



# TRAFFIC IMPACT ANALYSIS

Westlake Vista Development

AURORA, CO

March 28, 2022

WSB PROJECT NO. 018933-000

**Traffic Impact Analysis  
for  
Westlake Vista Development  
Aurora, Colorado**

**WSB Project No. 018933-000**



**WSB  
5660 Greenwood Plaza Blvd, Suite 111  
Greenwood Village, CO 80111  
(720) 453-1372**

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## 1.0 Introduction

Westlake Vista is a proposed development by Kemberlin Architecture in Aurora, Colorado. The development is proposed in the quadrant bound by Sable Boulevard to the west, 21<sup>st</sup> Avenue to the south, and residential parcels to the north and east as shown in **Figure 1**. The proposed development will include the following land uses:

- Townhomes (50 units)

The proposed development is expected to be completed by 2024. The existing site plan shows less than 50 units, the study was completed for a max-unit count scenario. A preliminary site plan is shown in **Figure 2**. Internal roadways will be provided for circulation through the site and two access points will be provided, one located on Sable Boulevard and the other located on 21<sup>st</sup> Avenue.

This report documents the traffic impact study (TIS) for the proposed development including the two proposed site access points. The TIS was developed per the Traffic Impact Study Guidelines in the City of Aurora (City) and was conducted in accordance with guidelines from the Institute of Transportation Engineers (ITE). The study will present the expected trip generation from the site and analyze the existing and future roadway system with and without the proposed development. If needed, measures will be recommended to mitigate any deficiencies expected without and with the proposed development.

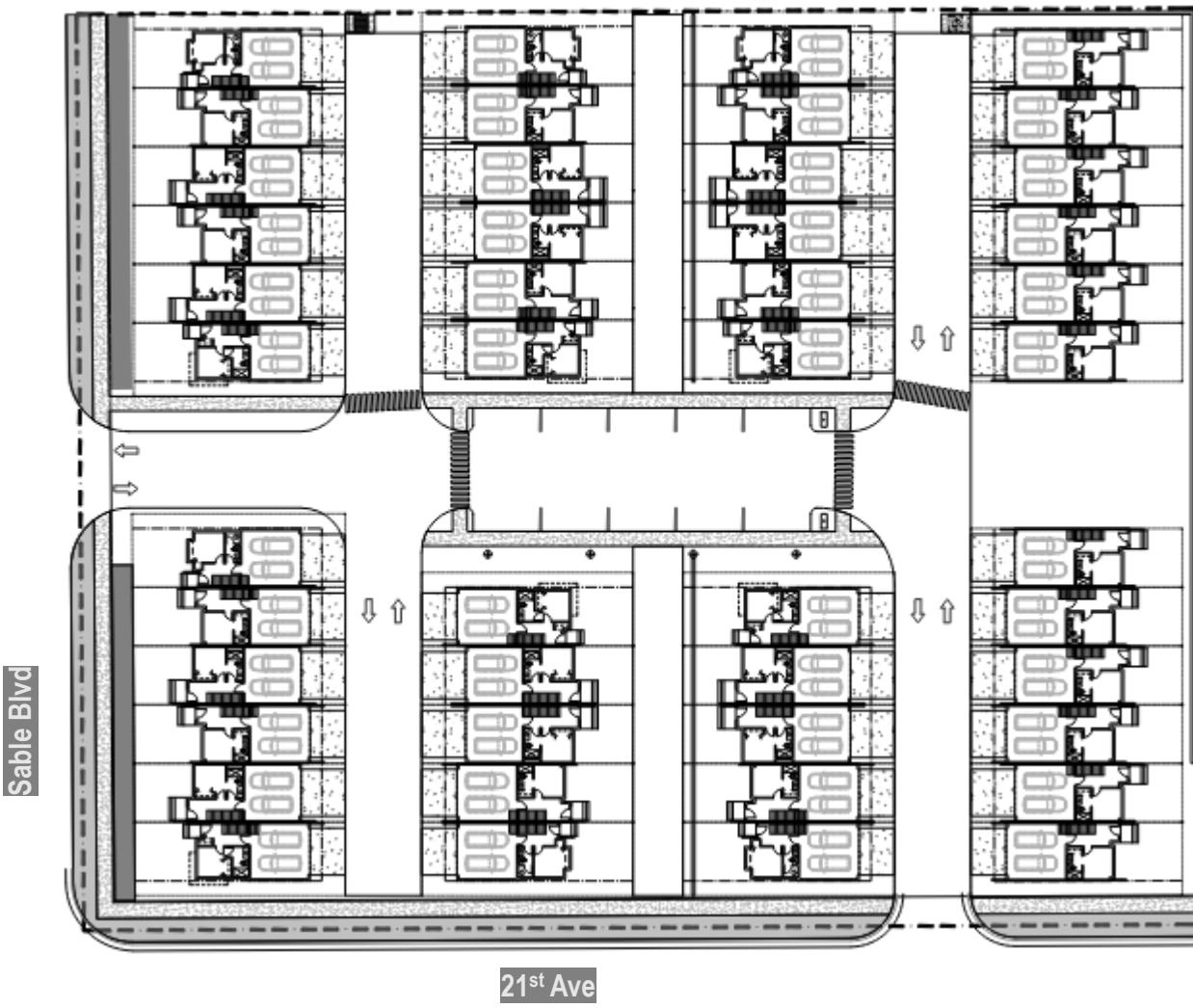


## Westlake Vista Traffic Impact Study

Aurora, CO

Figure 1

Vicinity Map



## Westlake Vista Traffic Impact Study

Aurora, CO

**Figure 2**  
Site Plan

## 2.0 Existing Conditions

### Land Uses

The site is currently zoned R-R Rural Residential District and will be rezoned to R-2 Medium Density Single-Family District. The site is currently undeveloped. North of the site is currently developed and is zoned as R-1 Low-Density Single-Family Residential. East and south of the site is currently developed and is also zoned as R-R Rural Residential District. West of the site was recently developed and is zoned as R-2 Medium-Density Residential District.

### Roadway Network

Sable Boulevard is a north/south two-lane undivided collector roadway. The speed limit in the study area is 35 mph. Sable Boulevard has a sidewalk on the west side and south of Montview Boulevard on the east side. The intersection of Sable Boulevard and Montview Boulevard has left turn lanes. Sable Boulevard provides a north/south connection between 6<sup>th</sup> Avenue and Smith Road.

21<sup>st</sup> Avenue is an east/west two-lane undivided roadway. 21<sup>st</sup> Avenue has a posted speed limit of 25 mph and no pavement markings, shoulders, or sidewalks. 21<sup>st</sup> Avenue provides a connection between Sable Boulevard and Altura Boulevard, serving residential properties. 21<sup>st</sup> Avenue is stop-controlled at Sable Boulevard.

Montview Boulevard is an east/west two-lane undivided roadway. Montview Boulevard has a posted speed limit of 25 mph and no pavement markings. Montview Boulevard is stop-controlled at Sable Boulevard.

Based on the location of the site and direction from the City, it was determined to study the following nearby intersections:

- 21<sup>st</sup> Avenue and Sable Boulevard
- Montview Boulevard and Sable Boulevard

Existing roadways and intersections are shown in **Figure 4**.

### Bicycle/Pedestrian Network & Connectivity

There are sidewalks currently present at the following locations:

- West side of Sable Boulevard, north of Montview Boulevard and south of 22<sup>nd</sup> Place
- Both sides of Sable Boulevard, south of Montview Boulevard and north of Hillcrest Villages
- North side of Montview Boulevard, west of Sable Boulevard and east of Billings Street
- South side of Montview Boulevard, east of Sable Boulevard and west of Eagle Street

There are currently no sidewalks along 21<sup>st</sup> Avenue. The 2012 Bicycle and Pedestrian Master Plan for the City of Aurora indicates that Sable Boulevard within the study area is an existing Bike Route and provides shared lanes.

The site plan shows a proposed sidewalk on the west side of the site along Sable Boulevard and on the south side of the site along 21<sup>st</sup> Avenue. East-west sidewalks are also proposed on the internal roadway through the site, providing for internal pedestrian connectivity.

## Data Collection

Turning movement were collected at the existing intersections on Wednesday, February 9, 2022, for the AM peak (7-9 AM) and PM peak (4-6 PM). 24-hour directional counts were also collected on Sable Boulevard (north of 21<sup>st</sup> Avenue) and 21<sup>st</sup> Avenue (east of Sable Boulevard). **Figure 4** displays the collected 24-hour counts, AM (7:00-8:00) peak hour volumes, PM (5:00-6:00) peak hour volumes, and existing lane geometry. Raw traffic data is included in **Appendix A**.

## Level of Service Traffic Analysis

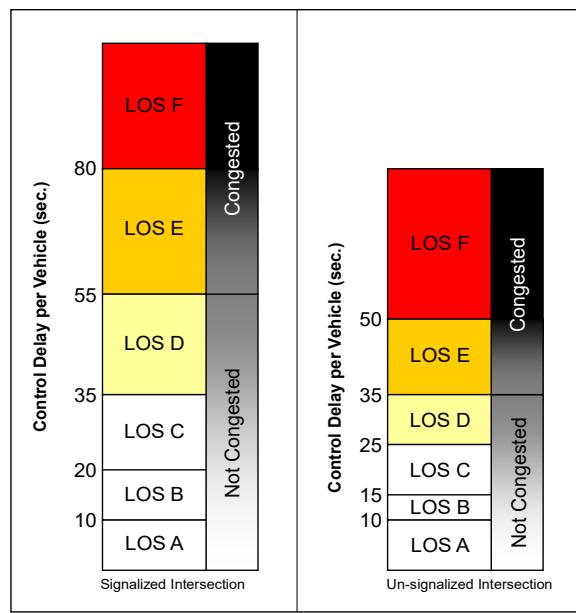
The purpose of this analysis is to determine traffic operations for the existing and future years on the roadway network within the vicinity of the proposed development. This analysis is also used to identify mitigation measures and transportation improvements required to provide an acceptable Level of Service (LOS) for future roadway users. The following summarizes the study process and evaluation results.

The ability of an intersection to process traffic is affected by the number and type of vehicles, desired turning movements, intersection geometrics, and traffic control devices. The standardized methodology developed by the Highway Capacity Manual (HCM) provides qualitative measures in terms of LOS. The LOS range from "A" free-flowing conditions to "F" over-capacity conditions as shown in **Figure 3**.

Capacity analyses for signalized and all-way stop controlled intersections are evaluated on an overall basis, an average for each approach (i.e., northbound, southbound, etc.), and a LOS for each movement (i.e., northbound left turn, northbound thru, etc.).

Unsignalized intersections are evaluated for the approach that must stop or yield as movements that do not stop or yield theoretically have no delay.

Synchro version 11 software was used to analyze the existing and future traffic conditions. Synchro is a traffic operations analysis software package that uses the methodologies of the HCM to generate LOS for the intersections



SOURCE: Level of Service thresholds from the Highway Capacity Manual.

**Figure 3 – Level of Service Thresholds**

## Existing Capacity Analysis

Synchro models were developed to analyze current traffic conditions at the study intersections. The 2022 existing year condition volumes were obtained by using the collected AM (7:00-8:00) and PM (5:00-6:00) peak hour volumes with corresponding approach peak hour factors. **Figure 4** displays the existing AM and PM peak hour turning movement volumes, existing lane geometry, and traffic control used at each study intersection.

**Table 2** displays the existing LOS results during AM and PM peak hours from the Synchro analysis. Every approach currently operates at LOS D or better except for one. The westbound approach at Sable Boulevard and Montview Boulevard operates with a LOS E in the PM peak hour. Synchro reports for each intersection and all study scenarios can be found in **Appendix B**.

