Launchpad
Traffic Impact Study

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FOX TUTTLE

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LAUNCHPAD

TRAFFIC IMPACT STUDY

1.0 Introduction

The Fox Tuttle Transportation Group has prepared this traffic impact study (Study) for the proposed development of the Launchpad Project (Project) located west of 19th Street across from Dale Street in Colorado Springs, Colorado (City). It is understood that the Project is proposing to develop the existing vacant land with multi-family affordable housing for at-risk youth. **Figure 1** provides a vicinity map of the existing property and Study area.

The purpose of this Study is to assist in identifying potential traffic impacts within the Study area as a result of the Project. The traffic study addresses existing, short-term, and long-term peak hour intersection conditions in the Study area with and without the Project-generated traffic. The information contained in this Study is anticipated to be used by City staff in identifying any intersection or roadway deficiencies and potential improvements for the build-out condition and long-term future scenarios. This Study focused on the weekday AM and PM peak hours which represents the periods of highest volumes on the adjacent streets.

2.0 Project Description

The Launchpad site is currently vacant and is adjacent to single-family detached and attached homes, multi-family apartments, commercial businesses, self-storage, a church and a recreation center. The Project proposes to develop one (1) four-story building containing 50 units for at-risk youth. It is assumed that the Project will be built in one (1) phase. The Project proposes to construct one (1) access on 19th Street that is aligned with Dale Street. The site plan and existing access are provided on **Figure 2**.

3.0 Study Considerations

3.1 Data Collection

Intersection turning movement volumes were collected in early December 2022 at two (2) existing intersections during the weekday AM and PM peak hours, including pedestrians and bicyclists. Daily traffic volumes were also collected on 19th Street north of Dale Street.

Existing and historic traffic volumes on the Study roadways were gathered from Colorado Department of Transportation's (CDOT) Transportation Data Management System (TDMS). Count data is provided in the **Appendix**.

3.2 Evaluation Methodology

The traffic operations analysis addressed the unsignalized and signalized intersection operations using the procedures and methodologies set forth by the *Highway Capacity Manual (HCM)*[1]. Study intersections were evaluated using Synchro software (v11).

3.3 Level of Service Capacity Analysis

A Level of Service analysis was conducted to determine the existing and future performance of the Study area intersections and access to determine the most appropriate intersection traffic controls and auxiliary lanes for future conditions.

To measure and describe the operational status of the Study intersections, transportation engineers and planners commonly use a grading system referred to as "Level of Service" (LOS) that is defined by the *HCM*. LOS characterizes the operational conditions of an intersections traffic flow, ranging from LOS A (indicating very good, free flow operations) and LOS F (indicating congested and sometimes oversaturated conditions). These grades represent the perspective of drivers and are an indication of the comfort and convenience associated with traveling through the intersections. The intersection LOS is represented as a delay in seconds per vehicle for the intersection as a whole and for each turning movement.

Typically, LOS A through C is considered to be acceptable for the overall intersection operations and LOS D overall during peak hours is acceptable. Individual movements may be allowed to fall to LOS E at intersections if the queuing is reasonable and mitigation is not warranted. Minor movements at

[1] *Highway Capacity Manual*, Highway Research Board Special Report 209, Transportation Research Board, National Research Council, 6th Edition (2016).

unsignalized intersections, such as left turns onto a major arterial, may be allowed to fall below LOS D if mitigation is not feasible or necessary. Criteria contained in the *HCM* was applied for these analyses in order to determine peak hour LOS for each scenario. A more detailed discussion of LOS methodology is contained in the **Appendix** for reference.

4.0 Existing Conditions

4.1 Roadways

The Study area boundaries are based on the amount of traffic to be generated by the Project and potential impact to the existing roadway network. The primary public roadways that serve the Project site are discussed in the following text and illustrated on **Figure 3**.

19th Street is a two-lane, north-south minor arterial roadway that extends between Colorado Avenue to the south and Mesa Road to the north, providing connectivity to residential neighborhoods, the King Soopers shopping center, West Middle School, small commercial businesses, and a local church. Between Dale Street and Uintah Street, 19th Street has a center two-way left-turn lane. North of Dale Street, the roadway no longer has a striped center median/turn lane but provides on-street parking/on-street bike lane. At the intersection with King Street, 19th Street curves to the northeast. Adjacent to the Project site, the posted speed limit is 30 miles per hour (mph). 19th Street serves approximately 6,100 vehicles per day (vpd) (Year 2022) north of Dale Street.

Dale Street is a two-lane, east-west local roadway with on-street parking. This roadway extends from 19th Street to 17th Street and appears to serve as a truck trailer parking area for the commercial businesses south of the roadway. There is no posted speed limit on Dale Street, however, it is assumed to be 25 mph. Dale Street serves approximately 900 vpd (Year 2022).

King Street is a two-lane, east-west local roadway which extends from 19th Street to 30th Street and provides access to residential neighborhoods, light industrial, churches, and small commercial businesses. The roadway has on-street parking and a center two-way left-turn lane (TWLTL) on the eastern half. At the intersection, King Street widens to accommodate one eastbound left-turn lane and one right-turn lane. West of the intersection with 19th Street, the posted speed limit is 35 mph. King Street serves approximately 3,400 vpd (Year 2022).

Oswego Street is a two-lane, north-south local roadway which extends approximately 0.35-mile north of 19th Street to provide access to single-family homes. The roadway provides on-street parking. At the intersection with 19th Street, Oswego Street provides a southbound right-turn

island and right-turn yield condition. There is no posted speed limit, however, it is assumed to be 25 mph. Oswego Street serves approximately 250 vpd (Year 2022).

4.2 Intersections

The Study area includes two (2) existing intersections that are listed below with the current traffic control. These intersections were analyzed for existing and future year traffic operations:

1. 19th Street and King Street / Oswego Street [side-street stop controlled]
2. 19th Street at Dale Street [side-street stop controlled]

The existing lane configuration at each of the existing Study locations are illustrated on **Figure 3**.

4.3 Pedestrian and Bicycle

Currently, there is a continuous detached sidewalk on the east side of 19th Street. Along the west side of 19th Street, there sidewalk segments are provided along redeveloped properties that are discontinuous along the corridor. There are no designated on-street bike lanes on the Study roadways, except for a "climbing lane" on the south side of 19th Street (eastbound), between Kings Street and Mesa Road. Bicyclists are permitted to utilize the travel lanes to ride. 19th Street and King Street are designated as bike routes (Green Line).

4.4 Transit

The City of Colorado Springs currently operates Mountain Metropolitan Transit, which has directional bus stops 19th Street north of Henderson Avenue, which is approximately 500 feet south of the Project site. There are additional bus stops on 19th Street near the Ruth Washburn Cooperative Nursery School, which is approximately 260 feet north of the Project site. The stops are served by Route 17 (19th St – Fillmore) which connects the Old Colorado City area to North Cascade and the downtown area.

4.5 Existing Intersection Capacity Analysis

The existing volumes, lane configuration, and traffic control are illustrated on **Figure 3**. The results of the LOS calculations for the intersections are summarized in **Table 1**. The 95th percentile queues are summarized in **Table 2**. The intersection Level of Service worksheets are attached in the **Appendix**.

Both of the Study intersections currently operate overall at LOS A, with all individual movements operating at LOS C or better. All of the calculated 95th percentile queue lengths were estimated to be contained within existing storage.

5.0 Future Conditions

5.1 Annual Growth Factor and Future Volume Methodology

In order to forecast future peak hour traffic volumes, this Study considered CDOT TDMS historic traffic volume data as well as general information from the Pikes Peak Area Council of Governments. CDOT TDMS data shows an average vehicle volume increase of 0.8% per year near the Project site. The highest growth on nearby US Highway 24 was 1.0%. For conservative purposes, this Study uses an annual growth of 1.0% for long term (Year 2042) background traffic volumes. The Year 2042 background volumes are summarized on **Figure 4**.

The Project will be constructed in one phase, being completed by Year 2024. It was determined that near-term background traffic would have minimal growth and the study intersections would operate the same as existing conditions. Therefore, Year 2024 background conditions are anticipated to equate to the existing volumes.

5.2 Year 2042 Background Intersection Capacity Analysis

The Study area intersections were evaluated to determine baseline operations for the Year 2042 background scenario and to identify any capacity constraints associated with background traffic in the long-term scenario. The long-term background volumes, lane configuration, and traffic control are illustrated on **Figure 4**.

The Level of Service criteria discussed previously was applied to the Study area intersections to determine the impacts with the long-term background volumes. The results of capacity analysis are shown in **Table 1** with the overall LOS and for each movement. The 95th percentile queues are summarized in **Table 2**. The intersection Level of Service worksheets are attached in the **Appendix**.

The Study intersections were estimated to operate at an overall LOS of A, with all individual movements estimated to operate at LOS D or better in both peak periods in Year 2042 Background. The 95th percentile queues were calculated to be contained within the existing storage, except the northbound left-turn on 19th Street at King Street.

At the intersection of **19th Street and King Street**, the northbound left-turn movement was calculated to experience a 95th percentile queue of 45 feet (about two vehicles) and is estimated to extend beyond the existing storage of 40 feet.

> ***Recommendation:*** Extend northbound left-turn storage to a minimum of 45 feet. This can be accomplished by extending the existing striping and implement on-street parking restrictions.

6.0 Future Conditions with the Launchpad Development

6.1 Trip Generation

A trip generation estimate was performed to determine the traffic characteristics of the proposed development. The trip rates contained in the Institute of Transportation Engineers (ITE) *Trip Generation Handbook and Manual*[2] were applied to estimate the traffic. The Project site will be comprised of 50 affordable housing multi-family units specifically for at-risk youth. The ITE *Trip Generation Handbook* recently added "Affordable Housing" as a land use type, but there is not a subcategory specific to serving at-risk youth. The definition of this land use type is:

> "*Affordable housing includes all multifamily housing that is rented at below market rate to households that include at least one employed member. Eligibility to live in affordable housing can be a function of limited household income and resident age. Data are presented for three subcategories for this land use: (1) sites with income limitations for its tenants (denoted as income limits in the data plots), (2) sites with both minimum age thresholds and income limitations for its tenants (denoted as senior in the data plots), and (3) sites designed for and occupied by residents with special needs, such as persons with physical and mental impairments, single mothers, recovering addicts and others living in a group setting."*

The trip data for "Affordable Housing" includes five (5) studies sites and there is limited data for each of the subcategories. Therefore, a combination of land uses was used in order to estimate the trip generation for Launchpad. The ITE AM peak hour and PM peak hour trip rates for #223 "Affordable Housing (Senior)" were applied to the proposed number of units, while the ITE daily trip rates for #223 "Affordable Housing (Special Needs)" were applied to the estimated number of residents. It is likely the proposed living facility will operate similarly to these two subcategories since the residents will likely not own a vehicle to drive to/from the site and specialized services will be provided to support the youth in becoming self-sufficient.

