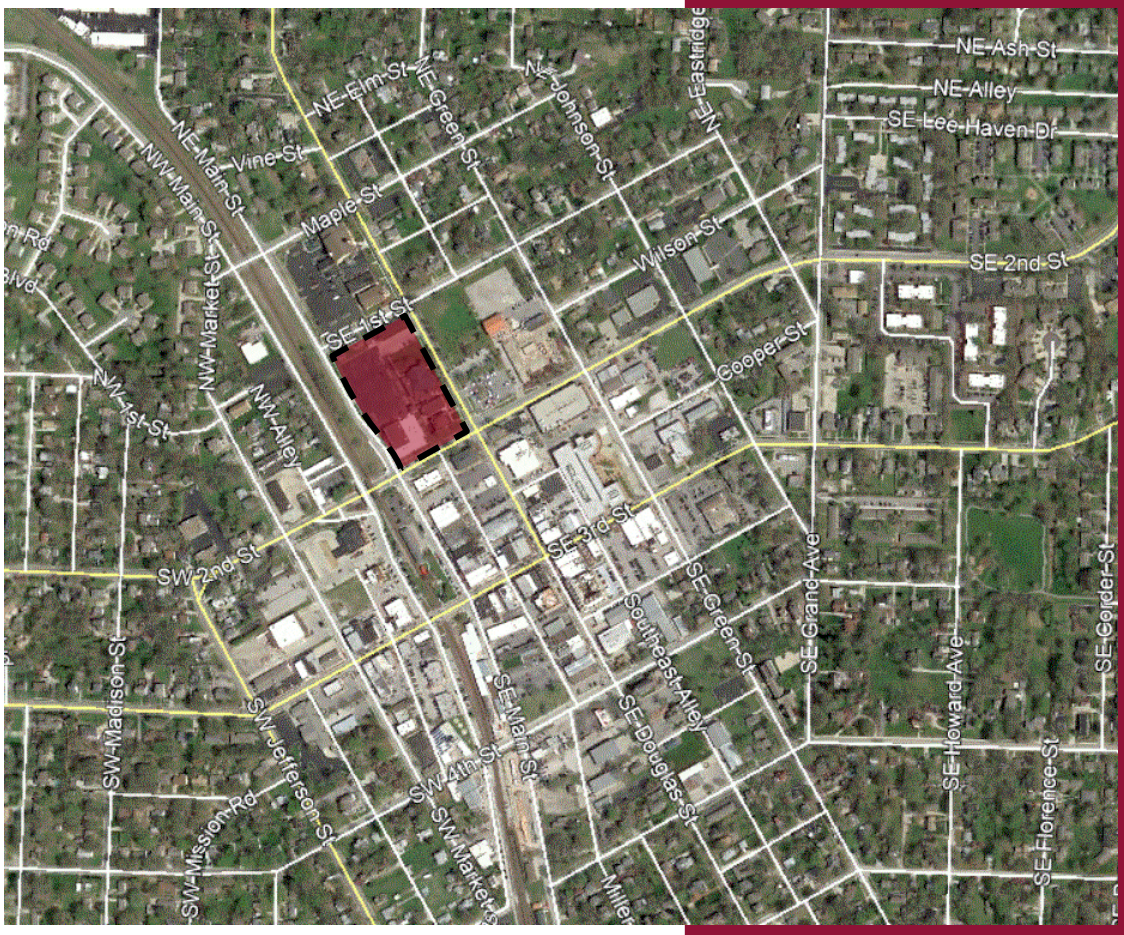
2nd Street and Douglas Street Traffic Impact Study

Lee's Summit, Missouri



Prepared for:

Archview Investors, LLC

Prepared by TranSystems

January 2019

TranSystems

EXPERIENCE | Transportation

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January 16, 2019

Mr. James E. Thomas, Jr.
Archview Investors, LLC
8335 Keystone Xing, Suite 220
Indianapolis, IN 46240

RE: 2nd Street and Douglas Street Traffic Impact Study
Lee's Summit, Missouri

Dear Mr. Thomas:

In response to your request and authorization, TranSystems has completed a traffic impact study for the proposed multi-family development to be located generally in the northwest corner of the 2nd Street and Douglas Street intersection in Lee's Summit, Missouri. The purpose of this study was to assess the impact of the proposed development on the surrounding transportation system.

Included in this study is a discussion of the anticipated impacts of the proposed development on the adjacent street network for the following analysis scenarios:

- Existing Conditions
- Existing plus Development Conditions

We trust that the enclosed information proves beneficial to you and the City of Lee's Summit in this phase of the development process. We appreciate the opportunity to be of service to you and will be available to review this study at your convenience.

Sincerely,
TRANSYSTEMS

By: _____
Jeffrey J. Wilke, PE, PTOE

JJW/jw:P101180397
Enclosure

Introduction

TranSystems has completed this traffic impact study for the proposed multi-family development to be located generally in the northwest corner of the 2nd Street and Douglas Street intersection in Lee's Summit, Missouri. The purpose of this study was to assess the impact of the proposed development on the surrounding transportation system. The location of the project relative to the major streets in the area is shown on ***Figure A-1*** in ***Appendix A***.

In addition to a description of the proposed development and the surrounding transportation infrastructure, this study includes trip generation estimates, trip distribution estimates, capacity analyses, and a summary of findings.

Proposed Development Plan

The development site currently includes several church buildings and surface parking lots. One of the historic church buildings will remain in the southeast corner of the site and be incorporated in the proposed development. A 36-space surface parking lot on the east side of Douglas Street will also remain. All other church buildings and parking lots are to be removed.

The proposed development includes a four-story apartment building with 278 units. The apartments are arranged around the perimeter of the building, which also includes several courtyards. Near the center of the building will be a 400-space parking garage. The garage will be accessed from two driveways; one from 1st Street and the other from SE Main Street. A copy of the proposed site plan for the development is included on ***Figure A-2*** for reference.

There is a large retaining wall in the southwest corner of the site, at the intersection of 2nd Street and SE Main Street. The wall blocks sight lines looking to the east for southbound drivers on SE Main Street. For this reason, southbound right-turn movements are prohibited during red signal indications. The wall also alters the accessible pedestrian route at the intersection. To provide an accessible crossing, a midblock crosswalk is located on SE Main Street roughly 150 feet north of 2nd Street, thereby avoiding the wall. The retaining wall is shown in ***Figure 1*** below. The wall is to be removed as part of the development plan.

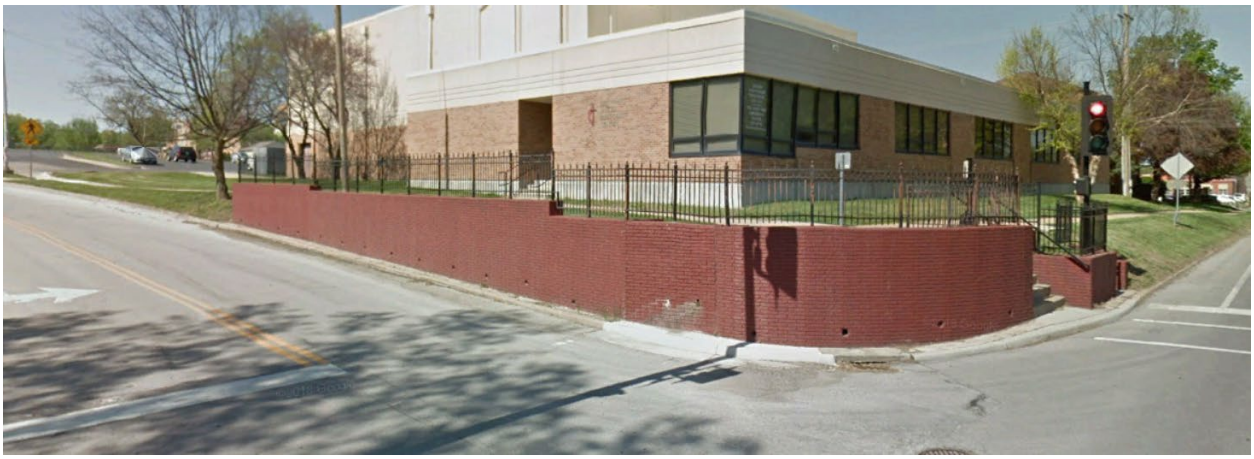

Figure 1 – Existing retaining wall in the northeast corner of 2nd Street and SE Main Street

Study Area

To assess the impacts of the proposed development, the intersections listed below were identified for study during the A.M. and P.M. peak hours of a typical weekday.

- Douglas Street and Chipman Road
- 1st Street and Douglas Street
- 2nd Street and Green Street
- 2nd Street and Douglas Street
- 2nd Street and SE Main Street
- 2nd Street and Market Street
- 2nd Street and Jefferson Street
- Site Driveways

Surrounding Street Network and Land Uses

The development site encompasses a large part of one block in the Downtown area of Lee's Summit. The block is bounded by 2nd Street on the south, Douglas Street on the east, 1st Street on the north and SE Main Street on the west. To the south of the site, across 2nd Street there are several small office buildings and the historic downtown business district. The Union Pacific Railroad runs parallel to SE Main Street just west of the site. North of the site is a church with a large surface parking lot. The same church also owns a small surface parking lot in the southwest corner of the 1st Street and Douglas Street intersection, which is not part of the development site. Lee's Summit Elementary School and two surface parking lots are located to the east of the site across Douglas Street. School pick-up and drop-off operations occur on the east side of the school building along Green Street.

Second (2nd) Street is a 44-foot wide three-lane minor arterial street that runs east/west along the north side of the Downtown area. There are sidewalks with curbs and gutters along both sides of the street. The posted speed limit on 2nd Street is 30 mph, and parking is restricted on both sides of the street. Between SE Main Street and Market Street, there are two bridges for the railroad and SW Main Street to pass over 2nd Street.

Along the west edge of the development site SE Main Street is a two-lane local street that is 28 feet wide, measured between the backs of curbs. At the intersection with 2nd Street, the north leg of the intersection widens for a southbound left-turn lane. There is sidewalk along the east side of the street. The posted speed limit on SE Main Street is 25 mph.

First (1st) Street is a two-lane local street that runs along the north side of the development site. The street is 36 feet wide, measured between the backs of curbs, with sidewalks along each side of the street.

Douglas Street is a two-lane minor arterial street that runs north/south in the study area. Between 2nd Street and Chipman Road, the street is roughly 32 feet wide. There are some sections of curb and gutter, but it is not continuous. There are sidewalks along both sides of the street. The posted speed limit is 25 mph and parking is restricted along the east side of Douglas Street, to the north of 2nd Street.

The city is planning to reconstruct Douglas Street from 2nd Street to Chipman Road in the near future as part of the current Capital Improvements Plan. Design work for the city's Douglas Street improvements project has not yet begun, but Capital Improvements Plan indicates that this project will include new street pavement, sidewalks, curbs, storm drainage work, and street lighting.

Traffic Counts

Turning-movement traffic volume counts were collected at the study intersection on Tuesday, December 4, 2018, from 7:00 to 9:00 A.M. and from 4:00 to 6:00 P.M. Based on the data, the peak hours generally occur between 7:15 and 8:15 A.M., and between 4:15 and 5:15 P.M. The existing lane configurations, traffic control devices, and peak hour traffic volumes have been illustrated on ***Figure A-3***.

Analysis

The scope of analysis for the assessment of the proposed development's impact on the surrounding transportation system is based in large part on the recommended practices of the Institute of Transportation Engineers (ITE), as outlined in their Traffic Engineering Handbook. ITE is a nationally-recognized organization of transportation professionals with members from both private and public sectors. The analysis of the proposed development's impact included development of trip generation and trip distribution estimates as well as a traffic operations assessment for each study scenario. Each of the analysis methodologies and findings are described in the subsequent sections.

Trip Generation

Trip generation estimates were prepared using the Institute of Transportation Engineer's Trip Generation, 10th Edition. For a conservative analysis, the trip generation estimates were not reduced to account for the removal of the existing church. ***Table 1*** shows the expected trips to be generated by the proposed development. Additional information related to trip generation is included in ***Appendix B***.

Table 1
Proposed Development Trip Generation

Land Use	Intensity	ITE Code	Average Weekday	A.M. Peak Hour			P.M. Peak Hour		
				Total	In	Out	Total	In	Out
Multifamily Housing (Low-Rise)	278 units	220	2,061	126	29	97	147	93	54
Total Development Trips			**2,061**	**126**	**29**	**97**	**147**	**93**	**54**

Trip Distribution

The estimated trips generated by the proposed development were distributed onto the street system based on the trip distributions summarized on the next page in ***Table 2***. These distributions are based on existing travel patterns in the area and engineering judgment. The detailed distribution patterns through the study intersections are shown in ***Appendix B***.

Table 2
Trip Distribution

Direction To/From	Percentage
North on Douglas Street	35%
South on Douglas Street	5%
South on SE Main Street	5%
South on Jefferson Street	10%
East on 2nd Street	25%
West on 2nd Street	20%
Total	**100%**

Traffic Operation Assessment

An assessment of traffic operations was made for the scenarios listed below.

- Existing Conditions
- Existing plus Development Conditions

The study intersections were evaluated using the Synchro traffic analysis software package. Calculations were performed based on the methodologies outlined in the Highway Capacity Manual (HCM), 6th Edition, which is published by the Transportation Research Board. The operating conditions at an intersection are graded by the "level of service" experienced by drivers. Level of service (LOS) describes the quality of traffic operating conditions and is rated from "A" to "F". LOS A represents the least congested condition with free-flow movement of traffic and minimal delays. LOS F generally indicates severely congested conditions with excessive delays to motorists. Intermediate grades of B, C, D, and E reflect incremental increases in the average delay per stopped vehicle. Delay is measured in seconds per vehicle. ***Table 3*** shows the upper limit of delay associated with each level of service for signalized and unsignalized intersections.

Table 3
Intersection Level of Service Delay Thresholds

Level of Service (LOS)	Signalized	Unsignalized
A	≤ 10 Seconds	≤ 10 Seconds
B	≤ 20 Seconds	≤ 15 Seconds
C	≤ 35 Seconds	≤ 25 Seconds
D	≤ 55 Seconds	≤ 35 Seconds
E	≤ 80 Seconds	≤ 50 Seconds
F	> 80 Seconds	> 50 Seconds

While LOS measurements apply to both signalized and unsignalized intersections, there are significant differences between how these intersections operate and how they are evaluated. LOS for signalized intersections reflects the operation of the intersection as a whole.

Unsignalized intersections, in contrast, are evaluated based on the movement groupings which are required to yield to other traffic. Typically, these are the left turns off of the major street and the side-street approaches for two-way stop-controlled intersections. At unsignalized intersections lower LOS ratings (D, E and F) do not, in themselves, indicate the need for additional improvements. Many times there are convenient alternative routes to avoid the longer delays. Other times the volumes on the unsignalized approaches are relatively minor when compared to the major street traffic, and improvements such as traffic signal installation may increase the average delay to all users of the intersection.

The decision to install a traffic signal, which is often considered when lower LOS ratings are projected, should be based on engineering studies and the warrants for traffic signal installation as outlined in the Federal Highway Administration's Manual on Uniform Traffic Control Devices (MUTCD). Signals are typically not recommended in locations where there are convenient alternative paths, or if the installation of a traffic signal would have negative impacts on the surrounding transportation system.

The LOS rating deemed acceptable varies by community, facility type and traffic control device. The City of Lee's Summit has identified LOS C as the minimum desirable goal for signalized and unsignalized intersections. However, at unsignalized intersections LOS D or E are often considered acceptable for low to moderate traffic volumes where the installation of a traffic signal is not warranted by the conditions at the intersection, or the location has been deemed undesirable for signalization.

Traffic queues were also evaluated as part of the analyses. Long traffic queues which extend beyond the amount of storage available, either between intersections or within turn lanes, can have significant impacts on operations. The projected vehicular queues were analyzed to ensure the analyses are reflective of the physical constraints of the study intersections and to identify if additional storage is needed for turn lanes.

Existing Conditions

The results of the Existing Conditions intersection analyses are summarized on the following page in ***Table 4***. The study intersections were evaluated with the lane configurations, traffic volumes, and traffic control devices shown on ***Figures A-3*** through ***A-5***. The Synchro output files are included in ***Appendix C***. The results of the queuing analysis is shown on ***Figure A-6***.

The results in ***Table 4*** indicate that all study intersections currently operate at acceptable levels of service during the peak hours, except the northbound left-turn movement at 2nd Street and Jefferson Street. During the P.M. peak hour, this movement operates at LOS D. During this time period, only 23 vehicles were counted making this movement, which is generally considered a low volume. Alternate routes are available if delays are unacceptable to these drivers. Therefore, no improvements are identified to address this lower level of service.

All queues at the study intersections are contained within their respective turn lanes. One long queue was observed in the southbound through lane of Douglas Street at Chipman Road. During the P.M. peak hour, the 95th percentile queue length is 345 feet, which exceeds the length of the right-turn lane and taper, thereby blocking southbound right-turn vehicles from entering the lane at times.

Table 4
Intersection Operational Analysis
Existing Conditions

Intersection	A.M. Peak Hour		P.M. Peak Hour	
Movement	LOS[1]	Delay[2]	LOS[1]	Delay[2]
2nd Street and Jefferson Street				
Northbound Left-Turn	*C*	*17.6*	***D***	***32.9***
Northbound Right-Turn	*B*	*11.6*	*B*	*12.3*
Westbound Left-Turn	*A*	*8.0*	*A*	*8.8*
2nd Street and Market Street				
Traffic Signal	*A*	*5.4*	*A*	*7.0*
2nd Street and SE Main Street				
Traffic Signal	*A*	*2.2*	*B*	*10.7*
2nd Street and Douglas Street				
Traffic Signal	*B*	*17.2*	*C*	*22.5*
2nd Street and Green Street				
Eastbound Left-Turn	*A*	*8.0*	*A*	*8.0*
Northbound	*C*	*15.6*	*C*	*22.6*
Southbound	*C*	*15.1*	*C*	*18.2*
Westbound Left-Turn	*A*	*7.8*	*A*	*8.4*
1st Street and Douglas Street				
Northbound	*A*	*0.1*	*A*	*0.2*
Eastbound	*B*	*12.3*	*B*	*10.7*
Westbound	*B*	*12.4*	*B*	*11.4*
Southbound	*A*	*0.2*	*A*	*0.2*
Chipman Road and Douglas Street				
Traffic Signal	*C*	*21.7*	*C*	*25.3*

1 – Level of Service
2 – Delay in seconds per vehicle

Existing plus Development Conditions

The results of the Existing plus Proposed Development Conditions intersection analyses are summarized on the next page in ***Table 5***. This study scenario considered the addition of traffic from the proposed development. The study intersections were evaluated with the lane configurations, traffic volumes, and traffic control devices shown on ***Figures A-7*** through ***A-9***. The Synchro output files are included in ***Appendix C***. The Synchro output files are included in ***Appendix C***. The results of the queuing analysis is shown on ***Figure A-10***.

As shown in the table, each study intersection is projected to operate within acceptable levels of service during the A.M. and P.M. peak hours. As in the Existing Conditions scenario, the exception to this is the northbound left-turn movement at the 2nd Street and Jefferson Street intersection. The addition of development traffic is not projected to increase the volume for this movement. No improvements are

identified to address the lower level of service for this movement since the volume is projected to remain low, and there are alternate routes.

All queues are projected to be contained within their respective turn lanes in this scenario. The addition of development traffic is projected to have a negligible impact on the southbound through queue at Chipman Road and Douglas Street.

Table 5
Intersection Operational Analysis
Existing plus Development Conditions

Intersection / Movement	A.M. Peak Hour LOS[1]	A.M. Peak Hour Delay[2]	P.M. Peak Hour LOS[1]	P.M. Peak Hour Delay[2]
2nd Street and Jefferson Street				
Northbound Left-Turn	*C*	*19.0*	***E***	***35.8***
Northbound Right-Turn	*B*	*11.8*	*B*	*12.8*
Westbound Left-Turn	*A*	*8.1*	*A*	*8.9*
2nd Street and Market Street				
Traffic Signal	*A*	*5.2*	*A*	*7.0*
2nd Street and SE Main Street				
Traffic Signal	*A*	*3.2*	*B*	*11.1*
2nd Street and Douglas Street				
Traffic Signal	*B*	*17.7*	*C*	*22.9*
2nd Street and Green Street				
Eastbound Left-Turn	*A*	*8.1*	*A*	*8.1*
Northbound	*C*	*18.0*	*C*	*24.1*
Southbound	*C*	*17.2*	*C*	*19.0*
Westbound Left-Turn	*A*	*8.0*	*A*	*8.5*
SE Main Street and site driveway				
Northbound	*A*	*8.8*	*A*	*9.1*
Westbound	*A*	*1.2*	*A*	*1.7*
1st Street and site driveway				
Northbound	*A*	*8.7*	*A*	*8.6*
Westbound	*A*	*3.8*	*A*	*4.7*
1st Street and Douglas Street				
Northbound	*A*	*0.2*	*A*	*0.5*
Eastbound	*B*	*13.4*	*C*	*16.8*
Westbound	*B*	*12.7*	*B*	*11.6*
Southbound	*A*	*0.2*	*A*	*0.2*
Chipman Road and Douglas Street				
Traffic Signal	*C*	*21.9*	*C*	*25.9*

1 – Level of Service
2 – Delay in seconds per vehicle

City staff requested traffic signal warrant analysis be conducted for the unsignalized 2nd Street intersections at Jefferson Street and at Green Street. Figures 2 and 3 on the following page include graphs with the traffic volumes plotted for each intersection, relative to the minimum traffic volume thresholds of the Peak Hour Warrant (Warrant #3) of the MUTCD. This analysis indicates that the Existing Conditions traffic volumes and the Existing plus Development Conditions traffic volumes are below the

minimum volume thresholds. Therefore, traffic signal installation is not warranted at either intersection based on traffic volumes.

