

SMITHVILLE PLAZA

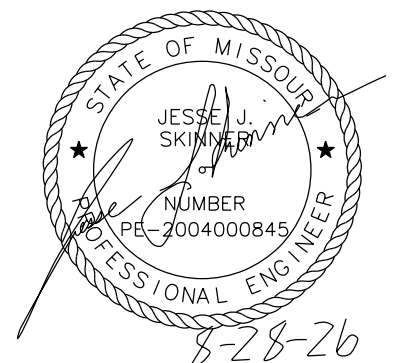
Smithville, MO

TRAFFIC IMPACT STUDY

August 28, 2026

Prepared For:
Consult KC | Pence Design Drafting

Prepared By:
Priority Engineers, Inc.
PO Box 563
Garden City, MO 64747





August 28, 2026

Devin Barnes
Consult KC | Pence Design Drafting

RE: Smithville Plaza TIS – Smithville, MO

Dear Mr. Barnes,

In response to your request, Priority Engineers, Inc. has completed a traffic impact study for the above referenced project. This study documents the calculations used to determine the potential traffic impacts associated with this development on the intersections and streets surrounding this site, primarily during the AM and PM peak hour. The following report documents our analysis and recommendations.

We appreciate the opportunity to work with you on this project. Please contact us with any questions or if you require additional information.

Sincerely,

PRIORITY ENGINEERS, INC.

A handwritten signature in blue ink, appearing to read 'Jesse Skinner', is written over a horizontal line.

Jesse Skinner, P.E., PTOE
Senior Transportation Engineer

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1) INTRODUCTION

The purpose of this study is to examine the potential traffic impacts associated with the proposed Smithville Plaza residential development. This proposed development will include 200 units of multifamily residences. The site is located east of US-169 and north of the Little Platte River. The site is located in Clay County and is within the municipal city limits of Smithville.

The study area is shown in Figure 1. The site layout is shown in Figure 2.

2) EXISTING CONDITIONS

The existing site is undeveloped land. The site is bounded to the east by N Bridge Street. North of the proposed development is a self-storage facility. West of the proposed development is US-169 and an established retail development. South of the proposed development site is a single-family residence and the Little Platte River. The predominate land uses in the vicinity of the development include commercial and residential uses.

US-169, within the study area, is a five-lane facility with two lanes in each direction and a two way left turn lane (TWLTL). It has paved shoulders and an open drainage system. The posted speed limit of this section of US-169 is 35 MPH. The Mid-America Regional Council (MARC) has assigned this section of US-169 a functional classification of Minor Arterial.

N Bridge Street is a two-lane facility with a posted speed limit of 25 MPH. MARC has assigned this section of N Bridge Street a functional classification of Major Collector.

Peak Hour turning movement counts were collected for the following intersections: US-169 and the south entrance (nearest La Fuente restaurant), US-169 and the north entrance, N Bridge Street and E Church Street, and E Bridge Street and W Main Street on Tuesday July 28th and Wednesday July 29th of this year. The AM Peak Hour was found to be from 7:15 to 8:15 and the PM Peak Hour was found to be from 4:30 to 5:30. US-169 drives are STOP controlled for minor movements while the intersections of N Bridge Street with E Church Street and W Main Street are all way STOP controlled.

The complete traffic counts are shown in Appendix II. The peak hour traffic volumes and existing lane configurations are shown in Figures 3-6.

3) PROPOSED DEVELOPMENT

The proposed development consists of 200 multi-family residences. In total, the buildout of the proposed development will include three multi-story buildings, one of which will include parking under the structure. The proposed development will have cross-access to the entrances to the west onto US-169. There will be an additional full access entrance onto N Bridge Street.

The proposed site plan indicates that there are 294 parking stalls provided and 600 required by the City. Urban Land Planning Institute has researched the amount of parking spaces required for ITE Land Use 221. Their research recommends a parking ratio of 1.46 stalls per unit in a suburban setting and a ratio of 1.17 stalls per unit in an urban setting. To meet the Urban Land Planning Institute recommendations, 292 parking stalls are required. Similarly, ITE has researched Land Use 221 for parking needs. ITE data recommends a peak period parking demand (weekday) rate of 1.31 parking stalls per unit. Their data shows a 95% confidence

interval for sites ranging between 1.26-1.36 parking stalls per unit. To meet ITE recommendations, 262 parking stalls are required. In addition to the site meeting both ITE and Urban Land Planning Institute recommendations, the site's internal circulation provides for some additional opportunities of shared parking with the adjacent businesses.

The proposed site plan is shown in Figure 2.

4) TRIP GENERATION

The vehicle trips generated by the proposed development were estimated using the Institute of Transportation Engineers' (ITE) Trip Generation, 12th Edition. The land use selected was ITE Land Use 221, Multifamily Housing (Mid-Rise). The estimated AM and PM peak hour traffic volumes associated with this development are shown in Table 1.

Table 1: ITE Trip Generation - Proposed Smithville Plaza								
Land Use	Intensity	Daily	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
Multifamily Housing (Mid-Rise)	200 Units	892	76	18	58	75	48	27
Total			76	18	58	75	48	27

La Fuente Restaurant and an adjoining retail store were damaged previously in a fire. Currently these businesses are being reconstructed. To account for the traffic generated by the businesses once they are occupied, Land Use 822, Strip Retail Plaza (<40K) and Land Use 932, High Turnover (Sit-Down) Restaurant, were selected as the appropriate land uses to estimate trips. Similar methodology as described above results in the trips generated in Table 2 below.

Table 2: ITE Trip Generation - Off-site Reconstruction								
Land Use	Intensity	Daily	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
Strip Retail Plaza (<40k)	5,080 SF	444	20	11	9	48	24	24
High-Turnover (Sit-Down) Restaurant	5,000 SF	519				46	28	18
Total		963	20	11	9	94	52	42

5) TRIP DISTRIBUTION AND ASSIGNMENT

Trips generated by the Smithville Plaza residential development were distributed based on existing traffic flows and a general analysis of the surrounding area. The trips were distributed onto the existing street system approximately as follows:

- 20 percent to and from the north on US-169

- 5 percent to and from the north on N Bridge Street
- 40 percent to and from the south on US-169
- 35 percent to the south on N Bridge Street

6) LEVEL OF SERVICE AND VOLUME/CAPACITY ANALYSES

Capacity analysis was used to quantify the impacts of the increased traffic on the intersections studied. The methodology outlined in the Highway Capacity Manual, 7th Edition, was used as a basis to perform the analysis for this study. Capacity analysis defines the quality of traffic operation for an intersection using a grading system called Level of Service (LOS). The LOS is defined in terms of average vehicle delay. Levels of service A through F have been established with A representing the best and F the worst.

Table 3: Level of Service Definitions		
Level of Service	Unsignalized Intersection	Signalized Intersection
A	< 10 Seconds	< 10 Seconds
B	< 15 Seconds	< 20 Seconds
C	< 25 Seconds	< 35 Seconds
D	< 35 Seconds	< 55 Seconds
E	< 50 Seconds	< 80 Seconds
F	≥ 50 Seconds	≥ 80 Seconds

The study intersections were evaluated using Synchro based on part on Highway Capacity Manual methods. The analysis reports are included in Appendix II.

Existing Conditions

The levels of service, lane configuration, and queue lengths for existing conditions are shown in Figures 5 and 6 in Appendix I. Figures 7 and 8 in Appendix I show the traffic volumes for study intersections after the La Fuente restaurant and the retail business are reconstructed. The levels of service, lane configuration, and queue lengths for existing plus reconstructed businesses conditions are shown in Figures 9 and 10 in Appendix I.

The study intersections, when analyzed utilizing Synchro, were found to have a level of service C or better on the STOP controlled minor movement during both the AM and PM Peak Hours with the exception of the westbound movement at north entrance & US-169 which is a level of service E (35.6 sec average delay per vehicle) with a design queue length of less than one vehicle after the reconstruction of existing businesses damaged by fire.

Existing + Proposed Development Conditions

The levels of service, lane configuration, and queue lengths for the Existing plus Proposed Conditions are shown in Figures 13 and 14 in Appendix I.

During the AM Peak Hour all STOP controlled minor movements perform with a level of service B or better and minimal design queue lengths. During the PM Peak Hour, all STOP controlled minor movements have an acceptable level of service with the exception of the westbound movement group at the north US-169 entrance which has a level of service E with similar delays to the existing + rebuilt conditions scenario.

7) FUTURE CONDITIONS

Future traffic volumes were estimated by assuming a 2% annual growth for twenty years for a total increase in background traffic of approximately 48.6%.

The Future AM and PM Peak Hour Volumes are shown in Figures 15 and 16 and the Lane Configurations and Levels of Service are shown in Figures 17 and 18.

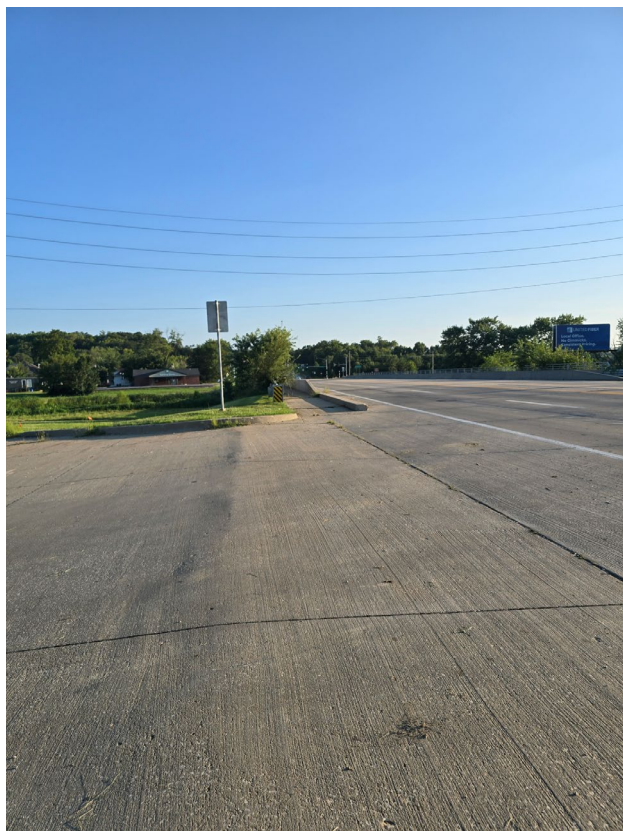
During the AM Peak Hour all STOP controlled minor movements perform with a level of service B or better and minimal design queue lengths. During the PM Peak Hour, all STOP controlled minor movements have an acceptable level of service with the exception of the westbound movement group at the north US-169 entrance which has a level of service E with similar delays to the existing + rebuilt conditions scenario.

8) SIGHT DISTANCE

Intersection and Stopping Sight Distance were measured in the field for the proposed entrance onto N Bridge Street and at the existing entrances on US-169. Intersection sight distance represents the distance and time required for the driver to make the decision to turn and to complete the turn without slowing oncoming traffic. Stopping Sight Distance represents the distance and time required for a driver to perceive an object 24" in height in the roadway and safely decelerate to a stop. Table 4 below documents the findings. All AASHTO values are for passenger vehicles on relatively flat grades, after accounting for the appropriate number of lanes.

Table 4: Sight Distance Values				
	Measured Stopping Sight Distance	Measured Intersection Sight Distance	AASHTO Stopping Sight Distances	AASHTO Intersection Sight Distances
North Entrance (35mph)				
To the North	>600'	>600'	250'	440'
To the South	>250' (Vegetation)	>335'	250'	335'
South Entrance (35mph)				
To the North	>600'	>600'	250'	440'
To the South	>250' (Vegetation)	>335'	250'	335'
East Entrance (25mph)				
To the North	>155'	>400'	155'	240'
To the South	>300'	>400'	155'	280'

Please note, as illustrated in photograph one below, there is existing vegetation, within the sight triangle that should be removed, either by MoDOT Maintenance Personnel or via permitted work within the right of way to reestablish sight distance.