Table 3 provides the detailed trip generation estimates for the Project (refer to the **Appendix**). The proposed Project is expected to experience new trips (also known as 'primary trips') as discussed below:

> Primary Trips. These trips are made specifically to visit the site and are considered "new" trips. Primary trips would not have been made if the proposed Project did not exist. Therefore, this is the only trip type that increases the total number of trips made on a regional basis.
>
> Non-Auto Trips. These trips are those that are completed by walking, biking, or transit. It is anticipated that the trip rates account for non-auto trips.

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2 *Trip Generation Handbook and Manual, 11th Edition*, Institute of Transportation Engineers, 2021.

The Project was estimated to generate 42 daily trips with 9 trips in the AM peak hour and 5 trips in the PM peak hour. The trip generation calculations areis detailed in **Table 3**.

6.2 Trip Distribution and Assignment

The estimated trip volumes were distributed onto the Study area street network based on existing traffic characteristics, land uses, and traffic patterns in the area, as well as regional growth and future roadway infrastructure. The assumed distribution is shown on **Figure 5**. Using the distribution assumptions, the projected site traffic was assigned to the Study area roadway network for the weekday AM and PM peak hour periods and shown on **Figure 6.**

6.3 Existing + Project Intersection Capacity Analysis

This section discusses impacts associated with the Launchpad Project in the near-term scenario. The site-generated volumes were added to the existing volumes and are illustrated on **Figure 7.** The details of the LOS for each movement are listed in **Table 1**. The 95th percentile queues are summarized in **Table 2**. The intersection Level of Service worksheets are attached in the **Appendix**.

The Project trips have little to no impact on the performance of the Study intersections, overall and on for each movement. The Study intersections were estimated to remain the same letter grade (LOS A) as existing with all individual movements also operating the same letter grade (LOS C or better) in both peak periods. All of the calculated 95th percentile queue lengths were estimated to be contained within existing storage.

6.4 Year 2042 Background + Project Intersection Capacity Analysis

This section discusses impacts associated with the Launchpad Project in the long-term scenario. The site-generated volumes were added to the Year 2042 background volumes and are illustrated on **Figure 8**. The details of the LOS for each movement are listed in **Table 1**. The 95th percentile queues are summarized in **Table 2**. The intersection Level of Service worksheets are attached in the **Appendix**.

The Project trips have little to no impact on the performance of the Study intersections, overall and on for each movement. The Study intersections were estimated to remain the same letter grade (LOS A) as existing with all individual movements also operating the same letter grade (LOS D or better) in both peak periods. All of the calculated 95th percentile queue lengths were estimated to be contained within existing storage.

7.0 Queuing Analysis

A queuing analysis was performed to determine if the 95th percentile queues would be accommodated by the existing storage length, to determine the storage lengths for future auxiliary lanes, and if any of the queues would impact an upstream intersection/access. **Table 2** provides the existing storage lengths, as well as the 95th percentile queues for each existing and future scenario as calculated by Synchro (assuming each vehicle utilizes 25 feet of space).

It should be noted that the 95th percentile queue length is a theoretical queue that is 1.65 standard deviations above the average queue length. In theory, the 95th percentile queue would be exceeded 5% of the time based on the average queue length, but it is also possible that a queue this long may not occur.

The maximum 95th percentile queues were compared to the existing storage lengths to ensure they were adequate. **Based on the queueing analysis, all estimated 95th percentile queue lengths are contained within existing storage for all scenarios with the exception of the northbound left-turn lane at 19th Street and King Street.** It is recommended that the northbound left-turn storage length at this intersection be lengthened from 40 feet to 45 feet based on Year 2042 background traffic volumes. Lengthening the storage can likely be accomplished with additional striping and on-street parking restriction. Recommended auxiliary lane storage lengths are listed in **Table 2**.

8.0 Conclusions

The Launchpad Project proposes to develop the vacant site on the west side of 19th Street across from Dale Street. The site plan proposes to have one (1) full-movement, side-street stop-controlled access on 19th Street which will align with Dale Street, becoming the west leg of the intersection. The Project was estimated to generate 42 daily trips with 9 trips in the AM peak hour and 5 trips in the PM peak hour.

The existing roadway network has ample capacity to accommodate the Launchpad trips. The only recommended mitigation measure is to lengthen the northbound left-turn lane storage from 40 feet to 45 feet at the intersection of 19th Street and King Street. This is triggered by the 95th percentile queues in the long-term background condition and is not project related. The access into Launchpad is recommended to include one inbound and one outbound lane and does not require auxiliary lanes.

Tables and Figures:

Table 1 - Peak Hour Intersection Level of Service Summary

Intersections and Lane Groups	Year 2022 Existing				Existing with Project				Year 2042 Background				Year 2042 with Project			
	AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
STOP SIGN CONTROL																
#1. 19th Street and King Street	**7**	**A**	**7**	**A**	**7**	**A**	**7**	**A**	**6**	**A**	**8**	**A**	**6**	**A**	**8**	**A**
Eastbound Left	0	A	8	A	0	A	8	A	7	A	8	A	7	A	8	A
Eastbound Through	0	A	0	A	0	A	0	A	0	A	0	A	0	A	0	A
Eastbound Right	0	A	0	A	0	A	0	A	0	A	0	A	0	A	0	A
Westbound Left	8	A	8	A	8	A	8	A	8	A	8	A	8	A	8	A
Westbound Through+Right	0	A	0	A	0	A	0	A	0	A	0	A	0	A	0	A
Northbound Left	18	C	22	C	18	C	22	C	17	C	27	D	17	C	27	D
Northbound Through+Right	11	B	11	B	11	B	11	B	11	B	11	B	11	B	11	B
Southbound Left+Through+Right	23	C	22	C	23	C	22	C	18	C	20	C	18	C	20	C
#2. 19th Street and Dale Street / Project Access	**1**	**A**	**2**	**A**	**1**	**A**	**2**	**A**	**1**	**A**	**1**	**A**	**1**	**A**	**2**	**A**
Eastbound Left+Through+Right					11	B	13	B					11	B	14	B
Westbound Left+Right	12	B	14	B					12	B	14	B				
Westbound Left+Through+Right					14	B	18	C					14	B	19	C
Northbound Through+Right	0	A	0	A					0	A	0	A				
Northbound Left+Through+Right					8	A	8	A					8	A	8	A
Southbound Left+Through	8	A	8	A					8	A	8	A				
Southbound Left+Through+Right					8	A	8	A					8	A	8	A

Table 2 - Peak Hour Estimated Queues and Proposed Auxiliary Lanes

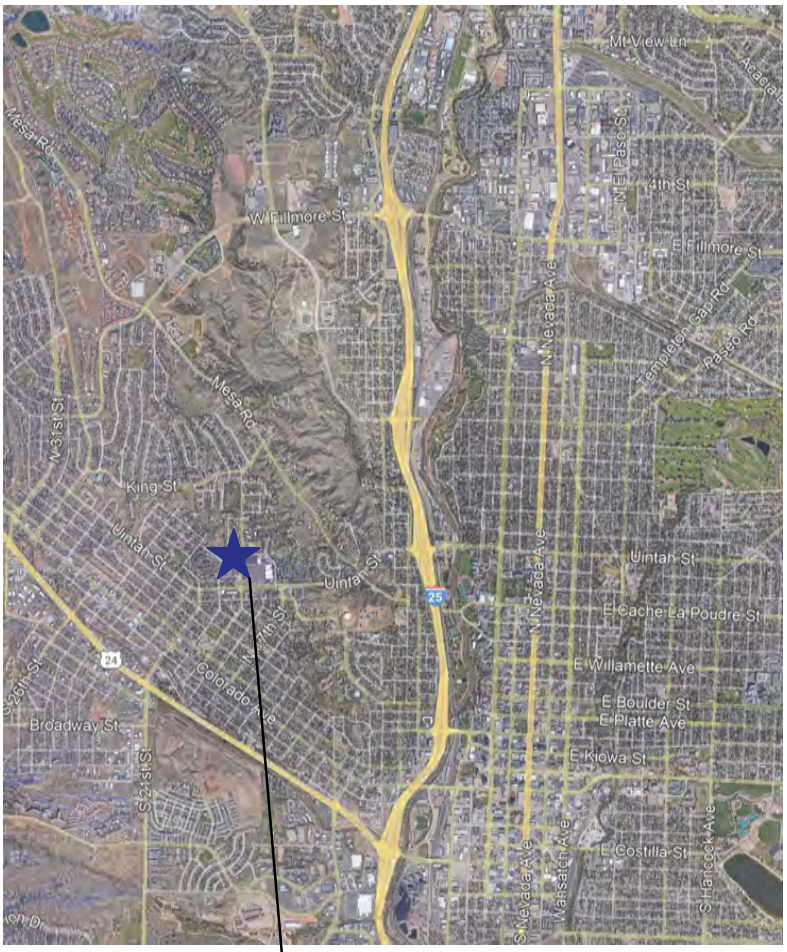
Intersections and Lane Groups	Year 2022 Existing 95th% Queue AM	Year 2022 Existing 95th% Queue PM	Existing with Project 95th% Queue AM	Existing with Project 95th% Queue PM	Year 2042 Background 95th% Queue AM	Year 2042 Background 95th% Queue PM	Year 2042 with Project 95th% Queue AM	Year 2042 with Project 95th% Queue PM	Max. Queue	Existing Storage	Future (Project and Non-Project) Storage (ft)
#1. 19th Street and King Street	*Stop-Control*		*Stop-Control*		*Stop-Control*		*Stop-Control*				
Eastbound Left	0'	0'	0'	0'	0'	0'	0'	0'	0'	115'	115' (existing)
Eastbound Through	0'	0'	0'	0'	0'	0'	0'	0'	0'	-	-
Eastbound Right	0'	0'	0'	0'	0'	0'	0'	0'	0'	115'	115' (existing)
Westbound Left	13'	15'	13'	15'	13'	18'	13'	18'	18'	50'	50' (existing)
Westbound Through+Right	0'	0'	0'	0'	0'	0'	0'	0'	0'	-	-
Northbound Left	10'	30'	10'	30'	13'	45'	13'	45'	45'	40'	45'
Northbound Through+Right	23'	30'	23'	30'	28'	40'	28'	40'	40'	-	-
Southbound Left+Through+Right	15'	5'	15'	5'	5'	5'	5'	5'	15'	-	-
#2. 19th Street and Dale Street / Project Access	*Stop-Control*		*Stop-Control*		*Stop-Control*		*Stop-Control*				
Eastbound Left+Through+Right			0'	0'			0'	0'	0'	-	-
Westbound Left+Right	5'	18'			5'	13'			18'	-	-
Westbound Left+Through+Right			8'	28'			8'	20'	28'	-	-
Northbound Through+Right	0'	0'			0'	0'			0'	-	-
Northbound Left+Through+Right			0'	0'			0'	0'	0'	-	-
Southbound Left+Through	0'	0'			0'	0'			0'	-	-
Southbound Left+Through+Right			0'	0'			0'	0'	0'	-	-