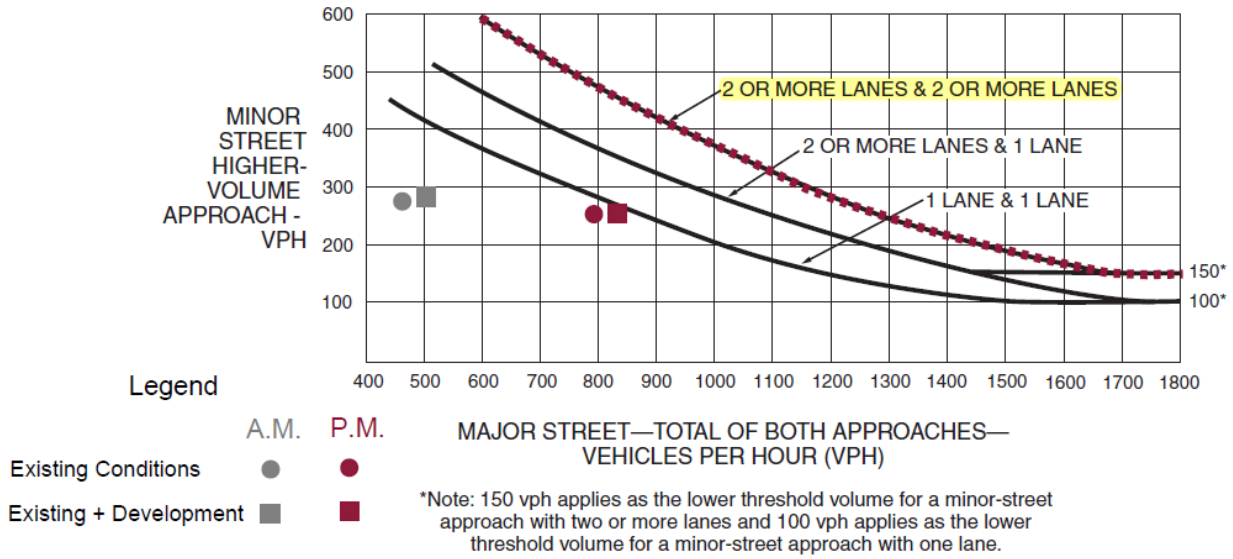

Figure 2 – Peak Hour Traffic Signal Warrant Analysis – 2nd Street and Jefferson Street

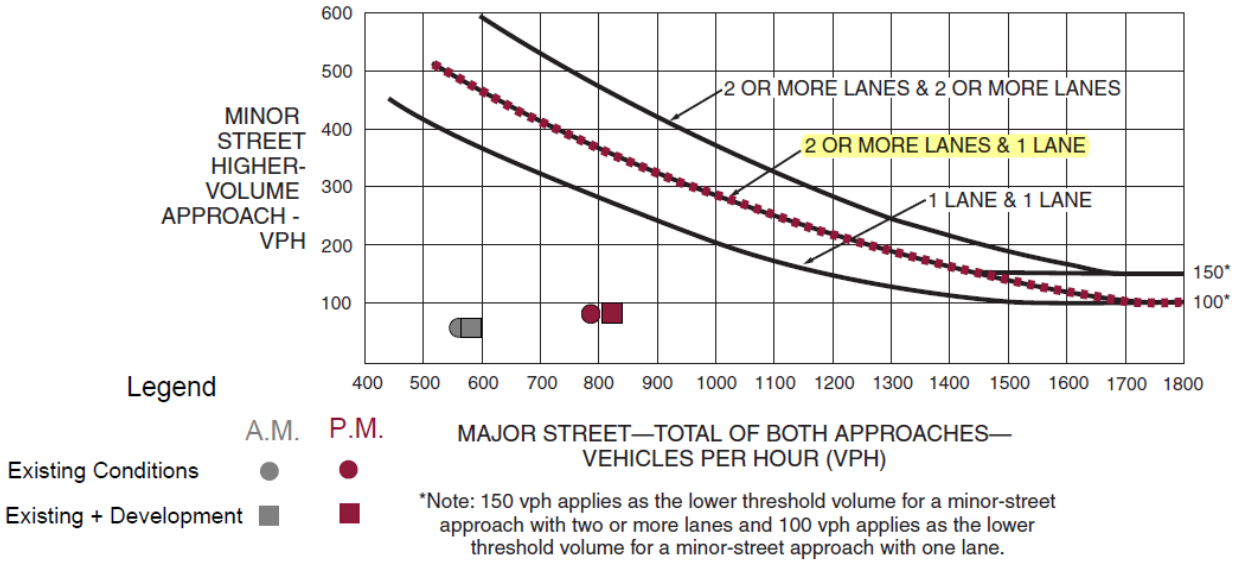

Figure 3 – Peak Hour Traffic Signal Warrant Analysis – 2nd Street and Green Street

As part of the site plan for the proposed development, the large retaining wall in the northeast corner of the 2nd Street and SE Main Street intersection is to be removed. When the wall is removed, the corner should be reconstructed, allowing for accessible pedestrian routes across the north and east legs of the intersection. Crosswalks, curb ramps and pedestrian signal accommodations should be installed for these new crossings. The existing mid-block crossing 150 feet to the north of the intersection should be

removed. When the wall is removed, sight lines should be measured, and if they are adequate, the right-turn on red restriction for the southbound right-turn movement can be eliminated.

Access Management Considerations

The City of Lee's Summit Access Management Code (AMC) provides guidance regarding the location of site driveways. The proposed development includes two new site driveways, both accessing local streets. The driveways are to be located near the midpoint of the block, therefore they are spaced as far as possible from adjacent intersections. The site driveway on 1st Street is slightly offset from the existing driveway on the north side of the street. Overall the traffic volumes and vehicle speeds at this offset intersection are projected to be low, therefore the potential for conflicts should be minimal.

The AMC also provides guidance on the need for turn lanes at intersections. The Existing plus Development Conditions traffic volumes were compared to the AMC criteria. The AMC states that left-turn lanes are required on minor arterial streets at the intersections with local streets where the left-turn volume is at least 20 vehicles in an hour. The northbound left-turn volume on Douglas Street at 1st Street is projected to be 21 vehicles during the P.M. peak hour, which slightly exceeds the minimum threshold. It should be noted that the analysis results in ***Table 5*** show that the northbound movement at the intersection is projected to operate at LOS A without a left-turn lane. The addition of development traffic is projected to increase delays for northbound drivers by 0.3 seconds. Therefore, a left-turn lane would provide minimal benefit. Additionally, the two-lane configuration of Douglas Street without a left-turn lane is more consistent with the low speed urban environment.

The code also states that left-turn lanes shall be provided on all approaches to signalized intersections. There are currently no left-turn lanes on Douglas Street at the intersection with 2nd Street. Both the Existing Conditions and Existing plus Development Conditions scenarios indicate that the intersection of 2nd Street and Douglas Street operates at an acceptable level without left-turn lanes. In accordance with the AMC, the City anticipates constructing a left-turn lane as part of its Douglas Street improvements project.

According to the AMC, right-turn lanes are required on minor arterial streets with 60 or more right-turn movements in an hour. None of the right-turn movements at the study intersections are projected to have more than 60 right turns in a peak hour, unless a right-turn lane is already provided. The only exception is southbound Douglas Street at 2nd Street. The existing southbound right-turn volume exceeds the 60-vehicles threshold during both peak hours. Similar to the left-turn lane, the city will consider right-turn lanes as part of its Douglas Street improvements project.

The AMC states that turn lanes are not required on local streets. All site driveway intersections are projected to operate at acceptable levels of service. For these reasons, turn lanes are not necessary at the site driveway intersections.

Summary

TranSystems has completed this traffic impact study for the proposed multi-family development to be located generally in the northwest corner of the 2nd Street and Douglas Street intersection in Lee's Summit, Missouri. The purpose of this study was to assess the impact of the proposed development on the surrounding transportation system.

The proposed development is projected to generate 126 trips during the A.M. peak hour and 147 trips during the P.M. peak hour. The traffic generated by the development will be dispersed through the surrounding grid street network. As such, all study intersections will generally continue to operate at good levels of service. No improvements have been identified to mitigate the addition of development traffic.

The city is planning to reconstruct Douglas Street from 2nd Street to Chipman Road in the near future as part of the current Capital Improvements Plan. Design work for the city's Douglas Street improvements project has not yet begun, but Capital Improvements Plan indicates that this project will include new street pavement, sidewalks, curbs, storm drainage work, and street lighting. In accordance with the Access Management Code, the City anticipates constructing left-turn lanes on Douglas Street at Second Street as part of its Douglas Street improvements project.

In conjunction with the proposed development, the large retaining wall in the northeast corner of the 2nd Street and SE Main Street intersection will be removed. When the wall is removed, the following modifications should be made at the 2nd Street and SE Main Street intersection.

- Construct curb ramps in the northeast corner of the intersection.
- Install crosswalks on the north and east legs of the intersection.
- Install pedestrian signal accommodations for the new crosswalks.
- Remove the existing mid-block pedestrian crossing currently located approximately 150 feet north of the intersection.
- Measure sight lines to determine if the right-turn on red restriction for the southbound right-turn movement can be eliminated.

Appendix A - Figures

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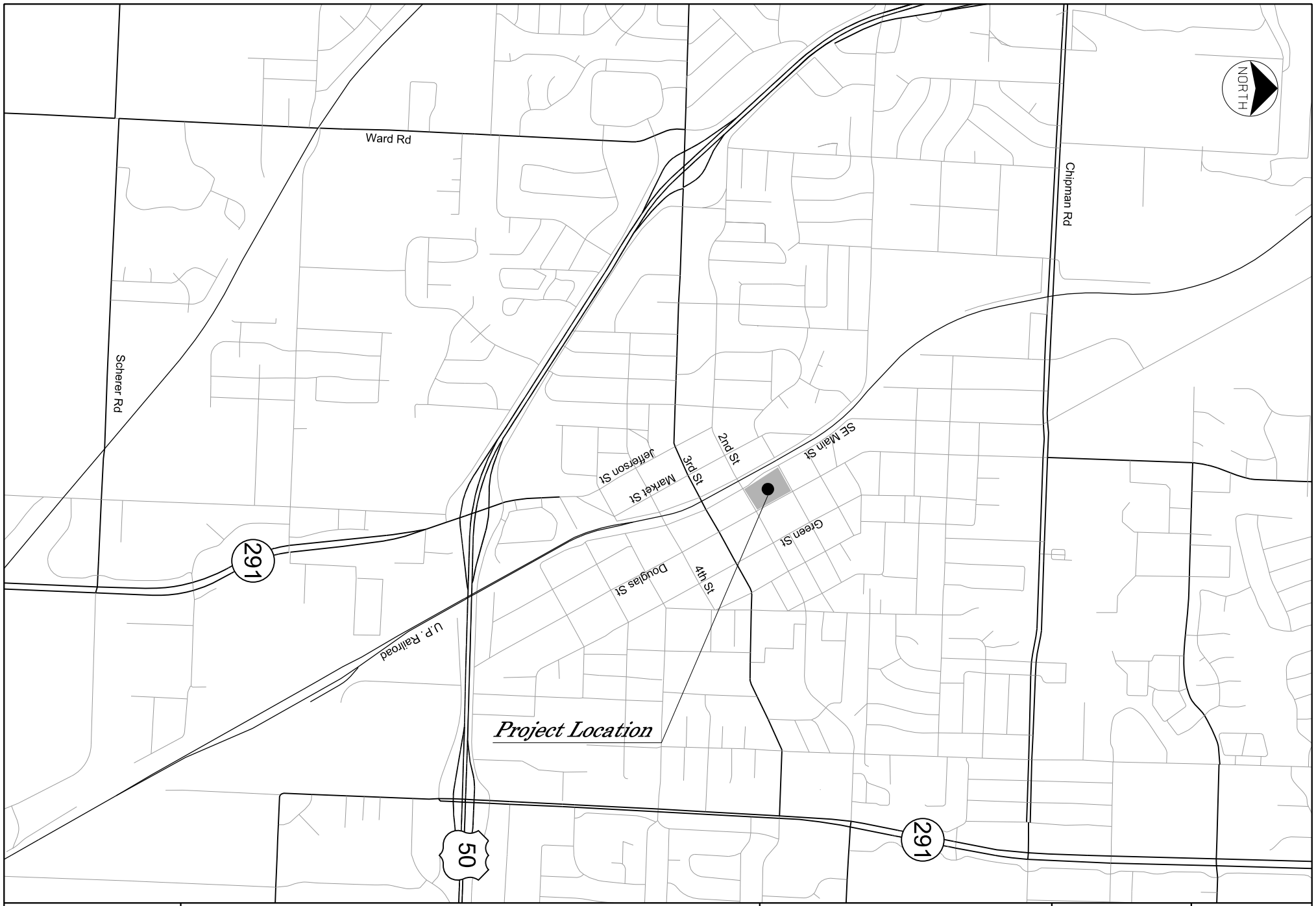


TranSystems	LOCATION MAP	2nd Street & Douglas Street Traffic Impact Study Lee's Summit, Missouri	January 2019 No Scale	Figure A-1

Figure A-2

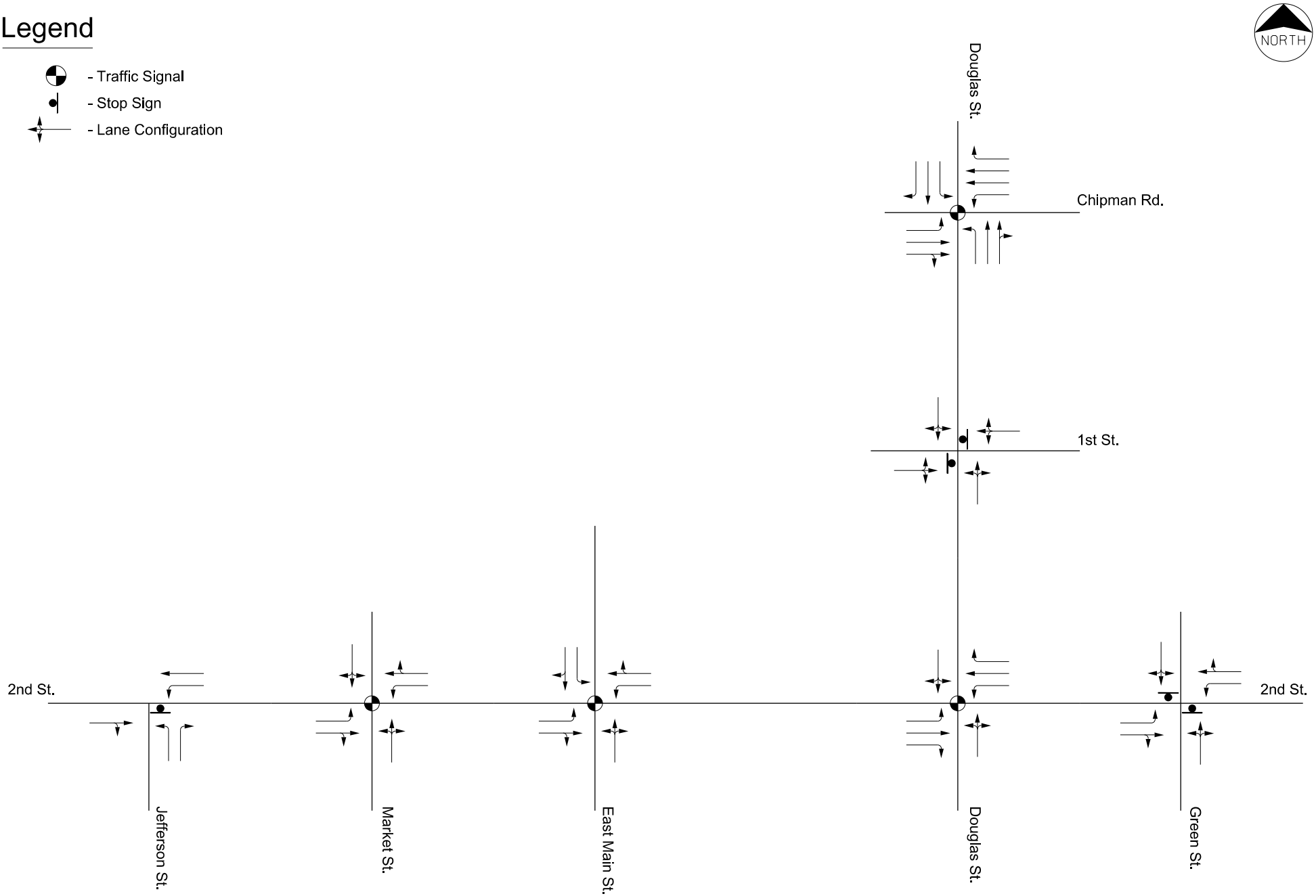
January 2019

No Scale

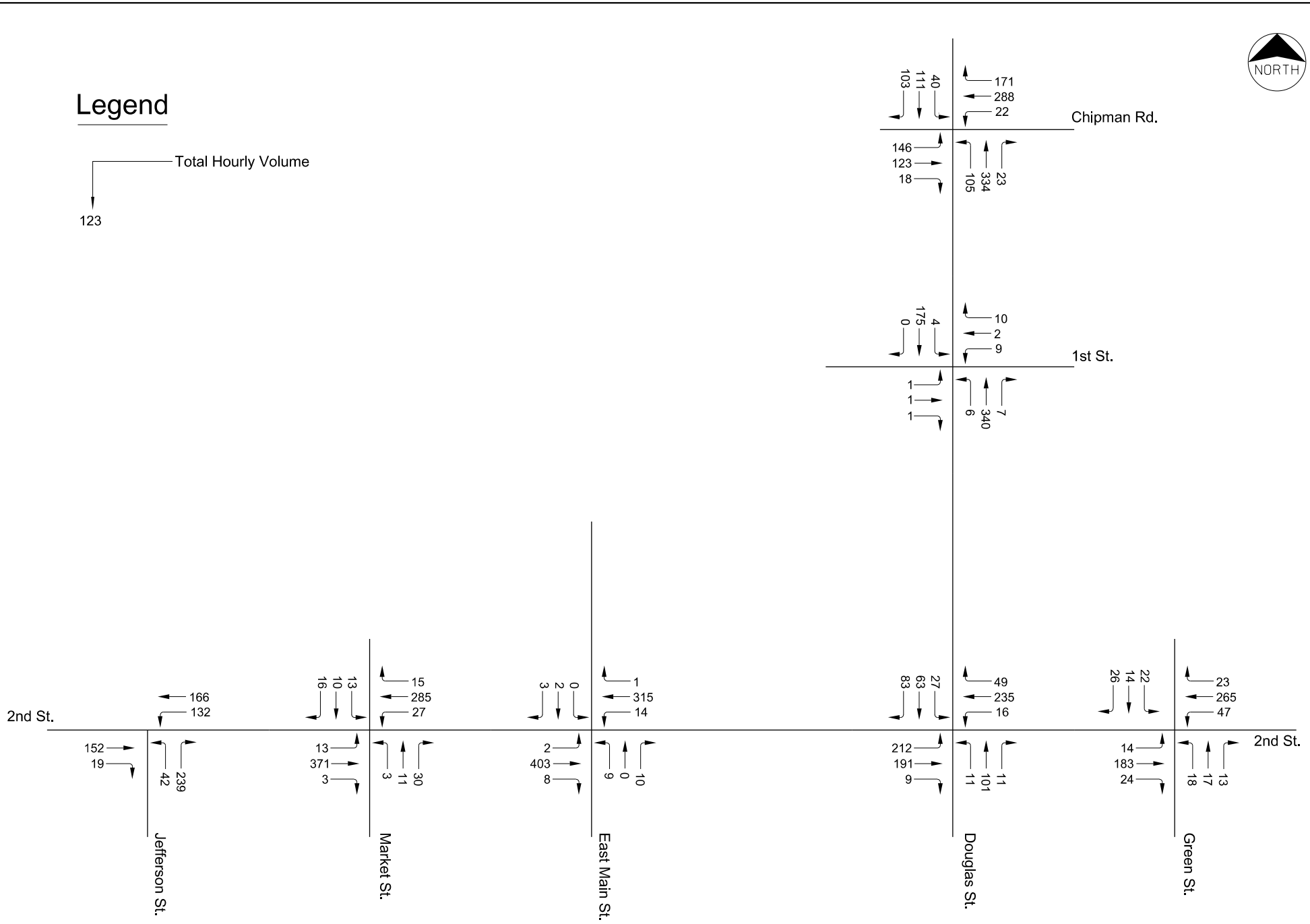
2nd Street & Douglas Street
Traffic Impact Study
Lee's Summit, Missouri

SITE PLAN

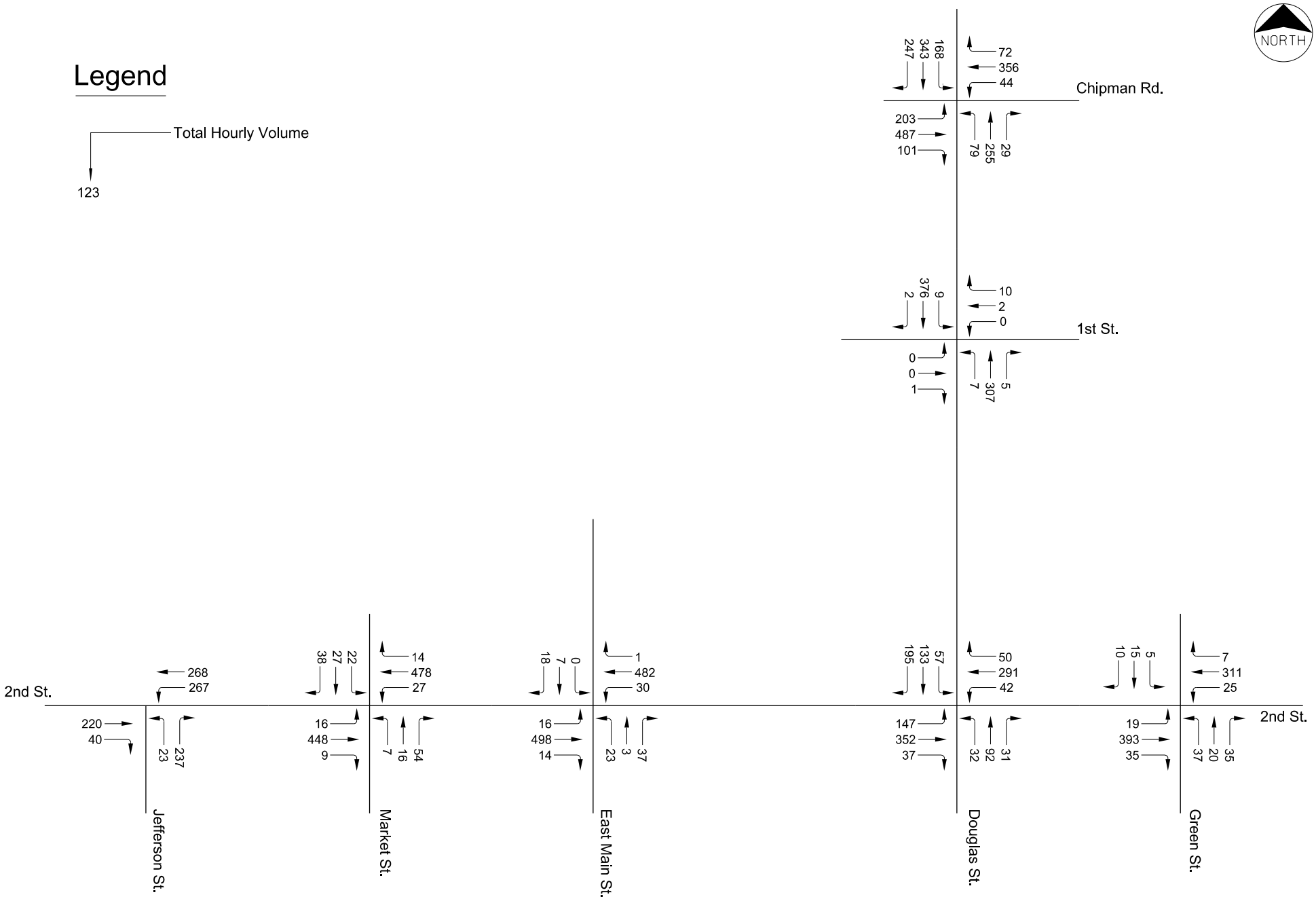
TranSystems



TranSystems	EXISTING CONDITIONS LANE CONFIGURATIONS	2nd Street & Douglas Street Traffic Impact Study Lee's Summit, Missouri	January 2019 No Scale	Figure A-3