(photograph one, taken at 42" height, 14.5' from edge of pavement)

9) CRASH DATA

A query of the Missouri State Highway Patrol's STARS (Statewide Traffic Accident Records System) was made for crashes on N Bridge Street or US 169 in the vicinity of the project area. This query was made for a three-year time period from January 1, 2023 through January 1, 2026. There were three crashes on US-169, all north of the southernmost Casey's entrance (north of study entrances). All three crashes were Property Damage Only (PDO) in severity. All occurred during daylight hours. No crashes were documented on N Bridge Street during this time period near the study area.

The query specifics are documented in Appendix II.

10) RECOMMENDATIONS & CONCLUSIONS

This study documents the impact of the proposed Smithville Plaza residential development.

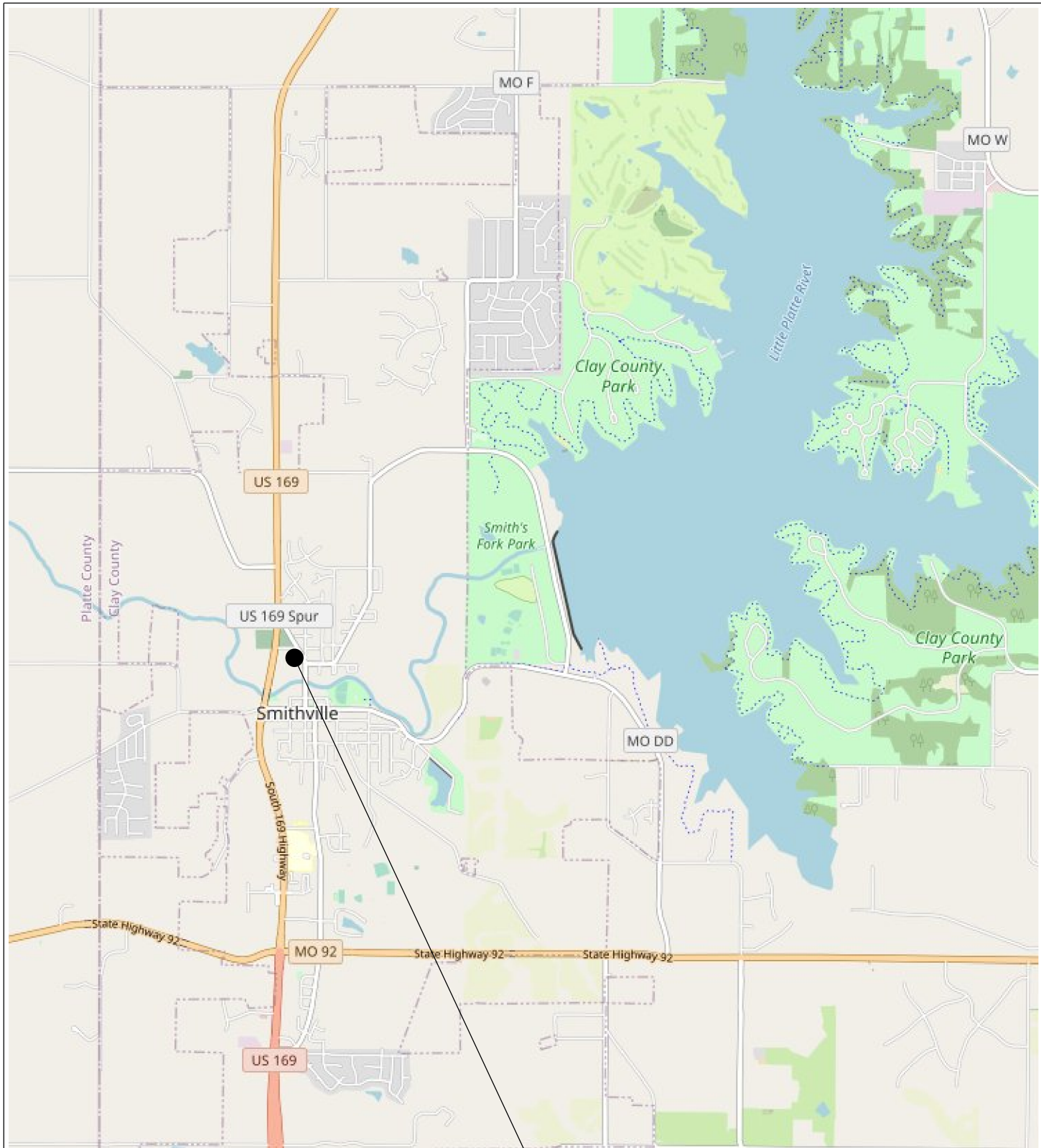
The intersections of US-169 with the existing entrances currently performs with acceptable levels of service. When the fire damaged businesses resume operations, the north entrance is anticipated to have a low level of service in the PM Peak Hour. It is anticipated to have a similar level of delay at this entrance with the additional traffic from the proposed development. In the future design year, this delay is anticipated to be a level of service F with a delay greater than 300 seconds per westbound vehicle. This study intersection was evaluated with a no build scenario without proposed development traffic. This resulted in a similar level of service with greater than 300 second delay. As background traffic increases on US-169, additional access management or capacity improvements may be necessary to maintain satisfactory levels of service. It is also likely that as delays increase, the apartment residents will use the east entrance during peak hours.

US-169, near the study south entrance has trees and brush located between the drives and the Little Platte River impacting the sight triangle. The sight triangle should be reestablished. This is an existing concern.

No other improvements are recommended as a result of this development.

APPENDIX I

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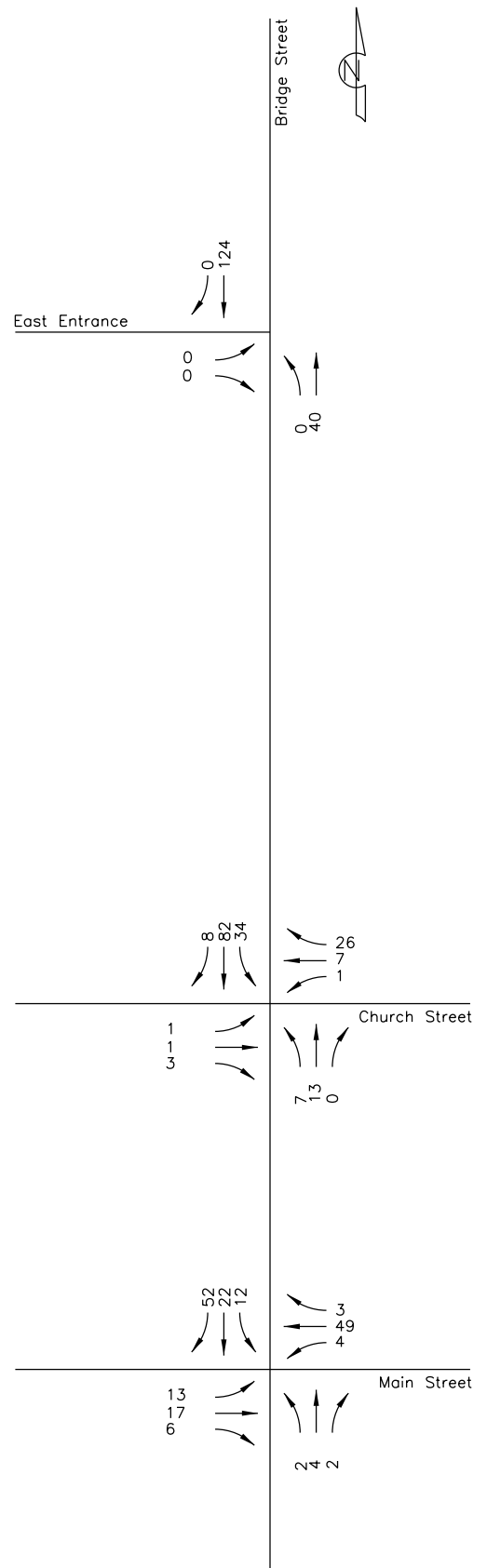
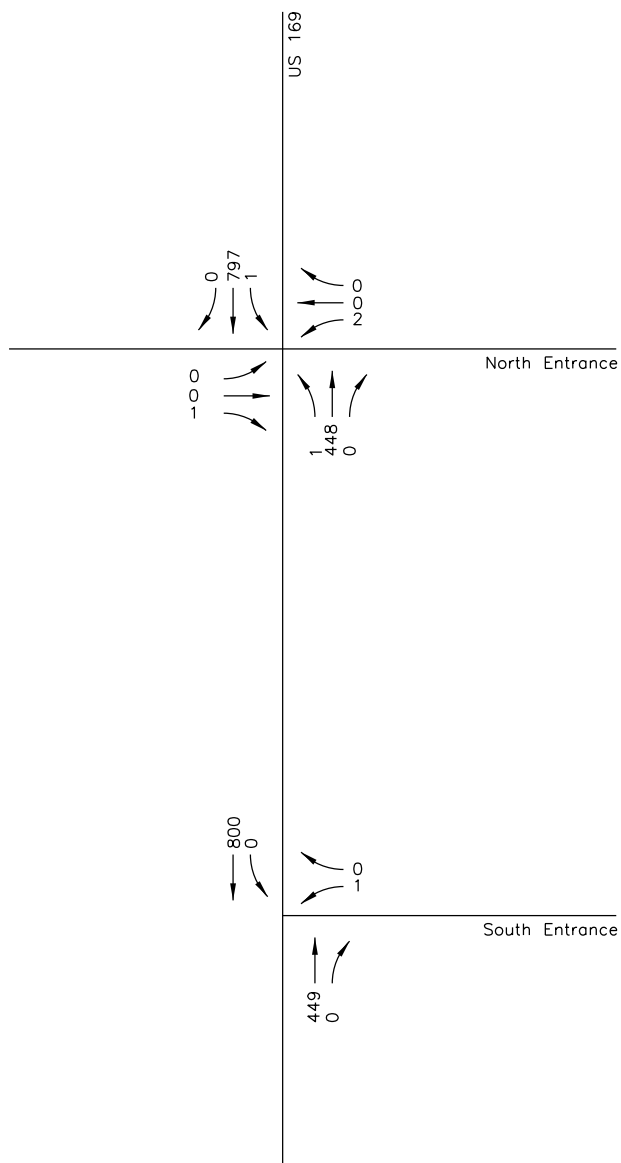


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Project Location

Project Location	Smithville Plaza Smithville, MO	No Scale	 Priority ENGINEERS
		Figure 1	