Table 3 - Trip Generation Summary

Land Use	Size	Unit	Internal Capture	Average Daily Trips				AM Peak Hour Trips				PM Peak Hour Trips			
				Rate	Total	In	Out	Rate	Total	In	Out	Rate	Total	In	Out
ITE 223 - Affordable Housing (Senior) [1]	50	DU	1.00					0.18	9	5	4	0.09	5	3	2
ITE 223 - Affordable Housing (Special Needs) [1]	53	Residents	1.00	0.79	42	21	21								
			Total Trips		***42***	***21***	***21***		***9***	***5***	***4***		***5***	***3***	***2***

Source: Institute of Transportation Engineers Trip Generation Manual

[1] *Affordable Housing (Special Needs) used for daily rate as daily rate is not available for Affordable Housing (Senior)*



PROJECT SITE

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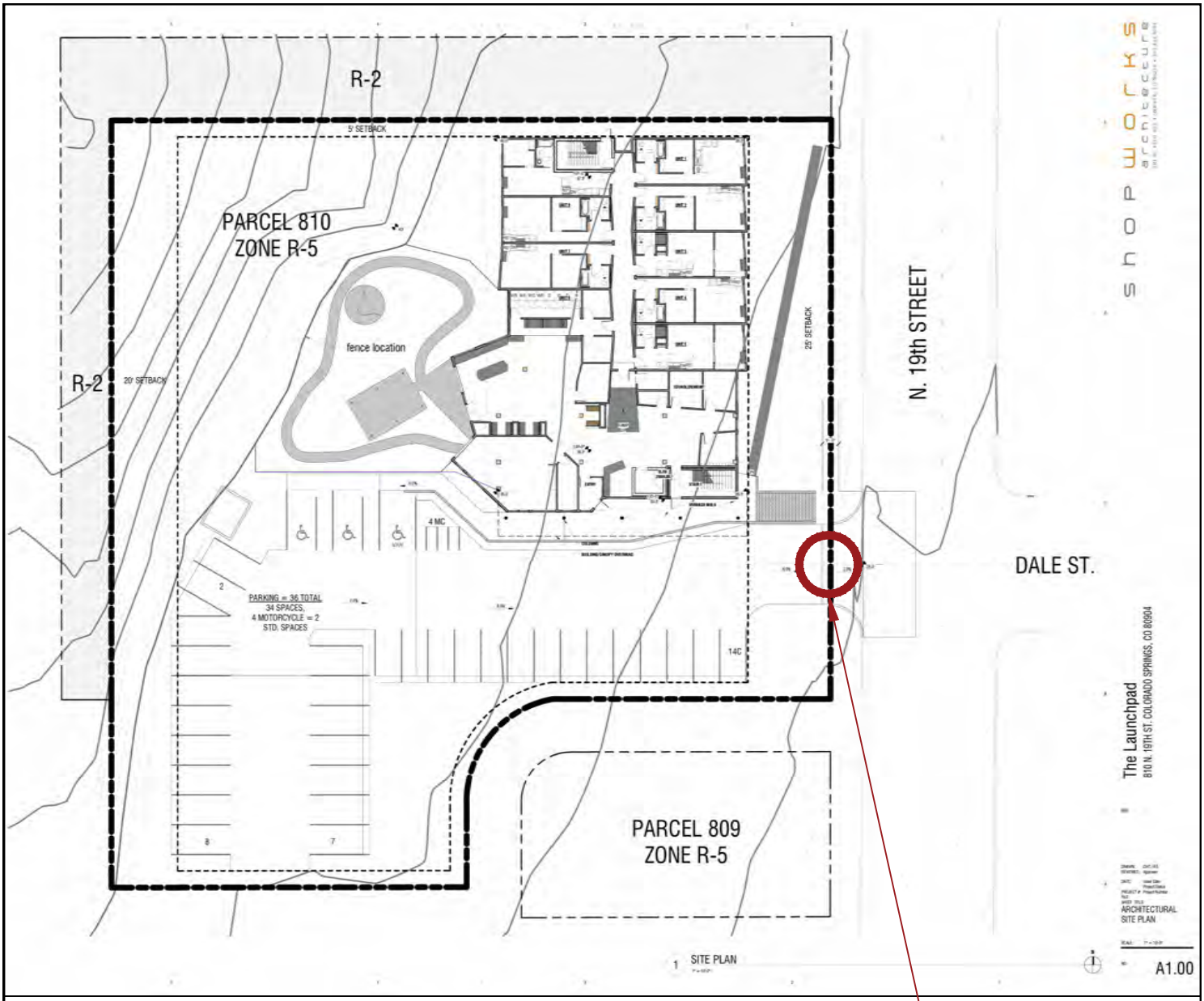
LAUNCHPAD TRAFFIC IMPACT STUDY - COLORADO SPRINGS, CO

VICINITY MAP

Project #	22095	Original Scale	NTS	Date	11/22/2022	Drawn by	CAF	Figure #	1



PROPOSED ACCESS
FULL MOVEMENT
SIDE-STREET STOP-CONTROLLED

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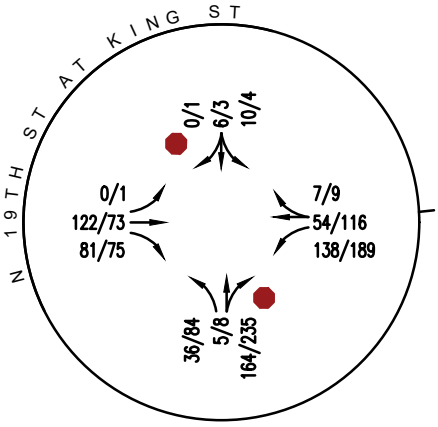
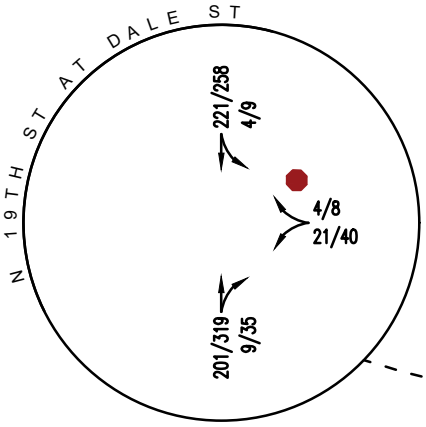
LAUNCHPAD TRAFFIC IMPACT STUDY - COLORADO SPRINGS, CO

SITE PLAN AND ACCESS

Project #	22095	Original Scale	NTS	Date	11/22/2022	Drawn by	CAF	Figure #	2





N

LEGEND

←	EXISTING LANE CONFIGURATION
XX/XX	AM/PM PEAK HOUR TRAFFIC VOLUME
XX,XXX	DAILY TRAFFIC VOLUME

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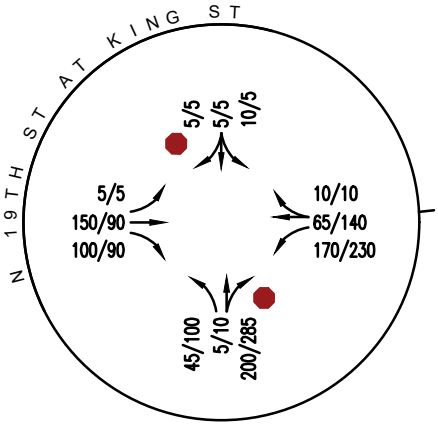
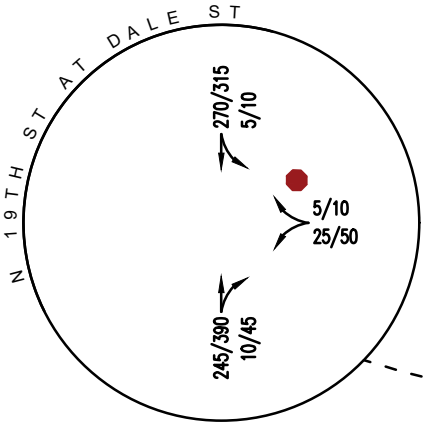
LAUNCHPAD TRAFFIC IMPACT STUDY - COLORADO SPRINGS, CO

YEAR 2022 EXISTING TRAFFIC VOLUMES

Project #	22095	Original Scale	NTS	Date	12/20/2022	Drawn by	CAF	Figure #	3





N

LEGEND

←	EXISTING LANE CONFIGURATION
XX/XX	AM/PM PEAK HOUR TRAFFIC VOLUME
XX,XXX	DAILY TRAFFIC VOLUME

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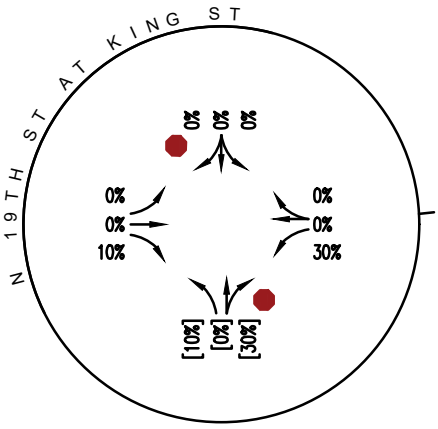
LAUNCHPAD TRAFFIC IMPACT STUDY - COLORADO SPRINGS, CO

