Traffic Impact Study

7001 Colorado Boulevard

Commerce City, Colorado

Prepared for:

Prospect, LLC

Kimley»Horn

T R A F F I C I M P A C T S T U D Y

7001 Colorado Boulevard

Commerce City, Colorado

Prepared for
Prospect, LLC
PO Box 103190
Denver, Colorado 80250

Prepared by
Kimley-Horn and Associates, Inc.
4582 South Ulster Street
Suite 1500
Denver, Colorado 80237
(303) 228-2300

April 2022

TABLE OF CONTENTS

APPENDICES

LIST OF TABLES

LIST OF FIGURES

1.0 EXECUTIVE SUMMARY

This report has been prepared to document the results of a Traffic Impact Study for 7001 Colorado Boulevard in Commerce City, Colorado. 7001 Colorado Boulevard is proposed to include approximately 92 multifamily housing dwelling units. It is expected that 7001 Colorado Boulevard will be completed in the next couple of years; therefore, analysis was conducted for the 2024 short-term buildout horizon as well as the 2045 long-term twenty-year planning horizon.

The purpose of this traffic study is to identify project traffic generation characteristics to determine potential project traffic related impacts on the local street system and to develop the necessary mitigation measures required for the identified traffic impacts. The following intersections were incorporated into this traffic study in accordance with the City of Commerce City standards and requirements:

- 72nd Avenue and Colorado Boulevard (#1)
- 70th Avenue and Colorado Boulevard (#2)
- 68th Avenue and Colorado Boulevard (#3)

In addition, the proposed full movement access at the intersection of 71st Avenue and Colorado Boulevard was evaluated.

Regional access to 7001 Colorado Boulevard will be provided by Interstate 76 (I-76), Interstate 270 (I-270) and US Highway 85 (US-85). Primary access will be provided by Colorado Boulevard. Direct access will be provided by a full movement access located along the west side of Colorado Boulevard to align with 71st Avenue.

7001 Colorado Boulevard is expected to generate approximately 394 weekday daily trips, with 30 of these trips occurring during the morning peak hour and 38 of these trips occurring during the afternoon peak hour.

Based on the analysis presented in this report, Kimley-Horn believes 7001 Colorado Boulevard will be successfully incorporated into the existing and future roadway network. Analysis of the existing street network, the proposed project development, and expected traffic volumes resulted in the following conclusions and recommendations:

2024 Recommendations:

- With completion of the 7001 Colorado Boulevard project, an access is proposed along the west side of Colorado Boulevard to align with 71st Avenue and serve the proposed residential development. It is recommended that a R1-1 "STOP" sign be installed on the eastbound approach exiting the development. Also, to meet Commerce City Standards, a 130 foot with 165-foot taper northbound left turn lane may need to be constructed at this access. Although this access meets City warrants for implementation of a northbound left turn lane, left turn lanes were not provided (although warranted) with the recent reconstruction of the 70th Avenue and Colorado Boulevard. Therefore, it is believed existing geometric constraints may have prevented implementation of left turn lanes at the 70th Avenue and Colorado Boulevard intersection. Therefore, additional design coordination will be required with the City to determine if a northbound left turn lane is needed at the project access. Of note, there are expected to be nine (9) vehicles making this left turn during the peak hour of the day. If a northbound left turn lane is implemented at the project access, bike lanes will be continued through the widened section of the street. Further, if the northbound left turn lane is implemented at the project access, the City may desire to designate a southbound left turn lane in the created shadow space of the northbound left turn lane.

2045 Recommendations:

- A signal may be needed at the intersection of 72nd Avenue and Colorado Boulevard (#1) if future traffic volumes are realized.

General Recommendations:

- Any on-site or offsite improvements should be incorporated into the Civil Drawings and conform to standards of the City of Commerce City and the Manual on Uniform Traffic Control Devices (MUTCD) – 2009 Edition.

2.0 INTRODUCTION

Kimley-Horn and Associates, Inc. has prepared this report to document the results of a Traffic Impact Study for 7001 Colorado Boulevard in Commerce City, Colorado. A vicinity map illustrating the 7001 Colorado Boulevard development location is shown in **Figure 1**. 7001 Colorado Boulevard is proposed to include approximately 92 multifamily housing dwelling units. A conceptual site plan is attached in **Appendix H**. It is expected that 7001 Colorado Boulevard will be completed in the next couple of years; therefore, analysis was conducted for the 2024 short-term buildout horizon as well as the 2045 long-term twenty-year planning horizon.

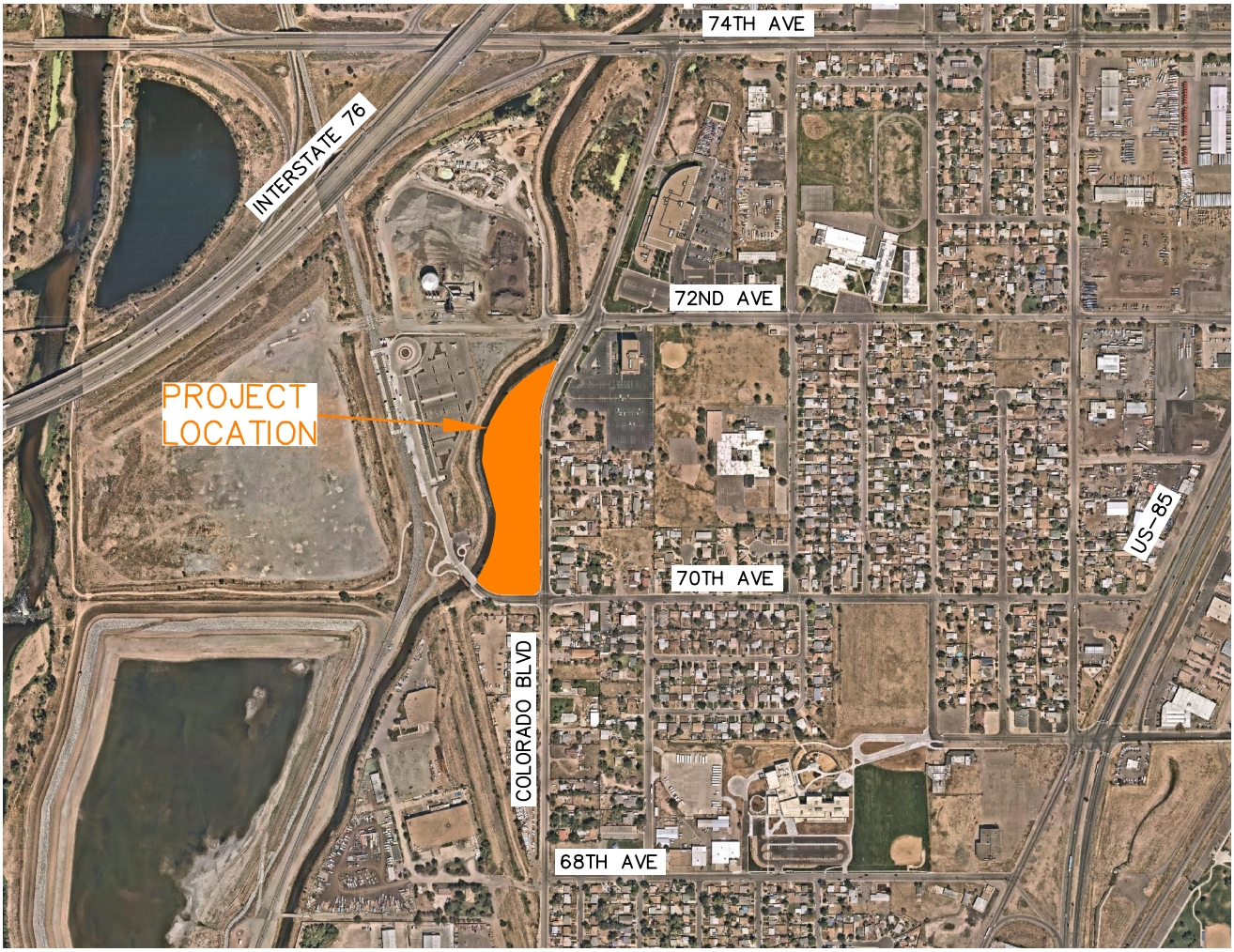
The purpose of this traffic study is to identify project traffic generation characteristics to determine potential project traffic related impacts on the local street system and to develop the necessary mitigation measures required for the identified traffic impacts. The following intersections were incorporated into this traffic study in accordance with the City of Commerce City standards and requirements:

- 72nd Avenue and Colorado Boulevard (#1)
- 70th Avenue and Colorado Boulevard (#2)
- 68th Avenue and Colorado Boulevard (#3)

In addition, the proposed full movement access at the intersection of 71st Avenue and Colorado Boulevard was evaluated.

Regional access to 7001 Colorado Boulevard will be provided by Interstate 76 (I-76), Interstate 270 (I-270) and US Highway 85 (US-85). Primary access will be provided by Colorado Boulevard. Direct access will be provided by a full movement access located along the west side of Colorado Boulevard to align with 71st Avenue.

Kimley»Horn
NORTH
NTS 096216004



7001 COLORADO BOULEVARD
COMMERCE CITY, COLORADO
VICINITY MAP

FIGURE 1

Kimley»Horn

3.0 EXISTING AND FUTURE CONDITIONS

3.1 Existing Study Area/Site Visit

The existing site is comprised of industrial uses and vacant land. Industrial uses are located to the south of the site while vacant land and industrial uses are located to the north. To the west is The Commerce City and 72nd RTD Station is located directly west of the site. Single family residences are located to the east of the project.

3.2 Existing Roadway Network

Colorado Boulevard extends in the north-south direction with one through lane in each direction and has a posted speed limit of 35 miles per hour. The Commerce City C3 Vision Plan classifies Colorado Boulevard as a major collector. 72nd Avenue, 70th Avenue, and 68th Avenue extend in the east-west direction as two-lane roadways. 72nd Avenue has a posted speed limit of 25 miles per hour west of Colorado Boulevard and a speed limit of 30 miles per hour east of Colorado Boulevard. 70th Avenue and 68th Avenue have a posted speed limit of 25 miles per hour.

The unsignalized intersection of 72nd Avenue and Colorado Boulevard (#1) operates with stop control on the eastbound and westbound 72nd Avenue approaches. The northbound and southbound approaches consist of a left turn lane, one through lane, and a right turn lane. The eastbound approach consists of one shared lane for all movements while the westbound approach consists of a left turn lane and a shared through/right turn lane. An aerial photo of the existing intersection configuration is below (north is up - typical).

72nd Avenue and Colorado Boulevard (#1)

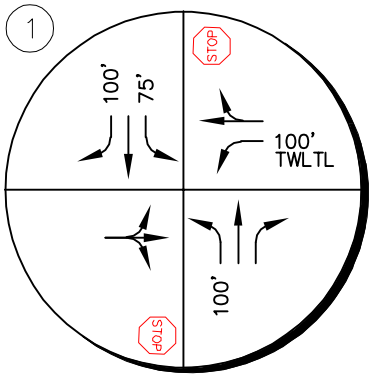
The unsignalized intersection of 70th Avenue and Colorado Boulevard (#2) operates with stop control on all four approaches. All four approaches consist of one shared lane for all movements. An aerial photo of the existing intersection configuration is below.

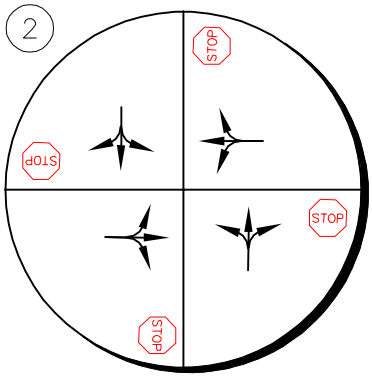
70th Avenue and Colorado Boulevard (#2)

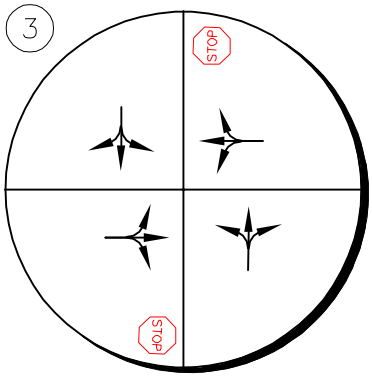
The unsignalized intersection of 68th Avenue and Colorado Boulevard (#3) operates with stop control on the eastbound and westbound 68th Avenue approaches. The west leg of this intersection is slightly offset and is a private driveway access. All four approaches consist of one shared lane for all movements. An aerial photo of the existing intersection configuration is below.

68th Avenue and Colorado Boulevard (#3)

The intersection lane configuration and control for the key intersection is shown in **Figure 2**.







LEGEND

X Study Area Key Intersection

STOP Stop Controlled Approach

SPEED LIMIT XX Roadway Speed Limit

100' Turn Lane Length (feet)

7001 COLORADO BOULEVARD
COMMERCE CITY, COLORADO
EXISTING GEOMETRY AND CONTROL

FIGURE 2

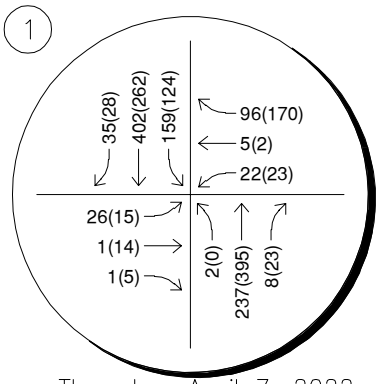
3.3 Existing Traffic Volumes

Existing turning movement counts were conducted at the intersection of 70th Avenue and Colorado Boulevard (#2) on Thursday, December 16, 2021 and at all other intersections on Thursday, April 7, 2022 during the morning and afternoon peak hours. The counts collected on December 16, 2021 were conducted during the morning and afternoon peak hours of adjacent street traffic in 15-minute intervals from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM on this count date. The counts collected on April 7, 2022 were conducted during the morning and afternoon peak hours of adjacent street traffic in 15-minute intervals from 7:00 AM to 9:00 AM and 2:00 PM to 6:00 PM on this count date. The existing intersection traffic volumes are shown in **Figure 3** with count sheets provided in **Appendix A**.

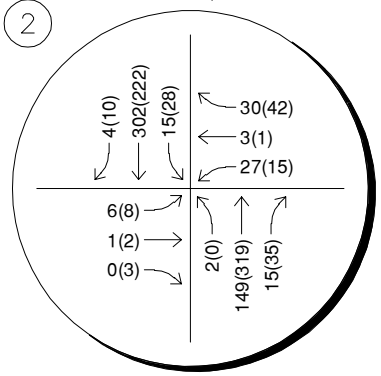
3.4 Unspecified Development Traffic Growth

According to traffic projections from the Denver Regional Council of Governments (DRCOG) traffic model, the area surrounding the site is expected to have an average 25-year growth factor of 1.43. This growth factor equates to an annual growth rate of 1.6 percent. Future traffic volume projections and growth rate calculations are provided in **Appendix B**. This annual growth rate was used to estimate short-term 2024 and long-term 2045 traffic volume projections at the key intersection. The calculated background traffic volumes for 2024 and 2045 are shown in **Figure 4** and **Figure 5,** respectively.

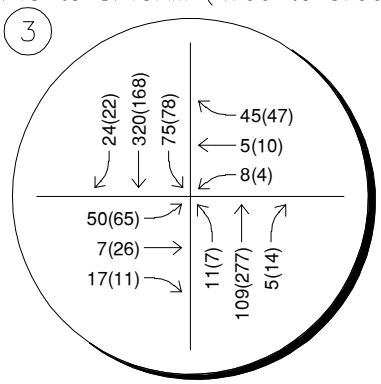
NORTH
NTS 096216004



Thursday, April 7, 2022
7:00 to 8:00AM (3:45 to 4:45PM)



Thursday, December 16, 2021
7:45 to 8:45AM (4:00 to 5:00PM)



Thursday, April 7, 2022
7:00 to 8:00AM (3:45 to 4:45PM)

LEGEND

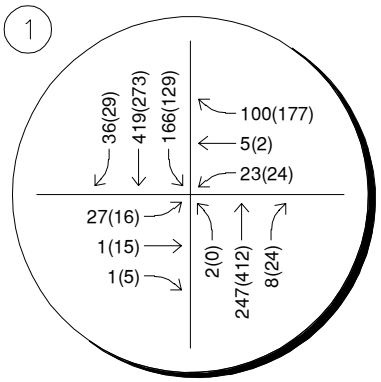
(X)	Study Area Key Intersection
XXX(XXX)	Weekday AM(PM) Peak Hour Traffic Volumes
XX,X00	Estimated Daily Traffic Volume

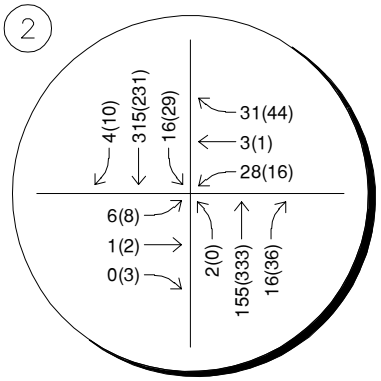
7001 COLORADO BOULEVARD
COMMERCE CITY, COLORADO
EXISTING TRAFFIC VOLUMES

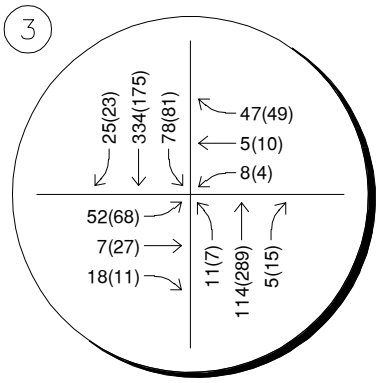
FIGURE 3

Kimley»Horn

Kimley»Horn NORTH
NTS 096216004







LEGEND

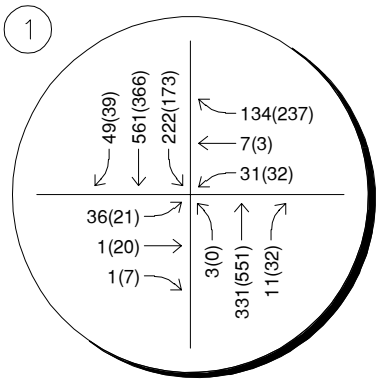
(X)	Study Area Key Intersection
XXX(XXX)	Weekday AM(PM) Peak Hour Traffic Volumes
XX,X00	Estimated Daily Traffic Volume

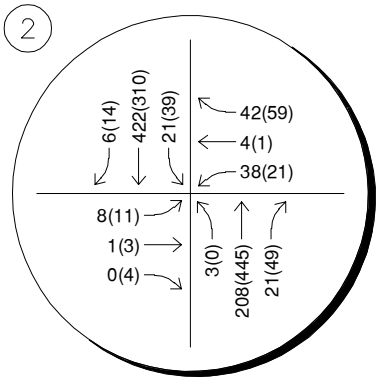
7001 COLORADO BOULEVARD
COMMERCE CITY, COLORADO
2024 BACKGROUND TRAFFIC VOLUMES

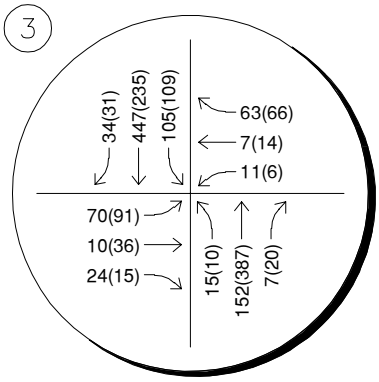
FIGURE 4

Kimley»Horn

NORTH
NTS 096216004







LEGEND

(X)	Study Area Key Intersection
XXX(XXX)	Weekday AM(PM) Peak Hour Traffic Volumes
XX,X00	Estimated Daily Traffic Volume

7001 COLORADO BOULEVARD
COMMERCE CITY, COLORADO
2045 BACKGROUND TRAFFIC VOLUMES

FIGURE 5

Kimley»Horn

4.0 PROJECT TRAFFIC CHARACTERISTICS

4.1 Trip Generation

Site-generated traffic estimates are determined through a process known as trip generation. Rates and equations are applied to the proposed land use to estimate traffic generated by the development during a specific time interval. The acknowledged source for trip generation rates is the *Trip Generation Manual*[1] published by the Institute of Transportation Engineers (ITE). ITE has established trip rates in nationwide studies of similar land uses. For this study, Kimley-Horn used the ITE Trip Generation Report fitted curve equations that applies to Multifamily Mid-Rise Housing (ITE Land Use Code 221), for traffic associated with the development.

7001 Colorado Boulevard is expected to generate approximately 394 weekday daily trips, with 30 of these trips occurring during the morning peak hour and 38 of these trips occurring during the afternoon peak hour. Calculations were based on the procedure and information provided in the ITE *Trip Generation Manual, 11th Edition – Volume 1: User's Guide and Handbook*, 2021. **Table 1** summarizes the estimated trip generation for the 7001 Colorado Boulevard. The trip generation worksheets are included in **Appendix C**. Although this project site is in the direct vicinity of a RTD station, no trip reduction credits were taken to remain conservative.

Table 1 – 7001 Colorado Boulevard Traffic Generation

Land Use and Size	Weekday Vehicle Trips						
	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Multifamily Mid-Rise Housing (ITE 221) – 92 Dwelling Units	394	7	23	30	23	15	38

[1] Institute of Transportation Engineers, *Trip Generation Manual*, Eleventh Edition, Washington DC, 2021.

4.2 Trip Distribution

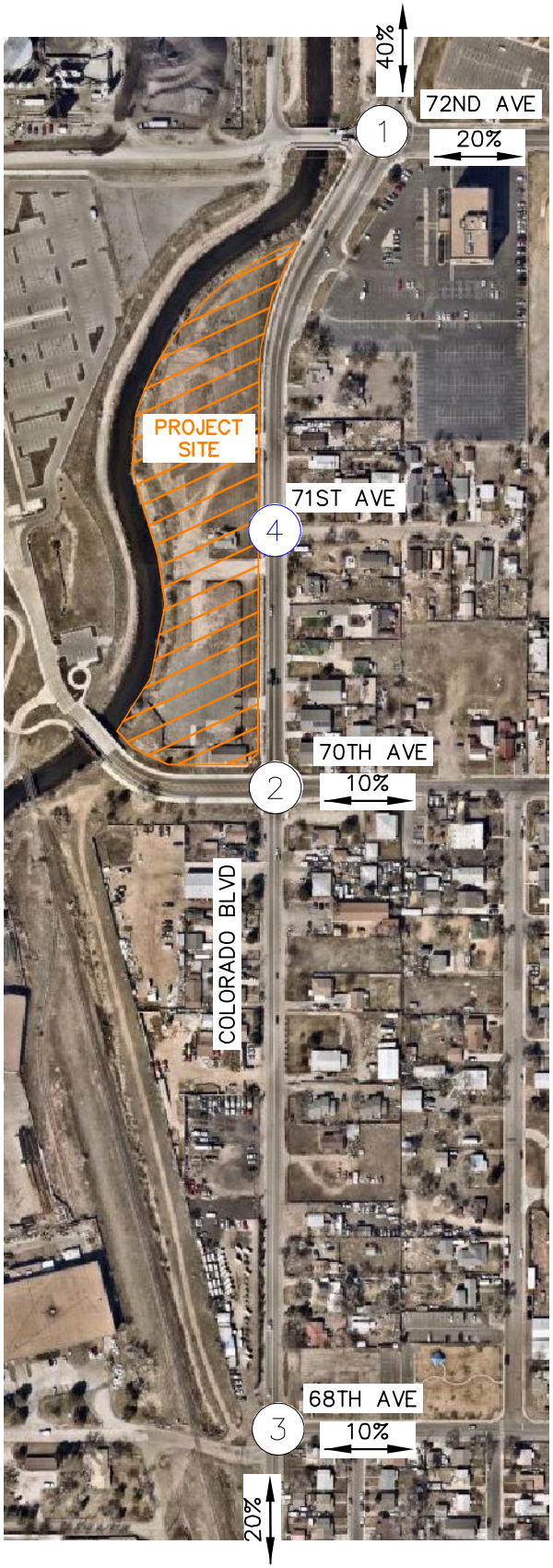
Distribution of site traffic on the street system was based on the area street system characteristics, existing traffic patterns, existing and anticipated surrounding demographic information, and the proposed access system for the project. The directional distribution of traffic is a means to quantify the percentage of site-generated traffic that approaches the site from a given direction and departs the site back to the original source. The project trip distribution for the proposed development is illustrated in **Figure 6**.

