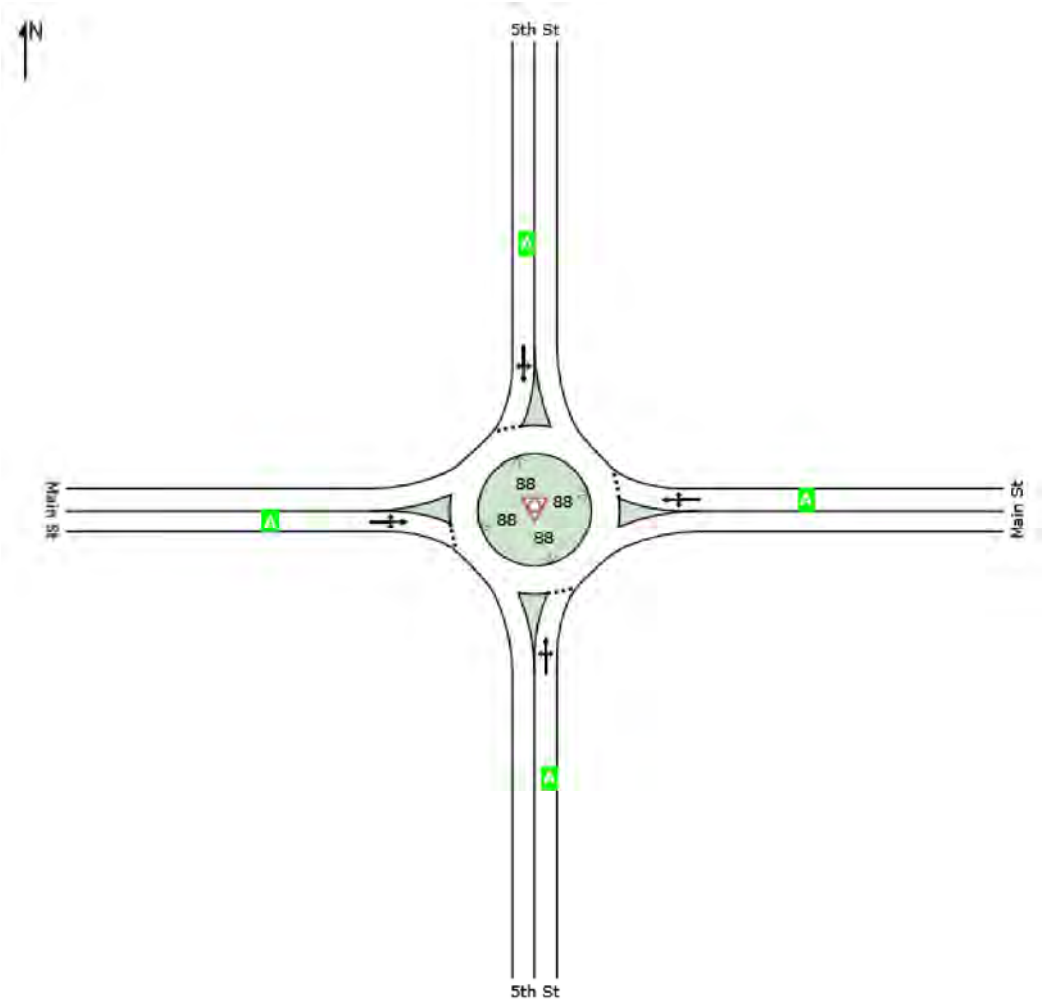
Lane Level of Service

Site: 101 [S3 Opening Yr Build - PM]

Int. 5 Main St & 5th St
Roundabout

All Movement Classes

	South	East	North	West	Intersection
LOS	A	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

MOVEMENT SUMMARY

Site: 101 [S3 Opening Yr Build - PM]

Int. 5 Main St & 5th St
Roundabout

Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: 5th St											
3	L2	1	1.0	0.037	9.6	LOS A	0.2	4.7	0.08	0.43	37.5
8	T1	21	1.0	0.037	4.0	LOS A	0.2	4.7	0.08	0.43	37.5
18	R2	22	1.0	0.037	4.0	LOS A	0.2	4.7	0.08	0.43	36.4
Approach		43	1.0	0.037	4.1	LOS A	0.2	4.7	0.08	0.43	37.0
East: Main St											
1	L2	15	1.0	0.018	9.7	LOS A	0.1	2.2	0.13	0.59	35.2
6	T1	1	1.0	0.018	4.1	LOS A	0.1	2.2	0.13	0.59	35.2
16	R2	4	1.0	0.018	4.1	LOS A	0.1	2.2	0.13	0.59	34.2
Approach		21	1.0	0.018	8.2	LOS A	0.1	2.2	0.13	0.59	35.0
North: 5th St											
7	L2	2	1.0	0.016	9.6	LOS A	0.1	2.0	0.10	0.42	37.1
4	T1	15	1.0	0.016	4.0	LOS A	0.1	2.0	0.10	0.42	37.1
14	R2	1	1.0	0.016	4.1	LOS A	0.1	2.0	0.10	0.42	36.1
Approach		18	1.0	0.016	4.7	LOS A	0.1	2.0	0.10	0.42	37.1
West: Main St											
5	L2	8	1.0	0.008	9.7	LOS A	0.0	1.0	0.14	0.59	35.0
2	T1	1	1.0	0.008	4.1	LOS A	0.0	1.0	0.14	0.59	35.0
12	R2	1	1.0	0.008	4.1	LOS A	0.0	1.0	0.14	0.59	34.1
Approach		10	1.0	0.008	8.5	LOS A	0.0	1.0	0.14	0.59	34.9
All Vehicles		92	1.0	0.037	5.6	LOS A	0.2	4.7	0.10	0.48	36.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	0	0	0	0	4
Future Vol, veh/h	2	0	0	0	0	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	0	0	0	0	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2	2	4	0	-	0
Stage 1	2	-	-	-	-	-
Stage 2	0	-	-	-	-	-
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	1021	1082	1618	-	-	-
Stage 1	1021	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1021	1082	1618	-	-	-
Mov Cap-2 Maneuver	1021	-	-	-	-	-
Stage 1	1021	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1618	-	1021	-	-
HCM Lane V/C Ratio	-	-	0.002	-	-
HCM Control Delay (s)	0	-	8.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Intersection Delay, s/veh	15.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	56	347	184	73	326	16	94	13	20	24	19	113
Future Vol, veh/h	56	347	184	73	326	16	94	13	20	24	19	113
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	18	4	7	7	5	0	10	0	0	0	0	14
Mvmt Flow	59	365	194	77	343	17	99	14	21	25	20	119
Number of Lanes	0	2	0	0	2	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	17	14.2	12.7	12.1
HCM LOS	C	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	24%	0%	31%	0%	100%	0%
Vol Thru, %	0%	39%	76%	49%	69%	91%	0%	14%
Vol Right, %	0%	61%	0%	51%	0%	9%	0%	86%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	94	33	230	358	236	179	24	132
LT Vol	94	0	56	0	73	0	24	0
Through Vol	0	13	174	174	163	163	0	19
RT Vol	0	20	0	184	0	16	0	113
Lane Flow Rate	99	35	242	376	248	188	25	139
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.229	0.07	0.449	0.623	0.466	0.345	0.057	0.27
Departure Headway (Hd)	8.331	7.206	6.795	6.063	6.861	6.597	8.113	6.99
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	433	499	534	598	529	548	444	517
Service Time	6.043	4.919	4.495	3.763	4.561	4.306	5.824	4.695
HCM Lane V/C Ratio	0.229	0.07	0.453	0.629	0.469	0.343	0.056	0.269
HCM Control Delay	13.5	10.5	14.9	18.3	15.4	12.7	11.3	12.3
HCM Lane LOS	B	B	B	C	C	B	B	B
HCM 95th-tile Q	0.9	0.2	2.3	4.3	2.4	1.5	0.2	1.1

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	335	48	18	326	8	48	8	28	17	16	38
Future Vol, veh/h	11	335	48	18	326	8	48	8	28	17	16	38
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	13	3	0	19	4	0	8	0	19	5	0	0
Mvmt Flow	11	349	50	19	340	8	50	8	29	18	17	40
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	10.6	10.7	9.9	9.5
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	57%	6%	0%	10%	0%	24%
Vol Thru, %	10%	94%	78%	90%	95%	23%
Vol Right, %	33%	0%	22%	0%	5%	54%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	84	179	216	181	171	71
LT Vol	48	11	0	18	0	17
Through Vol	8	168	168	163	163	16
RT Vol	28	0	48	0	8	38
Lane Flow Rate	88	186	224	189	178	74
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.143	0.289	0.326	0.306	0.272	0.117
Departure Headway (Hd)	5.9	5.695	5.335	5.847	5.506	5.698
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	610	634	678	618	657	632
Service Time	3.915	3.395	3.035	3.547	3.206	3.713
HCM Lane V/C Ratio	0.144	0.293	0.33	0.306	0.271	0.117
HCM Control Delay	9.9	10.7	10.6	11.1	10.3	9.5
HCM Lane LOS	A	B	B	B	B	A
HCM 95th-tile Q	0.5	1.2	1.4	1.3	1.1	0.4