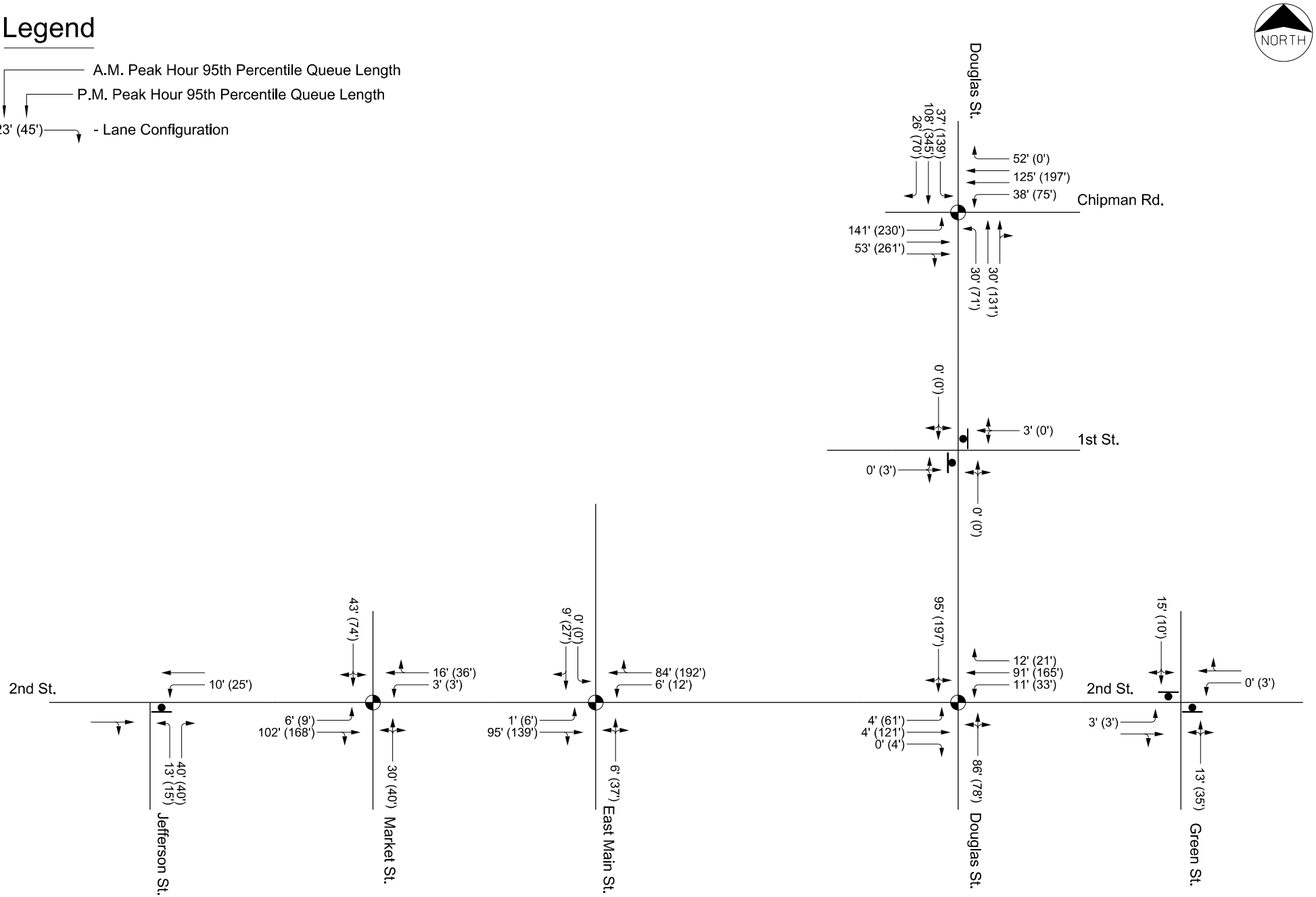
TranSystems	EXISTING CONDITIONS A.M. PEAK HOUR VOLUMES	2nd Street & Douglas Street Traffic Impact Study Lee's Summit, Missouri	January 2019 No Scale Figure A-4



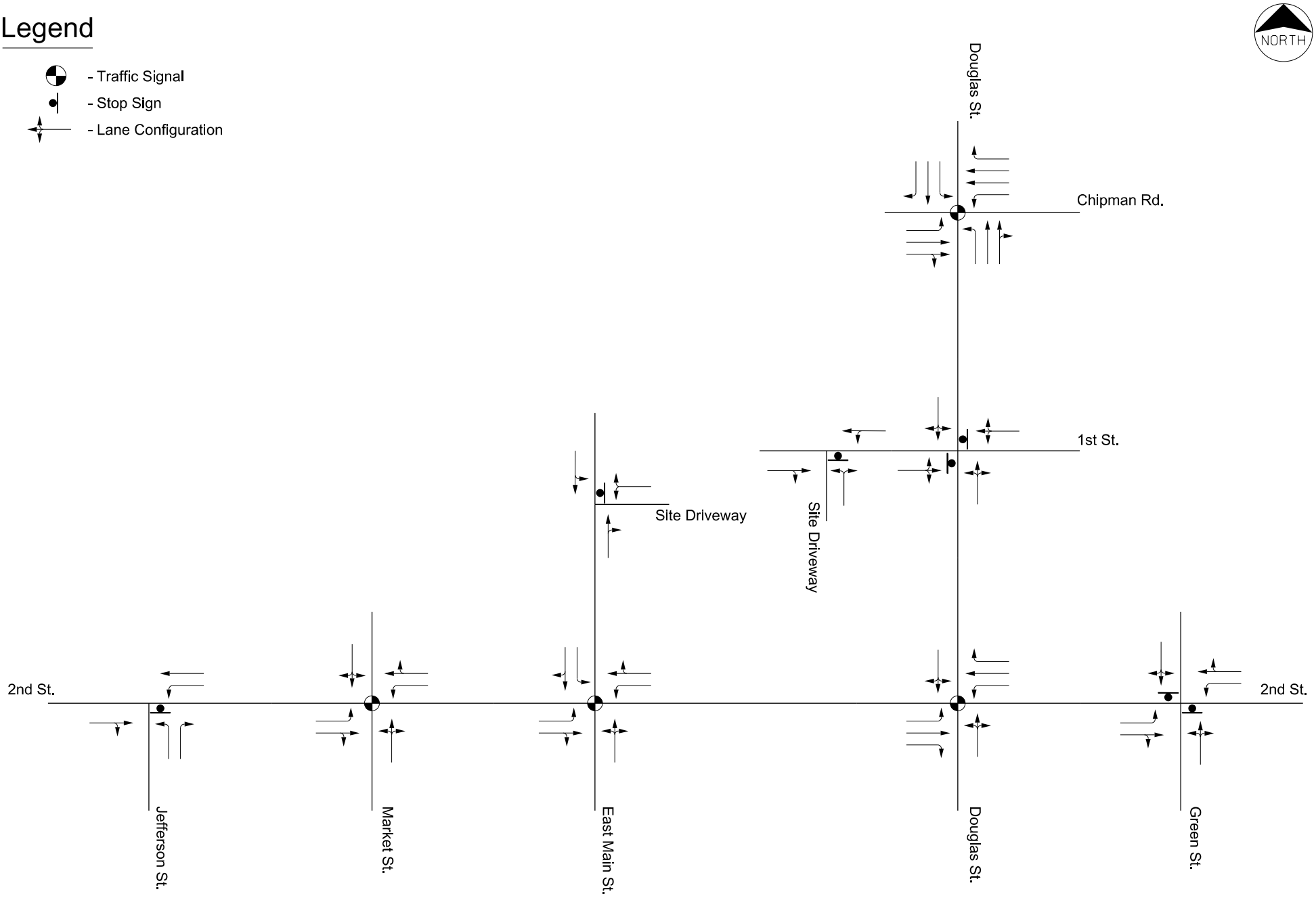
TranSystems	EXISTING CONDITIONS P.M. PEAK HOUR VOLUMES	2nd Street & Douglas Street Traffic Impact Study Lee's Summit, Missouri	January 2019 No Scale
			Figure A-5

Legend

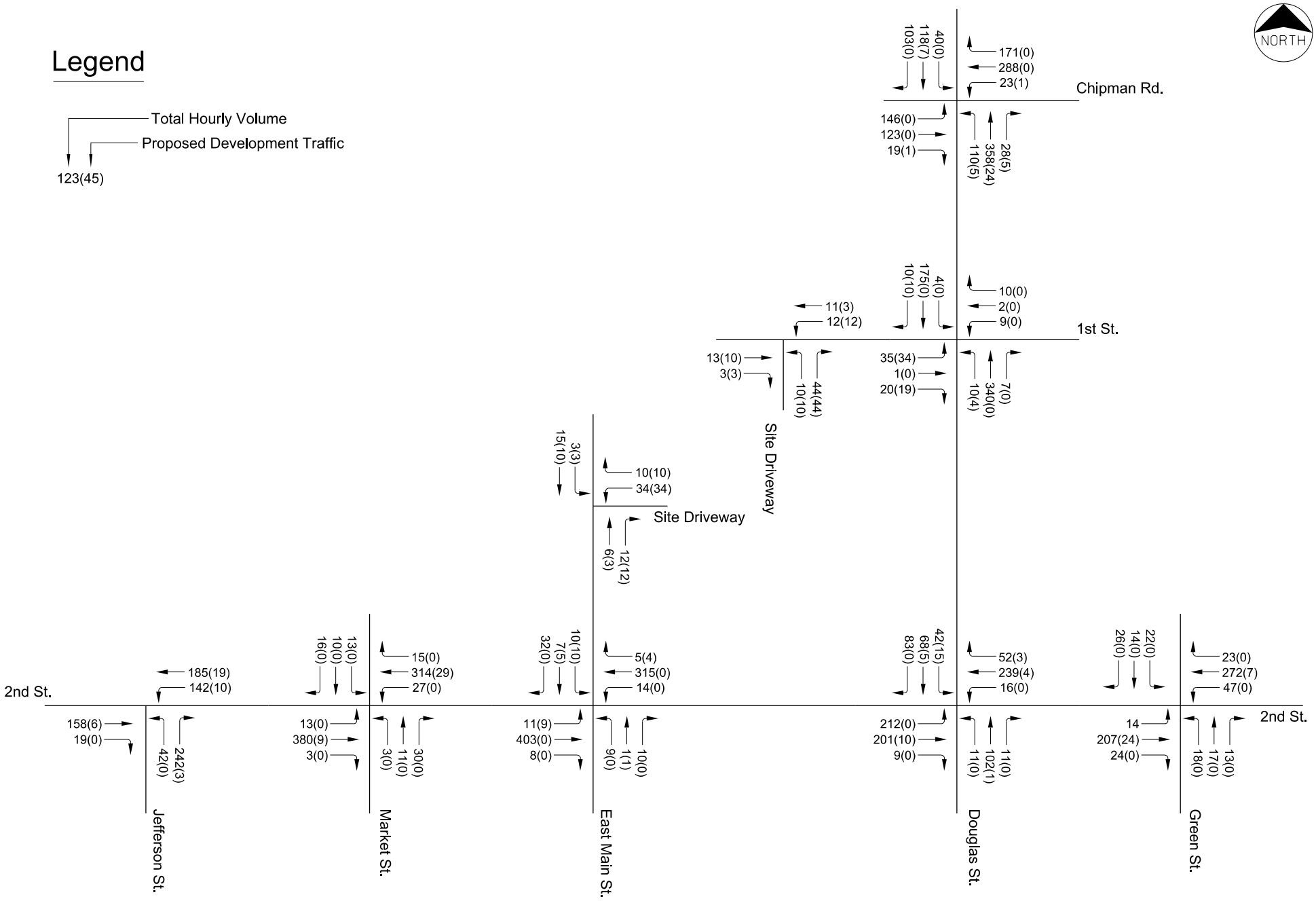
A.M. Peak Hour 95th Percentile Queue Length
P.M. Peak Hour 95th Percentile Queue Length
123' (45') - Lane Configuration



TranSystems	EXISTING CONDITIONS QUEUE LENGTHS	2nd Street & Douglas Street Traffic Impact Study Lee's Summit, Missouri	January 2019 No Scale	Figure A-6



TranSystems	EXISTING PLUS DEVELOPMENT CONDITIONS LANE CONFIGURATIONS	2nd Street & Douglas Street Traffic Impact Study Lee's Summit, Missouri	January 2019 No Scale	Figure A-7



TranSystems

EXISTING PLUS DEVELOPMENT CONDITIONS
A.M. PEAK HOUR VOLUMES

2nd Street & Douglas Street
Traffic Impact Study
Lee's Summit, Missouri

January 2019

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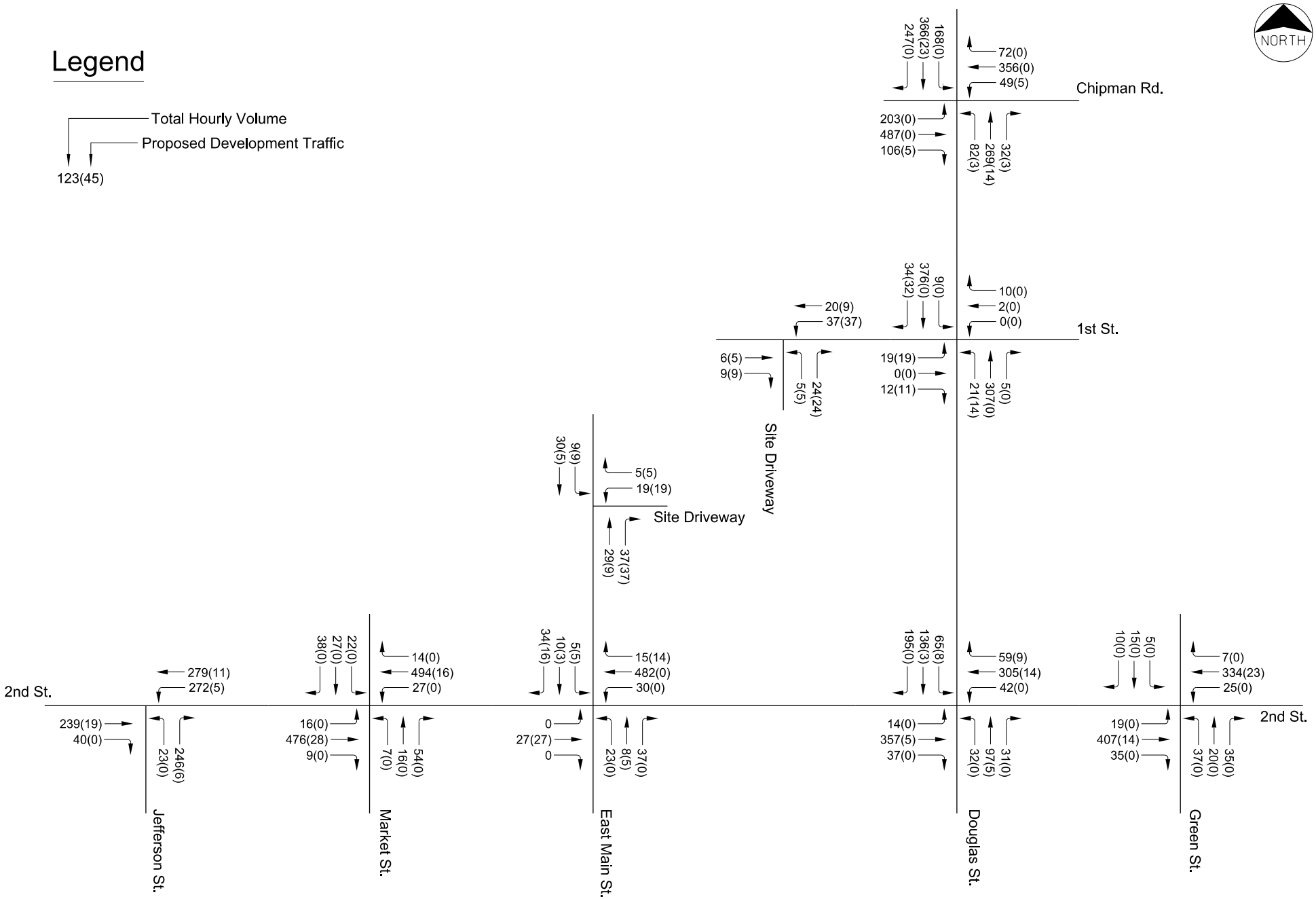
Figure A-8



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EXISTING PLUS DEVELOPMENT CONDITIONS
P.M. PEAK HOUR VOLUMES

2nd Street & Douglas Street
Traffic Impact Study
Lee's Summit, Missouri

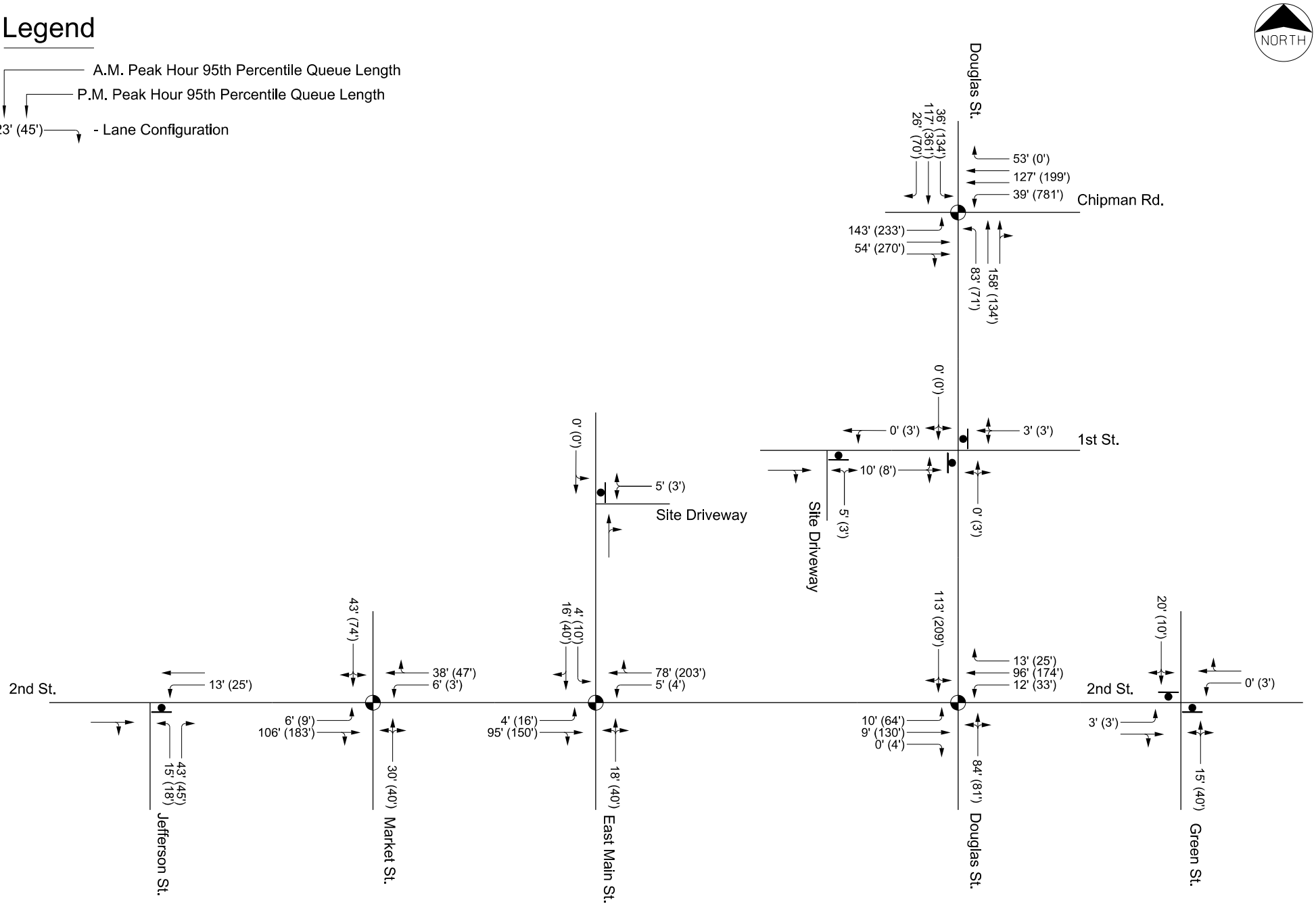
January 2019

No Scale

Figure A-9

Legend

A.M. Peak Hour 95th Percentile Queue Length
P.M. Peak Hour 95th Percentile Queue Length
123' (45') - Lane Configuration



TranSystems	EXISTING PLUS DEVELOPMENT CONDITIONS QUEUE LENGTHS	2nd Street & Douglas Street Traffic Impact Study Lee's Summit, Missouri	January 2019 No Scale	Figure A-10

Appendix B – Trip Generation and Distribution

See attached worksheets.