LEGEND

Total Volume

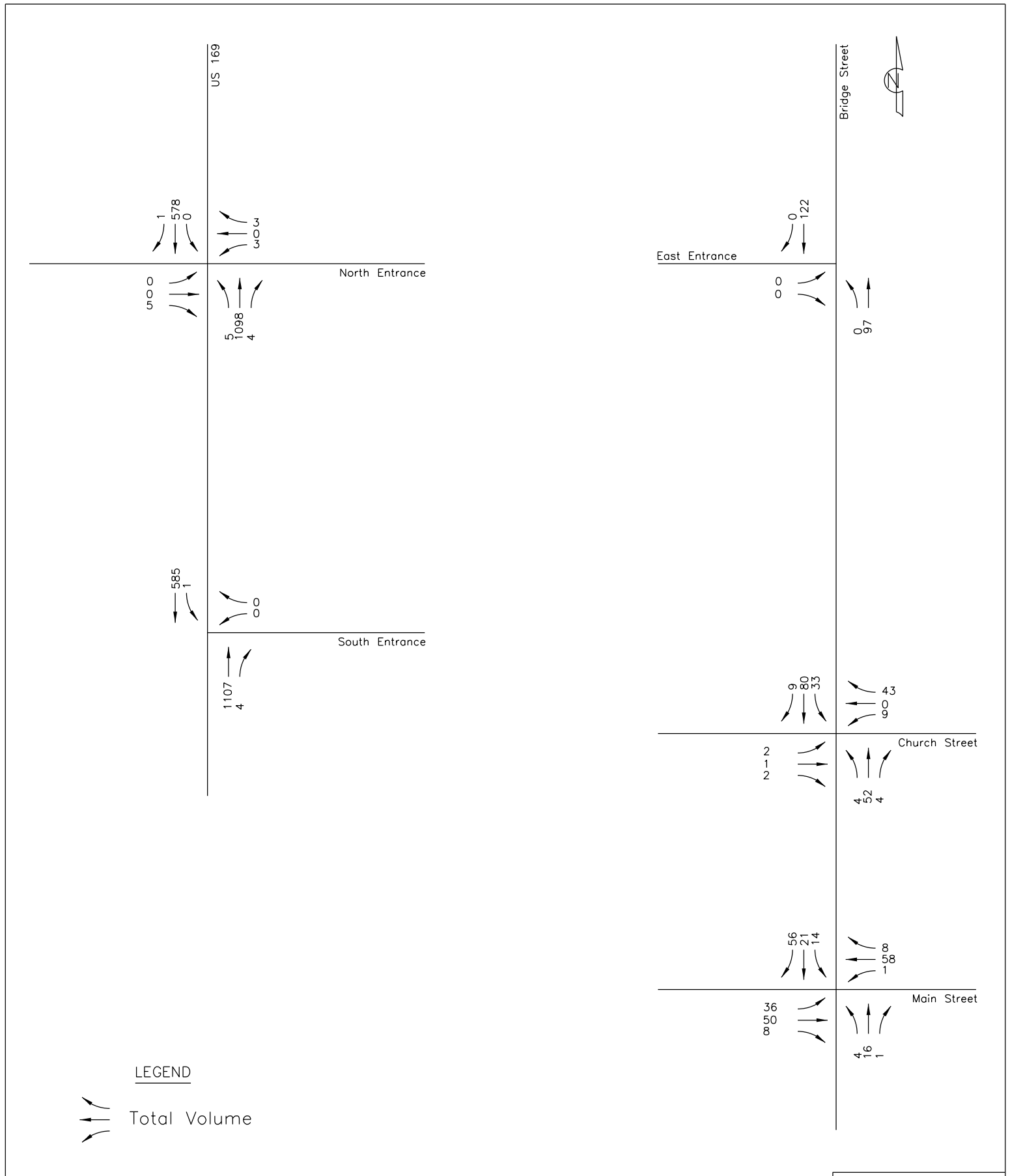
Existing AM Peak Hour
Traffic Volumes

Smithville Plaza
Smithville, MO

No Scale

Figure 3





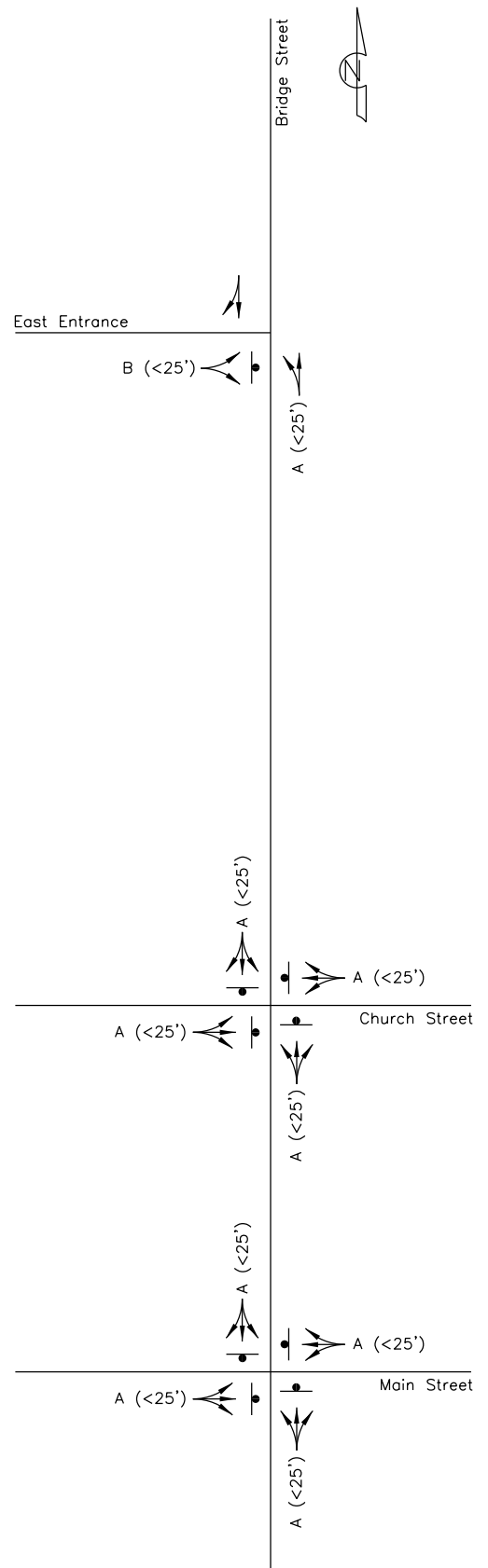
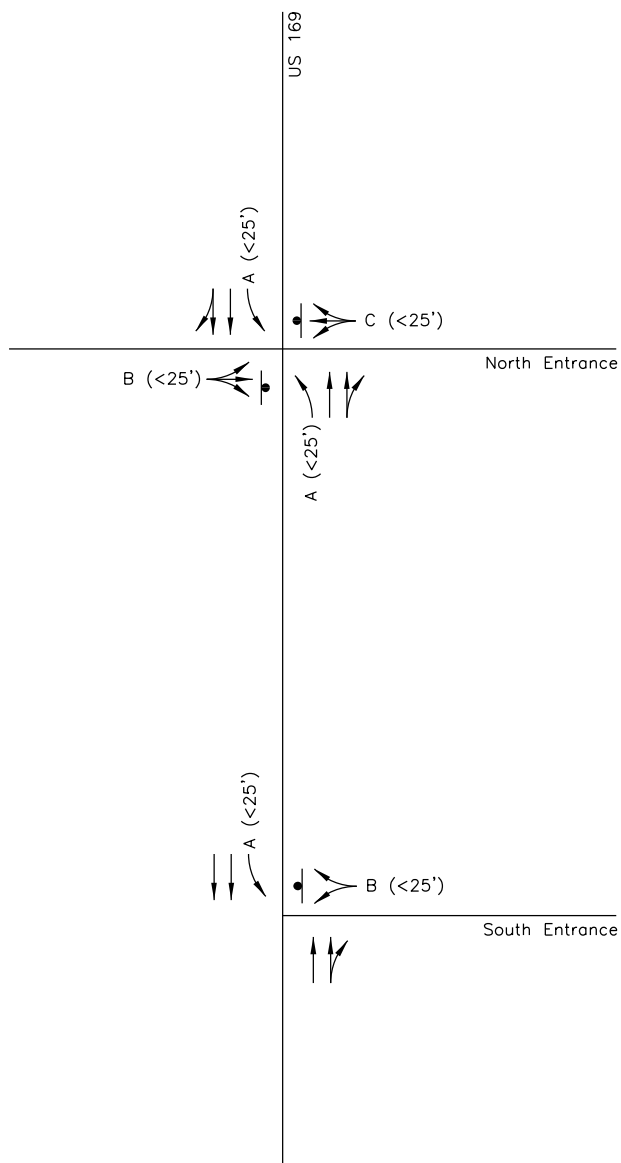
Existing PM Peak Hour
Traffic Volumes

Smithville Plaza
Smithville, MO

No Scale

Figure 4





LEGEND

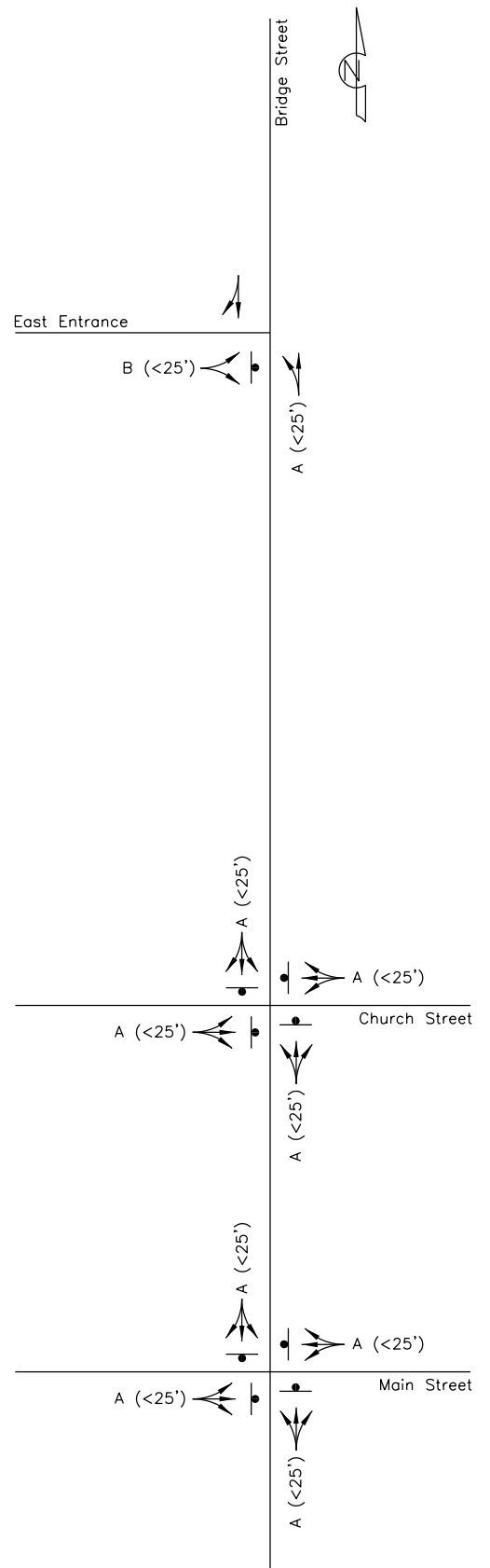
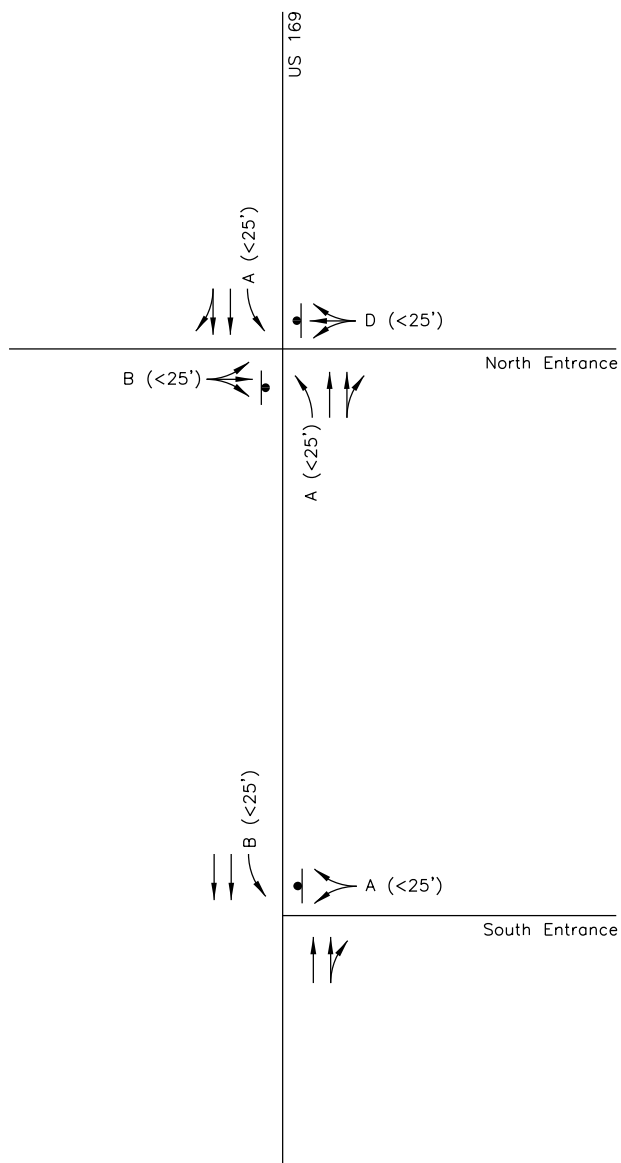
- HCM LOS (95th Percentile Queue in Vehicles)
- Stop Sign