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	363	5	5	358	11	5	5	5	11	5	10
Future Vol, veh/h	11	363	5	5	358	11	5	5	5	11	5	10
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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	20	5	0	0	5	0	0	0	0	6	0	10
Mvmt Flow	12	386	5	5	381	12	5	5	5	12	5	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	393	0	0	391	0	0	616	815	196	616	812	196
Stage 1	-	-	-	-	-	-	412	412	-	397	397	-
Stage 2	-	-	-	-	-	-	204	403	-	219	415	-
Critical Hdwy	4.5	-	-	4.1	-	-	7.5	6.5	6.9	7.62	6.5	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.62	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.62	5.5	-
Follow-up Hdwy	2.4	-	-	2.2	-	-	3.5	4	3.3	3.56	4	3.4
Pot Cap-1 Maneuver	1043	-	-	1179	-	-	379	314	819	367	315	788
Stage 1	-	-	-	-	-	-	593	598	-	589	607	-
Stage 2	-	-	-	-	-	-	785	603	-	752	596	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1043	-	-	1179	-	-	363	308	819	354	309	788
Mov Cap-2 Maneuver	-	-	-	-	-	-	363	308	-	354	309	-
Stage 1	-	-	-	-	-	-	584	589	-	580	604	-
Stage 2	-	-	-	-	-	-	764	600	-	729	587	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.1	14	13.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	415	1043	-	-	1179	-	-	434
HCM Lane V/C Ratio	0.038	0.011	-	-	0.005	-	-	0.064
HCM Control Delay (s)	14	8.5	0.1	-	8.1	0	-	13.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	5	64	8	5	132
Future Vol, veh/h	14	5	64	8	5	132
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	15	5	70	9	5	143

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	228	74	0	0	78	0
Stage 1	74	-	-	-	-	-
Stage 2	154	-	-	-	-	-
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	760	988	-	-	1520	-
Stage 1	949	-	-	-	-	-
Stage 2	874	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	757	988	-	-	1520	-
Mov Cap-2 Maneuver	757	-	-	-	-	-
Stage 1	949	-	-	-	-	-
Stage 2	871	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	807	1520	-
HCM Lane V/C Ratio	-	-	0.026	0.004	-
HCM Control Delay (s)	-	-	9.6	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

LANE LEVEL OF SERVICE

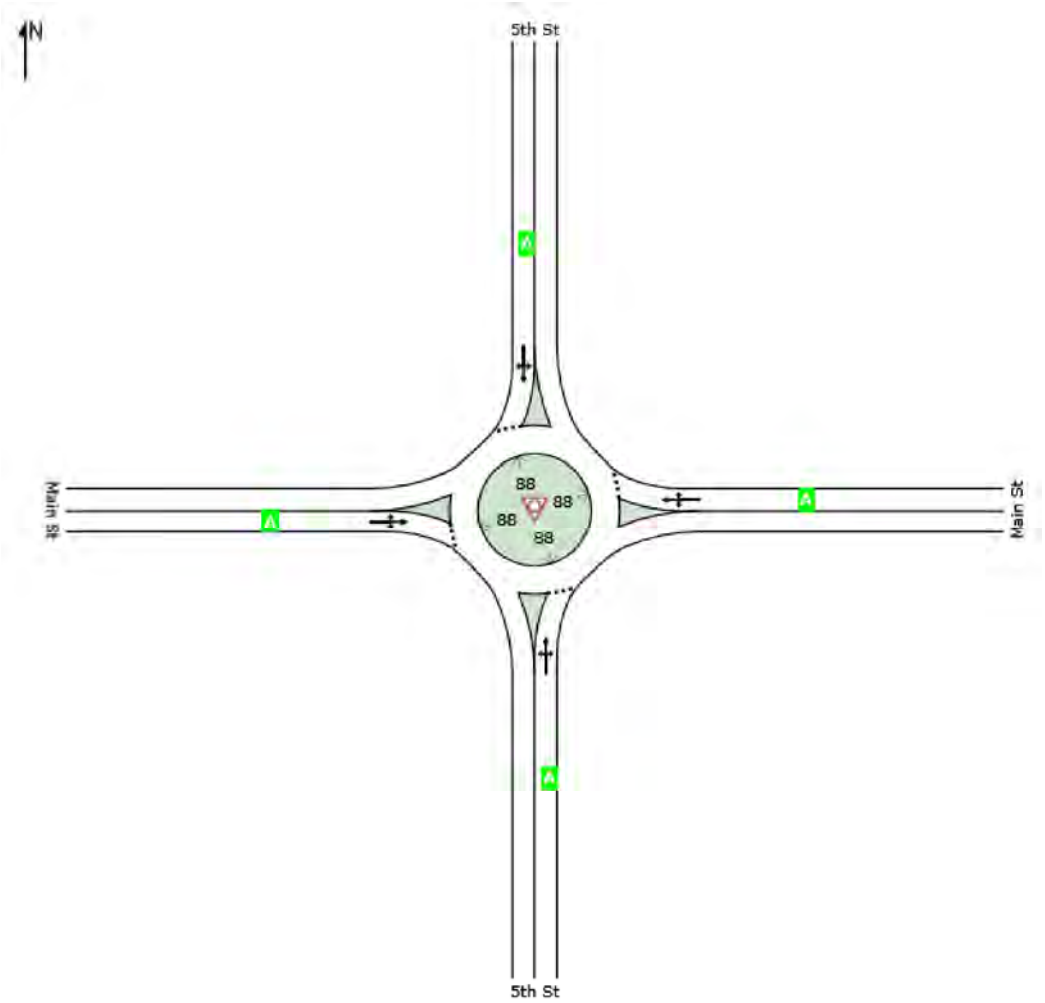
Lane Level of Service

Site: 101 [S4 Horizon Yr - AM]

Int. 5 Main St & 5th St
Roundabout

All Movement Classes

	South	East	North	West	Intersection
LOS	A	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

MOVEMENT SUMMARY

Site: 101 [S4 Horizon Yr - AM]

Int. 5 Main St & 5th St
Roundabout

Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: 5th St											
3	L2	5	1.0	0.017	9.6	LOS A	0.1	2.1	0.10	0.50	36.6
8	T1	7	1.0	0.017	4.0	LOS A	0.1	2.1	0.10	0.50	36.7
18	R2	8	1.0	0.017	4.0	LOS A	0.1	2.1	0.10	0.50	35.6
Approach		20	1.0	0.017	5.6	LOS A	0.1	2.1	0.10	0.50	36.2
East: Main St											
1	L2	27	1.0	0.032	9.6	LOS A	0.2	4.1	0.10	0.59	35.3
6	T1	5	1.0	0.032	4.0	LOS A	0.2	4.1	0.10	0.59	35.3
16	R2	5	1.0	0.032	4.1	LOS A	0.2	4.1	0.10	0.59	34.4
Approach		38	1.0	0.032	8.0	LOS A	0.2	4.1	0.10	0.59	35.2
North: 5th St											
7	L2	5	1.0	0.033	9.8	LOS A	0.2	4.2	0.16	0.44	36.9
4	T1	27	1.0	0.033	4.1	LOS A	0.2	4.2	0.16	0.44	36.9
14	R2	5	1.0	0.033	4.2	LOS A	0.2	4.2	0.16	0.44	35.8
Approach		38	1.0	0.033	5.0	LOS A	0.2	4.2	0.16	0.44	36.7
West: Main St											
5	L2	5	1.0	0.015	9.9	LOS A	0.1	1.8	0.20	0.50	36.2
2	T1	5	1.0	0.015	4.3	LOS A	0.1	1.8	0.20	0.50	36.2
12	R2	5	1.0	0.015	4.3	LOS A	0.1	1.8	0.20	0.50	35.2
Approach		16	1.0	0.015	6.2	LOS A	0.1	1.8	0.20	0.50	35.9
All Vehicles		112	1.0	0.033	6.3	LOS A	0.2	4.2	0.14	0.51	36.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	5	5	5	5
Future Vol, veh/h	5	5	5	5	5	5
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	5	5	5	5	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	24	8	11	0	-	0
Stage 1	8	-	-	-	-	-
Stage 2	16	-	-	-	-	-
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	992	1074	1608	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	1007	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	989	1074	1608	-	-	-
Mov Cap-2 Maneuver	989	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	1004	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	3.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1608	-	1030	-	-
HCM Lane V/C Ratio	0.003	-	0.011	-	-
HCM Control Delay (s)	7.2	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Intersection Delay, s/veh	28.1
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	50	466	168	118	463	17	176	41	77	21	18	63
Future Vol, veh/h	50	466	168	118	463	17	176	41	77	21	18	63
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	0	0	0	1	12	2	0	0	0	0	4
Mvmt Flow	54	507	183	128	503	18	191	45	84	23	20	68
Number of Lanes	0	2	0	0	2	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	33.7	29.5	17.4	13.5
HCM LOS	D	D	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	18%	0%	34%	0%	100%	0%
Vol Thru, %	0%	35%	82%	58%	66%	93%	0%	22%
Vol Right, %	0%	65%	0%	42%	0%	7%	0%	78%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	176	118	283	401	350	249	21	81
LT Vol	176	0	50	0	118	0	21	0
Through Vol	0	41	233	233	232	232	0	18
RT Vol	0	77	0	168	0	17	0	63
Lane Flow Rate	191	128	308	436	380	270	23	88
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.478	0.284	0.648	0.867	0.815	0.564	0.061	0.209
Departure Headway (Hd)	8.991	7.966	7.585	7.158	7.728	7.523	9.647	8.557
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	400	450	477	506	467	478	371	418
Service Time	6.754	5.728	5.345	4.918	5.49	5.285	7.423	6.333
HCM Lane V/C Ratio	0.477	0.284	0.646	0.862	0.814	0.565	0.062	0.211
HCM Control Delay	19.8	13.9	23.4	40.9	36.6	19.6	13.1	13.6
HCM Lane LOS	C	B	C	E	E	C	B	B
HCM 95th-tile Q	2.5	1.2	4.5	9.2	7.7	3.4	0.2	0.8

