



TRAFFIC IMPACT STUDY

BANK OF AMERICA – MARSHALLS AURORA PLAZA

Aurora, Colorado

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Executive Summary

Site Location and Study Area

The property that comprises the application area for the proposed development is approximately 0.71 acres in size and is identified as Arapahoe County Parcel Number 1975-18-4-43-002. It is located north of Mississippi Avenue and west of Chambers Road in Aurora Plaza shopping center. It is zoned Mixed Use Corridor District (MU-C). The proposed project would take up a portion of the parking lot in the Marshalls Aurora Plaza.

The study area is generally bounded by Mississippi Avenue to the south, Chambers Road to the east, and property lines to the north and west. The study area for the project includes those intersections identified that could be affected by the proposed development:

- Mississippi Avenue/Chambers Road
- Mississippi Avenue/Middle Site Access
- Mississippi Avenue/W Site Access
- E Site Access/ Chambers Road

Description of Proposed Development

The Applicant, Interior Architects, seeks to develop the property with Drive-in Bank use. Site access is being proposed via the existing full movement accesses along Mississippi Avenue to be restricted to a $\frac{3}{4}$ movement via median modification by the adjacent pipeline project, Murphy Express per the City of Aurora's request. Site access is also proposed via the existing right-in/right-out (RIRO) access along Mississippi Avenue, and one existing access along Chambers Road.

Conclusions and Recommendations

Conclusions

Based on the results of this traffic impact study, the following may be concluded:

- Under existing traffic conditions, the signalized intersection within the study area currently operates at overall levels of service (LOS) "D" in the weekday AM peak hour and LOS "E" in the weekday PM peak hour.
- Under existing traffic conditions, queues will remain within their available storage for the intersections within the study area.
- Under background future 2025 traffic conditions, without the development of the subject site, delays will remain consistent with existing traffic conditions.
- Under background future 2025 traffic conditions queues will remain within their available storage with the exception of the westbound left queue at the Mississippi Avenue/Chambers Road intersection in the weekday PM peak hour.
- The proposed site development will generate, upon completion and full occupancy, 30 net new weekday AM and 58 net new weekday PM peak hour vehicle trips as well as 288 net new weekday daily trips.

- Under the total future 2025 conditions, delays will remain consistent with the delays forecasted in the 2025 background scenario, indicating that the proposed development will have minimal effects on traffic operations through the study area.
- Under total future 2025 traffic conditions with development of the site, queues are forecasted to remain consist with background future 2025 traffic conditions.
- Under background future 2050 traffic conditions, without the development of the subject site, delays would increase at study intersections due to regional traffic growth.
- Under background future 2050 traffic conditions queues are forecasted to remain within the available storage with the exception of the westbound left queues in the weekday AM and PM peak hours, and northbound left queue in the weekday PM peak hour at the Mississippi Avenue/Chambers Road intersection. Eastbound left queues at the Mississippi/Middle Site Access intersection are also forecasted to extend past the available storage.
- Under the total future 2050 conditions, delays remain similar to the 2050 background conditions.
- Under total future 2050 traffic conditions with development of the site, queues are forecasted to remain consistent with background future 2050 conditions.

Recommendations

- It is recommended that the Applicant provide access consistent with the proposed site plan.
- It is recommended that the study area be monitored for projected regional growth and reassessed if/when projected growth comes to fruition.

I. Introduction

Overview

This report presents the results of a Traffic Impact Study (TIS) conducted in support of a site plan to develop a drive-in bank use in Aurora, CO. Currently the site is occupied by parking for the Marshalls Aurora Plaza. Per the requirements of the City of Aurora Transportation Impact Study Guidelines, a Transportation Impact Study is required to support the proposed development.

Site Location and Study Area

The property that comprises the application area for the proposed development is approximately 0.71 acres in size and is identified as Arapahoe County Parcel Number 1975-18-4-43-002. It is located north of Mississippi Avenue and west of Chambers Road in the Marshalls Aurora Plaza shopping center, as shown on Figure 1-1. It is zoned Mixed Use Corridor District (MU-C) and is currently a portion of the parking lot in Marshalls Aurora Plaza. Site access is being proposed via the existing full movement accesses along Mississippi Avenue to be restricted to a $\frac{3}{4}$ movement via median modification identified by the adjacent pipeline project, Murphy Express. Site access is also proposed via the existing right-in/right-out (RIRO) access along Mississippi Avenue, and one existing access along Chambers Road.

The Applicant, Interior Architects, seeks to develop the site with a drive-in bank use. A reduction of the Applicant's proposed conceptual site plan is provided on Figure 1-2. A full-size copy of the plan is provided in Appendix A.

The study area is generally bounded by Mississippi Avenue to the south, Chambers Road to the east, and property lines to the north and west.

Tasks undertaken in the course of this study included the following:

1. Reviewed the Applicant's proposed development plans and other background data.
2. Conducted a virtual field reconnaissance of existing roadway and intersection geometries, traffic controls, and speed limits.
3. Conducted peak hour turning movement counts at the key intersections. Counts were balanced between intersections consistent with industry standard practice and in favor of a more conservative analysis.
4. Analyzed existing levels of service at each of the key study intersections based on the methodologies set forth in the Highway Capacity Manual (HCM) 7th Edition as reported by Synchro/SimTraffic version 12.
5. Forecasted regional growth estimates. These volumes were applied to the major study intersections.
6. Forecasted background future traffic volumes based on baseline traffic counts and regional traffic growth for 2025 (build-out) and 2050 (long-range) conditions.
7. Calculated background levels of service at each of the key study intersections for the projected build-out years based on background future traffic forecasts, and the background future lane use and traffic controls.

8. Estimated the number of AM and PM peak hour trips that would be generated by the proposed use based on the Institute of Transportation Engineers (ITE) 11th Generation Trip Generation Manual rates/equations and methodologies.
9. Prepared AM and PM peak hour total future traffic forecasts based on background traffic forecasts plus site traffic assignments for the 2025 (build-out), as well as 2050 (long-range) conditions.
10. Calculated total future levels of service for each of the key study intersections based on projected total future traffic forecasts, existing/future traffic controls and intersection geometries.
11. Identified roadway improvements required to accommodate future traffic volumes as necessary.

Sources of data for this analysis included the Institute of Transportation Engineers (ITE), Trip Generation, 11th edition, the Highway Capacity Guidelines HCM 7th Edition, Interior Architects, Aurora, Colorado, and the files/library of Galloway.

Site Description and Access

Site Conditions

The terrain proximate to and surrounding the site is generally classified as “level”.

Hazardous Conditions

Based on the field reconnaissance in the vicinity of the subject site, no hazardous features or constraints were identified.

Proposed Site Access

Site access is being proposed via the existing full movement accesses along Mississippi Avenue to be restricted to a $\frac{3}{4}$ movement via median modification identified by the adjacent pipeline project, Murphy Express. Site access is also proposed via the existing right-in/right-out (RIRO) access along Mississippi Avenue, and one existing access along Chambers Road.

Existing Zoning

The subject site is currently zoned Mixed Use Corridor District (MU-C) and is currently a portion of the parking lot in the Marshalls Aurora Plaza shopping center. Figure 1-3 depicts the existing zoning associated with the subject property, as well as neighboring properties as shown on the City of Aurora zoning map.

Nearby Uses

The properties surrounding the subject site are generally developed with commercial uses.



FIGURE 1-1
SITE LOCATION

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MARSHALLS AURORA PLAZA





FIGURE 1-3 EXISTING ZONING



II. Background Information

Study Area

The study area was determined by a review of intersections that would experience a significant portion of turning movement volumes generated by the site. As such, the traffic study focuses primarily on the following intersections:

Study Intersections

- Mississippi Avenue/Chambers Road
- Mississippi Avenue/Middle Site Access
- Mississippi Avenue/W Site Access
- E Site Access/ Chambers Road

Study Assumptions

For purposes of this analysis only, the proposed uses are assumed to be built and occupied in one distinct phase. It was assumed that the site would be built and operational in study year 2025. A long-range analysis of 2050 was also provided.

Study Methodology

Synchro software version 12 was used to evaluate levels of service at each of the study intersections during the weekday AM and PM peak hours. Synchro is a macroscopic model used for optimizing traffic signal timing and performing capacity analyses. The software can model existing traffic signal timings or optimize splits, offsets, and cycle lengths for individual intersections, an arterial, or a complete network. Synchro allows the user to evaluate the effects of changing intersection geometrics, traffic demands, traffic control, and/or traffic signal settings as well as optimize traffic signal timings.

The levels of service reported for the signalized intersections analyzed herein were taken from the Highway Capacity Manual (HCM) 7th reports generated by Synchro 12. The levels of service reported for the unsignalized intersections analyzed herein were taken from the reports generated by SimTraffic 12. Level of service descriptions are included in Appendix B.

In order to maintain a conservative analysis a default percent heavy vehicle (%HV) factor of 2% was used for all movements in the study area.

Existing Roadway Network

Regional access to the subject site is provided by Mississippi Avenue and local access is provided via Chambers Road. Figure 2-1 depicts existing lane use and traffic controls in the vicinity of the subject site. The following provides a description of each of the roadways within the study network.

Mississippi Avenue

Mississippi Avenue is constructed as an east/west, six-lane median divided section with turn lanes at major intersections and a posted with a speed limit of 40 mph in the vicinity of the subject site. The City of Aurora classifies the roadway as a Major Arterial. The intersection with Chambers Road operates under signalized conditions.

Chambers Road

Chambers Road is constructed as a north/south, six-lane median divided section with turn lanes at major intersections and a posted with a speed limit of 40 mph in the vicinity of the subject site. The City of Aurora classifies the roadway as a Major Arterial. The intersection with Mississippi Avenue operates under signalized conditions.

Assumed Improvements

The existing full movement accesses along Mississippi Avenue to be restricted to a $\frac{3}{4}$ movement via median modification with the pipeline project identified, Murphy Express, adjacent to the proposed project site.

This improvement was assumed built and complete in all background (without proposed project) and total future (with proposed project) analysis scenarios. Figure 2-2 depicts the assumed improvements lane use and traffic controls in the vicinity of the subject site.

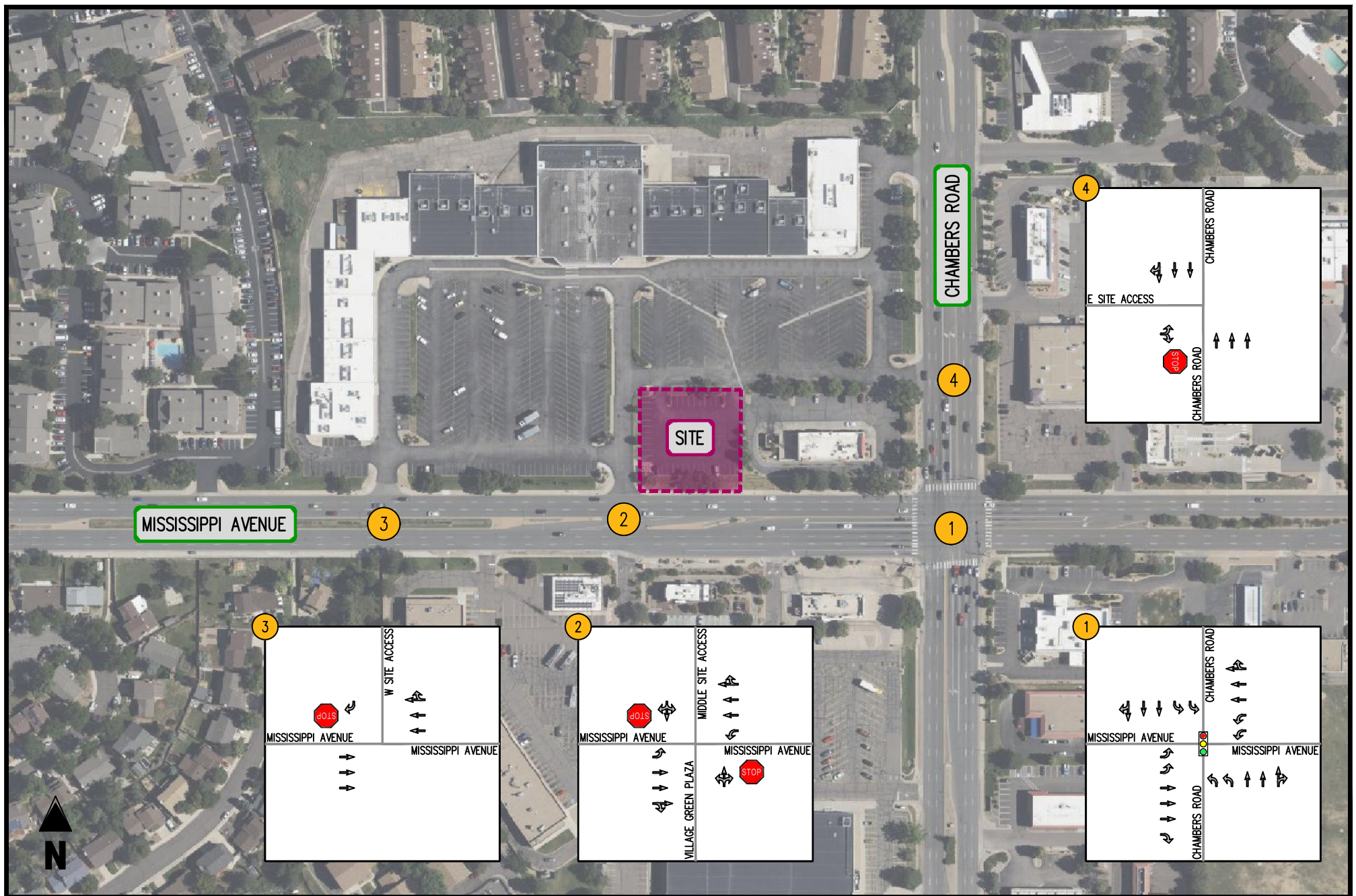


FIGURE 2-1
EXISTING LANE USE AND TRAFFIC CONTROL

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MARSHALLS AURORA PLAZA

- ← MOVEMENT
- SIGNALIZED INTERSECTION
- STOP SIGN
- YIELD SIGN



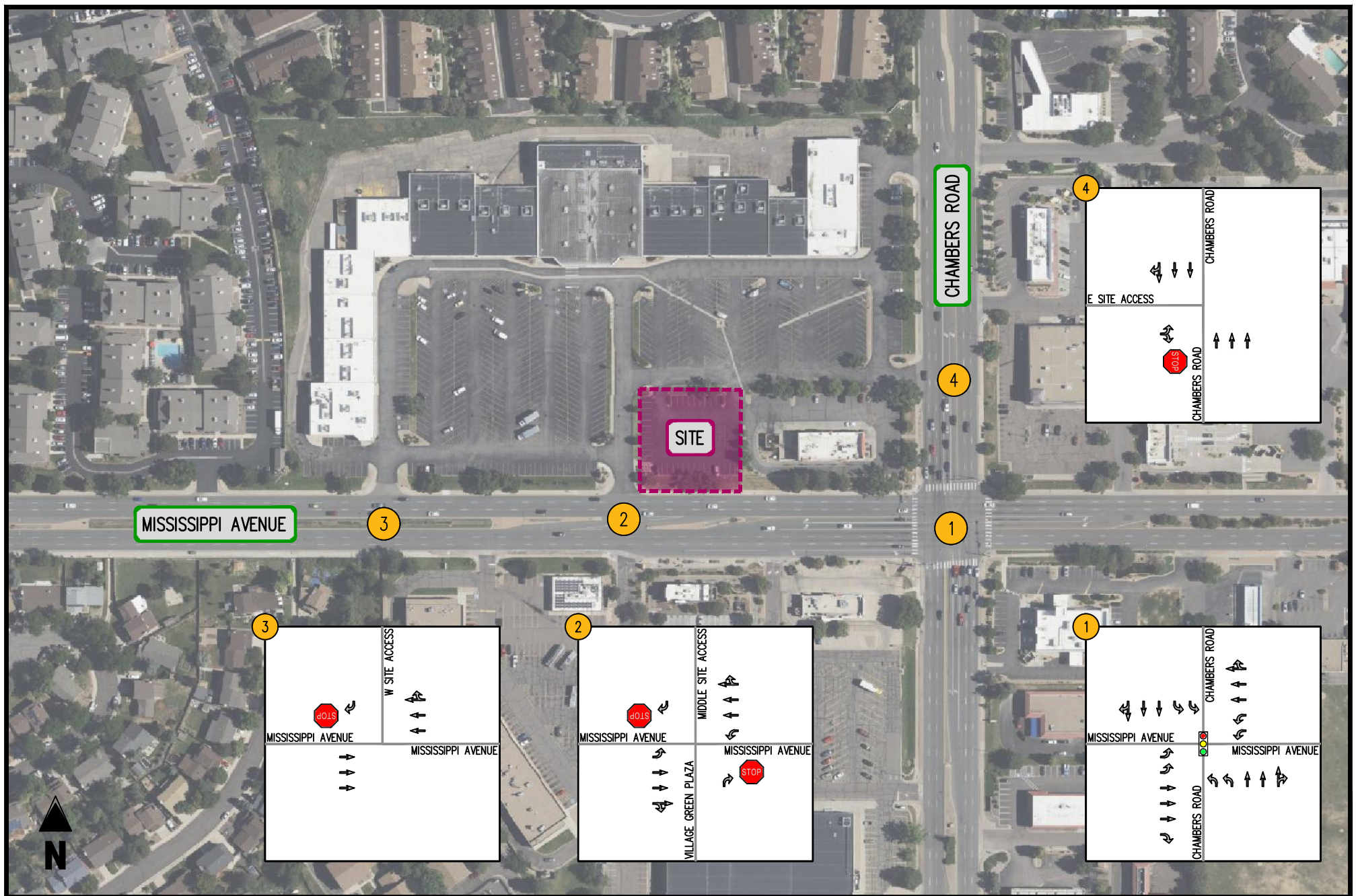




FIGURE 2-2
ASSUMED IMPROVEMENTS LANE USE AND TRAFFIC CONTROL

BANK OF AMERICA
 MARSHALLS AURORA PLAZA

- ← MOVEMENT
-  SIGNALIZED INTERSECTION
-  STOP SIGN
-  YIELD SIGN



III. Analysis of Existing Conditions

Traffic Volumes

Weekday AM and PM turning movement counts were conducted on December 13, 2023 and from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM at the study intersections by IDAX Data Solutions.

For purposes of this study, the peak hour of the network was selected based on a review of the intersection volumes. These volumes were balanced to the greatest volumes observed within closed network areas of the study area. The existing volumes are summarized on Figure 3-1. Copies of traffic counts are included in Appendix C.

Signal timings for the signalized intersections in the study area were obtained from the City and utilized for the Synchro/SimTraffic models and included in Appendix C.

Operational Analysis

Capacity/level of service (LOS) analyses were conducted at the study intersections based on the existing lane use and traffic controls shown on Figure 2-1 and existing baseline vehicular traffic volumes shown on Figure 3-1. The capacity analysis results are presented in Appendix D and summarized in Table 3-1 and on Figure 3-2.

As shown in Table 3-1, the signalized intersection in the study area currently operates at overall level of service (LOS) “D” in the AM peak hour and LOS “E” in the PM peak hour.

The side street approaches for the unsignalized intersections in the study area currently operate at overall LOS “C” or better in the AM/PM peak hours with the exceptions of the northbound approach at the Mississippi/Middle Site Access intersection which operates at LOS “E” in the PM peak hour and the eastbound approach at the E Site Access/Chambers Road intersection which operates at LOS “F” in the PM peak hour. The LOS “F” for the eastbound approach at the E Site Access/Chambers Road intersection in the PM peak hour is due to outbound left turning movements onto Chambers Road.

Existing Intersection Queues

An analysis of intersection 95th-percentile queues was performed at key locations. The results of the queuing analysis, as reported by Synchro/SimTraffic, are summarized in Table 3-2. As shown in the table, the existing queues are contained within the effective storage within the study area.

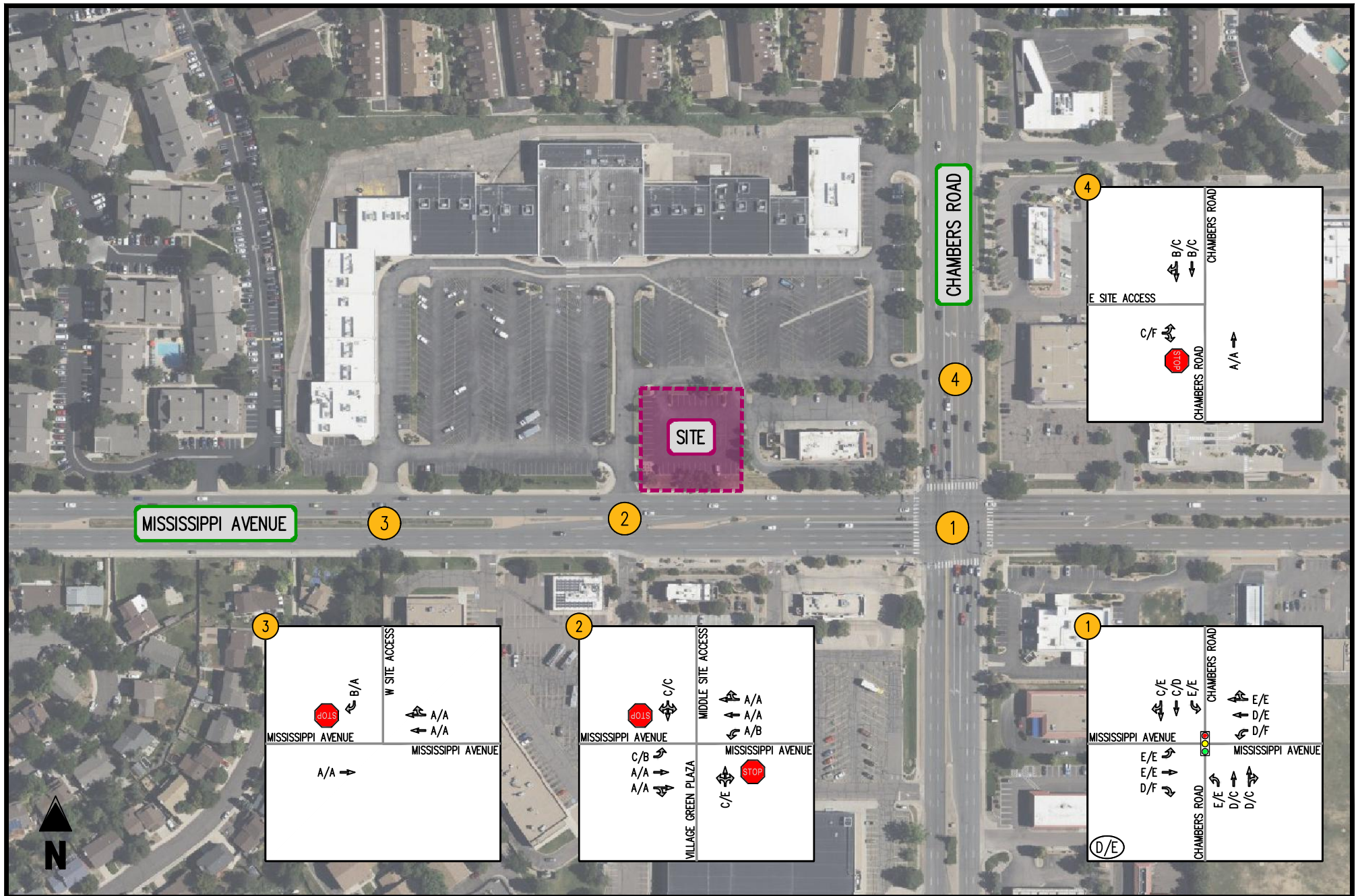


FIGURE 3-2
EXISTING LOS

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(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

- ← MOVEMENT
- 🚦 SIGNALIZED INTERSECTION
- 🛑 STOP SIGN
- 🚧 YIELD SIGN



Table 3-1

Bank of America: Marshalls Aurora Plaza - Aurora, CO

Existing Intersection Level of Service Summary (1) (2)

Intersection	Operating Condition	Street Name	Approach/ Movement	Existing 2023	
				AM Peak Hour	PM Peak Hour
1 Mississippi Avenue/Chambers Road	SIGNAL	Mississippi Avenue	EBL	E (70.8)	E (69.9)
			EBT	E (58.8)	E (69.5)
			EBR	D (48.9)	F (102.7)
		Mississippi Avenue	WBL	D (44.9)	F (93.4)
			WBT	D (49.8)	E (66.1)
			WBR	E (55.3)	E (75.9)
		Chambers Road	NBL	E (68.0)	E (74.8)
			NBT	D (46.6)	C (31.8)
			NBR	D (51.9)	C (33.3)
		Chambers Road	SBL	E (67.9)	E (77.0)
			SBT	C (26.3)	D (54.3)
			SBR	C (26.3)	E (60.4)
		Overall			D (49.5)
2 Mississippi Avenue/Middle Site Access/Village Green Plaza	STOP	Mississippi Avenue	EBL	C [21.4]	B [13.2]
			EBT	A [0.7]	A [1.7]
			EBTR	A [0.9]	A [2.7]
		Mississippi Avenue	WBL	A [6.0]	B [13.3]
			WBT	A [4.4]	A [4.9]
			WBTR	A [3.0]	A [4.5]
		Village Green Plaza	NBLTR	C [15.2]	E [39.4]
		Middle Site Access	SBLTR	C [21.5]	C [17.4]
3 Mississippi Avenue/W Site Access	STOP	Mississippi Avenue	EBT	A [3.5]	A [6.2]
		Mississippi Avenue	WBT	A [0.7]	A [0.8]
			WBTR	A [0.7]	A [1.1]
			W Site Access	SBR	B [10.6]
4 Chambers Road/E Site Access	STOP	E Site Access	EBLR	C [24.1]	F [95.0]
		Chambers Road	NBT	A [3.6]	A [3.1]
		Chambers Road	SBT	B [10.6]	C [18.5]
			SBTR	B [11.5]	C [18.9]

Notes : (1) Numbers in brackets [] represent delay at unsignalized intersections in seconds per vehicle.

(2) Numbers in parenthesis () represent delay at signalized intersections in seconds per vehicle.

Table 3-2

Bank of America: Marshalls Aurora Plaza - Aurora, CO

Existing Intersection Queueing Summary (1)

Intersection	Operating Condition	Street Name	Approach/ Movement	Available Storage	Existing 2023	
					AM Peak Hour	PM Peak Hour
1 Mississippi Avenue/Chambers Road	SIGNAL	Mississippi Avenue	EBL*	210 & 280	155	114
			EBT	-	160	437
			EBR	-	18	331
		Mississippi Avenue	WBL*	170 & 220	125	217
			WBTR	-	580	582
		Chambers Road	NBL*	215 & 340	213	203
			NBTR	-	578	359
		Chambers Road	SBL*	260 & 290	68	141
			SBTR	-	341	579
2 Mississippi Avenue/ Middle Site Access/Village Green Plaza	STOP	Mississippi Avenue	EBL	130	52	72
			EBTR	-	4	14
			WBL	100	27	41
		Mississippi Avenue	WBT	-	2	38
			WBTR	-	0	36
		Village Green Plaza	NBLTR	-	49	93
		Middle Site Access	SBLTR	-	50	78
3 Mississippi Avenue/W Site Access	STOP	Mississippi Avenue	EBT	-	0	305
		Mississippi Avenue	WBT	-	4	0
			WBTR	-	0	0
		W Site Access	SBR	-	43	57
4 Chambers Road/E Site Access	STOP	E Site Access	EBLR	-	34	72
		Chambers Road	NBT	-	6	8
		Chambers Road	SBT	-	117	291
			SBTR	-	153	305

Notes : (1) Queue length, in feet, is based on the 95th percentile queue as reported by Synchro/SimTraffic, Version 12.

* Dual lanes

IV. Analysis of Background 2025 (Build-Out) Conditions without Site Development

Methodology

The future traffic forecasts, without the proposed new use, were developed for 2025 conditions based on a composite of existing baseline traffic volumes and regional traffic. A 1.94% growth factor per year was applied to existing traffic along Mississippi Avenue and 1.34% growth factor per year was applied to existing traffic along Chambers Road, consistent with projected traffic forecasts from the Arapahoe County Transportation 2040 Master Plan.

Regional Growth

Increases in traffic associated with regional growth were estimated at 1.94 percent per year for through movements along Mississippi Avenue and 1.34 percent per year for movements along Chamber Road up to 2025. This growth accounts for increases in traffic resulting from influences outside of the immediate study area. The resulting increases in traffic within the study area are reflected on Figure 4-1 for 2025 build-out year conditions.

Pipeline Developments

One approved but unbuilt/unoccupied (i.e., “pipeline”) development was identified for consideration within the study. The following pipeline development and development programs were included in the background and total future analyzes:

Murphy Express

12 FP Gas Station with Convenience Store

The location of the pipeline development in relation to the Applicant’s property is shown in Figure 4-2.

Pipeline development trips were taken from the associated traffic study and assigned to the subject intersections. The resulting pipeline development forecasts are shown in Figure 4-3. Relevant excerpts from the referenced traffic study are provided in Appendix E.

Background Traffic Forecasts

The existing traffic forecasts depicted on Figure 3-1, regional growth shown on Figure 4-1, and pipeline forecasts shown on Figure 4-3 were added together to yield the background future traffic forecasts shown on Figure 4-4 for 2025 conditions.

Background Future Levels of Service

Capacity analyses of 2025 future traffic conditions without the proposed development are provided in Appendix F and summarized in Table 4-1. The forecasted levels of service are also depicted graphically on 4-5 for 2025 conditions.

As shown on Table 4-1, the intersections within the study area would continue to operate generally consistent with existing conditions.

Background Future Queueing

An analysis of intersection queues was performed at key locations under background future traffic conditions. The results of the queuing analysis are summarized in Table 4-2. As shown in the table, queues within the study network will remain consistent with existing conditions. Queues within the study area are forecasted to remain within their effective storage with the exception of the westbound left queue at the Mississippi Avenue/Chambers Road intersection during the weekday PM peak hour.