Existing AM Peak Hour
Lane Configurations &
Levels of Service

Smithville Plaza
Smithville, MO

No Scale
Figure 5





LEGEND

-  HCM LOS (95th Percentile Queue in Vehicles)
-  Stop Sign

Existing PM Peak Hour
Lane Configurations &
Levels of Service

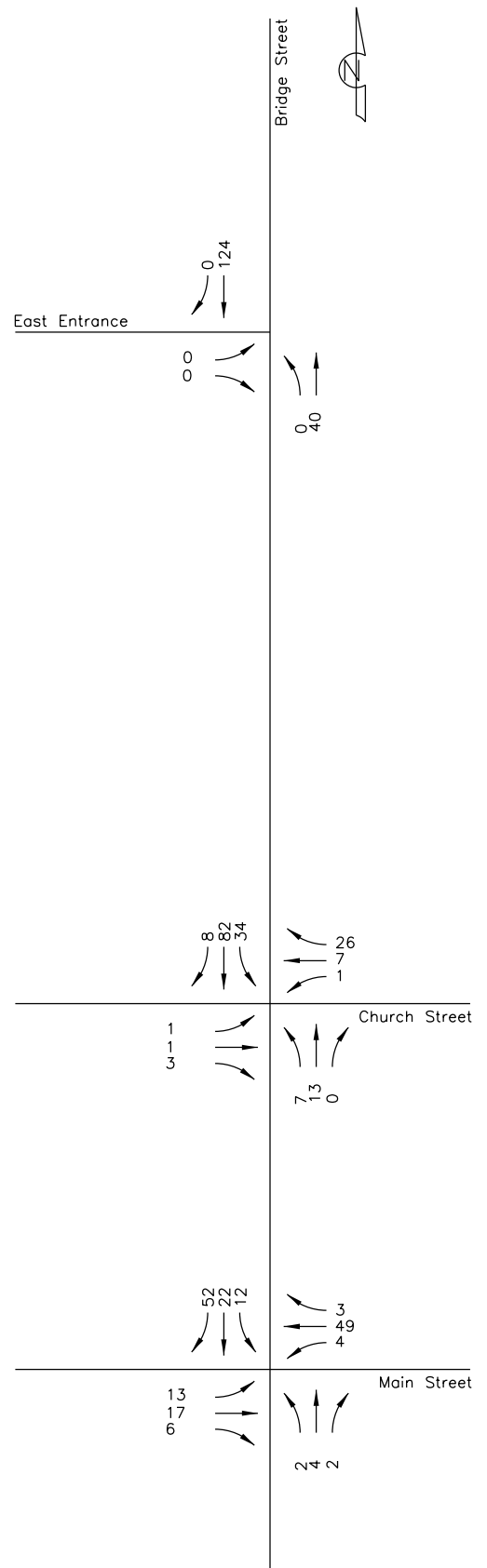
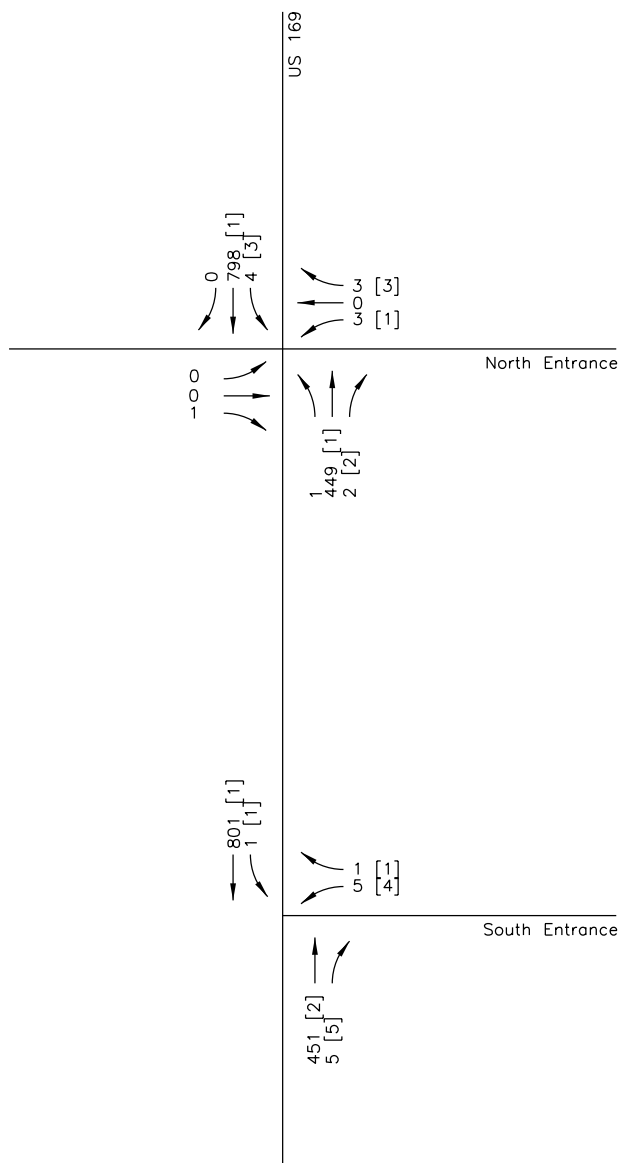
Smithville Plaza
Smithville, MO

No Scale

Figure 6



Priority
ENGINEERS



LEGEND

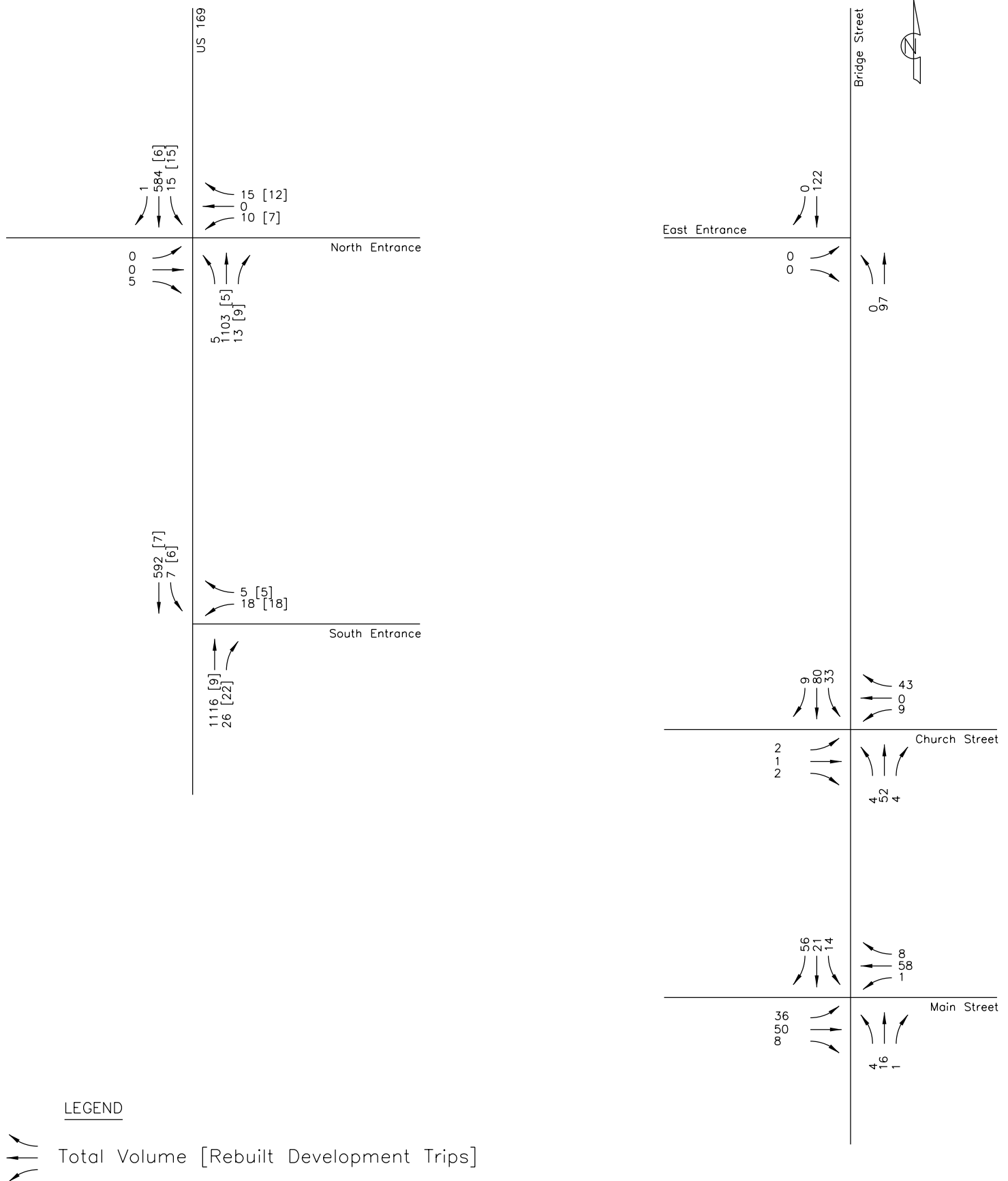
Total Volume [Rebuilt Development Trips]

Existing + Rebuilt Development
AM Peak Hour
Traffic Volumes

Smithville Plaza
Smithville, MO

No Scale
Figure 7





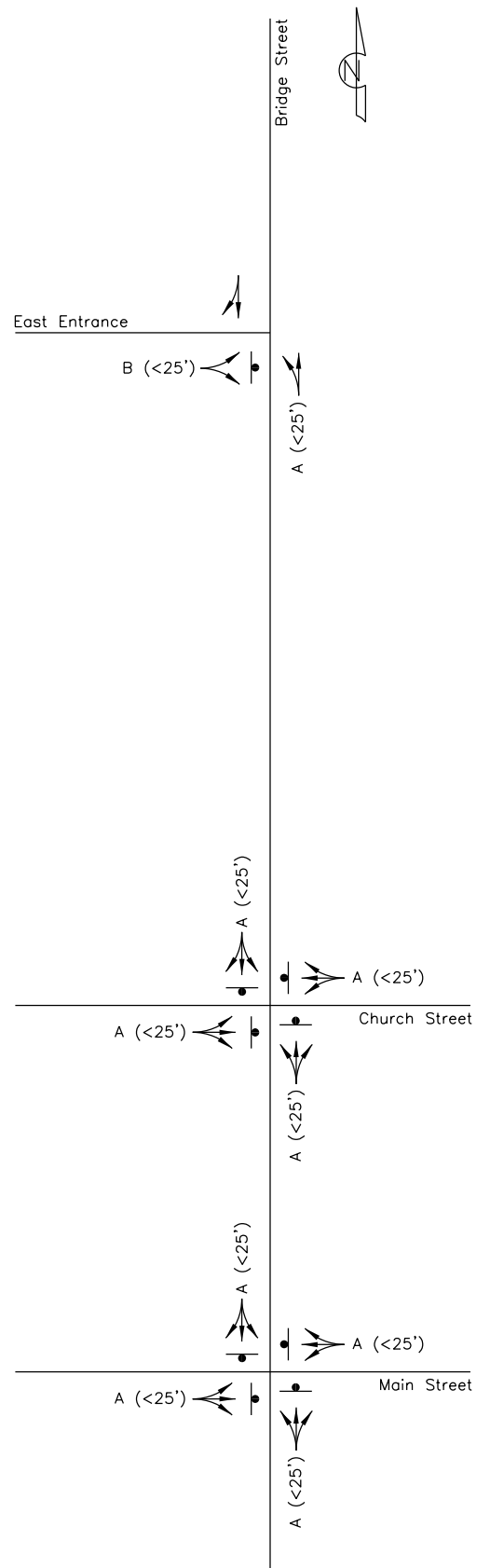
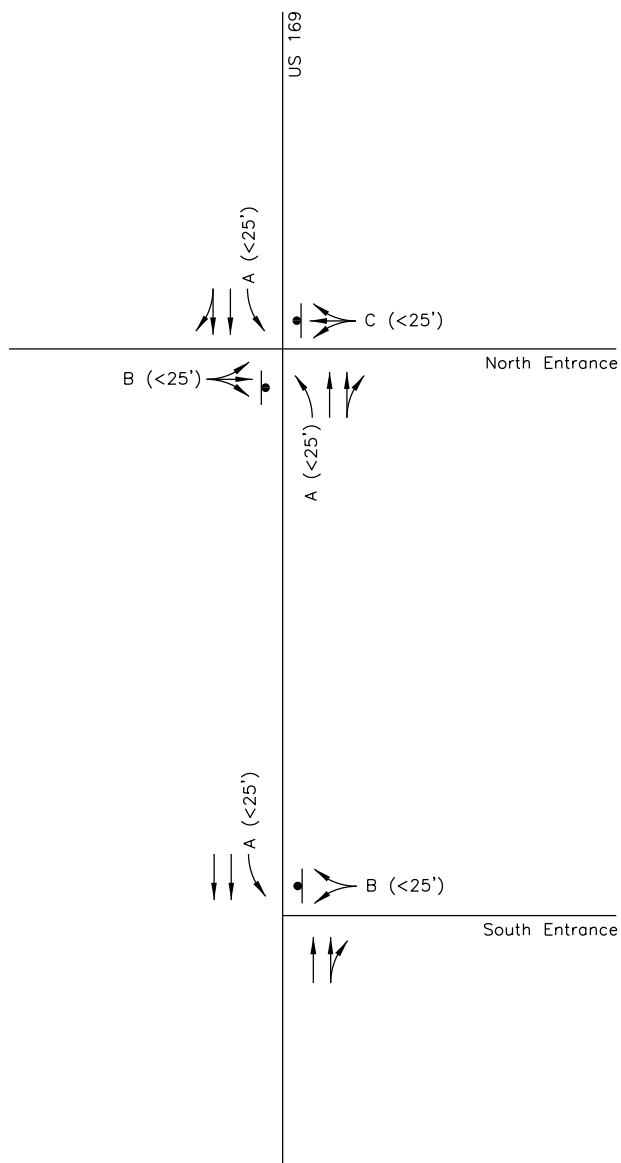
Existing + Rebuilt Development
PM Peak Hour
Traffic Volumes