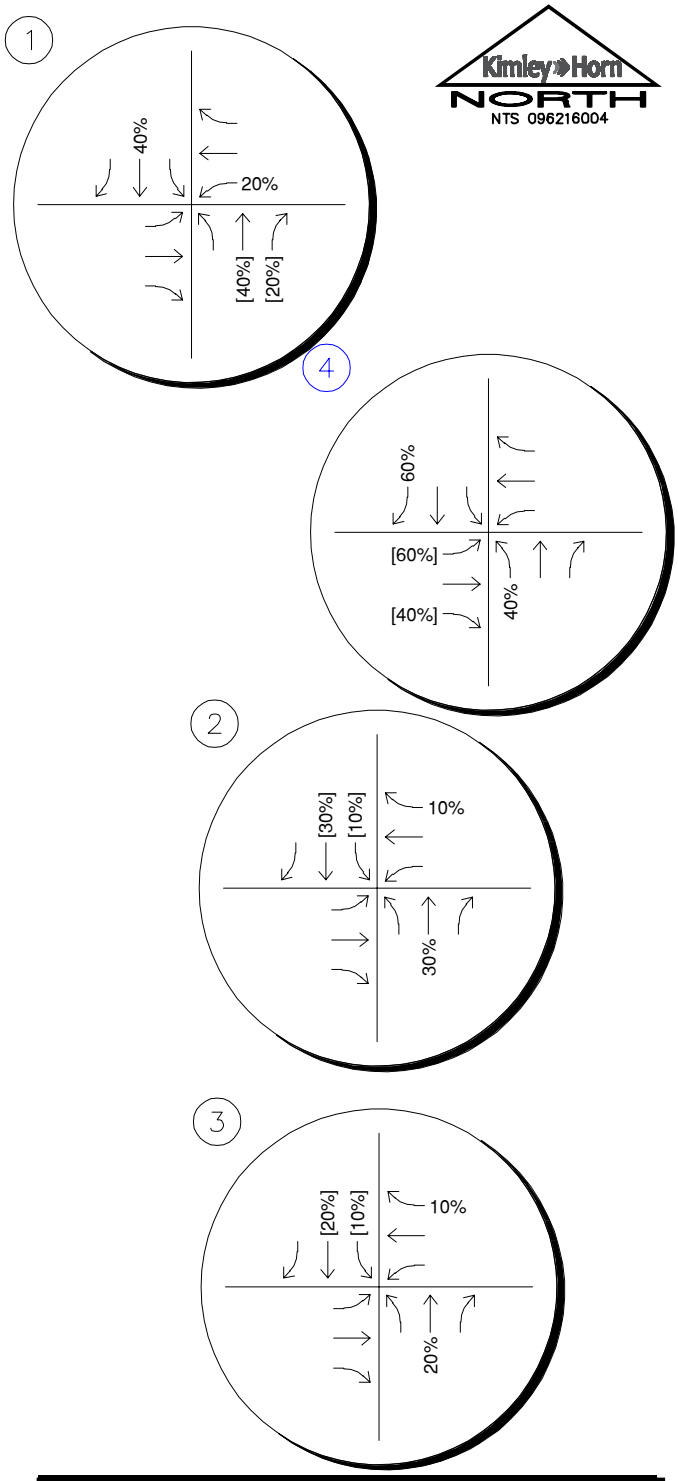
4.3 Traffic Assignment

7001 Colorado Boulevard traffic assignment was obtained by applying the project trip distribution to the estimated traffic generation of the development shown in **Table 1**. Traffic assignment is shown in **Figure 7.**

4.4 Total (Background Plus Project) Traffic

Site traffic volumes were added to the background volumes to represent estimated traffic conditions for the short-term 2024 buildout horizon and long-term 2045 twenty-year planning horizon. These total traffic volumes for the study area are illustrated for the 2024 and 2045 horizon years in **Figures 8** and **9**, respectively.





NORTH
NTS 096216004

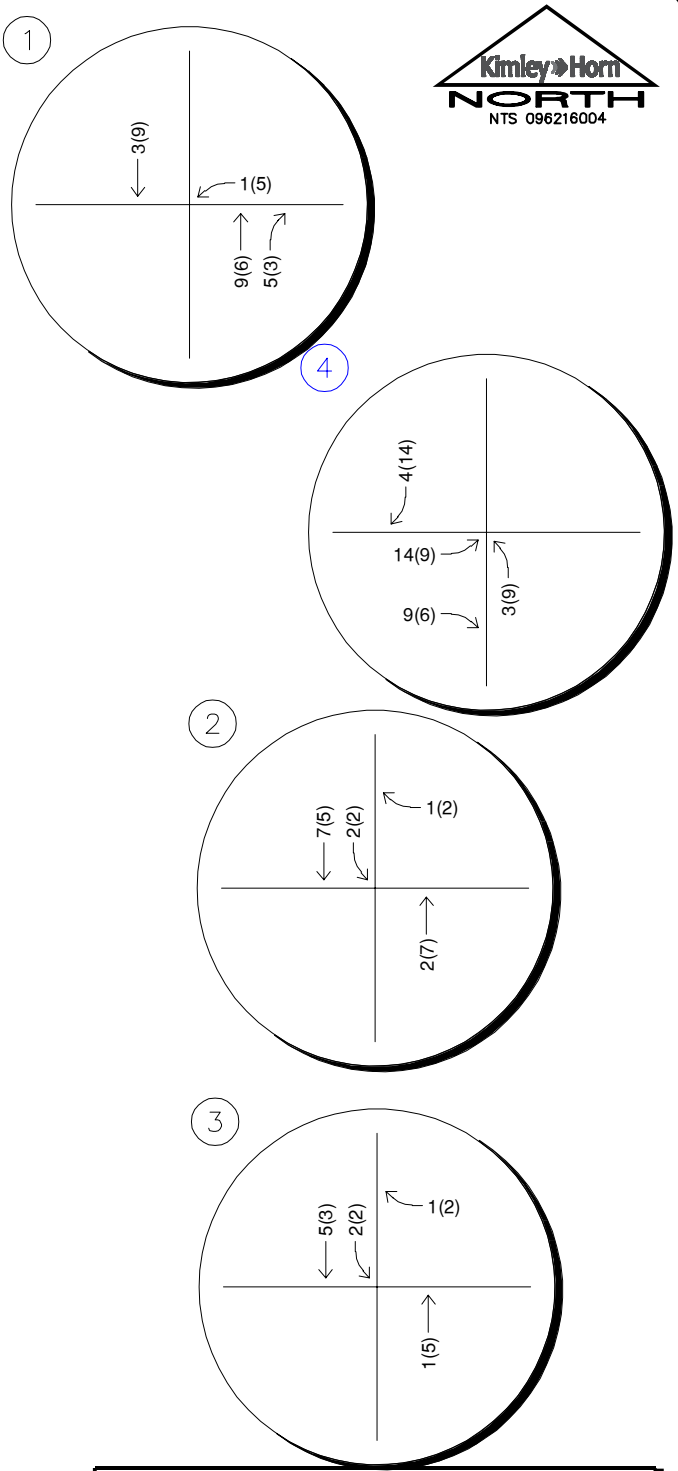
LEGEND

(X)	Study Area Key Intersection
(X)	Project Access Intersection
XX%	External Trip Distribution Percentage
XX%[XX%]	Entering[Exiting] Trip Distribution Percentage

7001 COLORADO BOULEVARD
COMMERCE CITY, COLORADO
PROJECT TRIP DISTRIBUTION

FIGURE 6

Kimley»Horn



Kimley»Horn
NORTH
NTS 096216004

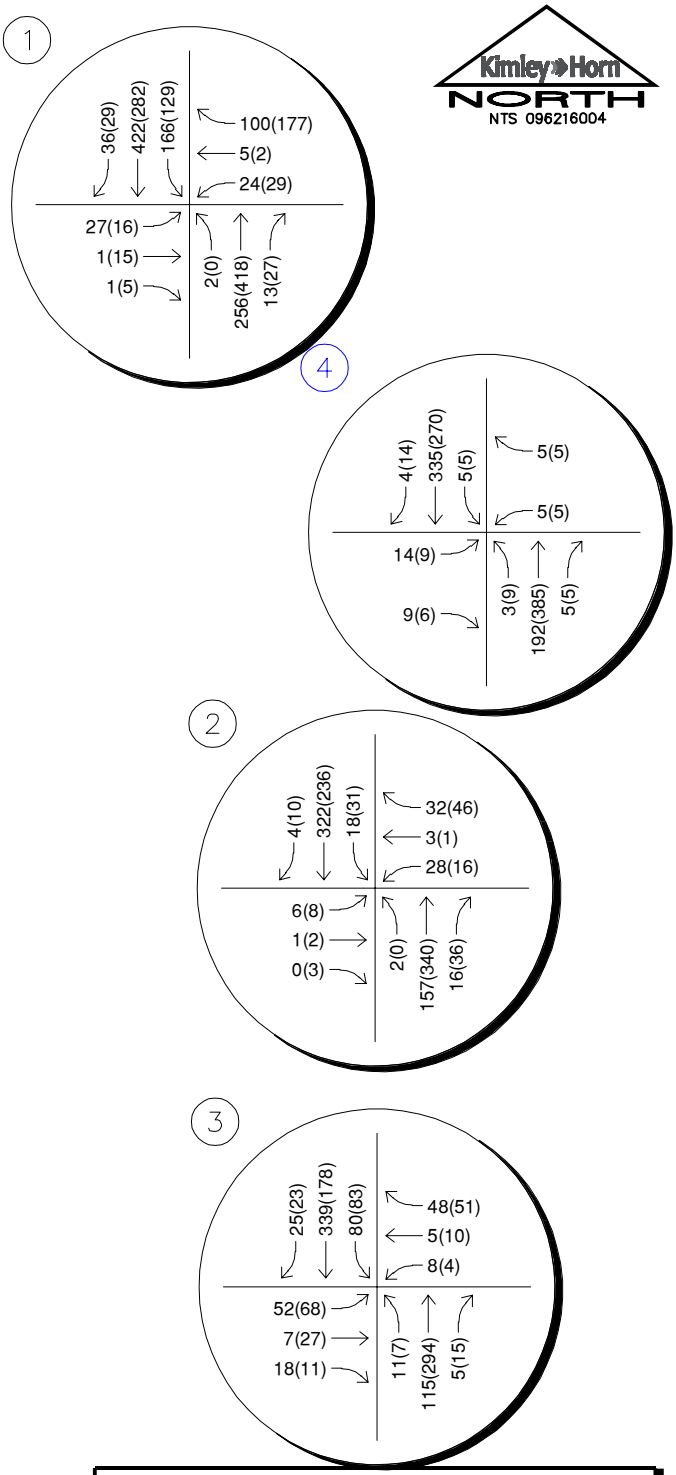
LEGEND

(X)	Study Area Key Intersection
(X)	Project Access Intersection
XXX(XXX)	Weekday AM(PM) Peak Hour Traffic Volumes
XX,X00	Estimated Daily Traffic Volume

7001 COLORADO BOULEVARD
COMMERCE CITY, COLORADO
PROJECT TRAFFIC ASSIGNMENT

FIGURE 7

Kimley»Horn



Kimley»Horn NORTH
NTS 096216004

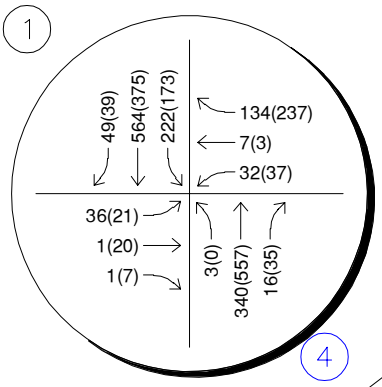
LEGEND

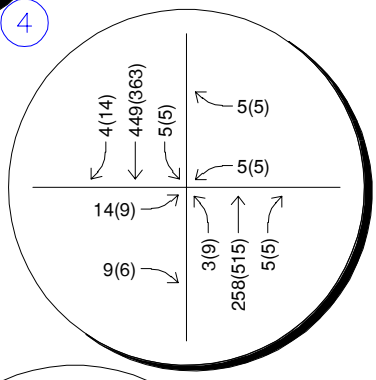
(X)	Study Area Key Intersection
(X)	Project Access Intersection
XXX(XXX)	Weekday AM(PM) Peak Hour Traffic Volumes
XX,X00	Estimated Daily Traffic Volume

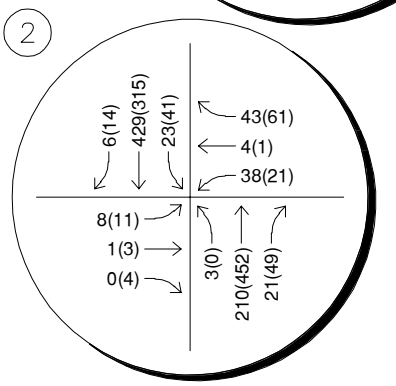
7001 COLORADO BOULEVARD
COMMERCE CITY, COLORADO
2024 TOTAL TRAFFIC VOLUMES

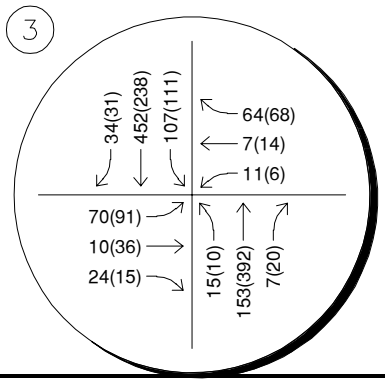
FIGURE 8

Kimley»Horn









LEGEND

(X)	Study Area Key Intersection
(X)	Project Access Intersection
XXX(XXX)	Weekday AM(PM) Peak Hour Traffic Volumes
XX,X00	Estimated Daily Traffic Volume

7001 COLORADO BOULEVARD
COMMERCE CITY, COLORADO
2045 TOTAL TRAFFIC VOLUMES

FIGURE 9

5.0 TRAFFIC OPERATIONS ANALYSIS

Kimley-Horn's analysis of traffic operations in the site vicinity was conducted to determine potential capacity deficiencies in the 2024 and 2045 development horizons at the identified key intersections. The acknowledged source for determining overall capacity is the current edition of the *Highway Capacity Manual (HCM)*[2].

5.1 Analysis Methodology

Capacity analysis results are listed in terms of Level of Service (LOS). LOS is a qualitative term describing operating conditions a driver will experience while traveling on a particular street or highway during a specific time interval. It ranges from A (very little delay) to F (long delays and congestion). For intersections and roadways in this study area, standard traffic engineering practice recommends overall intersection LOS D and movement/approach LOS E as the minimum desirable thresholds for acceptable operations. **Table 2** shows the definition of level of service for signalized and unsignalized intersections.

Table 2 – Level of Service Definitions

Level of Service	Signalized Intersection Average Total Delay (sec/veh)	Unsignalized Intersection Average Total Delay (sec/veh)
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

Definitions provided from the Highway Capacity Manual, Sixth Edition, Transportation Research Board, 2016.

Study area intersections were analyzed based on average total delay analysis for unsignalized intersections. Under the unsignalized analysis, the LOS for a two-way stop-controlled intersection is determined by the computed or measured control delay and is defined for each minor movement. LOS for a two-way stop-controlled intersection is not defined for the intersection as a whole. LOS for signalized, roundabout, and all-way stop controlled intersections are defined for each approach and for the overall intersection.

[2] Transportation Research Board, *Highway Capacity Manual*, Sixth Edition, Washington DC, 2016.

5.2 Key Intersection Operational Analysis

Calculations for the operational level of service at the key intersections for the study area are provided in **Appendix D**. The existing year analysis is based on the lane geometry and intersection control shown in **Figure 2.** Existing peak hour factors were utilized in the existing, 2024 horizon, and 2045 horizon analysis years. Synchro traffic analysis software was used to analyze the signalized, and unsignalized key intersections for HCM level of service.

72nd Avenue and Colorado Boulevard (#1)

The unsignalized intersection of 72nd Avenue and Colorado Boulevard (#1) operates with stop control on the eastbound and westbound 72nd Avenue approaches. The movements at this intersection operate acceptably at LOS C or better during both peak hours under existing conditions. With project traffic and the existing lane configurations, all movements are anticipated to continue operating at an acceptable level of service in 2024. By 2045, the eastbound approach may operate poorly with or without the addition of project traffic.

An alternative analysis was also provided in 2024 and 2045 with this intersection operating with all-way stop control. The conversion of this intersection from two-way stop control to all-way stop control would allow for implementation of crosswalks while improving pedestrian connectivity with Adams City Middle School located to the east. With all-way stop control, this intersection is expected to operate acceptably during the peak hours in 2024 but with long delays by 2045. A total of four of the eight hourly volume all-way stop control warrants are expected to be met by 2024. It is believed that each hour could meet warrants with the addition pedestrian units once crosswalks were provided with all-way stop control. Independent of this project, the City of Commerce City could consider implementing all-way stop control and crosswalks at the 72nd Avenue and Colorado Boulevard intersection for the short-term horizon.

A signal warrant analysis was completed for this intersection and it was found that a signal may be warranted in 2045 without the addition of project traffic. If future traffic volumes are realized by 2045, signalization should be considered at this intersection by the long-term horizon. With signalization, the intersection is anticipated to operate acceptably in 2045 with the addition of project traffic. The all-way stop control and signal warrant calculations and figure is provided in **Appendix E**. The results of the LOS analysis conducted at this intersection is shown in **Table 3**.

Table 3 – 72nd Avenue & Colorado Boulevard LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2021 Existing				
Northbound Left	8.3	A	0.0	A
Eastbound Approach	20.1	C	19.3	C
Westbound Left	19.0	C	16.7	C
Westbound Through/Right	10.8	B	12.7	B
Southbound Left	8.2	A	8.6	A
2024 Background				
Northbound Left	8.3	A	0.0	A
Eastbound Approach	21.2	C	20.6	C
Westbound Left	19.9	C	17.4	C
Westbound Through/Right	11.0	B	13.1	B
Southbound Left	8.2	A	8.7	A
2024 Total Traffic				
Northbound Left	8.3	A	0.0	A
Eastbound Approach	21.5	C	21.0	C
Westbound Left	20.1	C	17.8	C
Westbound Through/Right	11.0	B	13.2	B
Southbound Left	8.3	A	8.7	A
2024 Total Traffic (AWSC) #	**17.3**	**C**	**20.7**	**C**
Eastbound Approach	11.4	B	11.9	B
Westbound Approach	11.1	B	13.1	B
Northbound Approach	15.4	C	30.1	D
Southbound Approach	19.6	C	15.6	C
2045 Background				
Northbound Left	8.8	A	0.0	A
Eastbound Approach	37.5	E	88.3	F
Westbound Left	30.8	D	24.4	C
Westbound Through/Right	12.8	B	18.0	C
Southbound Left	8.7	A	9.5	A
2045 Total Traffic (AWSC) #	**48.7**	**E**	**67.6**	**F**
Eastbound Approach	13.1	B	14.3	B
Westbound Approach	13.6	B	18.8	C
Northbound Approach	27.3	D	133.6	F
Southbound Approach	66.8	F	28.3	D
2045 Total Traffic (Signalized) ##	9.8	A	14.4	B

= All-Way Stop Control (AWSC); ## = Signalized

70th Avenue and Colorado Boulevard (#2)

The unsignalized intersection of 70th Avenue and Colorado Boulevard operates with stop control on all four approaches. The intersection operates acceptably at LOS B during both peak hours under existing conditions. With project traffic and the existing lane configurations, all movements are anticipated to continue operating at an acceptable level of service throughout the 2045 horizon. Therefore, no modifications to the existing control or lane configurations are recommended at this intersection. **Table 4** provides the results of the LOS analysis conducted at this intersection.

Table 4 – 70th Avenue & Colorado Boulevard LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2021 Existing	10.3	B	10.7	B
2024 Background	10.6	B	11.1	B
2024 Background Plus Project	10.7	B	11.3	B
2045 Background	14.6	B	16.0	C
2045 Background Plus Project	15.0	B	16.5	C

68th Avenue and Colorado Boulevard (#3)

The unsignalized intersection of 68th Avenue and Colorado Boulevard (#3) operates with stop control on the eastbound and westbound 68th Avenue approaches. The movements at this intersection operate acceptably at LOS C or better during both peak hours under existing conditions. With project traffic and the existing lane configurations, all movements are anticipated to continue operating at an acceptable level of service throughout the 2045 horizon. Therefore, no modifications to the existing control or lane configurations are recommended at this intersection. **Table 5** provides the results of the LOS analysis conducted at this intersection.

Table 5 – 68th Avenue & Colorado Boulevard LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2021 Existing				
Northbound Left	8.0	A	7.7	A
Eastbound Approach	14.2	B	17.2	C
Westbound Approach	10.4	B	11.6	B
Southbound Left	7.6	A	8.1	A
2024 Background				
Northbound Left	8.1	A	7.7	A
Eastbound Approach	14.6	B	18.0	C
Westbound Approach	10.5	B	11.8	B
Southbound Left	7.6	A	8.2	A
2024 Background Plus Project				
Northbound Left	8.1	A	7.7	A
Eastbound Approach	14.7	B	18.3	C
Westbound Approach	10.5	B	11.8	B
Southbound Left	7.6	A	8.2	A
2045 Background				
Northbound Left	8.4	A	7.9	A
Eastbound Approach	19.8	C	32.8	D
Westbound Approach	11.8	B	14.0	B
Southbound Left	7.8	A	8.7	A
2045 Background Plus Project				
Northbound Left	8.4	A	7.9	A
Eastbound Approach	20.0	C	34.0	D
Westbound Approach	11.8	B	14.1	B
Southbound Left	7.8	A	8.7	A

Project Access

With completion of the 7001 Colorado Boulevard project, an access is proposed along the west side of Colorado Boulevard to align with 71st Avenue and serve the proposed residential development. It is recommended that a R1-1 “STOP” sign be installed on the eastbound approach exiting the development. Also, to meet Commerce City Standards, a 130 foot with 165-foot taper northbound left turn lane may need to be constructed at this access. Although this access meets City warrants for implementation of a northbound left turn lane, left turn lanes were not provided (although warranted) with the recent reconstruction of the 70th Avenue and Colorado Boulevard. Therefore, it is believed existing geometric constraints may have prevented implementation of left turn lanes at the 70th Avenue and Colorado Boulevard intersection. Therefore, additional design coordination will be required with the City to determine if a northbound left turn lane is needed at the project access. A conceptual exhibit is attached in **Appendix F** showing the proposed configuration of the project access with a northbound left turn lane. Of note, there are expected to be nine (9) vehicles making this left turn during the peak hour of the day. If a northbound left turn lane is implemented at the project access, bike lanes will be continued through the widened section of the street. Further, if the northbound left turn lane is implemented at the project access, the City may desire to designate a southbound left turn lane in the created shadow space of the northbound left turn lane. **Table 6** provides the results of the level of service for this project street access with and without a northbound left turn lane. As shown in the table, the project access intersection along Colorado Boulevard to align with 71st Avenue is anticipated to have all movements operating with acceptable LOS C or better during the peak hours in both the buildout year 2024 and the 2045 long term horizons with or without a northbound left turn lane.

Table 6 – Project Access Level of Service Results

Intersection	2024 Total				2045 Total			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS
71st Avenue and Colorado Boulevard Access								
Northbound Left	8.0	A	7.9	A	8.4	A	8.2	A
Eastbound Approach	12.8	B	14.1	B	15.4	C	17.9	C
Westbound Approach	11.8	B	13.7	B	13.6	B	17.2	C
Southbound Left	7.7	A	8.2	A	7.8	A	8.6	A
71st Avenue and Colorado Boulevard Access #								
Northbound Left	8.0	A	7.9	A	8.4	A	8.2	A
Eastbound Approach	12.8	B	14.1	B	15.4	C	17.8	C
Westbound Approach	11.8	B	13.7	B	13.6	B	17.2	C
Southbound Left	7.7	A	8.2	A	7.8	A	8.6	A

= Northbound Left Turn Lane

5.3 Project Access Auxiliary Lane Analysis

The City of Commerce City Engineering Construction Standards and Specifications were used to determine if turn lanes are warranted at the project access. The City of Commerce City classifies Colorado Boulevard as a major collector roadway.

According to section 3.04.1 for Major Collector roadways, a left turn lane with storage length plus taper length is required for all accesses, a right turn lane with storage length plus taper is required for any access with a projected peak hour right ingress turning volume greater than 25 vehicles per hour (vph), and a right turn acceleration lane is required for any access with a projected peak hour right egress turning volume greater than 10 vph.