Intersection	
Intersection Delay, s/veh	13.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	495	53	49	501	16	81	15	38	11	12	24
Future Vol, veh/h	23	495	53	49	501	16	81	15	38	11	12	24
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	1	0	5	1	0	0	0	5	6	0	0
Mvmt Flow	24	516	55	51	522	17	84	16	40	11	13	25
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	14.1	14.5	11.7	10.4
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	60%	9%	0%	16%	0%	23%
Vol Thru, %	11%	91%	82%	84%	94%	26%
Vol Right, %	28%	0%	18%	0%	6%	51%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	134	271	301	300	267	47
LT Vol	81	23	0	49	0	11
Through Vol	15	248	248	251	251	12
RT Vol	38	0	53	0	16	24
Lane Flow Rate	140	282	313	312	278	49
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.251	0.466	0.504	0.526	0.453	0.091
Departure Headway (Hd)	6.471	5.951	5.8	6.07	5.876	6.672
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	554	606	620	593	614	535
Service Time	4.522	3.697	3.546	3.815	3.621	4.736
HCM Lane V/C Ratio	0.253	0.465	0.505	0.526	0.453	0.092
HCM Control Delay	11.7	13.8	14.3	15.4	13.4	10.4
HCM Lane LOS	B	B	B	C	B	B
HCM 95th-tile Q	1	2.5	2.8	3.1	2.4	0.3

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	492	5	5	519	19	5	5	6	13	5	19
Future Vol, veh/h	23	492	5	5	519	19	5	5	6	13	5	19
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	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	1	0	0	1	4	0	0	0	0	0	6
Mvmt Flow	25	529	5	5	558	20	5	5	6	14	5	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	578	0	0	534	0	0	873	1170	267	896	1163	289
Stage 1	-	-	-	-	-	-	581	581	-	579	579	-
Stage 2	-	-	-	-	-	-	292	589	-	317	584	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	7.02
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.36
Pot Cap-1 Maneuver	1006	-	-	1044	-	-	248	195	737	238	196	696
Stage 1	-	-	-	-	-	-	472	503	-	473	504	-
Stage 2	-	-	-	-	-	-	697	499	-	674	501	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1006	-	-	1044	-	-	228	187	737	223	188	696
Mov Cap-2 Maneuver	-	-	-	-	-	-	228	187	-	223	188	-
Stage 1	-	-	-	-	-	-	455	485	-	456	500	-
Stage 2	-	-	-	-	-	-	665	496	-	638	483	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.1	18.6	17.4
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	282	1006	-	-	1044	-	-	330
HCM Lane V/C Ratio	0.061	0.025	-	-	0.005	-	-	0.121
HCM Control Delay (s)	18.6	8.7	0.1	-	8.5	0	-	17.4
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	5	52	25	5	72
Future Vol, veh/h	8	5	52	25	5	72
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	9	5	57	27	5	78

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	159	70	0	0	84	0
Stage 1	70	-	-	-	-	-
Stage 2	89	-	-	-	-	-
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	832	993	-	-	1513	-
Stage 1	953	-	-	-	-	-
Stage 2	934	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	830	993	-	-	1513	-
Mov Cap-2 Maneuver	830	-	-	-	-	-
Stage 1	953	-	-	-	-	-
Stage 2	931	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	886	1513	-
HCM Lane V/C Ratio	-	-	0.016	0.004	-
HCM Control Delay (s)	-	-	9.1	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

LANE LEVEL OF SERVICE

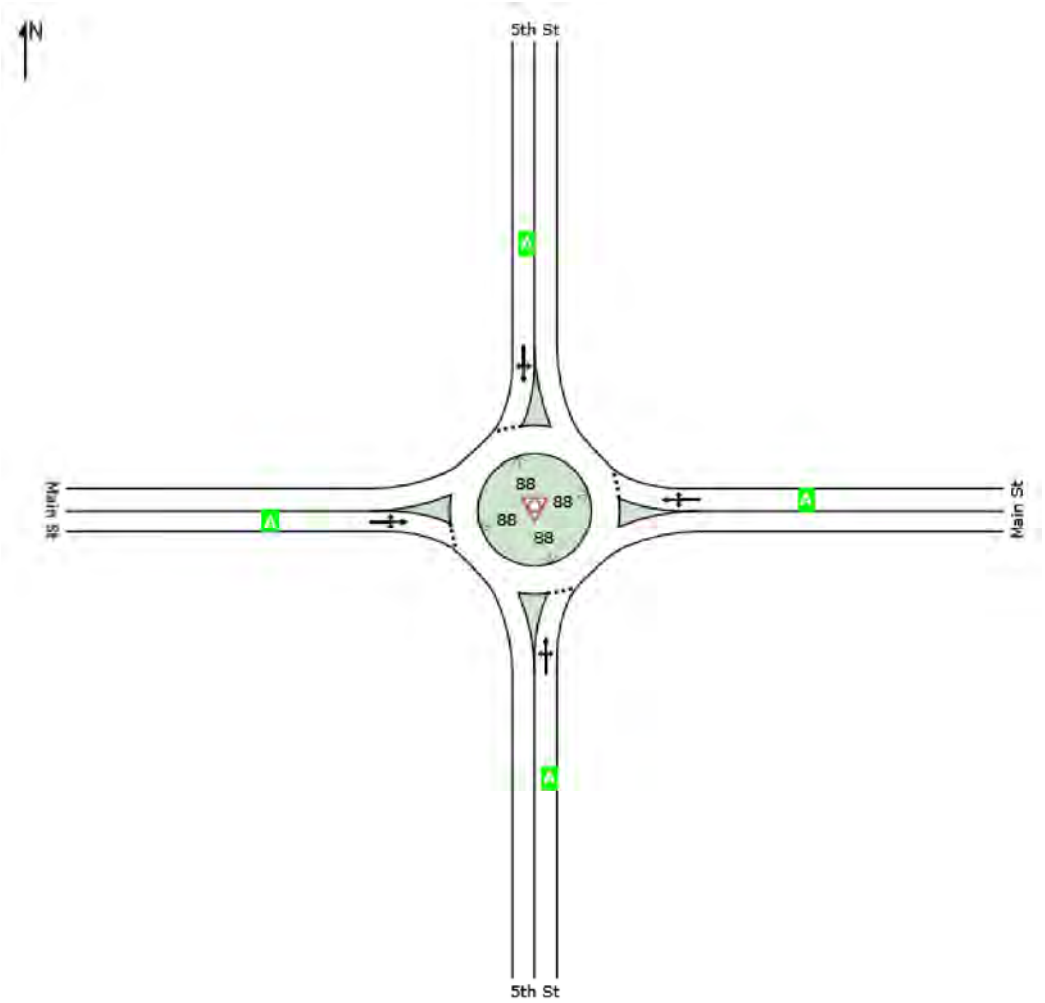
Lane Level of Service

Site: 101 [S4 Horizon Yr - PM]

Int. 5 Main St & 5th St
Roundabout

All Movement Classes

	South	East	North	West	Intersection
LOS	A	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

MOVEMENT SUMMARY

Site: 101 [S4 Horizon Yr - PM]