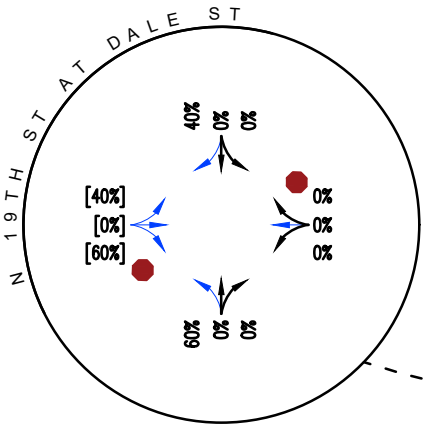
YEAR 2042 BACKGROUND TRAFFIC VOLUMES

Project #	22095	Original Scale	NTS	Date	12/20/2022	Drawn by	CAF	Figure #	5

10%
TO/FROM THE WEST VIA KING ST

30%
TO/FROM THE EAST VIA N 19TH ST





15%
TO/FROM THE WEST VIA UINTAH ST

45%
TO/FROM THE EAST VIA UINTAH ST

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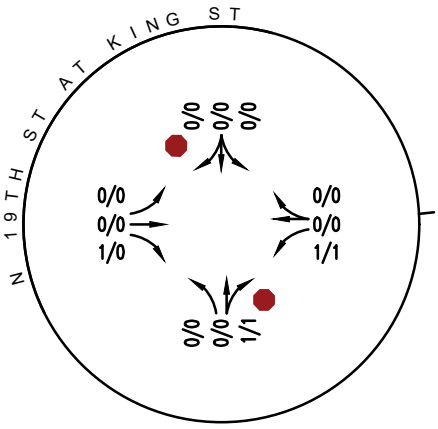
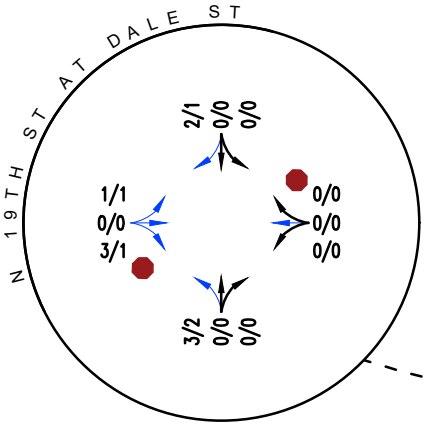
LAUNCHPAD TRAFFIC IMPACT STUDY - COLORADO SPRINGS, CO

SITE TRIP DISTRIBUTION

Project #	22095	Original Scale	NTS	Date	12/20/2022	Drawn by	CAF	Figure #	5





N

LEGEND

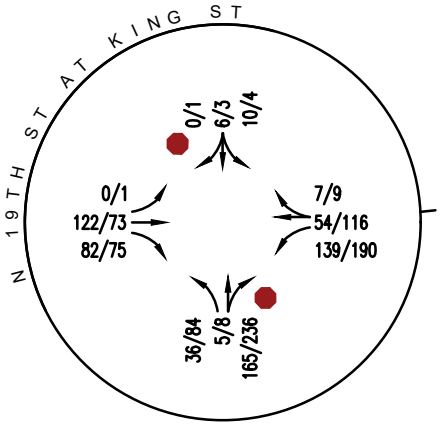
- EXISTING LANE CONFIGURATION
- PROJECT LANE CONFIGURATION
- XX/XX AM/PM PEAK HOUR TRIP VOLUME
- XX,XXX DAILY TRIP VOLUME

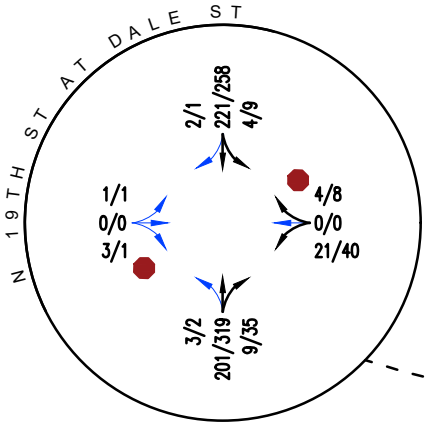
FOX TUTTLE TRANSPORTATION GROUP

LAUNCHPAD TRAFFIC IMPACT STUDY - COLORADO SPRINGS, CO

SITE-GENERATED TRIPS

Project #	22095	Original Scale	NTS	Date	12/20/2022	Drawn by	CAF	Figure #	6





N

LEGEND

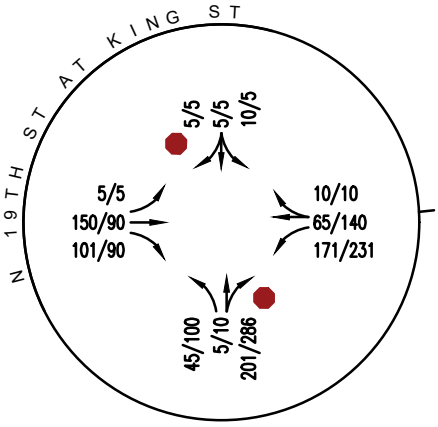
←	EXISTING LANE CONFIGURATION
←	PROJECT LANE CONFIGURATION
XX/XX	AM/PM PEAK HOUR TRAFFIC VOLUME
XX,XXX	DAILY TRAFFIC VOLUME

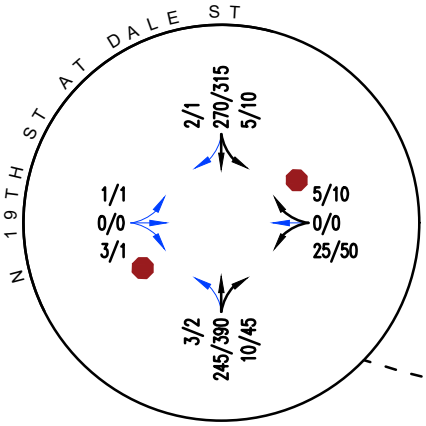
FOX TUTTLE TRANSPORTATION GROUP

LAUNCHPAD TRAFFIC IMPACT STUDY - COLORADO SPRINGS, CO

EXISTING + PROJECT TRAFFIC VOLUMES

Project #	22095	Original Scale	NTS	Date	12/20/2022	Drawn by	CAF	Figure #	7





N

LEGEND

- EXISTING LANE CONFIGURATION
- PROJECT LANE CONFIGURATION
- XX/XX — AM/PM PEAK HOUR TRAFFIC VOLUME
- XX,XXX — DAILY TRAFFIC VOLUME

FOX TUTTLE TRANSPORTATION GROUP

LAUNCHPAD TRAFFIC IMPACT STUDY - COLORADO SPRINGS, CO

YEAR 2042 BACKGROUND + PROJECT TRAFFIC VOLUMES

Project #	22095	Original Scale	NTS	Date	12/20/2022	Drawn by	CAF	Figure #	8

Appendix:

Level of Service Definitions

Existing Traffic Data

Intersection Capacity Worksheets

Level of Service Definitions

LEVEL OF SERVICE DEFINITIONS

In rating roadway and intersection operating conditions with existing or future traffic volumes, "Levels of Service" (LOS) A through F are used, with LOS A indicating very good operation and LOS F indicating poor operation. Levels of service at signalized and unsignalized intersections are closely associated with vehicle delays experienced in seconds per vehicle. More complete level of service definitions and delay data for signal and stop sign controlled intersections are contained in the following table for reference.

Level of Service Rating	Delay in seconds per vehicle *(a)*		Definition
	Signalized	Unsignalized	
A	0.0 to 10.0	0.0 to 10.0	Low vehicular traffic volumes; primarily free flow operations. Density is low and vehicles can freely maneuver within the traffic stream. Drivers are able to maintain their desired speeds with little or no delay.
B	10.1 to 20.0	10.1 to 15.0	Stable vehicular traffic volume flow with potential for some restriction of operating speeds due to traffic conditions. Vehicle maneuvering is only slightly restricted. The stopped delays are not bothersome and drivers are not subject to appreciable tension.
C	20.1 to 35.0	15.1 to 25.0	Stable traffic operations, however the ability for vehicles to maneuver is more restricted by the increase in traffic volumes. Relatively satisfactory operating speeds prevail, but adverse signal coordination or longer vehicle queues cause delays along the corridor.
D	35.1 to 55.0	25.1 to 35.0	Approaching unstable vehicular traffic flow where small increases in volume could cause substantial delays. Most drivers are restricted in ability to maneuver and selection of travel speeds due to congestion. Driver comfort and convenience are low, but tolerable.
E	55.1 to 80.0	35.1 to 50.0	Traffic operations characterized by significant approach delays and average travel speeds of one-half to one-third the free flow speed. Vehicular flow is unstable and there is potential for stoppages of brief duration. High signal density, extensive vehicle queuing, or corridor signal progression/timing are the typical causes of vehicle delays at signalized corridors.
F	> 80.0	> 50.0	Forced vehicular traffic flow and operations with high approach delays at critical intersections. Vehicle speeds are reduced substantially, and stoppages may occur for short or long periods of time because of downstream congestion.

(a) Delay ranges based on Highway Capacity Manual (6th Edition, 2016) criteria.

Existing Traffic Data

Location: 19th St N/O Dale St
Date Range: 12/1/2022 - 12/7/2022
Site Code: 01

	Thursday			Friday			Saturday			Sunday			Monday			Tuesday			Wednesday					
	12/1/2022			12/2/2022			12/3/2022			12/4/2022			12/5/2022			12/6/2022			12/7/2022			Mid-Week Average		
Time	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	9	6	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	6	15
1:00 AM	10	4	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	4	14
2:00 AM	9	11	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	11	20
3:00 AM	3	7	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	7	10
4:00 AM	7	10	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	10	17
5:00 AM	20	42	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	42	62
6:00 AM	53	71	124	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53	71	124
7:00 AM	176	232	408	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	176	232	408
8:00 AM	172	195	367	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	172	195	367
9:00 AM	144	171	315	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	144	171	315
10:00 AM	179	160	339	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	179	160	339
11:00 AM	230	244	474	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	230	244	474
12:00 PM	247	218	465	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	247	218	465
1:00 PM	232	188	420	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	232	188	420
2:00 PM	243	187	430	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	243	187	430
3:00 PM	331	253	584	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	331	253	584
4:00 PM	319	275	594	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	319	275	594
5:00 PM	328	192	520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	328	192	520
6:00 PM	192	154	346	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	192	154	346
7:00 PM	129	98	227	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	129	98	227
8:00 PM	80	66	146	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	66	146
9:00 PM	81	57	138	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	81	57	138
10:00 PM	41	38	79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41	38	79
11:00 PM	14	10	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	10	24
Total	**3,249**	**2,889**	**6,138**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**3,249**	**2,889**	**6,138**
Percent	**53%**	**47%**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**53%**	**47%**	-

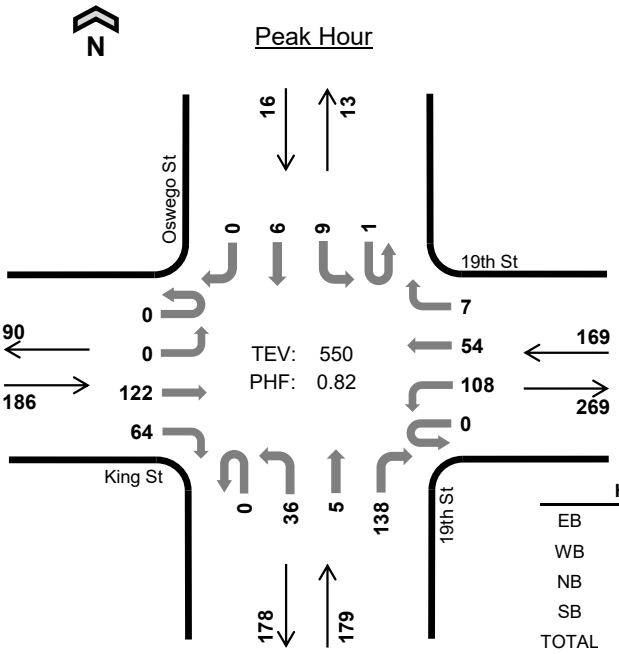
1. Mid-week average includes data between Tuesday and Thursday.