Based on the major collector roadway classification and 2045 traffic volume projections, turn lane requirements at the project intersection along Colorado Boulevard are as follows:

71st Avenue and Colorado Boulevard Access (#4)

- A northbound left turn lane **is** warranted for the 71st Avenue and Colorado Boulevard Access based on Colorado Boulevard being a major collector roadway. To meet City standard the northbound left turn lane would need to be 130 feet long (calculated as a 90-foot deceleration length plus 40-foot storage length) plus a 165-foot taper. Although this

access meets City warrants for implementation of a northbound left turn lane, it has been noticed that left turn lanes were not provided (although warranted) with the recent reconstruction of the 70th Avenue and Colorado Boulevard. Therefore, it is believed that current geometric constraints may prevent this northbound left turn lane and northbound left turn lane may not be desired by the City at this access. Of note, there are expected to be nine (9) vehicles making this left turn during the peak hour of the day.

- A southbound right turn lane **is not** warranted for the 71st Avenue and Colorado Boulevard Access based on projected 2045 background plus project traffic volumes being 14 southbound right turns during the peak hour and the threshold being 25 vph.

- An eastbound right turn to southbound acceleration lane **is not** warranted for the 71st Avenue and Colorado Boulevard Access based on projected 2024 background plus project traffic volumes being 9 eastbound right turns during the peak hour and the threshold being 10 vph.

It should be noted that the intersection of 70th Avenue and Colorado Boulevard was recently reconstructed in 2019 and did not incorporate left turn lanes at this intersection. Technically, based on City standards, left turn lanes should be incorporated on each approach of this intersection. However, it is believed that these left turn lanes were not included with the recent reconstruction of the 70th Avenue and Colorado Boulevard intersection due to this intersection operating with all-way stop control and to avoid driver confusion with this control and the additional lanes. As such, no modifications to the existing control or lane configurations are recommended at this intersection.

5.4 Vehicle Queuing Analysis

A vehicle queuing analysis was conducted for the study area intersections. The queuing analysis was performed using Synchro presenting the results of the 95th percentile queue lengths. Results are shown in the following **Table 7** with calculations provided within the level of service operational sheets of **Appendix D** for unsignalized intersections and **Appendix G** for signalized intersections.

Table 7 – Turn Lane Queuing Analysis Results

Intersection Turn Lane	Existing Turn Lane Length (feet)	2024 Calculated Queue (feet)	2024 Recommended Length (feet)	2045 Calculated Queue (feet)	2045 Recommended Length (feet)
72nd & Colorado (#1)					
Northbound Left	100’	25’	100’	25’	100’
Westbound Left	100’ TWLTL	25’	100’ TWLTL	45’	100’ TWLTL
Southbound Left	75’	25’	75’	56’	75’
Southbound Right	100’	25’	100’	25’	100’
71st & Colorado Access (#4)					
Northbound Left	DNE	25’	**130’+165’T (CC)**	25’	130’+165’T (CC)

TWLTL = Two-Way Left Turn Lane; DNE = Does Not Exist; T = Taper; CC=Commerce City Standard; **Blue** Text = Recommendation

As shown in the table above, if a northbound left turn lane is implemented at the 71st Avenue and Colorado Boulevard access (#4), it should be designated with 130 feet of length plus a 165-foot taper to meet Commerce City Standards.

5.5 Bicycle and Pedestrian Access

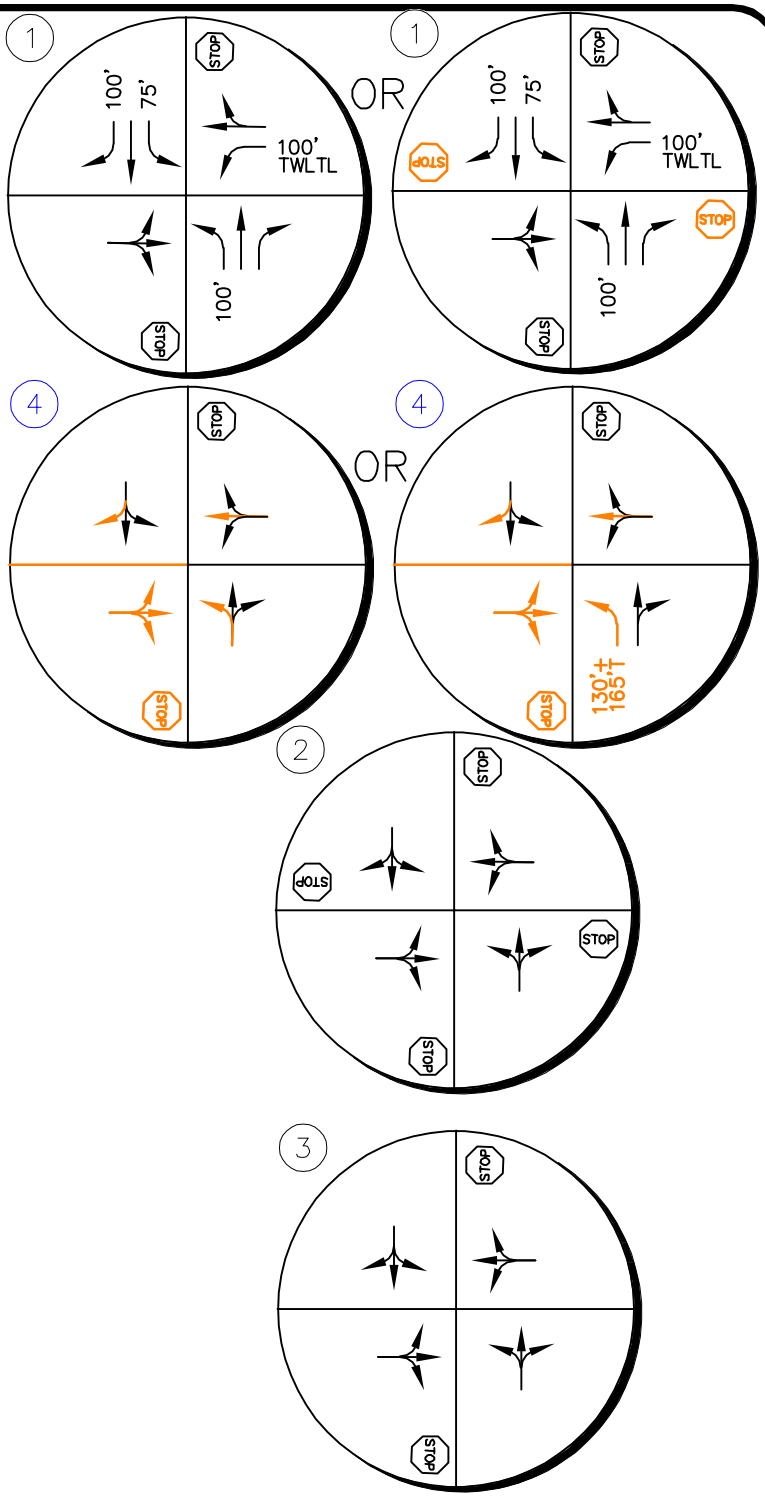
Sidewalks are provided along both sides of the Colorado Boulevard between 72nd Avenue and 70th Avenue. The City recently improved Colorado Boulevard from 72nd Avenue to 70th Avenue as a complete street with incorporation of bike lanes, sidewalks, and curb and gutter. North of 72nd Avenue, Colorado Boulevard provides a sidewalk on the east side of the roadway. There are not any sidewalks present on either side of Colorado Boulevard south of 70th Avenue. However, the City will be improving Colorado Boulevard from 70th Avenue to 68th Avenue to match the roadway section to the north with sidewalks, bike lanes, and curb and gutter along both sides of Colorado Boulevard. This improvement to Colorado Boulevard would provide a complete sidewalk walking route to Alsup Elementary School on 68th Avenue as well as Adams City Middle School on 72nd Avenue. Sidewalk is provided on the north side of 72nd Avenue from Colorado Boulevard to Adams City Middle School and on the immediate southeast corner of the intersection with Colorado Boulevard. Therefore, the walking route to Adams City Middle School would be on

the north side of 72nd Avenue. To the west of Colorado Boulevard, a sidewalk is provided on the south side of 72nd Avenue. There are sidewalks present on both sides of 70th Avenue adjacent to the site. The Commerce City and 72nd RTD Station is located directly west of the site along 70th Avenue. The sidewalks along 70th Avenue will be used by the proposed development to provide access to the RTD station. Sidewalks are provided on both sides of 68th Avenue east of Colorado Boulevard. A bike lane currently exists on Colorado Boulevard between 72nd Avenue and 70th Avenue and will be extended to 68th Avenue in the future.

Crosswalks are provided on all four legs of the all-way stop control intersection of 70th Avenue and Colorado Boulevard. A crosswalk is provided on the east leg of the 72nd Avenue and Colorado Boulevard intersection while there are not any crosswalks at the intersection of 68th Avenue and Colorado Boulevard. Vehicle traffic does not stop along Colorado Boulevard at the intersections with 72nd Avenue and 68th Avenue. As such, and due to the proximity of the Adams City Middle School to the east along 72nd Avenue, all-way stop control (evaluated previously) could be considered in the short-term at the intersection of 72nd Avenue and Colorado Boulevard. Crosswalks could then be incorporated on all four legs of this intersection improving pedestrian connectivity with the school to the east.

5.6 Improvement Summary

Based on the results of the intersection operational and vehicle queuing analysis, the key intersection recommended improvements and control are shown in **Figure 10** for the 2024 horizon and **Figure 11** for the 2045 horizon.

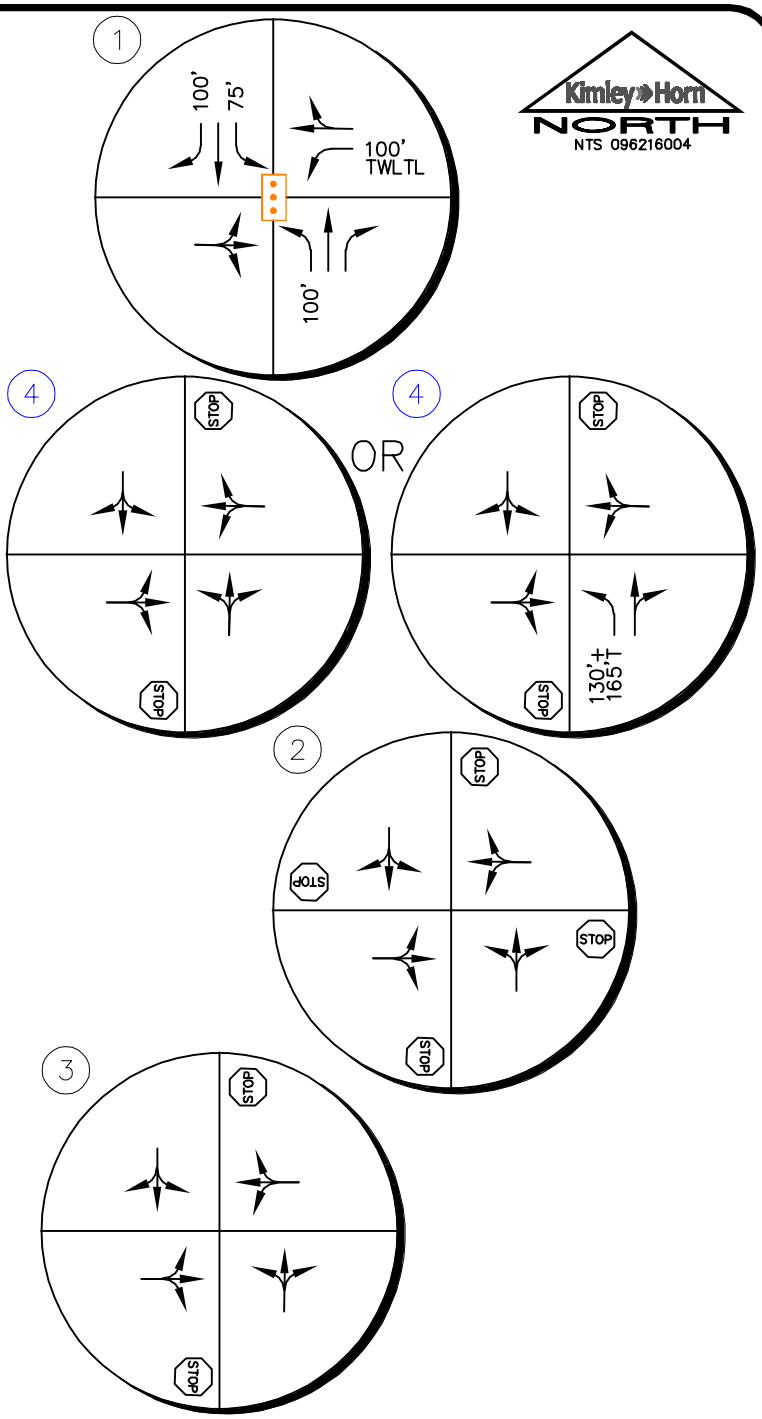


Kimley»Horn NORTH
NTS 096216004

7001 COLORADO BOULEVARD
COMMERCE CITY, COLORADO
2024 RECOMMENDED GEOMETRY AND CONTROL

FIGURE 10

Kimley»Horn



Kimley»Horn NORTH
NTS 096216004

LEGEND

- Study Area Key Intersection
- Project Access Intersection
- Signalized Intersection
- Stop Controlled Approach
- Improvement
- 100' Turn Lane Length (feet)

7001 COLORADO BOULEVARD
COMMERCE CITY, COLORADO
2045 RECOMMENDED GEOMETRY AND CONTROL

FIGURE 11

Kimley»Horn

6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis presented in this report, Kimley-Horn believes 7001 Colorado Boulevard will be successfully incorporated into the existing and future roadway network. Analysis of the existing street network, the proposed project development, and expected traffic volumes resulted in the following conclusions and recommendations:

2024 Recommendations:

- With completion of the 7001 Colorado Boulevard project, an access is proposed along the west side of Colorado Boulevard to align with 71st Avenue and serve the proposed residential development. It is recommended that a R1-1 "STOP" sign be installed on the eastbound approach exiting the development. Also, to meet Commerce City Standards, a 130 foot with 165-foot taper northbound left turn lane may need to be constructed at this access. Although this access meets City warrants for implementation of a northbound left turn lane, left turn lanes were not provided (although warranted) with the recent reconstruction of the 70th Avenue and Colorado Boulevard. Therefore, it is believed existing geometric constraints may have prevented implementation of left turn lanes at the 70th Avenue and Colorado Boulevard intersection. Therefore, additional design coordination will be required with the City to determine if a northbound left turn lane is needed at the project access. Of note, there are expected to be nine (9) vehicles making this left turn during the peak hour of the day. If a northbound left turn lane is implemented at the project access, bike lanes will be continued through the widened section of the street. Further, if the northbound left turn lane is implemented at the project access, the City may desire to designate a southbound left turn lane in the created shadow space of the northbound left turn lane.

2045 Recommendations:

- A signal may be needed at the intersection of 72nd Avenue and Colorado Boulevard (#1) if future traffic volumes are realized.

General Recommendations:

- Any on-site or offsite improvements should be incorporated into the Civil Drawings and conform to standards of the City of Commerce City and the Manual on Uniform Traffic Control Devices (MUTCD) – 2009 Edition.

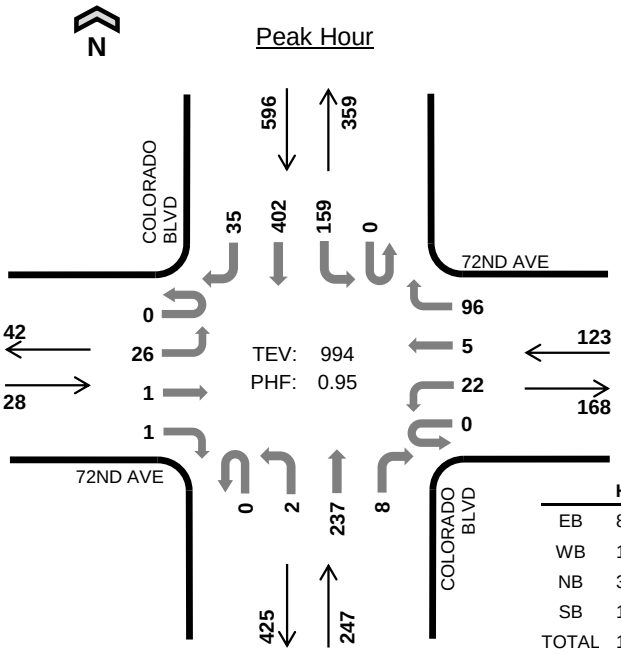
APPENDICES

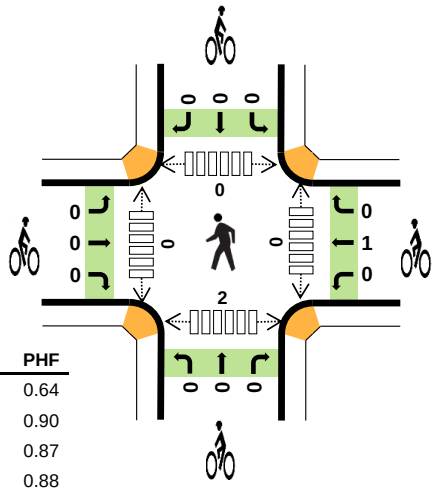
APPENDIX A

Intersection Count Sheets

COLORADO BLVD
72ND AVE

Date: 04/07/2022
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM





	HV %:	PHF
EB	89.3%	0.64
WB	11.4%	0.90
NB	34.8%	0.87
SB	11.7%	0.88
TOTAL	19.6%	0.95

Two-Hour Count Summaries

Interval Start	72ND AVE Eastbound				72ND AVE Westbound				COLORADO BLVD Northbound				COLORADO BLVD 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**	**11**	**0**	**0**	**0**	**4**	**0**	**25**	**0**	**1**	**69**	**1**	**0**	**37**	**97**	**7**	**252**	0
7:15 AM	**0**	**5**	**0**	**0**	**0**	**7**	**1**	**25**	**0**	**0**	**57**	**2**	**0**	**34**	**96**	**3**	**230**	0
7:30 AM	**0**	**3**	**1**	**0**	**0**	**6**	**3**	**25**	**0**	**1**	**57**	**3**	**0**	**36**	**104**	**12**	**251**	0
7:45 AM	**0**	**7**	**0**	**1**	**0**	**5**	**1**	**21**	**0**	**0**	**54**	**2**	**0**	**52**	**105**	**13**	**261**	**994**
8:00 AM	0	8	0	0	0	6	0	26	0	1	45	8	0	30	106	11	241	983
8:15 AM	0	8	1	0	0	10	3	16	0	0	56	6	0	23	83	7	213	966
8:30 AM	0	12	1	1	1	5	0	27	0	0	42	5	0	22	73	8	197	912
8:45 AM	0	5	0	0	0	8	1	20	0	0	32	5	0	18	61	10	160	811
Count Total	0	59	3	2	1	51	9	185	0	3	412	32	0	252	725	71	1,805	0
Peak Hour All	**0**	**26**	**1**	**1**	**0**	**22**	**5**	**96**	**0**	**2**	**237**	**8**	**0**	**159**	**402**	**35**	**994**	**0**
Peak Hour HV	**0**	**25**	**0**	**0**	**0**	**4**	**4**	**6**	**0**	**1**	**80**	**5**	**0**	**2**	**44**	**24**	**195**	**0**
Peak Hour HV%	**-**	**96%**	**0%**	**0%**	**-**	**18%**	**80%**	**6%**	**-**	**50%**	**34%**	**63%**	**-**	**1%**	**11%**	**69%**	**20%**	**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	**11**	**3**	**28**	**11**	***53***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**5**	**6**	**25**	**21**	***57***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**1**	*1*
7:30 AM	**2**	**3**	**21**	**20**	***46***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**7**	**2**	**12**	**18**	***39***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**1**	***1***
8:00 AM	7	5	9	25	*46*	0	0	0	0	*0*	1	0	0	1	*2*
8:15 AM	8	4	20	16	*48*	0	0	0	0	*0*	4	0	0	4	*8*
8:30 AM	12	2	17	18	*49*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	4	1	9	20	*34*	0	0	0	0	*0*	0	1	1	0	*2*
Count Total	56	26	141	149	*372*	0	1	0	0	*1*	5	1	1	7	*14*
Peak Hour	**25**	**14**	**86**	**70**	***195***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**2**	***2***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	72ND AVE Eastbound				72ND AVE Westbound				COLORADO BLVD Northbound				COLORADO BLVD 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**	**11**	**0**	**0**	**0**	**1**	**0**	**2**	**0**	**0**	**28**	**0**	**0**	**1**	**10**	**0**	**53**	0
7:15 AM	**0**	**5**	**0**	**0**	**0**	**3**	**1**	**2**	**0**	**0**	**24**	**1**	**0**	**1**	**18**	**2**	**57**	0
7:30 AM	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**1**	**0**	**1**	**17**	**3**	**0**	**0**	**10**	**10**	**46**	0
7:45 AM	**0**	**7**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**11**	**1**	**0**	**0**	**6**	**12**	**39**	**195**
8:00 AM	0	7	0	0	0	0	0	5	0	0	6	3	0	1	14	10	46	188
8:15 AM	0	8	0	0	0	2	1	1	0	0	20	0	0	0	9	7	48	179
8:30 AM	0	11	1	0	0	2	0	0	0	0	14	3	0	1	9	8	49	182
8:45 AM	0	4	0	0	0	0	1	0	0	0	9	0	0	2	10	8	34	177
Count Total	0	55	1	0	0	8	6	12	0	1	129	11	0	6	86	57	372	0
Peak Hour	**0**	**25**	**0**	**0**	**0**	**4**	**4**	**6**	**0**	**1**	**80**	**5**	**0**	**2**	**44**	**24**	**195**	**0**

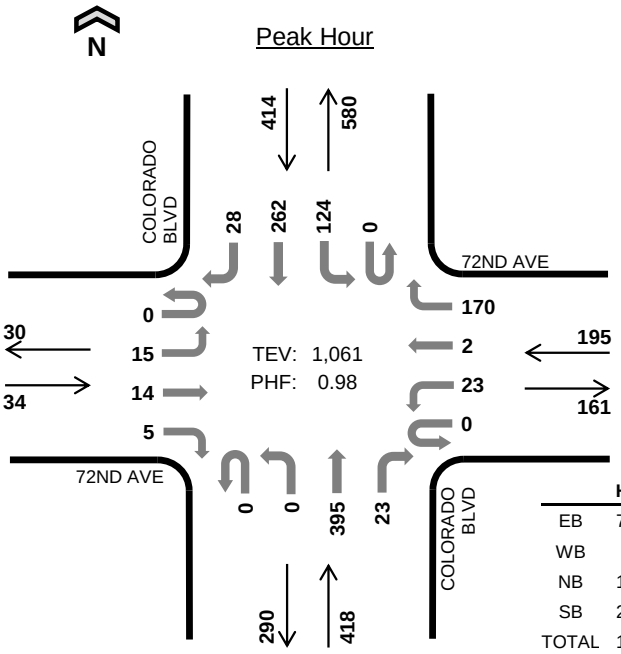
Two-Hour Count Summaries - Bikes

Interval Start	72ND AVE Eastbound			72ND AVE Westbound			COLORADO BLVD Northbound			COLORADO BLVD Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	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**	**1**
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	1	0	0	0	0	0	0	0	1	0
Peak Hour	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**

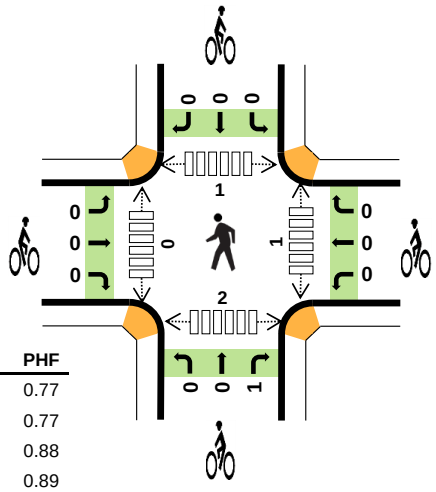
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