Int. 5 Main St & 5th St
Roundabout

Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: 5th St											
3	L2	5	1.0	0.041	9.6	LOS A	0.2	5.2	0.11	0.45	37.1
8	T1	21	1.0	0.041	4.0	LOS A	0.2	5.2	0.11	0.45	37.1
18	R2	22	1.0	0.041	4.1	LOS A	0.2	5.2	0.11	0.45	36.1
Approach		48	1.0	0.041	4.7	LOS A	0.2	5.2	0.11	0.45	36.7
East: Main St											
1	L2	15	1.0	0.023	9.7	LOS A	0.1	2.8	0.15	0.56	35.6
6	T1	5	1.0	0.023	4.1	LOS A	0.1	2.8	0.15	0.56	35.6
16	R2	5	1.0	0.023	4.2	LOS A	0.1	2.8	0.15	0.56	34.6
Approach		26	1.0	0.023	7.4	LOS A	0.1	2.8	0.15	0.56	35.4
North: 5th St											
7	L2	5	1.0	0.022	9.7	LOS A	0.1	2.8	0.13	0.46	36.8
4	T1	15	1.0	0.022	4.1	LOS A	0.1	2.8	0.13	0.46	36.8
14	R2	5	1.0	0.022	4.1	LOS A	0.1	2.8	0.13	0.46	35.7
Approach		26	1.0	0.022	5.2	LOS A	0.1	2.8	0.13	0.46	36.6
West: Main St											
5	L2	8	1.0	0.016	9.7	LOS A	0.1	2.0	0.15	0.52	36.1
2	T1	5	1.0	0.016	4.1	LOS A	0.1	2.0	0.15	0.52	36.1
12	R2	5	1.0	0.016	4.2	LOS A	0.1	2.0	0.15	0.52	35.1
Approach		18	1.0	0.016	6.5	LOS A	0.1	2.0	0.15	0.52	35.8
All Vehicles		118	1.0	0.041	5.7	LOS A	0.2	5.2	0.13	0.49	36.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	5	5	5	5
Future Vol, veh/h	5	5	5	5	5	5
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	5	5	5	5	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	24	8	11	0	-	0
Stage 1	8	-	-	-	-	-
Stage 2	16	-	-	-	-	-
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	992	1074	1608	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	1007	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	989	1074	1608	-	-	-
Mov Cap-2 Maneuver	989	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	1004	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	3.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1608	-	1030	-	-
HCM Lane V/C Ratio	0.003	-	0.011	-	-
HCM Control Delay (s)	7.2	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Intersection Delay, s/veh	13.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	51	316	168	68	299	17	86	9	18	27	17	105
Future Vol, veh/h	51	316	168	68	299	17	86	9	18	27	17	105
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	20	4	8	7	5	0	10	0	0	0	0	14
Mvmt Flow	54	333	177	72	315	18	91	9	19	28	18	111
Number of Lanes	0	2	0	0	2	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	14.7	13	12.1	11.4
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	24%	0%	31%	0%	100%	0%
Vol Thru, %	0%	33%	76%	48%	69%	90%	0%	14%
Vol Right, %	0%	67%	0%	52%	0%	10%	0%	86%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	86	27	209	326	218	167	27	122
LT Vol	86	0	51	0	68	0	27	0
Through Vol	0	9	158	158	150	150	0	17
RT Vol	0	18	0	168	0	17	0	105
Lane Flow Rate	91	28	220	343	229	175	28	128
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.201	0.054	0.4	0.55	0.416	0.305	0.061	0.236
Departure Headway (Hd)	7.974	6.81	6.54	5.775	6.541	6.275	7.745	6.617
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	448	523	548	621	547	570	460	539
Service Time	5.759	4.594	4.303	3.537	4.31	4.044	5.526	4.397
HCM Lane V/C Ratio	0.203	0.054	0.401	0.552	0.419	0.307	0.061	0.237
HCM Control Delay	12.8	10	13.6	15.4	13.9	11.8	11	11.5
HCM Lane LOS	B	A	B	C	B	B	B	B
HCM 95th-tile Q	0.7	0.2	1.9	3.3	2	1.3	0.2	0.9

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	310	43	16	300	4	43	6	25	16	12	34
Future Vol, veh/h	10	310	43	16	300	4	43	6	25	16	12	34
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	13	3	0	19	4	0	9	0	21	5	0	0
Mvmt Flow	10	323	45	17	313	4	45	6	26	17	13	35
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	10.1	10.1	9.5	9.1
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	58%	6%	0%	10%	0%	26%
Vol Thru, %	8%	94%	78%	90%	97%	19%
Vol Right, %	34%	0%	22%	0%	3%	55%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	74	165	198	166	154	62
LT Vol	43	10	0	16	0	16
Through Vol	6	155	155	150	150	12
RT Vol	25	0	43	0	4	34
Lane Flow Rate	77	172	206	173	160	65
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.121	0.262	0.294	0.271	0.237	0.097
Departure Headway (Hd)	5.654	5.479	5.124	5.633	5.309	5.423
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	628	651	697	633	672	654
Service Time	3.743	3.248	2.892	3.405	3.081	3.515
HCM Lane V/C Ratio	0.123	0.264	0.296	0.273	0.238	0.099
HCM Control Delay	9.5	10.2	10	10.5	9.7	9.1
HCM Lane LOS	A	B	A	B	A	A
HCM 95th-tile Q	0.4	1	1.2	1.1	0.9	0.3

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	336	4	0	329	7	0	0	1	5	0	9
Future Vol, veh/h	10	336	4	0	329	7	0	0	1	5	0	9
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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	20	5	0	0	5	0	2	2	2	6	0	12
Mvmt Flow	11	357	4	0	350	7	0	0	1	5	0	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	357	0	0	362	0	0	556	738	181	554	737	179
Stage 1	-	-	-	-	-	-	381	381	-	354	354	-
Stage 2	-	-	-	-	-	-	175	357	-	200	383	-
Critical Hdwy	4.5	-	-	4.1	-	-	7.54	6.54	6.94	7.62	6.5	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.62	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.62	5.5	-
Follow-up Hdwy	2.4	-	-	2.2	-	-	3.52	4.02	3.32	3.56	4	3.42
Pot Cap-1 Maneuver	1079	-	-	1208	-	-	414	344	831	407	348	803
Stage 1	-	-	-	-	-	-	613	612	-	625	634	-
Stage 2	-	-	-	-	-	-	810	627	-	772	616	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1079	-	-	1208	-	-	405	340	831	402	343	803
Mov Cap-2 Maneuver	-	-	-	-	-	-	405	340	-	402	343	-
Stage 1	-	-	-	-	-	-	605	604	-	617	634	-
Stage 2	-	-	-	-	-	-	800	627	-	761	608	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0	9.3	11.2
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	831	1079	-	-	1208	-	-	592
HCM Lane V/C Ratio	0.001	0.01	-	-	-	-	-	0.025
HCM Control Delay (s)	9.3	8.4	0.1	-	0	-	-	11.2
HCM Lane LOS	A	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	0	61	9	0	125
Future Vol, veh/h	16	0	61	9	0	125
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	17	0	66	10	0	136

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	207	71	0	0	76	0
Stage 1	71	-	-	-	-	-
Stage 2	136	-	-	-	-	-
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	781	991	-	-	1523	-
Stage 1	952	-	-	-	-	-
Stage 2	890	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	781	991	-	-	1523	-
Mov Cap-2 Maneuver	781	-	-	-	-	-
Stage 1	952	-	-	-	-	-
Stage 2	890	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	781	1523	-
HCM Lane V/C Ratio	-	-	0.022	-	-
HCM Control Delay (s)	-	-	9.7	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

LANE LEVEL OF SERVICE

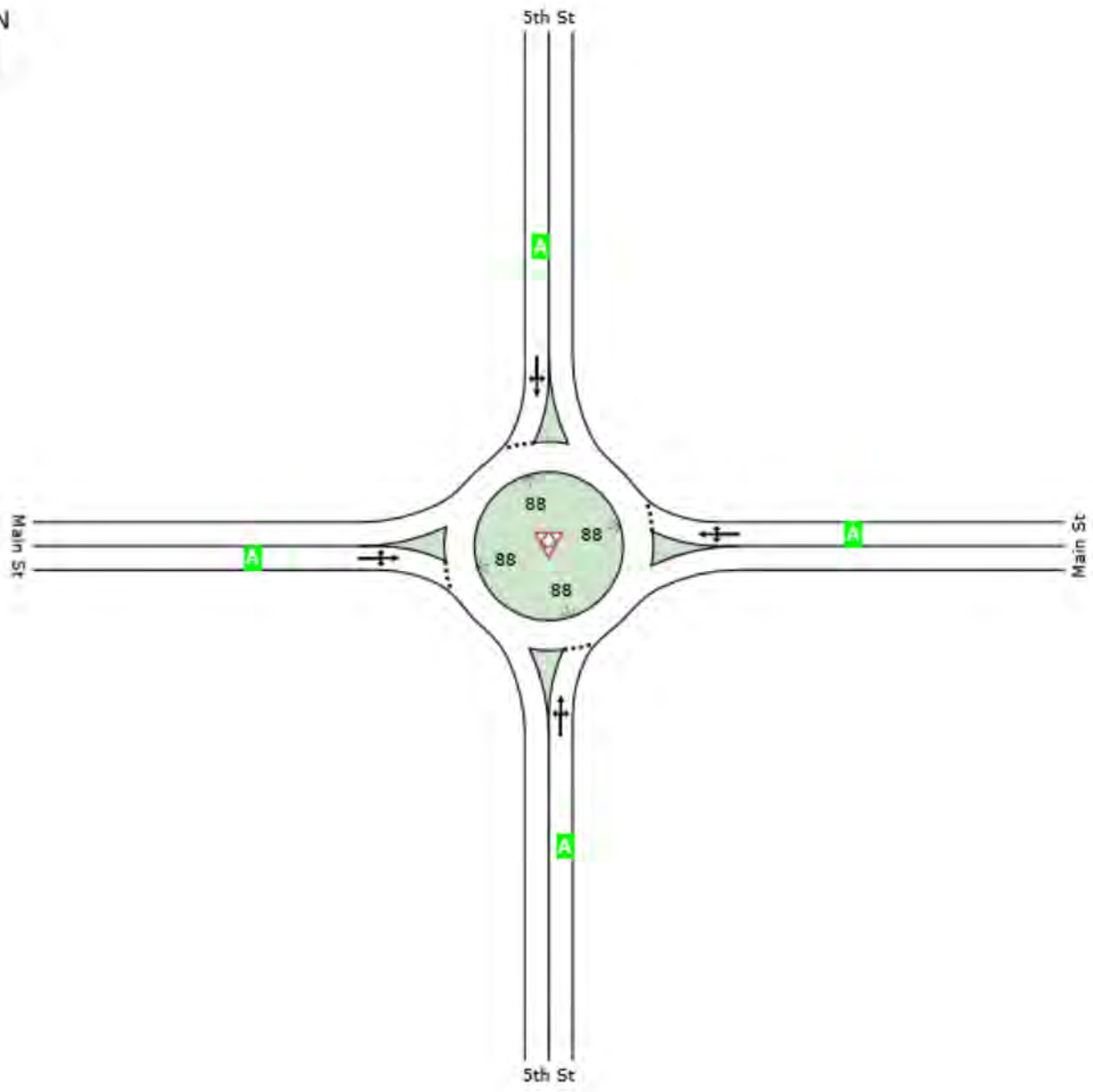
Lane Level of Service

Site: 101 [S5 Opening Yr Build - AM]

Int. 5 Main St & 5th St
Roundabout

All Movement Classes

	South	East	North	West	Intersection
LOS	A	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.

Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

MOVEMENT SUMMARY

Site: 101 [S5 Opening Yr Build - AM]

Int. 5 Main St & 5th St
Roundabout

Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: 5th St											
3	L2	1	1.0	0.013	9.6	LOS A	0.1	1.6	0.07	0.45	37.4
8	T1	7	1.0	0.013	4.0	LOS A	0.1	1.6	0.07	0.45	37.4
18	R2	8	1.0	0.013	4.0	LOS A	0.1	1.6	0.07	0.45	36.3
Approach		15	1.0	0.013	4.4	LOS A	0.1	1.6	0.07	0.45	36.9
East: Main St											
1	L2	27	1.0	0.025	9.6	LOS A	0.1	3.1	0.08	0.63	34.8
6	T1	1	1.0	0.025	4.0	LOS A	0.1	3.1	0.08	0.63	34.8
16	R2	1	1.0	0.025	4.0	LOS A	0.1	3.1	0.08	0.63	33.9
Approach		29	1.0	0.025	9.2	LOS A	0.1	3.1	0.08	0.63	34.7
North: 5th St											
7	L2	4	1.0	0.028	9.7	LOS A	0.1	3.5	0.14	0.43	37.0
4	T1	27	1.0	0.028	4.1	LOS A	0.1	3.5	0.14	0.43	37.0
14	R2	1	1.0	0.028	4.1	LOS A	0.1	3.5	0.14	0.43	35.9
Approach		33	1.0	0.028	4.8	LOS A	0.1	3.5	0.14	0.43	36.9
West: Main St											
5	L2	3	1.0	0.005	9.9	LOS A	0.0	0.6	0.20	0.55	35.4
2	T1	1	1.0	0.005	4.3	LOS A	0.0	0.6	0.20	0.55	35.4
12	R2	1	1.0	0.005	4.3	LOS A	0.0	0.6	0.20	0.55	34.5
Approach		5	1.0	0.005	7.6	LOS A	0.0	0.6	0.20	0.55	35.2
All Vehicles		83	1.0	0.028	6.5	LOS A	0.1	3.5	0.11	0.51	36.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	0	0	0	0	1
Future Vol, veh/h	4	0	0	0	0	1
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	4	0	0	0	0	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
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	1022	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1622	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1022	-	-
HCM Lane V/C Ratio	-	-	0.004	-	-
HCM Control Delay (s)	0	-	8.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Intersection Delay, s/veh	21.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	47	426	153	108	422	18	161	39	70	24	17	58
Future Vol, veh/h	47	426	153	108	422	18	161	39	70	24	17	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	0	0	0	1	14	2	0	0	0	0	4
Mvmt Flow	51	463	166	117	459	20	175	42	76	26	18	63
Number of Lanes	0	2	0	0	2	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	24.5	22.7	15.8	12.8
HCM LOS	C	C	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	18%	0%	34%	0%	100%	0%
Vol Thru, %	0%	36%	82%	58%	66%	92%	0%	23%
Vol Right, %	0%	64%	0%	42%	0%	8%	0%	77%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	161	109	260	366	319	229	24	75
LT Vol	161	0	47	0	108	0	24	0
Through Vol	0	39	213	213	211	211	0	17
RT Vol	0	70	0	153	0	18	0	58
Lane Flow Rate	175	118	283	398	347	249	26	82
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.422	0.252	0.572	0.758	0.715	0.498	0.067	0.185
Departure Headway (Hd)	8.676	7.661	7.286	6.859	7.421	7.209	9.234	8.152
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	415	468	495	525	485	500	388	439
Service Time	6.428	5.413	5.037	4.61	5.173	4.961	6.998	5.916
HCM Lane V/C Ratio	0.422	0.252	0.572	0.758	0.715	0.498	0.067	0.187
HCM Control Delay	17.7	13	19.4	28.1	26.8	16.9	12.7	12.8
HCM Lane LOS	C	B	C	D	D	C	B	B
HCM 95th-tile Q	2	1	3.5	6.6	5.7	2.7	0.2	0.7

Intersection	
Intersection Delay, s/veh	12.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	455	48	44	464	15	74	14	34	10	11	20
Future Vol, veh/h	21	455	48	44	464	15	74	14	34	10	11	20
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	1	0	5	1	0	0	0	6	7	0	0
Mvmt Flow	22	474	50	46	483	16	77	15	35	10	11	21
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	12.8	13.1	11.1	10.1
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	61%	8%	0%	16%	0%	24%
Vol Thru, %	11%	92%	83%	84%	94%	27%
Vol Right, %	28%	0%	17%	0%	6%	49%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	122	249	276	276	247	41
LT Vol	74	21	0	44	0	10
Through Vol	14	228	228	232	232	11
RT Vol	34	0	48	0	15	20
Lane Flow Rate	127	259	287	288	257	43
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.222	0.416	0.449	0.471	0.407	0.077
Departure Headway (Hd)	6.281	5.779	5.63	5.892	5.699	6.466
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	572	624	640	612	630	553
Service Time	4.323	3.516	3.367	3.629	3.437	4.518
HCM Lane V/C Ratio	0.222	0.415	0.448	0.471	0.408	0.078
HCM Control Delay	11.1	12.6	12.9	13.8	12.3	10.1
HCM Lane LOS	B	B	B	B	B	B
HCM 95th-tile Q	0.8	2	2.3	2.5	2	0.2

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	456	4	3	481	10	0	0	5	12	0	17
Future Vol, veh/h	21	456	4	3	481	10	0	0	5	12	0	17
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	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	1	0	0	1	4	0	0	0	0	0	6
Mvmt Flow	23	490	4	3	517	11	0	0	5	13	0	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	528	0	0	495	0	0	803	1072	247	819	1069	264
Stage 1	-	-	-	-	-	-	538	538	-	529	529	-
Stage 2	-	-	-	-	-	-	265	534	-	290	540	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	7.02
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.36
Pot Cap-1 Maneuver	1049	-	-	1079	-	-	278	222	759	271	223	722
Stage 1	-	-	-	-	-	-	500	526	-	506	530	-
Stage 2	-	-	-	-	-	-	723	528	-	699	524	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1049	-	-	1079	-	-	264	214	759	262	215	722
Mov Cap-2 Maneuver	-	-	-	-	-	-	264	214	-	262	215	-
Stage 1	-	-	-	-	-	-	485	510	-	491	528	-
Stage 2	-	-	-	-	-	-	702	526	-	673	508	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.1	9.8	14.3
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	759	1049	-	-	1079	-	-	418
HCM Lane V/C Ratio	0.007	0.022	-	-	0.003	-	-	0.075
HCM Control Delay (s)	9.8	8.5	0.1	-	8.3	0	-	14.3
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	0	53	29	0	70
Future Vol, veh/h	10	0	53	29	0	70
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	11	0	58	32	0	76

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	149	73	0	0	89	0
Stage 1	73	-	-	-	-	-
Stage 2	76	-	-	-	-	-
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	843	989	-	-	1506	-
Stage 1	950	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	843	989	-	-	1506	-
Mov Cap-2 Maneuver	843	-	-	-	-	-
Stage 1	950	-	-	-	-	-
Stage 2	947	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	843	1506	-
HCM Lane V/C Ratio	-	-	0.013	-	-
HCM Control Delay (s)	-	-	9.3	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