FIGURE 4-2
PIPELINE LOCATION

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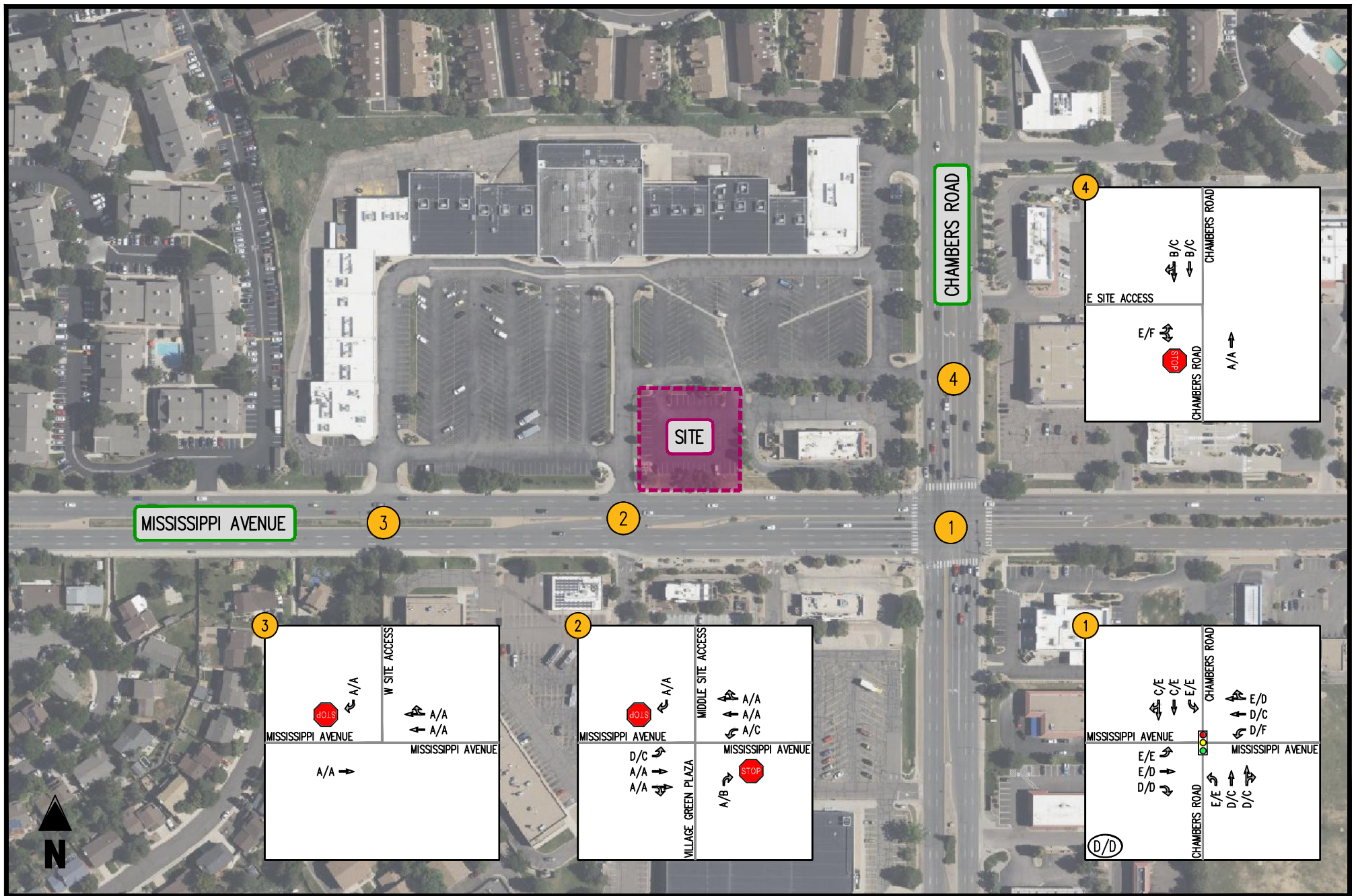


FIGURE 4-5
BACKGROUND FUTURE LOS 2025

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(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

- ← MOVEMENT
- SIGNALIZED INTERSECTION
- STOP SIGN
- YIELD SIGN



Table 4-1

Bank of America: Marshalls Aurora Plaza - Aurora, CO

Background Future 2025 Intersection Level of Service Summary (1) (2)

Intersection	Operating Condition	Street Name	Approach/ Movement	Existing 2023		Background 2025	
				AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1 Mississippi Avenue/Chambers Road	SIGNAL	Mississippi Avenue	EBL	E (70.8)	E (69.9)	E (74.9)	E (71.0)
			EBT	E (58.8)	E (69.5)	E (66.5)	D (48.8)
			EBR	D (48.9)	F (102.7)	D (53.4)	D (53.5)
			WBL	D (44.9)	F (93.4)	D (45.7)	F (98.7)
		Mississippi Avenue	WBT	D (49.8)	E (66.1)	D (53.0)	C (33.5)
			WBR	E (55.3)	E (75.9)	E (59.7)	D (35.3)
			NBL	E (68.0)	E (74.8)	E (68.7)	E (78.0)
			NBT	D (46.6)	C (31.8)	D (48.3)	C (31.5)
		Chambers Road	NBR	D (51.9)	C (33.3)	D (54.3)	C (33.1)
			SBL	E (67.9)	E (77.0)	E (68.5)	E (78.6)
			SBT	C (26.3)	D (54.3)	C (27.0)	E (56.8)
			SBR	C (26.3)	E (60.4)	C (30.2)	E (64.0)
		Overall		D (49.5)	E (62.7)	D (52.7)	D (51.1)
2 Mississippi Avenue/Middle Site Access/Village Green Plaza <i>Median modification</i>	STOP	Mississippi Avenue	EBL	C [21.4]	B [13.2]	N/A	N/A
			EBT	A [0.7]	A [1.7]	N/A	N/A
			EBTR	A [0.9]	A [2.7]	N/A	N/A
			WBL	A [6.0]	B [13.3]	N/A	N/A
		Mississippi Avenue	WBT	A [4.4]	A [4.9]	N/A	N/A
			WBTR	A [3.0]	A [4.5]	N/A	N/A
		Village Green Plaza	NBLTR	C [15.2]	E [39.4]	N/A	N/A
		Middle Site Access	SBLTR	C [21.5]	C [17.4]	N/A	N/A
	STOP	Mississippi Avenue	EBL	N/A	N/A	D [29.1]	C [16.6]
			EBT	N/A	N/A	A [0.9]	A [1.9]
			EBTR	N/A	N/A	A [1.0]	A [3.0]
			WBL	N/A	N/A	A [8.1]	C [17.1]
		Mississippi Avenue	WBT	N/A	N/A	A [4.7]	A [4.9]
			WBTR	N/A	N/A	A [4.1]	A [5.1]
		Village Green Plaza	NBR	N/A	N/A	A [7.2]	B [11.6]
		Middle Site Access	SBR	N/A	N/A	A [9.4]	A [9.1]
3 Mississippi Avenue/W Site Access	STOP	Mississippi Avenue	EBT	A [3.5]	A [6.2]	A [4.2]	A [6.5]
		Mississippi Avenue	WBT	A [0.7]	A [0.8]	A [0.8]	A [0.8]
		Mississippi Avenue	WBTR	A [0.7]	A [1.1]	A [1.1]	A [1.4]
		W Site Access	SBR	B [10.6]	A [9.3]	A [10.0]	A [8.9]
4 Chambers Road/E Site Access	STOP	E Site Access	EBLR	C [24.1]	F [95.0]	E [35.8]	F [104.4]
		Chambers Road	NBT	A [3.6]	A [3.1]	A [3.8]	A [3.1]
		Chambers Road	SBT	B [10.6]	C [18.5]	B [11.0]	C [19.2]
		Chambers Road	SBTR	B [11.5]	C [18.9]	B [13.9]	C [19.7]

Notes : (1) Numbers in brackets [] represent delay at unsignalized intersections in seconds per vehicle.

(2) Numbers in parenthesis () represent delay at signalized intersections in seconds per vehicle.

Table 4-2
Bank of America: Marshalls Aurora Plaza - Aurora, CO
Background Future 2025 Intersection Queueing Summary (1)

Intersection	Operating Condition	Street Name	Approach/ Movement	Available Storage	Existing 2023		Background 2025			
					AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour		
1 Mississippi Avenue/Chambers Road	SIGNAL	Mississippi Avenue	EBL*	210 & 280	155	114	178	123		
			EBT	-	160	437	271	469		
			EBR	-	18	331	123	345		
		Mississippi Avenue	WBL*	170 & 220	125	217	127	224		
			WBTR	-	580	582	624	620		
		Chambers Road	NBL*	215 & 340	213	203	226	242		
			NBTR	-	578	359	600	371		
		Chambers Road	SBL*	260 & 290	68	141	73	163		
			SBTR	-	341	579	349	608		
2 Mississippi Avenue/ Middle Site Access/Village Green Plaza	STOP	Mississippi Avenue	EBL	130	52	72	N/A	N/A		
			EBTR	-	4	14	N/A	N/A		
			WBL	100	27	41	N/A	N/A		
		Mississippi Avenue	WBT	-	2	38	N/A	N/A		
			WBTR	-	0	36	N/A	N/A		
		Village Green Plaza	NBLTR	-	49	93	N/A	N/A		
	Median modification	Middle Site Access	SBLTR	-	50	78	N/A	N/A		
			STOP	Mississippi Avenue	EBL	130	N/A	N/A	67	84
					EBTR	-	N/A	N/A	2	25
		WBL			100	N/A	N/A	29	46	
		Mississippi Avenue	WBT	-	N/A	N/A	5	31		
			WBTR	-	N/A	N/A	9	15		
			Village Green Plaza	NBR	-	N/A	N/A	41	60	
		Middle Site Access	SBR	-	N/A	N/A	56	74		
		3 Mississippi Avenue/W Site Access	STOP	Mississippi Avenue	EBT	-	0	305	0	174
Mississippi Avenue	WBT			-	4	0	0	0		
	WBTR			-	0	0	2	0		
W Site Access	SBR			-	43	57	73	79		
4 Chambers Road/E Site Access	STOP	E Site Access	EBLR	-	34	72	57	101		
		Chambers Road	NBT	-	6	8	9	0		
		Chambers Road	SBT	-	117	291	124	308		
			SBTR	-	153	305	170	319		

Notes : (1) Queue length, in feet, is based on the 95th percentile queue as reported by Synchro/SimTraffic, Version 12.

* Dual lanes

V. Site Analysis

Overview

The Applicant is proposing to develop the 0.71-acre site with a drive-in bank use. For purposes of this study, the site will be developed in one distinct phase. For analysis purposes it was assumed that development and occupancy would be complete in 2025. The following use and development program was analyzed:

Proposed Development:

4,229 SF Drive-in Bank

Proposed Site Access

As shown on the Applicant's conceptual plan (Figure 1-2), access to the development is being proposed via the existing full movement accesses along Mississippi Avenue to be restricted to a $\frac{3}{4}$ movement via median modification with the pipeline project. Site access is also proposed via the existing right-in/right-out (RIRO) access along Mississippi Avenue, and one existing RIRO access along Chambers Road.

Trip Generation

Overview

Trip generation estimates for the weekday AM and PM peak hours, as well as the weekday average daily traffic (ADT), were derived from the standard Institute of Transportation Engineers (ITE) Trip Generation Manual rates/equations, as published in the 11th edition. The trip generation analysis is presented in Table 5-1.

Pass-by Trips

According to ITE, in some cases the driveway volumes at a particular land use are different from the amount of traffic added to the adjacent street system. Uses such as retail establishments attract a portion of their trips from traffic that is already present on the road network. Pass-by trips are those trips which are made as intermediate stops on the way to a primary destination. An example of a pass-by trip would be one in which a driver stops at a bank on his/her way home from work.

The proposed use would experience pass-by trips consistent with the primary uses located on site. In recognition of this phenomenon and consistent with ITE published data, the following pass-by reductions were applied to the trip generation analysis:

- Drive-in Bank: 29% AM/ 35% PM

As shown in Table 5-1, the site in total is anticipated to generate 12 weekday AM, and 31 weekday PM peak hour pass-by trips. Therefore, these trips would be drawn from the existing road network and assigned to the future site entrances accordingly. Pass-by trips are expected from westbound travel on Mississippi Avenue and were assigned to key study intersections as shown on Figure 5-1.

Net Site Trips

The vehicle trips that would be generated by the proposed development plan are summarized in Table 5-1. As shown in Table 5-1, the site would generate upon completion and full occupancy 30 net new weekday AM and 58 net new weekday PM peak hour vehicle trips, as well as 288 net new weekday daily trips.

Site Trip Distributions

The distribution of the anticipated trips generated by the completion of the proposed development was based on an examination of existing traffic counts and local knowledge. Existing travel patterns indicate the following distribution is appropriate in the forecasting of future site traffic:

- To/from the east on Mississippi Avenue: 25%
- To/from the west on Mississippi Avenue: 25%
- To/from the north on Chambers Road: 25%
- To/from the south on Chambers Road: 25%

Site Trip Assignments

The assignment of the new vehicle trips generated upon the future build-out of the development project was based on the above distribution. The trips assignments are depicted on Figure 5-2.

Table 5-1

Bank of America: Mississippi & Chambers - Aurora, CO

Site Trip Generation

Land Use	Land Use Code	Amount	Units	AM Peak Hour			PM Peak Hour			Average Daily Trips
				In	Out	Total	In	Out	Total	
<i>Proposed ⁽¹⁾</i>										
Drive-In Bank	912	4,229	SF	24	18	42	45	44	89	424
				<u>(7)</u>	<u>(5)</u>	<u>(12)</u>	<u>(16)</u>	<u>(15)</u>	<u>(31)</u>	<u>(136)</u>
				17	13	30	29	29	58	288
<i>Pass-by's (29%AM/35%PM)</i>										
Net New Trips										

Note(s):

(1) Trip generation based on the Institute of Transportation Engineers' Trip Generation Manual, 11th Edition

VI. Analysis of Future 2025 (Build-Out) Conditions with Site Development

Total Future Traffic Forecasts

The 2025 total future traffic forecasts associated with the proposed development were developed by combining the background future forecasts shown on Figure 4-4, the pass-by site trip assignments shown on Figure 5-1, and the site trip assignments shown on Figure 5-2. The resulting total future traffic forecasts are provided on Figure 6-1 for 2025 build out conditions.

Total Future Levels of Service with Proposed Development

Future levels of service with the proposed development plan were estimated at key study intersections based on the future traffic volumes shown on Figures 6-1, the proposed lane use on Figure 5-1, and the HCM 7th methodologies for signalized and unsignalized intersections. The results of these analyses are provided in Appendix G and presented in Table 6-1. Total future levels of service are also presented graphically on Figure 6-2.

As shown in Table 6-1, delays through the study area remain similar to the delays from the 2025 background scenario, indicating that the proposed development will have little impact on traffic operations through the study area. The signalized intersection within the study area will continue to operate consistent with background conditions.

Total Future Queuing

Total future queues were forecasted using Synchro/Sim Traffic software. The results of the queuing analysis are summarized in Table 6-2. With the proposed development queues would remain consistent with background conditions.

Table 6-1

Bank of America: Marshalls Aurora Plaza - Aurora, CO

Total Future 2025 Intersection Level of Service Summary (1) (2)

Intersection	Operating Condition	Street Name	Approach/ Movement	Background 2025		Total Future 2025	
				AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1 Mississippi Avenue/Chambers Road	SIGNAL	Mississippi Avenue	EBL	E (74.9)	E (71.0)	E (75.1)	E (71.5)
			EBT	E (66.5)	D (48.8)	E (66.5)	D (43.1)
			EBR	D (53.4)	D (53.5)	D (53.4)	D (46.4)
		Mississippi Avenue	WBL	D (45.7)	F (98.7)	D (45.7)	F (98.7)
			WBT	D (53.0)	C (33.5)	D (53.5)	C (26.4)
			WBR	E (59.7)	D (35.3)	E (60.4)	C (27.5)
		Chambers Road	NBL	E (68.7)	E (78.0)	E (68.8)	E (78.8)
			NBT	D (48.3)	C (31.5)	D (48.3)	C (31.5)
			NBR	D (54.3)	C (33.1)	D (54.3)	C (33.1)
		Chambers Road	SBL	E (68.5)	E (78.6)	E (69.9)	E (79.6)
			SBT	C (27.0)	E (56.8)	C (27.3)	E (57.3)
			SBR	C (30.2)	E (64.0)	C (30.6)	E (64.7)
		Overall		D (52.7)	D (51.1)	D (52.9)	D (48.7)
2 Mississippi Avenue/Middle Site Access/Village Green Plaza	STOP	Mississippi Avenue	EBL	D [29.1]	C [16.6]	D [30.0]	B [14.8]
			EBT	A [0.9]	A [1.9]	A [0.9]	A [2.1]
			EBTR	A [1.0]	A [3.0]	A [1.0]	A [3.1]
		Mississippi Avenue	WBL	A [8.1]	C [17.1]	A [8.8]	C [16.9]
			WBT	A [4.7]	A [4.9]	A [4.6]	A [4.8]
			WBTR	A [4.1]	A [5.1]	A [4.2]	A [5.2]
		Village Green Plaza	NBR	A [7.2]	B [11.6]	A [6.7]	B [11.2]
		Middle Site Access	SBR	A [9.4]	A [9.1]	A [10.0]	A [9.2]
3 Mississippi Avenue/W Site Access	STOP	Mississippi Avenue	EBT	A [4.2]	A [6.5]	A [4.3]	A [6.6]
		Mississippi Avenue	WBT	A [0.8]	A [0.8]	A [0.8]	A [0.7]
		W Site Access	WBTR	A [1.1]	A [1.4]	A [1.2]	A [1.4]
			SBR	A [10.0]	A [8.9]	B [10.3]	A [8.9]
4 Chambers Road/E Site Access	STOP	E Site Access	EBLR	E [35.8]	F [104.4]	D [28.3]	F [143.0]
		Chambers Road	NBT	A [3.8]	A [3.1]	A [3.7]	A [3.1]
		Chambers Road	SBT	B [11.0]	C [19.2]	B [11.7]	C [19.4]
			SBTR	B [13.9]	C [19.7]	B [14.1]	C [20.4]

Notes : (1) Numbers in brackets [] represent delay at unsignalized intersections in seconds per vehicle.

(2) Numbers in parenthesis () represent delay at signalized intersections in seconds per vehicle.

Table 6-2
Bank of America: Marshalls Aurora Plaza - Aurora, CO
Total Future 2025 Intersection Queueing Summary (1)

Intersection	Operating Condition	Street Name	Approach/ Movement	Available Storage	Background 2025		Total Future 2025	
					AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1 Mississippi Avenue/Chambers Road	SIGNAL	Mississippi Avenue	EBL*	210 & 280	178	123	179	127
			EBT	-	271	469	272	468
			EBR	-	123	345	123	345
			WBL*	170 & 220	127	224	127	224
		Chambers Road	WBTR	-	624	620	626	626
			NBL*	215 & 340	226	242	228	250
			NBTR	-	600	371	600	371
			SBL*	260 & 290	73	163	75	172
		Chambers Road	SBTR	-	349	608	350	613
2 Mississippi Avenue/ Middle Site Access/Village Green Plaza	STOP	Mississippi Avenue	EBL	130	67	84	70	86
			EBTR	-	2	25	0	59
			WBL	100	29	46	28	41
		Mississippi Avenue	WBT	-	5	31	7	39
			WBTR	-	9	15	11	20
		Village Green Plaza	NBR	-	41	60	39	59
		Middle Site Access	SBR	-	56	74	62	90
3 Mississippi Avenue/W Site Access	STOP	Mississippi Avenue	EBT	-	0	174	0	8
		Mississippi Avenue	WBT	-	0	0	16	0
			WBTR	-	2	0	0	3
		W Site Access	SBR	-	73	79	72	79
4 Chambers Road/E Site Access	STOP	E Site Access	EBLR	-	57	101	60	130
		Chambers Road	NBT	-	9	0	3	2
		Chambers Road	SBT	-	124	308	129	300
			SBTR	-	170	319	175	313

Notes : (1) Queue length, in feet, is based on the 95th percentile queue as reported by Synchro/SimTraffic, Version 12.

* Dual lanes

VII. Analysis of Future Long-Range (2050) Conditions without Site Development

Methodology

The future traffic forecasts, without the proposed new use, were developed for 2050 conditions based on a composite of existing baseline traffic volumes and regional traffic. A 1.94% growth factor per year was applied to existing traffic along Mississippi Avenue and 1.34% growth factor per year was applied to existing traffic along Chambers Road, consistent with projected traffic forecasts from the Arapahoe County Transportation 2040 Master Plan.

Regional Growth

Increases in traffic associated with regional growth were estimated at 1.94 percent per year for through movements along Mississippi Avenue and 1.34 percent per year for movements along Chamber Road up to 2050. This growth accounts for increases in traffic resulting from influences outside of the immediate study area. The resulting increases in traffic within the study area are reflected on Figure 7-1 for 2050 long range conditions.

Background Traffic Forecasts

The existing traffic forecasts depicted on Figure 3-1 and the regional growth shown on Figure 7-1 were added together to yield the background future traffic forecasts shown on Figure 7-2 for 2050 long range conditions.

Background Future Levels of Service

Capacity analyses of 2050 future traffic conditions without the proposed development are provided in Appendix H and summarized in Table 7-1. The forecasted levels of service are also depicted graphically on Figure 7-3 for 2050 conditions.

As shown on Table 7-1, the delays are expected to increase through the study area due to background growth. The signalized intersection within the study area is expected to operate at LOS “F” during the weekday AM and PM peak hours.

Delays for the side street approaches at the unsignalized intersections within the study area would also see increase due to projected regional growth.

It is recommended that the study area be monitored and reassessed for improvements if/when project regional growth comes to fruition.

Background Future Queueing

An analysis of intersection queues was performed at key locations under background future traffic conditions. The results of the queuing analysis are summarized in Table 7-2.

As shown in the table, queues within the study network will increase due to regional traffic growth. The queues within the study area are forecasted to remain within effective storage lengths with the exception of the westbound left and northbound left queues at the Mississippi Avenue/Chambers Road intersection and the eastbound left queues at the Mississippi/Middle Site Access intersection.

FIGURE 7-2
BACKGROUND FUTURE FORECASTS 2050

BANK OF AMERICA
MARSHALLS AURORA PLAZA

(A/A) INTERSECTION LOS

0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT

 SIGNALIZED INTERSECTION STOP SIGN YIELD SIGN

Table 7-1

Bank of America: Marshalls Aurora Plaza - Aurora, CO

Background Future 2050 Intersection Level of Service Summary (1) (2)

Intersection	Operating Condition	Street Name	Approach/ Movement	Background 2025		Background 2050	
				AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1 Mississippi Avenue/Chambers Road	SIGNAL	Mississippi Avenue	EBL	E (74.9)	E (71.0)	E (71.4)	E (77.8)
			EBT	E (66.5)	D (48.8)	D (36.3)	D (51.3)
			EBR	D (53.4)	D (53.5)	C (25.5)	D (53.3)
		Mississippi Avenue	WBL	D (45.7)	F (98.7)	E (59.5)	F (228.6)
			WBT	D (53.0)	C (33.5)	F (286.8)	D (37.6)
			WBR	E (59.7)	D (35.3)	F (302.2)	D (42.5)
		Chambers Road	NBL	E (68.7)	E (78.0)	E (75.0)	F (161.8)
			NBT	D (48.3)	C (31.5)	F (142.8)	D (40.1)
			NBR	D (54.3)	C (33.1)	F (155.3)	D (44.7)
		Chambers Road	SBL	E (68.5)	E (78.6)	E (77.2)	F (133.9)
			SBT	C (27.0)	E (56.8)	D (54.2)	F (160.5)
			SBR	C (30.2)	E (64.0)	E (67.2)	F (179.9)
		Overall		D (52.7)	D (51.1)	F (143.3)	F (90.4)
2 Mississippi Avenue/Middle Site Access/Village Green Plaza	STOP	Mississippi Avenue	EBL	D [29.1]	C [16.6]	D [27.8]	C [15.8]
			EBT	A [0.9]	A [1.9]	A [1.2]	F [59.7]
			EBTR	A [1.0]	A [3.0]	A [1.3]	E [49.6]
		Mississippi Avenue	WBL	A [8.1]	C [17.1]	B [14.2]	D [31.5]
			WBT	A [4.7]	A [4.9]	A [4.9]	A [4.7]
			WBTR	A [4.1]	A [5.1]	A [4.0]	A [4.5]
		Village Green Plaza	NBR	A [7.2]	B [11.6]	B [10.2]	F [921.7]
		Middle Site Access	SBR	A [9.4]	A [9.1]	B [14.4]	B [10.3]
3 Mississippi Avenue/W Site Access	STOP	Mississippi Avenue	EBT	A [4.2]	A [6.5]	A [4.8]	F [276.8]
		Mississippi Avenue	WBT	A [0.8]	A [0.8]	A [0.8]	A [0.8]
		W Site Access	WBTR	A [1.1]	A [1.4]	A [1.1]	A [1.3]
			SBR	A [10.0]	A [8.9]	C [15.2]	B [10.6]
4 Chambers Road/E Site Access	STOP	E Site Access	EBLR	E [35.8]	F [104.4]	F [161.2]	F [1890.8]
		Chambers Road	NBT	A [3.8]	A [3.1]	A [4.0]	A [3.7]
		Chambers Road	SBT	B [11.0]	C [19.2]	D [27.0]	F [353.5]
			SBTR	B [13.9]	C [19.7]	E [36.8]	F [368.5]

Notes : (1) Numbers in brackets [] represent delay at unsignalized intersections in seconds per vehicle.

(2) Numbers in parenthesis () represent delay at signalized intersections in seconds per vehicle.

Table 7-2
Bank of America: Marshalls Aurora Plaza - Aurora, CO
Background Future 2050 Intersection Queueing Summary (1)

Intersection	Operating Condition	Street Name	Approach/ Movement	Available Storage	Background 2025		Background 2050	
					AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1 Mississippi Avenue/Chambers Road	SIGNAL	Mississippi Avenue	EBL*	210 & 280	178	123	229	140
			EBT	-	271	469	235	933
			EBR	-	123	345	14	423
		Mississippi Avenue	WBL*	170 & 220	127	224	246	344
			WBTR	-	624	620	1230	1157
		Chambers Road	NBL*	215 & 340	226	242	340	373
			NBTR	-	600	371	1084	588
		Chambers Road	SBL*	260 & 290	73	163	106	262
			SBTR	-	349	608	479	1078
2 Mississippi Avenue/ Middle Site Access/Village Green Plaza	STOP	Mississippi Avenue	EBL	130	67	84	60	177
			EBTR	-	2	25	10	335
			WBL	100	29	46	27	35
		Mississippi Avenue	WBT	-	5	31	7	7
			WBTR	-	9	15	10	11
		Village Green Plaza	NBR	-	41	60	38	100
		Middle Site Access	SBR	-	56	74	62	75
3 Mississippi Avenue/W Site Access	STOP	Mississippi Avenue	EBT	-	0	174	0	2104
		Mississippi Avenue	WBT	-	0	0	0	0
			WBTR	-	2	0	0	0
		W Site Access	SBR	-	73	79	80	84
4 Chambers Road/E Site Access	STOP	E Site Access	EBLR	-	57	101	95	117
		Chambers Road	NBT	-	9	0	18	6
		Chambers Road	SBT	-	124	308	279	2922
			SBTR	-	170	319	327	2894

Notes : (1) Queue length, in feet, is based on the 95th percentile queue as reported by Synchro/SimTraffic, Version 12.

* Dual lanes

VIII. Analysis of Future Long-Range (2050) Conditions with Site Development

Total Future Traffic Forecasts

The 2050 total future traffic forecasts associated with the proposed development were developed by combining the background future forecasts shown on Figure 7-2 (2050), the pass-by site trip assignments shown on Figure 5-2, and the site trip assignments shown on Figure 5-3. The resulting total future traffic forecasts are provided on Figure 8-1 for long range 2050 conditions.

Total Future Levels of Service with Proposed Development

Future levels of service with the proposed development plan were estimated at key study intersections based on the future traffic volumes shown on Figure 8-1, the proposed use on Figure 5-1, and the HCM 7th methodologies for signalized and unsignalized intersections. The results of these analyses are provided in Appendix I and presented in Table 8-1. Total future levels of service are also presented graphically on Figure 8-2.

Delays through the study area remain similar to the delays from the 2050 background scenario, indicating that the proposed development will have little impact on traffic operations through the study area.

Total Future Queuing

Total future queues were forecasted using Synchro/SimTraffic software. The results of the queuing analysis are summarized in Table 8-2. With the proposed development queues would remain consistent with background conditions.

Table 8-1

Bank of America: Marshalls Aurora Plaza - Aurora, CO
 Total Future 2050 Intersection Level of Service Summary (1) (2)

Intersection	Operating Condition	Street Name	Approach/ Movement	Background 2050		Total Future 2050	
				AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1 Mississippi Avenue/Chambers Road	SIGNAL	Mississippi Avenue	EBL	E (71.4)	E (77.8)	E (71.6)	E (78.5)
			EBT	D (36.3)	D (51.3)	D (36.3)	D (51.3)
			EBR	C (25.5)	D (53.3)	C (25.5)	D (53.3)
		Mississippi Avenue	WBL	E (59.5)	F (228.6)	E (59.7)	F (228.6)
			WBT	F (286.8)	D (37.6)	F (292.0)	D (38.2)
			WBR	F (302.2)	D (42.5)	F (307.6)	D (43.4)
		Chambers Road	NBL	E (75.0)	F (161.8)	E (75.3)	F (168.4)
			NBT	F (142.8)	D (40.1)	F (142.8)	D (40.1)
			NBR	F (155.3)	D (44.7)	F (155.3)	D (44.7)
		Chambers Road	SBL	E (77.2)	F (133.9)	E (77.8)	F (142.3)
			SBT	D (54.2)	F (160.5)	E (55.3)	F (162.8)
			SBR	E (67.2)	F (179.9)	E (68.5)	F (182.6)
		Overall		F (143.3)	F (90.4)	F (144.9)	F (91.8)
2 Mississippi Avenue/Middle Site Access/Village Green Plaza	STOP	Mississippi Avenue	EBL	D [27.8]	C [15.8]	D [30.5]	C [16.6]
			EBT	A [1.2]	F [59.7]	A [1.2]	F [59.9]
			EBTR	A [1.3]	E [49.6]	A [1.3]	E [47.7]
		Mississippi Avenue	WBL	B [14.2]	D [31.5]	B [13.7]	D [31.5]
			WBT	A [4.9]	A [4.7]	A [4.8]	A [4.6]
			WBTR	A [4.0]	A [4.5]	A [4.1]	A [4.6]
		Village Green Plaza	NBR	B [10.2]	F [921.7]	B [10.7]	F [781.6]
		Middle Site Access	SBR	B [14.4]	B [10.3]	C [17.1]	B [12.1]
3 Mississippi Avenue/W Site Access	STOP	Mississippi Avenue	EBT	A [4.8]	F [276.8]	A [4.7]	F [266.4]
		Mississippi Avenue	WBT	A [0.8]	A [0.8]	A [0.8]	A [0.8]
		W Site Access	WBTR	A [1.1]	A [1.3]	A [1.2]	A [1.3]
			SBR	C [15.2]	B [10.6]	B [13.6]	B [10.1]
4 Chambers Road/E Site Access	STOP	E Site Access	EBLR	F [161.2]	F [1890.8]	F [165.2]	F [1850.1]
		Chambers Road	NBT	A [4.0]	A [3.7]	A [4.1]	A [3.7]
		Chambers Road	SBT	D [27.0]	F [353.5]	D [26.8]	F [358.8]
			SBTR	E [36.8]	F [368.5]	D [32.8]	F [369.1]

Notes : (1) Numbers in brackets [] represent delay at unsignalized intersections in seconds per vehicle.

(2) Numbers in parenthesis () represent delay at signalized intersections in seconds per vehicle.

Table 8-2

Bank of America: Marshalls Aurora Plaza - Aurora, CO

Total Future 2050 Intersection Queueing Summary (1)

Intersection	Operating Condition	Street Name	Approach/ Movement	Available Storage	Background 2050		Total Future 2050	
					AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1 Mississippi Avenue/Chambers Road	SIGNAL	Mississippi Avenue	EBL*	210 & 280	229	140	232	144
			EBT	-	235	933	235	931
			EBR	-	14	423	15	422
		Mississippi Avenue	WBL*	170 & 220	246	344	246	344
			WBTR	-	1230	1157	1234	1163
		Chambers Road	NBL*	215 & 340	340	373	345	380
			NBTR	-	1084	588	1084	588
		Chambers Road	SBL*	260 & 290	106	262	111	269
			SBTR	-	479	1078	483	1086
2 Mississippi Avenue/ Middle Site Access/Village Green Plaza	STOP	Mississippi Avenue	EBL	130	60	177	67	184
			EBTR	-	10	335	4	335
			WBL	100	27	35	29	35
		Mississippi Avenue	WBT	-	7	7	40	42
			WBTR	-	10	11	9	14
		Village Green Plaza	NBR	-	38	100	40	99
		Middle Site Access	SBR	-	62	75	71	92
3 Mississippi Avenue/W Site Access	STOP	Mississippi Avenue	EBT	-	0	2104	174	2168
		Mississippi Avenue	WBT	-	0	0	0	0
		Mississippi Avenue	WBTR	-	0	0	4	6
		W Site Access	SBR	-	80	84	77	84
4 Chambers Road/E Site Access	STOP	E Site Access	EBLR	-	95	117	106	117
		Chambers Road	NBT	-	18	6	8	17
		Chambers Road	SBT	-	279	2922	258	2870
		Chambers Road	SBTR	-	327	2894	298	2849

Notes : (1) Queue length, in feet, is based on the 95th percentile queue as reported by Synchro/SimTraffic, Version 12.

* Dual lanes

IX. Conclusions and Recommendations

Conclusions

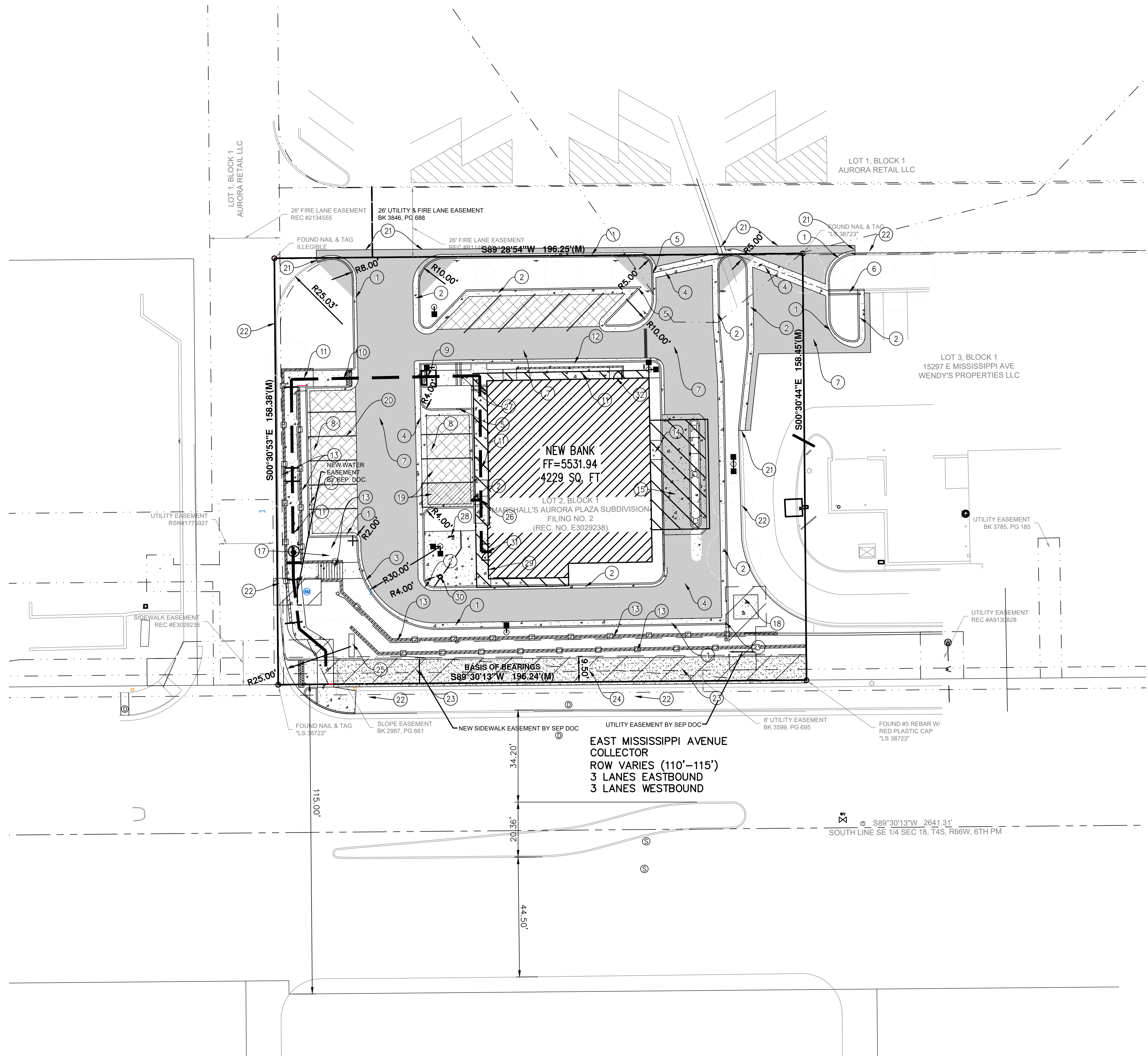
Based on the results of this traffic impact study, the following may be concluded:

- Under existing traffic conditions, the signalized intersection within the study area currently operates at overall levels of service (LOS) “D” in the weekday AM peak hour and LOS “E” in the weekday PM peak hour.
- Under existing traffic conditions, queues will remain within their available storage for the intersections within the study area.
- Under background future 2025 traffic conditions, without the development of the subject site, delays will remain consistent with existing traffic conditions.
- Under background future 2025 traffic conditions queues will remain within their available storage with the exception of the westbound left queue at the Mississippi Avenue/Chambers Road intersection in the weekday PM peak hour.
- The proposed site development will generate, upon completion and full occupancy, 30 net new weekday AM and 58 net new weekday PM peak hour vehicle trips as well as 288 net new weekday daily trips.
- Under the total future 2025 conditions, delays will remain consistent with the delays forecasted in the 2025 background scenario, indicating that the proposed development will have minimal effects on traffic operations through the study area.
- Under total future 2025 traffic conditions with development of the site, queues are forecasted to remain consist with background future 2025 traffic conditions.
- Under background future 2050 traffic conditions, without the development of the subject site, delays would increase at study intersections due to regional traffic growth.
- Under background future 2050 traffic conditions queues are forecasted to remain within the available storage with the exception of the westbound left queues in the weekday AM and PM peak hours, and northbound left queue in the weekday PM peak hour at the Mississippi Avenue/Chambers Road intersection. Eastbound left queues at the Mississippi/Middle Site Access intersection are also forecasted to extend past the available storage.
- Under the total future 2050 conditions, delays remain similar to the 2050 background conditions.
- Under total future 2050 traffic conditions with development of the site, queues are forecasted to remain consistent with background future 2050 conditions.