COLORADO BLVD
72ND AVE

Date: 04/07/2022
Count Period: 2:00 PM to 6:00 PM
Peak Hour: 3:45 PM to 4:45 PM



	HV %:	PHF
EB	79.4%	0.77
WB	5.6%	0.77
NB	11.2%	0.88
SB	23.4%	0.89
TOTAL	17.2%	0.98



Four-Hour Count Summaries

Interval Start		72ND AVE Eastbound				72ND AVE Westbound				COLORADO BLVD Northbound				COLORADO BLVD Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:45 PM		0	4	5	2	0	4	2	37	0	0	107	5	0	23	68	9	266	0
4:00 PM		0	7	3	1	0	2	0	39	0	0	101	1	0	37	73	6	270	0
4:15 PM		0	3	5	1	0	11	0	52	0	0	77	8	0	32	63	10	262	0
4:30 PM		0	1	1	1	0	6	0	42	0	0	110	9	0	32	58	3	263	1,061
Peak Hour	All	0	15	14	5	0	23	2	170	0	0	395	23	0	124	262	28	1,061	0
	HV	0	12	12	3	0	6	1	4	0	0	43	4	0	7	64	26	182	0
	HV%	-	80%	86%	60%	-	26%	50%	2%	-	-	11%	17%	-	6%	24%	93%	17%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
3:45 PM	8	1	17	22	*48*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 PM	8	1	11	24	*44*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	8	8	9	34	*59*	0	0	1	0	*1*	1	0	1	2	*4*
4:30 PM	3	1	10	17	*31*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	27	11	47	97	*182*	0	0	1	0	*1*	1	0	1	2	*4*

Four-Hour Count Summaries

Interval Start	72ND AVE Eastbound				72ND AVE Westbound				COLORADO BLVD Northbound				COLORADO BLVD Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	8	1	1	0	5	0	10	0	0	56	2	0	28	45	9	165	0
2:15 PM	0	9	2	0	0	7	1	15	0	0	44	1	0	13	46	9	147	0
2:30 PM	0	10	1	0	0	4	3	13	0	1	58	12	1	20	68	7	198	0
2:45 PM	0	9	0	1	0	6	0	22	0	0	65	3	0	25	64	4	199	709
3:00 PM	0	5	2	0	0	7	1	23	0	0	78	8	0	33	63	12	232	776
3:15 PM	0	9	1	2	0	5	1	25	0	0	69	7	1	34	71	5	230	859
3:30 PM	0	6	1	2	0	4	0	28	0	1	99	6	0	26	60	6	239	900
3:45 PM	**0**	**4**	**5**	**2**	**0**	**4**	**2**	**37**	**0**	**0**	**107**	**5**	**0**	**23**	**68**	**9**	**266**	967
4:00 PM	**0**	**7**	**3**	**1**	**0**	**2**	**0**	**39**	**0**	**0**	**101**	**1**	**0**	**37**	**73**	**6**	**270**	1,005
4:15 PM	**0**	**3**	**5**	**1**	**0**	**11**	**0**	**52**	**0**	**0**	**77**	**8**	**0**	**32**	**63**	**10**	**262**	1,037
4:30 PM	**0**	**1**	**1**	**1**	**0**	**6**	**0**	**42**	**0**	**0**	**110**	**9**	**0**	**32**	**58**	**3**	**263**	**1,061**
4:45 PM	0	4	3	1	0	4	0	33	0	0	122	3	0	26	54	7	257	1,052
5:00 PM	0	6	1	2	0	3	0	39	0	0	101	4	0	23	54	8	241	1,023
5:15 PM	0	3	3	1	0	6	1	41	0	0	62	3	0	32	45	7	204	965
5:30 PM	0	3	2	0	0	2	0	34	0	0	79	5	0	15	41	2	183	885
5:45 PM	0	3	2	2	0	5	1	22	0	0	64	4	0	27	37	2	169	797
Count Total	0	90	33	17	0	81	10	475	0	2	1,292	81	2	426	910	106	3,525	0
Peak Hour All	**0**	**15**	**14**	**5**	**0**	**23**	**2**	**170**	**0**	**0**	**395**	**23**	**0**	**124**	**262**	**28**	**1,061**	**0**
Peak Hour HV	**0**	**12**	**12**	**3**	**0**	**6**	**1**	**4**	**0**	**0**	**43**	**4**	**0**	**7**	**64**	**26**	**182**	**0**
Peak Hour HV%	**-**	**80%**	**86%**	**60%**	**-**	**26%**	**50%**	**2%**	**-**	**-**	**11%**	**17%**	**-**	**6%**	**24%**	**93%**	**17%**	**0**

Note: Four-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
2:00 PM	9	4	19	32	*64*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 PM	10	7	10	28	*55*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 PM	10	3	17	31	*61*	0	0	0	0	*0*	0	0	0	0	*0*
2:45 PM	10	2	17	29	*58*	0	0	0	0	*0*	0	0	0	2	*2*
3:00 PM	5	3	17	29	*54*	0	0	0	0	*0*	0	0	0	0	*0*
3:15 PM	10	3	12	33	*58*	0	0	0	0	*0*	0	0	0	1	*1*
3:30 PM	8	2	25	25	*60*	0	0	0	0	*0*	1	1	1	0	*3*
3:45 PM	**8**	**1**	**17**	**22**	***48***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:00 PM	**8**	**1**	**11**	**24**	***44***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:15 PM	**8**	**8**	**9**	**34**	***59***	**0**	**0**	**1**	**0**	***1***	**1**	**0**	**1**	**2**	*4*
4:30 PM	**3**	**1**	**10**	**17**	***31***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
4:45 PM	6	2	13	17	*38*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	6	2	12	20	*40*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	5	4	3	16	*28*	0	0	0	0	*0*	0	0	0	1	*1*
5:30 PM	4	1	11	12	*28*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	4	2	4	9	*19*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	114	46	207	378	*745*	0	0	1	0	*1*	2	1	2	6	*11*
Peak Hour	**27**	**11**	**47**	**97**	***182***	**0**	**0**	**1**	**0**	***1***	**1**	**0**	**1**	**2**	***4***

Four-Hour Count Summaries - Heavy Vehicles

Interval Start	72ND AVE Eastbound				72ND AVE Westbound				COLORADO BLVD Northbound				COLORADO BLVD Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	7	1	1	0	4	0	0	0	0	18	1	0	5	18	9	64	0
2:15 PM	0	9	1	0	0	5	1	1	0	0	10	0	0	1	18	9	55	0
2:30 PM	0	9	1	0	0	1	2	0	0	1	11	5	0	1	23	7	61	0
2:45 PM	0	9	0	1	0	1	0	1	0	0	17	0	0	5	21	3	58	238
3:00 PM	0	4	1	0	0	1	1	1	0	0	16	1	0	2	16	11	54	228
3:15 PM	0	8	1	1	0	2	1	0	0	0	11	1	0	1	27	5	58	231
3:30 PM	0	6	1	1	0	2	0	0	0	1	22	2	0	1	18	6	60	230
3:45 PM	**0**	**2**	**5**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**16**	**1**	**0**	**2**	**13**	**7**	**48**	220
4:00 PM	**0**	**6**	**2**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**11**	**0**	**0**	**1**	**17**	**6**	**44**	210
4:15 PM	**0**	**3**	**4**	**1**	**0**	**5**	**0**	**3**	**0**	**0**	**8**	**1**	**0**	**4**	**20**	**10**	**59**	211
4:30 PM	**0**	**1**	**1**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**8**	**2**	**0**	**0**	**14**	**3**	**31**	**182**
4:45 PM	0	3	2	1	0	1	0	1	0	0	12	1	0	2	10	5	38	172
5:00 PM	0	3	1	2	0	1	0	1	0	0	10	2	0	1	12	7	40	168
5:15 PM	0	2	2	1	0	2	1	1	0	0	3	0	0	0	9	7	28	137
5:30 PM	0	3	1	0	0	1	0	0	0	0	9	2	0	0	11	1	28	134
5:45 PM	0	1	1	2	0	1	1	0	0	0	3	1	0	1	6	2	19	115
Count Total	0	76	25	13	0	28	8	10	0	2	185	20	0	27	253	98	745	0
Peak Hour	**0**	**12**	**12**	**3**	**0**	**6**	**1**	**4**	**0**	**0**	**43**	**4**	**0**	**7**	**64**	**26**	**182**	**0**

Four-Hour Count Summaries - Bikes

Interval Start	72ND AVE Eastbound			72ND AVE Westbound			COLORADO BLVD Northbound			COLORADO BLVD Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
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**	**1**	**0**	**0**	**0**	**1**	1
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
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	1	0	0	0	1	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**

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

Ridgeview Data Collection

Commerce City, CO
7001 Colorado Blvd
AM Peak
70th Ave and Colorado Blvd

File Name : 70th and Colorado AM
Site Code : IPO 585
Start Date : 12/16/2021
Page No : 1

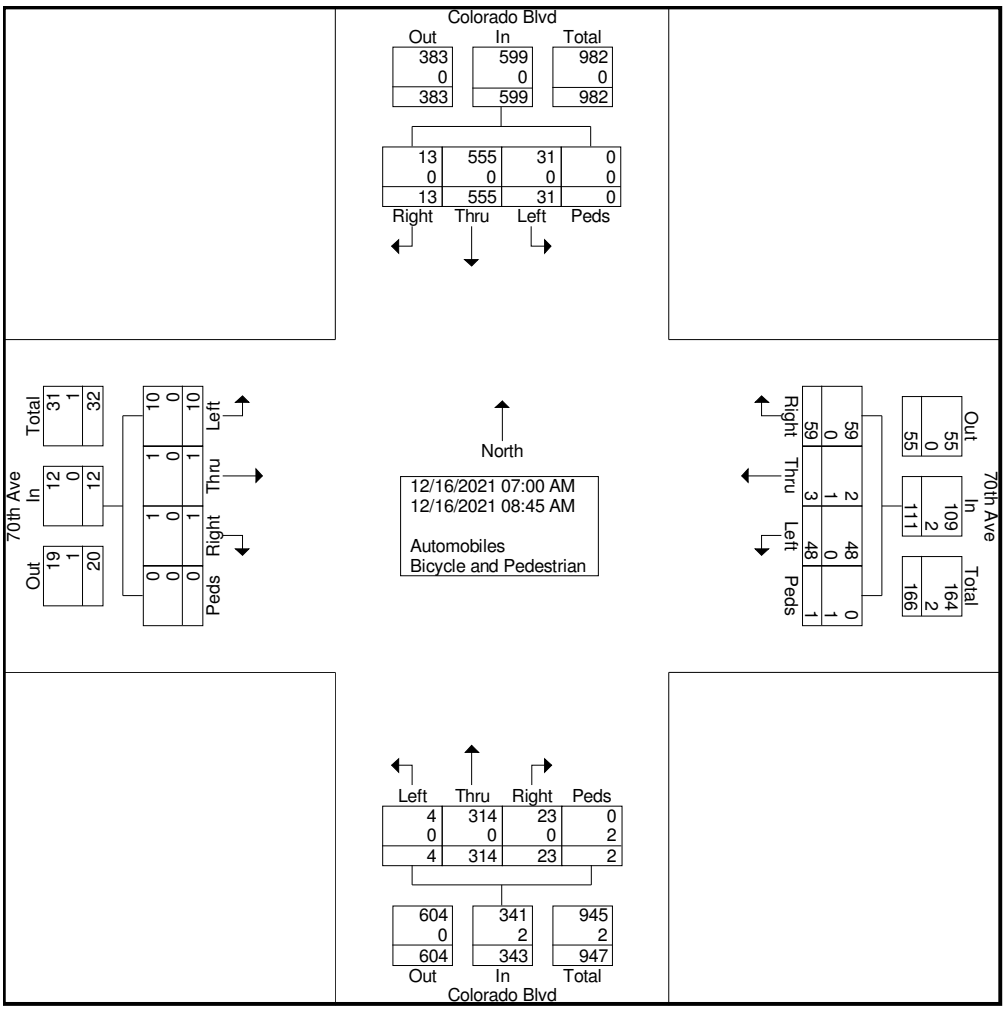
Groups Printed- Automobiles - Bicycle and Pedestrian

	70th Ave Eastbound					70th Ave Westbound					Colorado Blvd Northbound					Colorado Blvd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	7	0	10	0	17	0	55	1	0	56	2	61	0	0	63	136
07:15 AM	0	0	0	0	0	7	0	4	0	11	1	55	2	0	58	3	63	4	0	70	139
07:30 AM	3	0	1	0	4	4	0	8	0	12	1	24	1	0	26	6	61	1	0	68	110
07:45 AM	1	0	0	0	1	6	0	10	0	16	1	37	4	0	42	6	87	0	0	93	152
Total	4	0	1	0	5	24	0	32	0	56	3	171	8	0	182	17	272	5	0	294	537
08:00 AM	2	1	0	0	3	7	1	10	0	18	1	21	3	0	25	3	74	0	0	77	123
08:15 AM	1	0	0	0	1	10	2	8	0	20	0	46	5	1	52	3	90	3	0	96	169
08:30 AM	2	0	0	0	2	4	0	2	0	6	0	45	3	0	48	3	51	1	0	55	111
08:45 AM	1	0	0	0	1	3	0	7	1	11	0	31	4	1	36	5	68	4	0	77	125
Total	6	1	0	0	7	24	3	27	1	55	1	143	15	2	161	14	283	8	0	305	528
Grand Total	10	1	1	0	12	48	3	59	1	111	4	314	23	2	343	31	555	13	0	599	1065
Apprch %	83.3	8.3	8.3	0		43.2	2.7	53.2	0.9		1.2	91.5	6.7	0.6		5.2	92.7	2.2	0		
Total %	0.9	0.1	0.1	0	1.1	4.5	0.3	5.5	0.1	10.4	0.4	29.5	2.2	0.2	32.2	2.9	52.1	1.2	0	56.2	
Automobiles	10	1	1	0	12	48	2	59	0	109	4	314	23	0	341	31	555	13	0	599	1061
% Automobiles	100	100	100	0	100	100	66.7	100	0	98.2	100	100	100	0	99.4	100	100	100	0	100	99.6
Bicycle and Pedestrian	0	0	0	0	0	0	1	0	1	2	0	0	0	2	2	0	0	0	0	0	4
% Bicycle and Pedestrian	0	0	0	0	0	0	33.3	0	100	1.8	0	0	0	100	0.6	0	0	0	0	0	0.4

Ridgeview Data Collection

Commerce City, CO
7001 Colorado Blvd
AM Peak
70th Ave and Colorado Blvd

File Name : 70th and Colorado AM
Site Code : IPO 585
Start Date : 12/16/2021
Page No : 2

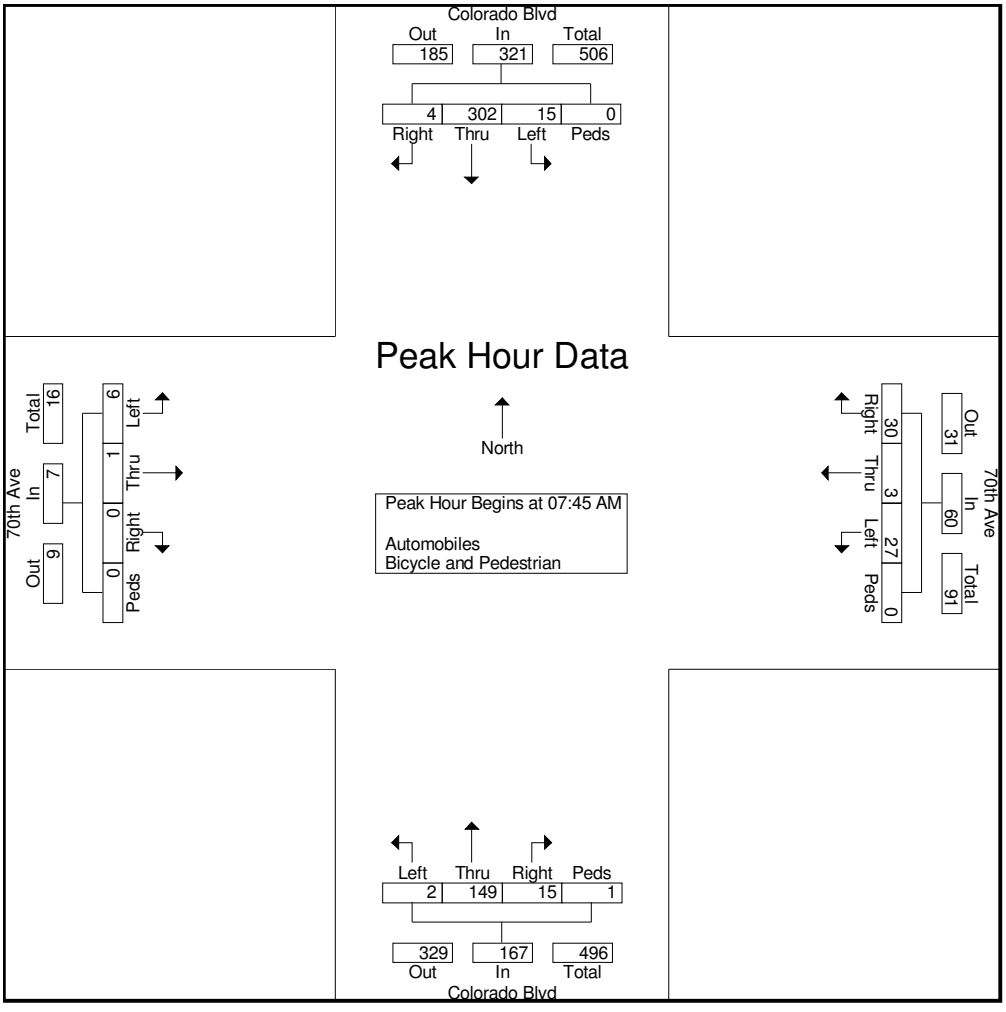


Ridgeview Data Collection

Commerce City, CO
7001 Colorado Blvd
AM Peak
70th Ave and Colorado Blvd

File Name : 70th and Colorado AM
Site Code : IPO 585
Start Date : 12/16/2021
Page No : 3

	70th Ave Eastbound					70th Ave Westbound					Colorado Blvd Northbound					Colorado Blvd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	1	0	0	0	1	6	0	**10**	0	16	**1**	37	4	0	42	**6**	87	0	0	93	152
08:00 AM	**2**	**1**	0	0	**3**	7	1	10	0	18	1	21	3	0	25	3	74	0	0	77	123
08:15 AM	1	0	0	0	1	**10**	**2**	8	0	**20**	0	**46**	**5**	**1**	**52**	3	**90**	**3**	0	**96**	**169**
08:30 AM	2	0	0	0	2	4	0	2	0	6	0	45	3	0	48	3	51	1	0	55	111
Total Volume	6	1	0	0	7	27	3	30	0	60	2	149	15	1	167	15	302	4	0	321	555
% App. Total	85.7	14.3	0	0		45	5	50	0		1.2	89.2	9	0.6		4.7	94.1	1.2	0		
PHF	.750	.250	.000	.000	.583	.675	.375	.750	.000	.750	.500	.810	.750	.250	.803	.625	.839	.333	.000	.836	.821



Ridgeview Data Collection

Commerce City, CO
7001 Colorado Blvd
PM Peak
70th Ave and Colorado Blvd

File Name : 70th and Colorado PM
Site Code : IPO 585
Start Date : 12/16/2021
Page No : 1

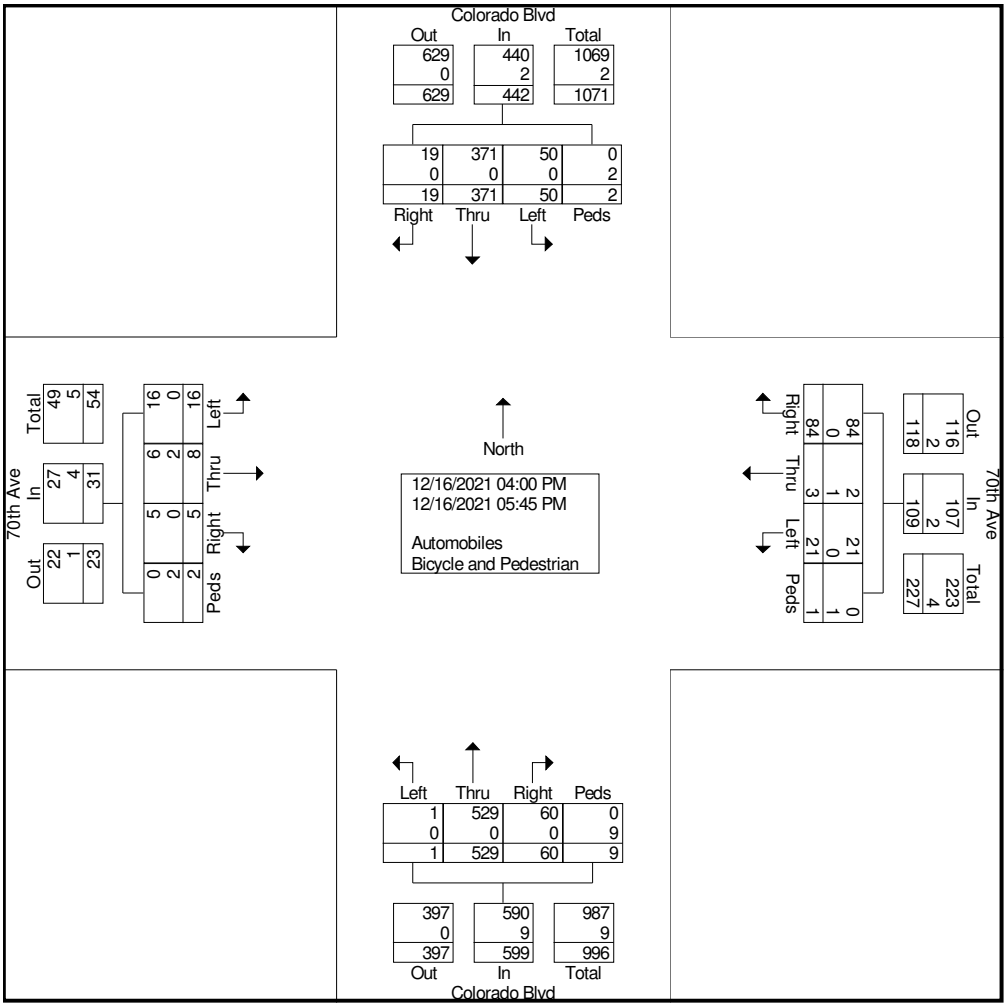
Groups Printed- Automobiles - Bicycle and Pedestrian

	70th Ave Eastbound					70th Ave Westbound					Colorado Blvd Northbound					Colorado Blvd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	2	0	1	0	3	2	0	11	1	14	0	74	5	2	81	11	65	2	0	78	176
04:15 PM	1	0	0	0	1	7	1	13	0	21	0	73	9	1	83	8	58	5	0	71	176
04:30 PM	4	2	1	0	7	4	0	10	0	14	0	95	15	4	114	7	52	1	0	60	195
04:45 PM	1	0	1	2	4	2	0	8	0	10	0	77	6	0	83	2	47	2	2	53	150
Total	8	2	3	2	15	15	1	42	1	59	0	319	35	7	361	28	222	10	2	262	697
05:00 PM	2	3	1	0	6	2	2	16	0	20	0	62	9	0	71	6	54	3	0	63	160
05:15 PM	1	1	0	0	2	2	0	11	0	13	0	60	9	1	70	8	35	2	0	45	130
05:30 PM	2	2	0	0	4	0	0	6	0	6	1	44	4	0	49	2	23	3	0	28	87
05:45 PM	3	0	1	0	4	2	0	9	0	11	0	44	3	1	48	6	37	1	0	44	107
Total	8	6	2	0	16	6	2	42	0	50	1	210	25	2	238	22	149	9	0	180	484
Grand Total	16	8	5	2	31	21	3	84	1	109	1	529	60	9	599	50	371	19	2	442	1181
Apprch %	51.6	25.8	16.1	6.5		19.3	2.8	77.1	0.9		0.2	88.3	10	1.5		11.3	83.9	4.3	0.5		
Total %	1.4	0.7	0.4	0.2	2.6	1.8	0.3	7.1	0.1	9.2	0.1	44.8	5.1	0.8	50.7	4.2	31.4	1.6	0.2	37.4	
Automobiles	16	6	5	0	27	21	2	84	0	107	1	529	60	0	590	50	371	19	0	440	1164
% Automobiles	100	75	100	0	87.1	100	66.7	100	0	98.2	100	100	100	0	98.5	100	100	100	0	99.5	98.6
Bicycle and Pedestrian	0	2	0	2	4	0	1	0	1	2	0	0	0	9	9	0	0	0	2	2	17
% Bicycle and Pedestrian	0	25	0	100	12.9	0	33.3	0	100	1.8	0	0	0	100	1.5	0	0	0	100	0.5	1.4

Ridgeview Data Collection

Commerce City, CO
7001 Colorado Blvd
PM Peak
70th Ave and Colorado Blvd

File Name : 70th and Colorado PM
Site Code : IPO 585
Start Date : 12/16/2021
Page No : 2