LANE LEVEL OF SERVICE

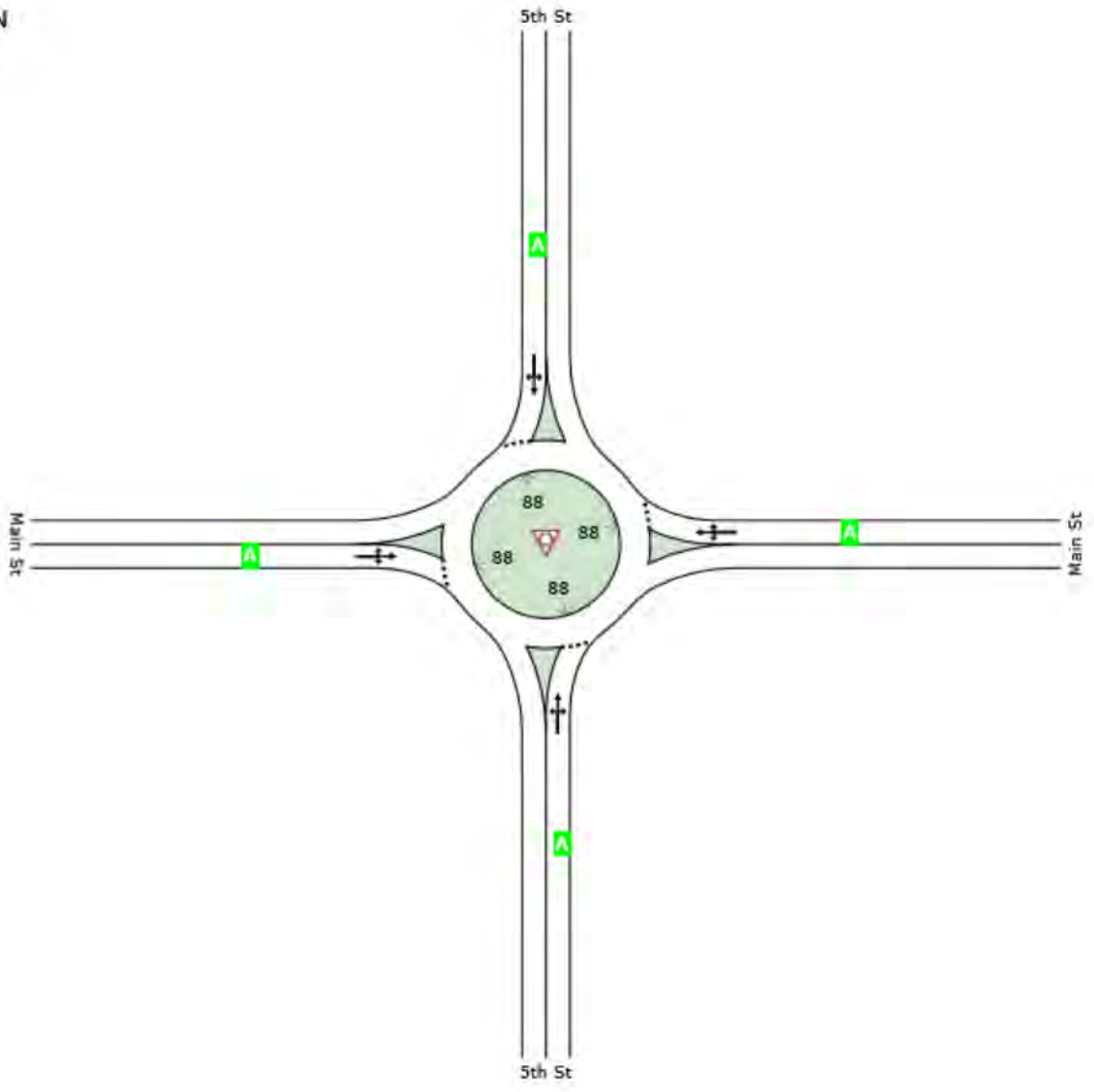
Lane Level of Service

Site: 101 [S5 Opening Yr Build - PM]

Int. 5 Main St & 5th St
Roundabout

All Movement Classes

	South	East	North	West	Intersection
LOS	A	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

MOVEMENT SUMMARY

Site: 101 [S5 Opening Yr Build - PM]

Int. 5 Main St & 5th St
Roundabout

Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: 5th St											
3	L2	1	1.0	0.037	9.6	LOS A	0.2	4.7	0.08	0.43	37.5
8	T1	21	1.0	0.037	4.0	LOS A	0.2	4.7	0.08	0.43	37.5
18	R2	22	1.0	0.037	4.0	LOS A	0.2	4.7	0.08	0.43	36.4
Approach		43	1.0	0.037	4.1	LOS A	0.2	4.7	0.08	0.43	37.0
East: Main St											
1	L2	15	1.0	0.018	9.7	LOS A	0.1	2.2	0.13	0.59	35.2
6	T1	1	1.0	0.018	4.1	LOS A	0.1	2.2	0.13	0.59	35.2
16	R2	4	1.0	0.018	4.1	LOS A	0.1	2.2	0.13	0.59	34.2
Approach		21	1.0	0.018	8.2	LOS A	0.1	2.2	0.13	0.59	35.0
North: 5th St											
7	L2	2	1.0	0.016	9.6	LOS A	0.1	2.0	0.10	0.42	37.1
4	T1	15	1.0	0.016	4.0	LOS A	0.1	2.0	0.10	0.42	37.1
14	R2	1	1.0	0.016	4.1	LOS A	0.1	2.0	0.10	0.42	36.1
Approach		18	1.0	0.016	4.7	LOS A	0.1	2.0	0.10	0.42	37.1
West: Main St											
5	L2	8	1.0	0.008	9.7	LOS A	0.0	1.0	0.14	0.59	35.0
2	T1	1	1.0	0.008	4.1	LOS A	0.0	1.0	0.14	0.59	35.0
12	R2	1	1.0	0.008	4.1	LOS A	0.0	1.0	0.14	0.59	34.1
Approach		10	1.0	0.008	8.5	LOS A	0.0	1.0	0.14	0.59	34.9
All Vehicles		92	1.0	0.037	5.6	LOS A	0.2	4.7	0.10	0.48	36.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	0	0	0	0	4
Future Vol, veh/h	2	0	0	0	0	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	0	0	0	0	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2	2	4	0	-	0
Stage 1	2	-	-	-	-	-
Stage 2	0	-	-	-	-	-
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	1021	1082	1618	-	-	-
Stage 1	1021	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1021	1082	1618	-	-	-
Mov Cap-2 Maneuver	1021	-	-	-	-	-
Stage 1	1021	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1618	-	1021	-	-
HCM Lane V/C Ratio	-	-	0.002	-	-
HCM Control Delay (s)	0	-	8.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Intersection Delay, s/veh	15.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	56	347	184	73	326	19	94	13	20	29	19	113
Future Vol, veh/h	56	347	184	73	326	19	94	13	20	29	19	113
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	18	4	7	7	5	0	10	0	0	0	0	14
Mvmt Flow	59	365	194	77	343	20	99	14	21	31	20	119
Number of Lanes	0	2	0	0	2	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	17.4	14.5	12.8	12.2
HCM LOS	C	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	24%	0%	31%	0%	100%	0%
Vol Thru, %	0%	39%	76%	49%	69%	90%	0%	14%
Vol Right, %	0%	61%	0%	51%	0%	10%	0%	86%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	94	33	230	358	236	182	29	132
LT Vol	94	0	56	0	73	0	29	0
Through Vol	0	13	174	174	163	163	0	19
RT Vol	0	20	0	184	0	19	0	113
Lane Flow Rate	99	35	242	376	248	192	31	139
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.23	0.07	0.458	0.636	0.475	0.352	0.069	0.27
Departure Headway (Hd)	8.361	7.236	6.821	6.089	6.888	6.622	8.13	7.001
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	430	495	531	595	524	546	441	514
Service Time	6.099	4.974	4.531	3.799	4.602	4.336	5.866	4.737
HCM Lane V/C Ratio	0.23	0.071	0.456	0.632	0.473	0.352	0.07	0.27
HCM Control Delay	13.6	10.5	15.2	18.8	15.7	12.9	11.5	12.3
HCM Lane LOS	B	B	C	C	C	B	B	B
HCM 95th-tile Q	0.9	0.2	2.4	4.5	2.5	1.6	0.2	1.1

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	340	48	18	329	8	48	8	28	17	16	38
Future Vol, veh/h	11	340	48	18	329	8	48	8	28	17	16	38
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	13	3	0	19	4	0	8	0	19	5	0	0
Mvmt Flow	11	354	50	19	343	8	50	8	29	18	17	40
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	10.7	10.8	9.9	9.5
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	57%	6%	0%	10%	0%	24%
Vol Thru, %	10%	94%	78%	90%	95%	23%
Vol Right, %	33%	0%	22%	0%	5%	54%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	84	181	218	183	173	71
LT Vol	48	11	0	18	0	17
Through Vol	8	170	170	165	165	16
RT Vol	28	0	48	0	8	38
Lane Flow Rate	88	189	227	190	180	74
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.144	0.298	0.337	0.309	0.275	0.117
Departure Headway (Hd)	5.917	5.694	5.336	5.855	5.515	5.715
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	606	634	677	616	654	628
Service Time	3.946	3.402	3.044	3.565	3.224	3.746
HCM Lane V/C Ratio	0.145	0.298	0.335	0.308	0.275	0.118
HCM Control Delay	9.9	10.8	10.7	11.2	10.3	9.5
HCM Lane LOS	A	B	B	B	B	A
HCM 95th-tile Q	0.5	1.2	1.5	1.3	1.1	0.4

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	368	5	5	361	8	5	5	5	6	5	10
Future Vol, veh/h	11	368	5	5	361	8	5	5	5	6	5	10
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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	20	5	0	0	5	0	0	0	0	6	0	10
Mvmt Flow	12	391	5	5	384	9	5	5	5	6	5	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	393	0	0	397	0	0	623	821	198	621	819	196
Stage 1	-	-	-	-	-	-	418	418	-	399	399	-
Stage 2	-	-	-	-	-	-	205	403	-	222	420	-
Critical Hdwy	4.5	-	-	4.1	-	-	7.5	6.5	6.9	7.62	6.5	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.62	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.62	5.5	-
Follow-up Hdwy	2.4	-	-	2.2	-	-	3.5	4	3.3	3.56	4	3.4
Pot Cap-1 Maneuver	1043	-	-	1173	-	-	375	312	816	364	312	788
Stage 1	-	-	-	-	-	-	588	594	-	588	606	-
Stage 2	-	-	-	-	-	-	784	603	-	749	593	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1043	-	-	1173	-	-	359	306	816	351	306	788
Mov Cap-2 Maneuver	-	-	-	-	-	-	359	306	-	351	306	-
Stage 1	-	-	-	-	-	-	579	585	-	579	603	-
Stage 2	-	-	-	-	-	-	763	600	-	726	584	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.1	14.1	13.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	412	1043	-	-	1173	-	-	455
HCM Lane V/C Ratio	0.039	0.011	-	-	0.005	-	-	0.049
HCM Control Delay (s)	14.1	8.5	0.1	-	8.1	0	-	13.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	5	66	9	5	135
Future Vol, veh/h	16	5	66	9	5	135
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	17	5	72	10	5	147