Smithville Plaza
Smithville, MO

No Scale

Figure 8





LEGEND

- HCM LOS (95th Percentile Queue in Vehicles)
- Stop Sign

Existing + Rebuilt Development
AM Peak Hour
Lane Configurations &
Levels of Service

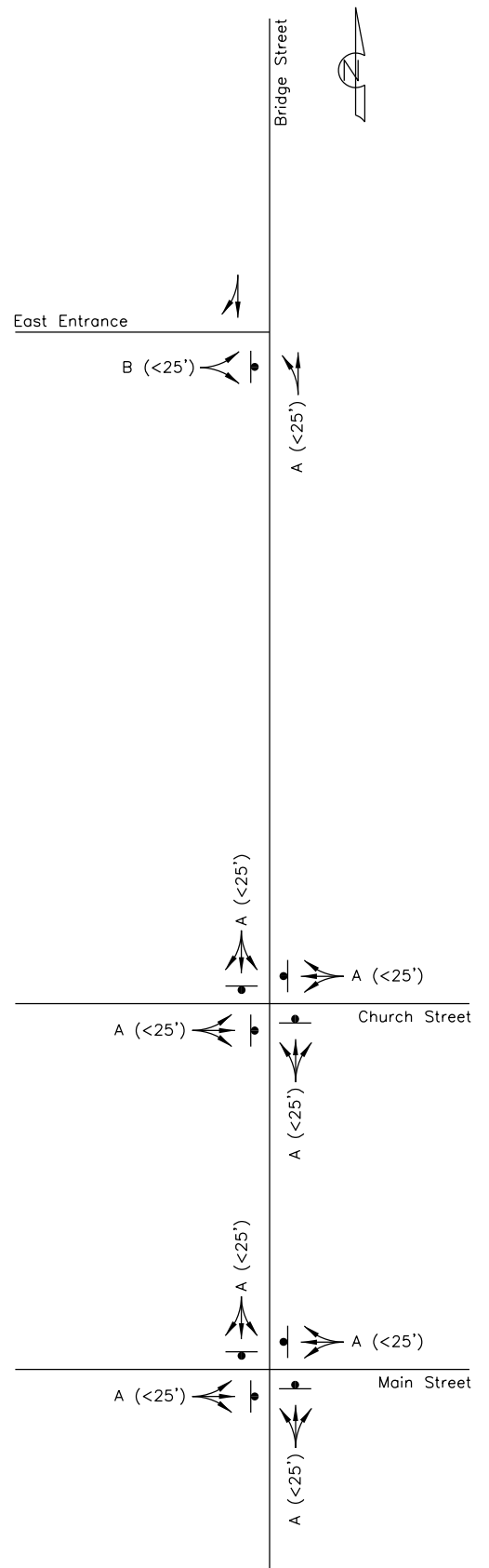
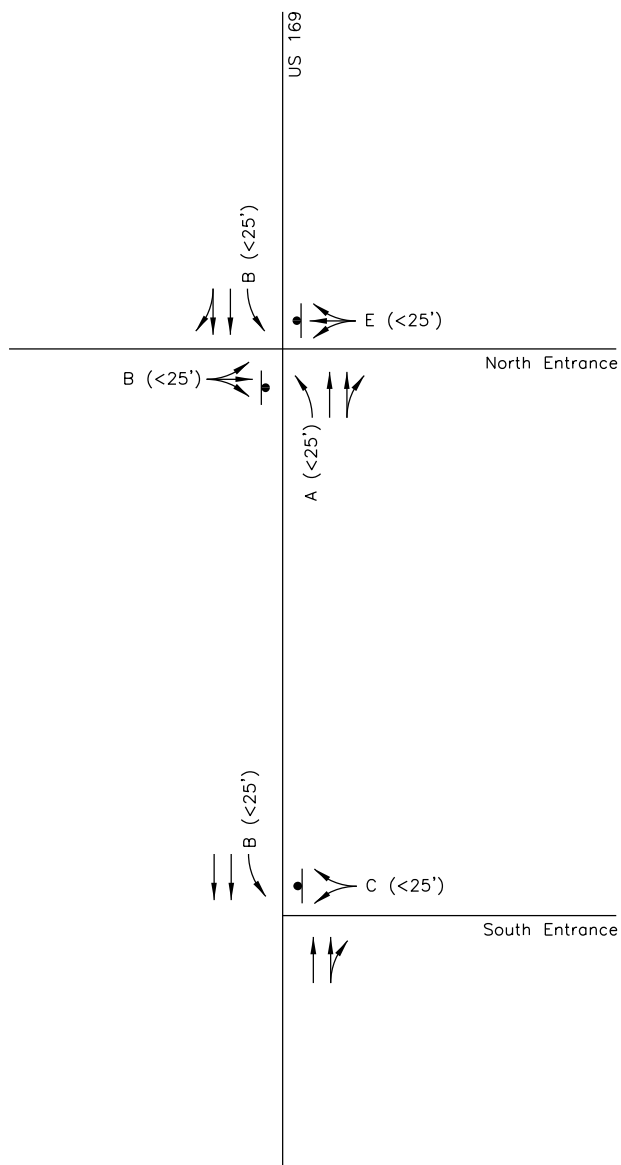
Smithville Plaza
Smithville, MO

No Scale

Figure 9



priority
ENGINEERS



LEGEND

- HCM LOS (95th Percentile Queue in Vehicles)
- Stop Sign

Existing + Rebuilt Development
PM Peak Hour
Lane Configurations &
Levels of Service