Recommendations

- It is recommended that the Applicant provide access consistent with the proposed site plan.
- It is recommended that the study area be monitored for projected regional growth and reassessed if/when projected growth comes to fruition.

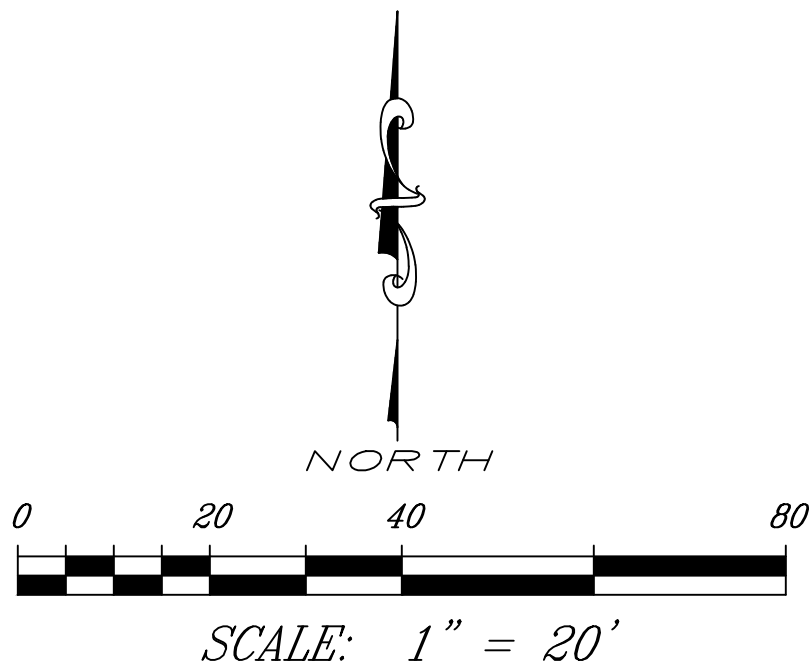
APPENDIX A – Full Sized Conceptual Plan



- SITE WORK NOTES:**
- 12" WIDE SPILL CURB AND GUTTER, TYPE 1
 - 24" WIDE CATCH CURB AND GUTTER, TYPE 2
 - 12" WIDE SPILL CURB AND GUTTER WITH 0" HIGH CURB FOR 8" WIDE WITH 6" TRANSITION TO 6" CURB
 - 4" WIDE VALLEY PAN WITH 2" DEEP PAN
 - 12" WIDE CURB OPENING (0" HIGH CURB) WITH 6" LONG TRANSITION TO 6" HIGH CURB
 - 12" WIDE SIDEWALK CHASE
 - ASPHALT PAVING (HEAVY DUTY)
 - ASPHALT PAVING (LIGHT DUTY)
 - PEDESTRIAN CURB RAMP #1
 - PEDESTRIAN CURB RAMP #2
 - CONCRETE SIDEWALK (LIGHT DUTY)
 - CONCRETE RET. WALL WITH HANDRAIL NEAR BUILDING
 - SPLITFACE CMU (CHARCOAL) RET. WALL WITH HANDRAIL FOR HEIGHTS OVER 24" TOW TO FG LOW SIDE
 - ATM AREA
 - CONCRETE PAVING (REINF. HEAVY DUTY) AT ATM CANOPY AREA
 - RAISED CONCRETE CURB AT ATM (4" TO 6", HEIGHT VARIES)
 - CONCRETE STEPS WITH HANDRAILS
 - TRANSFORMER PAD AND UTILITY EASEMENT, RE: XCEL ENERGY
 - ADA PARKING, SIGNAGE AND STRIPING
 - 4" WIDE WHITE STRIPES AT PARKING
 - EXISTING CURB AND GUTTER TO REMAIN
 - EXISTING 9' ATTACHED WALK TO REMAIN
 - DEFERRED 10' DETACHED WALK (WITH 10' TREE LAWN), NOT IN SCOPE
 - NEW 9.5' WIDE SIDEWALK EASEMENT BY SEPARATE DOCUMENT
 - MONUMENT SIGN, RE: SIGNAGE PACKAGE
 - PEDESTRIAN RAMP #3
 - 12" SIDE SIDEWALK CHASE
 - BICYCLE PARKING (2 SPACES, 1 "U" STAND)
 - KNOX BOX
 - FLAG POLE
 - MAIN ENTRANCE, DOUBLE SWING DOOR
 - SECONDARY EGRESS, SING SWING DOOR

- LEGEND**
- PROPERTY LINE
 - LOT LINE
 - HEAVY DUTY ASPHALT PAVING
 - LIGHT DUTY ASPHALT PAVING
 - DEFERRED SIDEWALK (NOT IN CONTRACT)
 - NEW CONCRETE WALK
 - NEW REINFORCED CONCRETE PAVING
 - NEW BUILDING
 - NEW BUILDING CANOPY
 - NEW EASEMENT BY SEP DOC
 - PROPOSED FLAGPOLE AND BASE
 - EXISTING LIGHTPOLE AND BASE
 - PROPOSED LIGHTPOLE AND BASE SIGN
 - EXISTING EASEMENT
 - ACCESSIBLE PATH

SITE PLAN



AURORA PLAZA - C01 - 152

**SWC CHAMBERS AND MISSISSIPPI
AURORA, CO**

SERIAL NUM./MANH. ID: C01-152
VERSION:
BULLETIN: 01-2024

DELTA	ISSUE	DESCRIPTION	DATE
1		INITIAL DEVELOPMENT PLAN SUBMITTAL	05/30/24



Anderson & Hastings
Consultants Inc.
7175 W. Jefferson Ave., Suite 4350
Lakewood, Colorado 80235
(303)433-8486 • FAX (303)433-0408
e-mail: jvhastings@ahceinc.com
web site: www.ahceinc.com

Owner Approval
47BACX.1104.021
Job No.

1" = 20'-0"
Scale

SITE PLAN

C100

SHEET 2

APPENDIX B – LOS Descriptions

Level of Service for Signalized Intersections

Level of service for signalized intersections is defined in terms of delay, which is a measure of driver discomfort and frustration, fuel consumption, and lost travel time. Specifically, level-of-service (LOS) criteria are stated in terms of the average stopped delay per vehicle for a 15-min analysis period. The criteria are given in Exhibit 16-2. Delay may be measured in the field or estimated using procedures presented later in this chapter. Delay is a complex measure and is dependent on a number of variables, including the quality of progression, the cycle length, the green ratio, and the v/c ratio for the lane group in question.

LOS A describes operations with very low delay, up to 10 sec per vehicle. This level of service occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.

LOS B describes operations with delay greater than 10 and up to 20 sec per vehicle. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay.

Exhibit 16-2. Level-of-Service Criteria for Signalized Intersections

LEVEL OF SERVICE	STOPPED DELAY PER VEHICLE (SEC)
A	≤ 10.0
B	> 10.0 and ≤ 20.0
C	> 20.0 and ≤ 35.0
D	> 35.0 and ≤ 55.0
E	> 55.0 and ≤ 80.0
F	> 80.0

LOS C describes operations with delay greater than 20 and up to 35 sec per vehicle. These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.

LOS D describes operations with delay greater than 35 and up to 55 sec per vehicle. At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

LOS E describes operations with delay greater than 55 and up to 80 sec per vehicle. This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.

LOS F describes operations with delay in excess of 80 sec per vehicle. This level, considered to be unacceptable to most drivers, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Source: Highway Capacity Manual, 2000. Transportation Research Board, National Research Council

Level of Service Criteria for Stop Sign Controlled Intersections

The level of service criteria are given in Table 17-2. As used here, control delay is defined as the total elapsed time from the time a vehicle stops at the end of the queue until the vehicle departs from the stop line; this time includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position, including deceleration of vehicles from free-flow speed to the speed of vehicles in queue.

The average total delay for any particular minor movement is a function of the service rate or capacity of the approach and the degree of saturation. . . .

Table 17-2. Level of Service Criteria for TWSC Intersections

LEVEL OF SERVICE	AVERAGE CONTROL DELAY (sec/veh)
A	≤ 10
B	$> 10 \text{ and } \leq 15$
C	$> 15 \text{ and } \leq 25$
D	$> 25 \text{ and } \leq 35$
E	$> 35 \text{ and } \leq 50$
F	> 50

Average total delay less than 10 sec/veh is defined as Level of Service (LOS) A. Follow-up times of less than 5 sec have been measured when there is no conflicting traffic for a minor street movement, so control delays of less than 10 sec/veh are appropriate for low flow conditions. To remain consistent with the AWSC intersection analysis procedure described later in this chapter, a total delay of 50 sec/veh is assumed as the break point between LOS E and F.

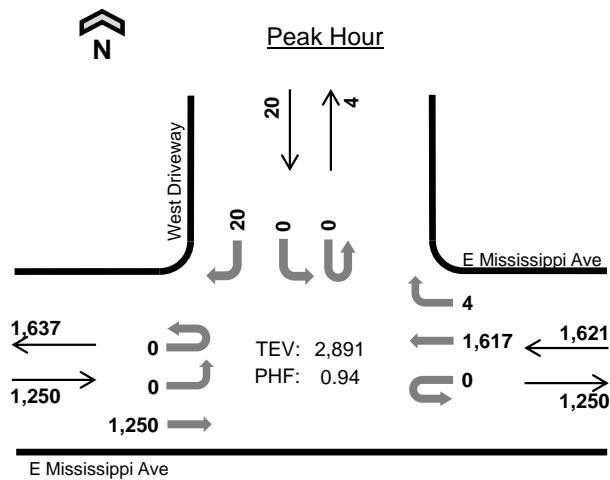
The proposed level of service criteria for TWSC intersections are somewhat different from the criteria used in Chapter 16 for signalized intersections. The primary reason for this difference is that drivers expect different levels of performance from different kinds of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than an unsignalized intersection. Additionally, several driver behavior considerations combine to make delays at signalized intersections less onerous than at unsignalized intersections. For example, drivers at signalized intersections are able to relax during the red interval, where drivers on the minor approaches to unsignalized intersections must remain attentive to the task of identifying acceptable gaps and vehicle conflicts. Also, there is often much more variability in the amount of delay experienced by individual drivers at unsignalized than signalized intersections. For these reasons, it is considered that the total delay threshold for any given level of service is less for an unsignalized intersection than for a signalized intersection. . . .

LOS F exists when there are insufficient gaps of suitable size to allow a side street demand to cross safely through a major street traffic stream. This level of service is generally evident from extremely long total delays experienced by side street traffic and by queueing on the minor approaches. The method, however, is based on a constant critical gap size - that is, the critical gap remains constant, no matter how long the side street motorist waits. LOS F may also appear in the form of side street vehicles' selecting smaller-than-usual gaps. In such cases, safety may be a problem and some disruption to the major traffic stream may result. It is important to note that LOS F may not always result in long queues but may result in adjustments to normal gap acceptance behavior. The latter is more difficult to observe on the field than queueing, which is more obvious.

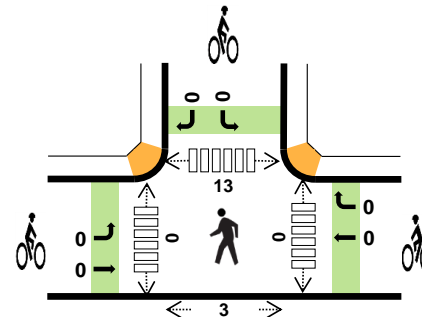
Source: Highway Capacity Manual, 2000. Transportation Research Board, National Research Council

APPENDIX C – Traffic Counts & Signal Timings

West Driveway E Mississippi Ave



Date: 12/13/2023
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM



	HV %:	PHF
EB	1.9%	0.89
WB	1.0%	0.84
NB	-	-
SB	0.0%	0.71
TOTAL	1.4%	0.94

Two-Hour Count Summaries

Interval Start		E Mississippi Ave				E Mississippi Ave				N/A				West Driveway				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	212	0	0	0	334	0	0	0	0	0	0	0	0	3	549	0
7:15 AM		0	0	233	0	0	0	414	0	0	0	0	0	0	0	0	3	650	0
7:30 AM		0	0	282	0	0	0	483	0	0	0	0	0	0	0	0	6	771	0
7:45 AM		0	0	330	0	0	0	437	2	0	0	0	0	0	0	0	3	772	2,742
8:00 AM		0	0	286	0	0	0	384	1	0	0	0	0	0	0	0	7	678	2,871
8:15 AM		0	0	352	0	0	0	313	1	0	0	0	0	0	0	0	4	670	2,891
8:30 AM		0	0	246	0	0	0	304	1	0	0	0	0	0	0	0	5	556	2,676
8:45 AM		0	0	273	0	0	0	334	2	0	0	0	0	0	0	0	7	616	2,520
Count Total		0	0	2,214	0	0	0	3,003	7	0	0	0	0	0	0	0	38	5,262	0
Peak Hour	All	0	0	1,250	0	0	0	1,617	4	0	0	0	0	0	0	0	20	2,891	0
	HV	0	0	24	0	0	0	16	0	0	0	0	0	0	0	0	0	40	0
	HV%	-	-	2%	-	-	-	1%	0%	-	-	-	-	-	-	-	0%	1%	0

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

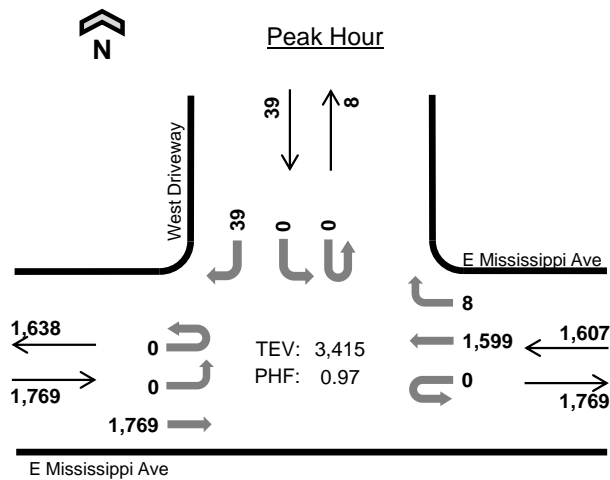
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	6	0	0	7	0	0	0	0	0	0	1	2	1	4
7:15 AM	2	8	0	0	10	0	0	0	0	0	1	0	0	0	1
7:30 AM	5	3	0	0	8	0	0	0	0	0	0	0	0	0	0
7:45 AM	6	4	0	0	10	0	0	0	0	0	0	0	8	0	8
8:00 AM	7	6	0	0	13	0	0	0	0	0	0	0	0	3	3
8:15 AM	6	3	0	0	9	0	0	0	0	0	0	0	5	0	5
8:30 AM	6	1	0	0	7	0	0	0	0	0	1	0	7	0	8
8:45 AM	12	8	0	0	20	0	0	0	0	0	1	1	4	2	8
Count Total	45	39	0	0	84	0	0	0	0	0	3	2	26	6	37
Peak Hr	24	16	0	0	40	0	0	0	0	0	0	0	13	3	16

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Mississippi Ave				E Mississippi Ave				N/A				West Driveway				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	1	0	0	0	6	0	0	0	0	0	0	0	0	0	7	0
7:15 AM	0	0	2	0	0	0	8	0	0	0	0	0	0	0	0	0	10	0
7:30 AM	0	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	8	0
7:45 AM	0	0	6	0	0	0	4	0	0	0	0	0	0	0	0	0	10	35
8:00 AM	0	0	7	0	0	0	6	0	0	0	0	0	0	0	0	0	13	41
8:15 AM	0	0	6	0	0	0	3	0	0	0	0	0	0	0	0	0	9	40
8:30 AM	0	0	6	0	0	0	1	0	0	0	0	0	0	0	0	0	7	39
8:45 AM	0	0	12	0	0	0	8	0	0	0	0	0	0	0	0	0	20	49
Count Total	0	0	45	0	0	0	39	0	0	0	0	0	0	0	0	0	84	0
Peak Hour	0	0	24	0	0	0	16	0	0	0	0	0	0	0	0	0	40	0

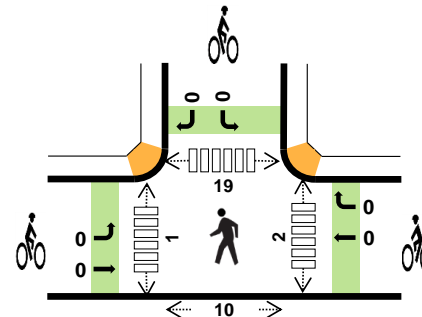
Two-Hour Count Summaries - Bikes																		
Interval Start	E Mississippi Ave			E Mississippi Ave			N/A			West Driveway			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 AM	0	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	0			
7:45 AM	0	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	0			
8:15 AM	0	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	0			
8:45 AM	0	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	0			
Peak Hour	0	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.

West Driveway E Mississippi Ave



Date: 12/13/2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	0.3%	0.96
WB	0.4%	0.96
NB	-	-
SB	2.6%	0.65
TOTAL	0.4%	0.97

Two-Hour Count Summaries

Interval Start		E Mississippi Ave				E Mississippi Ave				N/A				West Driveway				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	429	0	0	0	417	2	0	0	0	0	0	0	0	4	852	0
4:15 PM		0	0	443	0	0	0	394	1	0	0	0	0	0	0	0	11	849	0
4:30 PM		0	0	460	0	0	0	404	1	0	0	0	0	0	0	0	15	880	0
4:45 PM		0	0	437	0	0	0	384	4	0	0	0	0	0	0	0	9	834	3,415
5:00 PM		0	0	450	0	0	0	374	2	0	0	0	0	0	0	0	10	836	3,399
5:15 PM		0	0	416	0	0	0	364	2	0	0	0	0	0	0	0	10	792	3,342
5:30 PM		0	0	440	0	0	0	347	0	0	0	0	0	0	0	0	16	803	3,265
5:45 PM		0	0	452	0	0	0	363	2	0	0	0	0	0	0	0	12	829	3,260
Count Total		0	0	3,527	0	0	0	3,047	14	0	0	0	0	0	0	0	87	6,675	0
Peak Hour	All	0	0	1,769	0	0	0	1,599	8	0	0	0	0	0	0	0	39	3,415	0
	HV	0	0	6	0	0	0	7	0	0	0	0	0	0	0	0	1	14	0
	HV%	-	-	0%	-	-	-	0%	0%	-	-	-	-	-	-	-	3%	0%	0

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

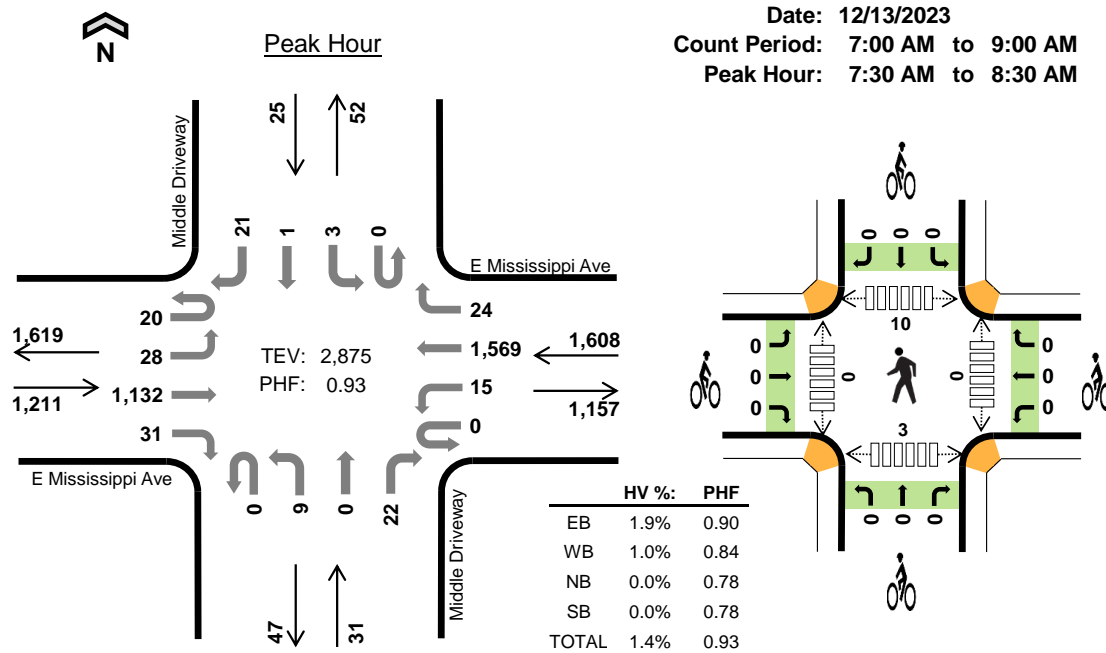
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	2	1	0	0	3	0	0	0	0	0	0	0	1	3	4
4:15 PM	1	2	0	1	4	0	0	0	0	0	0	1	3	0	4
4:30 PM	1	2	0	0	3	0	0	0	0	0	1	0	10	7	18
4:45 PM	2	2	0	0	4	0	0	0	0	0	1	0	5	0	6
5:00 PM	2	1	0	0	3	0	0	0	0	0	1	0	2	0	3
5:15 PM	1	2	0	0	3	0	0	0	0	0	0	0	1	1	2
5:30 PM	0	1	0	0	1	0	0	0	1	1	1	0	1	2	4
5:45 PM	2	1	0	0	3	0	0	0	0	0	0	1	0	0	1
Count Total	11	12	0	1	24	0	0	0	1	1	4	2	23	13	42
Peak Hr	6	7	0	1	14	0	0	0	0	0	2	1	19	10	32

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Mississippi Ave				E Mississippi Ave				N/A				West Driveway				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0
4:15 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	1	4	0
4:30 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	0
4:45 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	4	14
5:00 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	14
5:15 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	13
5:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	11
5:45 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	10
Count Total	0	0	11	0	0	0	12	0	0	0	0	0	0	0	0	1	24	0
Peak Hour	0	0	6	0	0	0	7	0	0	0	0	0	0	0	0	1	14	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Mississippi Ave			E Mississippi Ave			N/A			West Driveway			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:15 PM	0	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	1	1	1	1			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
Count Total	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0			
Peak Hour	0	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.

Middle Driveway E Mississippi Ave



Two-Hour Count Summaries

Interval Start		E Mississippi Ave				E Mississippi Ave				Middle Driveway				Middle Driveway				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		4	2	198	5	0	3	328	6	0	1	0	4	0	0	0	1	552	0
7:15 AM		0	2	217	4	0	1	410	1	0	0	0	6	0	0	0	5	646	0
7:30 AM		1	2	271	4	0	1	475	4	0	2	0	4	0	2	0	6	772	0
7:45 AM		9	8	296	9	0	3	427	3	0	2	0	5	0	0	0	3	765	2,735
8:00 AM		4	8	257	6	0	6	369	7	0	2	0	6	0	0	1	7	673	2,856
8:15 AM		6	10	308	12	0	5	298	10	0	3	0	7	0	1	0	5	665	2,875
8:30 AM		1	13	200	4	0	1	299	6	0	5	0	6	0	0	0	4	539	2,642
8:45 AM		3	11	219	6	0	2	327	16	0	4	1	6	0	0	0	2	597	2,474
Count Total		28	56	1,966	50	0	22	2,933	53	0	19	1	44	0	3	1	33	5,209	0
Peak Hour	All	20	28	1,132	31	0	15	1,569	24	0	9	0	22	0	3	1	21	2,875	0
	HV	0	0	23	0	0	0	16	0	0	0	0	0	0	0	0	0	39	0
	HV%	0%	0%	2%	0%	-	0%	1%	0%	-	0%	-	0%	-	0%	0%	0%	1%	0

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

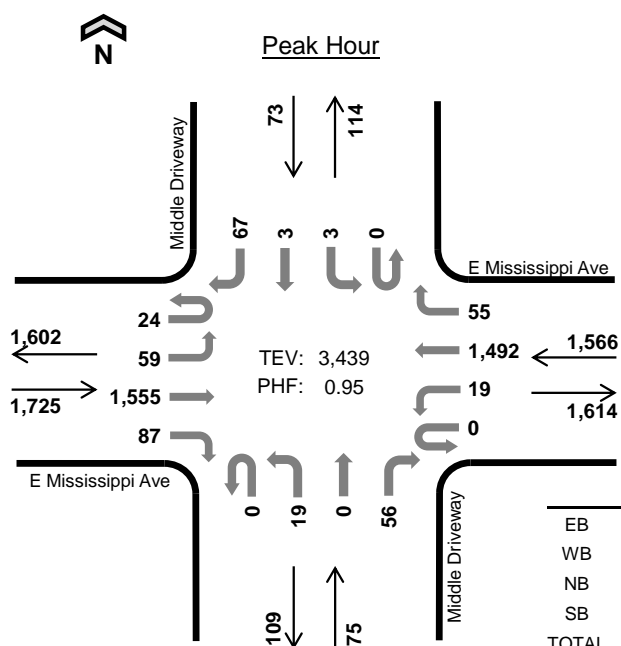
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	6	0	0	7	0	0	0	0	0	0	0	2	0	2
7:15 AM	3	8	0	0	11	0	0	0	0	0	0	0	0	0	0
7:30 AM	5	3	0	0	8	0	0	0	0	0	0	0	0	0	0
7:45 AM	6	5	0	0	11	0	0	0	0	0	0	0	5	0	5
8:00 AM	7	5	0	0	12	0	0	0	0	0	0	0	0	3	3
8:15 AM	5	3	0	0	8	0	0	0	0	0	0	0	5	0	5
8:30 AM	6	1	0	0	7	0	0	0	0	0	0	1	5	0	6
8:45 AM	12	8	0	0	20	0	0	0	0	0	0	1	2	0	3
Count Total	45	39	0	0	84	0	0	0	0	0	0	2	19	3	24
Peak Hour	23	16	0	0	39	0	0	0	0	0	0	0	10	3	13

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Mississippi Ave				E Mississippi Ave				Middle Driveway				Middle Driveway				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	1	0	0	0	6	0	0	0	0	0	0	0	0	0	7	0
7:15 AM	0	0	3	0	0	0	8	0	0	0	0	0	0	0	0	0	11	0
7:30 AM	0	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	8	0
7:45 AM	0	0	6	0	0	0	5	0	0	0	0	0	0	0	0	0	11	37
8:00 AM	0	0	7	0	0	0	5	0	0	0	0	0	0	0	0	0	12	42
8:15 AM	0	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	8	39
8:30 AM	0	0	6	0	0	0	1	0	0	0	0	0	0	0	0	0	7	38
8:45 AM	0	0	12	0	0	0	8	0	0	0	0	0	0	0	0	0	20	47
Count Total	0	0	45	0	0	0	39	0	0	0	0	0	0	0	0	0	84	0
Peak Hour	0	0	23	0	0	0	16	0	0	0	0	0	0	0	0	0	39	0

Two-Hour Count Summaries - Bikes																
Interval Start	E Mississippi Ave			E Mississippi Ave			Middle Driveway			Middle Driveway			15-min Total	Rolling One Hour		
	Eastbound			Westbound			Northbound			Southbound						
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT				
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

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

Middle Driveway E Mississippi Ave



	HV %:	PHF
EB	0.3%	0.92
WB	0.6%	0.94
NB	0.0%	0.75
SB	0.0%	0.87
TOTAL	0.5%	0.95

Two-Hour Count Summaries

Interval Start		E Mississippi Ave				E Mississippi Ave				Middle Driveway				Middle Driveway				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
	4:00 PM	10	10	385	21	0	2	394	19	0	3	0	16	0	0	1	17	878	0
	4:15 PM	7	18	380	17	0	4	350	16	0	4	0	13	0	1	1	19	830	0
	4:30 PM	1	22	415	32	0	6	386	14	0	7	0	7	0	1	1	14	906	0
	4:45 PM	6	9	375	17	0	7	362	6	0	5	0	20	0	1	0	17	825	3,439
	5:00 PM	8	13	364	17	0	5	347	1	0	4	0	21	0	0	2	21	803	3,364
	5:15 PM	6	16	390	19	0	3	350	6	0	1	0	18	0	2	1	12	824	3,358
	5:30 PM	8	15	342	23	0	7	322	10	0	3	0	21	0	0	1	15	767	3,219
	5:45 PM	9	18	402	23	0	4	343	7	0	2	0	22	0	2	0	10	842	3,236
Count Total		55	121	3,053	169	0	38	2,854	79	0	29	0	138	0	7	7	125	6,675	0
Peak Hour	All	24	59	1,555	87	0	19	1,492	55	0	19	0	56	0	3	3	67	3,439	0
	HV	0	0	6	0	0	0	6	4	0	0	0	0	0	0	0	0	16	0
	HV%	0%	0%	0%	0%	-	0%	0%	7%	-	0%	-	0%	-	0%	0%	0%	0%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	2	1	0	0	3	0	0	0	0	0	0	0	1	1	2
4:15 PM	1	4	0	0	5	0	0	0	0	0	0	0	2	0	2
4:30 PM	1	3	0	0	4	0	0	0	0	0	0	0	2	5	7
4:45 PM	2	2	0	0	4	0	0	0	0	0	0	0	1	0	1
5:00 PM	1	0	0	1	2	0	0	0	0	0	0	0	1	0	1
5:15 PM	3	3	0	0	6	0	0	0	0	0	0	0	0	5	5
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0
Count Total	11	15	0	1	27	0	0	0	0	0	0	0	7	11	18
Peak Hour	6	10	0	0	16	0	0	0	0	0	0	0	6	6	12

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Mississippi Ave				E Mississippi Ave				Middle Driveway				Middle Driveway				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0
4:15 PM	0	0	1	0	0	0	2	2	0	0	0	0	0	0	0	0	5	0
4:30 PM	0	0	1	0	0	0	1	2	0	0	0	0	0	0	0	0	4	0
4:45 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	4	16
5:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	15
5:15 PM	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	6	16
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
5:45 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	11
Count Total	0	0	11	0	0	0	11	4	0	0	0	0	0	0	0	1	27	0
Peak Hour	0	0	6	0	0	0	6	4	0	0	0	0	0	0	0	0	16	0

Two-Hour Count Summaries - Bikes																	
Interval Start	E Mississippi Ave			E Mississippi Ave			Middle Driveway			Middle Driveway			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	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	0	0	
5:45 PM	0	0	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	0	0	
Peak Hour	0	0	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.