## LEGEND



Stop-Controlled Approach

50 (75)

AM (PM) Turning Movements



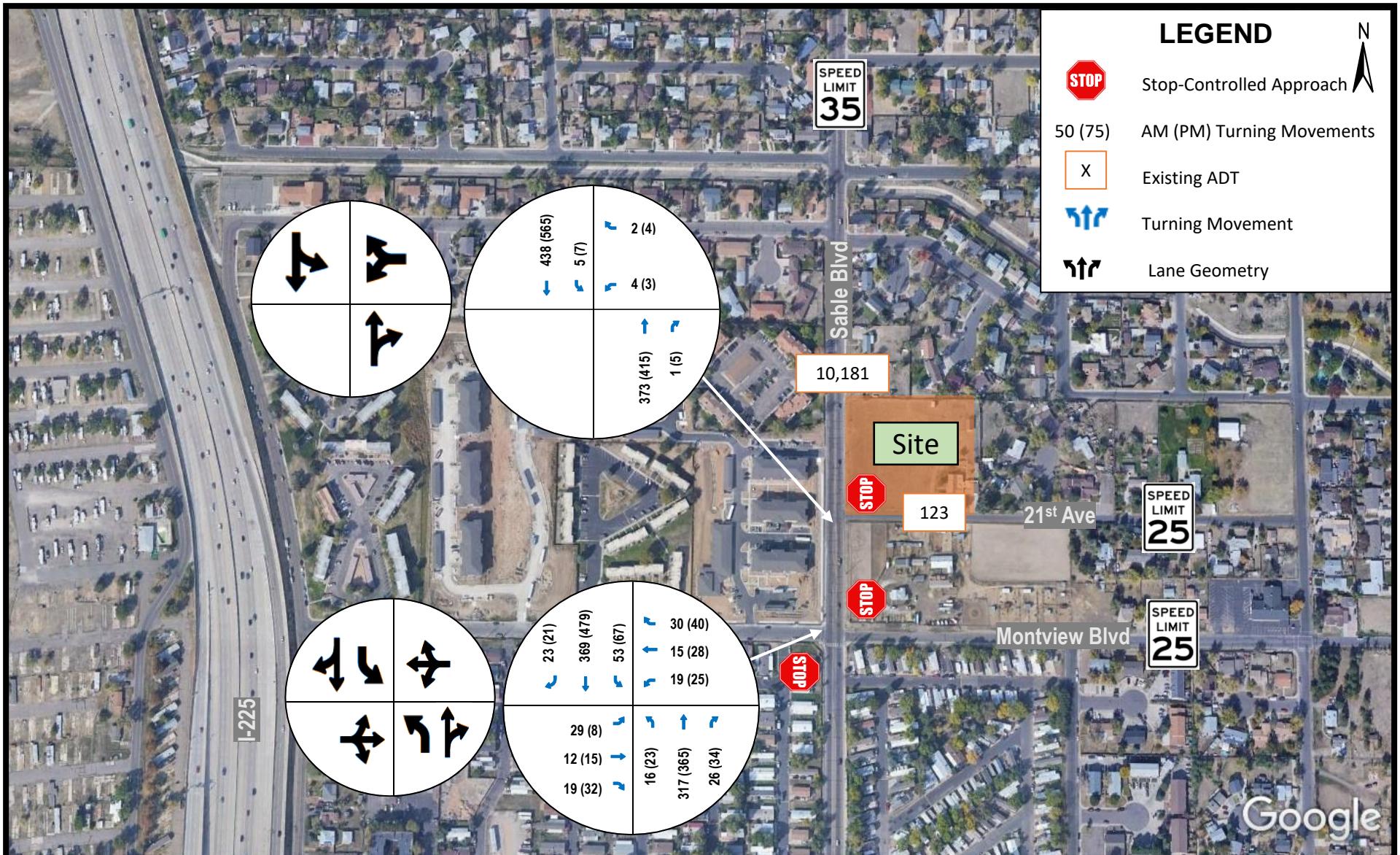
Existing ADT



Turning Movement



Lane Geometry



Westlake Vista Traffic Impact Study

Figure 4

Aurora, CO

2022 Traffic Volumes & Lane Geometry

**Table 1 – LOS Summary**

Intersection			2022 Existing		2024 Background		2024 Bkgrd + Site		2040 Background		2040 Bkgrd + Site		
			AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	
Control	Location	Overall & Movement	LOS (Delay*)	LOS (Delay*)	LOS (Delay*)	LOS (Delay*)	LOS (Delay*)	LOS (Delay*)	LOS (Delay*)	LOS (Delay*)	LOS (Delay*)	LOS (Delay*)	
Side Stop	Sable Blvd & 21st Ave	OVR	A (0)	A (0)	A (0)	A (0)	A (0)	A (0)	A (0)	A (0)	A (0)	A (0)	
		NB	-	-	-	-	-	-	-	-	-	-	
		WB	C (17)	C (16)	C (18)	C (16)	C (19)	C (18)	D (23)	C (20)	D (25)	C (22)	
		SBL	A (8)	A (8)	A (8)	A (8)	A (8)	A (8)	A (9)	A (9)	A (9)	A (9)	
		SB	-	-	-	-	-	-	-	-	-	-	
Side Stop	Sable Blvd & Montview Blvd	OVR	A (6)	A (5)	A (6)	A (6)	A (6)	A (6)	B (14)	C (16)	B (14)	C (16)	
		NBL	A (9)	A (9)	A (9)	A (9)	A (9)	A (9)	A (9)	A (9)	A (9)	A (9)	
		NB	-	-	-	-	-	-	-	-	-	-	
		EB	D (34)	D (25)	E (37)	D (27)	E (38)	D (28)	F (104)	F (55)	F (112)	F (60)	
		WB	C (24)	E (38)	C (24)	E (42)	D (25)	E (44)	E (46)	F (148)	E (47)	F (157)	
		SBL	A (8)	A (9)	A (8)	A (9)	A (8)	A (9)	A (9)	A (9)	A (9)	A (9)	
		SBT	-	-	-	-	-	-	-	-	-	-	
Side Stop	Sable Blvd & West Access	OVR					A (0)	A (0)				A (0)	A (0)
		NB					-	-				-	-
		WB					C (17)	C (18)				C (21)	C (23)
		SBL					A (8)	A (8)				A (9)	A (9)
		SBT					-	-				-	-
Side Stop	21st Ave & South Access	OVR					A (1)	A (2)				A (1)	A (2)
		EBL					A (7)	A (7)				A (7)	A (7)
		EBT					-	-				-	-
		WB					-	-				-	-
		SB					A (9)	A (9)				A (9)	A (9)

\* Delay measured in seconds per vehicle

## 3.0 Proposed Conditions

### Site Trip Generation

The trip generation estimate was developed for the proposed Westlake Vista development site using data presented in the Institute of Traffic Engineers' (ITE) *Trip Generation Manual, Tenth Edition*, 2017. The site is proposed to include 50 townhomes and is expected to be built in one phase. The resulting trips for the development are shown in **Table 2**.

### Trip Distribution

The next step in the traffic forecasting process is to establish trip distribution percentages. Trip distribution is based on existing traffic data, relation of the proposed development to the city, and engineering judgment. It is expected that 5% of vehicles will access the site via the west on Montview Boulevard, 15% will access via the east on 21<sup>st</sup> Avenue, 30% to the north/ 50% from the north via Sable Boulevard, and 50% to the south/ 30% from the south via Sable Boulevard. **Figure 4** displays the trip distribution percentages.

### Trip Assignment

Trip generation estimates for the proposed development were then assigned to the local roadway network based on the trip distribution percentages and the two accesses/driveways. Site generated traffic for each intersection is shown in **Figure 5**.

**Table 2 – Trip Generation for Westlake Vista**

ITE Code/Description	# of Units	Unit Type	AM Trips			PM Trips			Weekday Trips
			In	Out	Total	In	Out	Total	
220 - Multifamily Housing (Low-Rise)	50	Dwelling Units	6	18	24	18	11	29	366

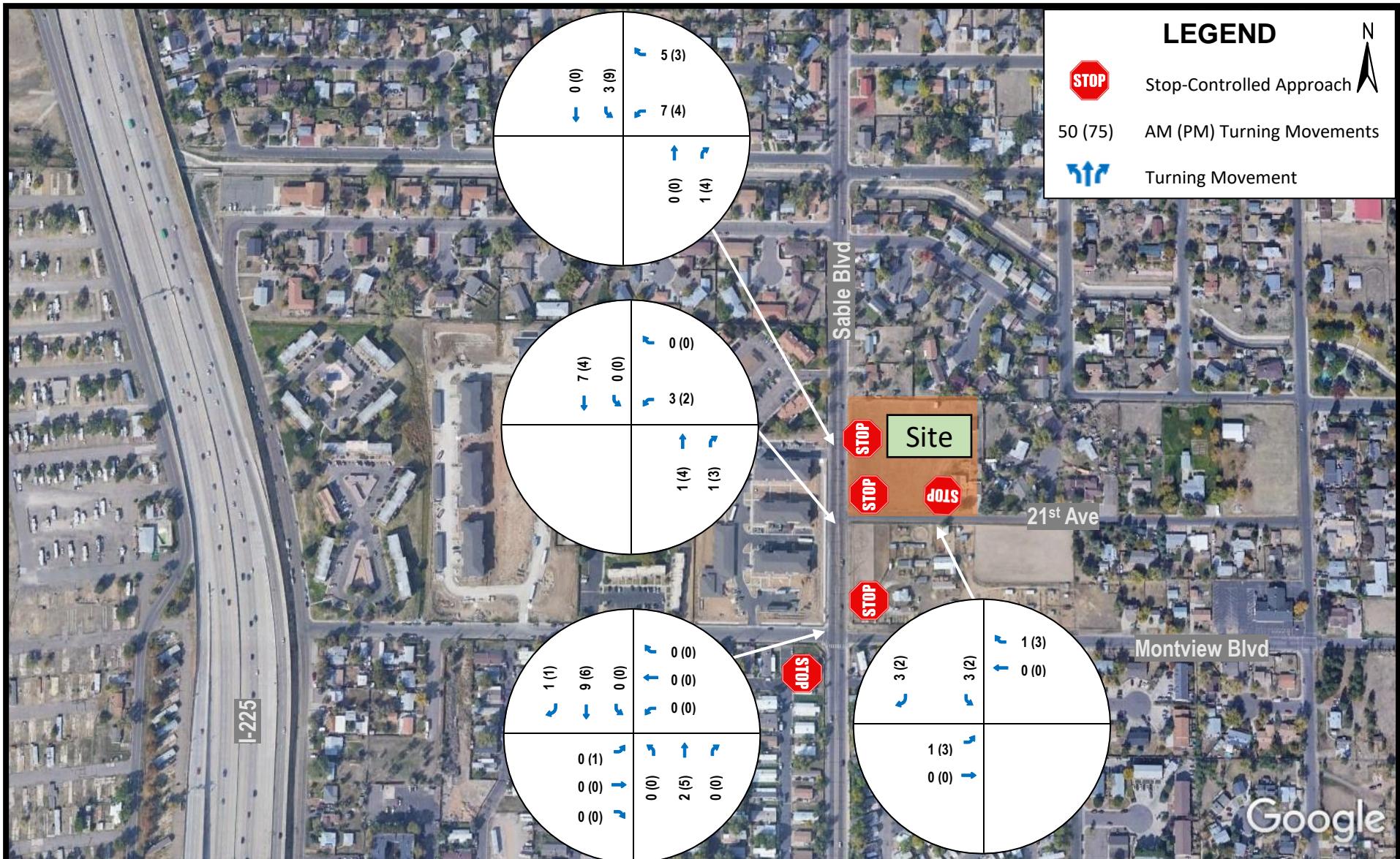


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Figure 5

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Directional Distribution of Site Generated Traffic



Westlake Vista Traffic Impact Study

Aurora, CO

Figure 6

Site Generated Traffic

## 4.0 Future Conditions

### Future Background Capacity Analysis

The future background analysis indicates LOS with background traffic growth and without the proposed development. It incorporates normal growth in relation to historical comparisons as well as other known planned developments. The adjacent Range View Apartments development east of this site was recently constructed and it is assumed those trips are accounted for in the existing count data. An annual growth rate of 1.3% was used for this study. The year 2024 background condition volumes were obtained by using the growth rate on the existing volumes. **Figure 6** shows the projected volumes and roadway geometry.

### Future Background Capacity Analysis (2040)

The year 2040 background condition volumes were obtained by using the growth rate on the existing volumes. **Figure 7** shows the projected volumes and roadway geometry.

### Future with Site Capacity Analyses (2024)

Synchro models were developed for the future with site traffic for year 2024. **Figure 8** shows the projected volumes and roadway geometry.

### Future with Background plus Site Capacity Analyses (2040)

Synchro models were developed for the future with site traffic for year 2040. **Figure 9** shows the projected volumes and roadway geometry.