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	235	77	0	0	82	0
Stage 1	77	-	-	-	-	-
Stage 2	158	-	-	-	-	-
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	753	984	-	-	1515	-
Stage 1	946	-	-	-	-	-
Stage 2	871	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	750	984	-	-	1515	-
Mov Cap-2 Maneuver	750	-	-	-	-	-
Stage 1	946	-	-	-	-	-
Stage 2	868	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	795	1515	-
HCM Lane V/C Ratio	-	-	0.029	0.004	-
HCM Control Delay (s)	-	-	9.7	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

LANE LEVEL OF SERVICE

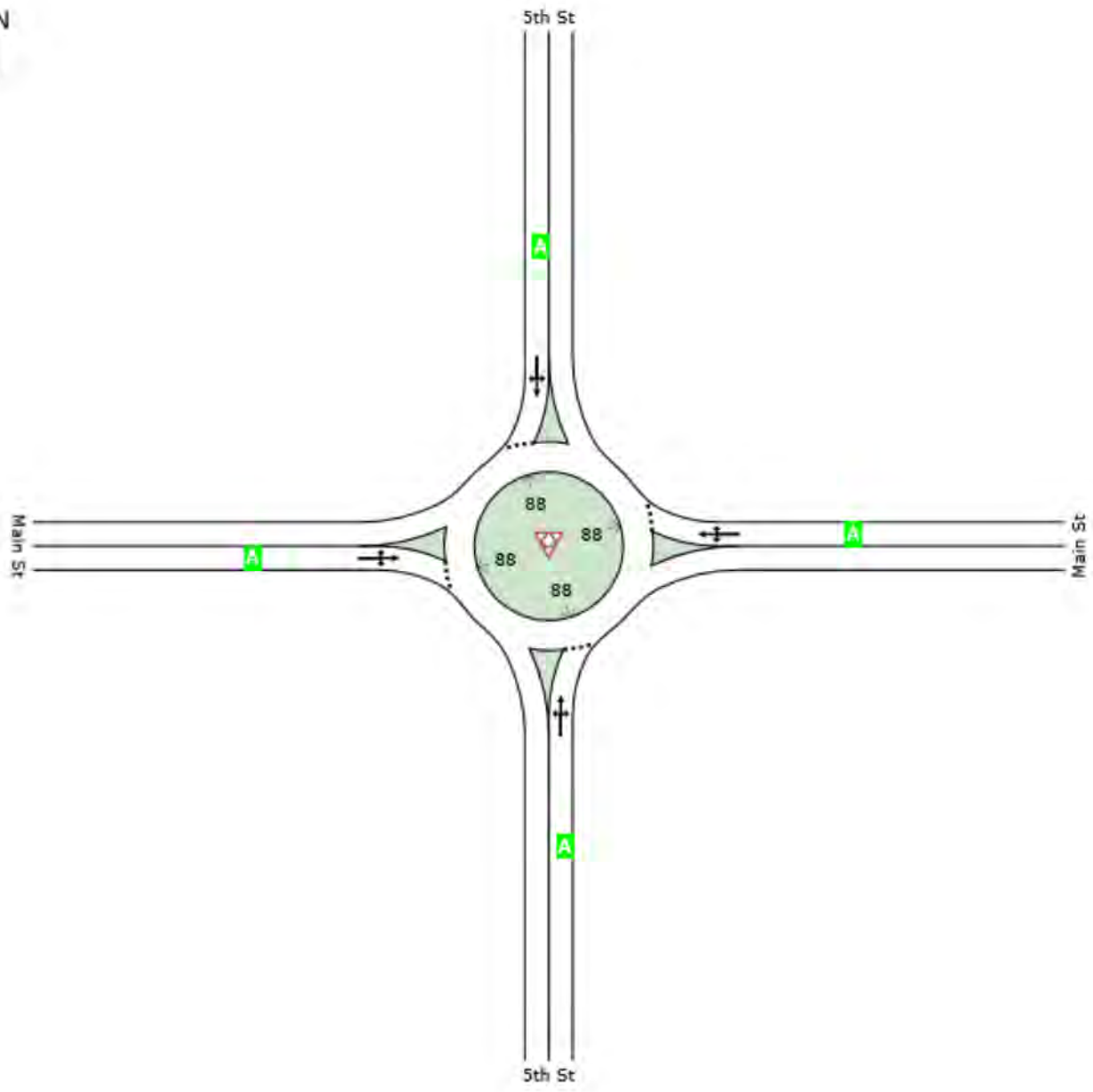
Lane Level of Service

Site: 101 [S6 Horizon Yr - AM]

Int. 5 Main St & 5th St
Roundabout

All Movement Classes

	South	East	North	West	Intersection
LOS	A	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.

Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

MOVEMENT SUMMARY

Site: 101 [S6 Horizon Yr - AM]

Int. 5 Main St & 5th St
Roundabout

Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: 5th St											
3	L2	5	1.0	0.017	9.6	LOS A	0.1	2.1	0.10	0.50	36.6
8	T1	7	1.0	0.017	4.0	LOS A	0.1	2.1	0.10	0.50	36.7
18	R2	8	1.0	0.017	4.0	LOS A	0.1	2.1	0.10	0.50	35.6
Approach		20	1.0	0.017	5.6	LOS A	0.1	2.1	0.10	0.50	36.2
East: Main St											
1	L2	27	1.0	0.032	9.6	LOS A	0.2	4.1	0.10	0.59	35.3
6	T1	5	1.0	0.032	4.0	LOS A	0.2	4.1	0.10	0.59	35.3
16	R2	5	1.0	0.032	4.1	LOS A	0.2	4.1	0.10	0.59	34.4
Approach		38	1.0	0.032	8.0	LOS A	0.2	4.1	0.10	0.59	35.2
North: 5th St											
7	L2	5	1.0	0.033	9.8	LOS A	0.2	4.2	0.16	0.44	36.9
4	T1	27	1.0	0.033	4.1	LOS A	0.2	4.2	0.16	0.44	36.9
14	R2	5	1.0	0.033	4.2	LOS A	0.2	4.2	0.16	0.44	35.8
Approach		38	1.0	0.033	5.0	LOS A	0.2	4.2	0.16	0.44	36.7
West: Main St											
5	L2	5	1.0	0.015	9.9	LOS A	0.1	1.8	0.20	0.50	36.2
2	T1	5	1.0	0.015	4.3	LOS A	0.1	1.8	0.20	0.50	36.2
12	R2	5	1.0	0.015	4.3	LOS A	0.1	1.8	0.20	0.50	35.2
Approach		16	1.0	0.015	6.2	LOS A	0.1	1.8	0.20	0.50	35.9
All Vehicles		112	1.0	0.033	6.3	LOS A	0.2	4.2	0.14	0.51	36.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	5	5	5	5
Future Vol, veh/h	5	5	5	5	5	5
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	5	5	5	5	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	24	8	11	0	-	0
Stage 1	8	-	-	-	-	-
Stage 2	16	-	-	-	-	-
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	992	1074	1608	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	1007	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	989	1074	1608	-	-	-
Mov Cap-2 Maneuver	989	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	1004	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	3.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1608	-	1030	-	-
HCM Lane V/C Ratio	0.003	-	0.011	-	-
HCM Control Delay (s)	7.2	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Intersection Delay, s/veh	28.5
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	50	466	168	118	463	20	176	41	77	26	18	63
Future Vol, veh/h	50	466	168	118	463	20	176	41	77	26	18	63
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	0	0	0	1	12	2	0	0	0	0	4
Mvmt Flow	54	507	183	128	503	22	191	45	84	28	20	68
Number of Lanes	0	2	0	0	2	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	34.3	30	17.5	13.5
HCM LOS	D	D	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	18%	0%	34%	0%	100%	0%
Vol Thru, %	0%	35%	82%	58%	66%	92%	0%	22%
Vol Right, %	0%	65%	0%	42%	0%	8%	0%	78%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	176	118	283	401	350	252	26	81
LT Vol	176	0	50	0	118	0	26	0
Through Vol	0	41	233	233	232	232	0	18
RT Vol	0	77	0	168	0	20	0	63
Lane Flow Rate	191	128	308	436	380	273	28	88
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.48	0.285	0.652	0.871	0.819	0.573	0.076	0.21
Departure Headway (Hd)	9.03	8.004	7.625	7.198	7.764	7.551	9.667	8.578
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	398	448	474	501	467	476	370	417
Service Time	6.795	5.768	5.387	4.96	5.527	5.314	7.443	6.353
HCM Lane V/C Ratio	0.48	0.286	0.65	0.87	0.814	0.574	0.076	0.211
HCM Control Delay	19.9	14	23.7	41.7	37.2	20	13.2	13.6
HCM Lane LOS	C	B	C	E	E	C	B	B
HCM 95th-tile Q	2.5	1.2	4.6	9.3	7.8	3.5	0.2	0.8