S Chambers Rd E Mississippi Ave

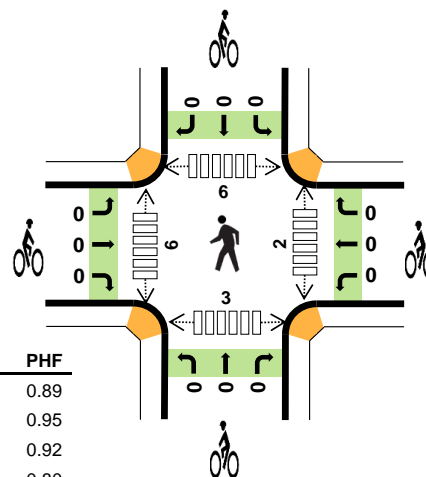
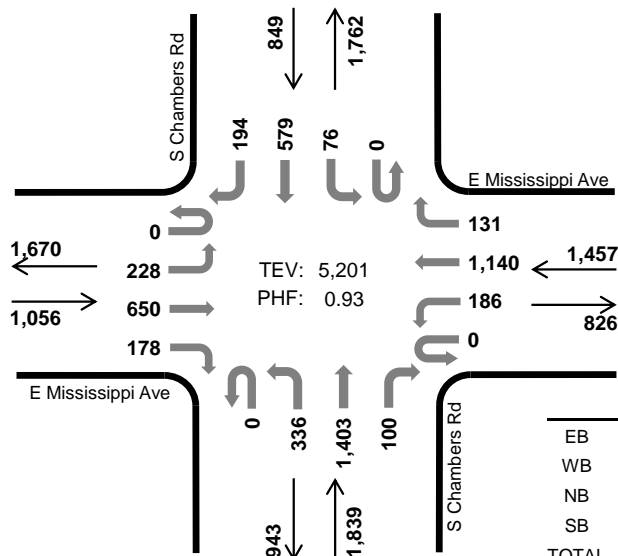


Peak Hour

Date: 12/13/2023

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:15 AM to 8:15 AM



	HV %:	PHF
EB	2.1%	0.89
WB	1.2%	0.95
NB	0.6%	0.92
SB	1.9%	0.80
TOTAL	1.3%	0.93

Two-Hour Count Summaries

Interval Start		E Mississippi Ave				E Mississippi Ave				S Chambers Rd				S Chambers Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	42	116	31	0	30	217	33	0	74	279	24	0	6	120	40	1,012	0
7:15 AM		0	48	133	30	0	44	277	41	0	82	368	49	0	9	120	47	1,248	0
7:30 AM		0	66	166	45	0	39	303	31	0	104	327	21	0	20	141	40	1,303	0
7:45 AM		0	51	166	54	0	67	288	28	0	84	379	12	0	24	187	54	1,394	4,957
8:00 AM		0	63	185	49	0	36	272	31	0	66	329	18	0	23	131	53	1,256	5,201
8:15 AM		0	68	159	53	0	42	221	26	0	71	287	15	0	19	148	36	1,145	5,098
8:30 AM		0	58	146	34	0	42	236	22	0	68	253	32	0	19	121	32	1,063	4,858
8:45 AM		0	51	131	38	0	43	221	21	0	77	200	20	0	30	119	40	991	4,455
Count Total		0	447	1,202	334	0	343	2,035	233	0	626	2,422	191	0	150	1,087	342	9,412	0
Peak Hour	All	0	228	650	178	0	186	1,140	131	0	336	1,403	100	0	76	579	194	5,201	0
	HV	0	1	14	7	0	0	15	2	0	4	7	0	0	1	12	3	66	0
	HV%	-	0%	2%	4%	-	0%	1%	2%	-	1%	0%	0%	-	1%	2%	2%	1%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	6	1	3	11	0	0	0	0	0	1	0	0	1	2
7:15 AM	3	6	4	4	17	0	0	0	0	0	1	1	2	0	4
7:30 AM	5	1	2	4	12	0	0	0	0	0	0	1	1	0	2
7:45 AM	7	6	1	4	18	0	0	0	0	0	1	1	1	2	5
8:00 AM	7	4	4	4	19	0	0	0	0	0	0	3	2	1	6
8:15 AM	4	5	6	4	19	0	0	0	0	0	5	0	3	0	8
8:30 AM	7	2	3	2	14	0	0	0	0	0	0	2	5	0	7
8:45 AM	11	7	6	8	32	0	0	0	0	0	0	4	5	1	10
Count Total	45	37	27	33	142	0	0	0	0	0	8	12	19	5	44
Peak Hour	22	17	11	16	66	0	0	0	0	0	2	6	6	3	17

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Mississippi Ave				E Mississippi Ave				S Chambers Rd				S Chambers Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	1	0	0	1	5	0	0	0	1	0	0	0	3	0	11	0
7:15 AM	0	0	3	0	0	0	5	1	0	2	2	0	0	0	2	2	17	0
7:30 AM	0	1	2	2	0	0	1	0	0	1	1	0	0	0	3	1	12	0
7:45 AM	0	0	5	2	0	0	5	1	0	0	1	0	0	0	4	0	18	58
8:00 AM	0	0	4	3	0	0	4	0	0	1	3	0	0	1	3	0	19	66
8:15 AM	0	0	4	0	0	0	3	2	0	1	5	0	0	0	4	0	19	68
8:30 AM	0	2	5	0	0	1	0	1	0	1	1	1	0	0	2	0	14	70
8:45 AM	0	4	6	1	0	1	5	1	0	1	4	1	0	1	6	1	32	84
Count Total	0	7	30	8	0	3	28	6	0	7	18	2	0	2	27	4	142	0
Peak Hour	0	1	14	7	0	0	15	2	0	4	7	0	0	1	12	3	66	0

Two-Hour Count Summaries - Bikes																		
Interval Start	E Mississippi Ave			E Mississippi Ave			S Chambers Rd			S Chambers Rd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

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

S Chambers Rd E Mississippi Ave

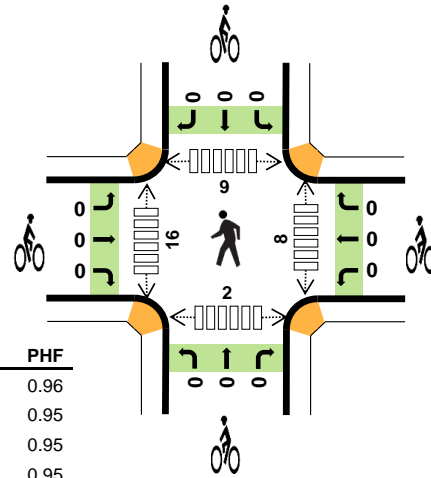
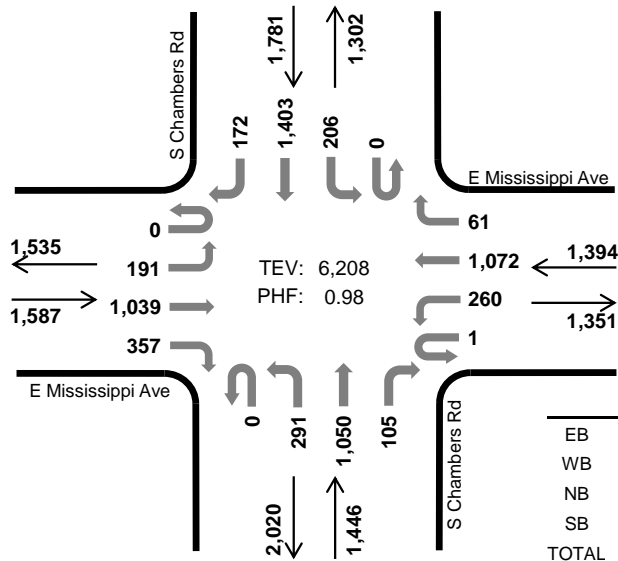


Peak Hour

Date: 12/13/2023

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	0.4%	0.96
WB	0.5%	0.95
NB	1.0%	0.95
SB	0.7%	0.95
TOTAL	0.7%	0.98

Two-Hour Count Summaries

Interval Start		E Mississippi Ave				E Mississippi Ave				S Chambers Rd				S Chambers Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	45	240	97	1	71	273	22	0	88	247	22	0	44	329	40	1,519	0
4:15 PM		0	49	238	95	0	66	254	14	0	75	270	34	0	54	350	52	1,551	0
4:30 PM		0	52	295	67	0	64	288	11	0	54	253	24	0	55	365	48	1,576	0
4:45 PM		0	45	266	98	0	59	257	14	0	74	280	25	0	53	359	32	1,562	6,208
5:00 PM		0	56	248	79	0	61	224	14	0	82	294	34	0	49	293	57	1,491	6,180
5:15 PM		0	57	269	72	0	61	248	10	0	54	251	40	0	63	333	42	1,500	6,129
5:30 PM		0	58	233	90	0	49	236	12	0	84	263	18	0	48	282	42	1,415	5,968
5:45 PM		0	57	260	89	0	48	217	19	0	95	276	16	0	42	271	51	1,441	5,847
Count Total		0	419	2,049	687	1	479	1,997	116	0	606	2,134	213	0	408	2,582	364	12,055	0
Peak Hour	All	0	191	1,039	357	1	260	1,072	61	0	291	1,050	105	0	206	1,403	172	6,208	0
	HV	0	1	2	4	0	0	6	1	0	3	12	0	0	1	11	1	42	0
	HV%	-	1%	0%	1%	0%	0%	1%	2%	-	1%	1%	0%	-	0%	1%	1%	1%	0

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

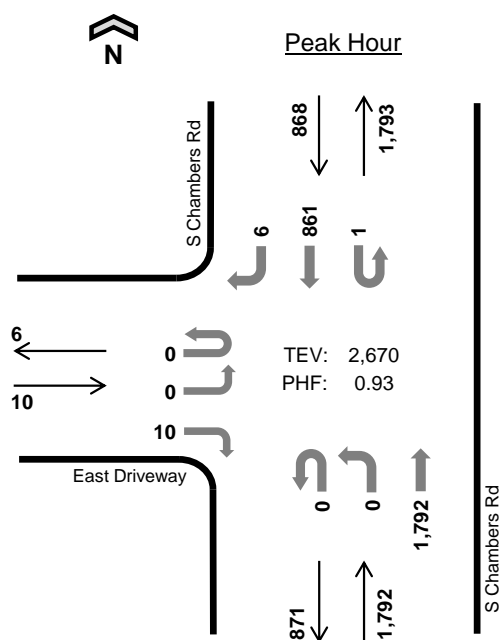
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	2	1	6	3	12	0	0	0	0	0	2	2	0	2	6
4:15 PM	2	2	5	3	12	0	0	0	0	0	4	7	1	0	12
4:30 PM	1	1	1	4	7	0	0	0	0	0	2	4	5	0	11
4:45 PM	2	3	3	3	11	0	0	0	0	0	0	3	3	0	6
5:00 PM	1	0	2	5	8	0	0	0	0	0	0	2	0	1	3
5:15 PM	2	2	3	4	11	0	0	0	0	0	4	0	0	3	7
5:30 PM	0	1	1	1	3	0	0	0	0	0	2	0	0	4	6
5:45 PM	1	1	3	3	8	0	0	0	0	0	0	0	0	1	1
Count Total	11	11	24	26	72	0	0	0	0	0	14	18	9	11	52
Peak Hour	7	7	15	13	42	0	0	0	0	0	8	16	9	2	35

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	E Mississippi Ave				E Mississippi Ave				S Chambers Rd				S Chambers Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	1	0	1	0	0	1	0	0	1	5	0	0	0	3	0	12	0
4:15 PM	0	0	1	1	0	0	2	0	0	1	4	0	0	0	2	1	12	0
4:30 PM	0	0	0	1	0	0	1	0	0	0	1	0	0	0	4	0	7	0
4:45 PM	0	0	1	1	0	0	2	1	0	1	2	0	0	1	2	0	11	42
5:00 PM	0	0	1	0	0	0	0	0	0	0	2	0	0	1	4	0	8	38
5:15 PM	0	1	1	0	0	0	2	0	0	0	3	0	0	1	3	0	11	37
5:30 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	3	33
5:45 PM	0	0	1	0	0	0	1	0	0	1	2	0	0	0	3	0	8	30
Count Total	0	2	5	4	0	0	10	1	0	4	20	0	0	3	22	1	72	0
Peak Hour	0	1	2	4	0	0	6	1	0	3	12	0	0	1	11	1	42	0

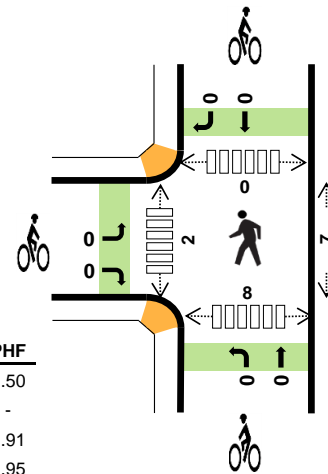
Two-Hour Count Summaries - Bikes																	
Interval Start	E Mississippi Ave			E Mississippi Ave			S Chambers Rd			S Chambers Rd			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	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	0	0	0
Count Total	0	0	0	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	0	0	0

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

S Chambers Rd East Driveway



Date: 12/13/2023
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:15 AM to 8:15 AM



	HV %:	PHF
EB	0.0%	0.50
WB	-	-
NB	0.5%	0.91
SB	1.8%	0.95
TOTAL	0.9%	0.93

Two-Hour Count Summaries

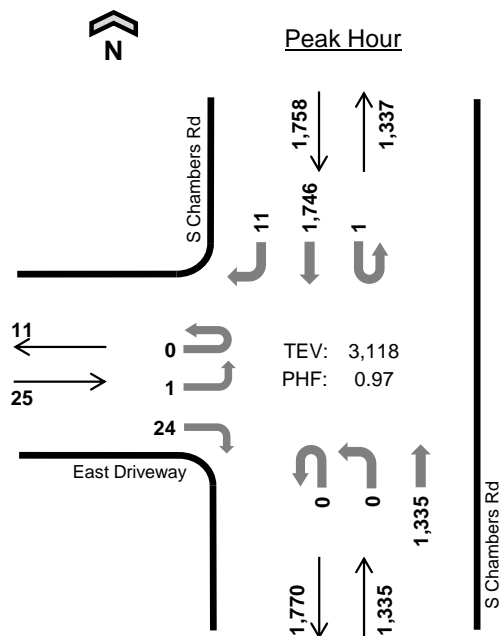
Interval Start		East Driveway				N/A				S Chambers Rd				S Chambers Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	2	0	0	0	0	0	0	316	0	0	0	140	1	459	0
7:15 AM		0	0	0	1	0	0	0	0	0	0	486	0	1	0	198	1	687	0
7:30 AM		0	0	0	1	0	0	0	0	0	0	422	0	0	0	226	2	651	0
7:45 AM		0	0	0	3	0	0	0	0	0	0	490	0	0	0	228	0	721	2,518
8:00 AM		0	0	0	5	0	0	0	0	0	0	394	0	0	0	209	3	611	
8:15 AM		0	0	0	1	0	0	0	0	0	0	389	0	0	0	170	4	564	2,547
8:30 AM		0	0	0	2	0	0	0	0	0	0	337	0	0	0	203	4	546	2,442
8:45 AM		0	0	0	4	0	0	0	0	0	0	274	0	1	0	193	0	472	2,193
Count Total		0	0	0	19	0	0	0	0	0	0	3,108	0	2	0	1,567	15	4,711	0
Peak Hour	All	0	0	0	10	0	0	0	0	0	0	1,792	0	1	0	861	6	2,670	0
	HV	0	0	0	0	0	0	0	0	0	0	9	0	0	0	16	0	25	0
	HV%	-	-	-	0%	-	-	-	-	-	-	1%	-	0%	-	2%	0%	1%	0

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

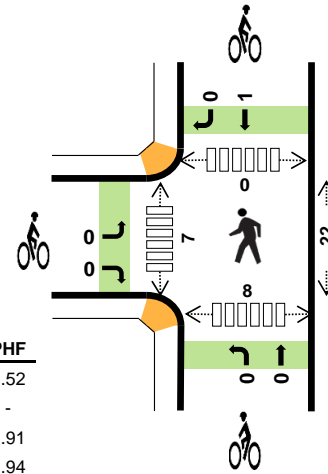
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	2	2	4	0	0	0	0	0	1	2	0	0	3
7:15 AM	0	0	2	5	7	0	0	0	0	0	2	0	0	2	4
7:30 AM	0	0	2	3	5	0	0	0	0	0	1	0	0	2	3
7:45 AM	0	0	2	4	6	0	0	0	0	0	4	0	0	2	6
8:00 AM	0	0	3	4	7	0	0	0	0	0	0	2	0	2	4
8:15 AM	0	0	7	5	12	0	0	0	0	0	7	0	0	4	11
8:30 AM	0	0	4	3	7	0	0	0	0	0	3	0	0	4	7
8:45 AM	0	0	9	7	16	0	0	0	0	0	3	0	0	6	9
Count Total	0	0	31	33	64	0	0	0	0	0	21	4	0	22	47
Peak Hr	0	0	9	16	25	0	0	0	0	0	7	2	0	8	17

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	East Driveway				N/A				S Chambers Rd				S Chambers Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	5	0	7	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	5	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	4	0	6	22
8:00 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	7	25
8:15 AM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	5	0	12	30
8:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	3	0	7	32
8:45 AM	0	0	0	0	0	0	0	0	0	0	9	0	0	0	7	0	16	42
Count Total	0	0	0	0	0	0	0	0	0	0	31	0	0	0	33	0	64	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	9	0	0	0	16	0	25	0
Two-Hour Count Summaries - Bikes																		
Interval Start	East Driveway			N/A			S Chambers Rd			S Chambers Rd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:15 AM	0	0	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	0	0		
7:45 AM	0	0	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	0	0		
8:15 AM	0	0	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	0	0		
8:45 AM	0	0	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	0	0		
Peak Hour	0	0	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.																		

S Chambers Rd East Driveway



Date: 12/13/2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM



	HV %:	PHF
EB	0.0%	0.52
WB	-	-
NB	0.8%	0.91
SB	0.9%	0.94
TOTAL	0.8%	0.97

Two-Hour Count Summaries

Interval Start		East Driveway				N/A				S Chambers Rd				S Chambers Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	1	0	3	0	0	0	0	0	0	341	0	0	0	407	2	754	0
4:15 PM		0	0	0	4	0	0	0	0	0	0	321	0	1	0	454	3	783	0
4:30 PM		0	1	0	4	0	0	0	0	0	0	297	0	0	0	463	4	769	0
4:45 PM		0	0	0	12	0	0	0	0	0	0	349	0	0	0	441	2	804	3,110
5:00 PM		0	0	0	4	0	0	0	0	0	0	368	0	0	0	388	2	762	
5:15 PM		0	0	0	5	0	0	0	0	0	0	329	0	0	0	433	4	771	3,106
5:30 PM		0	0	0	4	0	0	0	0	0	0	353	0	0	0	367	2	726	3,063
5:45 PM		0	0	0	9	0	0	0	0	0	0	315	0	0	0	358	2	684	2,943
Count Total		0	2	0	45	0	0	0	0	0	0	2,673	0	1	0	3,311	21	6,053	0
Peak Hour	All	0	1	0	24	0	0	0	0	0	0	1,335	0	1	0	1,746	11	3,118	0
	HV	0	0	0	0	0	0	0	0	0	0	11	0	0	0	15	0	26	0
	HV%	-	0%	-	0%	-	-	-	-	-	-	1%	-	0%	-	1%	0%	1%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	6	2	8	0	0	0	0	0	3	1	0	1	5
4:15 PM	0	0	5	3	8	0	0	0	0	0	13	6	0	3	22
4:30 PM	0	0	1	5	6	0	0	0	1	1	4	0	0	5	9
4:45 PM	0	0	4	4	8	0	0	0	0	0	2	0	0	0	2
5:00 PM	0	0	1	3	4	0	0	0	0	0	3	1	0	0	4
5:15 PM	0	0	3	5	8	0	0	0	0	0	4	3	0	0	7
5:30 PM	0	0	2	1	3	0	0	0	0	0	3	0	0	0	3
5:45 PM	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	23	26	49	0	0	0	1	1	32	11	0	9	52
Peak Hr	0	0	11	15	26	0	0	0	1	1	22	7	0	8	37

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	East Driveway				N/A				S Chambers Rd				S Chambers Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	2	0	8	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	3	0	8	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	5	0	6	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	8	30
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	4	26
5:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	5	0	8	26
5:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	23
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	4	19
Count Total	0	0	0	0	0	0	0	0	0	0	23	0	0	0	26	0	49	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	11	0	0	0	15	0	26	0

Two-Hour Count Summaries - Bikes																		
Interval Start	East Driveway			N/A			S Chambers Rd			S Chambers Rd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0				
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	1				
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Count Total	0	0	0	0	0	0	0	0	0	0	1	0	1	0				
Peak Hour	0	0	0	0	0	0	0	0	0	0	1	0	1	0				

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

SEPAAC All Data

Date/Time: 2022-02-01 00:00:00

Intersection Name: MissChambM60 10.24.220

Intersection Alias: 220

Access Data

Access Code	Connection Method	Revision	Address	IP Address	GPS Enabled	GPS Port
0	Direct IP	5.0.0	0	10.2.24.220	False	8

Phase Initialization Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Initial	1-Inact	2-Red	1-Inact	1-Inact	1-Inact	2-Red	1-Inact	1-Inact	None	None	None	None	None	None	None	None

Phase Data Bank 1:

Phase Timing

Phase	Min Green	Passage	Max1	Max2	DMAX	DSTP/10	Yel/10	Red/10	Green Delay	Yellow Delay	Walk Offset Time	Walk Offset Mode	Bike Green	Bike Psg	Walk Clr	Ped Clr	Alt Walk	Alt Ped	Flash Walk	Ext Ped	Actuated Rest in Walk
1	6	15	15	0	0	0	30	20	0	0	0	0	0	0	0	0	0	0	False	0	False
2	11	30	25	0	0	0	40	20	0	0	0	0	0	0	6	23	0	0	False	0	False
3	6	15	15	0	0	0	30	20	0	0	0	0	0	0	0	0	0	0	False	0	False
4	6	20	25	0	0	0	40	20	0	0	0	0	0	0	6	29	0	0	False	0	False
5	6	15	15	0	0	0	30	20	0	0	0	0	0	0	0	0	0	0	False	0	False
6	6	30	25	0	0	0	40	20	0	0	0	0	0	0	6	24	0	0	False	0	False
7	11	15	15	0	0	0	30	20	0	0	0	0	0	0	0	0	0	0	False	0	False
8	6	20	25	0	0	0	40	20	0	0	0	0	0	0	6	23	0	0	False	0	False
9	6	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
10	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
11	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
12	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
13	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
14	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
15	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
16	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False

Phase	Added Initial	Max Initial	Time B4 Redu	Car B4 Redu	Time to Redu	Min Gap	Non-Act Response	Veh Recall	Recall Delay	Ped Recall	Ped Recall Delay	Non Lock	Dual Entry	Last Car Pass	Condit Service	No Simu Gap Out	Omit	Minus Yel	Omit Call
1	0	0	0	0	0	0	False	None	0	None	0	True	False	False	False	False	0	0	0
2	30	18	20	0	10	30	False	None	0	None	0	False	True	False	False	False	0	0	0
3	0	0	0	0	0	0	False	None	0	None	0	True	False	False	False	False	0	0	0
4	30	18	20	0	10	30	False	None	0	None	0	False	True	False	False	False	0	0	0
5	0	0	0	0	0	0	False	None	0	None	0	True	False	False	False	False	0	0	0
6	30	18	20	0	10	30	False	None	0	None	0	False	True	False	False	False	0	0	0
7	0	0	0	0	0	0	False	None	0	None	0	True	False	False	False	False	0	0	0
8	30	18	20	0	10	30	False	None	0	None	0	False	True	False	False	False	0	0	0
9	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
10	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
11	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
12	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
13	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
14	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
15	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
16	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0

Vehicle Detector Phase Assignment

Veh Det	Assign Phase	Mode	Switch Phase	Extend	Delay	Volume	Occupy	Lock	Call	Pass	Added Initial	Queue	Fail	QLimit
1	1	0	0	0	0	0	0	0	1	1	1	0	0	0
2	6	0	0	0	0	0	0	0	1	1	1	0	0	0

3	6	0	0	0	0	0	0	0	1	1	1	0	0	0
5	5	0	0	0	0	0	0	0	1	1	1	0	0	0
6	5	0	0	0	0	0	0	0	1	1	1	0	0	0
7	2	0	0	0	0	0	0	0	1	1	1	0	0	0
8	2	0	0	0	0	0	0	0	1	1	1	0	0	0
9	4	0	0	0	0	0	0	0	1	1	1	0	0	0
10	4	0	0	0	0	0	0	0	1	1	1	0	0	0
11	7	0	0	0	0	0	0	0	1	1	1	0	0	0
12	7	0	0	0	0	0	0	0	1	1	1	0	0	0
13	3	0	0	0	0	0	0	0	1	1	1	0	0	0
14	8	0	0	0	0	0	0	0	1	1	1	0	0	0
17	8	0	0	0	0	0	0	0	1	1	1	0	0	0
18	2	0	0	0	0	0	0	0	1	1	1	0	0	0

Pedestrian Detector

Veh Det	Assign Phase	Mode	Switch Phase	Extend	Delay	Volume	Occupy	Lock	Call	Pass	Added Initial	Queue	Fail	QLimit
1	2	1	0	0	0	0	0	0	1	0	0	0	0	0
2	4	1	0	0	0	0	0	0	1	0	0	0	0	0
3	6	1	0	0	0	0	0	0	1	0	0	0	0	0
4	8	1	0	0	0	0	0	0	1	0	0	0	0	0

Phase Data Bank 2:

Phase Timing

Phase	Min Green	Passage	Max1	Max2	DMAx	DSTP/10	Yel/10	Red/10	Green Delay	Yellow Delay	Walk Offset Time	Walk Offset Mode	Bike Green	Bike Psg	Walk	Ped Clr	Alt Walk	Alt Ped Clr	Flash Walk	Ext Ped Clr	Actuated Rest in Walk
1	10	40	25	30	0	0	40	10	0	0	0	0	0	0	0	0	0	0	False	0	False
2	15	50	35	50	0	0	40	10	0	0	0	0	0	0	7	8	0	0	False	0	False
3	10	40	25	30	0	0	40	10	0	0	0	0	0	0	0	0	0	0	False	0	False
4	15	50	35	50	0	0	40	10	0	0	0	0	0	0	7	8	0	0	False	0	False
5	10	40	25	30	0	0	40	10	0	0	0	0	0	0	0	0	0	0	False	0	False
6	15	50	35	50	0	0	40	10	0	0	0	0	0	0	7	8	0	0	False	0	False
7	10	40	25	30	0	0	40	10	0	0	0	0	0	0	0	0	0	0	False	0	False
8	15	50	35	50	0	0	40	10	0	0	0	0	0	0	7	8	0	0	False	0	False
9	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
10	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
11	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
12	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
13	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
14	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
15	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
16	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False

Phase	Added Initial	Max Initial	Time B4 Redu	Car B4 Redu	Time to Redu	Min Gap	Non-Act Response	Veh Recall	Recall Delay	Ped Recall	Ped Recall Delay	Non Lock	Dual Entry	Last Car Pass	Condit Service	No Simu Gap Out	Omit	Minus Yel	Omit Call
1	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
2	0	0	0	0	0	0	True	None	0	None	0	False	False	False	False	False	0	0	0
3	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
4	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
5	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
6	0	0	0	0	0	0	True	None	0	None	0	False	False	False	False	False	0	0	0
7	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
8	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
9	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
10	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
11	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
12	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
13	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
14	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0

15	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
16	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0

Vehicle Detector Phase Assignment

Veh Det	Assign Phase	Mode	Switch Phase	Extend	Delay	Volume	Occupy	Lock	Call	Pass	Added Initial	Queue	Fail	QLimit
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Pedestrian Detector

Veh Det	Assign Phase	Mode	Switch Phase	Extend	Delay	Volume	Occupy	Lock	Call	Pass	Added Initial	Queue	Fail	QLimit
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Phase Data Bank 3:**Phase Timing**

Phase	Min Green	Passage	Max1	Max2	DMAX	DSTP/10	Yel/10	Red/10	Green Delay	Yellow Delay	Walk Offset Time	Walk Offset Mode	Bike Green	Bike Psg	Walk	Ped	Alt	Alt	Flash	Ext	Actuated
																Clr	Walk	Ped	Walk	Ped	Rest in
																			Clr	Clr	Walk
1	10	40	25	30	0	0	40	10	0	0	0	0	0	0	0	0	0	0	False	0	False
2	15	50	35	50	0	0	40	10	0	0	0	0	0	0	7	8	0	0	False	0	False
3	10	40	25	30	0	0	40	10	0	0	0	0	0	0	0	0	0	0	False	0	False
4	15	50	35	50	0	0	40	10	0	0	0	0	0	0	7	8	0	0	False	0	False
5	10	40	25	30	0	0	40	10	0	0	0	0	0	0	0	0	0	0	False	0	False
6	15	50	35	50	0	0	40	10	0	0	0	0	0	0	7	8	0	0	False	0	False
7	10	40	25	30	0	0	40	10	0	0	0	0	0	0	0	0	0	0	False	0	False
8	15	50	35	50	0	0	40	10	0	0	0	0	0	0	7	8	0	0	False	0	False
9	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
10	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
11	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
12	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
13	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
14	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
15	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
16	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False

Phase	Added Initial	Max Initial	Time B4 Redu	Car B4 Redu	Time to Redu	Min Gap	Non-Act Response	Veh Recall	Recall Delay	Ped Recall	Ped Recall Delay	Non Lock	Dual Entry	Last Car Pass	Condit Service	No Simu Gap Out	Omit	Minus Yel	Omit Call
1	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
2	0	0	0	0	0	0	True	None	0	None	0	False	False	False	False	False	0	0	0
3	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
4	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
5	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
6	0	0	0	0	0	0	True	None	0	None	0	False	False	False	False	False	0	0	0
7	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
8	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
9	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
10	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
11	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
12	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
13	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
14	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
15	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
16	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0

Vehicle Detector Phase Assignment

Veh Det	Assign Phase	Mode	Switch Phase	Extend	Delay	Volume	Occupy	Lock	Call	Pass	Added Initial	Queue	Fail	QLimit
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Pedestrian Detector

Veh Det	Assign Phase	Mode	Switch Phase	Extend	Delay	Volume	Occupy	Lock	Call	Pass	Added Initial	Queue	Fail	QLimit
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Phase Data Bank 4:**Phase Timing**

Phase	Min Green	Passage	Max1	Max2	DMAX	DSTP/10	Yel/10	Red/10	Green Delay	Yellow Delay	Walk Offset Time	Walk Offset Mode	Bike Green	Bike Psg	Walk	Ped Clr	Alt Walk	Alt Ped Clr	Flash Walk	Ext Ped Clr	Actuated Rest in Walk
1	10	40	25	30	0	0	40	10	0	0	0	0	0	0	0	0	0	0	False	0	False
2	15	50	35	50	0	0	40	10	0	0	0	0	0	0	7	8	0	0	False	0	False
3	10	40	25	30	0	0	40	10	0	0	0	0	0	0	0	0	0	0	False	0	False
4	15	50	35	50	0	0	40	10	0	0	0	0	0	0	7	8	0	0	False	0	False
5	10	40	25	30	0	0	40	10	0	0	0	0	0	0	0	0	0	0	False	0	False
6	15	50	35	50	0	0	40	10	0	0	0	0	0	0	7	8	0	0	False	0	False
7	10	40	25	30	0	0	40	10	0	0	0	0	0	0	0	0	0	0	False	0	False
8	15	50	35	50	0	0	40	10	0	0	0	0	0	0	7	8	0	0	False	0	False
9	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
10	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
11	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
12	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
13	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
14	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
15	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False
16	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	False	0	False

Phase	Added Initial	Max Initial	Time B4 Redu	Car B4 Redu	Time to Redu	Min Gap	Non-Act Response	Veh Recall	Recall Delay	Ped Recall	Ped Recall Delay	Non Lock	Dual Entry	Last Car Pass	Condit Service	No Simu Gap Out	Omit	Minus Yel	Omit Call
1	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
2	0	0	0	0	0	0	True	None	0	None	0	False	False	False	False	False	0	0	0
3	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
4	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
5	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
6	0	0	0	0	0	0	True	None	0	None	0	False	False	False	False	False	0	0	0
7	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
8	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
9	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
10	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
11	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
12	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
13	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
14	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
15	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0
16	0	0	0	0	0	0	False	None	0	None	0	False	False	False	False	False	0	0	0

Vehicle Detector Phase Assignment

Veh Det	Assign Phase	Mode	Switch Phase	Extend	Delay	Volume	Occupy	Lock	Call	Pass	Added Initial	Queue	Fail	QLimit
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Pedestrian Detector

Veh Det	Assign Phase	Mode	Switch Phase	Extend	Delay	Volume	Occupy	Lock	Call	Pass	Added Initial	Queue	Fail	QLimit
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Unit Data

Startup Time	Startup State	Red Revert	Auto Ped Clr	Stop T Reset	Sequence	Special Sequence	Test A = Flash	ABC Input(Entry) Modes	ABC Output(O/STS) Modes	D Input(Entry) Modes	D Output (O/STS) Modes	Aux Switch
6	All Red	40.0	0	0	1	0	0	0	0	2	0	0

Ring	Input Response	Output Selection
1	1	1
2	2	2
3	0	0
4	0	0

Remote Flash

LoadSwitch 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
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Flash	Dark	Dark	Dark	Dark	Dark	Dark	Dark	Dark	Dark	Dark	Dark	Dark	Dark	Dark	Dark	Dark	Dark	Dark	Dark	Dark	Dark	Dark	Dark	Dark	Dark	Dark
Alt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Flash Entry/Exit Phases													
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13
Entry	False	False	False	False	False	False	False	False	False	False	False	False	False
Exit	False	False	False	False	False	False	False	False	False	False	False	False	False

Overlap Data

Standard									
Overlap	Parents	Trail Grn / 10	Trail Yel / 10	Trail Red / 10	Trail Grn Preempt	+Grn Phases	-G/Y Phases	-Ped Phases	
FYA									
Overlap	Delay	Perm Phases	Prot Phases	-Ped Phases	Perm Overlaps	Prot Overlaps			
PED									
Overlap	Parents	Ped Walk 1	Ped Walk 2	Ped Clear 1	Ped Clear 2				
PRI									
Overlap	Transit Yel / 10	Transit Red / 10							

Ring

Phase	Ring	Concur Phases
1	1	1, 5, 6
2	1	2, 5, 6
3	1	3, 7, 8
4	1	4, 7, 8
5	2	1, 2, 5
6	2	1, 2, 6
7	2	3, 4, 7
8	2	3, 4, 8
9	0	9
10	0	10
11	0	11
12	0	12
13	0	13
14	0	14
15	0	15
16	0	16

Sequence Data

Sequence 1																
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ring																
1	1	2	3	4	0	0	0	0	0	0	0	0	0	0	0	0
2	5	6	7	8	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sequence 2																
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ring																
1	2	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0
2	5	6	7	8	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sequence 3																
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ring																
1	1	2	4	3	0	0	0	0	0	0	0	0	0	0	0	0