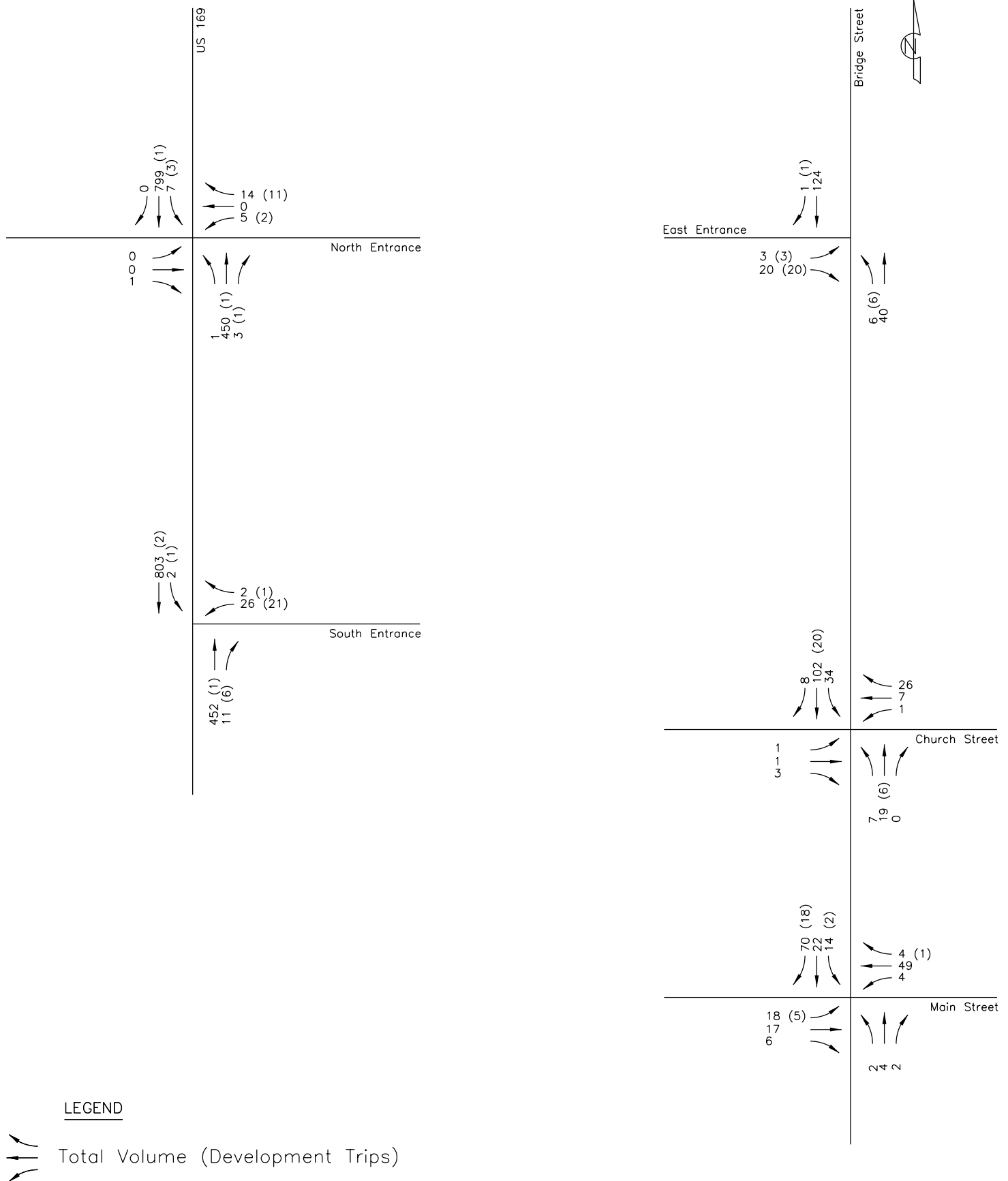
Smithville Plaza
Smithville, MO

No Scale

Figure 10



Priority
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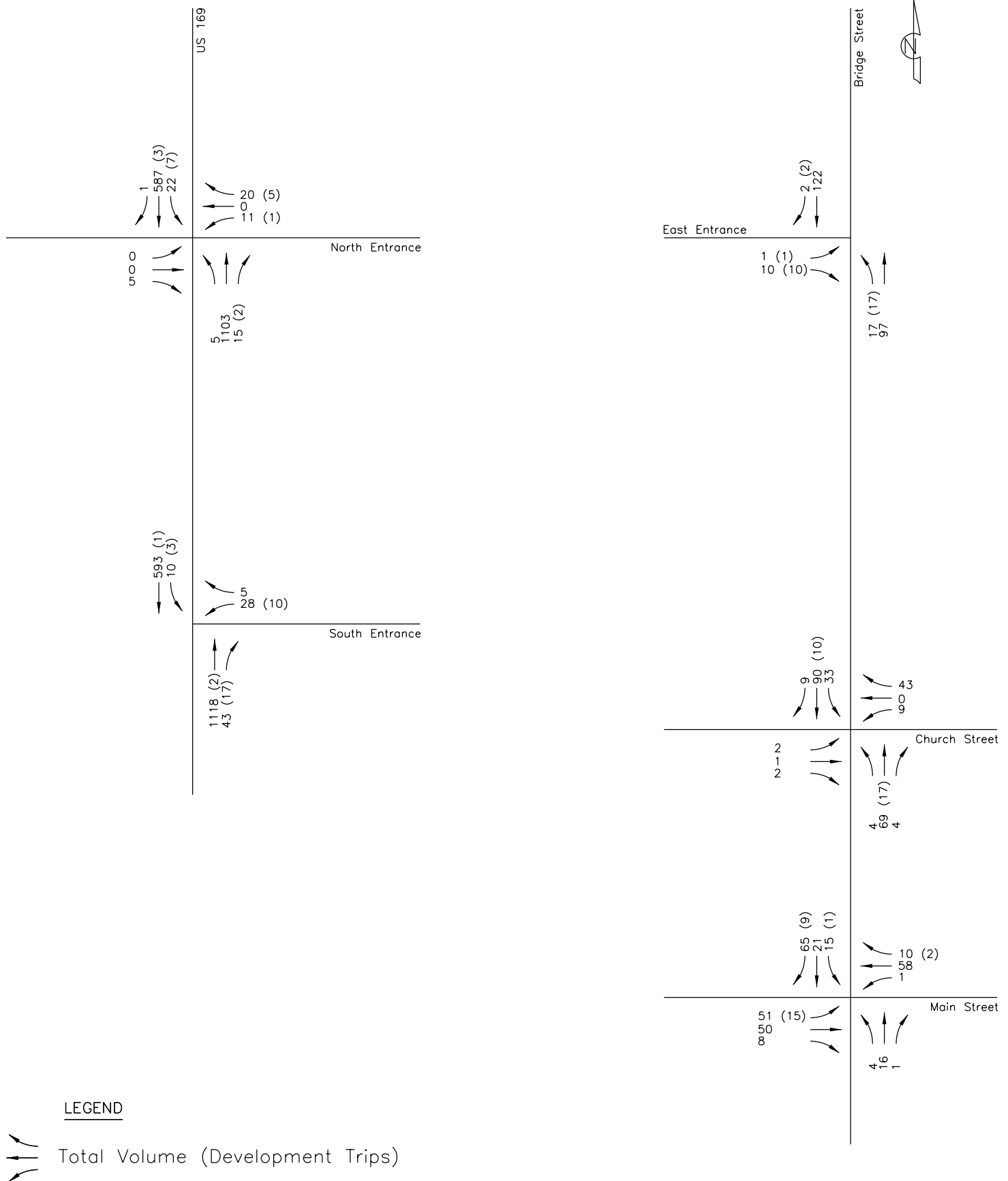
Existing + Rebuilt +
Proposed Development
AM Peak Hour
Traffic Volumes

Smithville Plaza
Smithville, MO

No Scale

Figure 11





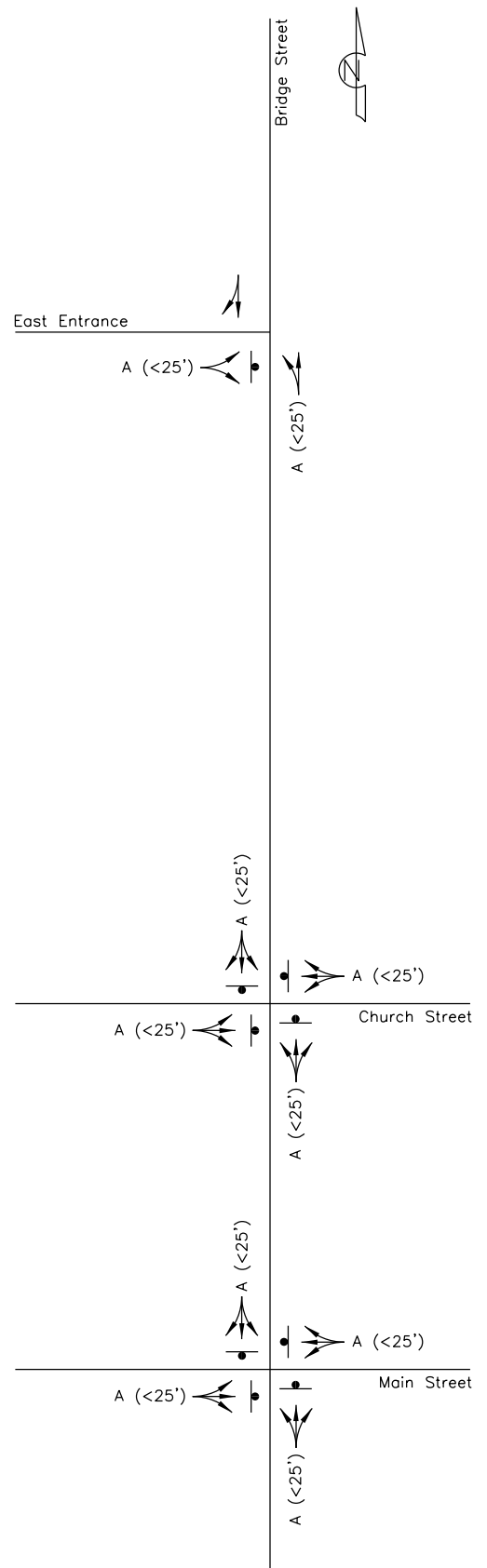
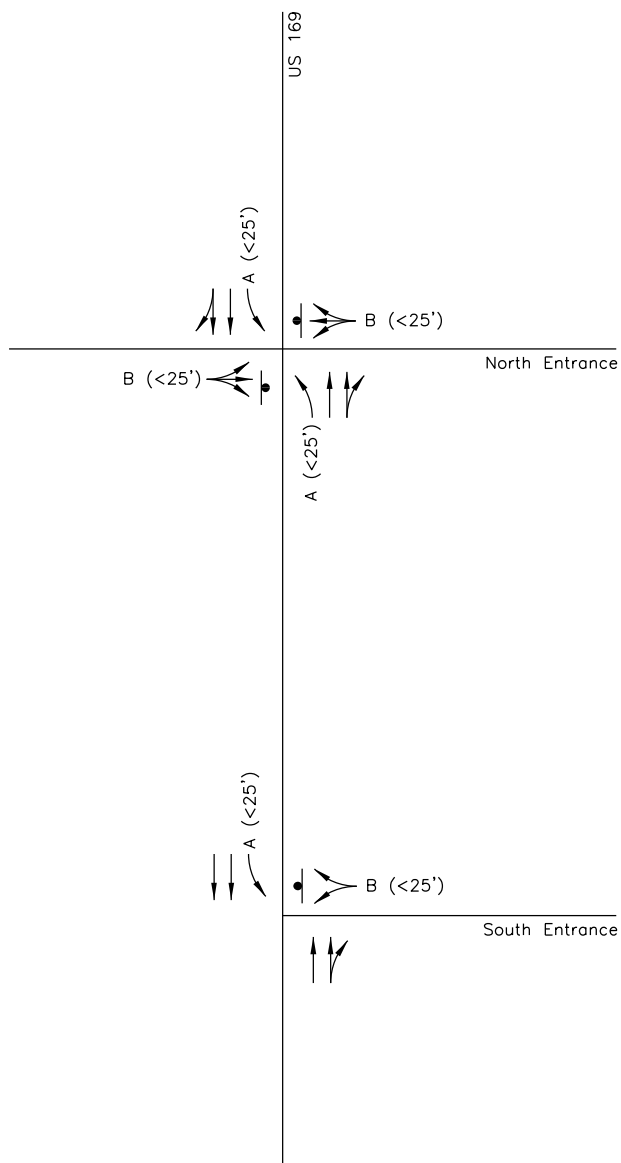
Existing + Rebuilt +
Proposed Development
PM Peak Hour
Traffic Volumes

Smithville Plaza
Smithville, MO

No Scale

Figure 12





LEGEND

-  HCM LOS (95th Percentile Queue in Vehicles)
-  Stop Sign

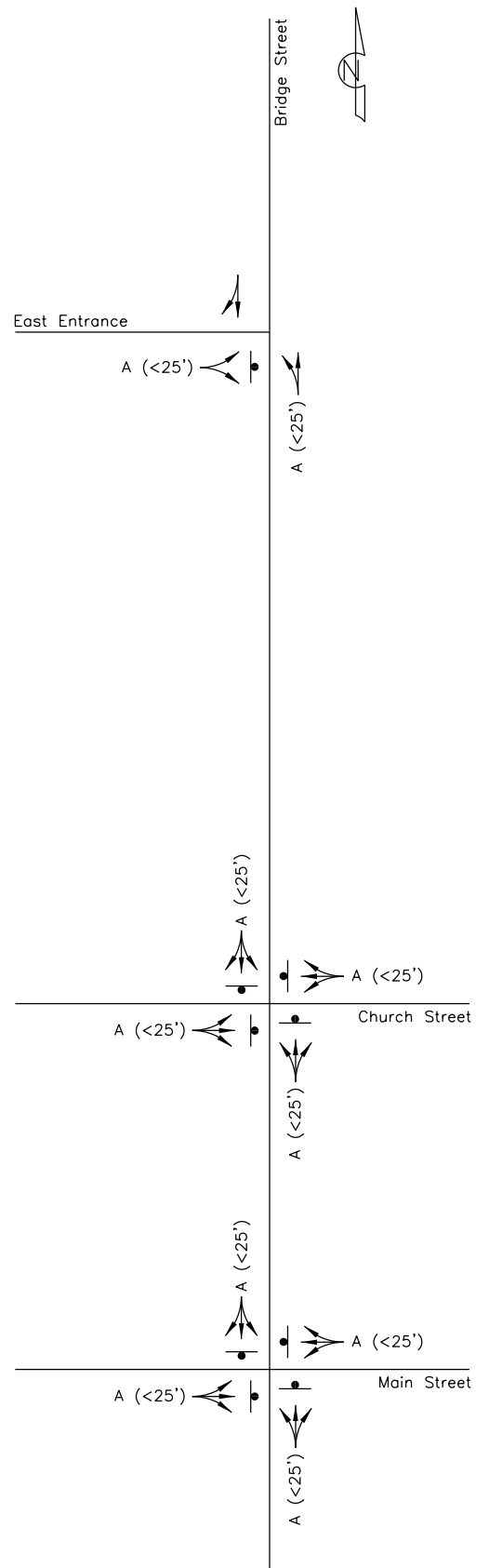
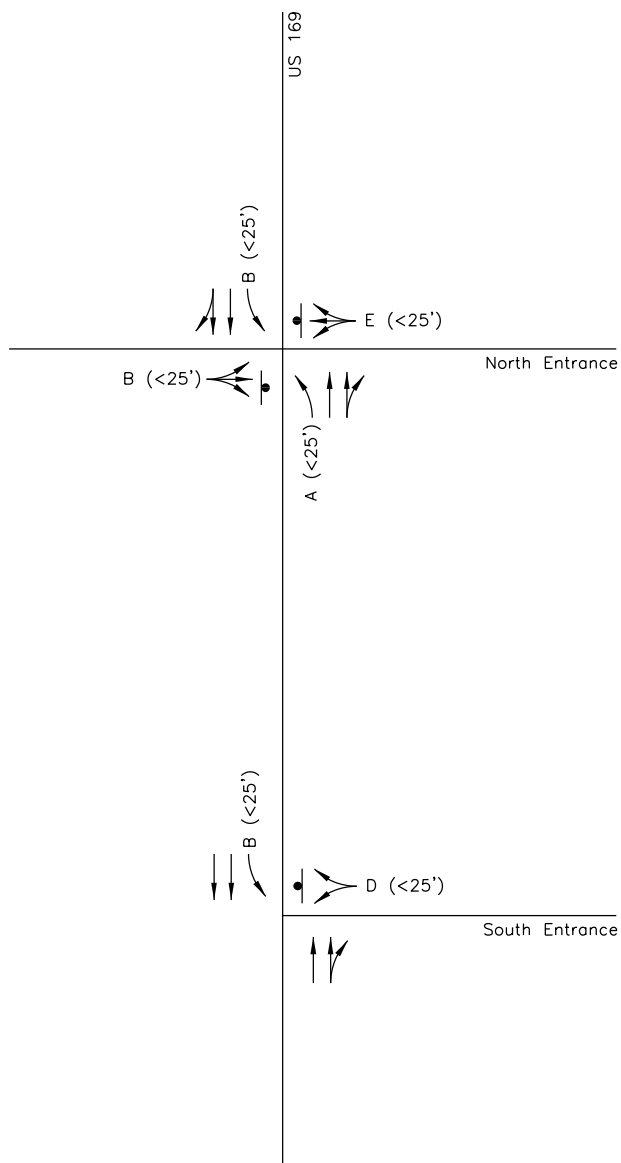
Existing + Rebuilt + Proposed
Development AM Peak Hour
Lane Configurations &
Levels of Service