Intersection	
Intersection Delay, s/veh	14
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	500	53	49	509	16	81	15	38	11	12	24
Future Vol, veh/h	23	500	53	49	509	16	81	15	38	11	12	24
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	0	1	0	5	1	0	0	0	5	6	0	0
Mvmt Flow	24	521	55	51	530	17	84	16	40	11	13	25
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	14.2	14.7	11.7	10.4
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	60%	8%	0%	16%	0%	23%
Vol Thru, %	11%	92%	83%	84%	94%	26%
Vol Right, %	28%	0%	17%	0%	6%	51%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	134	273	303	304	271	47
LT Vol	81	23	0	49	0	11
Through Vol	15	250	250	255	255	12
RT Vol	38	0	53	0	16	24
Lane Flow Rate	140	284	316	316	282	49
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.252	0.471	0.51	0.534	0.461	0.091
Departure Headway (Hd)	6.492	5.965	5.816	6.08	5.887	6.696
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	553	603	619	591	611	533
Service Time	4.544	3.712	3.562	3.826	3.633	4.762
HCM Lane V/C Ratio	0.253	0.471	0.511	0.535	0.462	0.092
HCM Control Delay	11.7	13.9	14.5	15.6	13.6	10.4
HCM Lane LOS	B	B	B	C	B	B
HCM 95th-tile Q	1	2.5	2.9	3.1	2.4	0.3

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	500	5	5	527	11	5	5	6	8	5	19
Future Vol, veh/h	23	500	5	5	527	11	5	5	6	8	5	19
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	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	1	0	0	1	4	0	0	0	0	0	6
Mvmt Flow	25	538	5	5	567	12	5	5	6	9	5	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	578	0	0	543	0	0	887	1179	272	904	1175	289
Stage 1	-	-	-	-	-	-	590	590	-	583	583	-
Stage 2	-	-	-	-	-	-	297	589	-	321	592	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	7.02
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.36
Pot Cap-1 Maneuver	1006	-	-	1036	-	-	242	192	732	235	193	696
Stage 1	-	-	-	-	-	-	466	498	-	470	502	-
Stage 2	-	-	-	-	-	-	693	499	-	671	497	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1006	-	-	1036	-	-	222	184	732	220	185	696
Mov Cap-2 Maneuver	-	-	-	-	-	-	222	184	-	220	185	-
Stage 1	-	-	-	-	-	-	449	480	-	453	498	-
Stage 2	-	-	-	-	-	-	661	496	-	634	479	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.1	18.9	16.3
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	276	1006	-	-	1036	-	-	353
HCM Lane V/C Ratio	0.062	0.025	-	-	0.005	-	-	0.097
HCM Control Delay (s)	18.9	8.7	0.1	-	8.5	0	-	16.3
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.3

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	5	56	29	5	72
Future Vol, veh/h	8	5	56	29	5	72
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	9	5	61	32	5	78

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	166	77	0	0	92	0
Stage 1	77	-	-	-	-	-
Stage 2	89	-	-	-	-	-
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	824	984	-	-	1503	-
Stage 1	946	-	-	-	-	-
Stage 2	934	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	822	984	-	-	1503	-
Mov Cap-2 Maneuver	822	-	-	-	-	-
Stage 1	946	-	-	-	-	-
Stage 2	931	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	878	1503	-
HCM Lane V/C Ratio	-	-	0.016	0.004	-
HCM Control Delay (s)	-	-	9.2	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

LANE LEVEL OF SERVICE

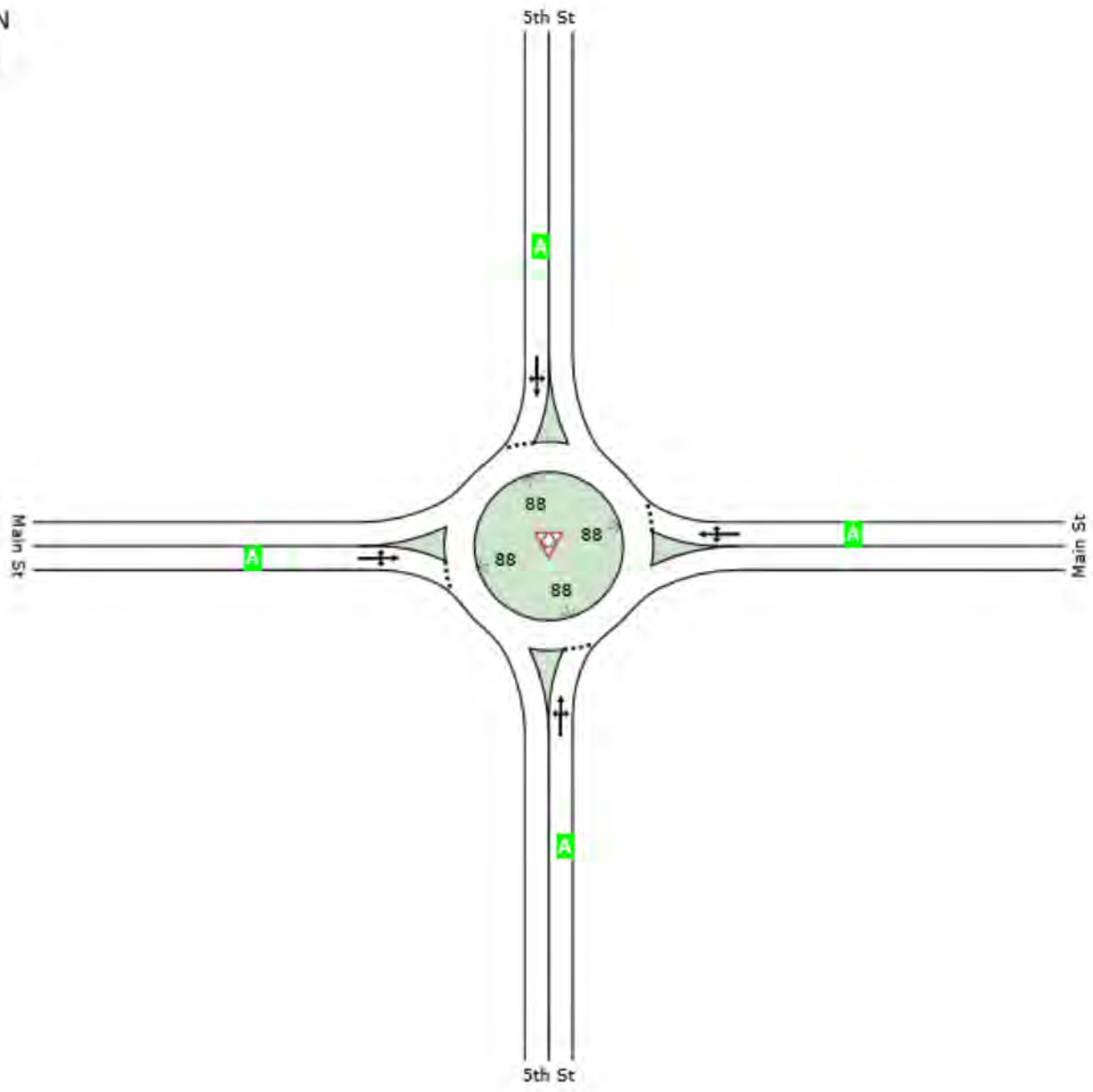
Lane Level of Service

Site: 101 [S6 Horizon Yr - PM]

Int. 5 Main St & 5th St
Roundabout

All Movement Classes

	South	East	North	West	Intersection
LOS	A	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.

Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

MOVEMENT SUMMARY

Site: 101 [S6 Horizon Yr - PM]

Int. 5 Main St & 5th St
Roundabout

Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: 5th St											
3	L2	5	1.0	0.041	9.6	LOS A	0.2	5.2	0.11	0.45	37.1
8	T1	21	1.0	0.041	4.0	LOS A	0.2	5.2	0.11	0.45	37.1
18	R2	22	1.0	0.041	4.1	LOS A	0.2	5.2	0.11	0.45	36.1
Approach		48	1.0	0.041	4.7	LOS A	0.2	5.2	0.11	0.45	36.7
East: Main St											
1	L2	15	1.0	0.023	9.7	LOS A	0.1	2.8	0.15	0.56	35.6
6	T1	5	1.0	0.023	4.1	LOS A	0.1	2.8	0.15	0.56	35.6
16	R2	5	1.0	0.023	4.2	LOS A	0.1	2.8	0.15	0.56	34.6
Approach		26	1.0	0.023	7.4	LOS A	0.1	2.8	0.15	0.56	35.4
North: 5th St											
7	L2	5	1.0	0.022	9.7	LOS A	0.1	2.8	0.13	0.46	36.8
4	T1	15	1.0	0.022	4.1	LOS A	0.1	2.8	0.13	0.46	36.8
14	R2	5	1.0	0.022	4.1	LOS A	0.1	2.8	0.13	0.46	35.7
Approach		26	1.0	0.022	5.2	LOS A	0.1	2.8	0.13	0.46	36.6
West: Main St											
5	L2	8	1.0	0.016	9.7	LOS A	0.1	2.0	0.15	0.52	36.1
2	T1	5	1.0	0.016	4.1	LOS A	0.1	2.0	0.15	0.52	36.1
12	R2	5	1.0	0.016	4.2	LOS A	0.1	2.0	0.15	0.52	35.1
Approach		18	1.0	0.016	6.5	LOS A	0.1	2.0	0.15	0.52	35.8
All Vehicles		118	1.0	0.041	5.7	LOS A	0.2	5.2	0.13	0.49	36.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	5	5	5	5
Future Vol, veh/h	5	5	5	5	5	5
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	5	5	5	5	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	24	8	11	0	-	0
Stage 1	8	-	-	-	-	-
Stage 2	16	-	-	-	-	-
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	992	1074	1608	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	1007	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	989	1074	1608	-	-	-
Mov Cap-2 Maneuver	989	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	1004	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	3.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1608	-	1030	-	-
HCM Lane V/C Ratio	0.003	-	0.011	-	-
HCM Control Delay (s)	7.2	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-