2	5	6	7	8	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sequence 4																
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ring																
1	2	1	4	3	0	0	0	0	0	0	0	0	0	0	0	0
2	5	6	7	8	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sequence 5																
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ring																
1	1	2	3	4	0	0	0	0	0	0	0	0	0	0	0	0
2	6	5	7	8	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sequence 6																
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ring																
1	2	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0
2	6	5	7	8	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sequence 7																
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ring																
1	1	2	4	3	0	0	0	0	0	0	0	0	0	0	0	0
2	6	5	7	8	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sequence 8																
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ring																
1	2	1	4	3	0	0	0	0	0	0	0	0	0	0	0	0
2	6	5	7	8	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sequence 9																
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ring																
1	1	2	3	4	0	0	0	0	0	0	0	0	0	0	0	0
2	5	6	8	7	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sequence 10																
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ring																
1	2	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0
2	5	6	8	7	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sequence 11																
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ring																
1	1	2	4	3	0	0	0	0	0	0	0	0	0	0	0	0
2	5	6	8	7	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sequence 12																
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Ring																
1	2	1	4	3	0	0	0	0	0	0	0	0	0	0	0	0
2	5	6	8	7	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sequence 13																
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ring																
1	1	2	3	4	0	0	0	0	0	0	0	0	0	0	0	0
2	6	5	8	7	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sequence 14																
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ring																
1	2	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0
2	6	5	8	7	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sequence 15																
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ring																
1	1	2	4	3	0	0	0	0	0	0	0	0	0	0	0	0
2	6	5	8	7	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sequence 16																
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ring																
1	2	1	4	3	0	0	0	0	0	0	0	0	0	0	0	0
2	6	5	8	7	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Port 1 and ITS Data

Address	Device Present	Basic Detection	Msg 40 Frame Enables
1	True	False	False
2	True	False	False
9	True	False	False
10	True	False	False
17	True	False	False

Port Configuration

Port Comm						
Port	Baud Rate	Data Bits	Parity	CTS	DCD	RTS
1	0	0	0	False	False	False
2	0	0	0	False	False	False
3	0	0	0	False	False	False
4	0	0	0	False	False	False
5	0	0	0	False	False	False
Scoot						
Phases			Det			
Stage A			RPLY			
Stage B			Phases			
Stage C			PHSMODE			
Stage D			COORD PH			
Stage E			Mode:			
Stage F			Msg Type:			
Stage G						

Stage H

SPaT Data

ID	Destination IP	DST Port	Enabled
1	0.0.0.0	1034	0
2	0.0.0.0	1034	0
3	0.0.0.0	1034	0
4	0.0.0.0	1034	0
5	0.0.0.0	1034	0
6	0.0.0.0	1034	0
7	0.0.0.0	1034	0
8	0.0.0.0	1034	0
9	0.0.0.0	1034	0
10	0.0.0.0	1034	0
11	0.0.0.0	1034	0
12	0.0.0.0	1034	0
13	0.0.0.0	1034	0
14	0.0.0.0	1034	0
15	0.0.0.0	1034	0
16	0.0.0.0	1034	0

System

Backup Time	900.0
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Output Mapping Configuration

Load Switch	Red	Mode	Yellow	Mode	Green	Mode	FIO
1	Phase Vehicle 1	Red	Phase Vehicle 1	Yellow	Phase Vehicle 1	Green	1
2	Phase Vehicle 2	Red	Phase Vehicle 2	Yellow	Phase Vehicle 2	Green	2
3	Phase Vehicle 3	Red	Phase Vehicle 3	Yellow	Phase Vehicle 3	Green	3
4	Phase Vehicle 4	Red	Phase Vehicle 4	Yellow	Phase Vehicle 4	Green	4
5	Phase Vehicle 5	Red	Phase Vehicle 5	Yellow	Phase Vehicle 5	Green	5
6	Phase Vehicle 6	Red	Phase Vehicle 6	Yellow	Phase Vehicle 6	Green	6
7	Phase Vehicle 7	Red	Phase Vehicle 7	Yellow	Phase Vehicle 7	Green	7
8	Phase Vehicle 8	Red	Phase Vehicle 8	Yellow	Phase Vehicle 8	Green	8
9	Phase Pedestrian 2	Dont Walk	Phase Pedestrian 2	Ped Clear	Phase Pedestrian 2	Walk	9
10	Phase Pedestrian 4	Dont Walk	Phase Pedestrian 4	Ped Clear	Phase Pedestrian 4	Walk	10
11	Phase Pedestrian 6	Dont Walk	Phase Pedestrian 6	Ped Clear	Phase Pedestrian 6	Walk	11
12	Phase Pedestrian 8	Dont Walk	Phase Pedestrian 8	Ped Clear	Phase Pedestrian 8	Walk	12
13	None	None	None	None	None	None	13
14	None	None	None	None	None	None	14
15	None	None	None	None	None	None	15
16	None	None	None	None	None	None	16
17	None	None	None	None	None	None	17
18	None	None	None	None	None	None	18
19	None	None	None	None	None	None	19
20	None	None	None	None	None	None	20
21	None	None	None	None	None	None	21
22	None	None	None	None	None	None	22
23	None	None	None	None	None	None	23
24	None	None	None	None	None	None	24
25	None	None	None	None	None	None	25
26	None	None	None	None	None	None	26
27	None	None	None	None	None	None	27
28	None	None	None	None	None	None	28
29	None	None	None	None	None	None	29
30	None	None	None	None	None	None	30
31	None	None	None	None	None	None	31
32	None	None	None	None	None	None	32

Unit Bank: 1

2/1/22, 2:06 PM

RptAllData_220_20220201_1406.html

Peer to Peer Sources																
PeerID			IP		Timeout				Peer Name							
Peer to Peer Functions																
FunctionID		SourceID		Source Func			Source Index			Input Func		Input Index			Fail Mode	
Unit Bank: 2																
Peer to Peer Sources																
PeerID			IP		Timeout				Peer Name							
Peer to Peer Functions																
FunctionID		SourceID		Source Func			Source Index			Input Func		Input Index			Fail Mode	
Unit Bank: 3																
Peer to Peer Sources																
PeerID			IP		Timeout				Peer Name							
Peer to Peer Functions																
FunctionID		SourceID		Source Func			Source Index			Input Func		Input Index			Fail Mode	
Unit Bank: 4																
Peer to Peer Sources																
PeerID			IP		Timeout				Peer Name							
Peer to Peer Functions																
FunctionID		SourceID		Source Func			Source Index			Input Func		Input Index			Fail Mode	
Coord Data																
Coord Setup																
Operation		Mode	Max	Correction		Offset		Force	Max Dwell		Yield Period			Manual Pattern		
Auto		Perm	Inhibit	Short Way +		End Green		Cycle	0		0			1		
Pattern Data																
Pattern	Cycle Length	Coord Mode		Max Mode	Corr Mode	Coord Offset		Force Mode	Spec Func	Time Offset	Sequence	R2 Lag	R3 Lag	R4 Lag		
1	140	0		0	0	0		0	0	4	5	0	0	0		
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	23	46	30	41	16	53	12	59	0	0	0	0	0	0	0	0
Mode	None	None	None	Max Rec	None	None	None	Max Rec	None	None	None	None	None	None	None	None
Coord	False	True	False	False	False	True	False	False	False	False	False	False	False	False	False	False
DCP	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
P.RED.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P.EXT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pattern	Cycle Length	Coord Mode		Max Mode	Corr Mode	Coord Offset		Force Mode	Spec Func	Time Offset	Sequence	R2 Lag	R3 Lag	R4 Lag		
2	120	0		0	0	0		0	0	25	11	0	0	0		
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	17	44	18	41	16	45	16	43	0	0	0	0	0	0	0	0
Mode	None	None	None	Max Rec	None	None	None	Max Rec	None	None	None	None	None	None	None	None
Coord	False	True	False	False	False	True	False	False	False	False	False	False	False	False	False	False
DCP	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
P.RED.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P.EXT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pattern	Cycle Length	Coord Mode		Max Mode	Corr Mode	Coord Offset		Force Mode	Spec Func	Time Offset	Sequence	R2 Lag	R3 Lag	R4 Lag		
3	135	0		0	0	0		0	0	45	3	0	0	0		
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

file:///C:/Program Files (x86)/ITS Software/TACTICS Central/Report Data/Intersection/220/RptAllData_220_20220201_1406.html

9/25

[illegible]

Time Based Control Data

DST

Cycle Zero: 1 day, 0:00			DST Type: 0			TimeZoneDiff: -25200					
Entry Number	Begin Month	Begin Occurrences	Begin Day Of Week	Begin Day Of Month	Begin Seconds To Transition	End Month	End Occurrences	End Day Of Week	End Day Of Month	End Seconds To Transition	Seconds To Adjust
1	3	2	1	1	7200	11	1	1	1	7200	3600
2	3	2	1	1	7200	11	1	1	1	7200	3600

Schedules

[illegible]

Day Plan 1

Event	Hour	Minute	Action
1	8	30	4
2	20	30	5
3	0	0	0
4	0	0	0
5	0	0	0
6	0	0	0
7	0	0	0
8	0	0	0
9	0	0	0
10	0	0	0
11	0	0	0
12	0	0	0
13	0	0	0
14	0	0	0
15	0	0	0

Day Plan 2

Event	Hour	Minute	Action
1	6	0	1
2	9	0	2
3	15	0	3
4	19	0	2

5	22	0	5
6	0	0	0
7	0	0	0
8	0	0	0
9	0	0	0
10	0	0	0
11	0	0	0
12	0	0	0
13	0	0	0
14	0	0	0
15	0	0	0

Day Plan 3

Event	Hour	Minute	Action
1	7	30	4
2	22	0	5
3	0	0	0
4	0	0	0
5	0	0	0
6	0	0	0
7	0	0	0
8	0	0	0
9	0	0	0
10	0	0	0
11	0	0	0
12	0	0	0
13	0	0	0
14	0	0	0
15	0	0	0

Actions

Action	Pattern	Aux1	Aux2	Aux3	SP1	SP2	SP3	SP4	SP5	SP6	SP7	SP8	DIM	Det1	Det2	Det3	Ph1	Ph2	Ph3	Ph4	Ph5	Ph6	Ph7	Ph8	Ph9	Ph10	Ph11	Ph12	Ph13	Ph
1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	254	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
254	254	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Special Function Maps

Phase Functions

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		1	2	3	4	5	6	7	8	9	10	11	12
Special Function 1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0													
Special Function 2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0													
Special Function 3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0													
Special Function 4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0													
Special Function 5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0													
Special Function 6	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0													
Special Function 7	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0													
Special Function 8	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0													

Preempt Configuration

Preempt 1 Data

DET	DELAY	MXCAL		DB/10	NLOCK	EXTND		L OUT	SRMOD	LINK#	DURAT	GAT
248	0	135		0	0	0		0	0	0	5	0
MIN GRN	MIN WLK	DWL GRN	EXT PED	SEL PED CLR	SEL YEL/10	SEL RED/10	TRK GRN	TRK PED CLR	TRK YEL/10	TRK RED/10	RET PED CLR	RET YEL/10
0	0	5	0	0	0	0	0	0	0	0	0	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
Calls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle															
Track Green	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
Dwell	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped															
Track Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dwell	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overlap															
Track Green	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dwell	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt 2 Data

DET	DELAY	MXCAL		DB/10	NLOCK	EXTND		L OUT	SRMOD	LINK#	DURAT	GAT
249	0	135		0	0	0		0	0	0	5	0
MIN GRN	MIN WLK	DWL GRN	EXT PED	SEL PED CLR	SEL YEL/10	SEL RED/10	TRK GRN	TRK PED CLR	TRK YEL/10	TRK RED/10	RET PED CLR	RET YEL/10
0	0	5	0	0	0	0	0	0	0	0	0	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
Calls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle															
Track Green	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
Dwell	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped															
Track Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dwell	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overlap															
Track Green	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
Dwell	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt 3 Data

DET	DELAY	MXCAL		DB/10	NLOCK	EXTND		L OUT	SRMOD	LINK#	DURAT	GAT
250	0	135		0	0	0		0	0	0	5	0
MIN GRN	MIN WLK	DWL GRN	EXT PED	SEL PED CLR	SEL YEL/10	SEL RED/10	TRK GRN	TRK PED CLR	TRK YEL/10	TRK RED/10	RET PED CLR	RET YEL/10
0	0	5	0	0	0	0	0	0	0	0	0	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
Calls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle															
Track Green	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Dwell	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped															
Track Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Track Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dwell	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overlap															
Track Green	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dwell	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt 4 Data

DET	DELAY		MXCAL		DB/10	NLOCK	EXTND		L OUT	SRMOD	LINK#	DURAT	GAT
251	0		135		0	0	0		0	0	0	5	0
MIN GRN	MIN WLK	DWL GRN	EXT PED	SEL PED CLR	SEL YEL/10	SEL RED/10	TRK GRN	TRK PED CLR	TRK YEL/10	TRK RED/10	RET PED CLR	RET YEL/10	
0	0	5	0	0	0	0	0	0	0	0	0	0	

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
Calls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Vehicle

Track Green	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0
Dwell	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ped

Track Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dwell	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Overlap

Track Green	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
Dwell	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt 5 Data

DET	DELAY		MXCAL		DB/10	NLOCK	EXTND		L OUT	SRMOD	LINK#	DURAT	GAT
252	0		0		0	0	0		0	0	0	0	0
MIN GRN	MIN WLK	DWL GRN	EXT PED	SEL PED CLR	SEL YEL/10	SEL RED/10	TRK GRN	TRK PED CLR	TRK YEL/10	TRK RED/10	RET PED CLR	RET YEL/10	
0	0	10	0	8	40	20	10	8	40	20	8	40	

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
Calls	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0

Vehicle

Track Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dwell	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ped

Track Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dwell	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Overlap

Track Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dwell	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt 6 Data

DET	DELAY		MXCAL		DB/10	NLOCK	EXTND	L OUT	SRMOD	LINK#	DURAT	GAT
253	0		0		0	0	0	0	0	0	0	0
MIN GRN	MIN WLK	DWL GRN	EXT PED	SEL PED CLR	SEL YEL/10	SEL RED/10	TRK GRN	TRK PED CLR	TRK YEL/10	TRK RED/10	RET PED CLR	RET YEL/10
0	0	10	0	8	40	20	10	8	40	20	8	40

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
Calls	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
Vehicle															
Track Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dwell	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped															
Track Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dwell	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overlap															
Track Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dwell	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt 7 Data

DET	DELAY	MXCAL		DB/10	NLOCK	EXTND	L OUT		SRMOD	LINK#	DURAT	GAT
0	0	0		0	0	0	0		0	0	0	0
MIN GRN	MIN WLK	DWL GRN	EXT PED	SEL PED CLR	SEL YEL/10	SEL RED/10	TRK GRN	TRK PED CLR	TRK YEL/10	TRK RED/10	RET PED CLR	RET YEL/10
10	10	10	0	8	40	20	10	8	40	20	8	40

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Calls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle															
Track Green	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4
Dwell	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped															
Track Green	3	0	3	0	3	0	3	0	3	3	3	3	3	3	3
Dwell	3	0	3	0	3	0	3	0	3	3	3	3	3	3	3
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overlap															
Track Green	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Dwell	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt 8 Data

DET	DELAY	MXCAL		DB/10	NLOCK	EXTND	L OUT		SRMOD	LINK#	DURAT	GAT
0	0	0		0	0	0	0		0	0	0	0
MIN GRN	MIN WLK	DWL GRN	EXT PED	SEL PED CLR	SEL YEL/10	SEL RED/10	TRK GRN	TRK PED CLR	TRK YEL/10	TRK RED/10	RET PED CLR	RET YEL/10
10	10	10	0	8	40	20	10	8	40	20	8	40

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Calls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle															
Track Green	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4
Dwell	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped															
Track Green	3	0	3	0	3	0	3	0	3	3	3	3	3	3	3
Dwell	3	0	3	0	3	0	3	0	3	3	3	3	3	3	3
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overlap															
Track Green	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4

Dwell	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt 9 Data

DET	DELAY	MXCAL		DB/10	NLOCK	EXTND		L OUT	SRMOD	LINK#	DURAT	GAT
0	0	0		0	0	0		0	0	0	0	0
MIN GRN	MIN WLK	DWL GRN	EXT PED	SEL PED CLR	SEL YEL/10	SEL RED/10	TRK GRN	TRK PED CLR	TRK YEL/10	TRK RED/10	RET PED CLR	RET YEL/10
10	10	10	0	8	40	20	10	8	40	20	8	40

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Calls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle															
Track Green	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4
Dwell	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped															
Track Green	3	0	3	0	3	0	3	0	3	3	3	3	3	3	3
Dwell	3	0	3	0	3	0	3	0	3	3	3	3	3	3	3
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overlap															
Track Green	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Dwell	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt 10 Data

DET	DELAY	MXCAL		DB/10	NLOCK	EXTND		L OUT	SRMOD	LINK#	DURAT	GAT
0	0	0		0	0	0		0	0	0	0	0
MIN GRN	MIN WLK	DWL GRN	EXT PED	SEL PED CLR	SEL YEL/10	SEL RED/10	TRK GRN	TRK PED CLR	TRK YEL/10	TRK RED/10	RET PED CLR	RET YEL/10
10	10	10	0	8	40	20	10	8	40	20	8	40

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Calls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle															
Track Green	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4
Dwell	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped															
Track Green	3	0	3	0	3	0	3	0	3	3	3	3	3	3	3
Dwell	3	0	3	0	3	0	3	0	3	3	3	3	3	3	3
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overlap															
Track Green	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Dwell	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt 11 Data

DET	DELAY	MXCAL		DB/10	NLOCK	EXTND		L OUT	SRMOD	LINK#	DURAT	GAT
0	0	0		0	0	0		0	0	0	0	0
MIN GRN	MIN WLK	DWL GRN	EXT PED	SEL PED CLR	SEL YEL/10	SEL RED/10	TRK GRN	TRK PED CLR	TRK YEL/10	TRK RED/10	RET PED CLR	RET YEL/10
10	10	10	0	8	40	20	10	8	40	20	8	40

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Calls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle															

Track Green	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4
Dwell	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped															
Track Green	3	0	3	0	3	0	3	0	3	3	3	3	3	3	3
Dwell	3	0	3	0	3	0	3	0	3	3	3	3	3	3	3
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overlap															
Track Green	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Dwell	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt 12 Data												
DET	DELAY	MXCAL		DB/10	NLOCK		EXTND	L OUT	SRMOD	LINK#	DURAT	GAT
0	0	0		0	0		0	0	0	0	0	0
MIN GRN	MIN WLK	DWL GRN	EXT PED	SEL PED CLR	SEL YEL/10	SEL RED/10	TRK GRN	TRK PED CLR	TRK YEL/10	TRK RED/10	RET PED CLR	RET YEL/10
10	10	10	0	8	40	20	10	8	40	20	8	40

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Calls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle															
Track Green	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4
Dwell	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped															
Track Green	3	0	3	0	3	0	3	0	3	3	3	3	3	3	3
Dwell	3	0	3	0	3	0	3	0	3	3	3	3	3	3	3
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overlap															
Track Green	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Dwell	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority

Priority 1

N-Lock	Delay	Extend	Default Pattern	Min Grn	Max Grn	No Lockout	LockoutA	LockoutB	Overlap	Pre Grn	Recall	ExCo	Phase	Svc	Signal Type	Olp Blankout
False	0	0	253	0	1	0	0	0	0	0	0	0			0	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CO-Phase	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
QJ-Phase	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Dector	1	2	3	4	5	6	7	8	9
Detector Number	0	0	0	0	0	0	0	0	0

Bank: 1															
PR. Dets	PE	1A		2A		3A		4A		5A		6A		BU	
TSD	0	0		0		0		0		0		0		0	
TED	0	0		0		0		0		0		0		0	
TTL	0	0		0		0		0		0		0		0	

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit Call	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Phase Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Phase Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Ped Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Recovery	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Level	Alt Seq	Min Walk	Freq	Ped Skip	FPF Override	FPW Lvl	CPE	Ped	Method	Return	Ped Wait	Ped Override	Alt Seq Enabled	Fo
0	0	0	0	0	False	True	False	False	0	0	0	0	False	Fa

Queue	1	2	3	4	5	6
Queue Phase	0	0	0	0	0	0
Queue Det	0	0	0	0	0	0
Queue Time	0	0	0	0	0	0

Bank: 2

PR. Dets	PE	1A	2A	3A	4A	5A	6A	BU
TSD	0	0	0	0	0	0	0	0
TED	0	0	0	0	0	0	0	0
TTL	0	0	0	0	0	0	0	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit Call	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Phase Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Ped Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Recovery	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Level	Alt Seq	Min Walk	Freq	Ped Skip	FPF Override	FPW Lvl	CPE	Ped	Method	Return	Ped Wait	Ped Override	Alt Seq Enabled	Fo
0	0	0	0	0	False	True	False	False	0	0	0	0	False	Fa

Queue	1	2	3	4	5	6
Queue Phase	0	0	0	0	0	0
Queue Det	0	0	0	0	0	0
Queue Time	0	0	0	0	0	0

Bank: 3

PR. Dets	PE	1A	2A	3A	4A	5A	6A	BU
TSD	0	0	0	0	0	0	0	0
TED	0	0	0	0	0	0	0	0
TTL	0	0	0	0	0	0	0	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit Call	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Phase Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Ped Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Recovery	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Level	Alt Seq	Min Walk	Freq	Ped Skip	FPF Override	FPW Lvl	CPE	Ped	Method	Return	Ped Wait	Ped Override	Alt Seq Enabled	Fo
0	0	0	0	0	False	True	False	False	0	0	0	0	False	Fa

Queue	1	2	3	4	5	6
Queue Phase	0	0	0	0	0	0
Queue Det	0	0	0	0	0	0
Queue Time	0	0	0	0	0	0

Bank: 4

PR. Dets	PE	1A	2A	3A	4A	5A	6A	BU
TSD	0	0	0	0	0	0	0	0
TED	0	0	0	0	0	0	0	0
TTL	0	0	0	0	0	0	0	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit Call	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Phase Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Ped Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Recovery	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Level	Alt Seq	Min Walk	Freq	Ped Skip	FPF Override	FPW Lvl	CPE	Ped	Method	Return	Ped Wait	Ped Override	Alt Seq Enabled	Fo
0	0	0	0	0	False	True	False	False	0	0	0	0	False	Fa
Queue		1			2		3			4		5		6
Queue Phase		0			0		0			0		0		0
Queue Det		0			0		0			0		0		0
Queue Time		0			0		0			0		0		0

Priority 2

N-Lock	Delay	Extend	Default Pattern	Min Grn	Max Grn	No Lockout	LockoutA	LockoutB	Overlap	Pre Grn	Recall	ExCo	Phase	Svc	Signal Type	Olp Blankout	
False	0	0	253	0	1	0	0	0	0	0	0	0			0	0	
Phase		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
CO-Phase		False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	
QJ-Phase		False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	
Dector		1	2		3		4		5		6		7		8		9
Detector Number		0	0		0		0		0		0		0		0		0

Bank: 1

PR. Dets	PE	1A		2A		3A		4A		5A		6A		BU	
TSD	0	0		0		0		0		0		0		0	
TED	0	0		0		0		0		0		0		0	
TTL	0	0		0		0		0		0		0		0	
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit Call	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Phase Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Ped Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Recovery	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Level	Alt Seq	Min Walk	Freq	Ped Skip	FPF Override	FPW Lvl	CPE	Ped	Method	Return	Ped Wait	Ped Override	Alt Seq Enabled	Fo
0	0	0	0	0	False	True	False	False	0	0	0	0	False	Fa
Queue		1			2		3			4		5		6
Queue Phase		0			0		0			0		0		0
Queue Det		0			0		0			0		0		0
Queue Time		0			0		0			0		0		0

Bank: 2

PR. Dets	PE	1A		2A		3A		4A		5A		6A		BU	
TSD	0	0		0		0		0		0		0		0	
TED	0	0		0		0		0		0		0		0	
TTL	0	0		0		0		0		0		0		0	
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit Call	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Phase Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Ped Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Recovery	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Level	Alt Seq	Min Walk	Freq	Ped Skip	FPF Override	FPW Lvl	CPE	Ped	Method	Return	Ped Wait	Ped Override	Alt Seq Enabled	Fo
0	0	0	0	0	False	True	False	False	0	0	0	0	False	Fa
Queue		1			2		3			4		5		6
Queue Phase		0			0		0			0		0		0
Queue Det		0			0		0			0		0		0
Queue Time		0			0		0			0		0		0

Bank: 2

Bank: 3															
PR. Dets	PE	1A		2A		3A		4A		5A		6A		BU	
TSD	0	0		0		0		0		0		0		0	
TED	0	0		0		0		0		0		0		0	
TTL	0	0		0		0		0		0		0		0	

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit Call	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Phase Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Ped Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Recovery	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Level	Alt Seq	Min Walk	Freq	Ped Skip	FPF Override	FPW Lvl	CPE	Ped	Method	Return	Ped Wait	Ped Override	Alt Seq Enabled	Fo
0	0	0	0	0	False	True	False	False	0	0	0	0	False	Fa

Queue	1	2		3		4		5		6	
Queue Phase	0	0		0		0		0		0	
Queue Det	0	0		0		0		0		0	
Queue Time	0	0		0		0		0		0	

Bank: 4															
PR. Dets	PE	1A		2A		3A		4A		5A		6A		BU	
TSD	0	0		0		0		0		0		0		0	
TED	0	0		0		0		0		0		0		0	
TTL	0	0		0		0		0		0		0		0	

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit Call	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Phase Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Ped Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Recovery	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Level	Alt Seq	Min Walk	Freq	Ped Skip	FPF Override	FPW Lvl	CPE	Ped	Method	Return	Ped Wait	Ped Override	Alt Seq Enabled	Fo
0	0	0	0	0	False	True	False	False	0	0	0	0	False	Fa

Queue	1	2		3		4		5		6	
Queue Phase	0	0		0		0		0		0	
Queue Det	0	0		0		0		0		0	
Queue Time	0	0		0		0		0		0	

Priority 3

N-Lock	Delay	Extend	Default Pattern	Min Grn	Max Grn	No Lockout	LockoutA	LockoutB	Overlap	Pre Grn	Recall	ExCo	Phase	Svc	Signal Type	Olp Blankout
False	0	0	253	0	1	0	0	0	0	0	0	0	0	0	0	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CO-Phase	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
QJ-Phase	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Dector	1	2		3		4		5		6		7		8		9
Detector Number	0	0		0		0		0		0		0		0		0

Bank: 1															
PR. Dets	PE	1A		2A		3A		4A		5A		6A		BU	
TSD	0	0		0		0		0		0		0		0	
TED	0	0		0		0		0		0		0		0	
TTL	0	0		0		0		0		0		0		0	

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit Call	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Phase Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Ped Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
----------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------

Recovery	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
----------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------

Level	Alt Seq	Min Walk	Freq	Ped Skip	FPF Override	FPW Lvl	CPE	Ped	Method	Return	Ped Wait	Ped Override	Alt Seq Enabled	Fo
0	0	0	0	0	False	True	False	False	0	0	0	0	False	Fa

Queue	1	2	3	4	5	6
Queue Phase	0	0	0	0	0	0
Queue Det	0	0	0	0	0	0
Queue Time	0	0	0	0	0	0

Bank: 2

PR. Dets	PE	1A	2A	3A	4A	5A	6A	BU
TSD	0	0	0	0	0	0	0	0
TED	0	0	0	0	0	0	0	0
TTL	0	0	0	0	0	0	0	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit Call	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Phase Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Ped Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Recovery	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Level	Alt Seq	Min Walk	Freq	Ped Skip	FPF Override	FPW Lvl	CPE	Ped	Method	Return	Ped Wait	Ped Override	Alt Seq Enabled	Fo
0	0	0	0	0	False	True	False	False	0	0	0	0	False	Fa

Queue	1	2	3	4	5	6
Queue Phase	0	0	0	0	0	0
Queue Det	0	0	0	0	0	0
Queue Time	0	0	0	0	0	0

Bank: 3

PR. Dets	PE	1A	2A	3A	4A	5A	6A	BU
TSD	0	0	0	0	0	0	0	0
TED	0	0	0	0	0	0	0	0
TTL	0	0	0	0	0	0	0	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit Call	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Phase Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Ped Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Recovery	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Level	Alt Seq	Min Walk	Freq	Ped Skip	FPF Override	FPW Lvl	CPE	Ped	Method	Return	Ped Wait	Ped Override	Alt Seq Enabled	Fo
0	0	0	0	0	False	True	False	False	0	0	0	0	False	Fa

Queue	1	2	3	4	5	6
Queue Phase	0	0	0	0	0	0
Queue Det	0	0	0	0	0	0
Queue Time	0	0	0	0	0	0

Bank: 4

PR. Dets	PE	1A	2A	3A	4A	5A	6A	BU
TSD	0	0	0	0	0	0	0	0
TED	0	0	0	0	0	0	0	0
TTL	0	0	0	0	0	0	0	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit Call	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Phase Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Ped Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Recovery	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Level	Alt Seq	Min Walk	Freq	Ped Skip	FPF Override	FPW Lvl	CPE	Ped	Method	Return	Ped Wait	Ped Override	Alt Seq Enabled	Fo
0	0	0	0	0	False	True	False	False	0	0	0	0	False	Fa
Queue		1			2		3			4		5		6
Queue Phase		0			0		0			0		0		0
Queue Det		0			0		0			0		0		0
Queue Time		0			0		0			0		0		0

Priority 4

N-Lock	Delay	Extend	Default Pattern	Min Grn	Max Grn	No Lockout	LockoutA	LockoutB	Overlap	Pre Grn	Recall	ExCo	Phase	Svc	Signal Type	Olp Blankout	
False	0	0	253	0	1	0	0	0	0	0	0	0			0	0	
Phase		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
CO-Phase		False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	
QJ-Phase		False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	
Dector		1		2		3		4		5		6		7		8	9
Detector Number		0		0		0		0		0		0		0		0	0

Bank: 1

PR. Dets	PE	1A		2A		3A		4A		5A		6A		BU	
TSD	0	0		0		0		0		0		0		0	
TED	0	0		0		0		0		0		0		0	
TTL	0	0		0		0		0		0		0		0	
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit Call	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Phase Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Ped Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Recovery	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Level	Alt Seq	Min Walk	Freq	Ped Skip	FPF Override	FPW Lvl	CPE	Ped	Method	Return	Ped Wait	Ped Override	Alt Seq Enabled	Fo
0	0	0	0	0	False	True	False	False	0	0	0	0	False	Fa
Queue		1			2		3			4		5		6
Queue Phase		0			0		0			0		0		0
Queue Det		0			0		0			0		0		0
Queue Time		0			0		0			0		0		0

Bank: 2

PR. Dets	PE	1A		2A		3A		4A		5A		6A		BU	
TSD	0	0		0		0		0		0		0		0	
TED	0	0		0		0		0		0		0		0	
TTL	0	0		0		0		0		0		0		0	
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit Call	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Phase Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Ped Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Recovery	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Level	Alt Seq	Min Walk	Freq	Ped Skip	FPF Override	FPW Lvl	CPE	Ped	Method	Return	Ped Wait	Ped Override	Alt Seq Enabled	Fo
0	0	0	0	0	False	True	False	False	0	0	0	0	False	Fa
Queue		1			2		3			4		5		6
Queue Phase		0			0		0			0		0		0
Queue Det		0			0		0			0		0		0
Queue Time		0			0		0			0		0		0

Bank: 3

PR. Dets	PE	1A	2A	3A	4A	5A	6A	BU
TSD	0	0	0	0	0	0	0	0
TED	0	0	0	0	0	0	0	0
TTL	0	0	0	0	0	0	0	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit Call	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Phase Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Ped Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Recovery	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Level	Alt Seq	Min Walk	Freq	Ped Skip	FPF Override	FPW Lvl	CPE	Ped	Method	Return	Ped Wait	Ped Override	Alt Seq Enabled	For
0	0	0	0	0	False	True	False	False	0	0	0	0	False	Fa

Queue	1	2	3	4	5	6
Queue Phase	0	0	0	0	0	0
Queue Det	0	0	0	0	0	0
Queue Time	0	0	0	0	0	0

Bank: 4

PR. Dets	PE	1A	2A	3A	4A	5A	6A	BU
TSD	0	0	0	0	0	0	0	0
TED	0	0	0	0	0	0	0	0
TTL	0	0	0	0	0	0	0	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit Call	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Phase Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Ped Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Recovery	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Level	Alt Seq	Min Walk	Freq	Ped Skip	FPF Override	FPW Lvl	CPE	Ped	Method	Return	Ped Wait	Ped Override	Alt Seq Enabled	For
0	0	0	0	0	False	True	False	False	0	0	0	0	False	Fa

Queue	1	2	3	4	5	6
Queue Phase	0	0	0	0	0	0
Queue Det	0	0	0	0	0	0
Queue Time	0	0	0	0	0	0

Priority 5

N-Lock	Delay	Extend	Default Pattern	Min Grn	Max Grn	No Lockout	LockoutA	LockoutB	Overlap	Pre Grn	Recall	ExCo	Phase	Svc	Signal Type	Olp Blankout
False	0	0	253	0	1	0	0	0	0	0	0	0	0	0	0	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CO-Phase	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
QJ-Phase	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Dector	1	2	3	4	5	6	7	8	9
Detector Number	0	0	0	0	0	0	0	0	0