Smithville Plaza
Smithville, MO

No Scale

Figure 13





LEGEND

- HCM LOS (95th Percentile Queue in Vehicles)
- Stop Sign

Existing + Rebuilt + Proposed
Development PM Peak Hour
Lane Configurations &
Levels of Service

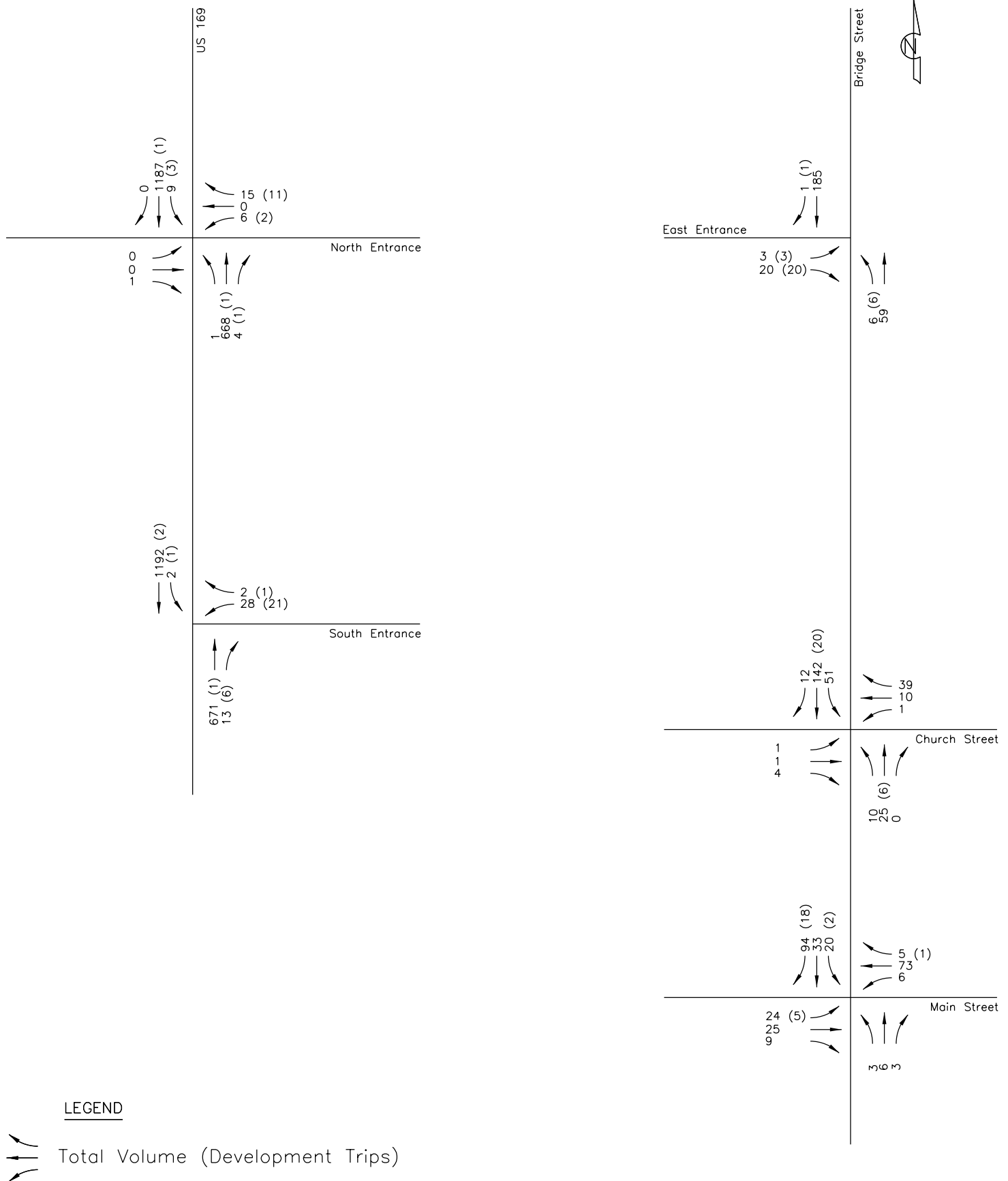
Smithville Plaza
Smithville, MO

No Scale

Figure 14



priority
ENGINEERS



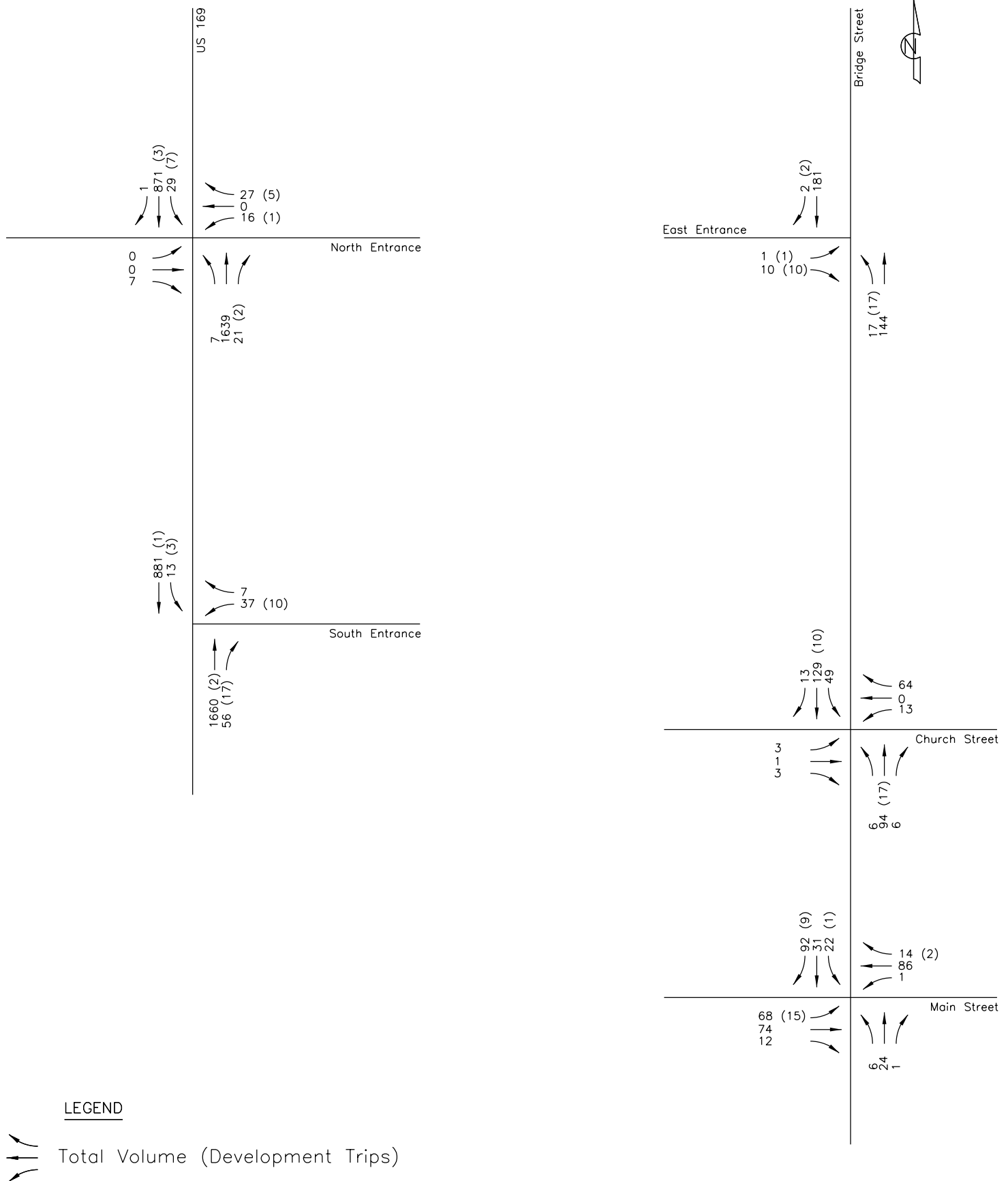
Future (2046)
AM Peak Hour
Traffic Volumes

Smithville Plaza
Smithville, MO

No Scale

Figure 15





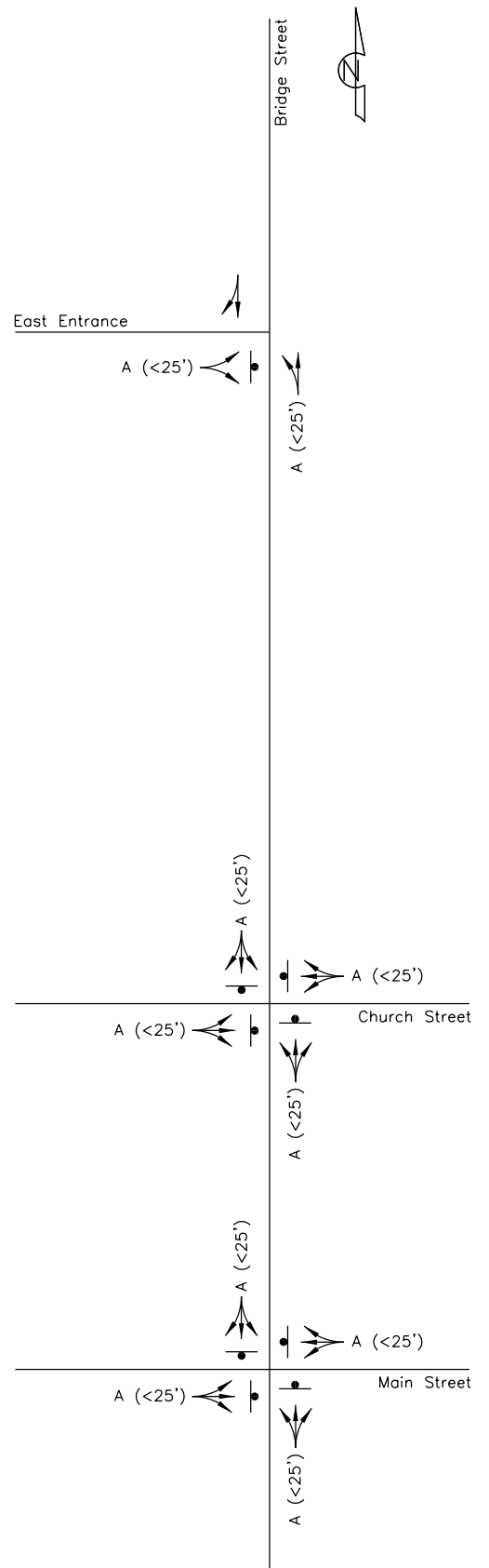
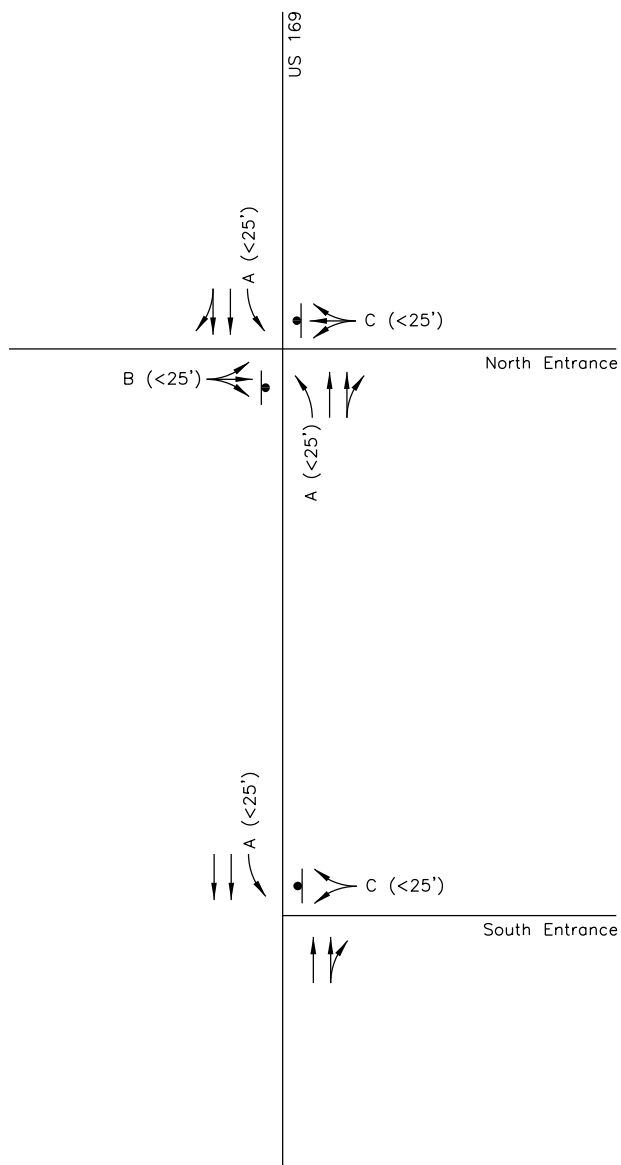
Future (2046)
PM Peak Hour
Traffic Volumes