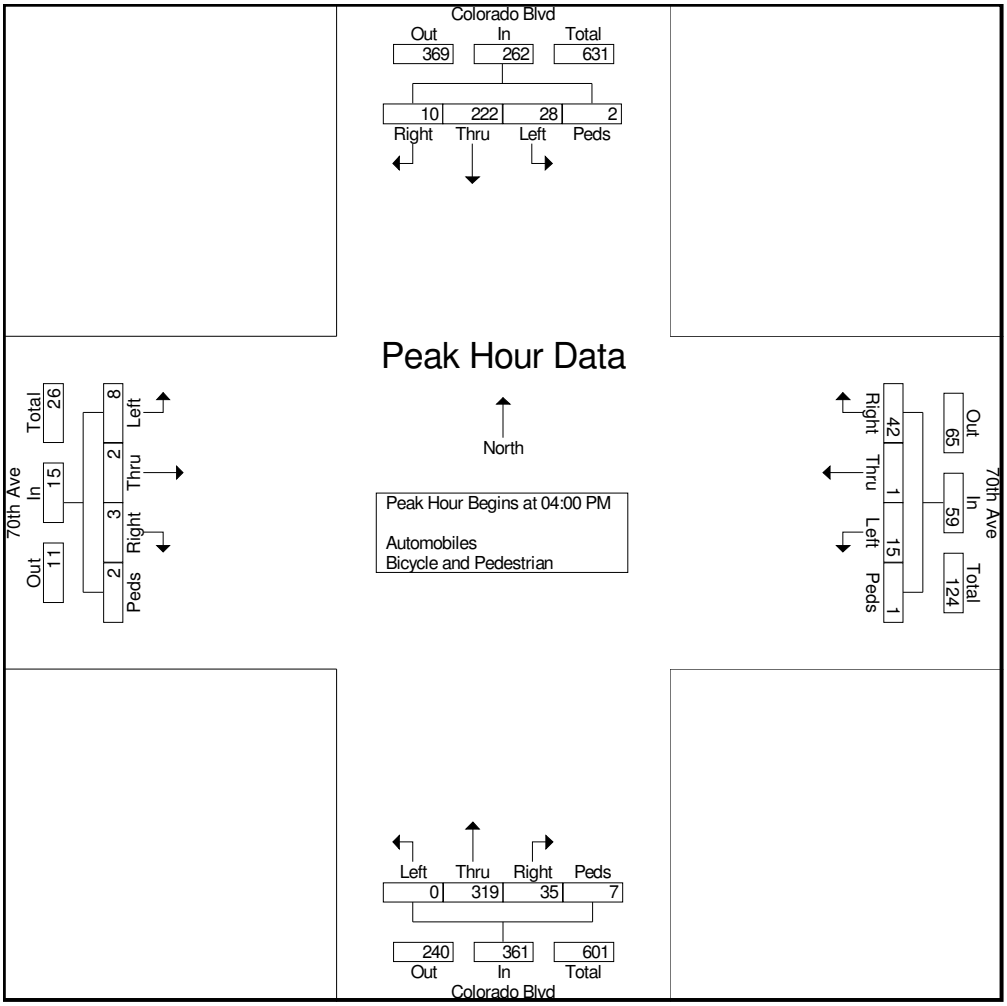


Ridgeview Data Collection

Commerce City, CO
7001 Colorado Blvd
PM Peak
70th Ave and Colorado Blvd

File Name : 70th and Colorado PM
Site Code : IPO 585
Start Date : 12/16/2021
Page No : 3

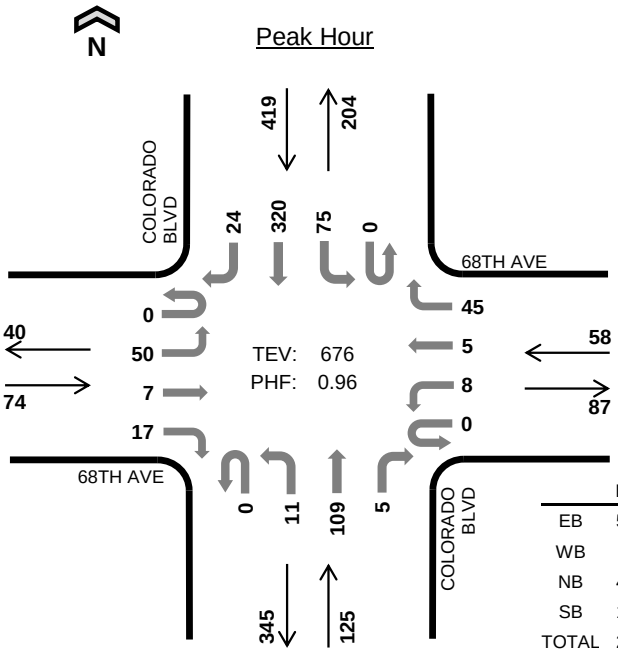
	70th Ave Eastbound					70th Ave Westbound					Colorado Blvd Northbound					Colorado Blvd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	2	0	**1**	0	3	2	0	11	**1**	14	0	74	5	2	81	**11**	**65**	2	0	**78**	176
04:15 PM	1	0	0	0	1	**7**	**1**	**13**	0	**21**	0	73	9	1	83	8	58	**5**	0	71	176
04:30 PM	**4**	**2**	1	0	**7**	4	0	10	0	14	0	**95**	**15**	**4**	**114**	7	52	1	0	60	**195**
04:45 PM	1	0	1	**2**	4	2	0	8	0	10	0	77	6	0	83	2	47	2	**2**	53	150
Total Volume	8	2	3	2	15	15	1	42	1	59	0	319	35	7	361	28	222	10	2	262	697
% App. Total	53.3	13.3	20	13.3		25.4	1.7	71.2	1.7		0	88.4	9.7	1.9		10.7	84.7	3.8	0.8		
PHF	.500	.250	.750	.250	.536	.536	.250	.808	.250	.702	.000	.839	.583	.438	.792	.636	.854	.500	.250	.840	.894

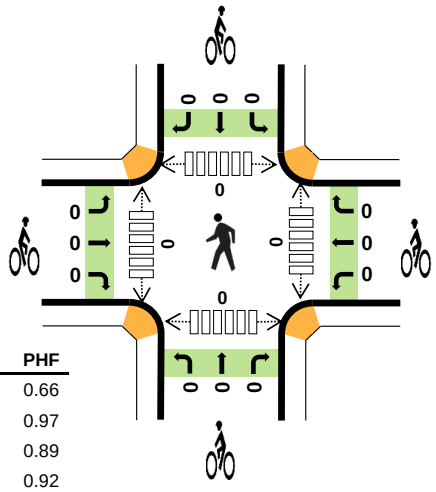


COLORADO BLVD
68TH AVE

Peak Hour

Date: 04/07/2022
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM





	HV %:	PHF
EB	52.7%	0.66
WB	1.7%	0.97
NB	49.6%	0.89
SB	11.2%	0.92
TOTAL	22.0%	0.96

Two-Hour Count Summaries

Interval Start		68TH AVE Eastbound				68TH AVE Westbound				COLORADO BLVD Northbound				COLORADO BLVD 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**	**20**	**2**	**6**	**0**	**1**	**3**	**11**	**0**	**4**	**31**	**0**	**0**	**11**	**74**	**7**	**170**	0
7:15 AM		**0**	**13**	**0**	**5**	**0**	**4**	**0**	**11**	**0**	**1**	**23**	**0**	**0**	**16**	**79**	**8**	**160**	0
7:30 AM		**0**	**11**	**2**	**2**	**0**	**1**	**1**	**12**	**0**	**5**	**24**	**2**	**0**	**20**	**84**	**6**	**170**	0
7:45 AM		**0**	**6**	**3**	**4**	**0**	**2**	**1**	**11**	**0**	**1**	**31**	**3**	**0**	**28**	**83**	**3**	**176**	**676**
8:00 AM		0	1	1	1	0	1	2	14	0	0	21	2	0	18	77	3	141	647
8:15 AM		0	2	0	0	0	6	0	21	0	2	33	4	0	19	73	2	162	649
8:30 AM		0	0	0	1	0	4	0	9	0	0	18	0	0	8	64	2	106	585
8:45 AM		0	2	0	2	0	1	0	6	0	2	23	2	0	7	46	5	96	505
Count Total		0	55	8	21	0	20	7	95	0	15	204	13	0	127	580	36	1,181	0
Peak Hour	**All**	**0**	**50**	**7**	**17**	**0**	**8**	**5**	**45**	**0**	**11**	**109**	**5**	**0**	**75**	**320**	**24**	**676**	**0**
	HV	**0**	**31**	**5**	**3**	**0**	**0**	**0**	**1**	**0**	**5**	**56**	**1**	**0**	**0**	**39**	**8**	**149**	**0**
	HV%	**-**	**62%**	**71%**	**18%**	**-**	**0%**	**0%**	**2%**	**-**	**45%**	**51%**	**20%**	**-**	**0%**	**12%**	**33%**	**22%**	**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	**17**	**1**	**16**	**10**	***44***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**11**	**0**	**13**	**15**	***39***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**7**	**0**	**15**	**14**	***36***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**4**	**0**	**18**	**8**	***30***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	1	0	6	10	*17*	0	0	0	0	*0*	0	0	1	1	*2*
8:15 AM	1	0	20	9	*30*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	0	2	10	12	*24*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	0	0	10	9	*19*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	41	3	108	87	*239*	0	0	0	0	*0*	0	0	1	1	*2*
Peak Hour	**39**	**1**	**62**	**47**	***149***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	68TH AVE Eastbound				68TH AVE Westbound				COLORADO BLVD Northbound				COLORADO BLVD 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**	**13**	**2**	**2**	**0**	**0**	**0**	**1**	**0**	**2**	**14**	**0**	**0**	**0**	**7**	**3**	**44**	0
7:15 AM	**0**	**10**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**13**	**0**	**0**	**0**	**13**	**2**	**39**	0
7:30 AM	**0**	**6**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**13**	**0**	**0**	**0**	**12**	**2**	**36**	0
7:45 AM	**0**	**2**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**16**	**1**	**0**	**0**	**7**	**1**	**30**	**149**
8:00 AM	0	0	1	0	0	0	0	0	0	0	6	0	0	0	10	0	17	122
8:15 AM	0	1	0	0	0	0	0	0	0	1	19	0	0	1	8	0	30	113
8:30 AM	0	0	0	0	0	0	0	2	0	0	10	0	0	0	12	0	24	101
8:45 AM	0	0	0	0	0	0	0	0	0	1	9	0	0	1	7	1	19	90
Count Total	0	32	6	3	0	0	0	3	0	7	100	1	0	2	76	9	239	0
Peak Hour	**0**	**31**	**5**	**3**	**0**	**0**	**0**	**1**	**0**	**5**	**56**	**1**	**0**	**0**	**39**	**8**	**149**	**0**

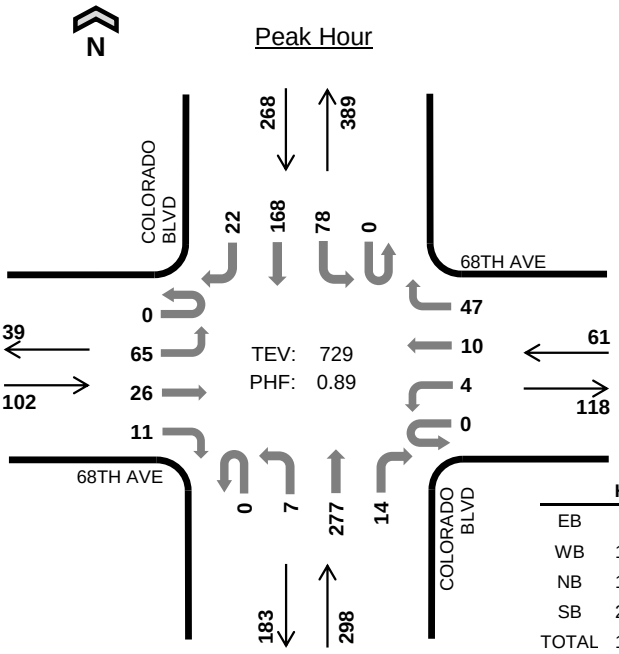
Two-Hour Count Summaries - Bikes

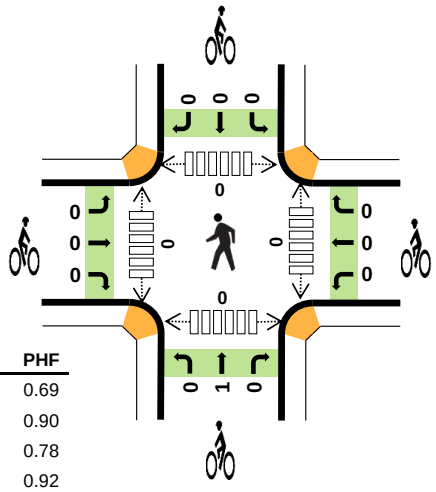
Interval Start	68TH AVE Eastbound			68TH AVE Westbound			COLORADO BLVD Northbound			COLORADO BLVD Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
7:15 AM	**0**	**0**	**0**	**0**	**0**	**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.

COLORADO BLVD
68TH AVE

Date: 04/07/2022
Count Period: 2:00 PM to 6:00 PM
Peak Hour: 3:45 PM to 4:45 PM





	HV %:	PHF
EB	3.9%	0.69
WB	11.5%	0.90
NB	16.4%	0.78
SB	28.7%	0.92
TOTAL	18.8%	0.89

Four-Hour Count Summaries

Interval Start		68TH AVE Eastbound				68TH AVE Westbound				COLORADO BLVD Northbound				COLORADO BLVD Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:45 PM		0	11	9	0	0	1	2	12	0	2	71	3	0	15	47	4	177	0
4:00 PM		0	26	5	6	0	0	6	11	0	3	64	3	0	21	43	9	197	0
4:15 PM		0	9	7	2	0	2	1	9	0	0	52	4	0	21	39	4	150	0
4:30 PM		0	19	5	3	0	1	1	15	0	2	90	4	0	21	39	5	205	729
Peak Hour	All	0	65	26	11	0	4	10	47	0	7	277	14	0	78	168	22	729	0
	HV	0	1	1	2	0	1	6	0	0	5	44	0	0	3	58	16	137	0
	HV%	-	2%	4%	18%	-	25%	60%	0%	-	71%	16%	0%	-	4%	35%	73%	19%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
3:45 PM	0	1	18	14	*33*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 PM	2	4	11	22	*39*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	1	1	7	25	*34*	0	0	1	0	*1*	0	0	0	0	*0*
4:30 PM	1	1	13	16	*31*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	4	7	49	77	*137*	0	0	1	0	*1*	0	0	0	0	*0*

Four-Hour Count Summaries

Interval Start	68TH AVE Eastbound				68TH AVE Westbound				COLORADO BLVD Northbound				COLORADO BLVD Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	7	1	0	0	2	0	4	0	0	31	0	0	12	23	6	86	0
2:15 PM	0	1	1	0	0	1	1	8	0	0	30	3	2	5	29	10	91	0
2:30 PM	0	7	4	2	0	0	2	9	0	1	46	3	0	15	38	2	129	0
2:45 PM	0	13	1	1	0	0	1	9	0	2	42	6	1	17	49	1	143	449
3:00 PM	1	9	9	1	0	3	0	6	0	5	59	2	0	18	37	7	157	520
3:15 PM	0	6	1	0	0	2	1	10	0	0	52	0	1	17	45	6	141	570
3:30 PM	0	24	6	2	0	0	3	9	0	3	62	0	0	15	29	14	167	608
3:45 PM	**0**	**11**	**9**	**0**	**0**	**1**	**2**	**12**	**0**	**2**	**71**	**3**	**0**	**15**	**47**	**4**	**177**	642
4:00 PM	**0**	**26**	**5**	**6**	**0**	**0**	**6**	**11**	**0**	**3**	**64**	**3**	**0**	**21**	**43**	**9**	**197**	682
4:15 PM	**0**	**9**	**7**	**2**	**0**	**2**	**1**	**9**	**0**	**0**	**52**	**4**	**0**	**21**	**39**	**4**	**150**	691
4:30 PM	**0**	**19**	**5**	**3**	**0**	**1**	**1**	**15**	**0**	**2**	**90**	**4**	**0**	**21**	**39**	**5**	**205**	**729**
4:45 PM	0	6	0	5	0	5	1	17	0	0	88	3	0	16	35	0	176	728
5:00 PM	0	3	0	0	0	4	0	15	0	0	77	4	0	20	32	0	155	686
5:15 PM	0	1	0	0	0	3	0	10	0	0	46	5	0	16	25	0	106	642
5:30 PM	0	3	0	0	0	3	1	10	0	0	63	2	0	14	23	1	120	557
5:45 PM	0	1	0	0	0	1	0	16	0	0	43	3	0	13	20	0	97	478
Count Total	1	146	49	22	0	28	20	170	0	18	916	45	4	256	553	69	2,297	0
Peak Hour All	**0**	**65**	**26**	**11**	**0**	**4**	**10**	**47**	**0**	**7**	**277**	**14**	**0**	**78**	**168**	**22**	**729**	**0**
Peak Hour HV	**0**	**1**	**1**	**2**	**0**	**1**	**6**	**0**	**0**	**5**	**44**	**0**	**0**	**3**	**58**	**16**	**137**	**0**
Peak Hour HV%	**-**	**2%**	**4%**	**18%**	**-**	**25%**	**60%**	**0%**	**-**	**71%**	**16%**	**0%**	**-**	**4%**	**35%**	**73%**	**19%**	**0**

Note: Four-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
2:00 PM	1	2	13	20	*36*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 PM	0	2	11	17	*30*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 PM	1	2	14	19	*36*	0	0	0	0	*0*	0	0	0	1	*1*
2:45 PM	2	0	14	20	*36*	0	0	0	0	*0*	0	0	0	0	*0*
3:00 PM	0	0	14	16	*30*	1	0	0	0	*1*	0	0	0	0	*0*
3:15 PM	2	1	12	29	*44*	0	0	0	0	*0*	0	0	1	0	*1*
3:30 PM	3	2	22	24	*51*	0	0	0	0	*0*	0	0	0	0	*0*
3:45 PM	**0**	**1**	**18**	**14**	***33***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:00 PM	**2**	**4**	**11**	**22**	***39***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:15 PM	**1**	**1**	**7**	**25**	***34***	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**1**	**1**	**13**	**16**	***31***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
4:45 PM	5	2	10	8	*25*	0	0	0	0	*0*	0	1	0	0	*1*
5:00 PM	0	1	9	16	*26*	0	0	0	0	*0*	0	0	1	1	*2*
5:15 PM	0	0	3	8	*11*	0	0	0	0	*0*	0	0	0	1	*1*
5:30 PM	0	1	8	12	*21*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	1	4	5	*10*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	18	21	183	271	*493*	1	0	1	0	*2*	0	1	2	3	*6*
Peak Hour	**4**	**7**	**49**	**77**	***137***	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	***0***

Four-Hour Count Summaries - Heavy Vehicles

Interval Start	68TH AVE Eastbound				68TH AVE Westbound				COLORADO BLVD Northbound				COLORADO BLVD Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	1	0	0	0	1	0	1	0	0	13	0	0	1	15	4	36	0
2:15 PM	0	0	0	0	0	1	1	0	0	0	11	0	0	0	11	6	30	0
2:30 PM	0	1	0	0	0	0	2	0	0	0	14	0	0	1	18	0	36	0
2:45 PM	0	2	0	0	0	0	0	0	0	0	14	0	0	0	19	1	36	138
3:00 PM	0	0	0	0	0	0	0	0	0	2	12	0	0	0	13	3	30	132
3:15 PM	0	2	0	0	0	0	1	0	0	0	12	0	0	3	20	6	44	146
3:30 PM	0	3	0	0	0	0	2	0	0	2	20	0	0	1	10	13	51	161
3:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**17**	**0**	**0**	**0**	**12**	**2**	**33**	158
4:00 PM	**0**	**0**	**0**	**2**	**0**	**0**	**4**	**0**	**0**	**2**	**9**	**0**	**0**	**1**	**14**	**7**	**39**	167
4:15 PM	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**7**	**0**	**0**	**1**	**20**	**4**	**34**	157
4:30 PM	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**11**	**0**	**0**	**1**	**12**	**3**	**31**	**137**
4:45 PM	0	1	0	4	0	0	0	2	0	0	10	0	0	2	6	0	25	129
5:00 PM	0	0	0	0	0	0	0	1	0	0	8	1	0	2	14	0	26	116
5:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	1	7	0	11	93
5:30 PM	0	0	0	0	0	0	0	1	0	0	8	0	0	0	11	1	21	83
5:45 PM	0	0	0	0	0	0	0	1	0	0	4	0	0	0	5	0	10	68
Count Total	0	11	1	6	0	3	12	6	0	9	173	1	0	14	207	50	493	0
Peak Hour	**0**	**1**	**1**	**2**	**0**	**1**	**6**	**0**	**0**	**5**	**44**	**0**	**0**	**3**	**58**	**16**	**137**	**0**

Four-Hour Count Summaries - Bikes

Interval Start	68TH AVE Eastbound			68TH AVE Westbound			COLORADO BLVD Northbound			COLORADO BLVD Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	1
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	1
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**	**1**	**0**	**0**	**0**	**0**	**1**	1
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
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	1	0	0	0	0	0	1	0	0	0	0	2	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**

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

APPENDIX B

Future Traffic Projections

DRCOG Traffic Projections: 7001 Colorado Blvd

Location	Daily Volumes			
	2015	2040	Growth Factor	Annual Growth
Colorado Blvd N/O 72nd Ave	5,000	7,000	1.40	1.4%
Colorado Blvd S/O 72nd Ave	2,000	3,000	1.50	1.6%
Total	7,000	10,000	1.43	1.4%

APPENDIX C

Trip Generation Worksheets

Kimley»Horn

Project	7001 Colorado Boulevard				
Subject	Trip Generation for Multifamily Housing (Mid-Rise)				
Designed by	TES	*Date*	January 06, 2022	*Job No.*	096216004
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 11th Edition, Fitted Curve Equations

Land Use Code - Multifamily Housing (Mid-Rise) (221)

Independent Variable - Dwelling Units (X)

X = 92
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (200 Series Page 275)

Directional Distribution: 23% ent. 77% exit.

(T) = 0.44 (X) - 11.61
(T) = 0.44 * (92.0) - 11.61

T = 30 Average Vehicle Trip Ends
7 entering 23 exiting

7 + 23 = 30

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (200 Series Page 276)

Directional Distribution: 61% ent. 39% exit.

(T) = 0.39 (X) + 0.34
(T) = 0.39 * (92.0) + 0.34

T = 38 Average Vehicle Trip Ends
23 entering 15 exiting

23 + 15 = 38

Weekday (200 Series Page 274)

Directional Distribution: 50% ent. 50% exit.