TJ Wethington
720-646-1008
tj.wethington@idaxdata.com

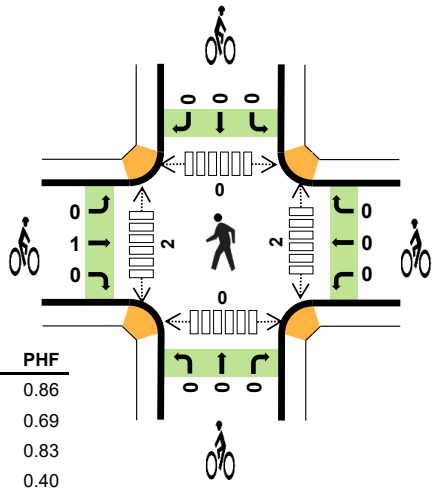
19th St
King St

Peak Hour

Date: 12/01/2022
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM



	HV %:	PHF
EB	1.6%	0.86
WB	2.4%	0.69
NB	1.7%	0.83
SB	6.3%	0.40
TOTAL	2.0%	0.82



Two-Hour Count Summaries

Interval Start	King St Eastbound				19th St Westbound				19th St Northbound				Oswego St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	24	9	0	15	6	0	0	3	1	26	0	3	0	1	88	0
7:15 AM	0	1	32	25	0	24	4	0	0	4	1	42	0	2	1	0	136	0
7:30 AM	**0**	**0**	**35**	**19**	**0**	**26**	**10**	**3**	**0**	**3**	**0**	**38**	**1**	**5**	**4**	**0**	**144**	0
7:45 AM	**0**	**0**	**31**	**20**	**0**	**42**	**17**	**2**	**0**	**15**	**0**	**39**	**0**	**1**	**1**	**0**	**168**	536
8:00 AM	**0**	**0**	**24**	**6**	**0**	**22**	**11**	**0**	**0**	**7**	**4**	**21**	**0**	**1**	**0**	**0**	**96**	544
8:15 AM	**0**	**0**	**32**	**19**	**0**	**18**	**16**	**2**	**0**	**11**	**1**	**40**	**0**	**2**	**1**	**0**	**142**	**550**
8:30 AM	0	1	24	15	0	26	11	2	0	10	1	21	0	0	1	2	114	520
8:45 AM	0	0	21	14	0	25	12	2	0	8	0	18	0	0	1	0	101	453
Count Total	0	2	223	127	0	198	87	11	0	61	8	245	1	14	9	3	989	0
Peak Hour All	**0**	**0**	**122**	**64**	**0**	**108**	**54**	**7**	**0**	**36**	**5**	**138**	**1**	**9**	**6**	**0**	**550**	**0**
Peak Hour HV	**0**	**0**	**1**	**2**	**0**	**1**	**3**	**0**	**0**	**2**	**1**	**0**	**0**	**1**	**0**	**0**	**11**	**0**
Peak Hour HV%	**-**	**-**	**1%**	**3%**	**-**	**1%**	**6%**	**0%**	**-**	**6%**	**20%**	**0%**	**0%**	**11%**	**0%**	**-**	**2%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	3	0	0	0	*3*	0	0	0	0	*0*	1	0	0	0	*1*
7:30 AM	**2**	**1**	**0**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	*1*
7:45 AM	**0**	**2**	**1**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
8:00 AM	**1**	**0**	**2**	**1**	***4***	**1**	**0**	**0**	**0**	***1***	**1**	**1**	**0**	**0**	*2*
8:15 AM	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:30 AM	2	0	0	1	*3*	0	0	0	0	*0*	1	0	1	0	*2*
8:45 AM	0	1	2	0	*3*	0	0	0	0	*0*	0	1	0	0	*1*
Count Total	8	5	5	2	*20*	1	0	0	0	*1*	4	3	1	0	*8*
Peak Hour	**3**	**4**	**3**	**1**	***11***	**1**	**0**	**0**	**0**	***1***	**2**	**2**	**0**	**0**	***4***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	King St				19th St				19th St				Oswego St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3	0
7:30 AM	**0**	**0**	**0**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	9
8:00 AM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**1**	**0**	**0**	**4**	13
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**11**
8:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	3	11
8:45 AM	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	3	11
Count Total	0	2	1	5	0	1	4	0	0	4	1	0	0	1	0	1	20	0
Peak Hour	**0**	**0**	**1**	**2**	**0**	**1**	**3**	**0**	**0**	**2**	**1**	**0**	**0**	**1**	**0**	**0**	**11**	**0**

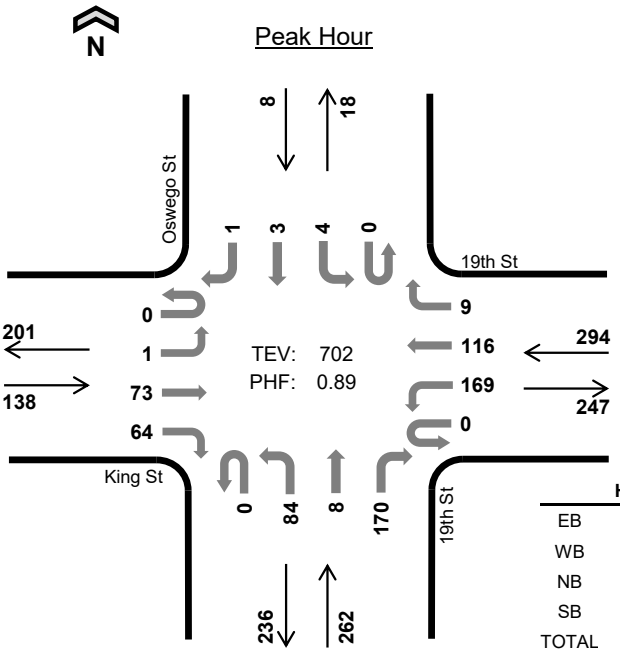
Two-Hour Count Summaries - Bikes

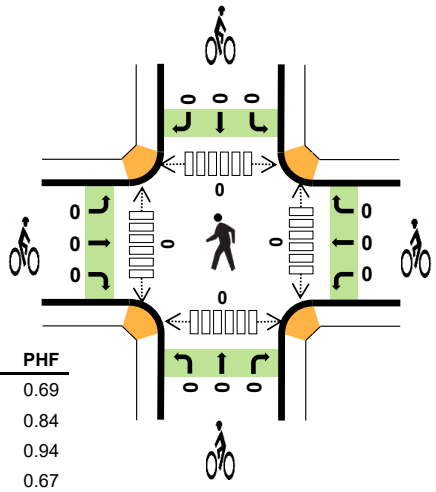
Interval Start	King St			19th St			19th St			Oswego St			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:00 AM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	1
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	1	0	0	0	0	0	0	0	0	0	0	1	0
Peak Hour	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

19th St
King St

Date: 12/01/2022
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM





	HV %:	PHF
EB	1.4%	0.69
WB	1.4%	0.84
NB	1.1%	0.94
SB	0.0%	0.67
TOTAL	1.3%	0.89

Two-Hour Count Summaries

Interval Start	King St Eastbound				19th St Westbound				19th St Northbound				Oswego St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**15**	**11**	**0**	**49**	**26**	**2**	**0**	**22**	**2**	**46**	**0**	**1**	**0**	**0**	**174**	0
4:15 PM	**0**	**0**	**19**	**11**	**0**	**53**	**33**	**2**	**0**	**18**	**1**	**41**	**0**	**1**	**0**	**0**	**179**	0
4:30 PM	**0**	**1**	**25**	**24**	**0**	**38**	**34**	**4**	**0**	**24**	**4**	**41**	**0**	**1**	**1**	**1**	**198**	0
4:45 PM	**0**	**0**	**14**	**18**	**0**	**29**	**23**	**1**	**0**	**20**	**1**	**42**	**0**	**1**	**2**	**0**	**151**	**702**
5:00 PM	0	1	18	8	0	30	23	3	0	23	3	48	0	0	0	0	157	685
5:15 PM	0	1	14	6	0	49	26	3	0	28	0	58	0	4	2	0	191	697
5:30 PM	0	2	15	12	0	36	25	4	0	21	1	52	0	1	2	0	171	670
5:45 PM	0	0	21	8	0	24	26	3	0	22	3	31	0	2	3	0	143	662
Count Total	0	5	141	98	0	308	216	22	0	178	15	359	0	11	10	1	1,364	0
Peak Hour All	**0**	**1**	**73**	**64**	**0**	**169**	**116**	**9**	**0**	**84**	**8**	**170**	**0**	**4**	**3**	**1**	**702**	**0**
Peak Hour HV	**0**	**0**	**0**	**2**	**0**	**0**	**4**	**0**	**0**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**9**	**0**
Peak Hour HV%	**-**	**0%**	**0%**	**3%**	**-**	**0%**	**3%**	**0%**	**-**	**1%**	**0%**	**1%**	**-**	**0%**	**0%**	**0%**	**1%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:15 PM	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**1**	**2**	**1**	**0**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**1**	**1**	**1**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	1	0	*1*
5:30 PM	2	0	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	0	2	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	4	4	5	0	*13*	0	0	0	0	*0*	0	0	1	0	*1*
Peak Hour	**2**	**4**	**3**	**0**	***9***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	King St Eastbound				19th St Westbound				19th St Northbound				Oswego St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	0
4:30 PM	**0**	**0**	**0**	**1**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**4**	0
4:45 PM	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**9**
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
5:30 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	5
5:45 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	4
Count Total	0	0	1	3	0	0	4	0	0	2	1	2	0	0	0	0	13	0
Peak Hour	**0**	**0**	**0**	**2**	**0**	**0**	**4**	**0**	**0**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**9**	**0**