2nd & Douglas Street TIS
Lee's Summit, Missouri
Trip Generation

Land Use	Intensity	ITE Code	Daily	A.M. Peak Hour					P.M. Peak Hour				
				Total	% In	% Out	In	Out	Total	% In	% Out	In	Out
Multifamily Housing (Low-Rise)	278 du	220	2,061	126	23%	77%	29	97	147	63%	37%	93	54
Total Development Trips			**2,061**	**126**			**29**	**97**	**147**			**93**	**54**

Notes -

- Trip generation estimates were developed using ITE's Trip Generation, 10th Edition.

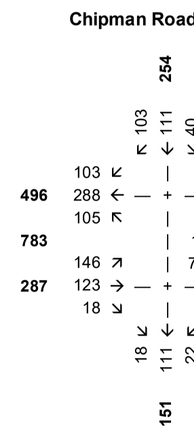
Trip Distribution

Direction To / From	Percentage
North on Douglas Street	35%
South on Douglas Street	5%
South on East Main Street	5%
South on Jefferson Street	10%
East on 2nd Street	25%
West on 2nd Street	20%
Total	**100%**

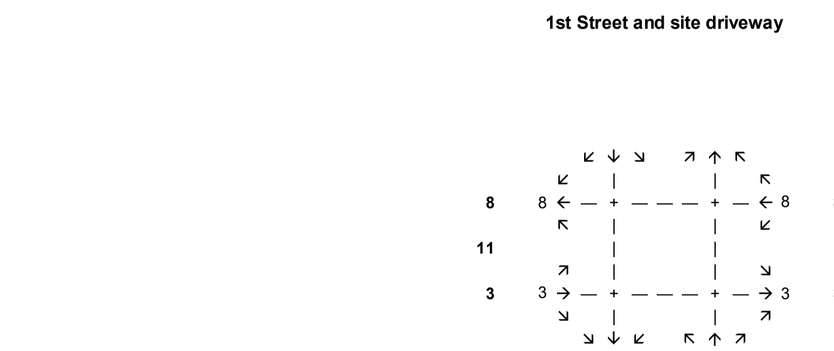
2nd & Douglas Street TIS
Lee's Summit, Missouri

Existing Conditions Traffic Volumes
A.M. Peak Hour

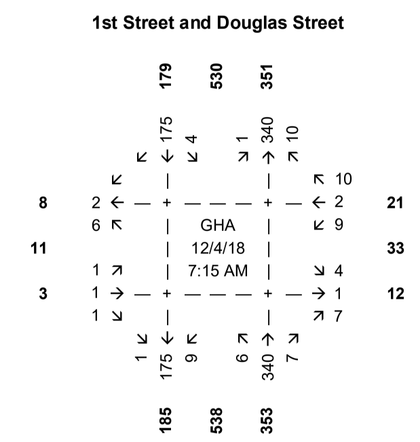
Chipman Road and Douglas Street



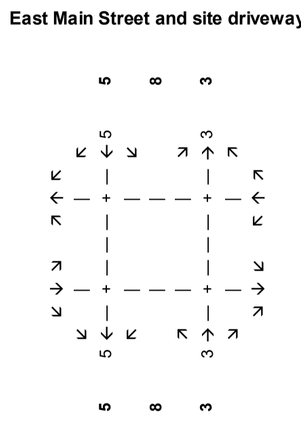
1st Street and site driveway



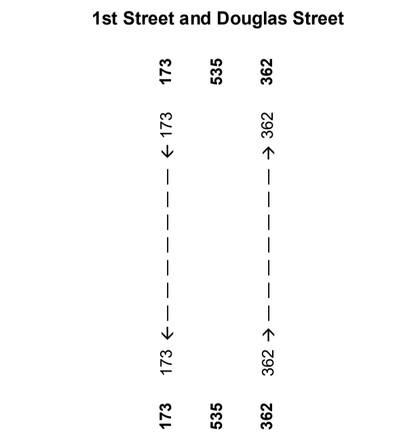
1st Street and Douglas Street



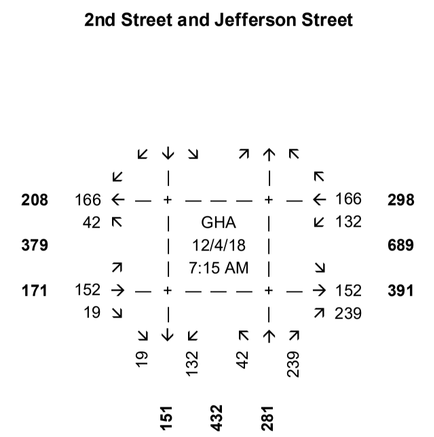
East Main Street and site driveway



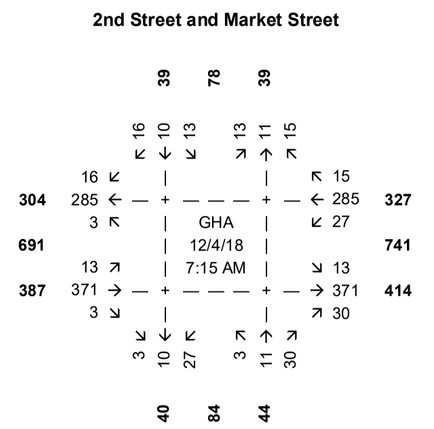
1st Street and Douglas Street



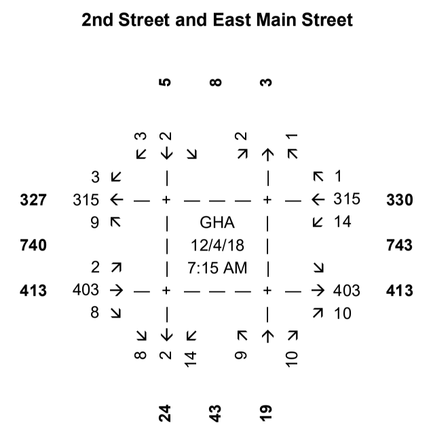
2nd Street and Jefferson Street



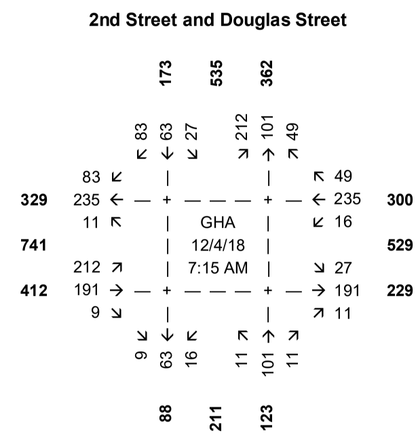
2nd Street and Market Street



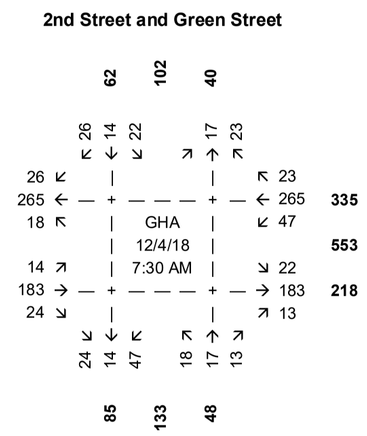
2nd Street and East Main Street



2nd Street and Douglas Street

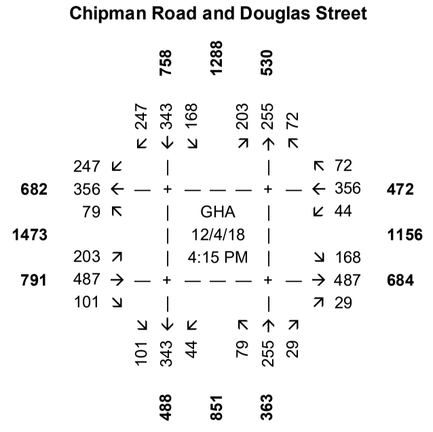


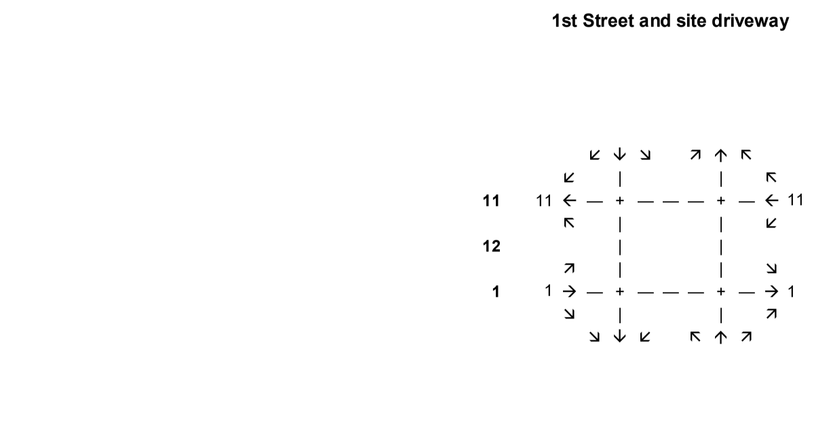
2nd Street and Green Street

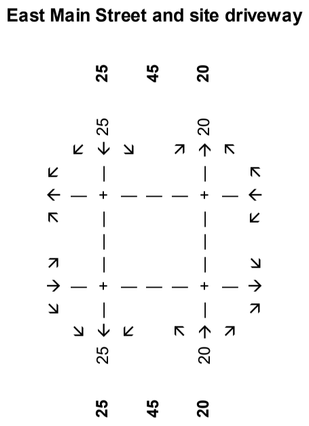


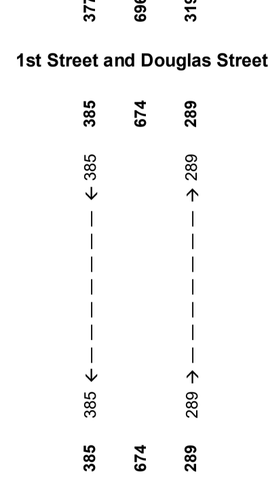
2nd & Douglas Street TIS
Lee's Summit, Missouri

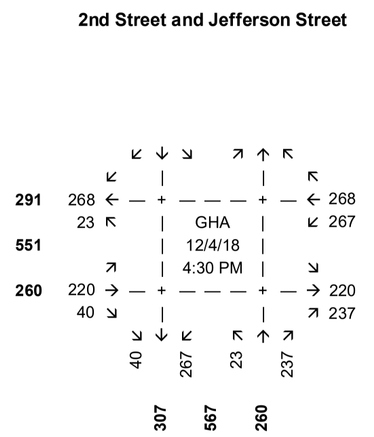
Existing Conditions Traffic Volumes
P.M. Peak Hour

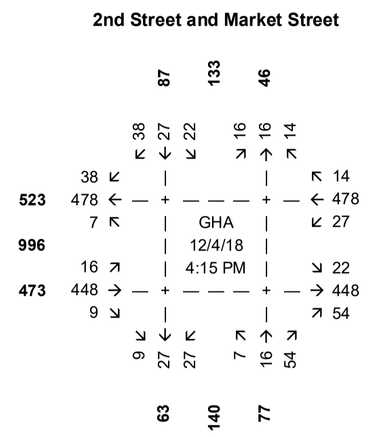


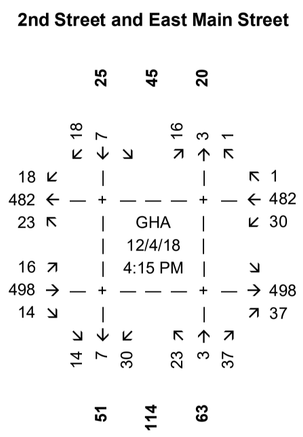


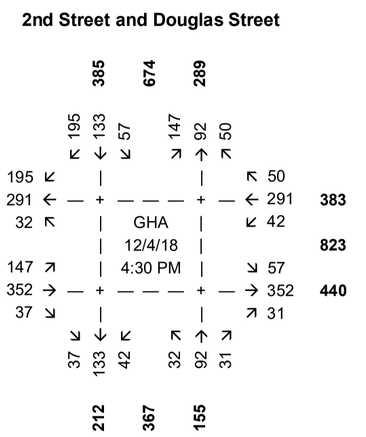


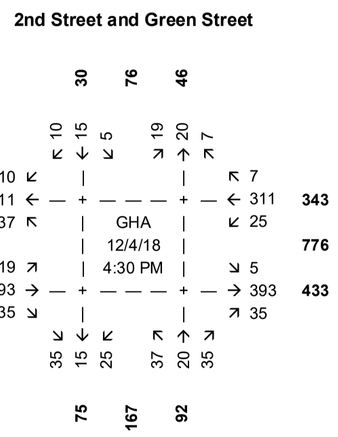










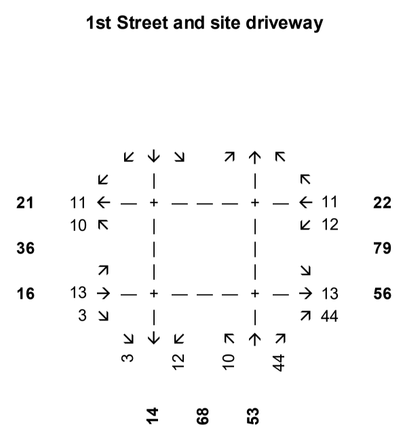


2nd & Douglas Street TIS
Lee's Summit, Missouri

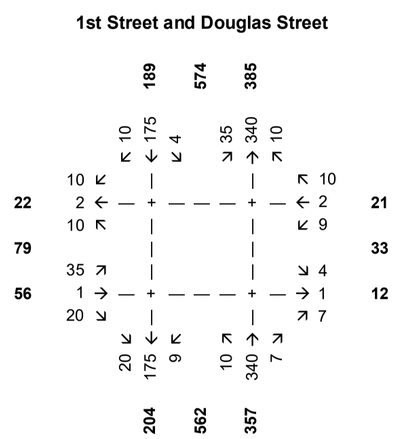
Existing plus Development Conditions
A.M. Peak Hour

Chipman Road and Douglas Street

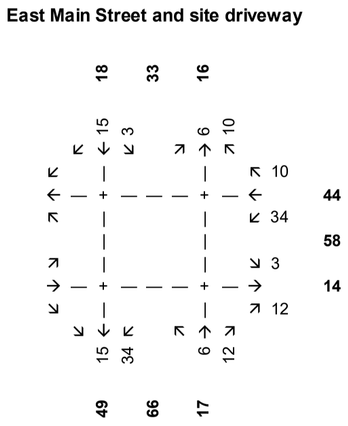
1st Street and site driveway



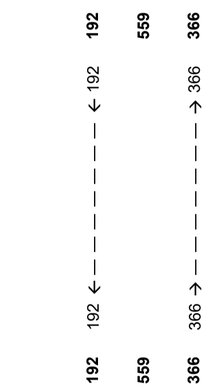
1st Street and Douglas Street



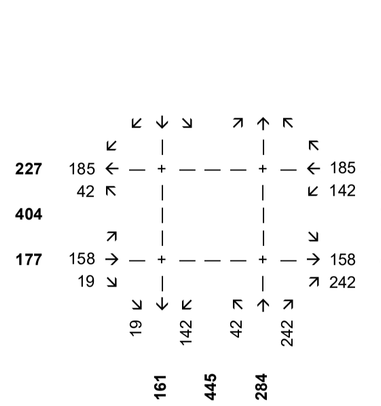
East Main Street and site driveway



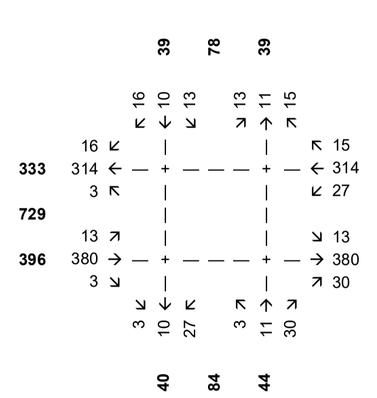
1st Street and Douglas Street



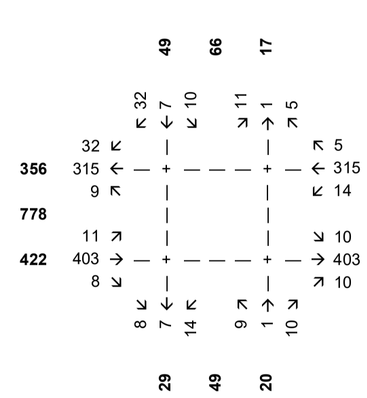
2nd Street and Jefferson Street



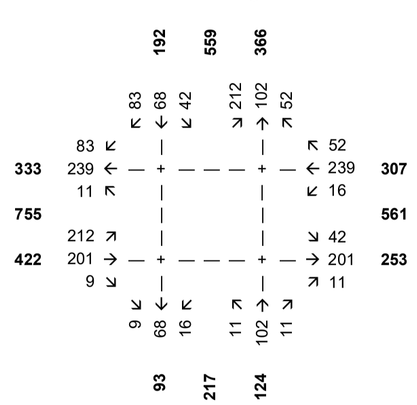
2nd Street and Market Street



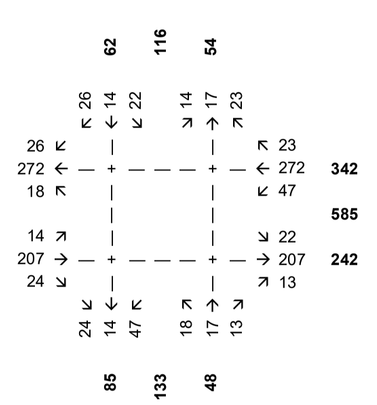
2nd Street and East Main Street



2nd Street and Douglas Street



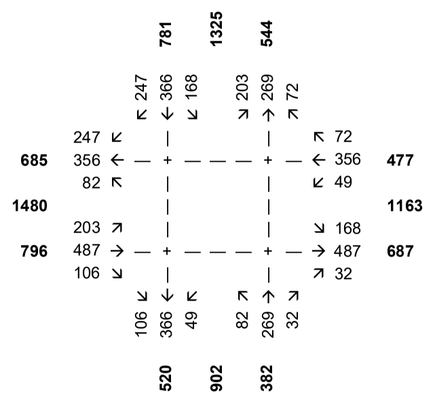
2nd Street and Green Street



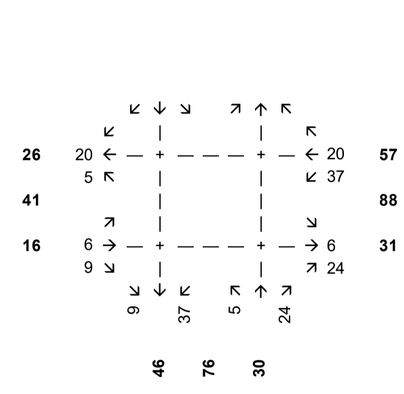
2nd & Douglas Street TIS
Lee's Summit, Missouri

Existing plus Development Conditions
P.M. Peak Hour

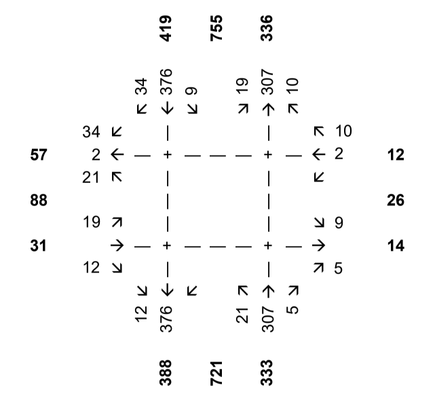
Chipman Road and Douglas Street



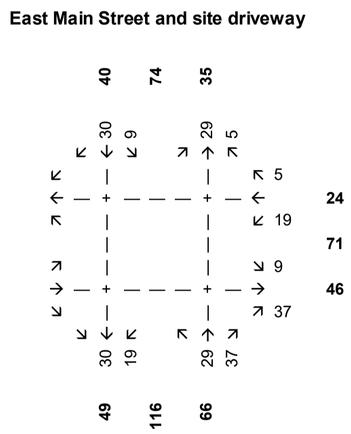
1st Street and site driveway



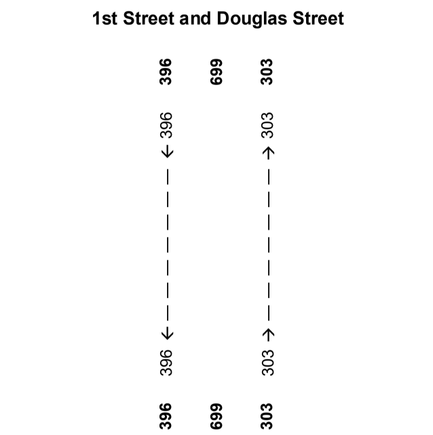
1st Street and Douglas Street



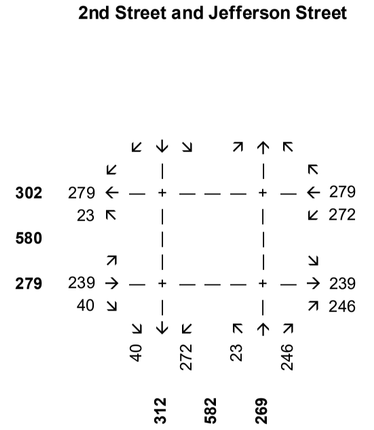
East Main Street and site driveway



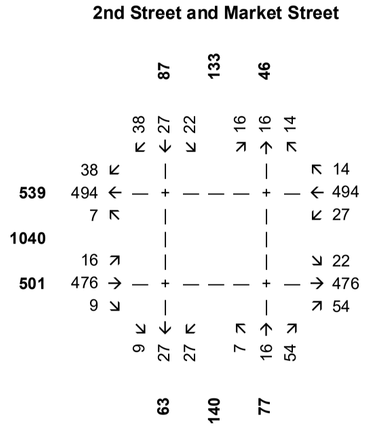
1st Street and Douglas Street



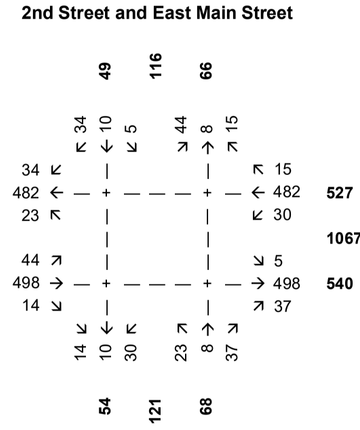
2nd Street and Jefferson Street



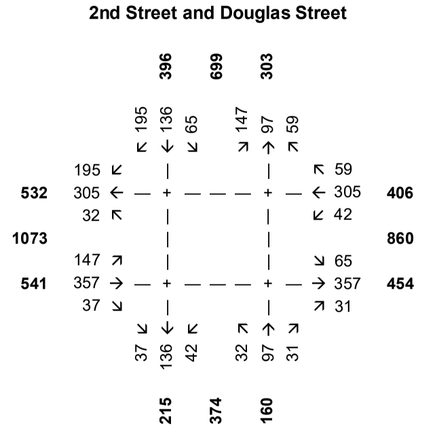
2nd Street and Market Street



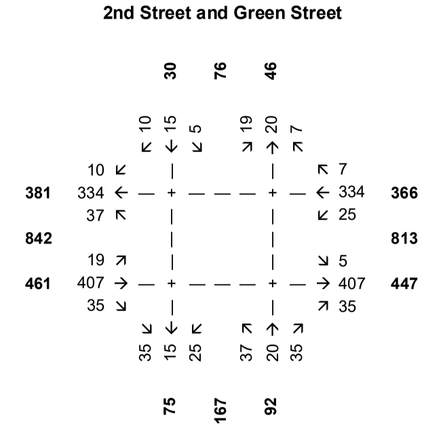
2nd Street and East Main Street



2nd Street and Douglas Street



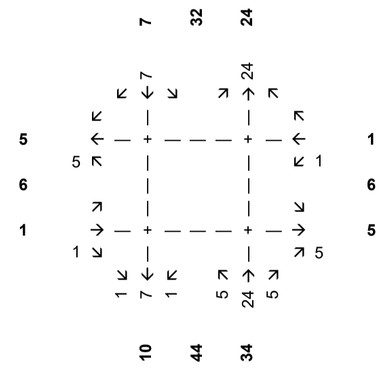
2nd Street and Green Street



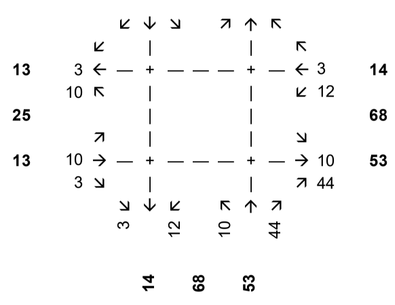
2nd & Douglas Street TIS
Lee's Summit, Missouri