(T) = 4.77 (X) - 46.46
(T) = 4.77 * (92.0) - 46.46

T = 394 Average Vehicle Trip Ends
197 entering 197 exiting

197 + 197 = 394

APPENDIX D

Intersection Analysis Worksheets

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	1	1	22	5	96	2	237	8	159	402	35
Future Vol, veh/h	26	1	1	22	5	96	2	237	8	159	402	35
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	-	-	-	100	-	-	100	-	0	75	-	100
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	1	1	23	5	101	2	249	8	167	423	37

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1067	1018	423	1030	1047	249	460	0	0	257	0	0
Stage 1	757	757	-	253	253	-	-	-	-	-	-	-
Stage 2	310	261	-	777	794	-	-	-	-	-	-	-
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	200	237	631	212	228	790	1101	-	-	1308	-	-
Stage 1	400	416	-	751	698	-	-	-	-	-	-	-
Stage 2	700	692	-	390	400	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	155	206	631	190	198	790	1101	-	-	1308	-	-
Mov Cap-2 Maneuver	261	284	-	280	285	-	-	-	-	-	-	-
Stage 1	399	363	-	749	697	-	-	-	-	-	-	-
Stage 2	605	691	-	339	349	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.1	12.3	0.1	2.2
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1101	-	-	267	280	726	1308	-	-
HCM Lane V/C Ratio	0.002	-	-	0.11	0.083	0.146	0.128	-	-
HCM Control Delay (s)	8.3	-	-	20.1	19	10.8	8.2	-	-
HCM Lane LOS	A	-	-	C	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.3	0.5	0.4	-	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	14	5	23	2	170	0	395	23	124	262	28
Future Vol, veh/h	15	14	5	23	2	170	0	395	23	124	262	28
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	-	-	-	100	-	-	100	-	0	75	-	100
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	14	5	23	2	173	0	403	23	127	267	29

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1023	947	267	948	953	403	296	0	0	426	0	0
Stage 1	521	521	-	403	403	-	-	-	-	-	-	-
Stage 2	502	426	-	545	550	-	-	-	-	-	-	-
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	214	261	772	241	259	647	1265	-	-	1133	-	-
Stage 1	539	532	-	624	600	-	-	-	-	-	-	-
Stage 2	552	586	-	523	516	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	143	232	772	212	230	647	1265	-	-	1133	-	-
Mov Cap-2 Maneuver	221	318	-	330	339	-	-	-	-	-	-	-
Stage 1	539	472	-	624	600	-	-	-	-	-	-	-
Stage 2	403	586	-	447	458	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.3	13.2	0	2.6
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1265	-	-	287	330	640	1133	-	-
HCM Lane V/C Ratio	-	-	-	0.121	0.071	0.274	0.112	-	-
HCM Control Delay (s)	0	-	-	19.3	16.7	12.7	8.6	-	-
HCM Lane LOS	A	-	-	C	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.2	1.1	0.4	-	-

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	27	1	1	23	5	100	2	247	8	166	419	36
Future Vol, veh/h	27	1	1	23	5	100	2	247	8	166	419	36
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	-	-	-	100	-	-	100	-	0	75	-	100
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	1	1	24	5	105	2	260	8	175	441	38

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1114	1063	441	1075	1093	260	479	0	0	268	0	0
Stage 1	791	791	-	264	264	-	-	-	-	-	-	-
Stage 2	323	272	-	811	829	-	-	-	-	-	-	-
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	185	223	616	197	214	779	1083	-	-	1296	-	-
Stage 1	383	401	-	741	690	-	-	-	-	-	-	-
Stage 2	689	685	-	373	385	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	141	192	616	176	185	779	1083	-	-	1296	-	-
Mov Cap-2 Maneuver	246	270	-	265	272	-	-	-	-	-	-	-
Stage 1	382	347	-	740	689	-	-	-	-	-	-	-
Stage 2	590	684	-	321	333	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.2	12.6	0.1	2.2
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1083	-	-	252	265	715	1296	-	-
HCM Lane V/C Ratio	0.002	-	-	0.121	0.091	0.155	0.135	-	-
HCM Control Delay (s)	8.3	-	-	21.2	19.9	11	8.2	-	-
HCM Lane LOS	A	-	-	C	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.3	0.5	0.5	-	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	15	5	24	2	177	0	412	24	129	273	29
Future Vol, veh/h	16	15	5	24	2	177	0	412	24	129	273	29
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	-	-	-	100	-	-	100	-	0	75	-	100
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	15	5	24	2	181	0	420	24	132	279	30

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1067	987	279	988	993	420	309	0	0	444	0	0
Stage 1	543	543	-	420	420	-	-	-	-	-	-	-
Stage 2	524	444	-	568	573	-	-	-	-	-	-	-
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	200	247	760	226	245	633	1252	-	-	1116	-	-
Stage 1	524	520	-	611	589	-	-	-	-	-	-	-
Stage 2	537	575	-	508	504	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	129	218	760	196	216	633	1252	-	-	1116	-	-
Mov Cap-2 Maneuver	202	305	-	315	327	-	-	-	-	-	-	-
Stage 1	524	459	-	611	589	-	-	-	-	-	-	-
Stage 2	382	575	-	430	445	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.6	13.6	0	2.6
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1252	-	-	267	315	626	1116	-	-
HCM Lane V/C Ratio	-	-	-	0.138	0.078	0.292	0.118	-	-
HCM Control Delay (s)	0	-	-	20.6	17.4	13.1	8.7	-	-
HCM Lane LOS	A	-	-	C	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.3	1.2	0.4	-	-

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	27	1	1	24	5	100	2	256	13	166	422	36
Future Vol, veh/h	27	1	1	24	5	100	2	256	13	166	422	36
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	-	-	-	100	-	-	100	-	0	75	-	100
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	1	1	25	5	105	2	269	14	175	444	38

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1129	1081	444	1087	1105	269	482	0	0	283	0	0
Stage 1	794	794	-	273	273	-	-	-	-	-	-	-
Stage 2	335	287	-	814	832	-	-	-	-	-	-	-
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	181	218	614	194	211	770	1081	-	-	1279	-	-
Stage 1	381	400	-	733	684	-	-	-	-	-	-	-
Stage 2	679	674	-	372	384	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	138	188	614	173	182	770	1081	-	-	1279	-	-
Mov Cap-2 Maneuver	242	267	-	263	270	-	-	-	-	-	-	-
Stage 1	380	345	-	732	683	-	-	-	-	-	-	-
Stage 2	581	673	-	320	331	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.5	12.7	0.1	2.2
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1081	-	-	248	263	708	1279	-	-
HCM Lane V/C Ratio	0.002	-	-	0.123	0.096	0.156	0.137	-	-
HCM Control Delay (s)	8.3	-	-	21.5	20.1	11	8.3	-	-
HCM Lane LOS	A	-	-	C	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.3	0.6	0.5	-	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	15	5	29	2	177	0	418	27	129	282	29
Future Vol, veh/h	16	15	5	29	2	177	0	418	27	129	282	29
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	-	-	-	100	-	-	100	-	0	75	-	100
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	15	5	30	2	181	0	427	28	132	288	30

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1085	1007	288	1004	1009	427	318	0	0	455	0	0
Stage 1	552	552	-	427	427	-	-	-	-	-	-	-
Stage 2	533	455	-	577	582	-	-	-	-	-	-	-
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	194	241	751	220	240	628	1242	-	-	1106	-	-
Stage 1	518	515	-	606	585	-	-	-	-	-	-	-
Stage 2	531	569	-	502	499	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	125	212	751	191	211	628	1242	-	-	1106	-	-
Mov Cap-2 Maneuver	198	300	-	311	322	-	-	-	-	-	-	-
Stage 1	518	454	-	606	585	-	-	-	-	-	-	-
Stage 2	377	569	-	424	440	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21	13.8	0	2.5
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1242	-	-	262	311	621	1106	-	-
HCM Lane V/C Ratio	-	-	-	0.14	0.095	0.294	0.119	-	-
HCM Control Delay (s)	0	-	-	21	17.8	13.2	8.7	-	-
HCM Lane LOS	A	-	-	C	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.3	1.2	0.4	-	-

Intersection	
Intersection Delay, s/veh	17.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	1	1	24	5	100	2	256	13	166	422	36
Future Vol, veh/h	27	1	1	24	5	100	2	256	13	166	422	36
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	1	1	25	5	105	2	269	14	175	444	38
Number of Lanes	0	1	0	1	1	0	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	11.4	11.1	15.4	19.6
HCM LOS	B	B	C	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	93%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	3%	0%	5%	0%	100%	0%
Vol Right, %	0%	0%	100%	3%	0%	95%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	256	13	29	24	105	166	422	36
LT Vol	2	0	0	27	24	0	166	0	0
Through Vol	0	256	0	1	0	5	0	422	0
RT Vol	0	0	13	1	0	100	0	0	36
Lane Flow Rate	2	269	14	31	25	111	175	444	38
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.004	0.495	0.022	0.068	0.055	0.203	0.314	0.735	0.055
Departure Headway (Hd)	7.125	6.619	5.912	7.995	7.771	6.599	6.459	5.954	5.247
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	501	542	602	446	459	542	556	604	680
Service Time	4.892	4.386	3.678	5.781	5.545	4.373	4.209	3.704	2.997
HCM Lane V/C Ratio	0.004	0.496	0.023	0.07	0.054	0.205	0.315	0.735	0.056
HCM Control Delay	9.9	15.8	8.8	11.4	11	11.1	12.2	23.5	8.3
HCM Lane LOS	A	C	A	B	B	B	B	C	A
HCM 95th-tile Q	0	2.7	0.1	0.2	0.2	0.8	1.3	6.3	0.2

Intersection	
Intersection Delay, s/veh	20.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	15	5	29	2	177	0	418	27	129	282	29
Future Vol, veh/h	16	15	5	29	2	177	0	418	27	129	282	29
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	15	5	30	2	181	0	427	28	132	288	30
Number of Lanes	0	1	0	1	1	0	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	11.9	13.1	30.1	15.6
HCM LOS	B	B	D	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	44%	100%	0%	100%	0%	0%
Vol Thru, %	100%	100%	0%	42%	0%	1%	0%	100%	0%
Vol Right, %	0%	0%	100%	14%	0%	99%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	418	27	36	29	179	129	282	29
LT Vol	0	0	0	16	29	0	129	0	0
Through Vol	0	418	0	15	0	2	0	282	0
RT Vol	0	0	27	5	0	177	0	0	29
Lane Flow Rate	0	427	28	37	30	183	132	288	30
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0	0.802	0.046	0.085	0.067	0.351	0.268	0.545	0.05
Departure Headway (Hd)	6.766	6.766	6.055	8.332	8.135	6.923	7.331	6.823	6.129
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	537	595	429	440	519	490	529	586
Service Time	4.467	4.467	3.756	6.092	5.883	4.67	5.074	4.565	3.853
HCM Lane V/C Ratio	0	0.795	0.047	0.086	0.068	0.353	0.269	0.544	0.051
HCM Control Delay	9.5	31.5	9	11.9	11.5	13.4	12.8	17.5	9.2
HCM Lane LOS	N	D	A	B	B	B	B	C	A
HCM 95th-tile Q	0	7.7	0.1	0.3	0.2	1.6	1.1	3.2	0.2

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	1	1	31	7	134	3	331	11	222	561	49
Future Vol, veh/h	36	1	1	31	7	134	3	331	11	222	561	49
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	-	-	-	100	-	-	100	-	0	75	-	100
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	1	1	33	7	141	3	348	12	234	591	52

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1493	1425	591	1440	1465	348	643	0	0	360	0	0
Stage 1	1059	1059	-	354	354	-	-	-	-	-	-	-
Stage 2	434	366	-	1086	1111	-	-	-	-	-	-	-
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	102	136	507	111	128	695	942	-	-	1199	-	-
Stage 1	271	301	-	663	630	-	-	-	-	-	-	-
Stage 2	600	623	-	262	285	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	67	109	507	94	103	695	942	-	-	1199	-	-
Mov Cap-2 Maneuver	146	182	-	172	185	-	-	-	-	-	-	-
Stage 1	270	242	-	661	628	-	-	-	-	-	-	-
Stage 2	471	621	-	210	229	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	37.5	16	0.1	2.3
HCM LOS	E	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	942	-	-	150	172	611	1199	-	-
HCM Lane V/C Ratio	0.003	-	-	0.267	0.19	0.243	0.195	-	-
HCM Control Delay (s)	8.8	-	-	37.5	30.8	12.8	8.7	-	-
HCM Lane LOS	A	-	-	E	D	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	1	0.7	0.9	0.7	-	-

Intersection	
Int Delay, s/veh	7.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	20	7	32	3	237	0	551	32	173	366	39
Future Vol, veh/h	21	20	7	32	3	237	0	551	32	173	366	39
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	-	-	-	100	-	-	100	-	0	75	-	100
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	20	7	33	3	242	0	562	33	177	373	40

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1428	1322	373	1323	1329	562	413	0	0	595	0	0
Stage 1	727	727	-	562	562	-	-	-	-	-	-	-
Stage 2	701	595	-	761	767	-	-	-	-	-	-	-
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	113	156	673	133	155	526	1146	-	-	981	-	-
Stage 1	415	429	-	512	510	-	-	-	-	-	-	-
Stage 2	429	492	-	398	411	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	52	128	673	105	127	526	1146	-	-	981	-	-
Mov Cap-2 Maneuver	48	210	-	218	240	-	-	-	-	-	-	-
Stage 1	415	352	-	512	510	-	-	-	-	-	-	-
Stage 2	230	492	-	304	337	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	88.3	18.8	0	2.8
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1146	-	-	88	218	518	981	-	-
HCM Lane V/C Ratio	-	-	-	0.557	0.15	0.473	0.18	-	-
HCM Control Delay (s)	0	-	-	88.3	24.4	18	9.5	-	-
HCM Lane LOS	A	-	-	F	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	2.5	0.5	2.5	0.7	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	36	1	32	7	3	340	16	222	564	49
Future Volume (vph)	36	1	32	7	3	340	16	222	564	49
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	27.0	27.0	27.0	27.0	63.0	63.0	63.0	63.0	63.0	63.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		8.3	8.3	8.3	72.7	72.7	72.7	72.7	72.7	72.7
Actuated g/C Ratio		0.09	0.09	0.09	0.81	0.81	0.81	0.81	0.81	0.81
v/c Ratio		0.49	0.27	0.54	0.00	0.24	0.01	0.28	0.39	0.04
Control Delay		57.8	42.4	15.4	2.3	2.7	1.1	3.4	3.6	0.8
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		57.8	42.4	15.4	2.3	2.7	1.1	3.4	3.6	0.8
LOS		E	D	B	A	A	A	A	A	A
Approach Delay		57.8		20.4		2.6			3.4	
Approach LOS		E		C		A			A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay: 6.7	Intersection LOS: A
Intersection Capacity Utilization 61.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Colorado Blvd & 72nd Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	1	1	32	7	134	3	340	16	222	564	49
Future Volume (veh/h)	36	1	1	32	7	134	3	340	16	222	564	49
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	38	1	1	34	7	141	3	358	17	234	594	52
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	140	4	2	320	11	213	589	1422	1205	789	1422	1205
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.76	0.76	0.76	0.76	0.76	0.76
Sat Flow, veh/h	443	27	12	1415	76	1521	785	1870	1585	1008	1870	1585
Grp Volume(v), veh/h	40	0	0	34	0	148	3	358	17	234	594	52
Grp Sat Flow(s),veh/h/ln	482	0	0	1415	0	1597	785	1870	1585	1008	1870	1585
Q Serve(g_s), s	2.6	0.0	0.0	0.0	0.0	7.9	0.1	5.1	0.2	8.1	10.0	0.7
Cycle Q Clear(g_c), s	10.6	0.0	0.0	1.5	0.0	7.9	10.2	5.1	0.2	13.2	10.0	0.7
Prop In Lane	0.95		0.02	1.00		0.95	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	145	0	0	320	0	223	589	1422	1205	789	1422	1205
V/C Ratio(X)	0.28	0.00	0.00	0.11	0.00	0.66	0.01	0.25	0.01	0.30	0.42	0.04
Avail Cap(c_a), veh/h	284	0	0	476	0	399	589	1422	1205	789	1422	1205
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	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.2	0.0	0.0	33.9	0.0	36.7	5.6	3.2	2.6	5.2	3.8	2.7
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.1	0.0	3.4	0.0	0.4	0.0	1.0	0.9	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	0.9	0.0	0.0	0.7	0.0	3.2	0.0	1.5	0.1	1.6	3.1	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.2	0.0	0.0	34.1	0.0	40.1	5.6	3.6	2.6	6.1	4.7	2.7
LnGrp LOS	D	A	A	C	A	D	A	A	A	A	A	A
Approach Vol, veh/h		40			182			378			880	
Approach Delay, s/veh		42.2			38.9			3.6			5.0	
Approach LOS		D			D			A			A	

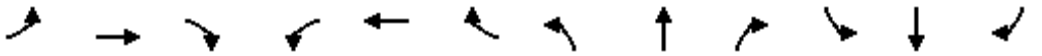
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		72.9		17.1		72.9		17.1				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		58.5		22.5		58.5		22.5				
Max Q Clear Time (g_c+I1), s		12.2		12.6		15.2		9.9				
Green Ext Time (p_c), s		2.5		0.1		6.3		0.7				

Intersection Summary												
HCM 6th Ctrl Delay			9.8									
HCM 6th LOS			A									

Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	21	20	37	3	557	35	173	375	39
Future Volume (vph)	21	20	37	3	557	35	173	375	39
Turn Type	Perm	NA	Perm	NA	NA	Perm	Perm	NA	Perm
Protected Phases		4		8	2			6	
Permitted Phases	4		8			2	6		6
Detector Phase	4	4	8	8	2	2	6	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	28.0	28.0	28.0	28.0	62.0	62.0	62.0	62.0	62.0
Total Split (%)	31.1%	31.1%	31.1%	31.1%	68.9%	68.9%	68.9%	68.9%	68.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		8.6	8.6	8.6	72.4	72.4	72.4	72.4	72.4
Actuated g/C Ratio		0.10	0.10	0.10	0.80	0.80	0.80	0.80	0.80
v/c Ratio		0.75	0.25	0.66	0.38	0.03	0.28	0.26	0.03
Control Delay		91.1	40.0	14.5	3.7	1.0	3.9	3.0	0.9
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		91.1	40.0	14.5	3.7	1.0	3.9	3.0	0.9
LOS		F	D	B	A	A	A	A	A
Approach Delay		91.1		17.9	3.5			3.1	
Approach LOS		F		B	A			A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 8.8	Intersection LOS: A
Intersection Capacity Utilization 70.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: Colorado Blvd & 72nd Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	20	7	37	3	237	0	557	35	173	375	39
Future Volume (veh/h)	21	20	7	37	3	237	0	557	35	173	375	39
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	21	20	7	38	3	242	0	568	36	177	383	40
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	78	64	14	261	4	286	80	1342	1138	565	1342	1138
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.00	0.72	0.72	0.72	0.72	0.72
Sat Flow, veh/h	114	350	79	1383	19	1569	964	1870	1585	816	1870	1585
Grp Volume(v), veh/h	48	0	0	38	0	245	0	568	36	177	383	40
Grp Sat Flow(s),veh/h/ln	543	0	0	1383	0	1588	964	1870	1585	816	1870	1585
Q Serve(g_s), s	0.4	0.0	0.0	0.0	0.0	13.4	0.0	11.1	0.6	10.1	6.5	0.7
Cycle Q Clear(g_c), s	13.8	0.0	0.0	3.2	0.0	13.4	0.0	11.1	0.6	21.2	6.5	0.7
Prop In Lane	0.44		0.15	1.00		0.99	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	156	0	0	261	0	290	80	1342	1138	565	1342	1138
V/C Ratio(X)	0.31	0.00	0.00	0.15	0.00	0.85	0.00	0.42	0.03	0.31	0.29	0.04
Avail Cap(c_a), veh/h	269	0	0	370	0	415	80	1342	1138	565	1342	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	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	0.0	0.0	31.4	0.0	35.6	0.0	5.2	3.7	9.4	4.5	3.7
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.3	0.0	10.6	0.0	1.0	0.1	1.4	0.5	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	0.9	0.0	0.0	0.7	0.0	5.9	0.0	3.8	0.2	1.9	2.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.7	0.0	0.0	31.6	0.0	46.2	0.0	6.1	3.7	10.9	5.0	3.7
LnGrp LOS	C	A	A	C	A	D	A	A	A	B	A	A
Approach Vol, veh/h		48			283			604			600	
Approach Delay, s/veh		32.7			44.3			6.0			6.7	
Approach LOS		C			D			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		69.1		20.9		69.1		20.9				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		57.5		23.5		57.5		23.5				
Max Q Clear Time (g_c+I1), s		13.1		15.8		23.2		15.4				
Green Ext Time (p_c), s		4.5		0.1		4.1		1.0				

Intersection Summary												
HCM 6th Ctrl Delay			14.1									
HCM 6th LOS			B									

Intersection	
Intersection Delay, s/veh	48.7
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	1	1	32	7	134	3	340	16	222	564	49
Future Vol, veh/h	36	1	1	32	7	134	3	340	16	222	564	49
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	1	1	34	7	141	3	358	17	234	594	52
Number of Lanes	0	1	0	1	1	0	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	13.1	13.6	27.3	66.8
HCM LOS	B	B	D	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	95%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	3%	0%	5%	0%	100%	0%
Vol Right, %	0%	0%	100%	3%	0%	95%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	3	340	16	38	32	141	222	564	49
LT Vol	3	0	0	36	32	0	222	0	0
Through Vol	0	340	0	1	0	7	0	564	0
RT Vol	0	0	16	1	0	134	0	0	49
Lane Flow Rate	3	358	17	40	34	148	234	594	52
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.007	0.731	0.031	0.101	0.081	0.309	0.463	1.094	0.085
Departure Headway (Hd)	8.113	7.603	6.89	9.36	8.918	7.735	7.138	6.631	5.92
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	444	480	523	385	404	468	502	546	600
Service Time	5.813	5.303	4.59	7.06	6.618	5.435	4.922	4.414	3.703
HCM Lane V/C Ratio	0.007	0.746	0.033	0.104	0.084	0.316	0.466	1.088	0.087
HCM Control Delay	10.9	28.3	9.8	13.1	12.4	13.9	16	91.8	9.3
HCM Lane LOS	B	D	A	B	B	B	C	F	A
HCM 95th-tile Q	0	5.9	0.1	0.3	0.3	1.3	2.4	18.3	0.3

Intersection	
Intersection Delay, s/veh	67.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	20	7	37	3	237	0	557	35	173	375	39
Future Vol, veh/h	21	20	7	37	3	237	0	557	35	173	375	39
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	20	7	38	3	242	0	568	36	177	383	40
Number of Lanes	0	1	0	1	1	0	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	14.3	18.8	133.6	28.3
HCM LOS	B	C	F	D

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	44%	100%	0%	100%	0%	0%
Vol Thru, %	100%	100%	0%	42%	0%	1%	0%	100%	0%
Vol Right, %	0%	0%	100%	15%	0%	99%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	557	35	48	37	240	173	375	39
LT Vol	0	0	0	21	37	0	173	0	0
Through Vol	0	557	0	20	0	3	0	375	0
RT Vol	0	0	35	7	0	237	0	0	39
Lane Flow Rate	0	568	36	49	38	245	177	383	40
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0	1.219	0.07	0.129	0.093	0.524	0.393	0.798	0.075
Departure Headway (Hd)	7.724	7.724	7.006	10.088	9.491	8.261	8.532	8.017	7.297
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	472	514	358	380	438	425	455	494
Service Time	5.429	5.429	4.711	7.788	7.191	5.961	6.232	5.717	4.997
HCM Lane V/C Ratio	0	1.203	0.07	0.137	0.1	0.559	0.416	0.842	0.081
HCM Control Delay	10.4	141.4	10.2	14.3	13.2	19.7	16.6	35.6	10.6
HCM Lane LOS	N	F	B	B	B	C	C	E	B
HCM 95th-tile Q	0	22.3	0.2	0.4	0.3	3	1.8	7.2	0.2

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	1	0	27	3	30	2	149	15	15	302	4
Future Vol, veh/h	6	1	0	27	3	30	2	149	15	15	302	4
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	1	0	33	4	37	2	182	18	18	368	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.7	8.7	9.1	11.3
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	86%	45%	5%
Vol Thru, %	90%	14%	5%	94%
Vol Right, %	9%	0%	50%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	166	7	60	321
LT Vol	2	6	27	15
Through Vol	149	1	3	302
RT Vol	15	0	30	4
Lane Flow Rate	202	9	73	391
Geometry Grp	1	1	1	1
Degree of Util (X)	0.253	0.013	0.102	0.474
Departure Headway (Hd)	4.498	5.529	5.038	4.361
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	798	645	710	826
Service Time	2.526	3.579	3.08	2.384
HCM Lane V/C Ratio	0.253	0.014	0.103	0.473
HCM Control Delay	9.1	8.7	8.7	11.3
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	1	0	0.3	2.6

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	2	3	15	1	42	0	319	35	28	222	10
Future Vol, veh/h	8	2	3	15	1	42	0	319	35	28	222	10
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	2	3	17	1	47	0	358	39	31	249	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.7	8.6	11.5	10.2
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	62%	26%	11%
Vol Thru, %	90%	15%	2%	85%
Vol Right, %	10%	23%	72%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	354	13	58	260
LT Vol	0	8	15	28
Through Vol	319	2	1	222
RT Vol	35	3	42	10
Lane Flow Rate	398	15	65	292
Geometry Grp	1	1	1	1
Degree of Util (X)	0.485	0.022	0.092	0.369
Departure Headway (Hd)	4.394	5.532	5.073	4.551
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	819	644	703	789
Service Time	2.423	3.596	3.127	2.584
HCM Lane V/C Ratio	0.486	0.023	0.092	0.37
HCM Control Delay	11.5	8.7	8.6	10.2
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	2.7	0.1	0.3	1.7