Two-Hour Count Summaries - Bikes

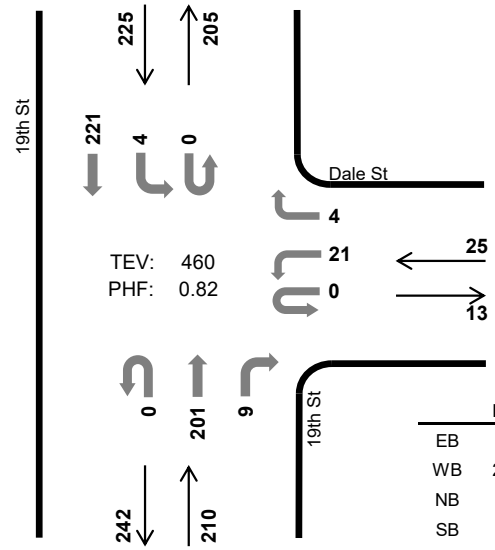
Interval Start	King St Eastbound			19th St Westbound			19th St Northbound			Oswego St Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

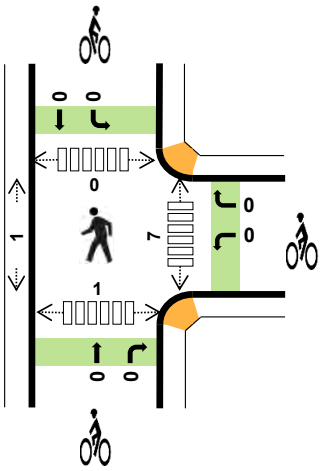
19th St
Dale St

Date: 12/01/2022
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM

Peak Hour



	HV %:	PHF
EB	-	-
WB	20.0%	0.63
NB	2.9%	0.77
SB	0.9%	0.84
TOTAL	2.8%	0.82



Two-Hour Count Summaries

Interval Start		N/A Eastbound				Dale St Westbound				19th St Northbound				19th St Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	6	0	1	0	0	36	2	0	0	31	0	76	0
7:15 AM		0	0	0	0	0	0	0	5	0	0	35	0	0	0	67	0	107	0
7:30 AM		**0**	**0**	**0**	**0**	**0**	**8**	**0**	**2**	**0**	**0**	**40**	**2**	**0**	**3**	**57**	**0**	**112**	0
7:45 AM		**0**	**0**	**0**	**0**	**0**	**4**	**0**	**1**	**0**	**0**	**67**	**1**	**0**	**0**	**67**	**0**	**140**	435
8:00 AM		**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**36**	**4**	**0**	**0**	**46**	**0**	**92**	451
8:15 AM		**0**	**0**	**0**	**0**	**0**	**3**	**0**	**1**	**0**	**0**	**58**	**2**	**0**	**1**	**51**	**0**	**116**	**460**
8:30 AM		0	0	0	0	0	6	0	1	0	0	38	4	0	0	49	0	98	446
8:45 AM		0	0	0	0	0	2	0	2	0	0	34	1	0	1	45	0	85	391
Count Total		0	0	0	0	0	35	0	13	0	0	344	16	0	5	413	0	826	0
Peak Hour	**All**	**0**	**0**	**0**	**0**	**0**	**21**	**0**	**4**	**0**	**0**	**201**	**9**	**0**	**4**	**221**	**0**	**460**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**1**	**1**	**0**	**13**	**0**
	HV%	**-**	**-**	**-**	**-**	**-**	**24%**	**-**	**0%**	**-**	**-**	**3%**	**0%**	**-**	**25%**	**0%**	**-**	**3%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	2	1	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	0	0	0	2	*2*	0	0	0	0	*0*	2	0	0	0	*2*
7:30 AM	**0**	**1**	**2**	**2**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	*1*
7:45 AM	**0**	**2**	**3**	**0**	***5***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**0**	**0**	*2*
8:00 AM	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**3**	**0**	**0**	**1**	*4*
8:15 AM	**0**	**1**	**1**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**0**	**0**	***2***
8:30 AM	0	0	2	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	0	1	3	0	*4*	0	0	0	0	*0*	1	0	0	0	*1*
Count Total	0	8	12	5	*25*	0	0	0	0	*0*	10	1	0	1	*12*
Peak Hr	**0**	**5**	**6**	**2**	***13***	**0**	**0**	**0**	**0**	***0***	**7**	**1**	**0**	**1**	***9***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	N/A				Dale St				19th St				19th St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	3	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**1**	**1**	**0**	**5**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**5**	15
8:00 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	13
8:15 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	**13**
8:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	11
8:45 AM	0	0	0	0	0	0	0	1	0	0	3	0	0	0	0	0	4	10
Count Total	0	0	0	0	0	7	0	1	0	0	12	0	0	1	4	0	25	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**1**	**1**	**0**	**13**	**0**

Two-Hour Count Summaries - Bikes

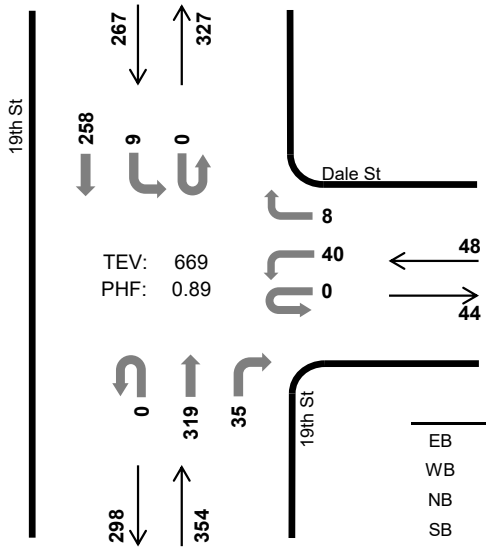
Interval Start	N/A			Dale St			19th St			19th St			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

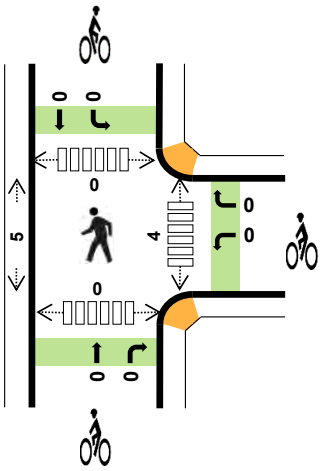
19th St
Dale St

Date: 12/01/2022
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM

Peak Hour



	HV %:	PHF
EB	-	-
WB	2.1%	0.48
NB	1.1%	0.86
SB	0.7%	0.89
TOTAL	1.0%	0.89



Two-Hour Count Summaries

Interval Start		N/A Eastbound UT	LT	TH	RT	Dale St Westbound UT	LT	TH	RT	19th St Northbound UT	LT	TH	RT	19th St Southbound UT	LT	TH	RT	15-min Total	Rolling One Hour
4:00 PM		**0**	**0**	**0**	**0**	**0**	**20**	**0**	**5**	**0**	**0**	**79**	**8**	**0**	**4**	**62**	**0**	**178**	0
4:15 PM		**0**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**74**	**10**	**0**	**3**	**71**	**0**	**165**	0
4:30 PM		**0**	**0**	**0**	**0**	**0**	**7**	**0**	**2**	**0**	**0**	**91**	**12**	**0**	**1**	**74**	**0**	**187**	0
4:45 PM		**0**	**0**	**0**	**0**	**0**	**6**	**0**	**1**	**0**	**0**	**75**	**5**	**0**	**1**	**51**	**0**	**139**	**669**
5:00 PM		0	0	0	0	0	6	0	1	0	0	80	12	0	5	33	0	137	628
5:15 PM		0	0	0	0	0	3	0	3	0	0	102	12	0	2	60	0	182	645
5:30 PM		0	0	0	0	0	3	0	1	0	0	75	6	0	3	52	0	140	598
5:45 PM		0	0	0	0	0	3	0	2	0	0	61	9	0	1	44	0	120	579
Count Total		0	0	0	0	0	55	0	15	0	0	637	74	0	20	447	0	1,248	0
Peak Hour	**All**	**0**	**0**	**0**	**0**	**0**	**40**	**0**	**8**	**0**	**0**	**319**	**35**	**0**	**9**	**258**	**0**	**669**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**2**	**0**	**7**	**0**
	HV%	**-**	**-**	**-**	**-**	**-**	**3%**	**-**	**0%**	**-**	**-**	**1%**	**0%**	**-**	**0%**	**1%**	**-**	**1%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
4:00 PM	**0**	**0**	**2**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**1**	**3**	**0**	**0**	***4***
4:15 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
4:30 PM	**0**	**1**	**1**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	***1***
4:45 PM	**0**	**0**	**1**	**2**	***3***	**0**	**0**	**0**	**0**	***0***	**3**	**1**	**0**	**0**	***4***
5:00 PM	0	0	0	0	*0*	0	0	1	0	*1*	2	0	0	0	*2*
5:15 PM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	0	0	0	1	*1*	0	0	0	0	*0*	3	0	0	0	*3*
5:45 PM	0	1	1	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	2	6	5	*13*	0	0	1	0	*1*	9	5	0	0	*14*
Peak Hr	**0**	**1**	**4**	**2**	***7***	**0**	**0**	**0**	**0**	***0***	**4**	**5**	**0**	**0**	***9***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	N/A				Dale St				19th St				19th St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**3**	**7**
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	7
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	6
5:45 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	3	6
Count Total	0	0	0	0	0	2	0	0	0	0	6	0	0	0	5	0	13	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**2**	**0**	**7**	**0**

Two-Hour Count Summaries - Bikes

Interval Start	N/A			Dale St			19th St			19th St			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	0	0	0	1	0	0	0	0	1	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Intersection Capacity Worksheets: Existing

Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	122	81	138	54	7	36	5	164	10	6	0
Future Vol, veh/h	0	122	81	138	54	7	36	5	164	10	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	2	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Yield
Storage Length	115	-	115	50	-	-	40	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	69	69	69	83	83	83	40	40	40
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	6	6	6
Mvmt Flow	0	142	94	200	78	10	43	6	198	25	15	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	88	0	0	236	0	0	635	630	144	776	719	85
Stage 1	-	-	-	-	-	-	142	142	-	483	483	-
Stage 2	-	-	-	-	-	-	493	488	-	293	236	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.16	5.56	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.554	4.054	3.354
Pot Cap-1 Maneuver	1508	-	-	1331	-	-	391	399	903	310	349	963
Stage 1	-	-	-	-	-	-	861	779	-	557	546	-
Stage 2	-	-	-	-	-	-	558	550	-	707	702	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1508	-	-	1331	-	-	332	339	901	211	297	961
Mov Cap-2 Maneuver	-	-	-	-	-	-	332	339	-	211	297	-
Stage 1	-	-	-	-	-	-	861	779	-	557	464	-
Stage 2	-	-	-	-	-	-	458	468	-	547	702	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	5.7	11.7	23.2
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	332	859	1508	-	-	1331	-	-	237
HCM Lane V/C Ratio	0.131	0.237	-	-	-	0.15	-	-	0.169
HCM Control Delay (s)	17.5	10.5	0	-	-	8.2	-	-	23.2
HCM Lane LOS	C	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.4	0.9	0	-	-	0.5	-	-	0.6

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	4	201	9	4	221
Future Vol, veh/h	21	4	201	9	4	221
Conflicting Peds, #/hr	1	0	0	7	7	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	63	63	77	77	84	84
Heavy Vehicles, %	20	20	3	3	1	1
Mvmt Flow	33	6	261	12	5	263

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	548	274	0	0	280	0
Stage 1	274	-	-	-	-	-
Stage 2	274	-	-	-	-	-
Critical Hdwy	6.6	6.4	-	-	4.11	-
Critical Hdwy Stg 1	5.6	-	-	-	-	-
Critical Hdwy Stg 2	5.6	-	-	-	-	-
Follow-up Hdwy	3.68	3.48	-	-	2.209	-
Pot Cap-1 Maneuver	468	723	-	-	1288	-
Stage 1	732	-	-	-	-	-
Stage 2	732	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	462	718	-	-	1279	-
Mov Cap-2 Maneuver	543	-	-	-	-	-
Stage 1	727	-	-	-	-	-
Stage 2	728	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.9	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	565	1279	-
HCM Lane V/C Ratio	-	-	0.07	0.004	-
HCM Control Delay (s)	-	-	11.9	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	73	75	189	116	9	84	8	235	4	3	1
Future Vol, veh/h	1	73	75	189	116	9	84	8	235	4	3	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Yield
Storage Length	115	-	115	50	-	-	40	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	84	84	84	94	94	94	67	67	67
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	1	106	109	225	138	11	89	9	250	6	4	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	149	0	0	215	0	0	704	707	106	886	811	144
Stage 1	-	-	-	-	-	-	108	108	-	594	594	-
Stage 2	-	-	-	-	-	-	596	599	-	292	217	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1439	-	-	1361	-	-	353	361	951	266	315	906
Stage 1	-	-	-	-	-	-	900	808	-	493	495	-
Stage 2	-	-	-	-	-	-	492	492	-	718	725	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1439	-	-	1361	-	-	304	301	951	168	263	906
Mov Cap-2 Maneuver	-	-	-	-	-	-	304	301	-	168	263	-
Stage 1	-	-	-	-	-	-	899	807	-	493	413	-
Stage 2	-	-	-	-	-	-	406	411	-	523	724	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	4.9	13.5	21.7
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	304	888	1439	-	-	1361	-	-	227
HCM Lane V/C Ratio	0.294	0.291	0.001	-	-	0.165	-	-	0.053
HCM Control Delay (s)	21.7	10.7	7.5	-	-	8.2	-	-	21.7
HCM Lane LOS	C	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1.2	1.2	0	-	-	0.6	-	-	0.2

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	40	8	319	35	9	258
Future Vol, veh/h	40	8	319	35	9	258
Conflicting Peds, #/hr	0	0	0	4	4	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	48	48	86	86	89	89
Heavy Vehicles, %	2	2	1	1	1	1
Mvmt Flow	83	17	371	41	10	290

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	706	396	0	0	416	0
Stage 1	396	-	-	-	-	-
Stage 2	310	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.11	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.209	-
Pot Cap-1 Maneuver	402	653	-	-	1148	-
Stage 1	680	-	-	-	-	-
Stage 2	744	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	396	651	-	-	1144	-
Mov Cap-2 Maneuver	502	-	-	-	-	-
Stage 1	677	-	-	-	-	-
Stage 2	737	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.5	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	522	1144	-
HCM Lane V/C Ratio	-	-	0.192	0.009	-
HCM Control Delay (s)	-	-	13.5	8.2	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.7	0	-

Intersection Capacity Worksheets: 2042 Background

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	150	100	170	65	10	45	5	200	10	5	5
Future Vol, veh/h	5	150	100	170	65	10	45	5	200	10	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	2	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Yield
Storage Length	115	-	115	50	-	-	40	-	-	-	-	-
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	6	6	6
Mvmt Flow	5	163	109	185	71	11	49	5	217	11	5	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	82	0	0	272	0	0	624	625	165	788	729	79
Stage 1	-	-	-	-	-	-	173	173	-	447	447	-
Stage 2	-	-	-	-	-	-	451	452	-	341	282	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.16	5.56	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.554	4.054	3.354
Pot Cap-1 Maneuver	1515	-	-	1291	-	-	398	401	879	304	345	970
Stage 1	-	-	-	-	-	-	829	756	-	583	567	-
Stage 2	-	-	-	-	-	-	588	570	-	666	671	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1515	-	-	1291	-	-	346	342	877	200	295	968
Mov Cap-2 Maneuver	-	-	-	-	-	-	346	342	-	200	295	-
Stage 1	-	-	-	-	-	-	827	754	-	581	486	-
Stage 2	-	-	-	-	-	-	494	488	-	495	669	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	5.7	11.9	18
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	346	845	1515	-	-	1291	-	-	299
HCM Lane V/C Ratio	0.141	0.264	0.004	-	-	0.143	-	-	0.073
HCM Control Delay (s)	17.1	10.8	7.4	-	-	8.3	-	-	18
HCM Lane LOS	C	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.5	1.1	0	-	-	0.5	-	-	0.2

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	5	245	10	5	270
Future Vol, veh/h	25	5	245	10	5	270
Conflicting Peds, #/hr	0	0	0	2	2	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, %	20	20	3	3	1	1
Mvmt Flow	27	5	266	11	5	293

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	577	274	0	0	279	0
Stage 1	274	-	-	-	-	-
Stage 2	303	-	-	-	-	-
Critical Hdwy	6.6	6.4	-	-	4.11	-
Critical Hdwy Stg 1	5.6	-	-	-	-	-
Critical Hdwy Stg 2	5.6	-	-	-	-	-
Follow-up Hdwy	3.68	3.48	-	-	2.209	-
Pot Cap-1 Maneuver	450	723	-	-	1289	-
Stage 1	732	-	-	-	-	-
Stage 2	710	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	447	722	-	-	1287	-
Mov Cap-2 Maneuver	532	-	-	-	-	-
Stage 1	731	-	-	-	-	-
Stage 2	706	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.9	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	556	1287	-
HCM Lane V/C Ratio	-	-	0.059	0.004	-
HCM Control Delay (s)	-	-	11.9	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	8.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	90	90	230	140	10	100	10	285	5	5	5
Future Vol, veh/h	5	90	90	230	140	10	100	10	285	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Yield
Storage Length	115	-	115	50	-	-	40	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	94	94	94	92	92	92
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	5	98	98	250	152	11	106	11	303	5	5	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	163	0	0	196	0	0	768	771	98	972	864	158
Stage 1	-	-	-	-	-	-	108	108	-	658	658	-
Stage 2	-	-	-	-	-	-	660	663	-	314	206	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1422	-	-	1383	-	-	320	332	961	233	293	890
Stage 1	-	-	-	-	-	-	900	808	-	455	463	-
Stage 2	-	-	-	-	-	-	454	460	-	699	733	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1422	-	-	1383	-	-	268	271	961	133	239	890
Mov Cap-2 Maneuver	-	-	-	-	-	-	268	271	-	133	239	-
Stage 1	-	-	-	-	-	-	896	805	-	453	379	-
Stage 2	-	-	-	-	-	-	364	377	-	470	730	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	4.9	15.3	20
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	268	885	1422	-	-	1383	-	-	256
HCM Lane V/C Ratio	0.397	0.355	0.004	-	-	0.181	-	-	0.064
HCM Control Delay (s)	27	11.3	7.5	-	-	8.2	-	-	20
HCM Lane LOS	D	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1.8	1.6	0	-	-	0.7	-	-	0.2

Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	50	10	390	45	10	315
Future Vol, veh/h	50	10	390	45	10	315
Conflicting Peds, #/hr	0	0	0	4	4	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	1	1	1	1
Mvmt Flow	54	11	424	49	11	342

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	817	453	0	0	477	0
Stage 1	453	-	-	-	-	-
Stage 2	364	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.11	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.209	-
Pot Cap-1 Maneuver	346	607	-	-	1090	-
Stage 1	640	-	-	-	-	-
Stage 2	703	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	340	605	-	-	1086	-
Mov Cap-2 Maneuver	458	-	-	-	-	-
Stage 1	637	-	-	-	-	-
Stage 2	694	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.7	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	477	1086	-
HCM Lane V/C Ratio	-	-	0.137	0.01	-
HCM Control Delay (s)	-	-	13.7	8.3	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0	-

Intersection Capacity Worksheets: 2024 Background + Project

Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	122	82	139	54	7	36	5	165	10	6	0
Future Vol, veh/h	0	122	82	139	54	7	36	5	165	10	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	2	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Yield
Storage Length	115	-	115	50	-	-	40	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	69	69	69	83	83	83	40	40	40
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	6	6	6
Mvmt Flow	0	142	95	201	78	10	43	6	199	25	15	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	88	0	0	237	0	0	637	632	144	779	722	85
Stage 1	-	-	-	-	-	-	142	142	-	485	485	-
Stage 2	-	-	-	-	-	-	495	490	-	294	237	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.16	5.56	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.554	4.054	3.354
Pot Cap-1 Maneuver	1508	-	-	1330	-	-	390	398	903	308	348	963
Stage 1	-	-	-	-	-	-	861	779	-	556	545	-
Stage 2	-	-	-	-	-	-	556	549	-	706	702	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1508	-	-	1330	-	-	331	338	901	209	295	961
Mov Cap-2 Maneuver	-	-	-	-	-	-	331	338	-	209	295	-
Stage 1	-	-	-	-	-	-	861	779	-	556	463	-
Stage 2	-	-	-	-	-	-	456	466	-	545	702	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	5.7	11.7	23.4
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	331	859	1508	-	-	1330	-	-	235
HCM Lane V/C Ratio	0.131	0.238	-	-	-	0.151	-	-	0.17
HCM Control Delay (s)	17.5	10.5	0	-	-	8.2	-	-	23.4
HCM Lane LOS	C	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.4	0.9	0	-	-	0.5	-	-	0.6