## LEGEND



Stop-Controlled Approach

50 (75)

AM (PM) Turning Movements



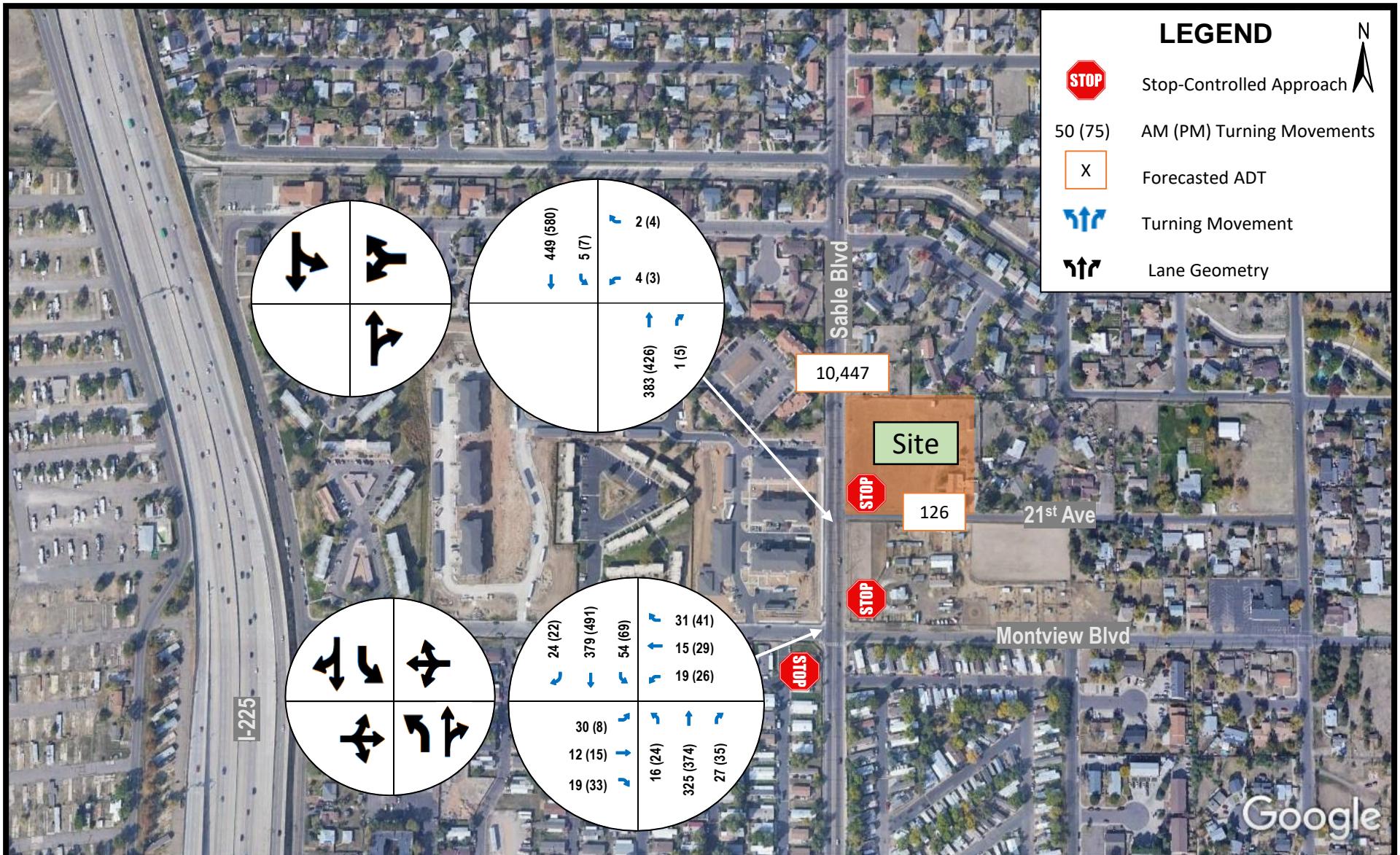
Forecasted ADT



Turning Movement



Lane Geometry



## Westlake Vista Traffic Impact Study

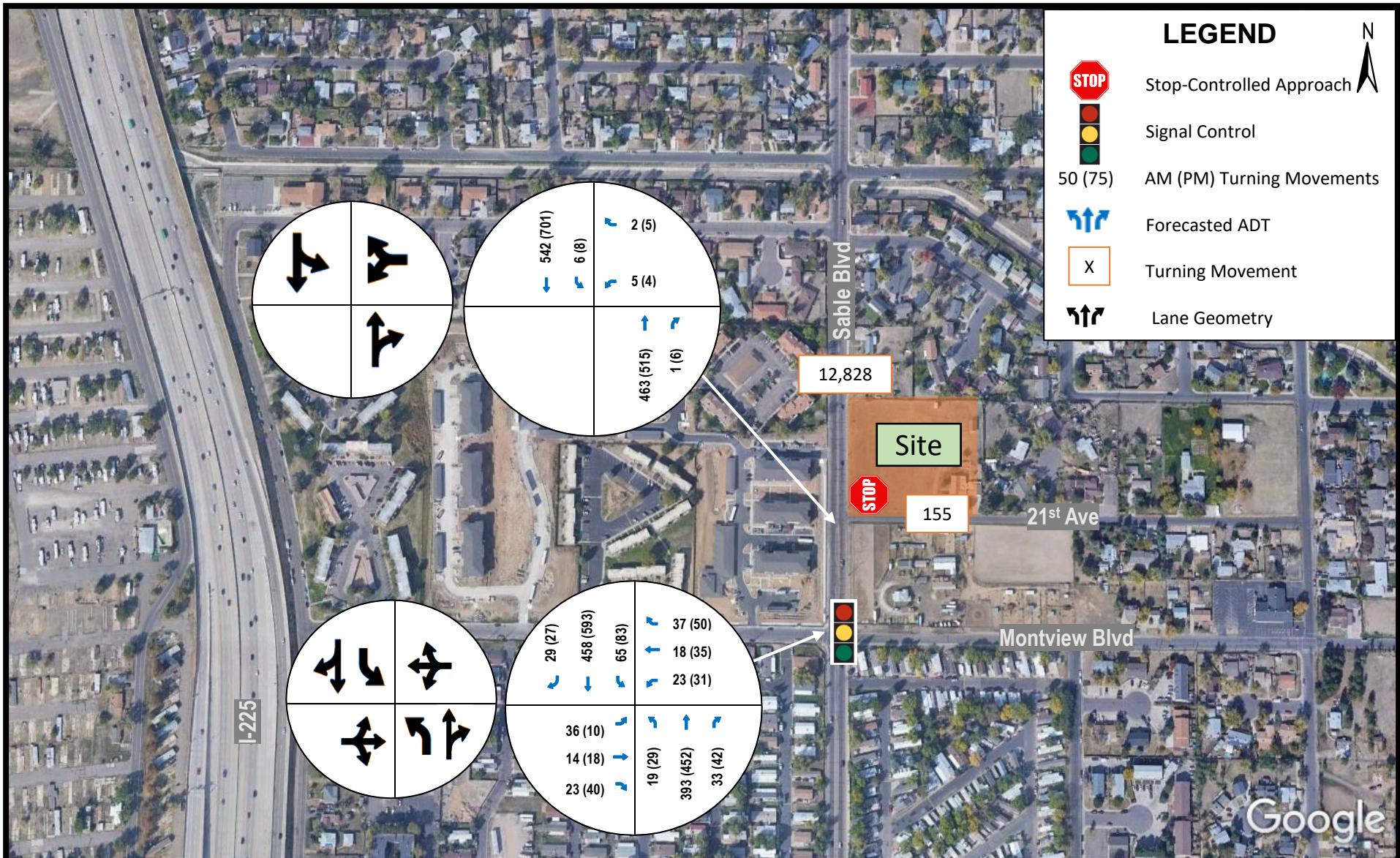
Figure 7

Aurora, CO

2024 Background Traffic Volumes & Lane Geometry

## LEGEND

- Stop-Controlled Approach
- Signal Control
- 50 (75) AM (PM) Turning Movements
- Forecasted ADT
- Turning Movement
- Lane Geometry