Development Trips
A.M. Peak Hour

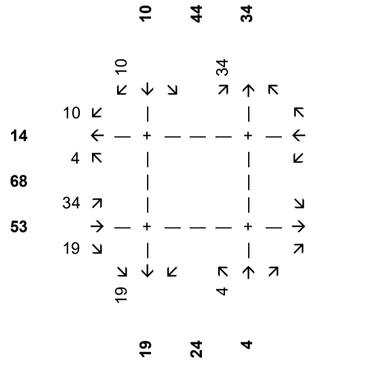
Chipman Road and Douglas Street



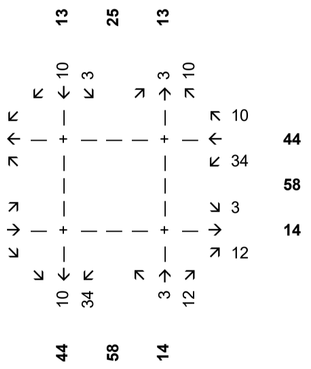
1st Street and site driveway



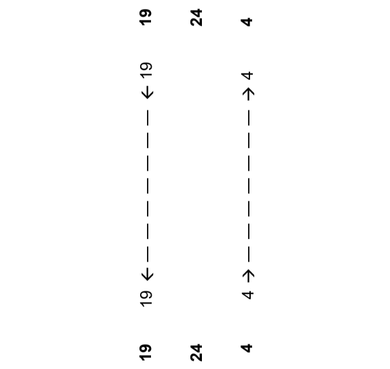
1st Street and Douglas Street



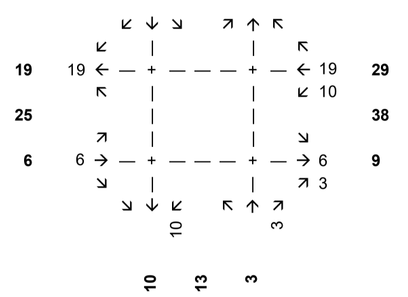
East Main Street and site driveway



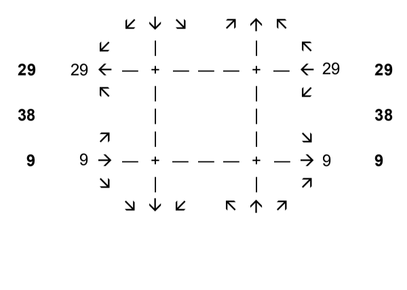
1st Street and Douglas Street



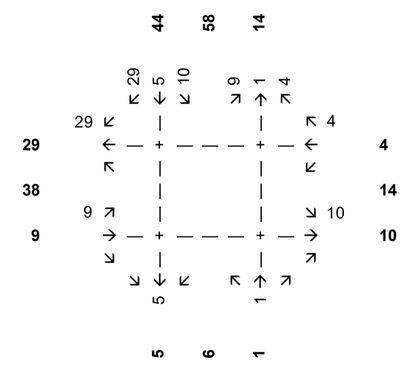
2nd Street and Jefferson Street



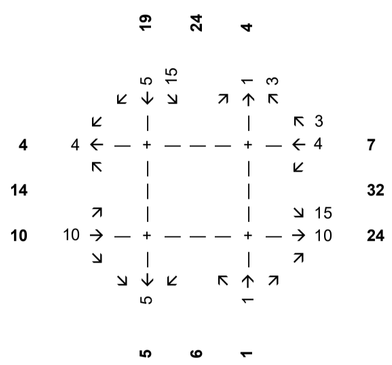
2nd Street and Market Street



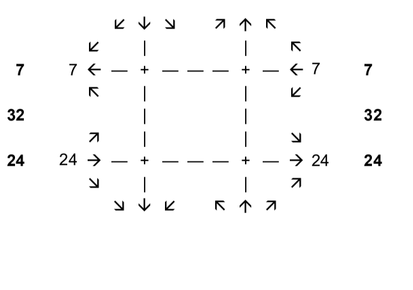
2nd Street and East Main Street



2nd Street and Douglas Street



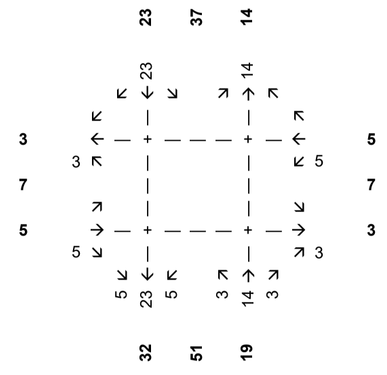
2nd Street and Green Street



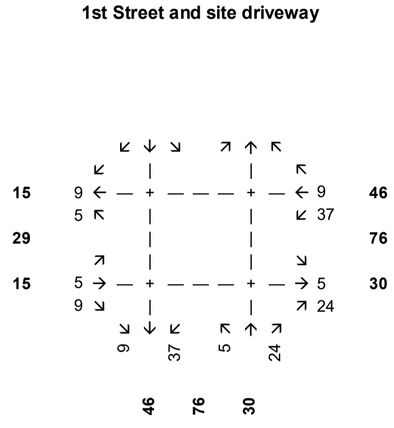
2nd & Douglas Street TIS
Lee's Summit, Missouri

Development Trips
P.M. Peak Hour

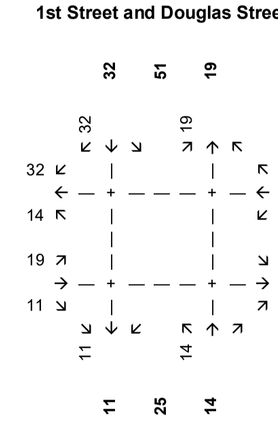
Chipman Road and Douglas Street



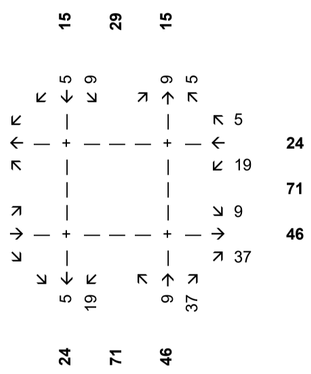
1st Street and site driveway



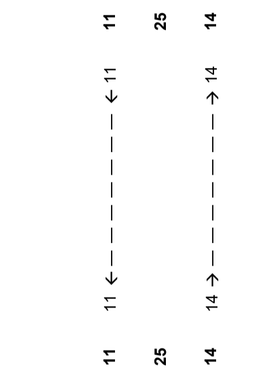
1st Street and Douglas Street



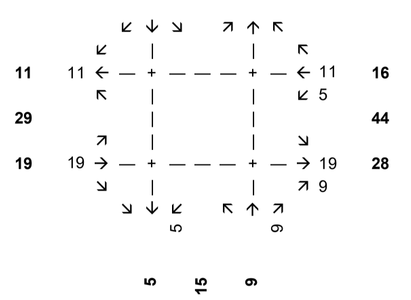
East Main Street and site driveway



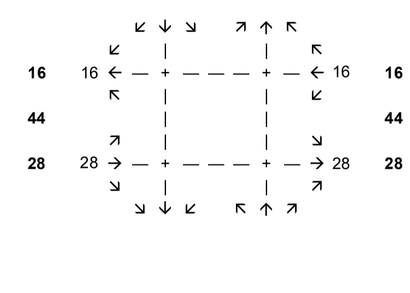
1st Street and Douglas Street



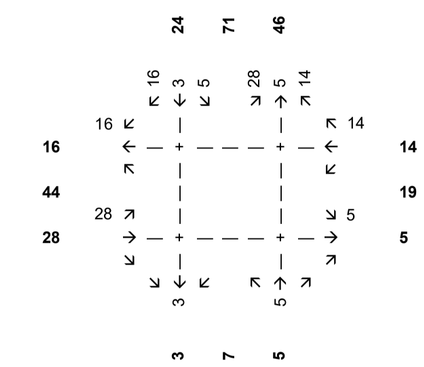
2nd Street and Jefferson Street



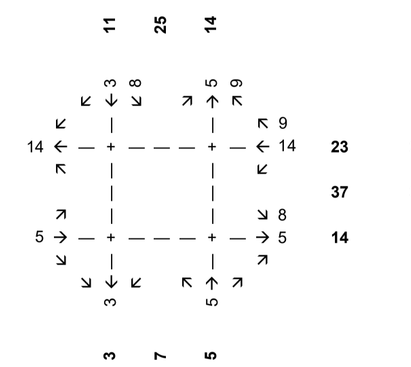
2nd Street and Market Street



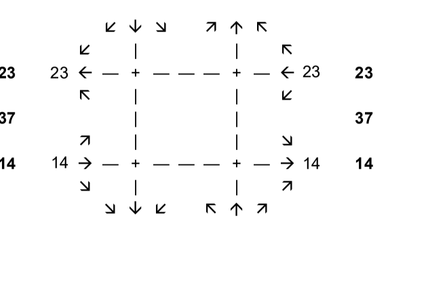
2nd Street and East Main Street



2nd Street and Douglas Street



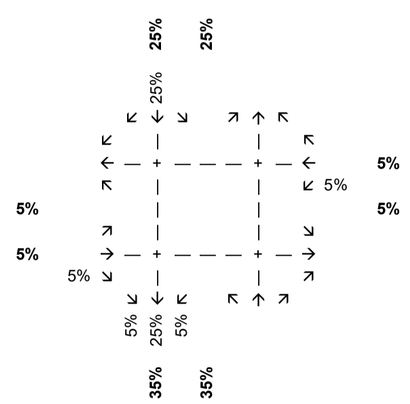
2nd Street and Green Street



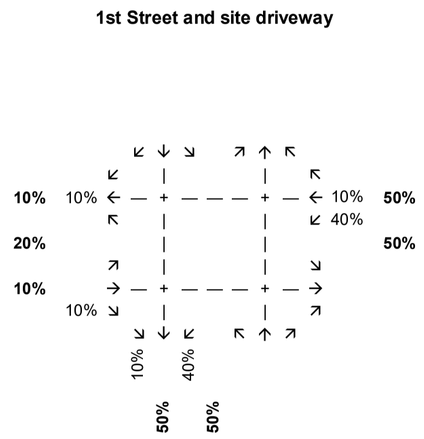
2nd & Douglas Street TIS
Lee's Summit, Missouri

Trip Distribution
INBOUND

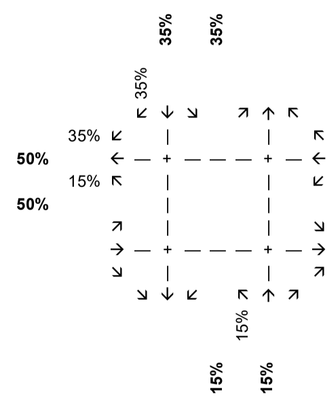
Chipman Road and Douglas Street



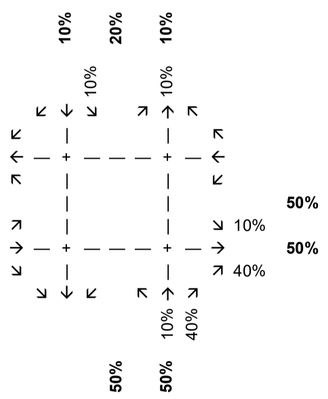
1st Street and site driveway



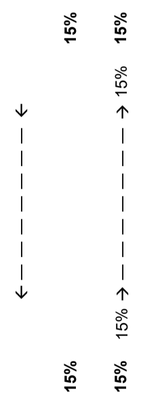
1st Street and Douglas Street



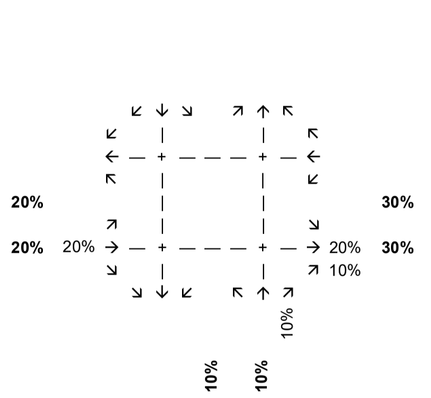
East Main Street and site driveway



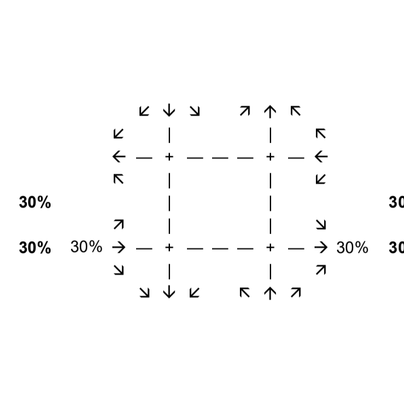
1st Street and Douglas Street



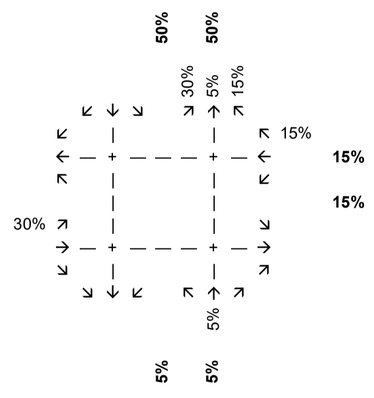
2nd Street and Jefferson Street



2nd Street and Market Street



2nd Street and East Main Street



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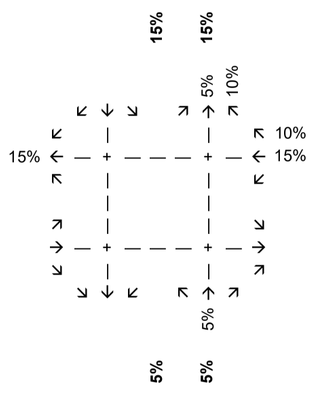
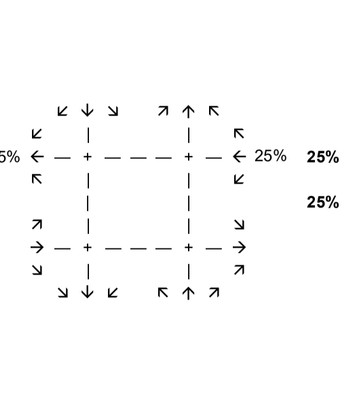


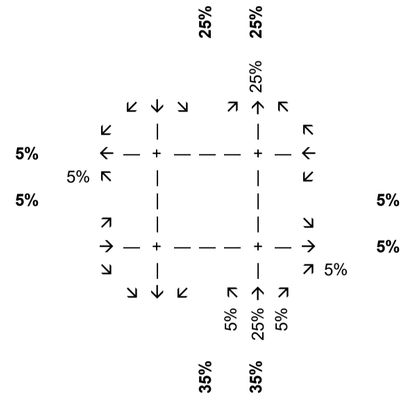
2nd Street and Green Street



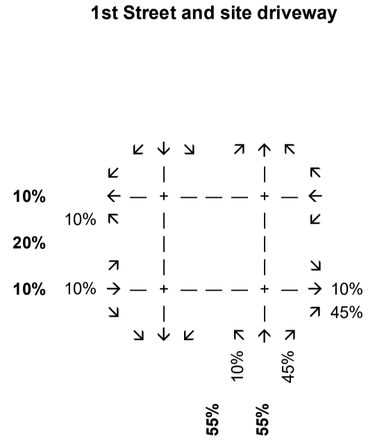
2nd & Douglas Street TIS
Lee's Summit, Missouri

Trip Distribution
OUTBOUND

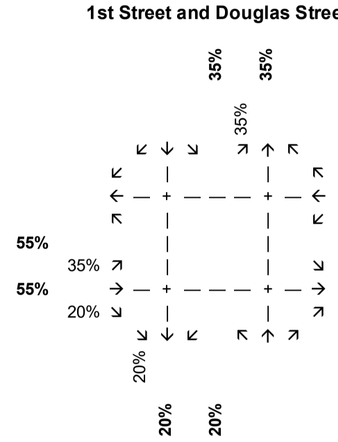
Chipman Road and Douglas Street



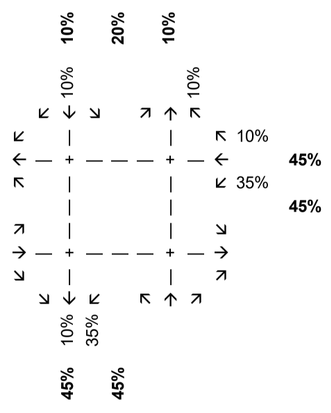
1st Street and site driveway



1st Street and Douglas Street

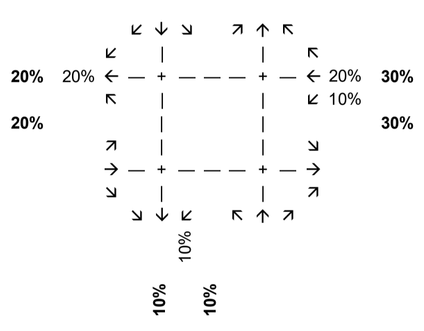


East Main Street and site driveway

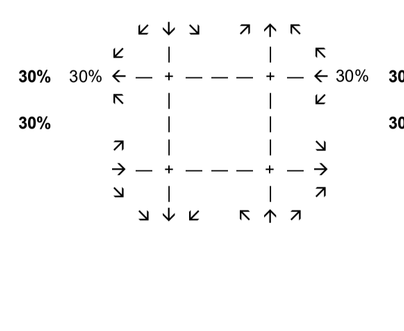


1st Street and Douglas Street

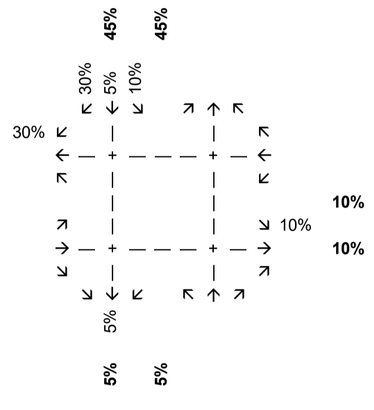
2nd Street and Jefferson Street



2nd Street and Market Street



2nd Street and East Main Street



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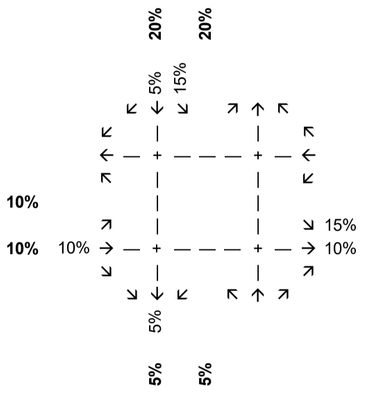
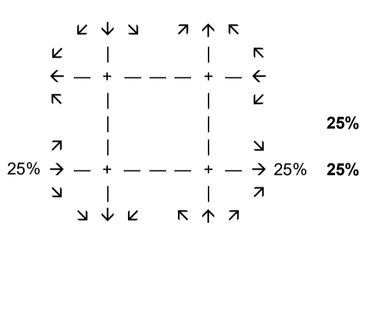


2nd Street and Green Street



Appendix C – Capacity Analysis Reports

See attached Reports.