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	1	0	3	21	0	4	3	201	9	4	221	2
Future Vol, veh/h	1	0	3	21	0	4	3	201	9	4	221	2
Conflicting Peds, #/hr	0	0	1	1	0	0	1	0	7	7	0	1
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	63	63	63	77	77	77	84	84	92
Heavy Vehicles, %	2	2	2	20	2	20	2	3	3	1	1	2
Mvmt Flow	1	0	3	33	0	6	4	261	12	5	263	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	553	563	266	559	558	274	266	0	0	280	0	0
Stage 1	275	275	-	282	282	-	-	-	-	-	-	-
Stage 2	278	288	-	277	276	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.3	6.52	6.4	4.12	-	-	4.11	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.3	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.3	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.68	4.018	3.48	2.218	-	-	2.209	-	-
Pot Cap-1 Maneuver	444	435	773	413	438	723	1298	-	-	1288	-	-
Stage 1	731	683	-	687	678	-	-	-	-	-	-	-
Stage 2	728	674	-	692	682	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	436	428	772	405	431	718	1297	-	-	1279	-	-
Mov Cap-2 Maneuver	436	428	-	405	431	-	-	-	-	-	-	-
Stage 1	727	679	-	679	671	-	-	-	-	-	-	-
Stage 2	719	667	-	685	678	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.6	14.1	0.1	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1297	-	-	647	435	1279	-	-
HCM Lane V/C Ratio	0.003	-	-	0.007	0.091	0.004	-	-
HCM Control Delay (s)	7.8	0	-	10.6	14.1	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.3	0	-	-

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	73	75	190	116	9	84	8	236	4	3	1
Future Vol, veh/h	1	73	75	190	116	9	84	8	236	4	3	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Yield
Storage Length	115	-	115	50	-	-	40	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	84	84	84	94	94	94	67	67	67
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	1	106	109	226	138	11	89	9	251	6	4	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	149	0	0	215	0	0	706	709	106	889	813	144
Stage 1	-	-	-	-	-	-	108	108	-	596	596	-
Stage 2	-	-	-	-	-	-	598	601	-	293	217	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1439	-	-	1361	-	-	352	360	951	265	314	906
Stage 1	-	-	-	-	-	-	900	808	-	492	493	-
Stage 2	-	-	-	-	-	-	491	491	-	717	725	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1439	-	-	1361	-	-	303	300	951	166	262	906
Mov Cap-2 Maneuver	-	-	-	-	-	-	303	300	-	166	262	-
Stage 1	-	-	-	-	-	-	899	807	-	492	411	-
Stage 2	-	-	-	-	-	-	404	409	-	522	724	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	4.9	13.5	21.9
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	303	888	1439	-	-	1361	-	-	225
HCM Lane V/C Ratio	0.295	0.292	0.001	-	-	0.166	-	-	0.053
HCM Control Delay (s)	21.8	10.7	7.5	-	-	8.2	-	-	21.9
HCM Lane LOS	C	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1.2	1.2	0	-	-	0.6	-	-	0.2

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	1	40	0	8	2	319	35	9	258	1
Future Vol, veh/h	1	0	1	40	0	8	2	319	35	9	258	1
Conflicting Peds, #/hr	0	0	0	0	0	0	5	0	4	4	0	5
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	48	92	48	92	86	86	89	89	92
Heavy Vehicles, %	2	2	2	2	2	2	2	1	1	1	1	2
Mvmt Flow	1	0	1	83	0	17	2	371	41	10	290	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	720	736	296	711	716	396	296	0	0	416	0	0
Stage 1	316	316	-	400	400	-	-	-	-	-	-	-
Stage 2	404	420	-	311	316	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.11	-	-
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	-	-	2.209	-	-
Pot Cap-1 Maneuver	343	346	743	348	356	653	1265	-	-	1148	-	-
Stage 1	695	655	-	626	602	-	-	-	-	-	-	-
Stage 2	623	589	-	699	655	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	330	339	739	343	349	651	1259	-	-	1144	-	-
Mov Cap-2 Maneuver	330	339	-	343	349	-	-	-	-	-	-	-
Stage 1	690	645	-	622	598	-	-	-	-	-	-	-
Stage 2	606	585	-	691	645	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.9	18.2	0	0.3
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1259	-	-	456	372	1144	-	-
HCM Lane V/C Ratio	0.002	-	-	0.005	0.269	0.009	-	-
HCM Control Delay (s)	7.9	0	-	12.9	18.2	8.2	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	1.1	0	-	-

Intersection Capacity Worksheets: 2042 Background + Project

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	150	101	171	65	10	45	5	201	10	5	5
Future Vol, veh/h	5	150	101	171	65	10	45	5	201	10	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	2	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Yield
Storage Length	115	-	115	50	-	-	40	-	-	-	-	-
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	6	6	6
Mvmt Flow	5	163	110	186	71	11	49	5	218	11	5	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	82	0	0	273	0	0	626	627	165	791	732	79
Stage 1	-	-	-	-	-	-	173	173	-	449	449	-
Stage 2	-	-	-	-	-	-	453	454	-	342	283	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.16	5.56	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.554	4.054	3.354
Pot Cap-1 Maneuver	1515	-	-	1290	-	-	397	400	879	303	343	970
Stage 1	-	-	-	-	-	-	829	756	-	582	566	-
Stage 2	-	-	-	-	-	-	586	569	-	665	670	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1515	-	-	1290	-	-	345	341	877	199	293	968
Mov Cap-2 Maneuver	-	-	-	-	-	-	345	341	-	199	293	-
Stage 1	-	-	-	-	-	-	827	754	-	580	484	-
Stage 2	-	-	-	-	-	-	492	487	-	493	668	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	5.7	11.9	18.1
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	345	845	1515	-	-	1290	-	-	297
HCM Lane V/C Ratio	0.142	0.265	0.004	-	-	0.144	-	-	0.073
HCM Control Delay (s)	17.2	10.8	7.4	-	-	8.3	-	-	18.1
HCM Lane LOS	C	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.5	1.1	0	-	-	0.5	-	-	0.2

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	3	25	0	5	3	245	10	5	270	2
Future Vol, veh/h	1	0	3	25	0	5	3	245	10	5	270	2
Conflicting Peds, #/hr	0	0	1	1	0	0	1	0	7	7	0	1
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	20	20	20	3	3	3	1	1	1
Mvmt Flow	1	0	3	27	0	5	3	266	11	5	293	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	585	595	296	592	591	279	296	0	0	284	0	0
Stage 1	305	305	-	285	285	-	-	-	-	-	-	-
Stage 2	280	290	-	307	306	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.3	6.7	6.4	4.13	-	-	4.11	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.3	5.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.3	5.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.68	4.18	3.48	2.227	-	-	2.209	-	-
Pot Cap-1 Maneuver	422	417	743	393	396	719	1260	-	-	1284	-	-
Stage 1	705	662	-	685	644	-	-	-	-	-	-	-
Stage 2	727	672	-	666	630	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	416	410	742	386	390	714	1259	-	-	1275	-	-
Mov Cap-2 Maneuver	416	410	-	386	390	-	-	-	-	-	-	-
Stage 1	702	658	-	678	638	-	-	-	-	-	-	-
Stage 2	719	665	-	659	626	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.8	14.3	0.1	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1259	-	-	620	418	1275	-	-
HCM Lane V/C Ratio	0.003	-	-	0.007	0.078	0.004	-	-
HCM Control Delay (s)	7.9	0	-	10.8	14.3	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.3	0	-	-

Intersection	
Int Delay, s/veh	8.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	90	90	231	140	10	100	10	286	5	5	5
Future Vol, veh/h	5	90	90	231	140	10	100	10	286	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Yield
Storage Length	115	-	115	50	-	-	40	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	94	94	94	92	92	92
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	5	98	98	251	152	11	106	11	304	5	5	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	163	0	0	196	0	0	770	773	98	975	866	158
Stage 1	-	-	-	-	-	-	108	108	-	660	660	-
Stage 2	-	-	-	-	-	-	662	665	-	315	206	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1422	-	-	1383	-	-	319	331	961	232	292	890
Stage 1	-	-	-	-	-	-	900	808	-	454	462	-
Stage 2	-	-	-	-	-	-	453	459	-	698	733	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1422	-	-	1383	-	-	268	270	961	132	238	890
Mov Cap-2 Maneuver	-	-	-	-	-	-	268	270	-	132	238	-
Stage 1	-	-	-	-	-	-	896	805	-	452	378	-
Stage 2	-	-	-	-	-	-	363	376	-	469	730	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	5	15.3	20.1
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	268	885	1422	-	-	1383	-	-	255
HCM Lane V/C Ratio	0.397	0.356	0.004	-	-	0.182	-	-	0.064
HCM Control Delay (s)	27	11.3	7.5	-	-	8.2	-	-	20.1
HCM Lane LOS	D	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1.8	1.6	0	-	-	0.7	-	-	0.2

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	1	50	0	10	2	390	45	10	315	1
Future Vol, veh/h	1	0	1	50	0	10	2	390	45	10	315	1
Conflicting Peds, #/hr	0	0	0	0	0	0	5	0	4	4	0	5
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	1	1	1	1	1	1
Mvmt Flow	1	0	1	54	0	11	2	424	49	11	342	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	828	851	348	822	827	453	348	0	0	477	0	0
Stage 1	370	370	-	457	457	-	-	-	-	-	-	-
Stage 2	458	481	-	365	370	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.11	-	-	4.11	-	-
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	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	290	297	695	293	307	607	1216	-	-	1090	-	-
Stage 1	650	620	-	583	568	-	-	-	-	-	-	-
Stage 2	583	554	-	654	620	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	280	290	692	288	300	605	1210	-	-	1086	-	-
Mov Cap-2 Maneuver	280	290	-	288	300	-	-	-	-	-	-	-
Stage 1	645	609	-	580	565	-	-	-	-	-	-	-
Stage 2	571	551	-	644	609	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.1	19.3	0	0.3
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1210	-	-	399	316	1086	-	-
HCM Lane V/C Ratio	0.002	-	-	0.005	0.206	0.01	-	-
HCM Control Delay (s)	8	0	-	14.1	19.3	8.3	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.8	0	-	-