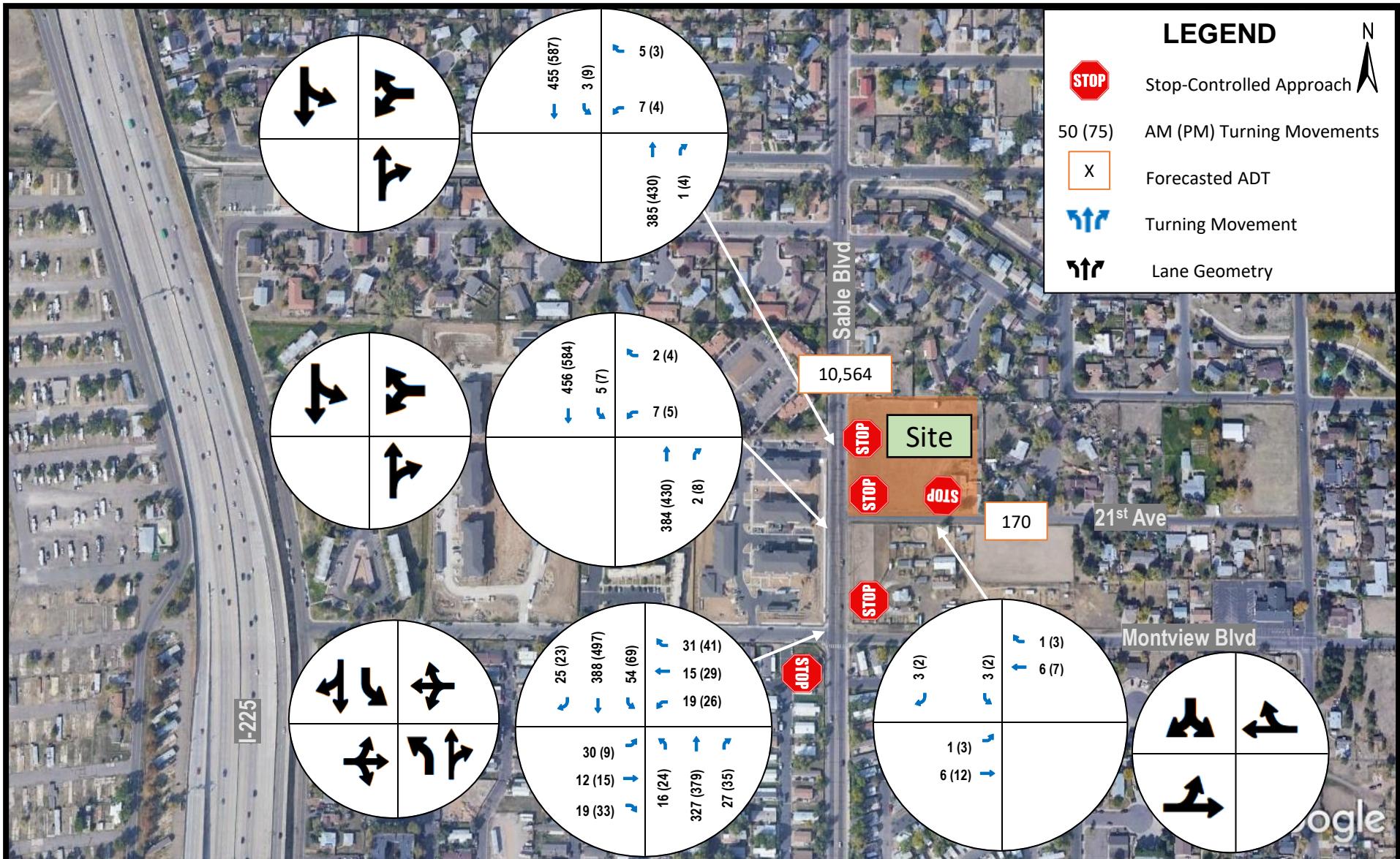


Westlake Vista Traffic Impact Study

Aurora, CO

Figure 8

2040 Background Traffic Volumes & Lane Geometry



Westlake Vista Traffic Impact Study

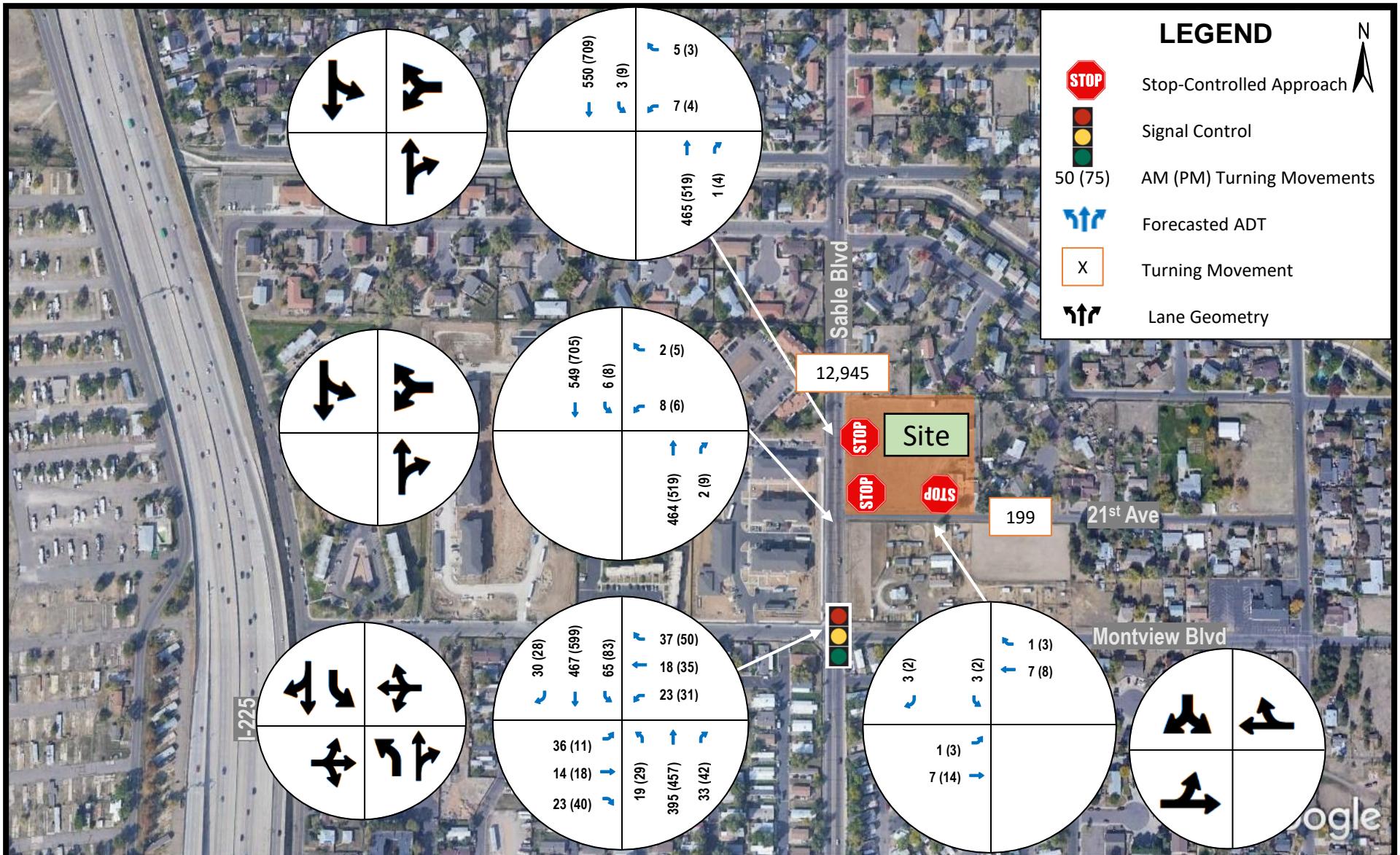
Aurora, CO

Figure 9

2024 Total Traffic Volumes & Lane Geometry

## LEGEND

- Stop-Controlled Approach
- Signal Control
- AM (PM) Turning Movements
- Forecasted ADT
- Turning Movement
- Lane Geometry



Westlake Vista Traffic Impact Study

Aurora, CO

Figure 10

2040 Total Traffic Volumes & Lane Geometry

## 5.0 Evaluation

**Table 2** displays the LOS results during the AM and PM peak hours for the study scenarios detailed below.

### Existing Capacity Analysis

Every approach currently operates at LOS D or better except for one. The westbound approach at Sable Boulevard and Montview Boulevard operates with a LOS E in the PM peak hour.

### Future Background Capacity Analysis (2024)

The westbound approach at Sable Boulevard and Montview Boulevard is projected to operate with a LOS E in the PM peak hour. The eastbound approach at Sable Boulevard and Montview Boulevard is projected to operate with a LOS E during the AM peak hour.

### Future with Site Capacity Analysis (2024)

The westbound approach at Sable Boulevard and Montview Boulevard is projected to operate with a LOS E in the PM peak hour. The eastbound approach at Sable Boulevard and Montview Boulevard is projected to operate with a LOS E during the AM peak hour.

### Future Background Capacity Analysis (2040)

The westbound and eastbound approaches at Sable Boulevard and Montview Boulevard are projected to operate with a LOS E or F during both peak hours.

### Future with Site Capacity Analysis (2040)

The westbound and eastbound approaches at Sable Boulevard and Montview Boulevard are projected to operate with a LOS E or F during both peak hours. It is recommended that a traffic signal be constructed to improve traffic operations at this intersection as shown in **Table 3**.

**Table 3 – Future with Site Capacity Analysis with Signal**

Intersection			AM Peak Hour		PM Peak Hour	
Control	Location	Movement	LOS (Delay*)	LOS (Delay*)	LOS (Delay*)	LOS (Delay*)
Signalized	Sable Blvd & Montview Blvd	NB	A (3.7)	A (7.4)	A (4)	A (7.6)
		EB	C (23.7)		C (27.7)	
		WB	C (23.2)		C (29.2)	
		SB	A (4.6)		A (4.7)	

\* Delay measured in seconds per vehicle

## Traffic Control Devices

### All-Way Stop Warrant Analysis

The four hours of collected turning movement data was used to analyze an all-way stop warrant analysis for the intersection of Sable Boulevard and Montview Boulevard. The existing volumes only meet one hour with 80% volumes. The existing turning movements were also forecasted for 2040, but the intersection is expected to only meet one hour with 100% volumes or two hours with 80% volumes.

### Queuing Analysis

A queuing analysis was performed as part of the capacity analysis for each scenario to determine if the average and 95<sup>th</sup> percentile queues would be accommodated with existing turn lanes and if adjacent intersections would be impacted. **Table 4** display the 95<sup>th</sup> percentile queue for each approach of the intersections. When comparing each background scenario with the background plus site scenario, queue lengths are expected to not change due to the minimal added trips. In the 2040 scenarios, the eastbound approach on Montview Boulevard is expected to extend back and block Cimarron Street with the existing traffic control. When improved to a traffic signal control, minor approach queues are reduced but the northbound queue is expected block Hillcrest Villages.

### Auxiliary Lanes

Although no queueing issues are expected with the existing shared lane approaches on Montview Boulevard, per the requirements in the State Highway Access Code, the following deceleration lanes are recommended:

#### Sable Boulevard & Montview Boulevard:

- Westbound Left – 180 ft deceleration lane.
- Eastbound Left – 180 ft deceleration lane.

Sable Boulevard and Montview Boulevard is the only intersection that warrants deceleration lanes.

## 6.0 Conclusion/ Recommendations

Development of a property located northeast quadrant of Sable Boulevard and 21<sup>st</sup> Avenue in Aurora, Colorado will consist of 50 townhomes. The development is expected to be completed in one phase with full build out by 2024. Two access points are proposed, one along Sable Boulevard and the other along 21<sup>st</sup> Avenue.

A study for the adjacent development determined that a signal will be warranted at the intersection of Sable Boulevard and Montview Boulevard by year 2040. The remaining intersections are expected to operate at an acceptable level of service through year 2040, without any additional improvements.

**Table 4 – Queue Summary**

Intersection			2022 Existing		2024 Background		2024 Bkgrd + Site		2040 Background		2040 Bkgrd + Site		2040 Signal		
			AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	
Control	Location & Movement		Storage or Upstream Int. (Ft)	Avg.	Avg.	Avg.	Avg.	Avg.	Avg.	Avg.	Avg.	Avg.	Avg.	Avg.	
Side Stop	Sable Blvd & 21st Ave	NB	300	-	-	-	-	-	-	-	-	-	-		
		WB	550	2	2	2	2	4	2	4	2	6	4		
		SB	360	-	-	-	-	-	-	-	-	-	-		
Side Stop	Sable Blvd & Montview Blvd	NBL	130	2	2	2	2	2	2	2	2	2	2	9	12
		NB	70	-	-	-	-	-	-	-	-	-	-	115	140
		EB	90	46	22	50	24	52	26	120	56	124	62	37	41
		WB	200	26	50	28	56	28	58	62	142	62	146	37	77
		SBL	110	4	4	4	4	4	4	4	6	4	6	21	27
		SB	280	-	-	-	-	-	-	-	-	-	-	141	200
Side Stop	Sable Blvd & West Access	NB	130				-	-				-	-		
		WB	70				2	2				4	2		
		SB	170				-	-				-	-		
Side Stop	21st Ave & South Access	EB	300				-	-				-	-		
		WB	250				-	-				-	-		
		SB	150				-	-				-	-		

## APPENDIX A – TURNING MOVEMENT COUNTS

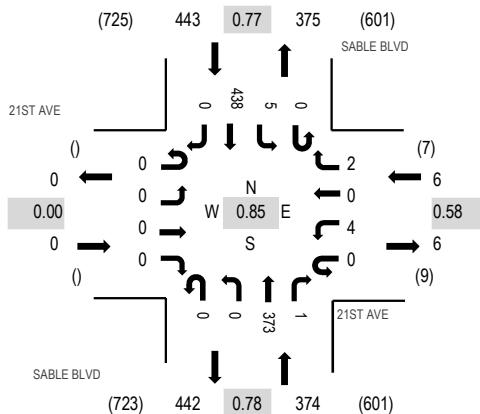
**Location:** 1 SABLE BLVD & 21ST AVE AM

**Date:** Wednesday, February 9, 2022

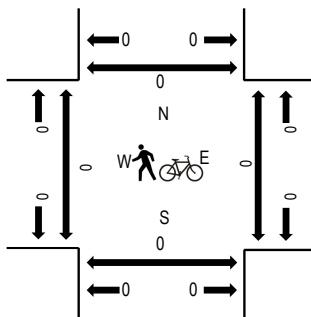
**Peak Hour:** 07:00 AM - 08:00 AM

**Peak 15-Minutes:** 07:45 AM - 08:00 AM

### Peak Hour - All Vehicles



### Peak Hour - Pedestrians/Bicycles on Crosswalk



Note: Total study counts contained in parentheses.

### Traffic Counts

Interval Start Time	21ST AVE Eastbound				21ST AVE Westbound				SABLE BLVD Northbound				SABLE BLVD Southbound				Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	West	East	South	North	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	70	0	0	0	93	0	163	823	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	88	0	0	0	94	0	183	808	0	0	0
7:30 AM	0	0	0	0	0	2	0	1	0	0	0	120	0	0	0	110	0	234	762	0	0	0
7:45 AM	0	0	0	0	0	2	0	1	0	0	0	95	1	0	0	141	0	243	655	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	61	2	0	0	85	0	148	510	0	0	0
8:15 AM	0	0	0	0	0	0	0	1	0	0	0	55	0	0	0	81	0	137	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	55	0	0	0	72	0	127	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	54	0	0	0	43	0	98	0	0	0	0
Count Total	0	0	0	0	0	4	0	3	0	0	598	3	0	0	6	719	0	1,333	0	0	0	0
Peak Hour	0	0	0	0	0	4	0	2	0	0	373	1	0	0	5	438	0	823	0	0	0	0

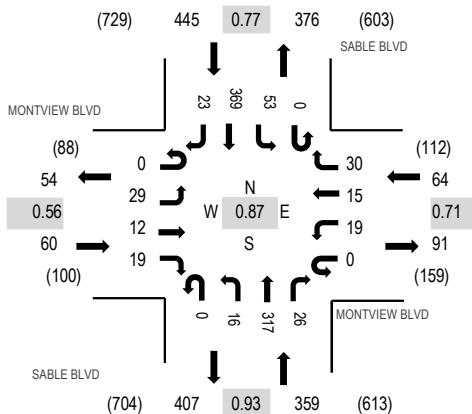
**Location:** 2 SABLE BLVD & MONTVIEW BLVD AM

**Date:** Wednesday, February 9, 2022

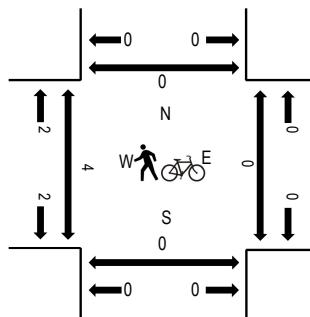
**Peak Hour:** 07:00 AM - 08:00 AM

**Peak 15-Minutes:** 07:45 AM - 08:00 AM

### Peak Hour - All Vehicles



### Peak Hour - Pedestrians/Bicycles on Crosswalk



Note: Total study counts contained in parentheses.