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	1	0	28	3	31	2	155	16	16	315	4
Future Vol, veh/h	6	1	0	28	3	31	2	155	16	16	315	4
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	1	0	34	4	38	2	189	20	20	384	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.7	8.8	9.2	11.7
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	86%	45%	5%
Vol Thru, %	90%	14%	5%	94%
Vol Right, %	9%	0%	50%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	173	7	62	335
LT Vol	2	6	28	16
Through Vol	155	1	3	315
RT Vol	16	0	31	4
Lane Flow Rate	211	9	76	409
Geometry Grp	1	1	1	1
Degree of Util (X)	0.265	0.013	0.107	0.497
Departure Headway (Hd)	4.525	5.593	5.095	4.379
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	793	637	702	821
Service Time	2.555	3.649	3.141	2.406
HCM Lane V/C Ratio	0.266	0.014	0.108	0.498
HCM Control Delay	9.2	8.7	8.8	11.7
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	1.1	0	0.4	2.8

Intersection	
Intersection Delay, s/veh	11.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	2	3	16	1	44	0	333	36	29	231	10
Future Vol, veh/h	8	2	3	16	1	44	0	333	36	29	231	10
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	2	3	18	1	49	0	374	40	33	260	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.8	8.8	12	10.5
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	62%	26%	11%
Vol Thru, %	90%	15%	2%	86%
Vol Right, %	10%	23%	72%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	369	13	61	270
LT Vol	0	8	16	29
Through Vol	333	2	1	231
RT Vol	36	3	44	10
Lane Flow Rate	415	15	69	303
Geometry Grp	1	1	1	1
Degree of Util (X)	0.509	0.023	0.098	0.386
Departure Headway (Hd)	4.419	5.605	5.14	4.582
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	813	635	694	783
Service Time	2.453	3.676	3.199	2.621
HCM Lane V/C Ratio	0.51	0.024	0.099	0.387
HCM Control Delay	12	8.8	8.8	10.5
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	2.9	0.1	0.3	1.8

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	1	0	28	3	32	2	157	16	18	322	4
Future Vol, veh/h	6	1	0	28	3	32	2	157	16	18	322	4
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	1	0	34	4	39	2	191	20	22	393	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.8	8.8	9.2	11.9
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	86%	44%	5%
Vol Thru, %	90%	14%	5%	94%
Vol Right, %	9%	0%	51%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	175	7	63	344
LT Vol	2	6	28	18
Through Vol	157	1	3	322
RT Vol	16	0	32	4
Lane Flow Rate	213	9	77	420
Geometry Grp	1	1	1	1
Degree of Util (X)	0.269	0.013	0.109	0.511
Departure Headway (Hd)	4.541	5.627	5.119	4.388
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	790	633	698	822
Service Time	2.573	3.685	3.167	2.414
HCM Lane V/C Ratio	0.27	0.014	0.11	0.511
HCM Control Delay	9.2	8.8	8.8	11.9
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	1.1	0	0.4	3

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	2	3	16	1	46	0	340	36	31	236	10
Future Vol, veh/h	8	2	3	16	1	46	0	340	36	31	236	10
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	2	3	18	1	52	0	382	40	35	265	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.9	8.8	12.2	10.7
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	62%	25%	11%
Vol Thru, %	90%	15%	2%	85%
Vol Right, %	10%	23%	73%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	376	13	63	277
LT Vol	0	8	16	31
Through Vol	340	2	1	236
RT Vol	36	3	46	10
Lane Flow Rate	422	15	71	311
Geometry Grp	1	1	1	1
Degree of Util (X)	0.521	0.023	0.102	0.398
Departure Headway (Hd)	4.437	5.648	5.168	4.602
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	811	629	689	781
Service Time	2.474	3.723	3.232	2.642
HCM Lane V/C Ratio	0.52	0.024	0.103	0.398
HCM Control Delay	12.2	8.9	8.8	10.7
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	3.1	0.1	0.3	1.9

Intersection	
Intersection Delay, s/veh	14.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	1	0	38	4	42	3	208	21	21	422	6
Future Vol, veh/h	8	1	0	38	4	42	3	208	21	21	422	6
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	1	0	46	5	51	4	254	26	26	515	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.4	9.7	10.8	17.5
HCM LOS	A	A	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	89%	45%	5%
Vol Thru, %	90%	11%	5%	94%
Vol Right, %	9%	0%	50%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	232	9	84	449
LT Vol	3	8	38	21
Through Vol	208	1	4	422
RT Vol	21	0	42	6
Lane Flow Rate	283	11	102	548
Geometry Grp	1	1	1	1
Degree of Util (X)	0.377	0.019	0.159	0.695
Departure Headway (Hd)	4.797	6.283	5.577	4.572
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	744	573	636	788
Service Time	2.863	4.283	3.671	2.627
HCM Lane V/C Ratio	0.38	0.019	0.16	0.695
HCM Control Delay	10.8	9.4	9.7	17.5
HCM Lane LOS	B	A	A	C
HCM 95th-tile Q	1.8	0.1	0.6	5.7

Intersection	
Intersection Delay, s/veh	16
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	3	4	21	1	59	0	445	49	39	310	14
Future Vol, veh/h	11	3	4	21	1	59	0	445	49	39	310	14
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	3	4	24	1	66	0	500	55	44	348	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.6	9.8	18.8	13.8
HCM LOS	A	A	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	61%	26%	11%
Vol Thru, %	90%	17%	1%	85%
Vol Right, %	10%	22%	73%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	494	18	81	363
LT Vol	0	11	21	39
Through Vol	445	3	1	310
RT Vol	49	4	59	14
Lane Flow Rate	555	20	91	408
Geometry Grp	1	1	1	1
Degree of Util (X)	0.718	0.036	0.147	0.55
Departure Headway (Hd)	4.655	6.39	5.816	4.858
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	772	563	620	734
Service Time	2.734	4.396	3.817	2.946
HCM Lane V/C Ratio	0.719	0.036	0.147	0.556
HCM Control Delay	18.8	9.6	9.8	13.8
HCM Lane LOS	C	A	A	B
HCM 95th-tile Q	6.2	0.1	0.5	3.4

Intersection	
Intersection Delay, s/veh	15
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	1	0	38	4	43	3	210	21	23	429	6
Future Vol, veh/h	8	1	0	38	4	43	3	210	21	23	429	6
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	1	0	46	5	52	4	256	26	28	523	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.4	9.8	10.9	18.2
HCM LOS	A	A	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	89%	45%	5%
Vol Thru, %	90%	11%	5%	94%
Vol Right, %	9%	0%	51%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	234	9	85	458
LT Vol	3	8	38	23
Through Vol	210	1	4	429
RT Vol	21	0	43	6
Lane Flow Rate	285	11	104	559
Geometry Grp	1	1	1	1
Degree of Util (X)	0.382	0.019	0.161	0.711
Departure Headway (Hd)	4.815	6.324	5.602	4.581
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	742	569	633	788
Service Time	2.883	4.324	3.701	2.636
HCM Lane V/C Ratio	0.384	0.019	0.164	0.709
HCM Control Delay	10.9	9.4	9.8	18.2
HCM Lane LOS	B	A	A	C
HCM 95th-tile Q	1.8	0.1	0.6	6.1

Intersection	
Intersection Delay, s/veh	16.5
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	3	4	21	1	61	0	452	49	41	315	14
Future Vol, veh/h	11	3	4	21	1	61	0	452	49	41	315	14
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	3	4	24	1	69	0	508	55	46	354	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.7	9.9	19.5	14.2
HCM LOS	A	A	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	61%	25%	11%
Vol Thru, %	90%	17%	1%	85%
Vol Right, %	10%	22%	73%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	501	18	83	370
LT Vol	0	11	21	41
Through Vol	452	3	1	315
RT Vol	49	4	61	14
Lane Flow Rate	563	20	93	416
Geometry Grp	1	1	1	1
Degree of Util (X)	0.731	0.036	0.152	0.563
Departure Headway (Hd)	4.675	6.441	5.851	4.879
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	766	559	616	732
Service Time	2.758	4.448	3.852	2.971
HCM Lane V/C Ratio	0.735	0.036	0.151	0.568
HCM Control Delay	19.5	9.7	9.9	14.2
HCM Lane LOS	C	A	A	B
HCM 95th-tile Q	6.5	0.1	0.5	3.5

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	50	7	17	8	5	45	11	109	5	75	320	24
Future Vol, veh/h	50	7	17	8	5	45	11	109	5	75	320	24
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, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	52	7	18	8	5	47	11	114	5	78	333	25

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	667	643	346	653	653	117	358	0	0	119	0	0
Stage 1	502	502	-	139	139	-	-	-	-	-	-	-
Stage 2	165	141	-	514	514	-	-	-	-	-	-	-
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	372	392	697	380	387	935	1201	-	-	1469	-	-
Stage 1	552	542	-	864	782	-	-	-	-	-	-	-
Stage 2	837	780	-	543	535	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	330	362	697	344	358	935	1201	-	-	1469	-	-
Mov Cap-2 Maneuver	426	422	-	410	417	-	-	-	-	-	-	-
Stage 1	546	506	-	855	774	-	-	-	-	-	-	-
Stage 2	782	772	-	487	499	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.2	10.4	0.7	1.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1201	-	-	467	728	1469	-	-
HCM Lane V/C Ratio	0.01	-	-	0.165	0.083	0.053	-	-
HCM Control Delay (s)	8	0	-	14.2	10.4	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.3	0.2	-	-

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	65	26	11	4	10	47	7	277	14	78	168	22
Future Vol, veh/h	65	26	11	4	10	47	7	277	14	78	168	22
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, #	-	1	-	-	1	-	-	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	73	29	12	4	11	53	8	311	16	88	189	25

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	745	721	202	733	725	319	214	0	0	327	0	0
Stage 1	378	378	-	335	335	-	-	-	-	-	-	-
Stage 2	367	343	-	398	390	-	-	-	-	-	-	-
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	330	353	839	336	352	722	1356	-	-	1233	-	-
Stage 1	644	615	-	679	643	-	-	-	-	-	-	-
Stage 2	653	637	-	628	608	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	280	322	839	292	321	722	1356	-	-	1233	-	-
Mov Cap-2 Maneuver	381	400	-	401	415	-	-	-	-	-	-	-
Stage 1	639	565	-	674	638	-	-	-	-	-	-	-
Stage 2	590	633	-	539	559	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.2	11.6	0.2	2.4
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1356	-	-	410	615	1233	-	-
HCM Lane V/C Ratio	0.006	-	-	0.28	0.111	0.071	-	-
HCM Control Delay (s)	7.7	0	-	17.2	11.6	8.1	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.1	0.4	0.2	-	-

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	52	7	18	8	5	47	11	114	5	78	334	25
Future Vol, veh/h	52	7	18	8	5	47	11	114	5	78	334	25
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, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	54	7	19	8	5	49	11	119	5	81	348	26

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	694	669	361	680	680	122	374	0	0	124	0	0
Stage 1	523	523	-	144	144	-	-	-	-	-	-	-
Stage 2	171	146	-	536	536	-	-	-	-	-	-	-
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	357	379	684	365	373	929	1184	-	-	1463	-	-
Stage 1	537	530	-	859	778	-	-	-	-	-	-	-
Stage 2	831	776	-	529	523	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	315	349	684	329	344	929	1184	-	-	1463	-	-
Mov Cap-2 Maneuver	413	411	-	396	405	-	-	-	-	-	-	-
Stage 1	532	493	-	850	770	-	-	-	-	-	-	-
Stage 2	774	768	-	471	486	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.6	10.5	0.7	1.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1184	-	-	455	722	1463	-	-
HCM Lane V/C Ratio	0.01	-	-	0.176	0.087	0.056	-	-
HCM Control Delay (s)	8.1	0	-	14.6	10.5	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.3	0.2	-	-

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	68	27	11	4	10	49	7	289	15	81	175	23
Future Vol, veh/h	68	27	11	4	10	49	7	289	15	81	175	23
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, #	-	1	-	-	1	-	-	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	76	30	12	4	11	55	8	325	17	91	197	26

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	775	750	210	763	755	334	223	0	0	342	0	0
Stage 1	392	392	-	350	350	-	-	-	-	-	-	-
Stage 2	383	358	-	413	405	-	-	-	-	-	-	-
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	315	340	830	321	338	708	1346	-	-	1217	-	-
Stage 1	633	606	-	666	633	-	-	-	-	-	-	-
Stage 2	640	628	-	616	598	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	264	309	830	277	307	708	1346	-	-	1217	-	-
Mov Cap-2 Maneuver	367	389	-	387	403	-	-	-	-	-	-	-
Stage 1	629	554	-	661	629	-	-	-	-	-	-	-
Stage 2	576	624	-	524	547	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18	11.8	0.2	2.4
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1346	-	-	396	604	1217	-	-
HCM Lane V/C Ratio	0.006	-	-	0.301	0.117	0.075	-	-
HCM Control Delay (s)	7.7	0	-	18	11.8	8.2	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.2	0.4	0.2	-	-

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	52	7	18	8	5	48	11	115	5	80	339	25
Future Vol, veh/h	52	7	18	8	5	48	11	115	5	80	339	25
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, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	54	7	19	8	5	50	11	120	5	83	353	26

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	704	679	366	690	690	123	379	0	0	125	0	0
Stage 1	532	532	-	145	145	-	-	-	-	-	-	-
Stage 2	172	147	-	545	545	-	-	-	-	-	-	-
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	352	374	679	359	368	928	1179	-	-	1462	-	-
Stage 1	531	526	-	858	777	-	-	-	-	-	-	-
Stage 2	830	775	-	523	519	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	309	344	679	323	338	928	1179	-	-	1462	-	-
Mov Cap-2 Maneuver	408	406	-	391	401	-	-	-	-	-	-	-
Stage 1	526	488	-	849	769	-	-	-	-	-	-	-
Stage 2	772	767	-	465	482	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.7	10.5	0.7	1.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1179	-	-	450	721	1462	-	-
HCM Lane V/C Ratio	0.01	-	-	0.178	0.088	0.057	-	-
HCM Control Delay (s)	8.1	0	-	14.7	10.5	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.3	0.2	-	-

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	68	27	11	4	10	51	7	294	15	83	178	23
Future Vol, veh/h	68	27	11	4	10	51	7	294	15	83	178	23
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, #	-	1	-	-	1	-	-	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	76	30	12	4	11	57	8	330	17	93	200	26

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	788	762	213	775	767	339	226	0	0	347	0	0
Stage 1	399	399	-	355	355	-	-	-	-	-	-	-
Stage 2	389	363	-	420	412	-	-	-	-	-	-	-
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	309	335	827	315	332	703	1342	-	-	1212	-	-
Stage 1	627	602	-	662	630	-	-	-	-	-	-	-
Stage 2	635	625	-	611	594	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	258	304	827	271	301	703	1342	-	-	1212	-	-
Mov Cap-2 Maneuver	360	384	-	382	399	-	-	-	-	-	-	-
Stage 1	623	549	-	657	626	-	-	-	-	-	-	-
Stage 2	569	621	-	519	542	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.3	11.8	0.2	2.4
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1342	-	-	389	601	1212	-	-
HCM Lane V/C Ratio	0.006	-	-	0.306	0.122	0.077	-	-
HCM Control Delay (s)	7.7	0	-	18.3	11.8	8.2	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.3	0.4	0.2	-	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	70	10	24	11	7	63	15	152	7	105	447	34
Future Vol, veh/h	70	10	24	11	7	63	15	152	7	105	447	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, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	73	10	25	11	7	66	16	158	7	109	466	35

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	932	899	484	913	913	162	501	0	0	165	0	0
Stage 1	702	702	-	194	194	-	-	-	-	-	-	-
Stage 2	230	197	-	719	719	-	-	-	-	-	-	-
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	247	279	583	254	273	883	1063	-	-	1413	-	-
Stage 1	429	440	-	808	740	-	-	-	-	-	-	-
Stage 2	773	738	-	420	433	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	204	245	583	215	240	883	1063	-	-	1413	-	-
Mov Cap-2 Maneuver	313	320	-	286	313	-	-	-	-	-	-	-
Stage 1	422	393	-	794	727	-	-	-	-	-	-	-
Stage 2	696	725	-	349	387	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.8	11.8	0.7	1.4
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1063	-	-	351	613	1413	-	-
HCM Lane V/C Ratio	0.015	-	-	0.309	0.138	0.077	-	-
HCM Control Delay (s)	8.4	0	-	19.8	11.8	7.8	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.3	0.5	0.3	-	-

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	91	36	15	6	14	66	10	387	20	109	235	31
Future Vol, veh/h	91	36	15	6	14	66	10	387	20	109	235	31
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, #	-	1	-	-	1	-	-	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	102	40	17	7	16	74	11	435	22	122	264	35

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1039	1005	282	1022	1011	446	299	0	0	457	0	0
Stage 1	526	526	-	468	468	-	-	-	-	-	-	-
Stage 2	513	479	-	554	543	-	-	-	-	-	-	-
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	209	241	757	214	240	612	1262	-	-	1104	-	-
Stage 1	535	529	-	575	561	-	-	-	-	-	-	-
Stage 2	544	555	-	517	520	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	157	207	757	167	206	612	1262	-	-	1104	-	-
Mov Cap-2 Maneuver	254	296	-	283	316	-	-	-	-	-	-	-
Stage 1	529	459	-	568	554	-	-	-	-	-	-	-
Stage 2	459	548	-	400	451	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	32.8	14	0.2	2.5
HCM LOS	D	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1262	-	-	284	496	1104	-	-
HCM Lane V/C Ratio	0.009	-	-	0.562	0.195	0.111	-	-
HCM Control Delay (s)	7.9	0	-	32.8	14	8.7	0	-
HCM Lane LOS	A	A	-	D	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	3.2	0.7	0.4	-	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	70	10	24	11	7	64	15	153	7	107	452	34
Future Vol, veh/h	70	10	24	11	7	64	15	153	7	107	452	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, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	73	10	25	11	7	67	16	159	7	111	471	35

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	943	909	489	923	923	163	506	0	0	166	0	0
Stage 1	711	711	-	195	195	-	-	-	-	-	-	-
Stage 2	232	198	-	728	728	-	-	-	-	-	-	-
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	243	275	579	250	270	882	1059	-	-	1412	-	-
Stage 1	424	436	-	807	739	-	-	-	-	-	-	-
Stage 2	771	737	-	415	429	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	200	241	579	211	236	882	1059	-	-	1412	-	-
Mov Cap-2 Maneuver	309	316	-	282	309	-	-	-	-	-	-	-
Stage 1	417	388	-	793	726	-	-	-	-	-	-	-
Stage 2	694	724	-	344	382	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20	11.8	0.7	1.4
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1059	-	-	347	611	1412	-	-
HCM Lane V/C Ratio	0.015	-	-	0.312	0.14	0.079	-	-
HCM Control Delay (s)	8.4	0	-	20	11.8	7.8	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.3	0.5	0.3	-	-

Intersection	
Int Delay, s/veh	6.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	91	36	15	6	14	68	10	392	20	111	238	31
Future Vol, veh/h	91	36	15	6	14	68	10	392	20	111	238	31
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, #	-	1	-	-	1	-	-	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	102	40	17	7	16	76	11	440	22	125	267	35

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1054	1019	285	1036	1025	451	302	0	0	462	0	0
Stage 1	535	535	-	473	473	-	-	-	-	-	-	-
Stage 2	519	484	-	563	552	-	-	-	-	-	-	-
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	204	237	754	210	235	608	1259	-	-	1099	-	-
Stage 1	529	524	-	572	558	-	-	-	-	-	-	-
Stage 2	540	552	-	511	515	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	152	202	754	163	200	608	1259	-	-	1099	-	-
Mov Cap-2 Maneuver	248	291	-	278	310	-	-	-	-	-	-	-
Stage 1	523	452	-	565	551	-	-	-	-	-	-	-
Stage 2	453	545	-	393	444	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	34	14.1	0.2	2.5
HCM LOS	D	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1259	-	-	278	493	1099	-	-
HCM Lane V/C Ratio	0.009	-	-	0.574	0.201	0.113	-	-
HCM Control Delay (s)	7.9	0	-	34	14.1	8.7	0	-
HCM Lane LOS	A	A	-	D	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	3.3	0.7	0.4	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	14	0	9	5	0	5	3	192	5	5	335	4
Future Vol, veh/h	14	0	9	5	0	5	3	192	5	5	335	4
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	15	0	10	5	0	5	3	209	5	5	364	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	596	596	366	599	596	212	368	0	0	214	0	0
Stage 1	376	376	-	218	218	-	-	-	-	-	-	-
Stage 2	220	220	-	381	378	-	-	-	-	-	-	-
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	415	417	679	413	417	828	1191	-	-	1356	-	-
Stage 1	645	616	-	784	723	-	-	-	-	-	-	-
Stage 2	782	721	-	641	615	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	410	414	679	405	414	828	1191	-	-	1356	-	-
Mov Cap-2 Maneuver	410	414	-	405	414	-	-	-	-	-	-	-
Stage 1	643	613	-	782	721	-	-	-	-	-	-	-
Stage 2	775	719	-	629	612	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.8	11.8	0.1	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1191	-	-	485	544	1356	-	-
HCM Lane V/C Ratio	0.003	-	-	0.052	0.02	0.004	-	-
HCM Control Delay (s)	8	0	-	12.8	11.8	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	9	0	6	5	0	5	9	385	5	5	270	14
Future Vol, veh/h	9	0	6	5	0	5	9	385	5	5	270	14
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	10	0	7	5	0	5	10	418	5	5	293	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	754	754	301	755	759	421	308	0	0	423	0	0
Stage 1	311	311	-	441	441	-	-	-	-	-	-	-
Stage 2	443	443	-	314	318	-	-	-	-	-	-	-
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	326	338	739	325	336	632	1253	-	-	1136	-	-
Stage 1	699	658	-	595	577	-	-	-	-	-	-	-
Stage 2	594	576	-	697	654	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	319	333	739	319	331	632	1253	-	-	1136	-	-
Mov Cap-2 Maneuver	319	333	-	319	331	-	-	-	-	-	-	-
Stage 1	692	655	-	589	571	-	-	-	-	-	-	-
Stage 2	583	570	-	687	651	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.1	13.7	0.2	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1253	-	-	413	424	1136	-	-
HCM Lane V/C Ratio	0.008	-	-	0.039	0.026	0.005	-	-
HCM Control Delay (s)	7.9	0	-	14.1	13.7	8.2	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	0	9	5	0	5	3	192	5	5	335	4
Future Vol, veh/h	14	0	9	5	0	5	3	192	5	5	335	4
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	-	-	-	-	-	-	150	-	-	-	-	-
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	15	0	10	5	0	5	3	209	5	5	364	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	596	596	366	599	596	212	368	0	0	214	0	0
Stage 1	376	376	-	218	218	-	-	-	-	-	-	-
Stage 2	220	220	-	381	378	-	-	-	-	-	-	-
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	415	417	679	413	417	828	1191	-	-	1356	-	-
Stage 1	645	616	-	784	723	-	-	-	-	-	-	-
Stage 2	782	721	-	641	615	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	410	414	679	405	414	828	1191	-	-	1356	-	-
Mov Cap-2 Maneuver	410	414	-	405	414	-	-	-	-	-	-	-
Stage 1	643	613	-	782	721	-	-	-	-	-	-	-
Stage 2	775	719	-	629	612	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.8	11.8	0.1	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1191	-	-	485	544	1356	-	-
HCM Lane V/C Ratio	0.003	-	-	0.052	0.02	0.004	-	-
HCM Control Delay (s)	8	-	-	12.8	11.8	7.7	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	0	6	5	0	5	9	385	5	5	270	14
Future Vol, veh/h	9	0	6	5	0	5	9	385	5	5	270	14
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	-	-	-	-	-	-	150	-	-	-	-	-
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	10	0	7	5	0	5	10	418	5	5	293	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	754	754	301	755	759	421	308	0	0	423	0	0
Stage 1	311	311	-	441	441	-	-	-	-	-	-	-
Stage 2	443	443	-	314	318	-	-	-	-	-	-	-
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	326	338	739	325	336	632	1253	-	-	1136	-	-
Stage 1	699	658	-	595	577	-	-	-	-	-	-	-
Stage 2	594	576	-	697	654	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	320	334	739	319	332	632	1253	-	-	1136	-	-
Mov Cap-2 Maneuver	320	334	-	319	332	-	-	-	-	-	-	-
Stage 1	693	655	-	590	572	-	-	-	-	-	-	-
Stage 2	584	571	-	687	651	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.1	13.7	0.2	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1253	-	-	414	424	1136	-	-
HCM Lane V/C Ratio	0.008	-	-	0.039	0.026	0.005	-	-
HCM Control Delay (s)	7.9	-	-	14.1	13.7	8.2	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