Intersection	
Int Delay, s/veh	6.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	152	19	132	166	42	239
Future Vol, veh/h	152	19	132	166	42	239
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	115	-	100	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	190	24	165	208	53	299

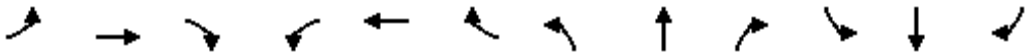
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	214	0	740	202
Stage 1	-	-	-	-	202	-
Stage 2	-	-	-	-	538	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1356	-	384	839
Stage 1	-	-	-	-	832	-
Stage 2	-	-	-	-	585	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1356	-	337	839
Mov Cap-2 Maneuver	-	-	-	-	337	-
Stage 1	-	-	-	-	730	-
Stage 2	-	-	-	-	585	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.6	12.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	337	839	-	-	1356	-
HCM Lane V/C Ratio	0.156	0.356	-	-	0.122	-
HCM Control Delay (s)	17.6	11.6	-	-	8	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0.5	1.6	-	-	0.4	-

Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	16	468	34	375	56	49
v/c Ratio	0.02	0.39	0.06	0.31	0.28	0.32
Control Delay	3.5	5.4	1.4	1.8	17.5	33.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.5	5.4	1.4	1.8	17.5	33.4
Queue Length 50th (ft)	2	62	1	12	7	20
Queue Length 95th (ft)	6	102	3	16	30	43
Internal Link Dist (ft)		324		418	240	257
Turn Bay Length (ft)	125		175			
Base Capacity (vph)	647	1200	582	1192	449	393
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.39	0.06	0.31	0.12	0.12

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	371	3	27	285	15	3	11	30	13	10	16
Future Volume (veh/h)	13	371	3	27	285	15	3	11	30	13	10	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	16	464	4	34	356	19	4	14	38	16	12	20
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	789	1262	11	655	1199	64	59	30	72	95	37	45
Arrive On Green	0.76	0.76	0.76	1.00	1.00	1.00	0.07	0.07	0.07	0.07	0.07	0.07
Sat Flow, veh/h	907	1666	14	832	1584	85	59	418	1005	365	513	627
Grp Volume(v), veh/h	16	0	468	34	0	375	56	0	0	48	0	0
Grp Sat Flow(s),veh/h/ln	907	0	1681	832	0	1668	1481	0	0	1506	0	0
Q Serve(g_s), s	0.3	0.0	6.6	0.4	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.3	0.0	6.6	6.9	0.0	0.0	2.5	0.0	0.0	2.0	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.05	0.07		0.68	0.33		0.42
Lane Grp Cap(c), veh/h	789	0	1273	655	0	1263	161	0	0	176	0	0
V/C Ratio(X)	0.02	0.00	0.37	0.05	0.00	0.30	0.35	0.00	0.00	0.27	0.00	0.00
Avail Cap(c_a), veh/h	789	0	1273	655	0	1263	475	0	0	476	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.92	0.00	0.92	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.1	0.0	2.9	0.4	0.0	0.0	31.3	0.0	0.0	31.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.8	0.1	0.0	0.6	1.3	0.0	0.0	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.5	0.0	0.0	0.2	1.0	0.0	0.0	0.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.1	0.0	3.7	0.6	0.0	0.6	32.6	0.0	0.0	32.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	C	A	A	C	A	A
Approach Vol, veh/h		484			409			56			48	
Approach Delay, s/veh		3.6			0.6			32.6			32.0	
Approach LOS		A			A			C			C	

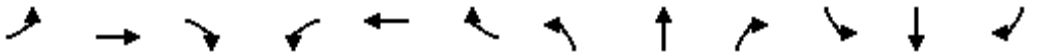
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		11.0		59.0		11.0		59.0				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		20.0		38.0		20.0		38.0				
Max Q Clear Time (g_c+I1), s		4.5		8.6		4.0		8.9				
Green Ext Time (p_c), s		0.2		3.3		0.1		2.7				

Intersection Summary												
HCM 6th Ctrl Delay			5.4									
HCM 6th LOS			A									

Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	2	508	17	390	23	6
v/c Ratio	0.00	0.53	0.04	0.41	0.06	0.02
Control Delay	5.5	8.4	5.2	7.6	3.2	19.6
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay	5.5	8.4	5.2	7.8	3.2	19.6
Queue Length 50th (ft)	0	73	2	75	0	2
Queue Length 95th (ft)	m1	95	m6	84	6	9
Internal Link Dist (ft)		418		300	237	431
Turn Bay Length (ft)	175		90			
Base Capacity (vph)	480	955	390	957	397	388
Starvation Cap Reductn	0	0	0	154	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.53	0.04	0.49	0.06	0.02

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	403	8	14	315	1	9	0	10	0	2	3
Future Volume (veh/h)	2	403	8	14	315	1	9	0	10	0	2	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	2	498	10	17	389	1	11	0	12	0	2	4
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	614	940	19	561	959	2	203	20	161	103	129	258
Arrive On Green	1.00	1.00	1.00	1.00	1.00	1.00	0.26	0.00	0.26	0.00	0.26	0.26
Sat Flow, veh/h	894	1644	33	802	1678	4	495	78	625	1262	501	1002
Grp Volume(v), veh/h	2	0	508	17	0	390	23	0	0	0	0	6
Grp Sat Flow(s),veh/h/ln	894	0	1677	802	0	1683	1199	0	0	1262	0	1503
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.2
Prop In Lane	1.00		0.02	1.00		0.00	0.48		0.52	1.00		0.67
Lane Grp Cap(c), veh/h	614	0	959	561	0	961	384	0	0	103	0	386
V/C Ratio(X)	0.00	0.00	0.53	0.03	0.00	0.41	0.06	0.00	0.00	0.00	0.00	0.02
Avail Cap(c_a), veh/h	614	0	959	561	0	961	384	0	0	103	0	386
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.00	0.93	0.97	0.00	0.97	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	19.7	0.0	0.0	0.0	0.0	19.4
Incr Delay (d2), s/veh	0.0	0.0	2.0	0.1	0.0	1.2	0.3	0.0	0.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.5	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	2.0	0.1	0.0	1.2	19.9	0.0	0.0	0.0	0.0	19.5
LnGrp LOS	A	A	A	A	A	A	B	A	A	A	A	B
Approach Vol, veh/h		510			407			23			6	
Approach Delay, s/veh		1.9			1.2			19.9			19.5	
Approach LOS		A			A			B			B	

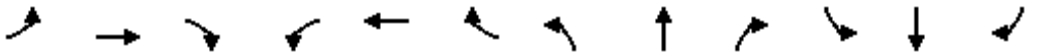
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.0		46.0		24.0		46.0				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		18.0		40.0		18.0		40.0				
Max Q Clear Time (g_c+I1), s		2.9		2.0		2.2		2.0				
Green Ext Time (p_c), s		0.0		3.7		0.0		2.8				

Intersection Summary												
HCM 6th Ctrl Delay			2.2									
HCM 6th LOS			A									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	259	233	11	20	287	60	149	211
v/c Ratio	0.41	0.21	0.01	0.03	0.26	0.06	0.51	0.67
Control Delay	2.1	0.8	0.0	6.2	7.0	2.3	29.6	27.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.1	0.8	0.0	6.2	7.0	2.3	29.6	27.9
Queue Length 50th (ft)	2	2	0	3	45	0	56	58
Queue Length 95th (ft)	4	4	m0	11	91	12	86	95
Internal Link Dist (ft)		300			429		250	505
Turn Bay Length (ft)	100		35	75		45		
Base Capacity (vph)	634	1086	940	666	1086	944	458	462
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.21	0.01	0.03	0.26	0.06	0.33	0.46

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	212	191	9	16	235	49	11	101	11	27	63	83
Future Volume (veh/h)	212	191	9	16	235	49	11	101	11	27	63	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	259	233	11	20	287	60	13	123	13	33	77	101
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	648	1105	936	658	1105	936	67	247	25	85	110	124
Arrive On Green	0.22	0.22	0.22	0.66	0.66	0.66	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	930	1683	1427	1022	1683	1427	67	1434	143	150	637	723
Grp Volume(v), veh/h	259	233	11	20	287	60	149	0	0	211	0	0
Grp Sat Flow(s),veh/h/ln	930	1683	1427	1022	1683	1427	1645	0	0	1510	0	0
Q Serve(g_s), s	17.3	8.0	0.4	0.6	4.9	1.1	0.0	0.0	0.0	3.6	0.0	0.0
Cycle Q Clear(g_c), s	22.3	8.0	0.4	8.6	4.9	1.1	5.7	0.0	0.0	9.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.09		0.09	0.16		0.48
Lane Grp Cap(c), veh/h	648	1105	936	658	1105	936	339	0	0	319	0	0
V/C Ratio(X)	0.40	0.21	0.01	0.03	0.26	0.06	0.44	0.00	0.00	0.66	0.00	0.00
Avail Cap(c_a), veh/h	648	1105	936	658	1105	936	519	0	0	484	0	0
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.3	12.5	9.6	7.5	5.0	4.3	26.4	0.0	0.0	27.8	0.0	0.0
Incr Delay (d2), s/veh	1.5	0.4	0.0	0.1	0.6	0.1	0.9	0.0	0.0	2.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	3.1	0.1	0.1	1.5	0.3	2.3	0.0	0.0	3.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.9	12.9	9.6	7.5	5.5	4.4	27.3	0.0	0.0	30.1	0.0	0.0
LnGrp LOS	C	B	A	A	A	A	C	A	A	C	A	A
Approach Vol, veh/h		503			367			149			211	
Approach Delay, s/veh		17.4			5.5			27.3			30.1	
Approach LOS		B			A			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		18.0		52.0		18.0		52.0				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		20.0		38.0		20.0		38.0				
Max Q Clear Time (g_c+I1), s		7.7		24.3		11.3		10.6				
Green Ext Time (p_c), s		0.6		2.4		0.8		2.0				

Intersection Summary												
HCM 6th Ctrl Delay			17.2									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	183	24	17	265	23	18	17	13	22	14	26
Future Vol, veh/h	14	183	24	17	265	23	18	17	13	22	14	26
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	75	-	-	75	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	229	30	21	331	29	23	21	16	28	18	33

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	360	0	0	259	0	0	693	682	244	687	683	346
Stage 1	-	-	-	-	-	-	280	280	-	388	388	-
Stage 2	-	-	-	-	-	-	413	402	-	299	295	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1199	-	-	1306	-	-	358	372	795	361	372	697
Stage 1	-	-	-	-	-	-	727	679	-	636	609	-
Stage 2	-	-	-	-	-	-	616	600	-	710	669	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1199	-	-	1306	-	-	321	360	795	330	360	697
Mov Cap-2 Maneuver	-	-	-	-	-	-	321	360	-	330	360	-
Stage 1	-	-	-	-	-	-	716	669	-	626	599	-
Stage 2	-	-	-	-	-	-	561	590	-	663	659	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.4	15.6	15.1
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	401	1199	-	-	1306	-	-	434
HCM Lane V/C Ratio	0.15	0.015	-	-	0.016	-	-	0.179
HCM Control Delay (s)	15.6	8	-	-	7.8	-	-	15.1
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.5	0	-	-	0.1	-	-	0.6

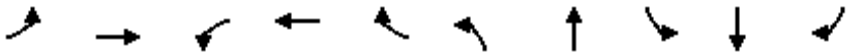
Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	1	1	9	2	10	6	340	7	4	175	0
Future Vol, veh/h	1	1	1	9	2	10	6	340	7	4	175	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	1	10	2	11	7	370	8	4	190	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	593	590	190	587	586	374	190	0	0	378	0	0
Stage 1	198	198	-	388	388	-	-	-	-	-	-	-
Stage 2	395	392	-	199	198	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	417	420	852	421	422	672	1384	-	-	1180	-	-
Stage 1	804	737	-	636	609	-	-	-	-	-	-	-
Stage 2	630	606	-	803	737	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	405	416	852	416	418	672	1384	-	-	1180	-	-
Mov Cap-2 Maneuver	405	416	-	416	418	-	-	-	-	-	-	-
Stage 1	799	734	-	632	605	-	-	-	-	-	-	-
Stage 2	614	602	-	798	734	-	-	-	-	-	-	-

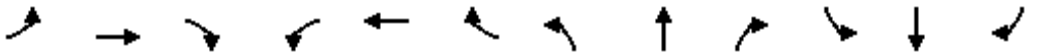
Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	12.4	0.1	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1384	-	-	496	508	1180	-	-
HCM Lane V/C Ratio	0.005	-	-	0.007	0.045	0.004	-	-
HCM Control Delay (s)	7.6	0	-	12.3	12.4	8.1	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	164	158	25	324	192	118	401	45	125	116
v/c Ratio	0.53	0.11	0.15	0.41	0.38	0.28	0.48	0.14	0.37	0.15
Control Delay	35.7	16.2	36.5	28.4	7.4	18.4	27.1	17.3	32.0	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.7	16.2	36.5	28.4	7.4	18.4	27.1	17.3	32.0	3.3
Queue Length 50th (ft)	67	17	10	65	0	35	84	13	51	0
Queue Length 95th (ft)	141	53	38	125	52	79	146	37	108	26
Internal Link Dist (ft)		1630		1483			647		762	
Turn Bay Length (ft)	335		200		200	85				175
Base Capacity (vph)	690	2213	230	1329	714	432	1724	368	888	1078
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.07	0.11	0.24	0.27	0.27	0.23	0.12	0.14	0.11

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	123	18	22	288	171	105	334	23	40	111	103
Future Volume (veh/h)	146	123	18	22	288	171	105	334	23	40	111	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	164	138	20	25	324	192	118	375	26	45	125	116
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	214	1055	150	50	874	390	373	663	46	290	307	450
Arrive On Green	0.12	0.34	0.34	0.03	0.25	0.25	0.08	0.20	0.20	0.04	0.16	0.16
Sat Flow, veh/h	1781	3122	445	1781	3554	1585	1781	3372	233	1781	1870	1585
Grp Volume(v), veh/h	164	77	81	25	324	192	118	197	204	45	125	116
Grp Sat Flow(s),veh/h/ln	1781	1777	1790	1781	1777	1585	1781	1777	1828	1781	1870	1585
Q Serve(g_s), s	5.4	1.8	1.9	0.8	4.6	6.3	3.3	6.1	6.2	1.3	3.7	3.4
Cycle Q Clear(g_c), s	5.4	1.8	1.9	0.8	4.6	6.3	3.3	6.1	6.2	1.3	3.7	3.4
Prop In Lane	1.00		0.25	1.00		1.00	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	214	600	605	50	874	390	373	349	360	290	307	450
V/C Ratio(X)	0.77	0.13	0.13	0.50	0.37	0.49	0.32	0.56	0.57	0.16	0.41	0.26
Avail Cap(c_a), veh/h	788	1282	1291	263	1515	676	529	990	1019	475	1012	1048
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.0	14.0	14.0	29.2	19.1	19.7	19.0	22.1	22.2	19.8	22.8	16.9
Incr Delay (d2), s/veh	5.6	0.1	0.1	7.3	0.3	1.0	0.5	1.4	1.4	0.2	0.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.6	0.7	0.4	1.7	2.1	1.3	2.6	2.7	0.5	1.6	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.6	14.1	14.1	36.6	19.3	20.7	19.5	23.6	23.6	20.0	23.7	17.2
LnGrp LOS	C	B	B	D	B	C	B	C	C	C	C	B
Approach Vol, veh/h		322			541			519			286	
Approach Delay, s/veh		23.0			20.6			22.6			20.5	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	18.0	7.7	26.6	10.7	16.0	13.3	21.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	9.0	34.0	9.0	44.0	10.0	33.0	27.0	26.0
Max Q Clear Time (g_c+I1), s	3.3	8.2	2.8	3.9	5.3	5.7	7.4	8.3
Green Ext Time (p_c), s	0.0	2.6	0.0	0.8	0.1	1.1	0.4	2.3

Intersection Summary	
HCM 6th Ctrl Delay	21.7
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	5.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	220	40	267	268	23	237
Future Vol, veh/h	220	40	267	268	23	237
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	115	-	100	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	253	46	307	308	26	272

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	299	0	1198	276
Stage 1	-	-	-	-	276	-
Stage 2	-	-	-	-	922	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1262	-	205	763
Stage 1	-	-	-	-	771	-
Stage 2	-	-	-	-	387	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1262	-	155	763
Mov Cap-2 Maneuver	-	-	-	-	155	-
Stage 1	-	-	-	-	584	-
Stage 2	-	-	-	-	387	-

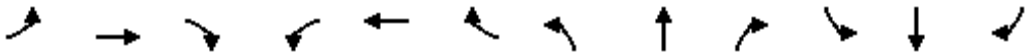
Approach	EB	WB	NB
HCM Control Delay, s	0	4.4	14.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	155	763	-	-	1262	-
HCM Lane V/C Ratio	0.171	0.357	-	-	0.243	-
HCM Control Delay (s)	32.9	12.3	-	-	8.8	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile Q(veh)	0.6	1.6	-	-	1	-

Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	19	544	32	586	91	103
v/c Ratio	0.04	0.48	0.07	0.51	0.34	0.50
Control Delay	5.0	7.6	1.9	2.8	14.4	34.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.0	7.6	1.9	2.8	14.4	34.7
Queue Length 50th (ft)	2	91	1	18	10	41
Queue Length 95th (ft)	9	168	m3	36	40	74
Internal Link Dist (ft)		324		418	240	257
Turn Bay Length (ft)	125		175			
Base Capacity (vph)	455	1139	486	1139	423	365
Starvation Cap Reductn	0	0	0	12	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.48	0.07	0.52	0.22	0.28

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	448	9	27	478	14	7	16	54	22	27	38
Future Volume (veh/h)	16	448	9	27	478	14	7	16	54	22	27	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	19	533	11	32	569	17	8	19	64	26	32	45
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	650	1204	25	572	1191	36	63	36	102	91	56	64
Arrive On Green	0.73	0.73	0.73	1.00	1.00	1.00	0.10	0.10	0.10	0.10	0.10	0.10
Sat Flow, veh/h	746	1643	34	776	1626	49	71	377	1062	280	585	671
Grp Volume(v), veh/h	19	0	544	32	0	586	91	0	0	103	0	0
Grp Sat Flow(s),veh/h/ln	746	0	1677	776	0	1675	1511	0	0	1536	0	0
Q Serve(g_s), s	0.5	0.0	9.0	0.5	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0
Cycle Q Clear(g_c), s	0.5	0.0	9.0	9.5	0.0	0.0	4.0	0.0	0.0	4.4	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.03	0.09		0.70	0.25		0.44
Lane Grp Cap(c), veh/h	650	0	1229	572	0	1227	201	0	0	212	0	0
V/C Ratio(X)	0.03	0.00	0.44	0.06	0.00	0.48	0.45	0.00	0.00	0.49	0.00	0.00
Avail Cap(c_a), veh/h	650	0	1229	572	0	1227	434	0	0	441	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.78	0.00	0.78	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.6	0.0	3.7	0.8	0.0	0.0	30.5	0.0	0.0	30.6	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	1.2	0.1	0.0	1.0	1.6	0.0	0.0	1.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	2.3	0.0	0.0	0.4	1.5	0.0	0.0	1.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.7	0.0	4.9	1.0	0.0	1.0	32.0	0.0	0.0	32.3	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	C	A	A	C	A	A
Approach Vol, veh/h		563			618			91			103	
Approach Delay, s/veh		4.8			1.0			32.0			32.3	
Approach LOS		A			A			C			C	

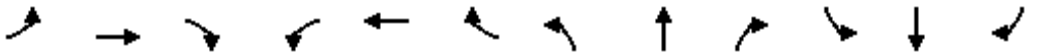
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		12.7		57.3		12.7		57.3				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		18.0		40.0		18.0		40.0				
Max Q Clear Time (g_c+I1), s		6.0		11.0		6.4		11.5				
Green Ext Time (p_c), s		0.3		4.1		0.4		4.6				

Intersection Summary												
HCM 6th Ctrl Delay			7.0									
HCM 6th LOS			A									

Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	19	602	35	568	75	29
v/c Ratio	0.05	0.63	0.11	0.59	0.19	0.08
Control Delay	6.2	10.2	7.1	10.6	12.3	20.5
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay	6.2	10.2	7.1	10.8	12.3	20.5
Queue Length 50th (ft)	3	105	4	103	10	9
Queue Length 95th (ft)	m6	139	m12	192	37	27
Internal Link Dist (ft)		418		300	237	431
Turn Bay Length (ft)	175		90			
Base Capacity (vph)	348	955	324	957	389	384
Starvation Cap Reductn	0	9	0	67	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.64	0.11	0.64	0.19	0.08

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	498	14	30	482	1	23	3	37	0	7	18
Future Volume (veh/h)	16	498	14	30	482	1	23	3	37	0	7	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	19	586	16	35	567	1	27	4	44	0	8	21
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	332	932	25	523	960	2	157	40	179	103	106	277
Arrive On Green	1.00	1.00	1.00	0.38	0.38	0.38	0.26	0.26	0.26	0.00	0.26	0.26
Sat Flow, veh/h	759	1631	45	736	1680	3	337	154	696	1222	411	1078
Grp Volume(v), veh/h	19	0	602	35	0	568	75	0	0	0	0	29
Grp Sat Flow(s),veh/h/ln	759	0	1675	736	0	1683	1186	0	0	1222	0	1489
Q Serve(g_s), s	0.9	0.0	0.0	2.1	0.0	18.8	0.0	0.0	0.0	0.0	0.0	1.0
Cycle Q Clear(g_c), s	19.7	0.0	0.0	2.1	0.0	18.8	3.2	0.0	0.0	0.0	0.0	1.0
Prop In Lane	1.00		0.03	1.00		0.00	0.36		0.59	1.00		0.72
Lane Grp Cap(c), veh/h	332	0	957	523	0	962	375	0	0	103	0	383
V/C Ratio(X)	0.06	0.00	0.63	0.07	0.00	0.59	0.20	0.00	0.00	0.00	0.00	0.08
Avail Cap(c_a), veh/h	332	0	957	523	0	962	375	0	0	103	0	383
HCM Platoon Ratio	2.00	2.00	2.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.00	0.87	0.90	0.00	0.90	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	4.6	0.0	0.0	9.9	0.0	15.1	20.5	0.0	0.0	0.0	0.0	19.7
Incr Delay (d2), s/veh	0.3	0.0	2.7	0.2	0.0	2.4	1.2	0.0	0.0	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.7	0.3	0.0	8.0	1.1	0.0	0.0	0.0	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.9	0.0	2.7	10.1	0.0	17.5	21.7	0.0	0.0	0.0	0.0	20.1
LnGrp LOS	A	A	A	B	A	B	C	A	A	A	A	C
Approach Vol, veh/h		621			603			75			29	
Approach Delay, s/veh		2.8			17.0			21.7			20.1	
Approach LOS		A			B			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.0		46.0		24.0		46.0				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		18.0		40.0		18.0		40.0				
Max Q Clear Time (g_c+I1), s		5.2		21.7		3.0		20.8				
Green Ext Time (p_c), s		0.2		4.0		0.1		3.9				