### Traffic Counts

Interval Start Time	MONTVIEW BLVD				MONTVIEW BLVD				SABLE BLVD				SABLE BLVD				Rolling Hour	Pedestrian Crossings				
	Eastbound		Westbound		Northbound		Southbound		Total		West	East	South		North			West	East	South	North	
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	West	East	South	North	
7:00 AM	0	1	6	3	0	2	6	5	0	4	65	5	0	15	76	1	189	928	1	0	0	0
7:15 AM	0	4	5	3	0	2	2	5	0	6	80	10	0	13	83	2	215	910	1	0	0	0
7:30 AM	0	19	1	8	0	5	4	15	0	1	89	6	0	10	95	5	258	878	2	0	0	0
7:45 AM	0	5	0	5	0	10	3	5	0	5	83	5	0	15	115	15	266	782	0	0	0	0
8:00 AM	0	2	1	10	0	4	4	3	0	3	58	3	0	10	69	4	171	626	0	1	0	0
8:15 AM	0	0	5	7	0	7	2	6	1	5	48	15	0	6	81	0	183	0	0	0	0	
8:30 AM	0	0	5	5	0	6	2	5	0	8	50	10	0	5	65	1	162	0	0	0	2	
8:45 AM	0	0	2	3	0	2	1	6	0	3	49	1	0	5	37	1	110	0	0	0	2	
Count Total	0	31	25	44	0	38	24	50	1	35	522	55	0	79	621	29	1,554	4	1	0	4	
Peak Hour	0	29	12	19	0	19	15	30	0	16	317	26	0	53	369	23	928	4	0	0	0	

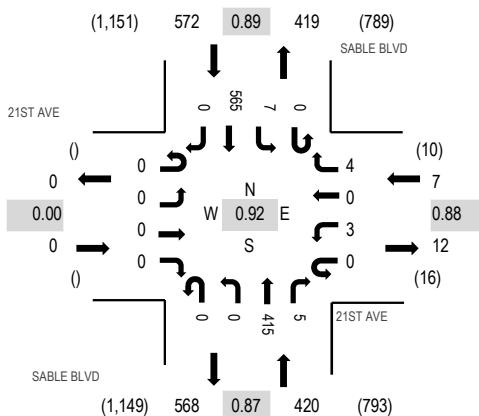
**Location:** 1 SABLE BLVD & 21ST AVE PM

**Date:** Wednesday, February 9, 2022

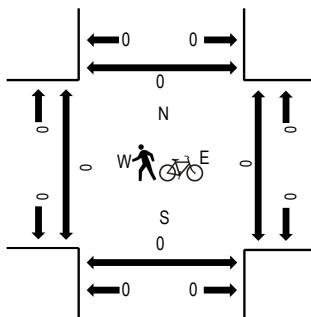
**Peak Hour:** 05:00 PM - 06:00 PM

**Peak 15-Minutes:** 05:15 PM - 05:30 PM

### Peak Hour - All Vehicles



### Peak Hour - Pedestrians/Bicycles on Crosswalk



Note: Total study counts contained in parentheses.

### Traffic Counts

Interval Start Time	21ST AVE Eastbound				21ST AVE Westbound				SABLE BLVD Northbound				SABLE BLVD Southbound				Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		West	East	South	North	
4:00 PM	0	0	0	0	0	3	0	0	0	0	0	91	1	0	0	142	0	237	955	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	113	0	0	0	165	0	278	975	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	85	1	0	1	141	0	228	969	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	81	1	0	0	130	0	212	990	0	0	0
5:00 PM	0	0	0	0	0	1	0	1	0	0	0	82	2	0	1	170	0	257	999	0	0	0
5:15 PM	0	0	0	0	0	0	0	2	0	0	0	120	1	0	1	148	0	272	0	0	0	0
5:30 PM	0	0	0	0	0	1	0	1	0	0	0	107	2	0	2	136	0	249	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	0	0	0	0	106	0	0	3	111	0	221	0	0	0	0
Count Total	0	0	0	0	0	6	0	4	0	0	785	8	0	8	1,143	0	1,954	0	0	0	0	
Peak Hour	0	0	0	0	0	3	0	4	0	0	415	5	0	7	565	0	999	0	0	0	0	

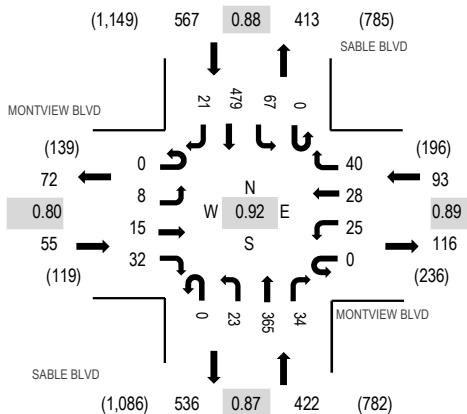
**Location:** 2 SABLE BLVD & MONTVIEW BLVD PM

**Date:** Wednesday, February 9, 2022

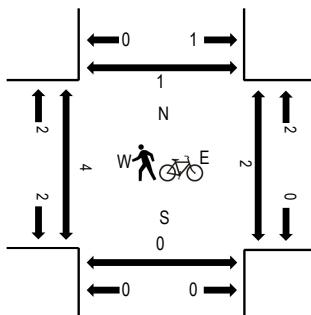
**Peak Hour:** 05:00 PM - 06:00 PM

**Peak 15-Minutes:** 05:15 PM - 05:30 PM

### Peak Hour - All Vehicles



### Peak Hour - Pedestrians/Bicycles on Crosswalk



Note: Total study counts contained in parentheses.

### Traffic Counts

Interval Start Time	MONTVIEW BLVD				MONTVIEW BLVD				SABLE BLVD				SABLE BLVD				Rolling Hour	Pedestrian Crossings				
	Eastbound		Westbound		Northbound		Southbound		U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	West	East	South	North	
4:00 PM	0	4	7	7	0	5	2	22	0	7	67	10	0	13	124	7	275	1,109	1	0	0	0
4:15 PM	0	5	5	3	0	6	5	18	0	6	89	8	0	20	138	8	311	1,128	2	0	0	0
4:30 PM	0	2	8	10	0	7	6	14	0	5	71	10	0	12	127	3	275	1,125	0	0	0	0
4:45 PM	0	1	5	7	0	4	6	8	0	9	71	7	0	15	112	3	248	1,128	1	0	0	0
5:00 PM	0	2	0	9	0	5	9	13	0	6	68	9	0	15	152	6	294	1,137	3	0	0	0
5:15 PM	0	4	7	8	0	7	5	10	0	6	107	8	0	22	115	9	308	0	0	0	1	
5:30 PM	0	1	3	10	0	8	6	9	0	4	95	7	0	19	112	4	278	1	2	0	0	
5:45 PM	0	1	5	5	0	5	8	8	0	7	95	10	0	11	100	2	257	0	0	0	0	
Count Total	0	20	40	59	0	47	47	102	0	50	663	69	0	127	980	42	2,246	8	2	0	1	
Peak Hour	0	8	15	32	0	25	28	40	0	23	365	34	0	67	479	21	1,137	4	2	0	1	

**All Traffic Data Services**  
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Page 1

Date Start: 09-Feb-22

Site Code: 3

Station ID: 3

SABLE BLVD N.O. 21ST AVE

Start Time	09-Feb-22 Wed	NB	SB	Total
12:00 AM		40	54	94
01:00		20	18	38
02:00		29	19	48
03:00		32	21	53
04:00		40	58	98
05:00		128	141	269
06:00		224	278	502
07:00		<b>375</b>	<b>443</b>	<b>818</b>
08:00		226	282	508
09:00		172	217	389
10:00		192	215	407
11:00		226	272	498
12:00 PM		238	272	510
01:00		282	313	595
02:00		304	464	768
03:00		380	562	942
04:00		370	<b>579</b>	949
05:00		<b>419</b>	572	<b>991</b>
06:00		310	353	663
07:00		223	207	430
08:00		60	155	215
09:00		40	123	163
10:00		20	88	108
11:00		60	65	125
Total		4410	5771	10181
Percent		43.3%	56.7%	
AM Peak Vol.	-	07:00	07:00	07:00
PM Peak Vol.	-	17:00	16:00	17:00
Grand Total		4410	5771	10181
Percent		43.3%	56.7%	

ADT

ADT 10,181

AADT 10,181

**All Traffic Data Services**  
www.alltrafficdata.net

Page 1

Date Start: 09-Feb-22  
Site Code: 4  
Station ID: 4  
21ST AVE E.O. SABLE BLVD

Start Time	09-Feb-22 Wed	EB	WB	Total
12:00 AM		2	0	2
01:00		0	0	0
02:00		0	0	0
03:00		0	0	0
04:00		0	0	0
05:00		0	3	3
06:00		1	6	7
07:00		6	6	12
08:00		3	1	4
09:00		2	3	5
10:00		3	1	4
11:00		1	1	2
12:00 PM		2	4	6
01:00		6	3	9
02:00		3	4	7
03:00		6	2	8
04:00		4	3	7
05:00		12	7	19
06:00		5	5	10
07:00		5	4	9
08:00		2	1	3
09:00		3	1	4
10:00		0	0	0
11:00		2	0	2
Total		68	55	123
Percent		55.3%	44.7%	
AM Peak Vol.	-	07:00	06:00	-
PM Peak Vol.	-	17:00	17:00	-
Grand Total Percent		68	55	123
		55.3%	44.7%	

ADT

ADT 123

AADT 123

## APPENDIX B – SYNCHRO REPORTS

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B			A	
Traffic Vol, veh/h	4	2	373	1	5	438
Future Vol, veh/h	4	2	373	1	5	438
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	58	58	78	78	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	3	478	1	6	569
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1060	479	0	0	479	0
Stage 1	479	-	-	-	-	-
Stage 2	581	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	248	587	-	-	1083	-
Stage 1	623	-	-	-	-	-
Stage 2	559	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	246	587	-	-	1083	-
Mov Cap-2 Maneuver	246	-	-	-	-	-
Stage 1	623	-	-	-	-	-
Stage 2	555	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	17.2	0		0.1		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	305	1083	-	
HCM Lane V/C Ratio	-	-	0.034	0.006	-	
HCM Control Delay (s)	-	-	17.2	8.3	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

2022 Existing AM  
2: Sable Blvd & Montview Blvd

HCM 6th TWSC

Intersection												
Int Delay, s/veh	5.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↔			↑	↑		↑	↑	
Traffic Vol, veh/h	29	12	19	19	15	30	16	317	26	53	369	23
Future Vol, veh/h	29	12	19	19	15	30	16	317	26	53	369	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	-	-	-	-	-	-	175	-	-	140	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	56	56	56	71	71	71	93	93	93	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	52	21	34	27	21	42	17	341	28	69	479	30
Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	1053	1035	494	1049	1036	355	509	0	0	369	0	0
Stage 1	632	632	-	389	389	-	-	-	-	-	-	-
Stage 2	421	403	-	660	647	-	-	-	-	-	-	-
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	232	575	205	232	689	1056	-	-	1190	-	-
Stage 1	468	474	-	635	608	-	-	-	-	-	-	-
Stage 2	610	600	-	452	467	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	167	215	575	168	215	689	1056	-	-	1190	-	-
Mov Cap-2 Maneuver	167	215	-	168	215	-	-	-	-	-	-	-
Stage 1	461	447	-	625	598	-	-	-	-	-	-	-
Stage 2	543	590	-	381	440	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	33.8			23.6			0.4			1		
HCM LOS	D			C								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1056	-	-	229	283	1190	-	-				
HCM Lane V/C Ratio	0.016	-	-	0.468	0.319	0.058	-	-				
HCM Control Delay (s)	8.5	-	-	33.8	23.6	8.2	-	-				
HCM Lane LOS	A	-	-	D	C	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	2.3	1.3	0.2	-	-				