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	14	0	9	5	0	5	3	258	5	5	449	4
Future Vol, veh/h	14	0	9	5	0	5	3	258	5	5	449	4
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	15	0	10	5	0	5	3	280	5	5	488	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	791	791	490	794	791	283	492	0	0	285	0	0
Stage 1	500	500	-	289	289	-	-	-	-	-	-	-
Stage 2	291	291	-	505	502	-	-	-	-	-	-	-
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	307	322	578	306	322	756	1071	-	-	1277	-	-
Stage 1	553	543	-	719	673	-	-	-	-	-	-	-
Stage 2	717	672	-	549	542	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	303	319	578	299	319	756	1071	-	-	1277	-	-
Mov Cap-2 Maneuver	303	319	-	299	319	-	-	-	-	-	-	-
Stage 1	551	540	-	717	671	-	-	-	-	-	-	-
Stage 2	710	670	-	537	539	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.4	13.6	0.1	0.1
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1071	-	-	372	429	1277	-	-
HCM Lane V/C Ratio	0.003	-	-	0.067	0.025	0.004	-	-
HCM Control Delay (s)	8.4	0	-	15.4	13.6	7.8	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	9	0	6	5	0	5	9	515	5	5	363	14
Future Vol, veh/h	9	0	6	5	0	5	9	515	5	5	363	14
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	10	0	7	5	0	5	10	560	5	5	395	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	998	998	403	999	1003	563	410	0	0	565	0	0
Stage 1	413	413	-	583	583	-	-	-	-	-	-	-
Stage 2	585	585	-	416	420	-	-	-	-	-	-	-
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	223	244	647	222	242	526	1149	-	-	1007	-	-
Stage 1	616	594	-	498	499	-	-	-	-	-	-	-
Stage 2	497	498	-	614	589	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	217	239	647	217	237	526	1149	-	-	1007	-	-
Mov Cap-2 Maneuver	217	239	-	217	237	-	-	-	-	-	-	-
Stage 1	608	590	-	492	493	-	-	-	-	-	-	-
Stage 2	485	492	-	604	585	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.9	17.2	0.1	0.1
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1149	-	-	296	307	1007	-	-
HCM Lane V/C Ratio	0.009	-	-	0.055	0.035	0.005	-	-
HCM Control Delay (s)	8.2	0	-	17.9	17.2	8.6	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-

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	14	0	9	5	0	5	3	258	5	5	449	4
Future Vol, veh/h	14	0	9	5	0	5	3	258	5	5	449	4
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	-	-	-	-	-	-	0	-	-	-	-	-
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	15	0	10	5	0	5	3	280	5	5	488	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	791	791	490	794	791	283	492	0	0	285	0	0
Stage 1	500	500	-	289	289	-	-	-	-	-	-	-
Stage 2	291	291	-	505	502	-	-	-	-	-	-	-
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	307	322	578	306	322	756	1071	-	-	1277	-	-
Stage 1	553	543	-	719	673	-	-	-	-	-	-	-
Stage 2	717	672	-	549	542	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	303	319	578	299	319	756	1071	-	-	1277	-	-
Mov Cap-2 Maneuver	303	319	-	299	319	-	-	-	-	-	-	-
Stage 1	551	540	-	717	671	-	-	-	-	-	-	-
Stage 2	710	670	-	537	539	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.4	13.6	0.1	0.1
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1071	-	-	372	429	1277	-	-
HCM Lane V/C Ratio	0.003	-	-	0.067	0.025	0.004	-	-
HCM Control Delay (s)	8.4	-	-	15.4	13.6	7.8	0	-
HCM Lane LOS	A	-	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	0	6	5	0	5	9	515	5	5	363	14
Future Vol, veh/h	9	0	6	5	0	5	9	515	5	5	363	14
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	-	-	-	-	-	-	0	-	-	-	-	-
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	10	0	7	5	0	5	10	560	5	5	395	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	998	998	403	999	1003	563	410	0	0	565	0	0
Stage 1	413	413	-	583	583	-	-	-	-	-	-	-
Stage 2	585	585	-	416	420	-	-	-	-	-	-	-
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	223	244	647	222	242	526	1149	-	-	1007	-	-
Stage 1	616	594	-	498	499	-	-	-	-	-	-	-
Stage 2	497	498	-	614	589	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	218	240	647	217	238	526	1149	-	-	1007	-	-
Mov Cap-2 Maneuver	218	240	-	217	238	-	-	-	-	-	-	-
Stage 1	610	590	-	494	495	-	-	-	-	-	-	-
Stage 2	488	494	-	604	585	-	-	-	-	-	-	-

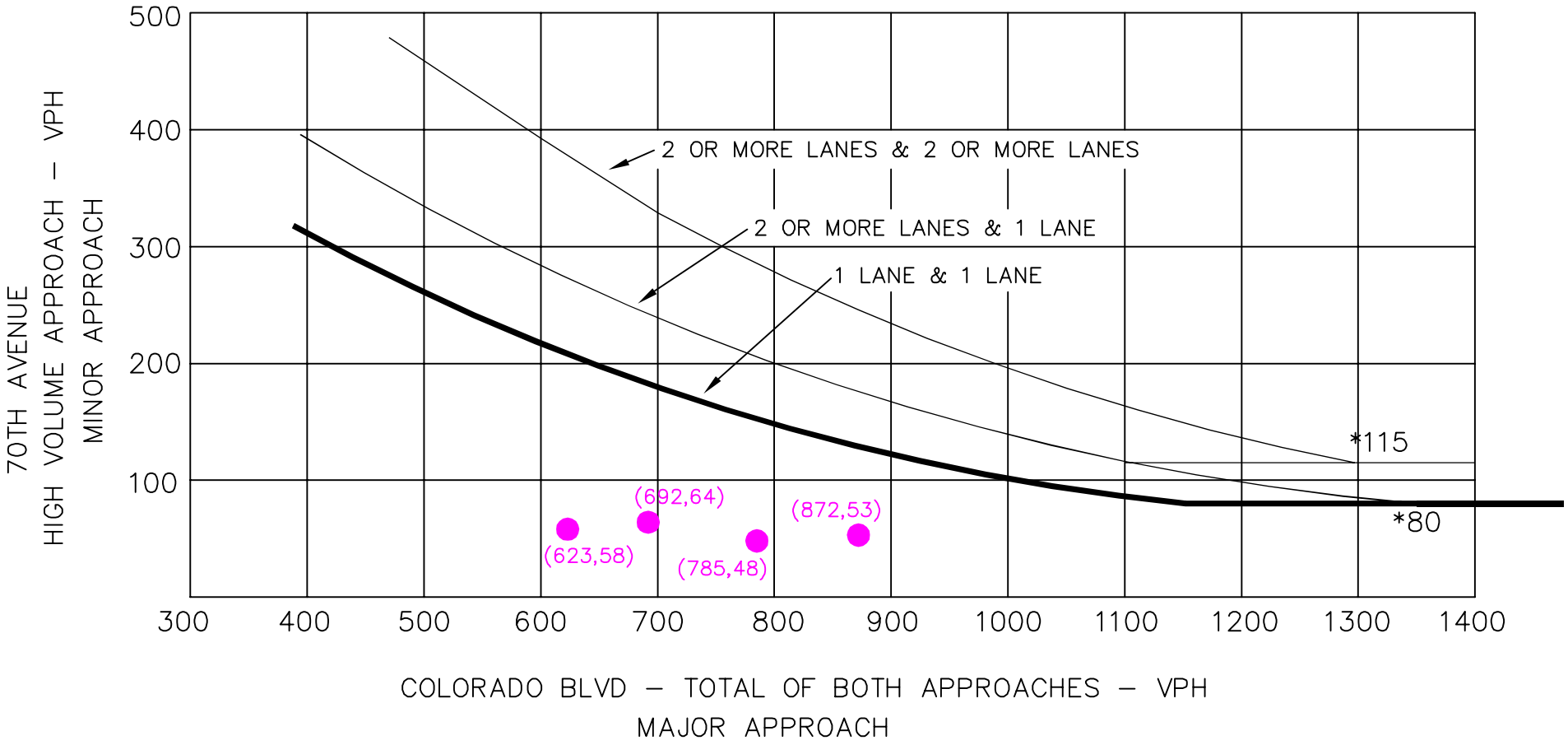
Approach	EB	WB	NB	SB
HCM Control Delay, s	17.8	17.2	0.1	0.1
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1149	-	-	297	307	1007	-	-
HCM Lane V/C Ratio	0.009	-	-	0.055	0.035	0.005	-	-
HCM Control Delay (s)	8.2	-	-	17.8	17.2	8.6	0	-
HCM Lane LOS	A	-	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-

APPENDIX E

Signal & All-Way Stop Control Warrant Worksheets

WARRANT 2 - FOUR HOUR VEHICULAR VOLUME



* NOTE: 115 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 80 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

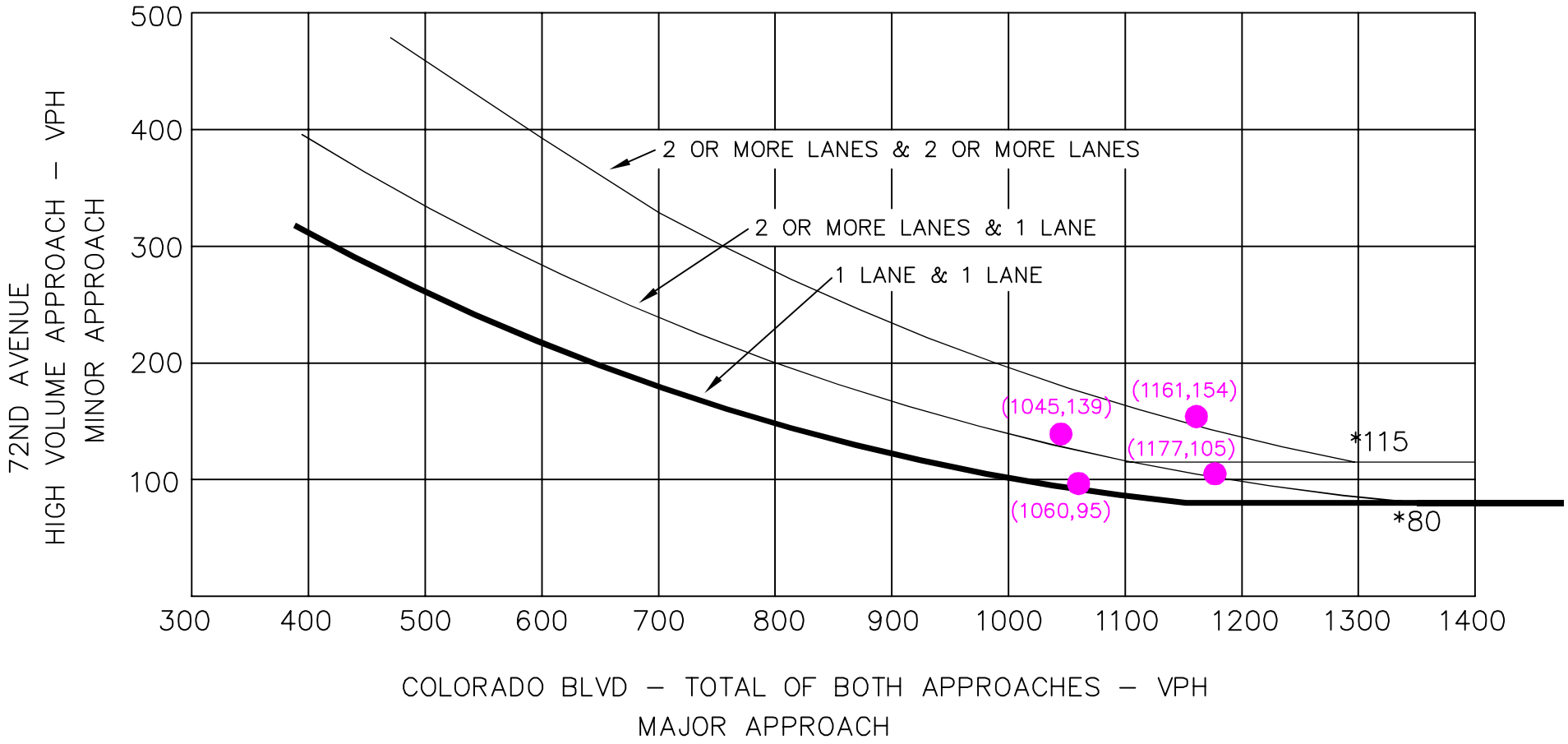
SIGNAL WARRANT ANALYSIS
70TH AVE & COLORADO BLVD
FOUR HOUR VOLUME WARRANT

● 2045 TRAFFIC DATA POINT

Source: Manual of Uniform Traffic Control Devices 2009

Kimley»Horn

WARRANT 2 - FOUR HOUR VEHICULAR VOLUME



* NOTE: 115 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 80 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

SIGNAL WARRANT ANALYSIS
72ND AVE & COLORADO BLVD
FOUR HOUR VOLUME WARRANT

● 2045 TRAFFIC DATA POINT

Source: Manual of Uniform Traffic Control Devices 2009

Kimley»Horn

All Way Stop Control Warrants: 7001 Colorado Boulevard Project

72nd Avenue & Colorado Boulevard (2024 Total Traffic Volumes)						
Hour	Minor Volume	Minor Threshold	Met	Major Volume	Major Threshold	Met
7:00 AM - 8:00 AM	160	200		895	300	X
8:00 AM - 9:00 AM	144	200		806	300	X
9:00 AM - 10:00 AM	144*	200		806*	300	X
10:00 AM - 11:00 AM	130*	200		725*	300	X
2:00 PM - 3:00 PM	202*	200	X	717*	300	X
3:00 PM - 4:00 PM	224*	200	X	797*	300	X
4:00 PM - 5:00 PM	249	200	X	885	300	X
5:00 PM - 6:00 PM	224	200	X	797	300	X

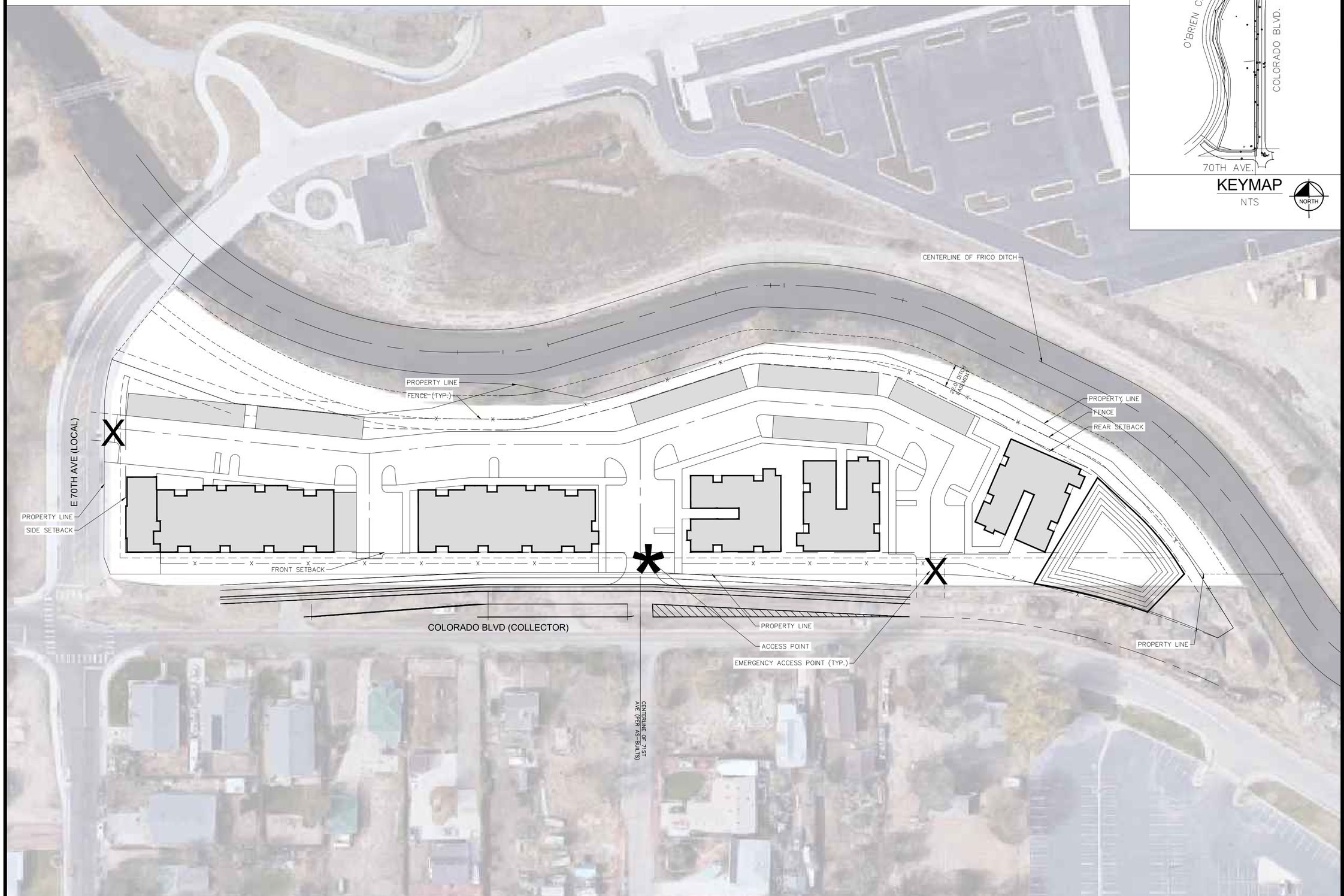
* = 90 Percent Factor Applied

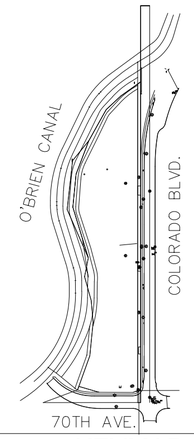
APPENDIX F

Site Access Improvement Exhibit

7001 COLORADO BOULEVARD

LOCATED IN THE NE $\frac{1}{4}$ OF SECTION 1, TOWNSHIP 3 SOUTH,
RANGE 68 WEST OF THE 6TH P.M.,
CITY OF COMMERCE CITY, COUNTY OF ADAMS, STATE OF COLORADO





KEYMAP
NTS
NORTH

CONCEPT SITE PLAN

SCALE: 1":60'

NO.	REVISION	BY	DATE	APPR

Kimley»Horn
KIMLEY-HORN AND ASSOCIATES, INC.
4582 South Ulster Street, Suite 1500
Denver, Colorado 80237 (303) 228-2300

7001 COLORADO BOULEVARD
CITY OF COMMERCE CITY, COUNTY OF ADAMS
CONCEPT SITE PLAN

DATE: 01/28/2022
DESIGNED BY: PMB
DRAWN BY: PMB
CHECKED BY: PMB

FILE NO. 2022.01.25 CONCEPT SITE
PROJECT NO. 096216004

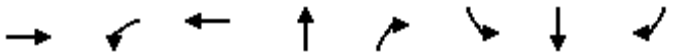
SHEET NO.
2

APPENDIX G

Queue Analysis Worksheets

Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	40	34	148	3	358	17	234	594	52
v/c Ratio	0.49	0.27	0.54	0.00	0.24	0.01	0.28	0.39	0.04
Control Delay	57.8	42.4	15.4	2.3	2.7	1.1	3.4	3.6	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.8	42.4	15.4	2.3	2.7	1.1	3.4	3.6	0.8
Queue Length 50th (ft)	22	18	4	0	34	0	23	67	0
Queue Length 95th (ft)	53	46	57	2	71	4	56	134	7
Internal Link Dist (ft)	213		149		566			1312	
Turn Bay Length (ft)		100		100			75		100
Base Capacity (vph)	219	340	504	626	1505	1282	823	1505	1288
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.10	0.29	0.00	0.24	0.01	0.28	0.39	0.04

Intersection Summary



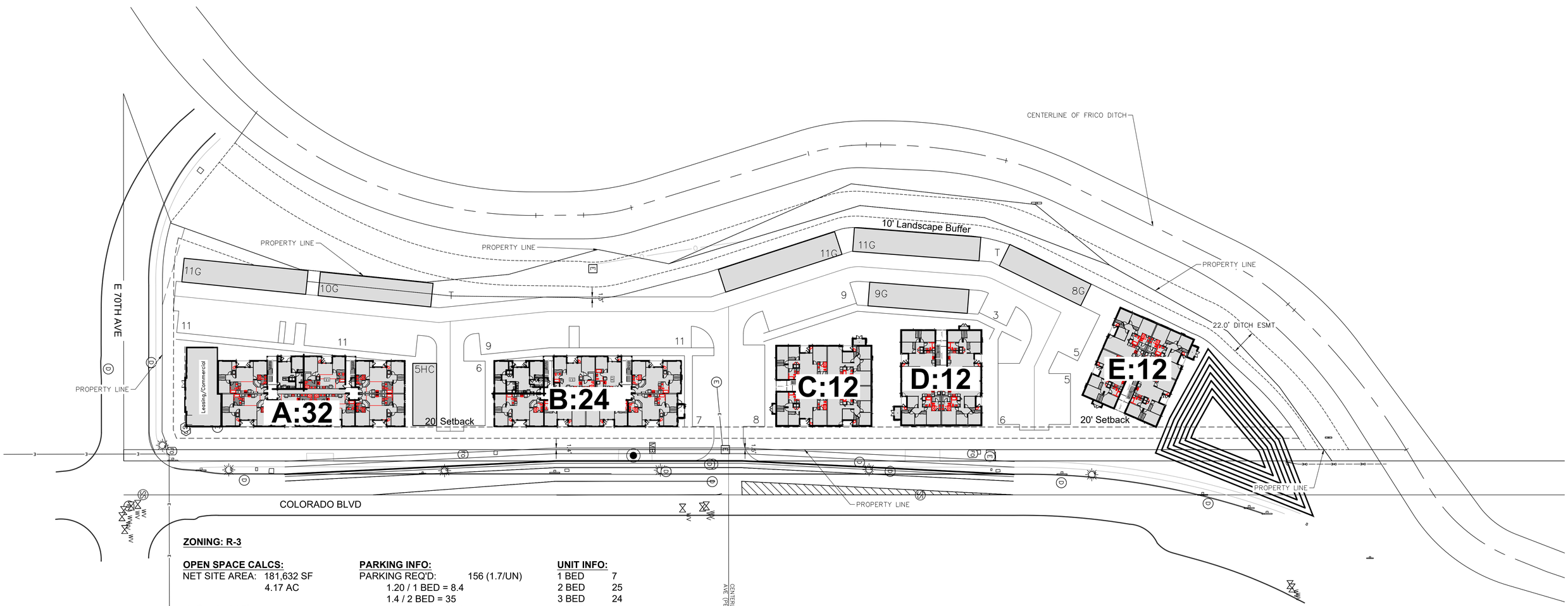
Lane Group	EBT	WBL	WBT	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	48	38	245	568	36	177	383	40
v/c Ratio	0.75	0.25	0.66	0.38	0.03	0.28	0.26	0.03
Control Delay	91.1	40.0	14.5	3.7	1.0	3.9	3.0	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	91.1	40.0	14.5	3.7	1.0	3.9	3.0	0.9
Queue Length 50th (ft)	23	21	2	62	0	17	37	0
Queue Length 95th (ft)	#65	47	66	143	6	52	87	7
Internal Link Dist (ft)	213		149	566			1312	
Turn Bay Length (ft)		100				75		100
Base Capacity (vph)	164	421	593	1497	1279	640	1497	1280
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	0.29	0.09	0.41	0.38	0.03	0.28	0.26	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

APPENDIX H

Conceptual Site Plan



ZONING: R-3

OPEN SPACE CALCS:
NET SITE AREA: 181,632 SF
4.17 AC

REQUIRED 15%
OPEN SPACE: 0.67 AC
29,082 SF

PROVIDED
OPEN SPACE: ~73,657 SF

PARKING INFO:
PARKING REQ'D: 156 (1.7/UN)
1.20 / 1 BED = 8.4
1.4 / 2 BED = 35
1.6 / 3 BED = 38.4
1.6 / 4 BED = 57.6
12% GUEST = 16.7

20% REDUCTION DUE TO PROXIMITY TO TRANSIT

PARKING PROVIDED: 156 (1.7/UN)
SURFACE 91
GARAGE 65 (40%)

20% ADMINISTRATIVE REDUCTION IN GARAGES DUE TO AFFORDABLE
40% VS 50%

UNIT INFO:

1 BED	7
2 BED	25
3 BED	24
4 BED	36
TOTAL	92

DENSITY:
MAX HGT = 50 FEET
MAX = 24 DU/AC
PROPOSED = 23.98

7001 COLORADO BLVD

PROSPECT PROPERTIES
2021.12.10

Godden|Sudik ARCHITECTS
SEE WHAT COULD BE