Intersection Summary												
HCM 6th Ctrl Delay			10.7									
HCM 6th LOS			B									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	179	429	45	51	355	61	189	470
v/c Ratio	0.44	0.53	0.06	0.15	0.44	0.09	0.39	0.85
Control Delay	8.2	7.2	1.4	14.1	15.8	6.0	16.1	31.2
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.2	7.4	1.4	14.1	15.8	6.0	16.1	31.2
Queue Length 50th (ft)	22	68	1	12	99	3	50	144
Queue Length 95th (ft)	61	121	m4	33	165	21	78	197
Internal Link Dist (ft)		300			429		250	505
Turn Bay Length (ft)	100		35	75		45		
Base Capacity (vph)	407	811	713	351	811	713	601	667
Starvation Cap Reductn	0	41	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.56	0.06	0.15	0.44	0.09	0.31	0.70

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	352	37	42	291	50	32	92	31	57	133	195
Future Volume (veh/h)	147	352	37	42	291	50	32	92	31	57	133	195
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	179	429	45	51	355	61	39	112	38	70	162	238
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	392	795	674	300	795	674	126	317	96	115	203	265
Arrive On Green	0.16	0.16	0.16	0.47	0.47	0.47	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	873	1683	1427	828	1683	1427	178	890	269	156	569	744
Grp Volume(v), veh/h	179	429	45	51	355	61	189	0	0	470	0	0
Grp Sat Flow(s),veh/h/ln	873	1683	1427	828	1683	1427	1337	0	0	1469	0	0
Q Serve(g_s), s	13.7	16.4	1.9	3.5	9.9	1.6	0.0	0.0	0.0	14.3	0.0	0.0
Cycle Q Clear(g_c), s	23.6	16.4	1.9	19.9	9.9	1.6	5.9	0.0	0.0	21.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.21		0.20	0.15		0.51
Lane Grp Cap(c), veh/h	392	795	674	300	795	674	538	0	0	582	0	0
V/C Ratio(X)	0.46	0.54	0.07	0.17	0.45	0.09	0.35	0.00	0.00	0.81	0.00	0.00
Avail Cap(c_a), veh/h	392	795	674	300	795	674	638	0	0	687	0	0
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.74	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	30.3	22.5	16.4	21.7	12.3	10.2	16.4	0.0	0.0	21.1	0.0	0.0
Incr Delay (d2), s/veh	2.8	1.9	0.1	1.2	1.8	0.3	0.4	0.0	0.0	6.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	7.7	0.6	0.8	3.7	0.5	2.2	0.0	0.0	7.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.1	24.5	16.5	22.9	14.2	10.4	16.8	0.0	0.0	27.2	0.0	0.0
LnGrp LOS	C	C	B	C	B	B	B	A	A	C	A	A
Approach Vol, veh/h		653			467			189			470	
Approach Delay, s/veh		26.3			14.6			16.8			27.2	
Approach LOS		C			B			B			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		30.9		39.1		30.9		39.1				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		30.0		28.0		30.0		28.0				
Max Q Clear Time (g_c+I1), s		7.9		25.6		23.1		21.9				
Green Ext Time (p_c), s		1.2		1.0		1.8		1.4				

Intersection Summary												
HCM 6th Ctrl Delay			22.5									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	393	35	25	311	7	37	20	35	5	15	10
Future Vol, veh/h	19	393	35	25	311	7	37	20	35	5	15	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	75	-	-	75	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	442	39	28	349	8	42	22	39	6	17	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	357	0	0	481	0	0	927	917	462	943	932	353
Stage 1	-	-	-	-	-	-	504	504	-	409	409	-
Stage 2	-	-	-	-	-	-	423	413	-	534	523	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1202	-	-	1082	-	-	249	272	600	243	266	691
Stage 1	-	-	-	-	-	-	550	541	-	619	596	-
Stage 2	-	-	-	-	-	-	609	594	-	530	530	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1202	-	-	1082	-	-	225	260	600	205	255	691
Mov Cap-2 Maneuver	-	-	-	-	-	-	225	260	-	205	255	-
Stage 1	-	-	-	-	-	-	541	532	-	608	581	-
Stage 2	-	-	-	-	-	-	567	579	-	466	521	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.6	22.6	18.2
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	307	1202	-	-	1082	-	-	307
HCM Lane V/C Ratio	0.337	0.018	-	-	0.026	-	-	0.11
HCM Control Delay (s)	22.6	8	-	-	8.4	-	-	18.2
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1.4	0.1	-	-	0.1	-	-	0.4

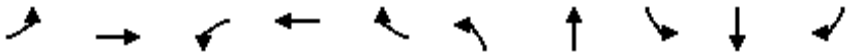
Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	1	0	2	10	7	307	5	9	376	2
Future Vol, veh/h	0	0	1	0	2	10	7	307	5	9	376	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	1	0	2	11	8	341	6	10	418	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	806	802	419	800	800	344	420	0	0	347	0	0
Stage 1	439	439	-	360	360	-	-	-	-	-	-	-
Stage 2	367	363	-	440	440	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	300	317	634	303	318	699	1139	-	-	1212	-	-
Stage 1	597	578	-	658	626	-	-	-	-	-	-	-
Stage 2	653	625	-	596	578	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	289	311	634	298	312	699	1139	-	-	1212	-	-
Mov Cap-2 Maneuver	289	311	-	298	312	-	-	-	-	-	-	-
Stage 1	592	572	-	652	620	-	-	-	-	-	-	-
Stage 2	635	619	-	588	572	-	-	-	-	-	-	-

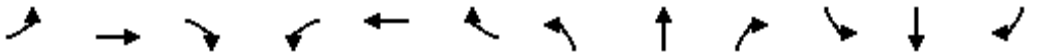
Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	11.4	0.2	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1139	-	-	634	579	1212	-	-
HCM Lane V/C Ratio	0.007	-	-	0.002	0.023	0.008	-	-
HCM Control Delay (s)	8.2	0	-	10.7	11.4	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	228	660	49	400	81	89	320	189	385	278
v/c Ratio	0.67	0.52	0.32	0.58	0.18	0.32	0.39	0.47	0.69	0.29
Control Delay	45.4	25.9	50.1	39.2	0.8	21.7	29.3	23.0	36.6	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.4	25.9	50.1	39.2	0.8	21.7	29.3	23.0	36.6	5.1
Queue Length 50th (ft)	115	160	25	106	0	29	73	65	190	29
Queue Length 95th (ft)	230	261	75	197	0	71	131	139	345	70
Internal Link Dist (ft)		1630		1483			647		762	
Turn Bay Length (ft)	335		200		200	85				175
Base Capacity (vph)	553	1567	184	860	529	276	1579	409	905	1134
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.42	0.27	0.47	0.15	0.32	0.20	0.46	0.43	0.25

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	487	101	44	356	72	79	255	29	168	343	247
Future Volume (veh/h)	203	487	101	44	356	72	79	255	29	168	343	247
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	228	547	113	49	400	81	89	287	33	189	385	278
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	278	922	190	76	713	318	255	696	79	432	498	669
Arrive On Green	0.16	0.31	0.31	0.04	0.20	0.20	0.06	0.22	0.22	0.11	0.27	0.27
Sat Flow, veh/h	1781	2934	604	1781	3554	1585	1781	3215	366	1781	1870	1585
Grp Volume(v), veh/h	228	330	330	49	400	81	89	157	163	189	385	278
Grp Sat Flow(s),veh/h/ln	1781	1777	1762	1781	1777	1585	1781	1777	1804	1781	1870	1585
Q Serve(g_s), s	9.3	11.7	11.8	2.0	7.6	3.2	2.9	5.7	5.8	6.0	14.2	9.2
Cycle Q Clear(g_c), s	9.3	11.7	11.8	2.0	7.6	3.2	2.9	5.7	5.8	6.0	14.2	9.2
Prop In Lane	1.00		0.34	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	278	558	553	76	713	318	255	385	391	432	498	669
V/C Ratio(X)	0.82	0.59	0.60	0.64	0.56	0.25	0.35	0.41	0.42	0.44	0.77	0.42
Avail Cap(c_a), veh/h	643	926	918	214	998	445	298	926	941	458	1050	1138
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	21.6	21.6	35.2	26.9	25.2	21.6	25.2	25.2	19.5	25.4	15.1
Incr Delay (d2), s/veh	5.9	1.0	1.0	8.8	0.7	0.4	0.8	0.7	0.7	0.7	2.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	4.5	4.5	1.0	3.0	1.2	1.2	2.4	2.5	2.5	6.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.4	22.6	22.7	44.0	27.6	25.6	22.5	25.9	25.9	20.2	28.0	15.5
LnGrp LOS	D	C	C	D	C	C	C	C	C	C	C	B
Approach Vol, veh/h		888			530			409			852	
Approach Delay, s/veh		26.2			28.8			25.2			22.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	22.2	9.2	29.5	10.2	25.9	17.7	21.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	9.0	39.0	9.0	39.0	6.0	42.0	27.0	21.0
Max Q Clear Time (g_c+I1), s	8.0	7.8	4.0	13.8	4.9	16.2	11.3	9.6
Green Ext Time (p_c), s	0.1	2.1	0.0	3.8	0.0	3.7	0.5	2.0

Intersection Summary	
HCM 6th Ctrl Delay	25.3
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	6.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	158	19	142	185	42	242
Future Vol, veh/h	158	19	142	185	42	242
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	115	-	100	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	198	24	178	231	53	303

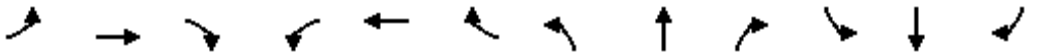
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	222	0	797	210
Stage 1	-	-	-	-	210	-
Stage 2	-	-	-	-	587	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1347	-	356	830
Stage 1	-	-	-	-	825	-
Stage 2	-	-	-	-	556	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1347	-	309	830
Mov Cap-2 Maneuver	-	-	-	-	309	-
Stage 1	-	-	-	-	716	-
Stage 2	-	-	-	-	556	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.5	12.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	309	830	-	-	1347	-
HCM Lane V/C Ratio	0.17	0.364	-	-	0.132	-
HCM Control Delay (s)	19	11.8	-	-	8.1	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0.6	1.7	-	-	0.5	-

Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	16	479	34	412	56	49
v/c Ratio	0.03	0.40	0.06	0.35	0.28	0.32
Control Delay	3.6	5.4	2.1	2.6	17.5	33.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.6	5.4	2.1	2.6	17.5	33.4
Queue Length 50th (ft)	2	64	2	28	7	20
Queue Length 95th (ft)	6	106	6	38	30	43
Internal Link Dist (ft)		324		418	240	257
Turn Bay Length (ft)	125		175			
Base Capacity (vph)	625	1200	573	1194	449	393
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.40	0.06	0.35	0.12	0.12

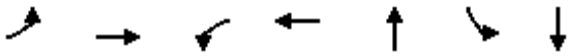
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	380	3	27	314	15	3	11	30	13	10	16
Future Volume (veh/h)	13	380	3	27	314	15	3	11	30	13	10	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	16	475	4	34	392	19	4	14	38	16	12	20
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	767	1262	11	647	1206	58	59	30	72	95	37	45
Arrive On Green	0.76	0.76	0.76	1.00	1.00	1.00	0.07	0.07	0.07	0.07	0.07	0.07
Sat Flow, veh/h	877	1667	14	824	1592	77	59	418	1005	365	513	627
Grp Volume(v), veh/h	16	0	479	34	0	411	56	0	0	48	0	0
Grp Sat Flow(s),veh/h/ln	877	0	1681	824	0	1669	1481	0	0	1506	0	0
Q Serve(g_s), s	0.3	0.0	6.8	0.4	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.3	0.0	6.8	7.2	0.0	0.0	2.5	0.0	0.0	2.0	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.05	0.07		0.68	0.33		0.42
Lane Grp Cap(c), veh/h	767	0	1273	647	0	1264	161	0	0	176	0	0
V/C Ratio(X)	0.02	0.00	0.38	0.05	0.00	0.33	0.35	0.00	0.00	0.27	0.00	0.00
Avail Cap(c_a), veh/h	767	0	1273	647	0	1264	475	0	0	476	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.91	0.00	0.91	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.1	0.0	2.9	0.5	0.0	0.0	31.3	0.0	0.0	31.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.9	0.1	0.0	0.6	1.3	0.0	0.0	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.5	0.0	0.0	0.2	1.0	0.0	0.0	0.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.2	0.0	3.7	0.6	0.0	0.6	32.6	0.0	0.0	32.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	C	A	A	C	A	A
Approach Vol, veh/h		495			445			56			48	
Approach Delay, s/veh		3.7			0.6			32.6			32.0	
Approach LOS		A			A			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		11.0		59.0		11.0		59.0				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		20.0		38.0		20.0		38.0				
Max Q Clear Time (g_c+I1), s		4.5		8.8		4.0		9.2				
Green Ext Time (p_c), s		0.2		3.4		0.1		3.0				

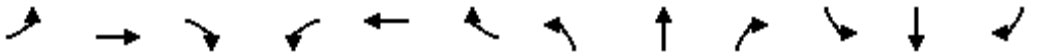
Intersection Summary												
HCM 6th Ctrl Delay			5.2									
HCM 6th LOS			A									



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	14	508	17	395	24	12	49
v/c Ratio	0.03	0.53	0.04	0.41	0.07	0.04	0.13
Control Delay	5.6	8.3	5.1	7.4	14.3	20.1	21.1
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Total Delay	5.6	8.3	5.1	7.6	14.3	20.1	21.1
Queue Length 50th (ft)	2	73	2	74	4	4	16
Queue Length 95th (ft)	m4	95	m5	78	18	14	37
Internal Link Dist (ft)		418		300	237		189
Turn Bay Length (ft)	175		90			75	
Base Capacity (vph)	476	955	390	956	368	319	378
Starvation Cap Reductn	0	0	0	146	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.53	0.04	0.49	0.07	0.04	0.13

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	403	8	14	315	5	9	1	10	10	7	32
Future Volume (veh/h)	11	403	8	14	315	5	9	1	10	10	7	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	14	498	10	17	389	6	11	1	12	12	9	40
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	612	940	19	561	945	15	194	34	153	432	69	308
Arrive On Green	1.00	1.00	1.00	1.00	1.00	1.00	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	890	1644	33	802	1653	25	464	131	595	1261	270	1198
Grp Volume(v), veh/h	14	0	508	17	0	395	24	0	0	12	0	49
Grp Sat Flow(s),veh/h/ln	890	0	1677	802	0	1679	1190	0	0	1261	0	1468
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.4	0.0	1.8
Prop In Lane	1.00		0.02	1.00		0.02	0.46		0.50	1.00		0.82
Lane Grp Cap(c), veh/h	612	0	959	561	0	959	381	0	0	432	0	377
V/C Ratio(X)	0.02	0.00	0.53	0.03	0.00	0.41	0.06	0.00	0.00	0.03	0.00	0.13
Avail Cap(c_a), veh/h	612	0	959	561	0	959	381	0	0	432	0	377
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.00	0.92	0.97	0.00	0.97	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	19.7	0.0	0.0	19.5	0.0	20.0
Incr Delay (d2), s/veh	0.1	0.0	1.9	0.1	0.0	1.3	0.3	0.0	0.0	0.1	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.5	0.0	0.0	0.3	0.3	0.0	0.0	0.2	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.1	0.0	1.9	0.1	0.0	1.3	20.0	0.0	0.0	19.6	0.0	20.7
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	C
Approach Vol, veh/h		522			412			24			61	
Approach Delay, s/veh		1.9			1.2			20.0			20.5	
Approach LOS		A			A			B			C	

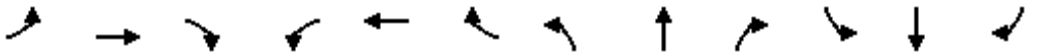
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.0		46.0		24.0		46.0				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		18.0		40.0		18.0		40.0				
Max Q Clear Time (g_c+I1), s		2.9		2.0		3.8		2.0				
Green Ext Time (p_c), s		0.0		3.8		0.2		2.8				

Intersection Summary												
HCM 6th Ctrl Delay			3.2									
HCM 6th LOS			A									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	259	245	11	20	291	63	150	235
v/c Ratio	0.42	0.23	0.01	0.03	0.28	0.07	0.46	0.72
Control Delay	3.2	1.4	0.0	6.9	7.8	2.5	26.6	31.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.2	1.4	0.0	6.9	7.8	2.5	26.6	31.7
Queue Length 50th (ft)	6	6	0	3	50	0	54	72
Queue Length 95th (ft)	10	9	m0	12	96	13	84	113
Internal Link Dist (ft)		300			429		250	505
Turn Bay Length (ft)	100		35	75		45		
Base Capacity (vph)	611	1049	910	637	1049	915	460	441
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.23	0.01	0.03	0.28	0.07	0.33	0.53

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	212	201	9	16	239	52	11	102	11	42	68	83
Future Volume (veh/h)	212	201	9	16	239	52	11	102	11	42	68	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	259	245	11	20	291	63	13	124	13	51	83	101
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	625	1077	913	628	1077	913	68	272	27	106	117	121
Arrive On Green	0.21	0.21	0.21	0.64	0.64	0.64	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	924	1683	1427	1011	1683	1427	64	1439	143	232	622	644
Grp Volume(v), veh/h	259	245	11	20	291	63	150	0	0	235	0	0
Grp Sat Flow(s),veh/h/ln	924	1683	1427	1011	1683	1427	1646	0	0	1497	0	0
Q Serve(g_s), s	17.6	8.4	0.4	0.7	5.3	1.2	0.0	0.0	0.0	4.8	0.0	0.0
Cycle Q Clear(g_c), s	22.9	8.4	0.4	9.1	5.3	1.2	5.7	0.0	0.0	10.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.09		0.09	0.22		0.43
Lane Grp Cap(c), veh/h	625	1077	913	628	1077	913	367	0	0	345	0	0
V/C Ratio(X)	0.41	0.23	0.01	0.03	0.27	0.07	0.41	0.00	0.00	0.68	0.00	0.00
Avail Cap(c_a), veh/h	625	1077	913	628	1077	913	520	0	0	483	0	0
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	21.3	13.3	10.1	8.3	5.5	4.8	25.3	0.0	0.0	27.1	0.0	0.0
Incr Delay (d2), s/veh	1.7	0.4	0.0	0.1	0.6	0.1	0.7	0.0	0.0	2.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	3.4	0.1	0.1	1.6	0.3	2.2	0.0	0.0	3.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.0	13.7	10.1	8.3	6.1	4.9	26.1	0.0	0.0	29.5	0.0	0.0
LnGrp LOS	C	B	B	A	A	A	C	A	A	C	A	A
Approach Vol, veh/h		515			374			150			235	
Approach Delay, s/veh		18.3			6.0			26.1			29.5	
Approach LOS		B			A			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		19.2		50.8		19.2		50.8				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		20.0		38.0		20.0		38.0				
Max Q Clear Time (g_c+I1), s		7.7		24.9		12.4		11.1				
Green Ext Time (p_c), s		0.6		2.4		0.8		2.1				

Intersection Summary												
HCM 6th Ctrl Delay			17.7									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	207	24	47	272	23	18	17	13	22	14	26
Future Vol, veh/h	14	207	24	47	272	23	18	17	13	22	14	26
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	75	-	-	75	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	259	30	59	340	29	23	21	16	28	18	33

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	369	0	0	289	0	0	808	797	274	802	798	355
Stage 1	-	-	-	-	-	-	310	310	-	473	473	-
Stage 2	-	-	-	-	-	-	498	487	-	329	325	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1190	-	-	1273	-	-	299	319	765	302	319	689
Stage 1	-	-	-	-	-	-	700	659	-	572	558	-
Stage 2	-	-	-	-	-	-	554	550	-	684	649	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1190	-	-	1273	-	-	260	300	765	267	300	689
Mov Cap-2 Maneuver	-	-	-	-	-	-	260	300	-	267	300	-
Stage 1	-	-	-	-	-	-	690	649	-	563	532	-
Stage 2	-	-	-	-	-	-	487	525	-	638	639	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	1.1	18	17.2
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	336	1190	-	-	1273	-	-	372
HCM Lane V/C Ratio	0.179	0.015	-	-	0.046	-	-	0.208
HCM Control Delay (s)	18	8.1	-	-	8	-	-	17.2
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.6	0	-	-	0.1	-	-	0.8

Intersection	
Int Delay, s/veh	5.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	34	10	6	12	3	15
Future Vol, veh/h	34	10	6	12	3	15
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	37	11	7	13	3	16

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	36	14	0	0	20	0
Stage 1	14	-	-	-	-	-
Stage 2	22	-	-	-	-	-
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	977	1066	-	-	1596	-
Stage 1	1009	-	-	-	-	-
Stage 2	1001	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	975	1066	-	-	1596	-
Mov Cap-2 Maneuver	975	-	-	-	-	-
Stage 1	1007	-	-	-	-	-
Stage 2	1001	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	1.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	994	1596	-
HCM Lane V/C Ratio	-	-	0.048	0.002	-
HCM Control Delay (s)	-	-	8.8	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	13	3	12	11	10	44
Future Vol, veh/h	13	3	12	11	10	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	3	13	12	11	48

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	17	0	54	16
Stage 1	-	-	-	-	16	-
Stage 2	-	-	-	-	38	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1600	-	954	1063
Stage 1	-	-	-	-	1007	-
Stage 2	-	-	-	-	984	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1600	-	946	1063
Mov Cap-2 Maneuver	-	-	-	-	946	-
Stage 1	-	-	-	-	999	-
Stage 2	-	-	-	-	984	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.8	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1039	-	-	1600	-
HCM Lane V/C Ratio	0.056	-	-	0.008	-
HCM Control Delay (s)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

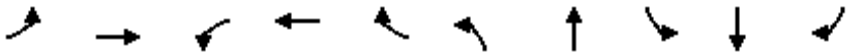
Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	1	20	9	2	10	10	340	7	4	175	10
Future Vol, veh/h	35	1	20	9	2	10	10	340	7	4	175	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	1	22	10	2	11	11	370	8	4	190	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	607	604	196	611	605	374	201	0	0	378	0	0
Stage 1	204	204	-	396	396	-	-	-	-	-	-	-
Stage 2	403	400	-	215	209	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	408	412	845	406	412	672	1371	-	-	1180	-	-
Stage 1	798	733	-	629	604	-	-	-	-	-	-	-
Stage 2	624	602	-	787	729	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	395	406	845	391	406	672	1371	-	-	1180	-	-
Mov Cap-2 Maneuver	395	406	-	391	406	-	-	-	-	-	-	-
Stage 1	790	730	-	623	598	-	-	-	-	-	-	-
Stage 2	606	596	-	763	726	-	-	-	-	-	-	-