2022 Existing PM  
1: Sable Blvd & 21st Ave

HCM 6th TWSC

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B	B		A	
Traffic Vol, veh/h	3	4	415	5	7	565
Future Vol, veh/h	3	4	415	5	7	565
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	87	87	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	5	477	6	8	635
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1131	480	0	0	483	0
Stage 1	480	-	-	-	-	-
Stage 2	651	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	225	586	-	-	1080	-
Stage 1	622	-	-	-	-	-
Stage 2	519	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	223	586	-	-	1080	-
Mov Cap-2 Maneuver	223	-	-	-	-	-
Stage 1	622	-	-	-	-	-
Stage 2	513	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	15.7	0		0.1		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	345	1080	-	
HCM Lane V/C Ratio	-	-	0.023	0.007	-	
HCM Control Delay (s)	-	-	15.7	8.4	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

2022 Existing PM  
2: Sable Blvd & Montview Blvd

HCM 6th TWSC

Intersection															
Int Delay, s/veh	5														
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
Lane Configurations	↔	↔	↔	↔	↔	↔	↑	↑	↑	↑	↑	↑			
Traffic Vol, veh/h	8	15	32	25	28	40	23	365	34	67	479	21			
Future Vol, veh/h	8	15	32	25	28	40	23	365	34	67	479	21			
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	-	-	-	-	-	-	175	-	-	140	-	-			
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-			
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-			
Peak Hour Factor	80	80	80	89	89	89	87	87	87	88	88	88			
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2			
Mvmt Flow	10	19	40	28	31	45	26	420	39	76	544	24			
Major/Minor	Minor2	Minor1			Major1			Major2							
Conflicting Flow All	1238	1219	556	1230	1212	440	568	0	0	459	0	0			
Stage 1	708	708	-	492	492	-	-	-	-	-	-	-			
Stage 2	530	511	-	738	720	-	-	-	-	-	-	-			
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	152	180	531	154	182	617	1004	-	-	1102	-	-			
Stage 1	426	438	-	558	548	-	-	-	-	-	-	-			
Stage 2	533	537	-	410	432	-	-	-	-	-	-	-			
Platoon blocked, %								-	-	-	-	-			
Mov Cap-1 Maneuver	112	163	531	121	165	617	1004	-	-	1102	-	-			
Mov Cap-2 Maneuver	112	163	-	121	165	-	-	-	-	-	-	-			
Stage 1	415	408	-	543	534	-	-	-	-	-	-	-			
Stage 2	453	523	-	337	402	-	-	-	-	-	-	-			
Approach	EB			WB			NB			SB					
HCM Control Delay, s	25.2			37.7			0.5			1					
HCM LOS	D			E											
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR							
Capacity (veh/h)	1004	-	-	246	211	1102	-	-							
HCM Lane V/C Ratio	0.026	-	-	0.279	0.495	0.069	-	-							
HCM Control Delay (s)	8.7	-	-	25.2	37.7	8.5	-	-							
HCM Lane LOS	A	-	-	D	E	A	-	-							
HCM 95th %tile Q(veh)	0.1	-	-	1.1	2.5	0.2	-	-							

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B			A	
Traffic Vol, veh/h	4	2	383	1	5	449
Future Vol, veh/h	4	2	383	1	5	449
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	58	58	78	78	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	3	491	1	6	583
Major/Minor						
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1087	492	0	0	492	0
Stage 1	492	-	-	-	-	-
Stage 2	595	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	239	577	-	-	1071	-
Stage 1	615	-	-	-	-	-
Stage 2	551	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	237	577	-	-	1071	-
Mov Cap-2 Maneuver	237	-	-	-	-	-
Stage 1	615	-	-	-	-	-
Stage 2	547	-	-	-	-	-
Approach						
Approach	WB	NB	SB			
HCM Control Delay, s	17.6	0	0.1			
HCM LOS	C					
Minor Lane/Major Mvmt						
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	295	1071	-	
HCM Lane V/C Ratio	-	-	0.035	0.006	-	
HCM Control Delay (s)	-	-	17.6	8.4	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Intersection												
Int Delay, s/veh	5.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↘ ↖	↘ ↖	↘ ↖	↘ ↖	↘ ↖	↘ ↖
Traffic Vol, veh/h	30	12	19	19	15	31	16	325	27	54	379	24
Future Vol, veh/h	30	12	19	19	15	31	16	325	27	54	379	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									
Storage Length	-	-	-	-	-	-	175	-	-	140	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	56	56	56	71	71	71	93	93	93	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	54	21	34	27	21	44	17	349	29	70	492	31
Major/Minor	Minor2	Minor2	Minor1	Minor1	Major1	Major1	Major2	Major2	Major2	Major2	Major2	Major2
Conflicting Flow All	1078	1060	508	1073	1061	364	523	0	0	378	0	0
Stage 1	648	648	-	398	398	-	-	-	-	-	-	-
Stage 2	430	412	-	675	663	-	-	-	-	-	-	-
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	196	224	565	198	224	681	1043	-	-	1180	-	-
Stage 1	459	466	-	628	603	-	-	-	-	-	-	-
Stage 2	603	594	-	444	459	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	160	207	565	162	207	681	1043	-	-	1180	-	-
Mov Cap-2 Maneuver	160	207	-	162	207	-	-	-	-	-	-	-
Stage 1	452	439	-	618	593	-	-	-	-	-	-	-
Stage 2	535	584	-	373	432	-	-	-	-	-	-	-
Approach	EB	EB	WB	WB	NB	NB	SB	SB	SB	SB	SB	SB
HCM Control Delay, s	36.7	36.7	24.4	24.4	0.4	0.4	1	1	1	1	1	1
HCM LOS	E	E	C	C	A	A	-	-	-	-	-	-
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR	SBR	SBR	SBR	SBR
Capacity (veh/h)	1043	-	-	219	276	1180	-	-	-	-	-	-
HCM Lane V/C Ratio	0.016	-	-	0.497	0.332	0.059	-	-	-	-	-	-
HCM Control Delay (s)	8.5	-	-	36.7	24.4	8.2	-	-	-	-	-	-
HCM Lane LOS	A	-	-	E	C	A	-	-	-	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	2.5	1.4	0.2	-	-	-	-	-	-

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B	B		A	
Traffic Vol, veh/h	3	4	426	5	7	580
Future Vol, veh/h	3	4	426	5	7	580
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	87	87	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	5	490	6	8	652
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1161	493	0	0	496	0
Stage 1	493	-	-	-	-	-
Stage 2	668	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	216	576	-	-	1068	-
Stage 1	614	-	-	-	-	-
Stage 2	510	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	213	576	-	-	1068	-
Mov Cap-2 Maneuver	213	-	-	-	-	-
Stage 1	614	-	-	-	-	-
Stage 2	504	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	16.1	0		0.1		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	333	1068	-	
HCM Lane V/C Ratio	-	-	0.024	0.007	-	
HCM Control Delay (s)	-	-	16.1	8.4	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Intersection												
Int Delay, s/veh	5.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	8	15	33	26	29	41	24	374	35	69	491	22
Future Vol, veh/h	8	15	33	26	29	41	24	374	35	69	491	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	-	-	-	-	-	-	175	-	-	140	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	89	89	89	87	87	87	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	19	41	29	33	46	28	430	40	78	558	25
Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	1273	1253	571	1263	1245	450	583	0	0	470	0	0
Stage 1	727	727	-	506	506	-	-	-	-	-	-	-
Stage 2	546	526	-	757	739	-	-	-	-	-	-	-
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	144	172	520	147	174	609	991	-	-	1092	-	-
Stage 1	415	429	-	549	540	-	-	-	-	-	-	-
Stage 2	522	529	-	400	424	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	104	155	520	114	157	609	991	-	-	1092	-	-
Mov Cap-2 Maneuver	104	155	-	114	157	-	-	-	-	-	-	-
Stage 1	403	399	-	534	525	-	-	-	-	-	-	-
Stage 2	440	514	-	326	394	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	26.6			42.3			0.5			1		
HCM LOS	D			E								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	991	-	-	236	200	1092	-	-				
HCM Lane V/C Ratio	0.028	-	-	0.297	0.539	0.072	-	-				
HCM Control Delay (s)	8.7	-	-	26.6	42.3	8.6	-	-				
HCM Lane LOS	A	-	-	D	E	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	1.2	2.8	0.2	-	-				

Intersection

Int Delay, s/veh 0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B	A			
Traffic Vol, veh/h	5	2	463	1	6	542
Future Vol, veh/h	5	2	463	1	6	542
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	58	58	78	78	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	3	594	1	8	704

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1315	595	0	0	595
Stage 1	595	-	-	-	-
Stage 2	720	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	174	504	-	-	981
Stage 1	551	-	-	-	-
Stage 2	482	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	172	504	-	-	981
Mov Cap-2 Maneuver	172	-	-	-	-
Stage 1	551	-	-	-	-
Stage 2	476	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	212	981	-
HCM Lane V/C Ratio	-	-	0.057	0.008	-
HCM Control Delay (s)	-	-	23	8.7	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection												
Int Delay, s/veh	13.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	36	14	23	23	18	37	19	393	33	65	458	29
Future Vol, veh/h	36	14	23	23	18	37	19	393	33	65	458	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									
Storage Length	-	-	-	-	-	-	175	-	-	140	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	56	56	56	71	71	71	93	93	93	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	25	41	32	25	52	20	423	35	84	595	38
Major/Minor	Minor2	Minor2	Minor1	Minor1	Major1	Major1	Major2	Major2	Major2	Major2	Major2	Major2
Conflicting Flow All	1301	1280	614	1296	1282	441	633	0	0	458	0	0
Stage 1	782	782	-	481	481	-	-	-	-	-	-	-
Stage 2	519	498	-	815	801	-	-	-	-	-	-	-
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	138	166	492	139	165	616	950	-	-	1103	-	-
Stage 1	387	405	-	566	554	-	-	-	-	-	-	-
Stage 2	540	544	-	371	397	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	102	150	492	103	149	616	950	-	-	1103	-	-
Mov Cap-2 Maneuver	102	150	-	103	149	-	-	-	-	-	-	-
Stage 1	379	374	-	554	542	-	-	-	-	-	-	-
Stage 2	461	533	-	293	367	-	-	-	-	-	-	-
Approach	EB	EB	WB	WB	NB	NB	SB	SB	SB	SB	SB	SB
HCM Control Delay, s	104.3		45.8		0.4		1					
HCM LOS	F		E									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	950	-	-	148	193	1103	-	-				
HCM Lane V/C Ratio	0.022	-	-	0.881	0.569	0.077	-	-				
HCM Control Delay (s)	8.9	-	-	104.3	45.8	8.5	-	-				
HCM Lane LOS	A	-	-	F	E	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	6	3.1	0.2	-	-				

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B		A		
Traffic Vol, veh/h	4	5	515	6	8	701
Future Vol, veh/h	4	5	515	6	8	701
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	87	87	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	6	592	7	9	788
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1402	596	0	0	599	0
Stage 1	596	-	-	-	-	-
Stage 2	806	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	154	504	-	-	978	-
Stage 1	550	-	-	-	-	-
Stage 2	439	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	152	504	-	-	978	-
Mov Cap-2 Maneuver	152	-	-	-	-	-
Stage 1	550	-	-	-	-	-
Stage 2	432	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	20.1	0	0.1			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	248	978	-	
HCM Lane V/C Ratio	-	-	0.041	0.009	-	
HCM Control Delay (s)	-	-	20.1	8.7	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Intersection												
Int Delay, s/veh	15.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	10	18	40	31	35	50	29	452	42	83	593	27
Future Vol, veh/h	10	18	40	31	35	50	29	452	42	83	593	27
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									
Storage Length	-	-	-	-	-	-	175	-	-	140	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	89	89	89	87	87	87	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	23	50	35	39	56	33	520	48	94	674	31
Major/Minor	Minor2	Minor1	Minor1	Major1	Major1	Major1	Major2	Major2	Major2	Major2	Major2	Major2
Conflicting Flow All	1536	1512	690	1524	1503	544	705	0	0	568	0	0
Stage 1	878	878	-	610	610	-	-	-	-	-	-	-
Stage 2	658	634	-	914	893	-	-	-	-	-	-	-
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	95	120	445	97	122	539	893	-	-	1004	-	-
Stage 1	343	366	-	482	485	-	-	-	-	-	-	-
Stage 2	453	473	-	327	360	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	55	105	445	65	106	539	893	-	-	1004	-	-
Mov Cap-2 Maneuver	55	105	-	65	106	-	-	-	-	-	-	-
Stage 1	330	332	-	464	467	-	-	-	-	-	-	-
Stage 2	358	455	-	245	326	-	-	-	-	-	-	-
Approach	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB	SB	SB
HCM Control Delay, s	54.6		147.9			0.5			1.1			
HCM LOS	F		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBR	SBL	SBT	SBR			
Capacity (veh/h)	893	-	-	153	129	1004	-	-	-			
HCM Lane V/C Ratio	0.037	-	-	0.556	1.01	0.094	-	-	-			
HCM Control Delay (s)	9.2	-	-	54.6	147.9	9	-	-	-			
HCM Lane LOS	A	-	-	F	F	A	-	-	-			
HCM 95th %tile Q(veh)	0.1	-	-	2.8	7.1	0.3	-	-	-			