Bank: 1

PR. Dets	PE	1A	2A	3A	4A	5A	6A	BU
TSD	0	0	0	0	0	0	0	0
TED	0	0	0	0	0	0	0	0
TTL	0	0	0	0	0	0	0	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit Call	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Phase Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Ped Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Ped Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Recovery	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Level	Alt Seq	Min Walk	Freq	Ped Skip	FPF Override		FPW Lvl	CPE	Ped	Method	Return	Ped Wait	Ped Override	Alt Seq Enabled	Footc	
0	0	0	0	0	False		True	False	False	0	0	0	0	False	False	
Queue		1			2				3		4		5		6	
Queue Phase		0			0				0		0		0		0	
Queue Det		0			0				0		0		0		0	
Queue Time		0			0				0		0		0		0	
Bank: 2																
PR. Dets	PE	1A		2A		3A		4A		5A		6A		BU		
TSD	0	0		0		0		0		0		0		0		
TED	0	0		0		0		0		0		0		0		
TTL	0	0		0		0		0		0		0		0		
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Exit Call	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Phase Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Ped Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Recovery	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Level	Alt Seq	Min Walk	Freq	Ped Skip	FPF Override		FPW Lvl	CPE	Ped	Method	Return	Ped Wait	Ped Override	Alt Seq Enabled	Footc	
0	0	0	0	0	False		True	False	False	0	0	0	0	False	False	
Queue		1			2				3		4		5		6	
Queue Phase		0			0				0		0		0		0	
Queue Det		0			0				0		0		0		0	
Queue Time		0			0				0		0		0		0	
Bank: 3																
PR. Dets	PE	1A		2A		3A		4A		5A		6A		BU		
TSD	0	0		0		0		0		0		0		0		
TED	0	0		0		0		0		0		0		0		
TTL	0	0		0		0		0		0		0		0		
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Exit Call	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Phase Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Ped Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Recovery	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Level	Alt Seq	Min Walk	Freq	Ped Skip	FPF Override		FPW Lvl	CPE	Ped	Method	Return	Ped Wait	Ped Override	Alt Seq Enabled	Footc	
0	0	0	0	0	False		True	False	False	0	0	0	0	False	False	
Queue		1			2				3		4		5		6	
Queue Phase		0			0				0		0		0		0	
Queue Det		0			0				0		0		0		0	
Queue Time		0			0				0		0		0		0	
Bank: 4																
PR. Dets	PE	1A		2A		3A		4A		5A		6A		BU		
TSD	0	0		0		0		0		0		0		0		
TED	0	0		0		0		0		0		0		0		
TTL	0	0		0		0		0		0		0		0		
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Exit Call	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Phase Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Ped Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Recovery	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Level	Alt Seq	Min Walk	Freq	Ped Skip	FPF Override		FPW Lvl	CPE	Ped	Method	Return	Ped Wait	Ped Override	Alt Seq Enabled	Footc	

file:///C:/Program Files (x86)/ITS Software/TACTICS Central/Report Data/Intersection/220/RptAllData_220_20220201_1406.html23/25

0	0	0	0	0	False	True	False	False	0	0	0	0	False	Fa
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Queue	1	2	3	4	5	6
Queue Phase	0	0	0	0	0	0
Queue Det	0	0	0	0	0	0
Queue Time	0	0	0	0	0	0

Priority 6

N-Lock	Delay	Extend	Default Pattern	Min Grn	Max Grn	No Lockout	LockoutA	LockoutB	Overlap	Pre Grn	Recall	ExCo	PhaseSvc	Signal Type	Olp Blankout
False	0	0	253	0	1	0	0	0	0	0	0	0	0	0	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CO-Phase	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
QJ-Phase	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Dector	1	2	3	4	5	6	7	8	9
Detector Number	0	0	0	0	0	0	0	0	0

Bank: 1								
PR. Dets	PE	1A	2A	3A	4A	5A	6A	BU
TSD	0	0	0	0	0	0	0	0
TED	0	0	0	0	0	0	0	0
TTL	0	0	0	0	0	0	0	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit Call	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Phase Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Ped Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Recovery	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Level	Alt Seq	Min Walk	Freq	Ped Skip	FPF Override	FPW Lvl	CPE	Ped	Method	Return	Ped Wait	Ped Override	Alt Seq Enabled	Fo
0	0	0	0	0	False	True	False	False	0	0	0	0	False	Fa

Queue	1	2	3	4	5	6
Queue Phase	0	0	0	0	0	0
Queue Det	0	0	0	0	0	0
Queue Time	0	0	0	0	0	0

Bank: 2								
PR. Dets	PE	1A	2A	3A	4A	5A	6A	BU
TSD	0	0	0	0	0	0	0	0
TED	0	0	0	0	0	0	0	0
TTL	0	0	0	0	0	0	0	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit Call	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Phase Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Ped Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Recovery	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Level	Alt Seq	Min Walk	Freq	Ped Skip	FPF Override	FPW Lvl	CPE	Ped	Method	Return	Ped Wait	Ped Override	Alt Seq Enabled	Fo
0	0	0	0	0	False	True	False	False	0	0	0	0	False	Fa

Queue	1	2	3	4	5	6
Queue Phase	0	0	0	0	0	0
Queue Det	0	0	0	0	0	0
Queue Time	0	0	0	0	0	0

Bank: 3								
PR. Dets	PE	1A	2A	3A	4A	5A	6A	BU

PR. Dets	PE	1A	2A	3A	4A	5A	6A	BU
TSD	0	0	0	0	0	0	0	0
TED	0	0	0	0	0	0	0	0
TTL	0	0	0	0	0	0	0	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit Call	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Phase Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Ped Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Recovery	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Level	Alt Seq	Min Walk	Freq	Ped Skip	FPF Override	FPW Lvl	CPE	Ped	Method	Return	Ped Wait	Ped Override	Alt Seq Enabled	Fo
0	0	0	0	0	False	True	False	False	0	0	0	0	False	Fa

Queue	1	2	3	4	5	6
Queue Phase	0	0	0	0	0	0
Queue Det	0	0	0	0	0	0
Queue Time	0	0	0	0	0	0

Bank: 4

PR. Dets	PE	1A	2A	3A	4A	5A	6A	BU
TSD	0	0	0	0	0	0	0	0
TED	0	0	0	0	0	0	0	0
TTL	0	0	0	0	0	0	0	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Exit Call	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Phase Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Ped Omit	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
Recovery	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

Level	Alt Seq	Min Walk	Freq	Ped Skip	FPF Override	FPW Lvl	CPE	Ped	Method	Return	Ped Wait	Ped Override	Alt Seq Enabled	Fo
0	0	0	0	0	False	True	False	False	0	0	0	0	False	Fa



















Queue	1	2	3	4	5	6
Queue Phase	0	0	0	0	0	0
Queue Det	0	0	0	0	0	0
Queue Time	0	0	0	0	0	0

APPENDIX D – Existing Synchro Outputs

Timings

1: Chambers Rd & Mississippi Ave

09/04/2024

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	228	650	178	186	1177	336	1433	76	601
Future Volume (vph)	228	650	178	186	1177	336	1433	76	601
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	1	6		5	2	3	8	7	4
Permitted Phases			6						
Detector Phase	1	6	6	5	2	3	8	7	4
Switch Phase									
Minimum Initial (s)	6.0	11.0	11.0	6.0	11.0	6.0	6.0	6.0	6.0
Minimum Split (s)	11.0	36.0	36.0	11.0	35.0	11.0	35.0	11.0	41.0
Total Split (s)	23.0	53.0	53.0	16.0	46.0	30.0	59.0	12.0	41.0
Total Split (%)	16.4%	37.9%	37.9%	11.4%	32.9%	21.4%	42.1%	8.6%	29.3%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	5.0	6.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	None	Max	None	Max
Act Effect Green (s)	15.3	28.2	28.2	29.8	42.7	20.1	53.1	6.9	39.9
Actuated g/C Ratio	0.11	0.20	0.20	0.21	0.31	0.14	0.38	0.05	0.29
v/c Ratio	0.68	0.71	0.42	0.28	0.93	0.74	0.87	0.53	0.65
Control Delay (s/veh)	86.4	44.2	4.7	48.6	57.8	66.8	46.2	72.1	55.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	86.4	44.2	4.7	48.6	57.8	66.8	46.2	72.1	55.7
LOS	F	D	A	D	E	E	D	E	E
Approach Delay (s/veh)		46.7			56.7		49.9		57.1
Approach LOS		D			E		D		E

Intersection Summary

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 4 (3%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.93

Intersection Signal Delay (s/veh): 52.4

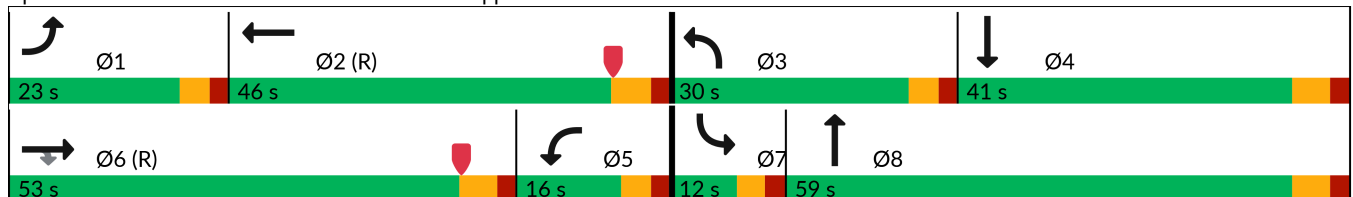
Intersection LOS: D

Intersection Capacity Utilization 85.4%

ICU Level of Service E

Analysis Period (min) 15

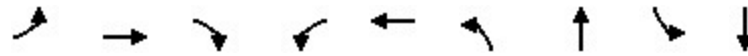
Splits and Phases: 1: Chambers Rd & Mississippi Ave



Queues

1: Chambers Rd & Mississippi Ave

09/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	256	730	200	202	1421	365	1667	89	935
v/c Ratio	0.68	0.71	0.42	0.28	0.93	0.74	0.87	0.53	0.65
Control Delay (s/veh)	86.4	44.2	4.7	48.6	57.8	66.8	46.2	72.1	55.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	86.4	44.2	4.7	48.6	57.8	66.8	46.2	72.1	55.7
Queue Length 50th (ft)	117	152	0	79	458	166	510	41	247
Queue Length 95th (ft)	155	160	18	125	#580	213	578	68	341
Internal Link Dist (ft)		403			695		237		134
Turn Bay Length (ft)	260			200		300			
Base Capacity (vph)	441	1707	664	731	1536	613	1914	171	1435
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	0.58	0.43	0.30	0.28	0.93	0.60	0.87	0.52	0.65

























Intersection Summary

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

HCM 7th Signalized Intersection Summary

1: Chambers Rd & Mississippi Ave

09/04/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	228	650	178	186	1177	131	336	1433	100	76	601	194
Future Volume (veh/h)	228	650	178	186	1177	131	336	1433	100	76	601	194
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	256	730	200	202	1279	142	365	1558	109	89	707	228
Peak Hour Factor	0.89	0.89	0.89	0.92	0.92	0.92	0.92	0.92	0.92	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	311	974	302	777	1552	172	428	1845	129	143	1136	362
Arrive On Green	0.09	0.19	0.19	0.22	0.33	0.33	0.12	0.38	0.38	0.08	0.59	0.59
Sat Flow, veh/h	3456	5106	1585	3456	4663	518	3456	4872	341	3456	3835	1220
Grp Volume(v), veh/h	256	730	200	202	934	487	365	1088	579	89	627	308
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1777	1728	1702	1809	1728	1702	1651
Q Serve(g_s), s	10.2	18.9	13.9	6.7	35.3	35.3	14.5	40.9	40.9	3.5	16.6	17.0
Cycle Q Clear(g_c), s	10.2	18.9	13.9	6.7	35.3	35.3	14.5	40.9	40.9	3.5	16.6	17.0
Prop In Lane	1.00		1.00	1.00		0.29	1.00		0.19	1.00		0.74
Lane Grp Cap(c), veh/h	311	974	302	777	1133	591	428	1289	685	143	1009	489
V/C Ratio(X)	0.82	0.75	0.66	0.26	0.82	0.82	0.85	0.84	0.85	0.62	0.62	0.63
Avail Cap(c_a), veh/h	444	1714	532	777	1133	591	617	1289	685	173	1009	489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.6	53.5	38.0	44.7	42.9	42.9	60.1	39.7	39.7	63.1	23.4	23.5
Incr Delay (d2), s/veh	8.2	5.3	10.8	0.2	6.9	12.4	7.9	6.9	12.2	4.8	2.9	6.1
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	4.8	8.5	6.3	2.9	15.5	17.1	6.7	17.9	20.0	1.6	5.3	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	70.8	58.8	48.9	44.9	49.8	55.3	68.0	46.6	51.9	67.9	26.3	29.6
LnGrp LOS	E	E	D	D	D	E	E	D	D	E	C	C
Approach Vol, veh/h	1186			1623			2032			1024		
Approach Delay, s/veh	59.7			50.8			52.0			30.9		
Approach LOS	E			D			D			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.6	52.6	22.3	47.5	37.5	32.7	10.8	59.0				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	6.0	* 6	5.0	6.0				
Max Green Setting (Gmax), s	18.0	40.0	25.0	35.0	11.0	* 47	7.0	53.0				
Max Q Clear Time (g_c+I1), s	12.2	37.3	16.5	19.0	8.7	20.9	5.5	42.9				
Green Ext Time (p_c), s	0.4	2.0	0.8	5.4	0.1	5.8	0.0	7.0				

Intersection Summary

HCM 7th Control Delay, s/veh	49.5
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

2: Mississippi Ave & Middle Site Access Performance by lane

Lane	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	All
Movements Served	UL	T	T	TR	L	T	T	TR	LTR	LTR	
Denied Del/Veh (s)											0.0
Total Del/Veh (s)	21.4	0.7	0.6	0.9	6.0	4.3	4.4	3.0	15.2	21.5	3.2

3: Mississippi Ave & W Site Access Performance by lane

Lane	EB	EB	EB	WB	WB	WB	SB	All
Movements Served	T	T	T	T	T	TR	R	
Denied Del/Veh (s)								0.0
Total Del/Veh (s)	3.5	3.4	2.7	0.5	0.7	0.7	10.6	1.7

4: Chambers Rd & E Site Access Performance by lane

Lane	EB	NB	NB	NB	SB	SB	SB	SB	SB	All
Movements Served	LR	T	T	T	T	T	T	T	TR	
Denied Del/Veh (s)										0.0
Total Del/Veh (s)	24.1	3.4	3.6	2.6	1.1	1.1	10.6	8.6	11.5	5.4

Total Zone Performance

Denied Del/Veh (s)	0.2
Total Del/Veh (s)	223.8

Intersection: 2: Mississippi Ave & Middle Site Access

Movement	EB	EB	WB	WB	NB	SB
Directions Served	UL	TR	L	T	LTR	LTR
Maximum Queue (ft)	64	3	33	2	59	55
Average Queue (ft)	20	0	7	0	21	21
95th Queue (ft)	52	4	27	2	49	50
Link Distance (ft)		302		386	78	138
Upstream Blk Time (%)					0	
Queuing Penalty (veh)					0	
Storage Bay Dist (ft)	130		100			
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 3: Mississippi Ave & W Site Access

Movement	WB	SB
Directions Served	T	R
Maximum Queue (ft)	4	46
Average Queue (ft)	0	17
95th Queue (ft)	4	43
Link Distance (ft)	302	126
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Chambers Rd & E Site Access

Movement	EB	NB	NB	SB	SB	SB	SB
Directions Served	LR	T	T	T	T	T	TR
Maximum Queue (ft)	43	9	4	62	154	161	194
Average Queue (ft)	10	0	0	3	36	43	64
95th Queue (ft)	34	6	4	35	108	117	153
Link Distance (ft)	98	125	125		2337	2337	2337
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)				100			
Storage Blk Time (%)					2		
Queuing Penalty (veh)					6		



















Zone Summary

Zone wide Queuing Penalty: 6

Timings

1: Chambers Rd & Mississippi Ave

09/04/2024

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	191	1039	357	261	1108	291	1056	206	1410
Future Volume (vph)	191	1039	357	261	1108	291	1056	206	1410
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	1	6		5	2	3	8	7	4
Permitted Phases			6						
Detector Phase	1	6	6	5	2	3	8	7	4
Switch Phase									
Minimum Initial (s)	6.0	11.0	11.0	6.0	11.0	6.0	6.0	6.0	6.0
Minimum Split (s)	11.0	36.0	36.0	11.0	35.0	11.0	35.0	11.0	41.0
Total Split (s)	21.0	39.0	39.0	17.0	35.0	21.0	62.0	17.0	58.0
Total Split (%)	15.6%	28.9%	28.9%	12.6%	25.9%	15.6%	45.9%	12.6%	43.0%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	5.0	6.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	None	Max	None	Max
Act Effect Green (s)	13.3	33.0	33.0	12.0	31.7	16.0	56.3	11.7	52.0
Actuated g/C Ratio	0.10	0.24	0.24	0.09	0.23	0.12	0.42	0.09	0.39
v/c Ratio	0.62	0.91	0.70	0.93	1.07	0.78	0.60	0.75	0.89
Control Delay (s/veh)	53.9	43.8	20.5	97.3	94.4	71.7	31.7	73.9	35.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	53.9	43.8	20.5	97.3	94.4	71.7	31.7	73.9	35.5
LOS	D	D	C	F	F	E	C	E	D
Approach Delay (s/veh)		39.8			94.9		39.7		39.9
Approach LOS		D			F		D		D

Intersection Summary

Cycle Length: 135

Actuated Cycle Length: 135

Offset: 45 (33%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.07

Intersection Signal Delay (s/veh): 52.4

Intersection LOS: D

Intersection Capacity Utilization 85.9%

ICU Level of Service E

Analysis Period (min) 15

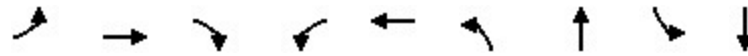
Splits and Phases: 1: Chambers Rd & Mississippi Ave



Queues

1: Chambers Rd & Mississippi Ave

09/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	208	1129	388	284	1270	316	1262	224	1720
v/c Ratio	0.62	0.91	0.70	0.93	1.07	0.78	0.60	0.75	0.89
Control Delay (s/veh)	53.9	43.8	20.5	97.3	94.4	71.7	31.7	73.9	35.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	53.9	43.8	20.5	97.3	94.4	71.7	31.7	73.9	35.5
Queue Length 50th (ft)	75	360	212	129	~452	140	309	93	509
Queue Length 95th (ft)	114	#437	331	#217	#582	#203	359	#141	579
Internal Link Dist (ft)		403			700		237		134
Turn Bay Length (ft)	260			200		300			
Base Capacity (vph)	406	1243	557	305	1190	406	2100	305	1938
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	0.51	0.91	0.70	0.93	1.07	0.78	0.60	0.73	0.89

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.






















95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 7th Signalized Intersection Summary

1: Chambers Rd & Mississippi Ave

09/04/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	191	1039	357	261	1108	61	291	1056	105	206	1410	172
Future Volume (veh/h)	191	1039	357	261	1108	61	291	1056	105	206	1410	172
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	208	1129	388	284	1204	66	316	1148	114	224	1533	187
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	266	1272	395	307	1294	71	368	1980	196	275	1776	216
Arrive On Green	0.03	0.08	0.08	0.09	0.26	0.26	0.11	0.42	0.42	0.05	0.26	0.26
Sat Flow, veh/h	3456	5106	1585	3456	4954	271	3456	4721	469	3456	4611	562
Grp Volume(v), veh/h	208	1129	388	284	827	443	316	827	435	224	1131	589
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1821	1728	1702	1786	1728	1702	1769
Q Serve(g_s), s	8.1	29.6	33.0	11.0	32.0	32.0	12.1	25.2	25.2	8.7	42.8	42.9
Cycle Q Clear(g_c), s	8.1	29.6	33.0	11.0	32.0	32.0	12.1	25.2	25.2	8.7	42.8	42.9
Prop In Lane	1.00		1.00	1.00		0.15	1.00		0.26	1.00		0.32
Lane Grp Cap(c), veh/h	266	1272	395	307	889	476	368	1427	749	275	1311	681
V/C Ratio(X)	0.78	0.89	0.98	0.92	0.93	0.93	0.86	0.58	0.58	0.81	0.86	0.86
Avail Cap(c_a), veh/h	410	1272	395	307	889	476	410	1427	749	307	1311	681
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.7	60.1	61.7	61.1	48.7	48.7	59.3	30.1	30.1	62.9	46.7	46.7
Incr Delay (d2), s/veh	5.3	9.4	41.1	32.4	17.4	27.2	15.5	1.7	3.3	14.1	7.7	13.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	14.6	18.6	6.1	15.4	17.7	6.0	10.4	11.3	4.4	20.0	22.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	69.9	69.5	102.7	93.4	66.1	75.9	74.8	31.8	33.3	77.0	54.3	60.4
LnGrp LOS	E	E	F	F	E	E	E	C	C	E	D	E
Approach Vol, veh/h	1725			1554			1578			1944		
Approach Delay, s/veh	77.0			73.9			40.8			58.8		
Approach LOS	E			E			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.4	41.2	20.4	58.0	17.0	39.6	15.8	62.6				
Change Period (Y+Rc), s	5.0	6.0	6.0	* 6	5.0	6.0	5.0	6.0				
Max Green Setting (Gmax), s	16.0	29.0	16.0	* 52	12.0	33.0	12.0	56.0				
Max Q Clear Time (g_c+I1), s	10.1	34.0	14.1	44.9	13.0	35.0	10.7	27.2				
Green Ext Time (p_c), s	0.3	0.0	0.2	5.3	0.0	0.0	0.1	9.5				
Intersection Summary												
HCM 7th Control Delay, s/veh	62.7											
HCM 7th LOS	E											
Notes												
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.												

2: Mississippi Ave & Middle Site Access Performance by lane

Lane	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	All
Movements Served	UL	T	T	TR	L	T	T	TR	LTR	LTR	
Denied Del/Veh (s)											0.2
Total Del/Veh (s)	13.2	1.6	1.7	2.7	13.3	4.9	4.9	4.5	39.4	17.4	4.7

3: Mississippi Ave & W Site Access Performance by lane

Lane	EB	EB	EB	WB	WB	WB	SB	All
Movements Served	T	T	T	T	T	TR	R	
Denied Del/Veh (s)								0.0
Total Del/Veh (s)	5.9	6.2	6.1	0.6	0.8	1.1	9.3	3.7

4: Chambers Rd & E Site Access Performance by lane

Lane	EB	NB	NB	NB	SB	SB	SB	SB	SB	All
Movements Served	LR	T	T	T	T	T	T	T	TR	
Denied Del/Veh (s)										0.0
Total Del/Veh (s)	75.0	2.9	3.1	1.9	1.8	2.9	18.5	16.3	18.9	11.0

Total Zone Performance

Denied Del/Veh (s)	3.0
Total Del/Veh (s)	530.4

Intersection: 2: Mississippi Ave & Middle Site Access

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB
Directions Served	UL	T	T	TR	L	T	T	TR	LTR	LTR
Maximum Queue (ft)	91	6	19	31	46	3	57	46	93	101
Average Queue (ft)	36	0	1	1	13	0	2	2	50	39
95th Queue (ft)	72	0	9	14	41	3	38	36	93	78
Link Distance (ft)		302	302	302		386	386	386	78	138
Upstream Blk Time (%)									6	0
Queuing Penalty (veh)									0	0
Storage Bay Dist (ft)	130				100					
Storage Blk Time (%)	0									
Queuing Penalty (veh)	0									

Intersection: 3: Mississippi Ave & W Site Access

Movement	EB	EB	SB
Directions Served	T	T	R
Maximum Queue (ft)	173	338	68
Average Queue (ft)	6	18	26
95th Queue (ft)	176	305	57
Link Distance (ft)	1702	1702	126
Upstream Blk Time (%)	0	0	
Queuing Penalty (veh)	0	0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Chambers Rd & E Site Access

Movement	EB	NB	NB	SB	SB	SB	SB	SB
Directions Served	LR	T	T	T	T	T	T	TR
Maximum Queue (ft)	84	11	8	26	125	319	334	348
Average Queue (ft)	30	0	0	2	35	145	173	186
95th Queue (ft)	72	8	6	23	123	275	291	305
Link Distance (ft)	98	125	125			2337	2337	2337
Upstream Blk Time (%)	3							
Queuing Penalty (veh)	0							
Storage Bay Dist (ft)				100	100			
Storage Blk Time (%)				0	0	8		
Queuing Penalty (veh)				0	1	56		

Zone Summary

Zone wide Queuing Penalty: 57

APPENDIX E – Pipeline Excerpts

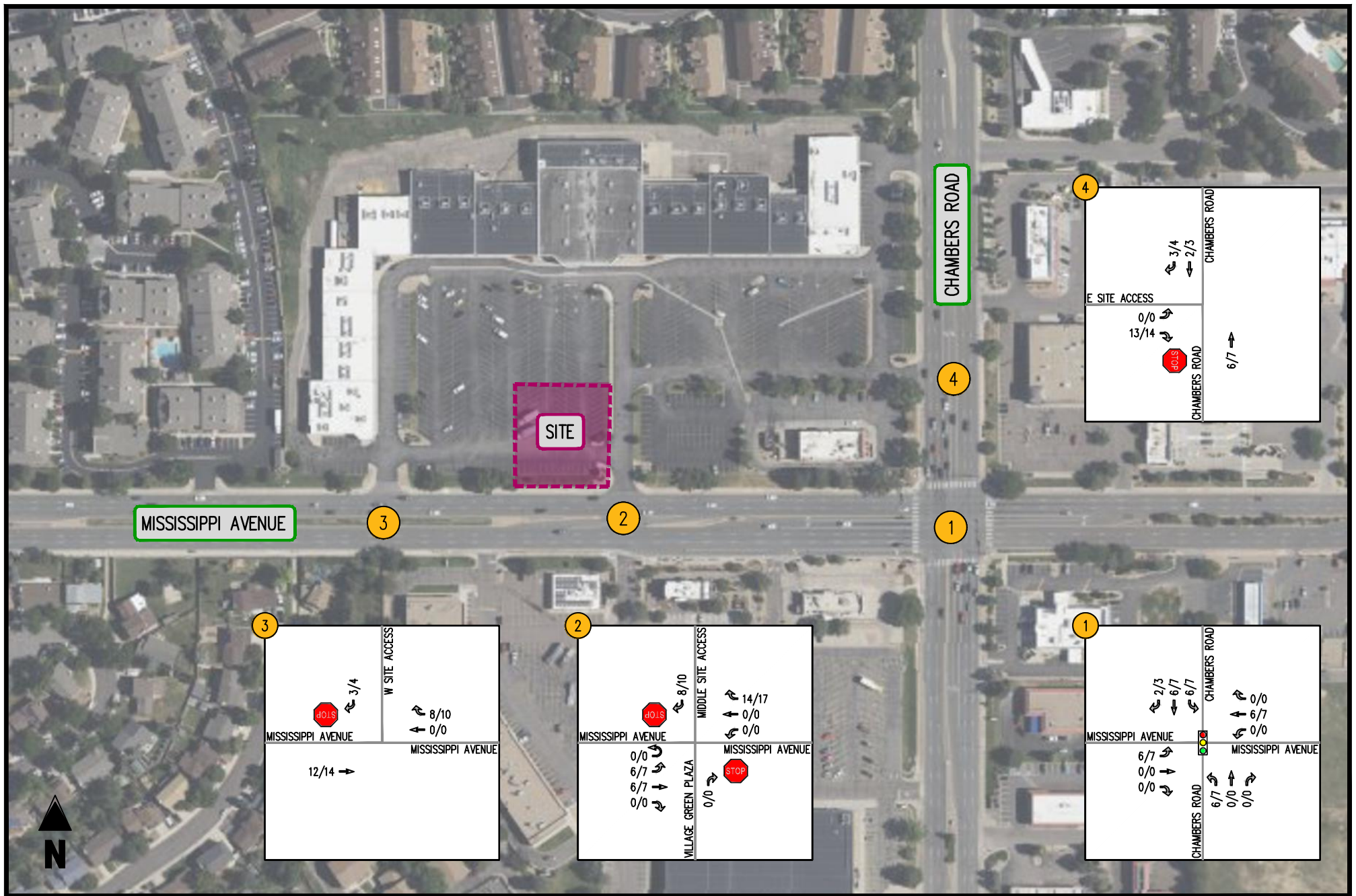


FIGURE 5-3
NET SITE TRIPS

MURPHY EXPRESS: MISSISSIPPI & CHAMBERS
AURORA, COLORADO

(A/A) INTERSECTION LOS
0000/0000 (AM PEAK HOUR/PM PEAK HOUR)

← MOVEMENT
 SIGNALIZED INTERSECTION
 STOP SIGN
 YIELD SIGN

































APPENDIX F – Background 2025 (without site development)

Synchro/SimTraffic Outputs

Timings

1: Chambers Rd & Mississippi Ave

09/04/2024

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	 	  		 	  	 	  	 	  
Traffic Volume (vph)	240	675	183	191	1229	357	1472	84	623
Future Volume (vph)	240	675	183	191	1229	357	1472	84	623
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	1	6		5	2	3	8	7	4
Permitted Phases			6						
Detector Phase	1	6	6	5	2	3	8	7	4
Switch Phase									
Minimum Initial (s)	6.0	11.0	11.0	6.0	11.0	6.0	6.0	6.0	6.0
Minimum Split (s)	11.0	36.0	36.0	11.0	35.0	11.0	35.0	11.0	41.0
Total Split (s)	23.0	53.0	53.0	16.0	46.0	30.0	59.0	12.0	41.0
Total Split (%)	16.4%	37.9%	37.9%	11.4%	32.9%	21.4%	42.1%	8.6%	29.3%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	5.0	6.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	None	Max	None	Max
Act Effect Green (s)	15.5	28.3	28.3	29.7	42.5	20.8	53.1	6.9	39.2
Actuated g/C Ratio	0.11	0.20	0.20	0.21	0.30	0.15	0.38	0.05	0.28
v/c Ratio	0.69	0.71	0.42	0.29	0.97	0.76	0.89	0.54	0.63
Control Delay (s/veh)	92.3	60.2	20.0	48.8	64.3	67.2	47.8	72.4	56.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	92.3	60.2	20.0	48.8	64.3	67.2	47.8	72.4	56.6
LOS	F	E	B	D	E	E	D	E	E
Approach Delay (s/veh)		60.5			62.4		51.4		58.1
Approach LOS		E			E		D		E

Intersection Summary

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 4 (3%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay (s/veh): 57.5

Intersection LOS: E

Intersection Capacity Utilization 87.7%

ICU Level of Service E

Analysis Period (min) 15

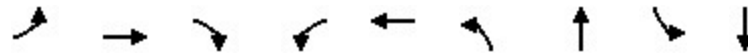
Splits and Phases: 1: Chambers Rd & Mississippi Ave



Queues

1: Chambers Rd & Mississippi Ave

09/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	261	734	199	208	1483	388	1712	91	895
v/c Ratio	0.69	0.71	0.42	0.29	0.97	0.76	0.89	0.54	0.63
Control Delay (s/veh)	92.3	60.2	20.0	48.8	64.3	67.2	47.8	72.4	56.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	92.3	60.2	20.0	48.8	64.3	67.2	47.8	72.4	56.6
Queue Length 50th (ft)	127	169	0	82	488	176	531	42	236
Queue Length 95th (ft)	178	271	123	127	#624	226	600	73	349
Internal Link Dist (ft)		403			695		237		134
Turn Bay Length (ft)	260			200		300			
Base Capacity (vph)	441	1707	663	728	1530	613	1914	171	1411
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	0.59	0.43	0.30	0.29	0.97	0.63	0.89	0.53	0.63

Intersection Summary

























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 7th Signalized Intersection Summary

1: Chambers Rd & Mississippi Ave

09/04/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	240	675	183	191	1229	135	357	1472	103	84	623	201
Future Volume (veh/h)	240	675	183	191	1229	135	357	1472	103	84	623	201
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	261	734	199	208	1336	147	388	1600	112	91	677	218
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	319	1005	312	756	1542	170	450	1844	129	144	1113	353
Arrive On Green	0.03	0.06	0.06	0.22	0.33	0.33	0.13	0.38	0.38	0.08	0.58	0.58
Sat Flow, veh/h	3456	5106	1585	3456	4668	514	3456	4872	341	3456	3839	1217
Grp Volume(v), veh/h	261	734	199	208	974	509	388	1118	594	91	599	296
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1778	1728	1702	1809	1728	1702	1651
Q Serve(g_s), s	10.5	19.8	14.6	7.0	37.6	37.6	15.4	42.5	42.6	3.6	16.0	16.4
Cycle Q Clear(g_c), s	10.5	19.8	14.6	7.0	37.6	37.6	15.4	42.5	42.6	3.6	16.0	16.4
Prop In Lane	1.00		1.00	1.00		0.29	1.00		0.19	1.00		0.74
Lane Grp Cap(c), veh/h	319	1005	312	756	1125	587	450	1289	685	144	987	479
V/C Ratio(X)	0.82	0.73	0.64	0.28	0.87	0.87	0.86	0.87	0.87	0.63	0.61	0.62
Avail Cap(c_a), veh/h	444	1714	532	756	1125	587	617	1289	685	173	987	479
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.7	61.8	43.8	45.5	44.0	44.0	59.6	40.2	40.3	63.1	24.3	24.3
Incr Delay (d2), s/veh	8.2	4.7	9.6	0.2	9.0	15.7	9.1	8.0	14.0	5.4	2.8	5.9
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	5.2	9.5	7.0	3.0	16.8	18.6	7.2	18.8	21.1	1.6	5.2	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	74.9	66.5	53.4	45.7	53.0	59.7	68.7	48.3	54.3	68.5	27.0	30.2
LnGrp LOS	E	E	D	D	D	E	E	D	D	E	C	C
Approach Vol, veh/h	1194			1691			2100			986		
Approach Delay, s/veh	66.1			54.1			53.7			31.8		
Approach LOS	E			D			D			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.9	52.3	23.2	46.6	36.6	33.6	10.8	59.0				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	6.0	* 6	5.0	6.0				
Max Green Setting (Gmax), s	18.0	40.0	25.0	35.0	11.0	* 47	7.0	53.0				
Max Q Clear Time (g_c+I1), s	12.5	39.6	17.4	18.4	9.0	21.8	5.6	44.6				
Green Ext Time (p_c), s	0.4	0.3	0.8	5.2	0.1	5.8	0.0	6.1				