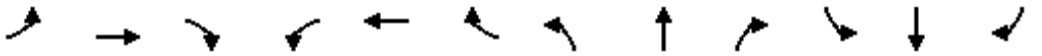
Approach	EB	WB	NB	SB
HCM Control Delay, s	13.4	12.7	0.2	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1371	-	-	488	490	1180	-	-
HCM Lane V/C Ratio	0.008	-	-	0.125	0.047	0.004	-	-
HCM Control Delay (s)	7.6	0	-	13.4	12.7	8.1	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.1	0	-	-



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	164	159	26	324	192	124	433	45	133	116
v/c Ratio	0.55	0.12	0.16	0.44	0.40	0.28	0.45	0.14	0.42	0.16
Control Delay	37.1	16.4	37.2	29.5	7.6	18.2	26.2	17.4	33.3	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.1	16.4	37.2	29.5	7.6	18.2	26.2	17.4	33.3	3.3
Queue Length 50th (ft)	68	17	11	66	0	37	92	13	54	0
Queue Length 95th (ft)	143	54	39	127	53	83	158	36	117	26
Internal Link Dist (ft)		1630		1483			647		762	
Turn Bay Length (ft)	335		200		200	85				175
Base Capacity (vph)	647	2025	239	1245	681	460	1615	375	807	1022
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.08	0.11	0.26	0.28	0.27	0.27	0.12	0.16	0.11

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	123	19	23	288	171	110	358	28	40	118	103
Future Volume (veh/h)	146	123	19	23	288	171	110	358	28	40	118	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	164	138	21	26	324	192	124	402	31	45	133	116
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	214	1041	156	52	870	388	373	668	51	281	305	449
Arrive On Green	0.12	0.34	0.34	0.03	0.24	0.24	0.08	0.20	0.20	0.04	0.16	0.16
Sat Flow, veh/h	1781	3100	463	1781	3554	1585	1781	3344	257	1781	1870	1585
Grp Volume(v), veh/h	164	78	81	26	324	192	124	213	220	45	133	116
Grp Sat Flow(s),veh/h/ln	1781	1777	1787	1781	1777	1585	1781	1777	1824	1781	1870	1585
Q Serve(g_s), s	5.5	1.9	1.9	0.9	4.6	6.4	3.5	6.7	6.7	1.3	3.9	3.5
Cycle Q Clear(g_c), s	5.5	1.9	1.9	0.9	4.6	6.4	3.5	6.7	6.7	1.3	3.9	3.5
Prop In Lane	1.00		0.26	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	214	597	600	52	870	388	373	355	364	281	305	449
V/C Ratio(X)	0.77	0.13	0.13	0.50	0.37	0.49	0.33	0.60	0.60	0.16	0.44	0.26
Avail Cap(c_a), veh/h	785	1247	1254	291	1508	672	549	986	1012	465	977	1018
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.1	14.1	14.2	29.3	19.2	19.9	19.0	22.3	22.3	20.0	23.1	17.0
Incr Delay (d2), s/veh	5.6	0.1	0.1	7.3	0.3	1.0	0.5	1.6	1.6	0.3	1.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.6	0.7	0.4	1.7	2.1	1.4	2.8	2.9	0.5	1.7	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.8	14.2	14.3	36.6	19.5	20.9	19.5	23.9	23.9	20.2	24.1	17.3
LnGrp LOS	C	B	B	D	B	C	B	C	C	C	C	B
Approach Vol, veh/h		323			542			557			294	
Approach Delay, s/veh		23.1			20.8			22.9			20.8	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	18.2	7.8	26.6	10.9	16.0	13.4	21.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	9.0	34.0	10.0	43.0	11.0	32.0	27.0	26.0
Max Q Clear Time (g_c+I1), s	3.3	8.7	2.9	3.9	5.5	5.9	7.5	8.4
Green Ext Time (p_c), s	0.0	2.8	0.0	0.8	0.1	1.2	0.4	2.3

Intersection Summary	
HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	5.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	239	40	272	279	23	246
Future Vol, veh/h	239	40	272	279	23	246
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	115	-	100	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	275	46	313	321	26	283

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	321	0	1245	298
Stage 1	-	-	-	-	298	-
Stage 2	-	-	-	-	947	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1239	-	192	741
Stage 1	-	-	-	-	753	-
Stage 2	-	-	-	-	377	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1239	-	143	741
Mov Cap-2 Maneuver	-	-	-	-	143	-
Stage 1	-	-	-	-	562	-
Stage 2	-	-	-	-	377	-

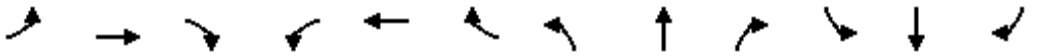
Approach	EB	WB	NB
HCM Control Delay, s	0	4.4	14.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	143	741	-	-	1239	-
HCM Lane V/C Ratio	0.185	0.382	-	-	0.252	-
HCM Control Delay (s)	35.8	12.8	-	-	8.9	-
HCM Lane LOS	E	B	-	-	A	-
HCM 95th %tile Q(veh)	0.7	1.8	-	-	1	-

Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	19	578	32	605	91	103
v/c Ratio	0.04	0.51	0.07	0.53	0.34	0.50
Control Delay	5.0	8.0	2.3	3.3	14.4	34.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.0	8.0	2.3	3.3	14.4	34.7
Queue Length 50th (ft)	2	100	1	27	10	41
Queue Length 95th (ft)	9	183	m3	47	40	74
Internal Link Dist (ft)		324		418	240	257
Turn Bay Length (ft)	125		175			
Base Capacity (vph)	442	1139	461	1138	423	365
Starvation Cap Reductn	0	0	0	21	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.51	0.07	0.54	0.22	0.28

Intersection Summary

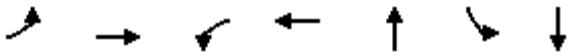
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	476	9	27	494	14	7	16	54	22	27	38
Future Volume (veh/h)	16	476	9	27	494	14	7	16	54	22	27	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	19	567	11	32	588	17	8	19	64	26	32	45
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	640	1206	23	548	1193	34	63	36	102	91	56	64
Arrive On Green	0.73	0.73	0.73	1.00	1.00	1.00	0.10	0.10	0.10	0.10	0.10	0.10
Sat Flow, veh/h	733	1646	32	752	1628	47	71	377	1062	280	585	671
Grp Volume(v), veh/h	19	0	578	32	0	605	91	0	0	103	0	0
Grp Sat Flow(s),veh/h/ln	733	0	1678	752	0	1675	1511	0	0	1536	0	0
Q Serve(g_s), s	0.5	0.0	9.8	0.6	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0
Cycle Q Clear(g_c), s	0.5	0.0	9.8	10.4	0.0	0.0	4.0	0.0	0.0	4.4	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.03	0.09		0.70	0.25		0.44
Lane Grp Cap(c), veh/h	640	0	1229	548	0	1227	201	0	0	212	0	0
V/C Ratio(X)	0.03	0.00	0.47	0.06	0.00	0.49	0.45	0.00	0.00	0.49	0.00	0.00
Avail Cap(c_a), veh/h	640	0	1229	548	0	1227	434	0	0	441	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.75	0.00	0.75	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.6	0.0	3.8	1.0	0.0	0.0	30.5	0.0	0.0	30.6	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	1.3	0.2	0.0	1.1	1.6	0.0	0.0	1.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	2.5	0.0	0.0	0.4	1.5	0.0	0.0	1.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.7	0.0	5.1	1.2	0.0	1.1	32.0	0.0	0.0	32.3	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	C	A	A	C	A	A
Approach Vol, veh/h		597			637			91			103	
Approach Delay, s/veh		5.0			1.1			32.0			32.3	
Approach LOS		A			A			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		12.7		57.3		12.7		57.3				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		18.0		40.0		18.0		40.0				
Max Q Clear Time (g_c+I1), s		6.0		11.8		6.4		12.4				
Green Ext Time (p_c), s		0.3		4.4		0.4		4.7				

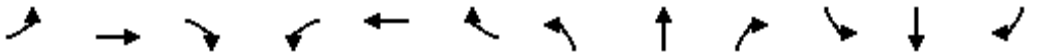
Intersection Summary												
HCM 6th Ctrl Delay			7.0									
HCM 6th LOS			A									



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	52	602	35	585	80	6	52
v/c Ratio	0.16	0.63	0.11	0.61	0.20	0.02	0.14
Control Delay	7.5	10.5	7.6	11.2	12.8	19.8	21.2
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Total Delay	7.5	10.5	7.6	11.3	12.8	19.8	21.2
Queue Length 50th (ft)	7	105	4	101	12	2	17
Queue Length 95th (ft)	m16	150	m12	203	40	10	40
Internal Link Dist (ft)		418		300	237		193
Turn Bay Length (ft)	175		90			75	
Base Capacity (vph)	335	955	324	954	391	303	381
Starvation Cap Reductn	0	11	0	48	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.64	0.11	0.65	0.20	0.02	0.14

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	498	14	30	482	15	23	8	37	5	10	34
Future Volume (veh/h)	44	498	14	30	482	15	23	8	37	5	10	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	52	586	16	35	567	18	27	9	44	6	12	40
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	319	932	25	523	927	29	148	59	169	434	88	292
Arrive On Green	1.00	1.00	1.00	0.38	0.38	0.38	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	747	1631	45	736	1623	52	310	228	657	1216	341	1137
Grp Volume(v), veh/h	52	0	602	35	0	585	80	0	0	6	0	52
Grp Sat Flow(s),veh/h/ln	747	0	1675	736	0	1674	1194	0	0	1216	0	1479
Q Serve(g_s), s	2.7	0.0	0.0	2.1	0.0	19.7	0.0	0.0	0.0	0.0	0.0	1.9
Cycle Q Clear(g_c), s	22.4	0.0	0.0	2.1	0.0	19.7	3.4	0.0	0.0	0.2	0.0	1.9
Prop In Lane	1.00		0.03	1.00		0.03	0.34		0.55	1.00		0.77
Lane Grp Cap(c), veh/h	319	0	957	523	0	957	376	0	0	434	0	380
V/C Ratio(X)	0.16	0.00	0.63	0.07	0.00	0.61	0.21	0.00	0.00	0.01	0.00	0.14
Avail Cap(c_a), veh/h	319	0	957	523	0	957	376	0	0	434	0	380
HCM Platoon Ratio	2.00	2.00	2.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.00	0.85	0.88	0.00	0.88	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.5	0.0	0.0	9.9	0.0	15.3	20.6	0.0	0.0	19.4	0.0	20.0
Incr Delay (d2), s/veh	0.9	0.0	2.7	0.2	0.0	2.6	1.3	0.0	0.0	0.1	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.7	0.3	0.0	8.4	1.1	0.0	0.0	0.1	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.5	0.0	2.7	10.1	0.0	17.9	21.9	0.0	0.0	19.4	0.0	20.8
LnGrp LOS	A	A	A	B	A	B	C	A	A	B	A	C
Approach Vol, veh/h		654			620			80			58	
Approach Delay, s/veh		3.0			17.5			21.9			20.6	
Approach LOS		A			B			C			C	

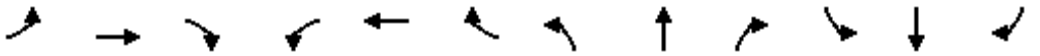
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.0		46.0		24.0		46.0				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		18.0		40.0		18.0		40.0				
Max Q Clear Time (g_c+I1), s		5.4		24.4		3.9		21.7				
Green Ext Time (p_c), s		0.3		4.0		0.2		4.0				

Intersection Summary												
HCM 6th Ctrl Delay			11.1									
HCM 6th LOS			B									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	179	435	45	51	372	72	195	483
v/c Ratio	0.47	0.55	0.06	0.15	0.47	0.10	0.38	0.85
Control Delay	9.5	8.1	1.4	14.6	16.7	6.9	15.8	31.9
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.5	8.2	1.4	14.6	16.7	6.9	15.8	31.9
Queue Length 50th (ft)	33	87	1	13	110	6	51	149
Queue Length 95th (ft)	64	130	m4	33	174	25	81	209
Internal Link Dist (ft)		300			429		250	505
Turn Bay Length (ft)	100		35	75		45		
Base Capacity (vph)	379	789	696	331	789	696	607	660
Starvation Cap Reductn	0	34	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.58	0.06	0.15	0.47	0.10	0.32	0.73

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	357	37	42	305	59	32	97	31	65	136	195
Future Volume (veh/h)	147	357	37	42	305	59	32	97	31	65	136	195
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	179	435	45	51	372	72	39	118	38	79	166	238
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	368	780	661	287	780	661	125	332	96	124	206	263
Arrive On Green	0.15	0.15	0.15	0.46	0.46	0.46	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	851	1683	1427	823	1683	1427	173	909	262	177	565	720
Grp Volume(v), veh/h	179	435	45	51	372	72	195	0	0	483	0	0
Grp Sat Flow(s),veh/h/ln	851	1683	1427	823	1683	1427	1344	0	0	1462	0	0
Q Serve(g_s), s	14.2	16.8	1.9	3.6	10.7	2.0	0.0	0.0	0.0	15.5	0.0	0.0
Cycle Q Clear(g_c), s	24.9	16.8	1.9	20.3	10.7	2.0	6.1	0.0	0.0	21.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.20		0.19	0.16		0.49
Lane Grp Cap(c), veh/h	368	780	661	287	780	661	553	0	0	594	0	0
V/C Ratio(X)	0.49	0.56	0.07	0.18	0.48	0.11	0.35	0.00	0.00	0.81	0.00	0.00
Avail Cap(c_a), veh/h	368	780	661	287	780	661	640	0	0	685	0	0
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.74	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	31.6	23.0	16.7	22.5	12.9	10.6	16.0	0.0	0.0	20.9	0.0	0.0
Incr Delay (d2), s/veh	3.4	2.1	0.1	1.3	2.1	0.3	0.4	0.0	0.0	6.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	7.8	0.6	0.8	4.1	0.6	2.2	0.0	0.0	8.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.0	25.1	16.9	23.8	15.0	11.0	16.4	0.0	0.0	27.5	0.0	0.0
LnGrp LOS	C	C	B	C	B	B	B	A	A	C	A	A
Approach Vol, veh/h		659			495			195			483	
Approach Delay, s/veh		27.2			15.3			16.4			27.5	
Approach LOS		C			B			B			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		31.6		38.4		31.6		38.4				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		30.0		28.0		30.0		28.0				
Max Q Clear Time (g_c+I1), s		8.1		26.9		23.8		22.3				
Green Ext Time (p_c), s		1.2		0.5		1.8		1.4				

Intersection Summary												
HCM 6th Ctrl Delay			22.9									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	407	35	25	334	7	37	20	35	5	15	10
Future Vol, veh/h	19	407	35	25	334	7	37	20	35	5	15	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	75	-	-	75	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	457	39	28	375	8	42	22	39	6	17	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	383	0	0	496	0	0	968	958	477	984	973	379
Stage 1	-	-	-	-	-	-	519	519	-	435	435	-
Stage 2	-	-	-	-	-	-	449	439	-	549	538	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1175	-	-	1068	-	-	233	257	588	228	252	668
Stage 1	-	-	-	-	-	-	540	533	-	600	580	-
Stage 2	-	-	-	-	-	-	589	578	-	520	522	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1175	-	-	1068	-	-	210	246	588	191	241	668
Mov Cap-2 Maneuver	-	-	-	-	-	-	210	246	-	191	241	-
Stage 1	-	-	-	-	-	-	530	523	-	589	565	-
Stage 2	-	-	-	-	-	-	547	563	-	456	513	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.6	24.1	19
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	290	1175	-	-	1068	-	-	290
HCM Lane V/C Ratio	0.356	0.018	-	-	0.026	-	-	0.116
HCM Control Delay (s)	24.1	8.1	-	-	8.5	-	-	19
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1.6	0.1	-	-	0.1	-	-	0.4

Intersection	
Int Delay, s/veh	2.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	19	5	29	37	9	30
Future Vol, veh/h	19	5	29	37	9	30
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	21	5	32	40	10	33

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	105	52	0	0	72	0
Stage 1	52	-	-	-	-	-
Stage 2	53	-	-	-	-	-
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	893	1016	-	-	1528	-
Stage 1	970	-	-	-	-	-
Stage 2	970	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	887	1016	-	-	1528	-
Mov Cap-2 Maneuver	887	-	-	-	-	-
Stage 1	963	-	-	-	-	-
Stage 2	970	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	911	1528	-
HCM Lane V/C Ratio	-	-	0.029	0.006	-
HCM Control Delay (s)	-	-	9.1	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	5.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	6	9	37	20	5	24
Future Vol, veh/h	6	9	37	20	5	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	10	40	22	5	26

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	17	0	114	12
Stage 1	-	-	-	-	12	-
Stage 2	-	-	-	-	102	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1600	-	882	1069
Stage 1	-	-	-	-	1011	-
Stage 2	-	-	-	-	922	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1600	-	860	1069
Mov Cap-2 Maneuver	-	-	-	-	860	-
Stage 1	-	-	-	-	986	-
Stage 2	-	-	-	-	922	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.7	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1026	-	-	1600	-
HCM Lane V/C Ratio	0.031	-	-	0.025	-
HCM Control Delay (s)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

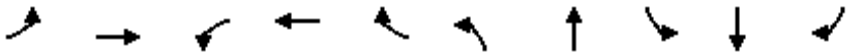
Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	19	0	12	0	2	10	21	307	5	9	376	34
Future Vol, veh/h	19	0	12	0	2	10	21	307	5	9	376	34
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	0	13	0	2	11	23	341	6	10	418	38

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	854	850	437	854	866	344	456	0	0	347	0	0
Stage 1	457	457	-	390	390	-	-	-	-	-	-	-
Stage 2	397	393	-	464	476	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	279	298	620	279	291	699	1105	-	-	1212	-	-
Stage 1	583	568	-	634	608	-	-	-	-	-	-	-
Stage 2	629	606	-	578	557	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	265	287	620	265	280	699	1105	-	-	1212	-	-
Mov Cap-2 Maneuver	265	287	-	265	280	-	-	-	-	-	-	-
Stage 1	568	562	-	618	592	-	-	-	-	-	-	-
Stage 2	601	590	-	559	551	-	-	-	-	-	-	-

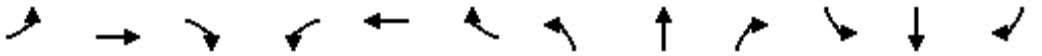
Approach	EB	WB	NB	SB
HCM Control Delay, s	16.8	11.6	0.5	0.2
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1105	-	-	340	559	1212	-	-
HCM Lane V/C Ratio	0.021	-	-	0.101	0.024	0.008	-	-
HCM Control Delay (s)	8.3	0	-	16.8	11.6	8	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.1	0	-	-



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	228	666	55	400	81	92	338	189	411	278
v/c Ratio	0.68	0.58	0.36	0.59	0.18	0.34	0.39	0.46	0.71	0.29
Control Delay	46.7	29.2	51.5	40.1	0.8	21.5	28.8	22.5	36.8	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.7	29.2	51.5	40.1	0.8	21.5	28.8	22.5	36.8	5.2
Queue Length 50th (ft)	118	167	29	109	0	30	78	66	208	30
Queue Length 95th (ft)	233	270	81	199	0	71	134	134	361	70
Internal Link Dist (ft)		1630		1483			647		762	
Turn Bay Length (ft)	335		200		200	85				175
Base Capacity (vph)	525	1469	181	809	509	272	1638	410	937	1123
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.45	0.30	0.49	0.16	0.34	0.21	0.46	0.44	0.25

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	487	106	49	356	72	82	269	32	168	366	247
Future Volume (veh/h)	203	487	106	49	356	72	82	269	32	168	366	247
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	228	547	119	55	400	81	92	302	36	189	411	278
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	277	889	193	80	695	310	252	743	88	436	523	690
Arrive On Green	0.16	0.31	0.31	0.04	0.20	0.20	0.06	0.23	0.23	0.10	0.28	0.28
Sat Flow, veh/h	1781	2904	630	1781	3554	1585	1781	3201	378	1781	1870	1585
Grp Volume(v), veh/h	228	334	332	55	400	81	92	166	172	189	411	278
Grp Sat Flow(s),veh/h/ln	1781	1777	1757	1781	1777	1585	1781	1777	1802	1781	1870	1585
Q Serve(g_s), s	9.5	12.3	12.4	2.3	7.8	3.3	3.0	6.1	6.2	6.0	15.6	9.2
Cycle Q Clear(g_c), s	9.5	12.3	12.4	2.3	7.8	3.3	3.0	6.1	6.2	6.0	15.6	9.2
Prop In Lane	1.00		0.36	1.00		1.00	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	277	544	538	80	695	310	252	413	419	436	523	690
V/C Ratio(X)	0.82	0.61	0.62	0.69	0.58	0.26	0.37	0.40	0.41	0.43	0.79	0.40
Avail Cap(c_a), veh/h	604	857	848	209	927	413	291	950	964	461	1073	1156
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.4	22.7	22.8	36.1	28.0	26.1	21.5	24.9	25.0	19.2	25.5	14.8
Incr Delay (d2), s/veh	6.1	1.1	1.2	9.9	0.8	0.4	0.9	0.6	0.6	0.7	2.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	4.8	4.8	1.2	3.1	1.2	1.3	2.6	2.7	2.5	7.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	23.9	23.9	46.0	28.7	26.6	22.4	25.6	25.6	19.9	28.1	15.2
LnGrp LOS	D	C	C	D	C	C	C	C	C	B	C	B
Approach Vol, veh/h		894			536			430			878	
Approach Delay, s/veh		27.3			30.2			24.9			22.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	23.8	9.5	29.5	10.3	27.5	17.9	21.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	9.0	41.0	9.0	37.0	6.0	44.0	26.0	20.0
Max Q Clear Time (g_c+I1), s	8.0	8.2	4.3	14.4	5.0	17.6	11.5	9.8
Green Ext Time (p_c), s	0.1	2.2	0.0	3.8	0.0	3.9	0.5	1.9

Intersection Summary	
HCM 6th Ctrl Delay	25.9
HCM 6th LOS	C