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Intersection

Int Delay, s/veh 0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	2	384	2	5	456
Future Vol, veh/h	7	2	384	2	5	456
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	58	58	78	78	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	3	492	3	6	592

Major/Minor	Minor1	Major1	Major2	
Conflicting Flow All	1098	494	0	0
Stage 1	494	-	-	-
Stage 2	604	-	-	-
Critical Hdwy	6.42	6.22	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-
Follow-up Hdwy	3.518	3.318	-	2.218
Pot Cap-1 Maneuver	235	575	-	1069
Stage 1	613	-	-	-
Stage 2	546	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	233	575	-	1069
Mov Cap-2 Maneuver	233	-	-	-
Stage 1	613	-	-	-
Stage 2	542	-	-	-

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Approach	WB	NB	SB
HCM Control Delay, s	19.3	0	0.1
HCM LOS	C		

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Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	268	1069	-
HCM Lane V/C Ratio	-	-	0.058	0.006	-
HCM Control Delay (s)	-	-	19.3	8.4	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

## Intersection

Int Delay, s/veh 6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	30	12	19	19	15	31	16	327	27	54	388	25
Future Vol, veh/h	30	12	19	19	15	31	16	327	27	54	388	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									
Storage Length	-	-	-	-	-	-	175	-	-	140	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	56	56	56	71	71	71	93	93	93	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	54	21	34	27	21	44	17	352	29	70	504	32

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	1093	1075	520	1089	1077	367	536	0	0	381	0	0
Stage 1	660	660	-	401	401	-	-	-	-	-	-	-
Stage 2	433	415	-	688	676	-	-	-	-	-	-	-
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	192	220	556	193	219	678	1032	-	-	1177	-	-
Stage 1	452	460	-	626	601	-	-	-	-	-	-	-
Stage 2	601	592	-	436	453	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	156	204	556	157	203	678	1032	-	-	1177	-	-
Mov Cap-2 Maneuver	156	204	-	157	203	-	-	-	-	-	-	-
Stage 1	445	433	-	616	591	-	-	-	-	-	-	-
Stage 2	533	583	-	366	426	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	38.1	25	0.4	1
HCM LOS	E	D		
<hr/>				
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1
Capacity (veh/h)	1032	-	-	214 270
HCM Lane V/C Ratio	0.017	-	-	0.509 0.339
HCM Control Delay (s)	8.5	-	-	38.1 25
HCM Lane LOS	A	-	-	E D A
HCM 95th %tile Q(veh)	0.1	-	-	2.6 1.4 0.2

**Intersection**

Int Delay, s/veh 0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
<b>Lane Configurations</b>						
Traffic Vol, veh/h	7	5	385	1	3	455
Future Vol, veh/h	7	5	385	1	3	455
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	78	78	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	5	494	1	4	591

Major/Minor	Minor1	Major1	Major2	
Conflicting Flow All	1094	495	0	0
Stage 1	495	-	-	-
Stage 2	599	-	-	-
Critical Hdwy	6.42	6.22	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-
Follow-up Hdwy	3.518	3.318	-	2.218
Pot Cap-1 Maneuver	237	575	-	1069
Stage 1	613	-	-	-
Stage 2	549	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	236	575	-	1069
Mov Cap-2 Maneuver	236	-	-	-
Stage 1	613	-	-	-
Stage 2	546	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	313	1069	-
HCM Lane V/C Ratio	-	-	0.042	0.004	-
HCM Control Delay (s)	-	-	17	8.4	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	6	6	1	3	3
Future Vol, veh/h	1	6	6	1	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	78	78	58	58	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	8	10	2	3	3
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	12	0	-	0	21	11
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	10	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1607	-	-	-	996	1070
Stage 1	-	-	-	-	1012	-
Stage 2	-	-	-	-	1013	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1607	-	-	-	995	1070
Mov Cap-2 Maneuver	-	-	-	-	995	-
Stage 1	-	-	-	-	1011	-
Stage 2	-	-	-	-	1013	-
Approach	EB	WB	SB			
HCM Control Delay, s	1	0	8.5			
HCM LOS			A			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1607	-	-	-	1031	
HCM Lane V/C Ratio	0.001	-	-	-	0.006	
HCM Control Delay (s)	7.2	0	-	-	8.5	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0	

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Intersection

Int Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B	A			
Traffic Vol, veh/h	5	4	430	8	7	584
Future Vol, veh/h	5	4	430	8	7	584
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	87	87	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	5	494	9	8	656

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1171	499	0	0	503
Stage 1	499	-	-	-	-
Stage 2	672	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	213	572	-	-	1061
Stage 1	610	-	-	-	-
Stage 2	508	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	210	572	-	-	1061
Mov Cap-2 Maneuver	210	-	-	-	-
Stage 1	610	-	-	-	-
Stage 2	502	-	-	-	-

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Approach WB NB SB

HCM Control Delay, s 17.8 0 0.1

HCM LOS C

Minor Lane/Major Mvmt	NBT	NBR	WB Ln1	SBL	SBT
Capacity (veh/h)	-	-	292	1061	-
HCM Lane V/C Ratio	-	-	0.035	0.007	-
HCM Control Delay (s)	-	-	17.8	8.4	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection															
Int Delay, s/veh	5.7														
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
Lane Configurations															
Traffic Vol, veh/h	9	15	33	26	29	41	24	379	35	69	497	23			
Future Vol, veh/h	9	15	33	26	29	41	24	379	35	69	497	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	-	-	-	-	-	-	175	-	-	140	-	-			
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-			
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-			
Peak Hour Factor	80	80	80	89	89	89	87	87	87	88	88	88			
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2			
Mvmt Flow	11	19	41	29	33	46	28	436	40	78	565	26			
Major/Minor	Minor2	Minor1			Major1			Major2							
Conflicting Flow All	1286	1266	578	1276	1259	456	591	0	0	476	0	0			
Stage 1	734	734	-	512	512	-	-	-	-	-	-	-			
Stage 2	552	532	-	764	747	-	-	-	-	-	-	-			
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	141	169	516	144	171	604	985	-	-	1086	-	-			
Stage 1	412	426	-	545	536	-	-	-	-	-	-	-			
Stage 2	518	526	-	396	420	-	-	-	-	-	-	-			
Platoon blocked, %								-	-	-	-	-			
Mov Cap-1 Maneuver	101	152	516	111	154	604	985	-	-	1086	-	-			
Mov Cap-2 Maneuver	101	152	-	111	154	-	-	-	-	-	-	-			
Stage 1	400	395	-	530	521	-	-	-	-	-	-	-			
Stage 2	436	511	-	322	390	-	-	-	-	-	-	-			
Approach	EB			WB			NB			SB					
HCM Control Delay, s	28.1			43.8			0.5			1					
HCM LOS	D			E											
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR							
Capacity (veh/h)	985	-	-	226	196	1086	-	-							
HCM Lane V/C Ratio	0.028	-	-	0.315	0.55	0.072	-	-							
HCM Control Delay (s)	8.8	-	-	28.1	43.8	8.6	-	-							
HCM Lane LOS	A	-	-	D	E	A	-	-							
HCM 95th %tile Q(veh)	0.1	-	-	1.3	2.9	0.2	-	-							

**Intersection**

Int Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
<b>Lane Configurations</b>						
Traffic Vol, veh/h	4	3	430	4	9	587
Future Vol, veh/h	4	3	430	4	9	587
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	87	87	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	3	494	5	10	660

Major/Minor	Minor1	Major1	Major2	
Conflicting Flow All	1177	497	0	0
Stage 1	497	-	-	-
Stage 2	680	-	-	-
Critical Hdwy	6.42	6.22	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-
Follow-up Hdwy	3.518	3.318	-	2.218
Pot Cap-1 Maneuver	211	573	-	1065
Stage 1	611	-	-	-
Stage 2	503	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	208	573	-	1065
Mov Cap-2 Maneuver	208	-	-	-
Stage 1	611	-	-	-
Stage 2	495	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.9	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	286	1065	-
HCM Lane V/C Ratio	-	-	0.027	0.009	-
HCM Control Delay (s)	-	-	17.9	8.4	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	12	7	3	3	3
Future Vol, veh/h	3	12	7	3	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	14	8	3	3	3
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	11	0	-	0	30	10
Stage 1	-	-	-	-	10	-
Stage 2	-	-	-	-	20	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1608	-	-	-	984	1071
Stage 1	-	-	-	-	1013	-
Stage 2	-	-	-	-	1003	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1608	-	-	-	982	1071
Mov Cap-2 Maneuver	-	-	-	-	982	-
Stage 1	-	-	-	-	1011	-
Stage 2	-	-	-	-	1003	-
Approach	EB	WB	SB			
HCM Control Delay, s	1.4	0	8.5			
HCM LOS			A			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1608	-	-	-	1025	
HCM Lane V/C Ratio	0.002	-	-	-	0.006	
HCM Control Delay (s)	7.2	0	-	-	8.5	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0	

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Intersection

Int Delay, s/veh 0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B	A			
Traffic Vol, veh/h	8	2	464	2	6	549
Future Vol, veh/h	8	2	464	2	6	549
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	58	58	78	78	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	3	595	3	8	713

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1326	597	0	0	598
Stage 1	597	-	-	-	-
Stage 2	729	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	172	503	-	-	979
Stage 1	550	-	-	-	-
Stage 2	477	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	170	503	-	-	979
Mov Cap-2 Maneuver	170	-	-	-	-
Stage 1	550	-	-	-	-
Stage 2	470	-	-	-	-

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Approach WB NB SB

HCM Control Delay, s	25.1	0	0.1
HCM LOS	D		

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Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	196	979	-
HCM Lane V/C Ratio	-	-	0.088	0.008	-
HCM Control Delay (s)	-	-	25.1	8.7	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

## Intersection

Int Delay, s/veh 14.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	36	14	23	23	18	37	19	395	33	65	467	30
Future Vol, veh/h	36	14	23	23	18	37	19	395	33	65	467	30
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									
Storage Length	-	-	-	-	-	-	175	-	-	140	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	56	56	56	71	71	71	93	93	93	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	25	41	32	25	52	20	425	35	84	606	39

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	1315	1294	626	1310	1296	443	645	0	0	460	0	0
Stage 1	794	794	-	483	483	-	-	-	-	-	-	-
Stage 2	521	500	-	827	813	-	-	-	-	-	-	-
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	135	163	484	136	162	615	940	-	-	1101	-	-
Stage 1	381	400	-	565	553	-	-	-	-	-	-	-
Stage 2	539	543	-	366	392	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	99	148	484	101	147	615	940	-	-	1101	-	-
Mov Cap-2 Maneuver	99	148	-	101	147	-	-	-	-	-	-	-
Stage 1	373	370	-	553	541	-	-	-	-	-	-	-
Stage 2	460	532	-	288	362	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	111.8	47.1	0.4	1
HCM LOS	F	E		
<hr/>				
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1
Capacity (veh/h)	940	-	-	144 190 1101
HCM Lane V/C Ratio	0.022	-	-	0.905 0.578 0.077
HCM Control Delay (s)	8.9	-	-	111.8 47.1 8.5
HCM Lane LOS	A	-	-	F E A
HCM 95th %tile Q(veh)	0.1	-	-	6.2 3.1 0.2

**Intersection**

Int Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
<b>Lane Configurations</b>						
Traffic Vol, veh/h	7	5	465	1	3	550
Future Vol, veh/h	7	5	465	1	3	550
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	78	78	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	5	596	1	4	714