Intersection Summary

HCM 7th Control Delay, s/veh	52.7
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

2: Mississippi Ave & Middle Site Access Performance by lane

Lane	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	All
Movements Served	UL	T	T	TR	L	T	T	TR	R	R	
Denied Del/Veh (s)											0.0
Total Del/Veh (s)	29.1	0.9	0.7	1.0	8.1	4.7	4.6	4.1	7.2	9.4	3.5

3: Mississippi Ave & W Site Access Performance by lane

Lane	EB	EB	EB	WB	WB	WB	SB	All
Movements Served	T	T	T	T	T	TR	R	
Denied Del/Veh (s)								0.0
Total Del/Veh (s)	4.2	4.1	3.3	0.6	0.8	1.1	10.0	2.3

4: Chambers Rd & E Site Access Performance by lane

Lane	EB	NB	NB	NB	SB	SB	SB	SB	SB	All
Movements Served	LR	T	T	T	T	T	T	T	TR	
Denied Del/Veh (s)										0.0
Total Del/Veh (s)	35.8	3.6	3.8	2.7	1.4	1.1	11.0	9.2	13.9	6.0

Total Zone Performance

Denied Del/Veh (s)	0.2
Total Del/Veh (s)	428.4

Intersection: 2: Mississippi Ave & Middle Site Access

Movement	EB	EB	WB	WB	WB	NB	SB
Directions Served	UL	TR	L	T	TR	R	R
Maximum Queue (ft)	83	2	41	4	18	47	66
Average Queue (ft)	27	0	7	0	1	15	27
95th Queue (ft)	67	2	29	5	9	41	56
Link Distance (ft)		302		386	386	78	138
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	130		100				
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 3: Mississippi Ave & W Site Access

Movement	WB	SB
Directions Served	TR	R
Maximum Queue (ft)	2	95
Average Queue (ft)	0	39
95th Queue (ft)	2	73
Link Distance (ft)	302	126
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Chambers Rd & E Site Access

Movement	EB	NB	NB	SB	SB	SB	SB
Directions Served	LR	T	T	T	T	T	TR
Maximum Queue (ft)	68	15	11	75	139	151	193
Average Queue (ft)	22	1	0	3	41	53	79
95th Queue (ft)	57	9	7	35	109	124	170
Link Distance (ft)	98	125	125		2337	2337	2337
Upstream Blk Time (%)	1						
Queuing Penalty (veh)	0						
Storage Bay Dist (ft)				100			
Storage Blk Time (%)					2		
Queuing Penalty (veh)					7		



















Zone Summary

Zone wide Queuing Penalty: 7

Timings

1: Chambers Rd & Mississippi Ave

09/04/2024

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	203	1080	367	268	1158	325	1084	219	1455
Future Volume (vph)	203	1080	367	268	1158	325	1084	219	1455
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	1	6		5	2	3	8	7	4
Permitted Phases			6						
Detector Phase	1	6	6	5	2	3	8	7	4
Switch Phase									
Minimum Initial (s)	6.0	11.0	11.0	6.0	11.0	6.0	6.0	6.0	6.0
Minimum Split (s)	11.0	36.0	36.0	11.0	35.0	11.0	35.0	11.0	41.0
Total Split (s)	21.0	39.0	39.0	17.0	35.0	21.0	62.0	17.0	58.0
Total Split (%)	15.6%	28.9%	28.9%	12.6%	25.9%	15.6%	45.9%	12.6%	43.0%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	5.0	6.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	None	Max	None	Max
Act Effect Green (s)	13.6	33.0	33.0	12.0	31.4	16.0	56.2	11.8	52.0
Actuated g/C Ratio	0.10	0.24	0.24	0.09	0.23	0.12	0.42	0.09	0.39
v/c Ratio	0.64	0.94	0.72	0.95	1.13	0.87	0.62	0.79	0.92
Control Delay (s/veh)	54.9	47.4	21.3	101.8	115.1	80.1	32.2	77.2	37.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	54.9	47.4	21.3	101.8	115.1	80.1	32.2	77.2	37.8
LOS	D	D	C	F	F	F	C	E	D
Approach Delay (s/veh)		42.5			112.7		42.4		42.4
Approach LOS		D			F		D		D

Intersection Summary

Cycle Length: 135

Actuated Cycle Length: 135

Offset: 45 (33%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.13

Intersection Signal Delay (s/veh): 58.5

Intersection LOS: E

Intersection Capacity Utilization 89.3%

ICU Level of Service E

Analysis Period (min) 15

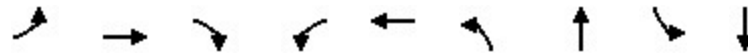
Splits and Phases: 1: Chambers Rd & Mississippi Ave



Queues

1: Chambers Rd & Mississippi Ave

09/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	221	1174	399	291	1327	353	1295	238	1778
v/c Ratio	0.64	0.94	0.72	0.95	1.13	0.87	0.62	0.79	0.92
Control Delay (s/veh)	54.9	47.4	21.3	101.8	115.1	80.1	32.2	77.2	37.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	54.9	47.4	21.3	101.8	115.1	80.1	32.2	77.2	37.8
Queue Length 50th (ft)	81	377	222	132	~497	159	320	100	535
Queue Length 95th (ft)	123	#469	345	#224	#620	#242	371	#163	608
Internal Link Dist (ft)		403			700		237		134
Turn Bay Length (ft)	260			200		300			
Base Capacity (vph)	406	1243	556	305	1177	406	2095	305	1937
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	0.54	0.94	0.72	0.95	1.13	0.87	0.62	0.78	0.92

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 7th Signalized Intersection Summary

1: Chambers Rd & Mississippi Ave

09/04/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	1080	367	268	1158	63	325	1084	108	219	1455	180
Future Volume (veh/h)	203	1080	367	268	1158	63	325	1084	108	219	1455	180
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	221	1174	399	291	1259	68	353	1178	117	238	1582	196
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	279	2053	637	307	2034	110	400	2007	199	288	1773	219
Arrive On Green	0.03	0.13	0.13	0.09	0.41	0.41	0.12	0.42	0.42	0.06	0.26	0.26
Sat Flow, veh/h	3456	5106	1585	3456	4958	268	3456	4721	469	3456	4603	569
Grp Volume(v), veh/h	221	1174	399	291	864	463	353	849	446	238	1169	609
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1822	1728	1702	1786	1728	1702	1768
Q Serve(g_s), s	8.6	29.1	32.1	11.3	27.1	27.1	13.6	25.8	25.8	9.2	44.7	44.8
Cycle Q Clear(g_c), s	8.6	29.1	32.1	11.3	27.1	27.1	13.6	25.8	25.8	9.2	44.7	44.8
Prop In Lane	1.00		1.00	1.00		0.15	1.00		0.26	1.00		0.32
Lane Grp Cap(c), veh/h	279	2053	637	307	1396	747	400	1447	759	288	1311	681
V/C Ratio(X)	0.79	0.57	0.63	0.95	0.62	0.62	0.88	0.59	0.59	0.83	0.89	0.89
Avail Cap(c_a), veh/h	410	2053	637	307	1396	747	410	1447	759	307	1311	681
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.6	47.6	48.9	61.2	31.5	31.5	58.8	29.7	29.7	62.8	47.4	47.4
Incr Delay (d2), s/veh	6.4	1.2	4.6	37.5	2.1	3.8	19.3	1.8	3.3	15.9	9.5	16.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	13.5	14.5	6.5	11.2	12.3	6.9	10.7	11.5	4.7	21.1	23.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	71.0	48.8	53.5	98.7	33.5	35.3	78.0	31.5	33.1	78.6	56.8	64.0
LnGrp LOS	E	D	D	F	C	D	E	C	C	E	E	E
Approach Vol, veh/h	1794			1618			1648			2016		
Approach Delay, s/veh	52.6			45.8			41.9			61.6		
Approach LOS	D			D			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.9	62.0	21.6	58.0	17.0	60.9	16.3	63.4				
Change Period (Y+Rc), s	5.0	6.0	6.0	* 6	5.0	6.0	5.0	6.0				
Max Green Setting (Gmax), s	16.0	29.0	16.0	* 52	12.0	33.0	12.0	56.0				
Max Q Clear Time (g_c+I1), s	10.6	29.1	15.6	46.8	13.3	34.1	11.2	27.8				
Green Ext Time (p_c), s	0.3	0.0	0.1	4.1	0.0	0.0	0.1	9.8				
Intersection Summary												
HCM 7th Control Delay, s/veh				51.1								
HCM 7th LOS				D								
Notes												
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.												

2: Mississippi Ave & Middle Site Access Performance by lane

Lane	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	All
Movements Served	UL	T	T	TR	L	T	T	TR	R	R	
Denied Del/Veh (s)											0.0
Total Del/Veh (s)	16.6	1.8	1.9	3.0	17.1	4.9	4.7	5.1	11.6	9.1	4.2

3: Mississippi Ave & W Site Access Performance by lane

Lane	EB	EB	EB	WB	WB	WB	SB	All
Movements Served	T	T	T	T	T	TR	R	
Denied Del/Veh (s)								0.0
Total Del/Veh (s)	6.1	6.5	6.5	0.5	0.8	1.4	8.9	4.0

4: Chambers Rd & E Site Access Performance by lane

Lane	EB	NB	NB	NB	SB	SB	SB	SB	SB	All
Movements Served	LR	T	T	T	T	T	T	T	TR	
Denied Del/Veh (s)										0.2
Total Del/Veh (s)	104.4	2.8	3.1	2.0	2.6	3.9	19.2	16.7	19.7	12.0

Total Zone Performance

Denied Del/Veh (s)	2.1
Total Del/Veh (s)	583.0

Intersection: 2: Mississippi Ave & Middle Site Access

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB
Directions Served	UL	T	T	TR	L	T	T	TR	R	R
Maximum Queue (ft)	111	32	30	44	63	30	29	30	71	94
Average Queue (ft)	41	2	2	2	14	1	1	2	30	43
95th Queue (ft)	84	25	23	25	46	31	30	15	60	74
Link Distance (ft)		302	302	302		386	386	386	78	138
Upstream Blk Time (%)									0	0
Queuing Penalty (veh)									0	0
Storage Bay Dist (ft)	130				100					
Storage Blk Time (%)	0				0					
Queuing Penalty (veh)	2				0					

Intersection: 3: Mississippi Ave & W Site Access

Movement	EB	EB	SB
Directions Served	T	T	R
Maximum Queue (ft)	171	170	92
Average Queue (ft)	6	6	45
95th Queue (ft)	174	173	79
Link Distance (ft)	1702	1702	126
Upstream Blk Time (%)	0		0
Queuing Penalty (veh)	0		0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Chambers Rd & E Site Access

Movement	EB	SB	SB	SB	SB	SB
Directions Served	LR	T	T	T	T	TR
Maximum Queue (ft)	101	49	125	318	330	340
Average Queue (ft)	49	3	40	154	179	194
95th Queue (ft)	103	27	128	291	308	319
Link Distance (ft)	98			2337	2337	2337
Upstream Blk Time (%)	12					
Queuing Penalty (veh)	0					
Storage Bay Dist (ft)		100	100			
Storage Blk Time (%)		0	0	8		
Queuing Penalty (veh)		0	2	62		

Zone Summary

Zone wide Queuing Penalty: 65































APPENDIX G – Future 2025 (with site development)

Synchro/SimTraffic Outputs

Timings

1: Chambers Rd & Mississippi Ave

09/04/2024

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	 	  		 	  	 	  	 	  
Traffic Volume (vph)	243	675	183	191	1233	361	1472	87	626
Future Volume (vph)	243	675	183	191	1233	361	1472	87	626
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	1	6		5	2	3	8	7	4
Permitted Phases			6						
Detector Phase	1	6	6	5	2	3	8	7	4
Switch Phase									
Minimum Initial (s)	6.0	11.0	11.0	6.0	11.0	6.0	6.0	6.0	6.0
Minimum Split (s)	11.0	36.0	36.0	11.0	35.0	11.0	35.0	11.0	41.0
Total Split (s)	23.0	53.0	53.0	16.0	46.0	30.0	59.0	12.0	41.0
Total Split (%)	16.4%	37.9%	37.9%	11.4%	32.9%	21.4%	42.1%	8.6%	29.3%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	5.0	6.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	None	Max	None	Max
Act Effect Green (s)	15.6	28.3	28.3	29.7	42.4	20.9	53.1	6.9	39.1
Actuated g/C Ratio	0.11	0.20	0.20	0.21	0.30	0.15	0.38	0.05	0.28
v/c Ratio	0.69	0.71	0.42	0.29	0.97	0.76	0.89	0.56	0.64
Control Delay (s/veh)	92.3	60.4	20.0	48.8	65.2	67.2	47.9	73.5	56.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	92.3	60.4	20.0	48.8	65.2	67.2	47.9	73.5	56.8
LOS	F	E	C	D	E	E	D	E	E
Approach Delay (s/veh)		60.7			63.2		51.5		58.4
Approach LOS		E			E		D		E

Intersection Summary

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 4 (3%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay (s/veh): 57.8

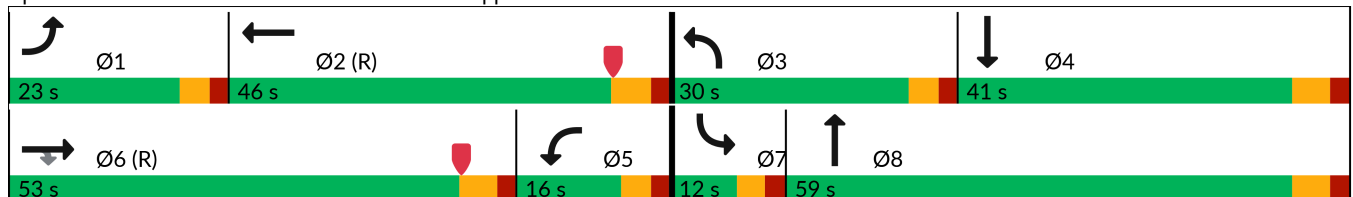
Intersection LOS: E

Intersection Capacity Utilization 87.8%

ICU Level of Service E

Analysis Period (min) 15

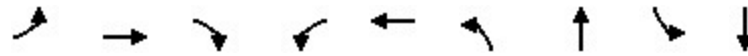
Splits and Phases: 1: Chambers Rd & Mississippi Ave



Queues

1: Chambers Rd & Mississippi Ave

09/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	264	734	199	208	1487	392	1712	95	901
v/c Ratio	0.69	0.71	0.42	0.29	0.97	0.76	0.89	0.56	0.64
Control Delay (s/veh)	92.3	60.4	20.0	48.8	65.2	67.2	47.9	73.5	56.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	92.3	60.4	20.0	48.8	65.2	67.2	47.9	73.5	56.8
Queue Length 50th (ft)	128	169	0	82	490	178	531	44	237
Queue Length 95th (ft)	179	272	123	127	#626	228	600	75	350
Internal Link Dist (ft)		403			695		237		134
Turn Bay Length (ft)	260			200		300			
Base Capacity (vph)	441	1707	663	728	1527	613	1913	171	1407
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	0.60	0.43	0.30	0.29	0.97	0.64	0.89	0.56	0.64

Intersection Summary

























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 7th Signalized Intersection Summary

1: Chambers Rd & Mississippi Ave

09/04/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	243	675	183	191	1233	135	361	1472	103	87	626	203
Future Volume (veh/h)	243	675	183	191	1233	135	361	1472	103	87	626	203
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	264	734	199	208	1340	147	392	1600	112	95	680	221
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	322	1005	312	755	1538	169	454	1844	129	144	1106	354
Arrive On Green	0.03	0.06	0.06	0.22	0.33	0.33	0.13	0.38	0.38	0.08	0.58	0.58
Sat Flow, veh/h	3456	5106	1585	3456	4670	512	3456	4872	341	3456	3829	1225
Grp Volume(v), veh/h	264	734	199	208	977	510	392	1118	594	95	603	298
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1778	1728	1702	1809	1728	1702	1650
Q Serve(g_s), s	10.6	19.8	14.6	7.0	37.8	37.8	15.6	42.5	42.6	3.7	16.2	16.7
Cycle Q Clear(g_c), s	10.6	19.8	14.6	7.0	37.8	37.8	15.6	42.5	42.6	3.7	16.2	16.7
Prop In Lane	1.00		1.00	1.00		0.29	1.00		0.19	1.00		0.74
Lane Grp Cap(c), veh/h	322	1005	312	755	1121	586	454	1289	685	144	983	477
V/C Ratio(X)	0.82	0.73	0.64	0.28	0.87	0.87	0.86	0.87	0.87	0.66	0.61	0.62
Avail Cap(c_a), veh/h	444	1714	532	755	1121	586	617	1289	685	173	983	477
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.7	61.8	43.8	45.5	44.2	44.2	59.6	40.2	40.3	63.2	24.4	24.5
Incr Delay (d2), s/veh	8.4	4.7	9.6	0.2	9.4	16.2	9.3	8.0	14.0	6.8	2.9	6.1
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	5.3	9.5	7.0	3.0	16.9	18.8	7.3	18.8	21.1	1.7	5.3	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	75.1	66.5	53.4	45.7	53.5	60.4	68.8	48.3	54.3	69.9	27.3	30.6
LnGrp LOS	E	E	D	D	D	E	E	D	D	E	C	C
Approach Vol, veh/h	1197			1695			2104			996		
Approach Delay, s/veh	66.2			54.6			53.8			32.4		
Approach LOS	E			D			D			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	52.1	23.4	46.4	36.6	33.6	10.9	59.0				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	6.0	* 6	5.0	6.0				
Max Green Setting (Gmax), s	18.0	40.0	25.0	35.0	11.0	* 47	7.0	53.0				
Max Q Clear Time (g_c+I1), s	12.6	39.8	17.6	18.7	9.0	21.8	5.7	44.6				
Green Ext Time (p_c), s	0.4	0.2	0.8	5.2	0.1	5.8	0.0	6.1				

Intersection Summary

HCM 7th Control Delay, s/veh	52.9
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

2: Mississippi Ave & Middle Site Access Performance by lane

Lane	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	All
Movements Served	UL	T	T	TR	L	T	T	TR	R	R	
Denied Del/Veh (s)											0.0
Total Del/Veh (s)	30.0	0.9	0.7	1.0	8.8	4.6	4.6	4.2	6.7	10.0	3.6

3: Mississippi Ave & W Site Access Performance by lane

Lane	EB	EB	EB	WB	WB	WB	SB	All
Movements Served	T	T	T	T	T	TR	R	
Denied Del/Veh (s)								0.0
Total Del/Veh (s)	4.3	4.2	3.1	0.6	0.8	1.2	10.3	2.3

4: Chambers Rd & E Site Access Performance by lane

Lane	EB	NB	NB	NB	SB	SB	SB	SB	SB	All
Movements Served	LR	T	T	T	T	T	T	T	TR	
Denied Del/Veh (s)										0.0
Total Del/Veh (s)	28.3	3.6	3.7	2.7	1.8	1.1	11.7	9.8	14.1	6.1

Total Zone Performance

Denied Del/Veh (s)	0.2
Total Del/Veh (s)	437.6

Intersection: 2: Mississippi Ave & Middle Site Access

Movement	EB	WB	WB	WB	NB	SB
Directions Served	UL	L	T	TR	R	R
Maximum Queue (ft)	86	39	9	21	42	77
Average Queue (ft)	29	7	0	1	14	32
95th Queue (ft)	70	28	7	11	39	62
Link Distance (ft)			386	386	78	138
Upstream Blk Time (%)					0	
Queuing Penalty (veh)					0	
Storage Bay Dist (ft)	130	100				
Storage Blk Time (%)	0					
Queuing Penalty (veh)	0					

Intersection: 3: Mississippi Ave & W Site Access

Movement	WB	SB
Directions Served	T	R
Maximum Queue (ft)	19	89
Average Queue (ft)	1	40
95th Queue (ft)	16	72
Link Distance (ft)	302	126
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Chambers Rd & E Site Access

Movement	EB	NB	SB	SB	SB	SB
Directions Served	LR	T	T	T	T	TR
Maximum Queue (ft)	86	3	62	154	158	198
Average Queue (ft)	24	0	3	42	53	81
95th Queue (ft)	60	3	34	115	129	175
Link Distance (ft)	98	125		2337	2337	2337
Upstream Blk Time (%)	1					
Queuing Penalty (veh)	0					
Storage Bay Dist (ft)			100			
Storage Blk Time (%)				2		
Queuing Penalty (veh)				7		



















Zone Summary

Zone wide Queuing Penalty: 7

Timings

1: Chambers Rd & Mississippi Ave

09/04/2024

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	210	1080	367	268	1165	332	1084	226	1462
Future Volume (vph)	210	1080	367	268	1165	332	1084	226	1462
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	1	6		5	2	3	8	7	4
Permitted Phases			6						
Detector Phase	1	6	6	5	2	3	8	7	4
Switch Phase									
Minimum Initial (s)	6.0	11.0	11.0	6.0	11.0	6.0	6.0	6.0	6.0
Minimum Split (s)	11.0	36.0	36.0	11.0	35.0	11.0	35.0	11.0	41.0
Total Split (s)	21.0	39.0	39.0	17.0	35.0	21.0	62.0	17.0	58.0
Total Split (%)	15.6%	28.9%	28.9%	12.6%	25.9%	15.6%	45.9%	12.6%	43.0%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	5.0	6.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	None	Max	None	Max
Act Effect Green (s)	13.8	33.0	33.0	12.0	31.2	16.0	56.1	11.9	52.0
Actuated g/C Ratio	0.10	0.24	0.24	0.09	0.23	0.12	0.42	0.09	0.39
v/c Ratio	0.65	0.94	0.72	0.95	1.14	0.89	0.62	0.81	0.92
Control Delay (s/veh)	55.1	47.3	21.2	101.8	120.4	82.6	32.2	78.9	38.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	55.1	47.3	21.2	101.8	120.4	82.6	32.2	78.9	38.3
LOS	E	D	C	F	F	F	C	E	D
Approach Delay (s/veh)		42.5			117.1		43.2		43.2
Approach LOS		D			F		D		D

Intersection Summary

Cycle Length: 135

Actuated Cycle Length: 135

Offset: 45 (33%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.14

Intersection Signal Delay (s/veh): 59.9

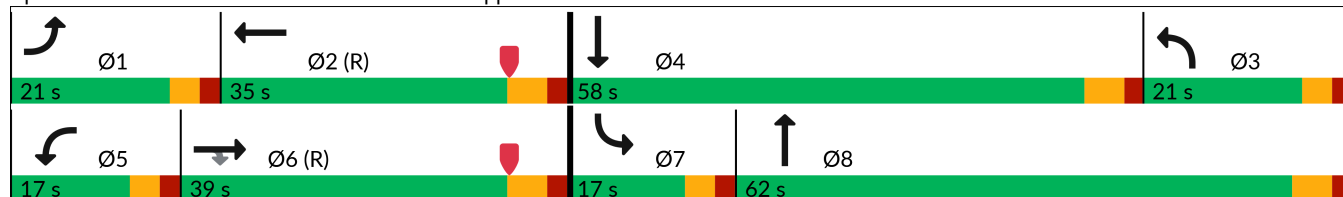
Intersection LOS: E

Intersection Capacity Utilization 90.0%

ICU Level of Service E

Analysis Period (min) 15

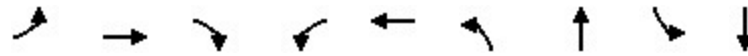
Splits and Phases: 1: Chambers Rd & Mississippi Ave



Queues

1: Chambers Rd & Mississippi Ave

09/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	228	1174	399	291	1334	361	1295	246	1788
v/c Ratio	0.65	0.94	0.72	0.95	1.14	0.89	0.62	0.81	0.92
Control Delay (s/veh)	55.1	47.3	21.2	101.8	120.4	82.6	32.2	78.9	38.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	55.1	47.3	21.2	101.8	120.4	82.6	32.2	78.9	38.3
Queue Length 50th (ft)	84	377	222	132	~504	162	320	104	539
Queue Length 95th (ft)	127	#468	345	#224	#626	#250	371	#172	613
Internal Link Dist (ft)		403			700		237		134
Turn Bay Length (ft)	260			200		300			
Base Capacity (vph)	406	1243	556	305	1168	406	2092	305	1937
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	0.56	0.94	0.72	0.95	1.14	0.89	0.62	0.81	0.92

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 7th Signalized Intersection Summary

1: Chambers Rd & Mississippi Ave

09/04/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	1080	367	268	1165	63	332	1084	108	226	1462	183
Future Volume (veh/h)	210	1080	367	268	1165	63	332	1084	108	226	1462	183
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	228	1174	399	291	1266	68	361	1178	117	246	1589	199
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	286	2389	741	307	2350	126	407	2006	199	296	1771	221
Arrive On Green	0.03	0.15	0.15	0.09	0.47	0.47	0.12	0.42	0.42	0.06	0.26	0.26
Sat Flow, veh/h	3456	5106	1585	3456	4960	266	3456	4721	469	3456	4597	574
Grp Volume(v), veh/h	228	1174	399	291	869	465	361	849	446	246	1176	612
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1822	1728	1702	1786	1728	1702	1767
Q Serve(g_s), s	8.9	28.4	31.3	11.3	24.3	24.3	13.9	25.8	25.8	9.5	45.0	45.2
Cycle Q Clear(g_c), s	8.9	28.4	31.3	11.3	24.3	24.3	13.9	25.8	25.8	9.5	45.0	45.2
Prop In Lane	1.00		1.00	1.00		0.15	1.00		0.26	1.00		0.33
Lane Grp Cap(c), veh/h	286	2389	741	307	1613	864	407	1446	759	296	1311	681
V/C Ratio(X)	0.80	0.49	0.54	0.95	0.54	0.54	0.89	0.59	0.59	0.83	0.90	0.90
Avail Cap(c_a), veh/h	410	2389	741	307	1613	864	410	1446	759	307	1311	681
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.5	42.4	43.6	61.2	25.1	25.1	58.7	29.8	29.8	62.7	47.5	47.6
Incr Delay (d2), s/veh	7.0	0.7	2.8	37.5	1.3	2.4	20.2	1.8	3.3	16.9	9.8	17.1
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	4.3	13.1	13.9	6.5	9.7	10.7	7.1	10.7	11.5	4.9	21.4	23.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	71.5	43.1	46.4	98.7	26.4	27.5	78.8	31.5	33.1	79.6	57.3	64.7
LnGrp LOS	E	D	D	F	C	C	E	C	C	E	E	E
Approach Vol, veh/h	1801			1625			1656			2034		
Approach Delay, s/veh	47.4			39.6			42.2			62.2		
Approach LOS	D			D			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.2	70.9	21.9	58.0	17.0	70.1	16.6	63.4				
Change Period (Y+Rc), s	5.0	6.0	6.0	* 6	5.0	6.0	5.0	6.0				
Max Green Setting (Gmax), s	16.0	29.0	16.0	* 52	12.0	33.0	12.0	56.0				
Max Q Clear Time (g_c+I1), s	10.9	26.3	15.9	47.2	13.3	33.3	11.5	27.8				
Green Ext Time (p_c), s	0.3	1.9	0.0	3.9	0.0	0.0	0.0	9.8				

Intersection Summary

HCM 7th Control Delay, s/veh	48.7
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

2: Mississippi Ave & Middle Site Access Performance by lane

Lane	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	All
Movements Served	UL	T	T	TR	L	T	T	TR	R	R	
Denied Del/Veh (s)											0.0
Total Del/Veh (s)	14.8	2.1	2.1	3.1	16.9	4.8	4.7	5.2	11.2	9.2	4.3

3: Mississippi Ave & W Site Access Performance by lane

Lane	EB	EB	EB	WB	WB	WB	SB	All
Movements Served	T	T	T	T	T	TR	R	
Denied Del/Veh (s)								0.0
Total Del/Veh (s)	6.2	6.6	6.6	0.5	0.7	1.4	8.9	4.1

4: Chambers Rd & E Site Access Performance by lane

Lane	EB	NB	NB	NB	SB	SB	SB	SB	SB	All
Movements Served	LR	T	T	T	T	T	T	T	TR	
Denied Del/Veh (s)										1.0
Total Del/Veh (s)	143.0	2.8	3.1	2.0	2.4	3.8	19.4	17.3	20.4	13.1

Total Zone Performance

Denied Del/Veh (s)	8.3
Total Del/Veh (s)	620.9

Intersection: 2: Mississippi Ave & Middle Site Access

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB
Directions Served	UL	T	T	TR	L	T	T	TR	R	R
Maximum Queue (ft)	109	48	45	72	51	42	39	37	74	120
Average Queue (ft)	44	6	6	7	13	1	1	3	31	50
95th Queue (ft)	86	55	55	59	41	39	35	20	59	90
Link Distance (ft)		302	302	302		386	386	386	78	138
Upstream Blk Time (%)				0		0			0	0
Queuing Penalty (veh)				0		0			0	0
Storage Bay Dist (ft)	130				100					
Storage Blk Time (%)	0	0								
Queuing Penalty (veh)	0	0								

Intersection: 3: Mississippi Ave & W Site Access

Movement	EB	EB	WB	SB
Directions Served	T	T	TR	R
Maximum Queue (ft)	3	8	2	98
Average Queue (ft)	0	0	0	46
95th Queue (ft)	3	8	3	79
Link Distance (ft)	1702	1702	302	126
Upstream Blk Time (%)				0
Queuing Penalty (veh)				0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Chambers Rd & E Site Access

Movement	EB	NB	SB	SB	SB	SB	SB
Directions Served	LR	T	T	T	T	T	TR
Maximum Queue (ft)	119	2	34	125	304	321	329
Average Queue (ft)	70	0	2	42	160	187	198
95th Queue (ft)	130	2	22	132	284	300	313
Link Distance (ft)	98	125			2337	2337	2337
Upstream Blk Time (%)	32						
Queuing Penalty (veh)	0						
Storage Bay Dist (ft)			100	100			
Storage Blk Time (%)			0	0	9		
Queuing Penalty (veh)			0	1	65		

Zone Summary

Zone wide Queuing Penalty: 67































APPENDIX H – Background 2050 (without site development)

Synchro/SimTraffic Outputs

Timings

1: Chambers Rd & Mississippi Ave

09/04/2024

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	 	  		 	  	 	  	 	  
Traffic Volume (vph)	333	1092	255	266	1983	493	2053	115	867
Future Volume (vph)	333	1092	255	266	1983	493	2053	115	867
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	1	6		5	2	3	8	7	4
Permitted Phases			6						
Detector Phase	1	6	6	5	2	3	8	7	4
Switch Phase									
Minimum Initial (s)	6.0	11.0	11.0	6.0	11.0	6.0	6.0	6.0	6.0
Minimum Split (s)	11.0	36.0	36.0	11.0	35.0	11.0	35.0	11.0	41.0
Total Split (s)	23.0	53.0	53.0	16.0	46.0	30.0	59.0	12.0	41.0
Total Split (%)	16.4%	37.9%	37.9%	11.4%	32.9%	21.4%	42.1%	8.6%	29.3%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	5.0	6.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	None	Max	None	Max
Act Effect Green (s)	17.5	42.7	42.7	15.3	40.5	24.3	53.0	7.0	35.7
Actuated g/C Ratio	0.13	0.31	0.31	0.11	0.29	0.17	0.38	0.05	0.26
v/c Ratio	0.85	0.77	0.41	0.77	1.62	0.90	1.25	0.73	0.97
Control Delay (s/veh)	83.7	32.7	2.0	74.7	313.5	75.4	153.9	84.0	75.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	83.7	32.7	2.0	74.7	313.5	75.4	153.9	84.0	75.6
LOS	F	C	A	E	F	E	F	F	E
Approach Delay (s/veh)		38.2			287.5		139.5		76.4
Approach LOS		D			F		F		E

Intersection Summary

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 4 (3%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.62

Intersection Signal Delay (s/veh): 153.2

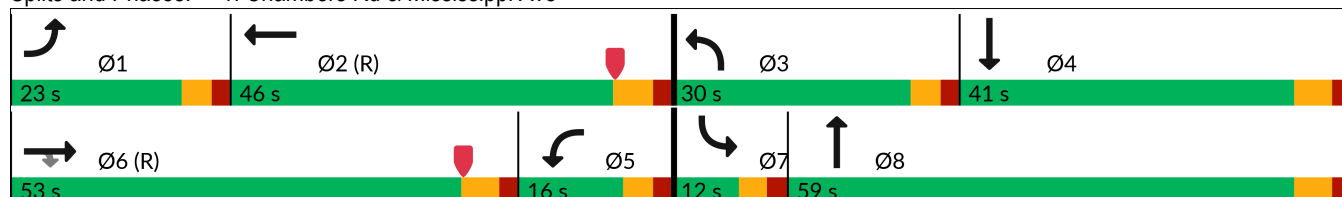
Intersection LOS: F

Intersection Capacity Utilization 118.2%

ICU Level of Service H

Analysis Period (min) 15

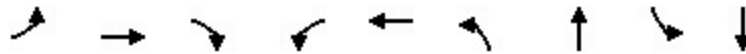
Splits and Phases: 1: Chambers Rd & Mississippi Ave



Queues

1: Chambers Rd & Mississippi Ave

09/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	362	1187	277	289	2359	536	2387	125	1246
v/c Ratio	0.85	0.77	0.41	0.77	1.62	0.90	1.25	0.73	0.97
Control Delay (s/veh)	83.7	32.7	2.0	74.7	313.5	75.4	153.9	84.0	75.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	83.7	32.7	2.0	74.7	313.5	75.4	153.9	84.0	75.6
Queue Length 50th (ft)	139	230	0	135	~1140	247	~993	59	364
Queue Length 95th (ft)	m#229	m235	m14	#246	#1230	#340	#1084	#106	#479
Internal Link Dist (ft)		403			695		237		134
Turn Bay Length (ft)	260			200		300			
Base Capacity (vph)	441	1707	711	375	1460	613	1911	171	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	0.82	0.70	0.39	0.77	1.62	0.87	1.25	0.73	0.97

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

























Queue shown is maximum after two cycles.