Major/Minor	Minor1	Major1	Major2	
Conflicting Flow All	1319	597	0	0
Stage 1	597	-	-	-
Stage 2	722	-	-	-
Critical Hdwy	6.42	6.22	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-
Follow-up Hdwy	3.518	3.318	-	2.218
Pot Cap-1 Maneuver	173	503	-	980
Stage 1	550	-	-	-
Stage 2	481	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	172	503	-	980
Mov Cap-2 Maneuver	172	-	-	-
Stage 1	550	-	-	-
Stage 2	478	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.1	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	237	980	-
HCM Lane V/C Ratio	-	-	0.055	0.004	-
HCM Control Delay (s)	-	-	21.1	8.7	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	7	7	1	3	3
Future Vol, veh/h	1	7	7	1	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	78	78	58	58	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	9	12	2	3	3
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	14	0	-	0	24	13
Stage 1	-	-	-	-	13	-
Stage 2	-	-	-	-	11	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1604	-	-	-	992	1067
Stage 1	-	-	-	-	1010	-
Stage 2	-	-	-	-	1012	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1604	-	-	-	991	1067
Mov Cap-2 Maneuver	-	-	-	-	991	-
Stage 1	-	-	-	-	1009	-
Stage 2	-	-	-	-	1012	-
Approach	EB	WB	SB			
HCM Control Delay, s	0.9	0	8.5			
HCM LOS			A			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1604	-	-	-	1028	
HCM Lane V/C Ratio	0.001	-	-	-	0.006	
HCM Control Delay (s)	7.2	0	-	-	8.5	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0	

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Intersection

Int Delay, s/veh 0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B	A			
Traffic Vol, veh/h	6	5	519	9	8	705
Future Vol, veh/h	6	5	519	9	8	705
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	87	87	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	6	597	10	9	792

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1412	602	0	0	607
Stage 1	602	-	-	-	-
Stage 2	810	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	152	500	-	-	971
Stage 1	547	-	-	-	-
Stage 2	438	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	149	500	-	-	971
Mov Cap-2 Maneuver	149	-	-	-	-
Stage 1	547	-	-	-	-
Stage 2	431	-	-	-	-

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Approach	WB	NB	SB
HCM Control Delay, s	22.4	0	0.1
HCM LOS	C		

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Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	219	971	-
HCM Lane V/C Ratio	-	-	0.057	0.009	-
HCM Control Delay (s)	-	-	22.4	8.7	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection												
Int Delay, s/veh	16.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	11	18	40	31	35	50	29	457	42	83	599	28
Future Vol, veh/h	11	18	40	31	35	50	29	457	42	83	599	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									
Storage Length	-	-	-	-	-	-	175	-	-	140	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	89	89	89	87	87	87	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	23	50	35	39	56	33	525	48	94	681	32
Major/Minor	Minor2	Minor1	Minor1	Major1	Major1	Major1	Major2	Major2	Major2	Major2	Major2	Major2
Conflicting Flow All	1548	1524	697	1537	1516	549	713	0	0	573	0	0
Stage 1	885	885	-	615	615	-	-	-	-	-	-	-
Stage 2	663	639	-	922	901	-	-	-	-	-	-	-
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	93	118	441	95	119	535	887	-	-	1000	-	-
Stage 1	340	363	-	479	482	-	-	-	-	-	-	-
Stage 2	450	470	-	324	357	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	53	103	441	63	104	535	887	-	-	1000	-	-
Mov Cap-2 Maneuver	53	103	-	63	104	-	-	-	-	-	-	-
Stage 1	327	329	-	461	464	-	-	-	-	-	-	-
Stage 2	355	453	-	242	323	-	-	-	-	-	-	-
Approach	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB	SB	SB
HCM Control Delay, s	60.2		156.9			0.5			1			
HCM LOS	F		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	887	-	-	146	126	1000	-	-				
HCM Lane V/C Ratio	0.038	-	-	0.591	1.034	0.094	-	-				
HCM Control Delay (s)	9.2	-	-	60.2	156.9	9	-	-				
HCM Lane LOS	A	-	-	F	F	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	3.1	7.3	0.3	-	-				

**Intersection**

Int Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
<b>Lane Configurations</b>						
Traffic Vol, veh/h	4	3	519	4	9	709
Future Vol, veh/h	4	3	519	4	9	709
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	87	87	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	3	597	5	10	797

Major/Minor	Minor1	Major1	Major2	
Conflicting Flow All	1417	600	0	0
Stage 1	600	-	-	-
Stage 2	817	-	-	-
Critical Hdwy	6.42	6.22	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-
Follow-up Hdwy	3.518	3.318	-	2.218
Pot Cap-1 Maneuver	151	501	-	975
Stage 1	548	-	-	-
Stage 2	434	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	148	501	-	975
Mov Cap-2 Maneuver	148	-	-	-
Stage 1	548	-	-	-
Stage 2	426	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.6	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	212	975	-
HCM Lane V/C Ratio	-	-	0.036	0.01	-
HCM Control Delay (s)	-	-	22.6	8.7	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	14	8	3	3	3
Future Vol, veh/h	3	14	8	3	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	16	9	3	3	3
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	12	0	-	0	33	11
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	22	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1607	-	-	-	980	1070
Stage 1	-	-	-	-	1012	-
Stage 2	-	-	-	-	1001	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1607	-	-	-	978	1070
Mov Cap-2 Maneuver	-	-	-	-	978	-
Stage 1	-	-	-	-	1010	-
Stage 2	-	-	-	-	1001	-
Approach	EB	WB	SB			
HCM Control Delay, s	1.3	0	8.5			
HCM LOS			A			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1607	-	-	-	1022	
HCM Lane V/C Ratio	0.002	-	-	-	0.006	
HCM Control Delay (s)	7.2	0	-	-	8.5	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0	

## Queues

## 2: Sable Blvd &amp; Montview Blvd

03/25/2022



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	130	109	20	460	84	645
v/c Ratio	0.49	0.38	0.04	0.34	0.13	0.47
Control Delay	22.7	16.4	4.1	4.9	4.5	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.7	16.4	4.1	4.9	4.5	6.1
Queue Length 50th (ft)	29	17	2	50	8	81
Queue Length 95th (ft)	37	37	9	115	21	141
Internal Link Dist (ft)	1375	2162		1503		255
Turn Bay Length (ft)			175		140	
Base Capacity (vph)	601	627	506	1359	661	1361
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.17	0.04	0.34	0.13	0.47

Intersection Summary

## HCM 6th Signalized Intersection Summary

2: Sable Blvd &amp; Montview Blvd

03/25/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	14	23	23	18	37	19	395	33	65	467	30
Future Volume (veh/h)	36	14	23	23	18	37	19	395	33	65	467	30
Initial Q (Q <sub>b</sub> ), 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	64	25	41	32	25	52	20	425	35	84	606	39
Peak Hour Factor	0.56	0.56	0.56	0.71	0.71	0.71	0.93	0.93	0.93	0.77	0.77	0.77
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	183	48	60	129	61	94	577	1221	101	714	1245	80
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.72	0.72	0.72	0.72	0.72	0.72
Sat Flow, veh/h	712	415	519	366	522	810	785	1705	140	932	1738	112
Grp Volume(v), veh/h	130	0	0	109	0	0	20	0	460	84	0	645
Grp Sat Flow(s), veh/h/ln	1647	0	0	1699	0	0	785	0	1845	932	0	1850
Q Serve(g_s), s	0.7	0.0	0.0	0.0	0.0	0.0	0.6	0.0	5.1	2.0	0.0	8.2
Cycle Q Clear(g_c), s	3.8	0.0	0.0	3.1	0.0	0.0	8.8	0.0	5.1	7.1	0.0	8.2
Prop In Lane	0.49			0.32	0.29		0.48	1.00		0.08	1.00	0.06
Lane Grp Cap(c), veh/h	291	0	0	284	0	0	577	0	1322	714	0	1325
V/C Ratio(X)	0.45	0.00	0.00	0.38	0.00	0.00	0.03	0.00	0.35	0.12	0.00	0.49
Avail Cap(c_a), veh/h	740	0	0	754	0	0	577	0	1322	714	0	1325
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(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.6	0.0	0.0	22.4	0.0	0.0	5.2	0.0	2.9	4.2	0.0	3.3
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.9	0.0	0.0	0.1	0.0	0.7	0.3	0.0	1.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.6	0.0	0.0	1.3	0.0	0.0	0.1	0.0	1.0	0.3	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	23.7	0.0	0.0	23.2	0.0	0.0	5.3	0.0	3.6	4.6	0.0	4.6
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h	130			109			480		729			
Approach Delay, s/veh	23.7			23.2			3.7		4.6			
Approach LOS	C			C			A		A			
Timer - Assigned Phs	2			4			6		8			
Phs Duration (G+Y+R <sub>c</sub> ), s	43.0			10.7			43.0		10.7			
Change Period (Y+R <sub>c</sub> ), s	4.5			4.5			4.5		4.5			
Max Green Setting (Gmax), s	38.5			22.5			38.5		22.5			
Max Q Clear Time (g_c+l1), s	10.8			5.8			10.2		5.1			
Green Ext Time (p_c), s	3.1			0.6			5.2		0.5			
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				7.4								
HCM 6th LOS				A								

## Queues

2: Sable Blvd &amp; Montview Blvd

03/25/2022



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	87	130	33	573	94	713
v/c Ratio	0.34	0.51	0.07	0.40	0.16	0.50
Control Delay	17.3	25.2	3.6	4.6	4.1	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.3	25.2	3.6	4.6	4.1	5.6
Queue Length 50th (ft)	14	31	3	67	9	94
Queue Length 95th (ft)	41	77	12	140	27	200
Internal Link Dist (ft)	1375	2162		1503		255
Turn Bay Length (ft)			175		140	
Base Capacity (vph)	561	559	498	1432	606	1439
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.23	0.07	0.40	0.16	0.50

Intersection Summary

## HCM 6th Signalized Intersection Summary

2: Sable Blvd &amp; Montview Blvd

03/25/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	18	40	31	35	50	29	457	42	83	599	28
Future Volume (veh/h)	11	18	40	31	35	50	29	457	42	83	599	28
Initial Q (Q <sub>b</sub> ), 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	14	22	50	35	39	56	33	525	48	94	681	32
Peak Hour Factor	0.80	0.80	0.80	0.89	0.89	0.89	0.87	0.87	0.87	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	83	61	109	108	68	80	549	1266	116	646	1329	62
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.75	0.75	0.75	0.75	0.75	0.75
Sat Flow, veh/h	161	550	987	332	615	717	737	1688	154	839	1772	83
Grp Volume(v), veh/h	86	0	0	130	0	0	33	0	573	94	0	713
Grp Sat Flow(s), veh/h/ln	1697	0	0	1664	0	0	737	0	1843	839	0	1855
Q Serve(g_s), s	0.0	0.0	0.0	1.7	0.0	0.0	1.2	0.0	7.3	3.0	0.0	10.1
Cycle Q Clear(g_c), s	3.1	0.0	0.0	4.7	0.0	0.0	11.3	0.0	7.3	10.3	0.0	10.1
Prop In Lane	0.16			0.58	0.27		0.43	1.00		0.08	1.00	0.04
Lane Grp Cap(c), veh/h	253	0	0	255	0	0	549	0	1382	646	0	1391
V/C Ratio(X)	0.34	0.00	0.00	0.51	0.00	0.00	0.06	0.00	0.41	0.15	0.00	0.51
Avail Cap(c_a), veh/h	630	0	0	628	0	0	549	0	1382	646	0	1391
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(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.9	0.0	0.0	27.6	0.0	0.0	5.6	0.0	2.9	4.8	0.0	3.3
Incr Delay (d2), s/veh	0.8	0.0	0.0	1.6	0.0	0.0	0.2	0.0	0.9	0.5	0.0	1.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.3	0.0	0.0	2.0	0.0	0.0	0.2	0.0	1.5	0.4	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.7	0.0	0.0	29.2	0.0	0.0	5.8	0.0	3.9	5.3	0.0	4.6
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		86			130			606			807	
Approach Delay, s/veh		27.7			29.2			4.0			4.7	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+R <sub>c</sub> ), s		53.0		11.7		53.0		11.7				
Change Period (Y+R <sub>c</sub> ), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		48.5		22.5		48.5		22.5				
Max Q Clear Time (g_c+l1), s		13.3		5.1		12.3		6.7				
Green Ext Time (p_c), s		4.4		0.4		6.4		0.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			7.6									
HCM 6th LOS			A									