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

HCM 7th Signalized Intersection Summary

1: Chambers Rd & Mississippi Ave

09/04/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	333	1092	255	266	1983	188	493	2053	143	115	867	280
Future Volume (veh/h)	333	1092	255	266	1983	188	493	2053	143	115	867	280
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	362	1187	277	289	2155	204	536	2232	155	125	942	304
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	406	1391	432	469	1414	132	586	1847	127	170	987	318
Arrive On Green	0.23	0.54	0.54	0.14	0.30	0.30	0.17	0.38	0.38	0.10	0.52	0.52
Sat Flow, veh/h	3456	5106	1585	3456	4750	444	3456	4878	336	3456	3822	1231
Grp Volume(v), veh/h	362	1187	277	289	1537	822	536	1551	836	125	839	407
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1790	1728	1702	1810	1728	1702	1649
Q Serve(g_s), s	14.2	27.7	14.1	11.0	41.7	41.7	21.3	53.0	53.0	4.9	32.9	33.1
Cycle Q Clear(g_c), s	14.2	27.7	14.1	11.0	41.7	41.7	21.3	53.0	53.0	4.9	32.9	33.1
Prop In Lane	1.00		1.00	1.00		0.25	1.00		0.19	1.00		0.75
Lane Grp Cap(c), veh/h	406	1391	432	469	1013	533	586	1289	685	170	879	426
V/C Ratio(X)	0.89	0.85	0.64	0.62	1.52	1.54	0.92	1.20	1.22	0.74	0.95	0.96
Avail Cap(c_a), veh/h	444	1714	532	469	1013	533	617	1289	685	173	879	426
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	29.5	18.4	57.1	49.2	49.2	57.1	43.5	43.5	62.2	33.1	33.1
Incr Delay (d2), s/veh	18.7	6.8	7.1	2.4	237.6	253.1	17.9	99.3	111.8	14.9	21.1	34.1
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	6.4	9.0	4.8	4.9	50.6	55.5	10.6	39.4	44.2	2.4	12.6	13.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	71.4	36.3	25.5	59.5	286.8	302.2	75.0	142.8	155.3	77.2	54.2	67.2
LnGrp LOS	E	D	C	E	F	F	E	F	F	E	D	E
Approach Vol, veh/h	1826			2648			2923			1371		
Approach Delay, s/veh	41.6			266.8			133.9			60.2		
Approach LOS	D			F			F			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.4	47.7	28.7	42.1	25.0	44.1	11.9	59.0				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	6.0	* 6	5.0	6.0				
Max Green Setting (Gmax), s	18.0	40.0	25.0	35.0	11.0	* 47	7.0	53.0				
Max Q Clear Time (g_c+I1), s	16.2	43.7	23.3	35.1	13.0	29.7	6.9	55.0				
Green Ext Time (p_c), s	0.3	0.0	0.4	0.0	0.0	8.5	0.0	0.0				

Intersection Summary

HCM 7th Control Delay, s/veh 143.3

HCM 7th LOS F

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

2: Mississippi Ave & Middle Site Access Performance by lane

Lane	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	All
Movements Served	UL	T	T	TR	L	T	T	TR	R	R	
Denied Del/Veh (s)											0.0
Total Del/Veh (s)	27.8	1.2	1.0	1.3	14.2	4.9	4.7	4.0	10.2	14.4	3.4

3: Mississippi Ave & W Site Access Performance by lane

Lane	EB	EB	EB	WB	WB	WB	SB	All
Movements Served	T	T	T	T	T	TR	R	
Denied Del/Veh (s)								0.0
Total Del/Veh (s)	4.8	4.5	3.8	0.6	0.8	1.1	15.2	2.8

4: Chambers Rd & E Site Access Performance by lane

Lane	EB	NB	NB	NB	SB	SB	SB	SB	SB	All
Movements Served	LR	T	T	T	T	T	T	T	TR	
Denied Del/Veh (s)										0.1
Total Del/Veh (s)	161.2	3.9	4.0	2.9	1.6	1.9	27.0	26.7	36.8	13.5

Total Zone Performance

Denied Del/Veh (s)	2.6
Total Del/Veh (s)	676.7

Intersection: 2: Mississippi Ave & Middle Site Access

Movement	EB	EB	EB	WB	WB	WB	WB	NB	SB
Directions Served	UL	T	T	L	T	T	TR	R	R
Maximum Queue (ft)	72	5	10	32	17	28	19	39	78
Average Queue (ft)	25	0	0	7	0	0	1	15	30
95th Queue (ft)	60	6	10	27	0	7	10	38	62
Link Distance (ft)		302	302		386	386	386	78	138
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	130			100					
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 3: Mississippi Ave & W Site Access

Movement	SB
Directions Served	R
Maximum Queue (ft)	95
Average Queue (ft)	44
95th Queue (ft)	80
Link Distance (ft)	126
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Chambers Rd & E Site Access

Movement	EB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LR	T	T	T	T	T	T	TR
Maximum Queue (ft)	102	4	8	24	125	280	297	364
Average Queue (ft)	41	0	0	1	29	145	160	197
95th Queue (ft)	95	4	6	18	116	263	279	327
Link Distance (ft)	98	125	125	125		2337	2337	2337
Upstream Blk Time (%)	11							
Queuing Penalty (veh)	0							
Storage Bay Dist (ft)					100			
Storage Blk Time (%)					0	21		
Queuing Penalty (veh)					0	106		



















Zone Summary

Zone wide Queuing Penalty: 106

Timings

1: Chambers Rd & Mississippi Ave

09/04/2024

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	281	1746	511	374	1868	443	1513	302	2027
Future Volume (vph)	281	1746	511	374	1868	443	1513	302	2027
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	1	6		5	2	3	8	7	4
Permitted Phases			6						
Detector Phase	1	6	6	5	2	3	8	7	4
Switch Phase									
Minimum Initial (s)	6.0	11.0	11.0	6.0	11.0	6.0	6.0	6.0	6.0
Minimum Split (s)	11.0	36.0	36.0	11.0	35.0	11.0	35.0	11.0	41.0
Total Split (s)	21.0	39.0	39.0	17.0	35.0	21.0	62.0	17.0	58.0
Total Split (%)	15.6%	28.9%	28.9%	12.6%	25.9%	15.6%	45.9%	12.6%	43.0%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	5.0	6.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	None	Max	None	Max
Act Effect Green (s)	15.3	33.0	33.0	12.0	29.7	16.0	56.0	12.0	52.0
Actuated g/C Ratio	0.11	0.24	0.24	0.09	0.22	0.12	0.41	0.09	0.39
v/c Ratio	0.79	1.53	1.00	1.33	1.91	1.19	0.87	1.08	1.28
Control Delay (s/veh)	60.0	266.0	47.9	216.9	440.4	156.5	41.2	124.6	155.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	60.0	266.0	47.9	216.9	440.4	156.5	41.2	124.6	155.8
LOS	E	F	D	F	F	F	D	F	F
Approach Delay (s/veh)		199.3			404.4		65.5		152.1
Approach LOS		F			F		E		F

Intersection Summary

Cycle Length: 135

Actuated Cycle Length: 135

Offset: 45 (33%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.91

Intersection Signal Delay (s/veh): 207.1

Intersection LOS: F

Intersection Capacity Utilization 121.7%

ICU Level of Service H

Analysis Period (min) 15

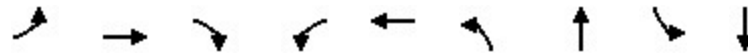
Splits and Phases: 1: Chambers Rd & Mississippi Ave



Queues

1: Chambers Rd & Mississippi Ave

09/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	305	1898	555	407	2125	482	1808	328	2474
v/c Ratio	0.79	1.53	1.00	1.33	1.91	1.19	0.87	1.08	1.28
Control Delay (s/veh)	60.0	266.0	47.9	216.9	440.4	156.5	41.2	124.6	155.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	60.0	266.0	47.9	216.9	440.4	156.5	41.2	124.6	155.8
Queue Length 50th (ft)	126	~861	~400	~238	~1063	~261	520	~161	~1005
Queue Length 95th (ft)	m140	m#933	m#423	#344	#1157	#373	588	#262	#1078
Internal Link Dist (ft)		403			700		237		134
Turn Bay Length (ft)	260			200		300			
Base Capacity (vph)	406	1243	554	305	1115	406	2088	305	1939
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	0.75	1.53	1.00	1.33	1.91	1.19	0.87	1.08	1.28

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

























Queue shown is maximum after two cycles.

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

HCM 7th Signalized Intersection Summary

1: Chambers Rd & Mississippi Ave

09/04/2024

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	281	1746	511	374	1868	87	443	1513	150	302	2027	249	
Future Volume (veh/h)	281	1746	511	374	1868	87	443	1513	150	302	2027	249	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Lane Width 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	
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	305	1898	555	407	2030	95	482	1645	163	328	2203	271	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Cap, veh/h	361	2496	775	307	2367	110	410	1994	197	307	1778	215	
Arrive On Green	0.03	0.16	0.16	0.09	0.47	0.47	0.12	0.42	0.42	0.06	0.26	0.26	
Sat Flow, veh/h	3456	5106	1585	3456	4999	233	3456	4723	467	3456	4617	557	
Grp Volume(v), veh/h	305	1898	555	407	1380	745	482	1185	623	328	1613	861	
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1828	1728	1702	1786	1728	1702	1770	
Q Serve(g_s), s	11.8	48.0	44.8	12.0	48.5	48.9	16.0	41.6	41.8	12.0	52.0	52.0	
Cycle Q Clear(g_c), s	11.8	48.0	44.8	12.0	48.5	48.9	16.0	41.6	41.8	12.0	52.0	52.0	
Prop In Lane	1.00		1.00	1.00		0.13	1.00		0.26	1.00		0.31	
Lane Grp Cap(c), veh/h	361	2496	775	307	1612	866	410	1437	754	307	1311	682	
V/C Ratio(X)	0.85	0.76	0.72	1.32	0.86	0.86	1.18	0.82	0.83	1.07	1.23	1.26	
Avail Cap(c_a), veh/h	410	2496	775	307	1612	866	410	1437	754	307	1311	682	
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	64.1	49.0	47.7	61.5	31.5	31.6	59.5	34.6	34.6	63.5	50.1	50.1	
Incr Delay (d2), s/veh	13.7	2.2	5.6	167.1	6.1	10.9	102.3	5.5	10.1	70.5	110.4	129.8	
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	6.2	22.4	20.3	12.3	20.1	22.9	12.7	17.7	19.6	8.4	42.7	48.1	
Unsig. Movement Delay, s/veh													
LnGrp Delay(d), s/veh	77.8	51.3	53.3	228.6	37.6	42.5	161.8	40.1	44.7	133.9	160.5	179.9	
LnGrp LOS	E	D	D	F	D	D	F	D	D	F	F	F	
Approach Vol, veh/h	2758				2532				2290				2802
Approach Delay, s/veh	54.6				69.7				66.9				163.4
Approach LOS	D				E				E				F
Timer - Assigned Phs	1	2	3	4	5	6	7	8					
Phs Duration (G+Y+Rc), s	19.1	70.9	22.0	58.0	17.0	73.0	17.0	63.0					
Change Period (Y+Rc), s	5.0	6.0	6.0	* 6	5.0	6.0	5.0	6.0					
Max Green Setting (Gmax), s	16.0	29.0	16.0	* 52	12.0	33.0	12.0	56.0					
Max Q Clear Time (g_c+I1), s	13.8	50.9	18.0	54.0	14.0	50.0	14.0	43.8					
Green Ext Time (p_c), s	0.2	0.0	0.0	0.0	0.0	0.0	0.0	8.6					
Intersection Summary													
HCM 7th Control Delay, s/veh	90.4												
HCM 7th LOS	F												
Notes													
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.													

2: Mississippi Ave & Middle Site Access Performance by lane

Lane	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	All
Movements Served	UL	T	T	TR	L	T	T	TR	R	R	
Denied Del/Veh (s)											15.6
Total Del/Veh (s)	15.8	59.7	59.7	49.6	31.5	4.7	4.5	4.5	921.7	10.3	34.4

3: Mississippi Ave & W Site Access Performance by lane

Lane	EB	EB	EB	WB	WB	WB	SB	All
Movements Served	T	T	T	T	T	TR	R	
Denied Del/Veh (s)								3.3
Total Del/Veh (s)	248.2	252.6	276.8	0.6	0.8	1.3	10.6	143.0

4: Chambers Rd & E Site Access Performance by lane

Lane	EB	NB	NB	NB	SB	SB	SB	SB	SB	All
Movements Served	LR	T	T	T	T	T	T	T	TR	
Denied Del/Veh (s)										18.3
Total Del/Veh (s)	1890.8	3.5	3.7	2.9	5.2	15.9	353.5	347.0	368.5	190.7

Total Zone Performance

Denied Del/Veh (s)	457.0
Total Del/Veh (s)	2577.8

Intersection: 2: Mississippi Ave & Middle Site Access

Movement	EB	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	UL	T	T	TR	L	T	TR	R	R
Maximum Queue (ft)	154	333	339	349	47	9	23	102	94
Average Queue (ft)	77	313	315	317	10	0	2	77	43
95th Queue (ft)	177	323	328	335	35	7	11	100	75
Link Distance (ft)		302	302	302		386	386	78	138
Upstream Blk Time (%)		49	48	49				80	0
Queuing Penalty (veh)		446	435	443				0	0
Storage Bay Dist (ft)	130				100				
Storage Blk Time (%)	0	64							
Queuing Penalty (veh)	3	57							

Intersection: 3: Mississippi Ave & W Site Access

Movement	EB	EB	EB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	1734	1744	1733	114
Average Queue (ft)	1558	1573	1578	46
95th Queue (ft)	2093	2104	2093	84
Link Distance (ft)	1702	1702	1702	126
Upstream Blk Time (%)	2	4	6	0
Queuing Penalty (veh)	18	36	54	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Chambers Rd & E Site Access

Movement	EB	NB	NB	SB	SB	SB	SB	SB
Directions Served	LR	T	T	T	T	T	T	TR
Maximum Queue (ft)	111	6	4	63	125	2371	2376	2373
Average Queue (ft)	98	0	0	10	78	2110	2063	2051
95th Queue (ft)	117	6	4	57	168	2922	2896	2894
Link Distance (ft)	98	125	125			2337	2337	2337
Upstream Blk Time (%)	99					11	9	12
Queuing Penalty (veh)	0					89	78	101
Storage Bay Dist (ft)				100	100			
Storage Blk Time (%)				0	3	55		
Queuing Penalty (veh)				1	16	559		

Zone Summary































Zone wide Queuing Penalty: 2336

APPENDIX I – Future 2050 (with site development) Synchro/SimTraffic Outputs

Timings

1: Chambers Rd & Mississippi Ave

09/04/2024

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	 	  		 	  	 	  	 	  
Traffic Volume (vph)	336	1092	255	266	1987	497	2053	118	870
Future Volume (vph)	336	1092	255	266	1987	497	2053	118	870
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	1	6		5	2	3	8	7	4
Permitted Phases			6						
Detector Phase	1	6	6	5	2	3	8	7	4
Switch Phase									
Minimum Initial (s)	6.0	11.0	11.0	6.0	11.0	6.0	6.0	6.0	6.0
Minimum Split (s)	11.0	36.0	36.0	11.0	35.0	11.0	35.0	11.0	41.0
Total Split (s)	23.0	53.0	53.0	16.0	46.0	30.0	59.0	12.0	41.0
Total Split (%)	16.4%	37.9%	37.9%	11.4%	32.9%	21.4%	42.1%	8.6%	29.3%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	5.0	6.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	None	Max	None	Max
Act Effect Green (s)	17.5	42.7	42.7	15.3	40.5	24.4	53.0	7.0	35.6
Actuated g/C Ratio	0.13	0.31	0.31	0.11	0.29	0.17	0.38	0.05	0.25
v/c Ratio	0.85	0.77	0.41	0.77	1.62	0.90	1.25	0.75	0.97
Control Delay (s/veh)	84.1	32.7	2.1	74.7	315.7	76.0	153.9	85.6	76.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	84.1	32.7	2.1	74.7	315.7	76.0	153.9	85.6	76.7
LOS	F	C	A	E	F	E	F	F	E
Approach Delay (s/veh)		38.3			289.4		139.6		77.5
Approach LOS		D			F		F		E

Intersection Summary

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 4 (3%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.62

Intersection Signal Delay (s/veh): 154.0

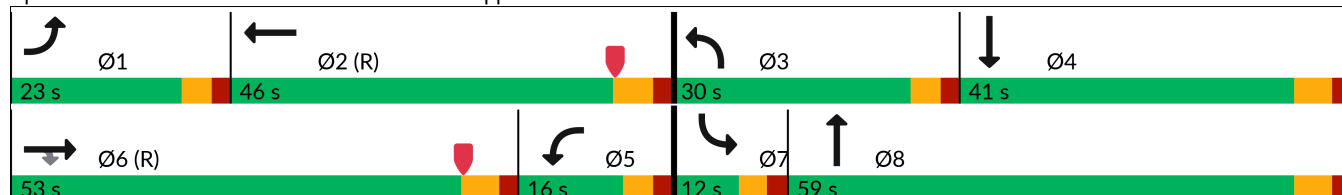
Intersection LOS: F

Intersection Capacity Utilization 118.3%

ICU Level of Service H

Analysis Period (min) 15

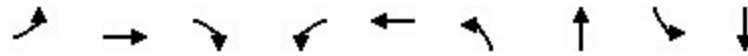
Splits and Phases: 1: Chambers Rd & Mississippi Ave



Queues

1: Chambers Rd & Mississippi Ave

09/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	365	1187	277	289	2364	540	2387	128	1253
v/c Ratio	0.85	0.77	0.41	0.77	1.62	0.90	1.25	0.75	0.97
Control Delay (s/veh)	84.1	32.7	2.1	74.7	315.7	76.0	153.9	85.6	76.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	84.1	32.7	2.1	74.7	315.7	76.0	153.9	85.6	76.7
Queue Length 50th (ft)	141	230	0	135	~1143	250	~993	60	367
Queue Length 95th (ft)	m#232	m235	m15	#246	#1234	#345	#1084	#111	#483
Internal Link Dist (ft)		403			695		237		134
Turn Bay Length (ft)	260			200		300			
Base Capacity (vph)	441	1707	711	375	1458	613	1911	171	1287
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	0.83	0.70	0.39	0.77	1.62	0.88	1.25	0.75	0.97

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

























Queue shown is maximum after two cycles.

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

HCM 7th Signalized Intersection Summary

1: Chambers Rd & Mississippi Ave

09/04/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	336	1092	255	266	1987	188	497	2053	143	118	870	282
Future Volume (veh/h)	336	1092	255	266	1987	188	497	2053	143	118	870	282
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	365	1187	277	289	2160	204	540	2232	155	128	946	307
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	409	1391	432	466	1407	131	589	1847	127	173	985	319
Arrive On Green	0.24	0.54	0.54	0.13	0.30	0.30	0.17	0.38	0.38	0.10	0.52	0.52
Sat Flow, veh/h	3456	5106	1585	3456	4751	443	3456	4878	336	3456	3816	1236
Grp Volume(v), veh/h	365	1187	277	289	1540	824	540	1551	836	128	844	409
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1791	1728	1702	1810	1728	1702	1648
Q Serve(g_s), s	14.3	27.7	14.1	11.1	41.5	41.5	21.5	53.0	53.0	5.0	33.3	33.4
Cycle Q Clear(g_c), s	14.3	27.7	14.1	11.1	41.5	41.5	21.5	53.0	53.0	5.0	33.3	33.4
Prop In Lane	1.00		1.00	1.00		0.25	1.00		0.19	1.00		0.75
Lane Grp Cap(c), veh/h	409	1391	432	466	1008	530	589	1289	685	173	878	425
V/C Ratio(X)	0.89	0.85	0.64	0.62	1.53	1.55	0.92	1.20	1.22	0.74	0.96	0.96
Avail Cap(c_a), veh/h	444	1714	532	466	1008	530	617	1289	685	173	878	425
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.6	29.5	18.4	57.2	49.3	49.3	57.1	43.5	43.5	62.1	33.2	33.2
Incr Delay (d2), s/veh	19.0	6.8	7.1	2.5	242.8	258.3	18.2	99.3	111.8	15.7	22.1	35.2
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	6.5	9.0	4.7	4.9	51.0	56.0	10.7	39.4	44.2	2.5	12.9	14.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	71.6	36.3	25.5	59.7	292.0	307.6	75.3	142.8	155.3	77.8	55.3	68.5
LnGrp LOS	E	D	C	E	F	F	E	F	F	E	E	E
Approach Vol, veh/h	1829			2653			2927			1381		
Approach Delay, s/veh	41.7			271.6			133.9			61.3		
Approach LOS	D			F			F			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.6	47.5	28.9	42.1	24.9	44.1	12.0	59.0				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	6.0	* 6	5.0	6.0				
Max Green Setting (Gmax), s	18.0	40.0	25.0	35.0	11.0	* 47	7.0	53.0				
Max Q Clear Time (g_c+I1), s	16.3	43.5	23.5	35.4	13.1	29.7	7.0	55.0				
Green Ext Time (p_c), s	0.2	0.0	0.4	0.0	0.0	8.5	0.0	0.0				

Intersection Summary

HCM 7th Control Delay, s/veh 144.9

HCM 7th LOS F

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

2: Mississippi Ave & Middle Site Access Performance by lane

Lane	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	All
Movements Served	UL	T	T	TR	L	T	T	TR	R	R	
Denied Del/Veh (s)											0.0
Total Del/Veh (s)	30.5	1.2	1.0	1.3	13.7	4.8	4.8	4.1	10.7	17.1	3.6

3: Mississippi Ave & W Site Access Performance by lane

Lane	EB	EB	EB	WB	WB	WB	SB	All
Movements Served	T	T	T	T	T	TR	R	
Denied Del/Veh (s)								0.0
Total Del/Veh (s)	4.7	4.3	3.7	0.6	0.8	1.2	13.6	2.7

4: Chambers Rd & E Site Access Performance by lane

Lane	EB	NB	NB	NB	SB	SB	SB	SB	SB	All
Movements Served	LR	T	T	T	T	T	T	T	TR	
Denied Del/Veh (s)										0.3
Total Del/Veh (s)	165.2	3.8	4.1	2.9	1.5	1.9	26.8	25.2	32.8	13.0

Total Zone Performance

Denied Del/Veh (s)	4.8
Total Del/Veh (s)	608.0

Intersection: 2: Mississippi Ave & Middle Site Access

Movement	EB	EB	EB	WB	WB	WB	WB	NB	SB
Directions Served	UL	T	TR	L	T	T	TR	R	R
Maximum Queue (ft)	78	2	7	37	43	49	18	49	91
Average Queue (ft)	30	0	0	7	2	2	1	15	35
95th Queue (ft)	67	2	4	29	40	40	9	40	71
Link Distance (ft)		302	302		386	386	386	78	138
Upstream Blk Time (%)					0	0		0	0
Queuing Penalty (veh)					0	0		0	0
Storage Bay Dist (ft)	130			100					
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 3: Mississippi Ave & W Site Access

Movement	EB	WB	SB
Directions Served	T	TR	R
Maximum Queue (ft)	172	4	102
Average Queue (ft)	6	0	42
95th Queue (ft)	174	4	77
Link Distance (ft)	1702	302	126
Upstream Blk Time (%)	0		0
Queuing Penalty (veh)	0		0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Chambers Rd & E Site Access

Movement	EB	NB	NB	SB	SB	SB	SB
Directions Served	LR	T	T	T	T	T	TR
Maximum Queue (ft)	110	6	10	125	272	295	340
Average Queue (ft)	45	0	0	26	139	153	186
95th Queue (ft)	106	6	8	109	248	258	298
Link Distance (ft)	98	125	125		2337	2337	2337
Upstream Blk Time (%)	19						
Queuing Penalty (veh)	0						
Storage Bay Dist (ft)				100			
Storage Blk Time (%)				0	20		
Queuing Penalty (veh)				0	99		



















Zone Summary

Zone wide Queuing Penalty: 100

Timings

1: Chambers Rd & Mississippi Ave

09/04/2024

									
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	288	1746	511	374	1875	450	1513	309	2034
Future Volume (vph)	288	1746	511	374	1875	450	1513	309	2034
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	1	6		5	2	3	8	7	4
Permitted Phases			6						
Detector Phase	1	6	6	5	2	3	8	7	4
Switch Phase									
Minimum Initial (s)	6.0	11.0	11.0	6.0	11.0	6.0	6.0	6.0	6.0
Minimum Split (s)	11.0	36.0	36.0	11.0	35.0	11.0	35.0	11.0	41.0
Total Split (s)	21.0	39.0	39.0	17.0	35.0	21.0	62.0	17.0	58.0
Total Split (%)	15.6%	28.9%	28.9%	12.6%	25.9%	15.6%	45.9%	12.6%	43.0%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	5.0	6.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	None	Max	None	Max
Act Effect Green (s)	15.4	33.0	33.0	12.0	29.6	16.0	56.0	12.0	52.0
Actuated g/C Ratio	0.11	0.24	0.24	0.09	0.22	0.12	0.41	0.09	0.39
v/c Ratio	0.80	1.53	1.00	1.33	1.92	1.20	0.87	1.10	1.28
Control Delay (s/veh)	60.4	266.0	47.8	216.9	447.4	162.5	41.2	131.9	158.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	60.4	266.0	47.8	216.9	447.4	162.5	41.2	131.9	158.9
LOS	E	F	D	F	F	F	D	F	F
Approach Delay (s/veh)		199.0			410.5		67.0		155.7
Approach LOS		F			F		E		F

Intersection Summary

Cycle Length: 135

Actuated Cycle Length: 135

Offset: 45 (33%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.92

Intersection Signal Delay (s/veh): 209.7

Intersection LOS: F

Intersection Capacity Utilization 122.5%

ICU Level of Service H

Analysis Period (min) 15

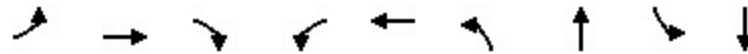
Splits and Phases: 1: Chambers Rd & Mississippi Ave



Queues

1: Chambers Rd & Mississippi Ave

09/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	313	1898	555	407	2133	489	1808	336	2485
v/c Ratio	0.80	1.53	1.00	1.33	1.92	1.20	0.87	1.10	1.28
Control Delay (s/veh)	60.4	266.0	47.8	216.9	447.4	162.5	41.2	131.9	158.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	60.4	266.0	47.8	216.9	447.4	162.5	41.2	131.9	158.9
Queue Length 50th (ft)	129	~860	398	~238	~1068	~268	520	~168	~1012
Queue Length 95th (ft)	m144	m#931	m#422	#344	#1163	#380	588	#269	#1086
Internal Link Dist (ft)		403			700		237		134
Turn Bay Length (ft)	260			200		300			
Base Capacity (vph)	406	1243	554	305	1110	406	2088	305	1937
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	0.77	1.53	1.00	1.33	1.92	1.20	0.87	1.10	1.28

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

























Queue shown is maximum after two cycles.

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

HCM 7th Signalized Intersection Summary

1: Chambers Rd & Mississippi Ave

09/04/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	288	1746	511	374	1875	87	450	1513	150	309	2034	252
Future Volume (veh/h)	288	1746	511	374	1875	87	450	1513	150	309	2034	252
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	313	1898	555	407	2038	95	489	1645	163	336	2211	274
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	368	2496	775	307	2357	109	410	1994	197	307	1777	216
Arrive On Green	0.04	0.16	0.16	0.09	0.47	0.47	0.12	0.42	0.42	0.06	0.26	0.26
Sat Flow, veh/h	3456	5106	1585	3456	5000	232	3456	4723	467	3456	4613	560
Grp Volume(v), veh/h	313	1898	555	407	1385	748	489	1185	623	336	1620	865
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1829	1728	1702	1786	1728	1702	1769
Q Serve(g_s), s	12.2	48.0	44.8	12.0	49.0	49.4	16.0	41.6	41.8	12.0	52.0	52.0
Cycle Q Clear(g_c), s	12.2	48.0	44.8	12.0	49.0	49.4	16.0	41.6	41.8	12.0	52.0	52.0
Prop In Lane	1.00		1.00	1.00		0.13	1.00		0.26	1.00		0.32
Lane Grp Cap(c), veh/h	368	2496	775	307	1604	862	410	1437	754	307	1311	682
V/C Ratio(X)	0.85	0.76	0.72	1.32	0.86	0.87	1.19	0.82	0.83	1.09	1.24	1.27
Avail Cap(c_a), veh/h	410	2496	775	307	1604	862	410	1437	754	307	1311	682
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.1	49.0	47.7	61.5	31.8	31.9	59.5	34.6	34.6	63.5	50.1	50.1
Incr Delay (d2), s/veh	14.5	2.2	5.6	167.1	6.4	11.5	108.9	5.5	10.1	78.8	112.7	132.5
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	6.4	22.4	20.3	12.3	20.4	23.3	13.1	17.7	19.6	8.7	43.1	48.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	78.5	51.3	53.3	228.6	38.2	43.4	168.4	40.1	44.7	142.3	162.8	182.6
LnGrp LOS	E	D	D	F	D	D	F	D	D	F	F	F
Approach Vol, veh/h	2766			2540			2297			2821		
Approach Delay, s/veh	54.8			70.3			68.6			166.4		
Approach LOS	D			E			E			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.4	70.6	22.0	58.0	17.0	73.0	17.0	63.0				
Change Period (Y+Rc), s	5.0	6.0	6.0	* 6	5.0	6.0	5.0	6.0				
Max Green Setting (Gmax), s	16.0	29.0	16.0	* 52	12.0	33.0	12.0	56.0				
Max Q Clear Time (g_c+I1), s	14.2	51.4	18.0	54.0	14.0	50.0	14.0	43.8				
Green Ext Time (p_c), s	0.2	0.0	0.0	0.0	0.0	0.0	0.0	8.6				

Intersection Summary

HCM 7th Control Delay, s/veh 91.8

HCM 7th LOS F

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

2: Mississippi Ave & Middle Site Access Performance by lane

Lane	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	All
Movements Served	UL	T	T	TR	L	T	T	TR	R	R	
Denied Del/Veh (s)											18.1
Total Del/Veh (s)	16.6	58.1	59.9	47.7	31.5	4.6	4.4	4.6	781.6	12.1	33.6

3: Mississippi Ave & W Site Access Performance by lane

Lane	EB	EB	EB	WB	WB	WB	SB	All
Movements Served	T	T	T	T	T	TR	R	
Denied Del/Veh (s)								4.4
Total Del/Veh (s)	238.7	240.7	266.4	0.6	0.8	1.3	10.0	137.1

4: Chambers Rd & E Site Access Performance by lane

Lane	EB	NB	NB	NB	SB	SB	SB	SB	SB	All
Movements Served	LR	T	T	T	T	T	T	T	TR	
Denied Del/Veh (s)										26.2
Total Del/Veh (s)	1850.1	3.5	3.7	2.9	8.6	20.4	358.8	350.7	369.1	194.0

Total Zone Performance

Denied Del/Veh (s)	512.8
Total Del/Veh (s)	2580.5

Intersection: 2: Mississippi Ave & Middle Site Access

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB
Directions Served	UL	T	T	TR	L	T	T	TR	R	R
Maximum Queue (ft)	154	335	346	349	47	45	11	34	96	121
Average Queue (ft)	86	313	316	317	10	2	0	2	76	52
95th Queue (ft)	184	325	333	335	35	42	6	14	99	92
Link Distance (ft)		302	302	302		386	386	386	78	138
Upstream Blk Time (%)		48	47	48		0			76	0
Queuing Penalty (veh)		440	425	436		0			0	0
Storage Bay Dist (ft)	130				100					
Storage Blk Time (%)	0	62								
Queuing Penalty (veh)	2	60								

Intersection: 3: Mississippi Ave & W Site Access

Movement	EB	EB	EB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	1729	1741	1728	4	111
Average Queue (ft)	1510	1531	1537	0	46
95th Queue (ft)	2155	2168	2154	6	84
Link Distance (ft)	1702	1702	1702	302	126
Upstream Blk Time (%)	2	4	5		0
Queuing Penalty (veh)	15	36	45		0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 4: Chambers Rd & E Site Access

Movement	EB	NB	NB	SB	SB	SB	SB	SB
Directions Served	LR	T	T	T	T	T	T	TR
Maximum Queue (ft)	108	26	5	81	125	2368	2378	2374
Average Queue (ft)	97	1	0	16	79	2135	2084	2074
95th Queue (ft)	117	17	5	75	169	2870	2847	2849
Link Distance (ft)	98	125	125			2337	2337	2337
Upstream Blk Time (%)	98	0				11	9	12
Queuing Penalty (veh)	0	0				91	71	96
Storage Bay Dist (ft)				100	100			
Storage Blk Time (%)				1	7	54		
Queuing Penalty (veh)				3	33	552		

Zone Summary

Zone wide Queuing Penalty: 2306