Smithville Plaza
Smithville, MO

No Scale

Figure 16





LEGEND

-  HCM LOS (95th Percentile Queue in Vehicles)
-  Stop Sign

Future (2046) AM Peak Hour
Lane Configurations &
Levels of Service

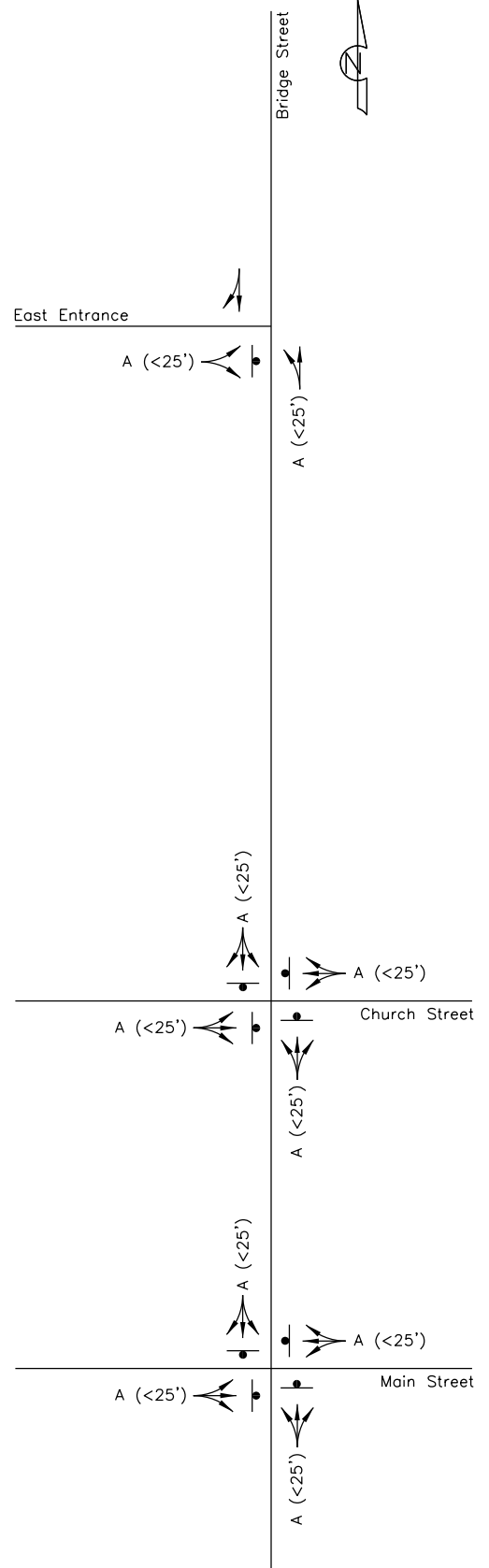
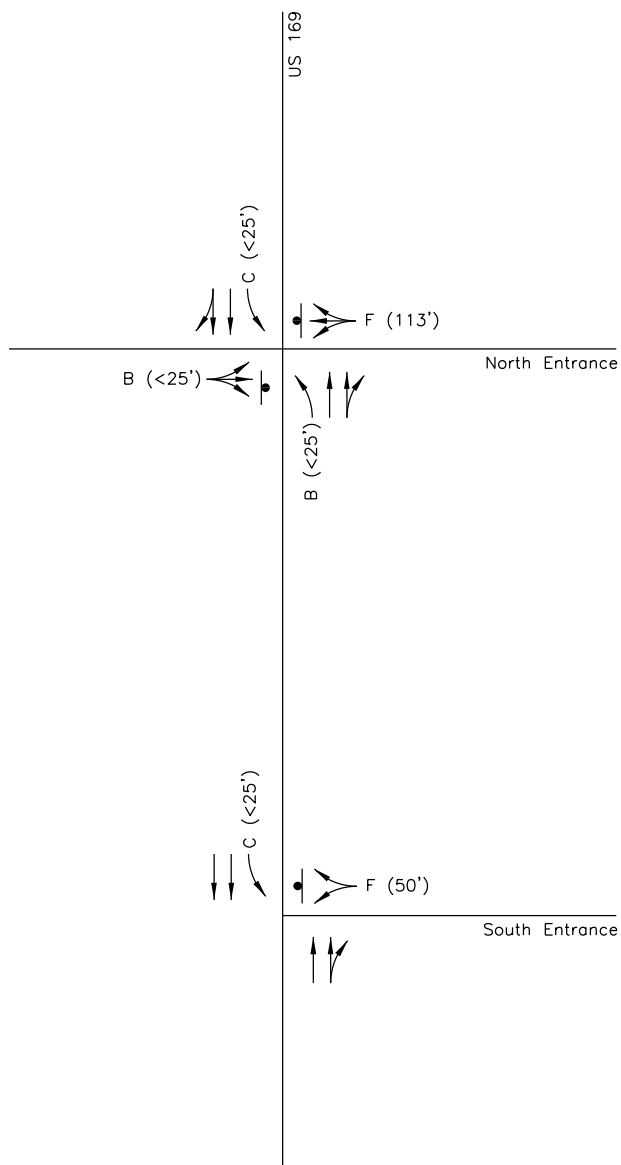
Smithville Plaza
Smithville, MO

No Scale

Figure 17



Priority
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LEGEND

- HCM LOS (95th Percentile Queue in Vehicles)
- Stop Sign

Future (2046) PM Peak Hour
Lane Configurations &
Levels of Service

Smithville Plaza
Smithville, MO

No Scale

Figure 18



Priority
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APPENDIX II

Peak Hour Traffic Counts

Crash Data Map

Synchro Reports

Existing AM Peak Hour	Pages 1-4
Existing PM Peak Hour	Pages 5-8
Existing + Rebuilt Development AM Peak Hour	Pages 9-12
Existing + Rebuilt Development PM Peak Hour	Pages 13-16
Existing + Rebuilt + Proposed Development AM Peak Hour	Pages 17-21
Existing + Rebuilt + Proposed Development PM Peak Hour	Pages 22-26
Future (2046) AM Peak Hour	Pages 27-31
Future (2046) PM Peak Hour	Pages 32-36

US 169 & North Drive

7/29/2026	Southbound				Westbound				Northbound				Eastbound						Totals		
Start Time	Left	Throught	Right	Ped Bike	Left	Through	Right	Ped Bike	Left	Through	Right	Ped Bike	Left	Throught	Right	Ped Bike			Totals		
7:00	0	193			1		0		1	65	0				0				260		
7:15	0	222			0		0		1	86	0				1				310		
7:30	1	221			0		0		0	112	0				0				334		
7:45	0	188			1		0		0	112	0				0				301		
8:00	0	163			1		0		0	136	0				0				300		
8:15	1	195			0		1		1	104	1				1				304		
8:30	0	168			1		0		0	117	0				0				286		
8:45	3	173			1		0		1	107	0				1				286		
Totals	1	794	0	0	0	2	0	0	0	0	1	446	0	0	0	0	0	1	0	0	1245
Trucks	1	18			1					29											
%	100%	2%								7%											

1205 2772
1245 2894
1239 2864
1191 2755
1176 2759

US 169 & South Drive

7/29/2026	Southbound				Westbound				Northbound				Eastbound						Totals	
Start Time	Left	Throught	Right	Ped Bike	Left	Through	Right	Ped Bike	Left	Through	Right	Ped Bike	Left	Throught	Right	Ped Bike			Totals	
7:00		194			0			0		66	0								260	
7:15		223			1			0		87	0								311	
7:30		220			0			0		115	0								335	
7:45		191			0			0		111	0								302	
8:00		166			0			0		136	0								302	
8:15		196			0			0		106	0								302	
8:30		169			0			2		118	1								290	
8:45		174			0			2		109	0								285	
Totals	0	800	0	0	0	1	0	0	0	0	0	449	0	0	0	0	0	0	0	1250
Trucks		19								28										
%		2%								6%										

1208
1250
1241
1196
1179

Bridge & Church St

7/29/2026	Southbound				Westbound				Northbound				Eastbound								
Start Time	Left	Throught	Right	Ped Bike	Left	Through	Right	Ped Bike	Left	Through	Right	Ped Bike	Left	Throught	Right	Ped Bike	Totals				
7:00	1	6	1	0	1	0	1	0	1	3	0	0	0	0	0	0	14				
7:15	8	24	1	0	0	0	2	0	4	4	0	0	0	0	0	0	43				
7:30	7	18	2	1	0	0	4	1	0	4	0	0	1	0	1	1	40				
7:45	11	24	2	0	1	4	12	3	0	4	0	2	0	1	0	1	65	162			
8:00	8	16	3	0	0	3	8	0	3	1	0	0	0	0	2	0	44	192			
8:15	4	21	0	0	0	2	5	1	0	4	1	0	0	0	0	0	38	187			
8:30	2	17	1	0	0	1	4	0	1	5	0	0	0	0	0	0	31	178			
8:45	8	25	2	1	1	2	9	0	3	12	1	1	1	0	0	1	67	180			
Totals	34	82	8	1	0	1	7	26	4	0	7	13	0	2	0	1	1	3	2	0	192
Trucks																					
%	1 4%																				

162
192
187
178
180

Bridge & Main St

7/29/2026

	Southbound				Westbound				Northbound				Eastbound						Totals	
Start Time	Left	Through	Right	Ped Bike	Left	Through	Right	Ped Bike	Left	Through	Right	Ped Bike	Left	Through	Right	Ped Bike				
7:00	2	1	5	0	1	10	2	0	3	1	1	0	1	2	0	1			30	
7:15	5	4	15	0	1	12	1	0	2	3	0	2	4	2	2	0			53	
7:30	2	5	11	5	3	17	1	0	0	0	0	6	3	4	1	2			60	
7:45	3	9	11	0	0	10	0	3	0	1	1	5	3	5	1	2			54	197
8:00	2	3	11	0	0	10	1	0	0	0	1	1	3	6	2	0			40	207
8:15	2	3	17	0	0	7	1	0	0	0	0	3	5	4	1	0			43	197
8:30	4	2	11	0	0	14	3	0	1	1	1	3	5	4	1	3			53	190
8:45	4	8	13	0	2	14	2	1	1	2	0	8	16	7	7	3			88	224
Totals	12	21	48	5	4	49	3	3	2	4	2	14	0	13	17	6	4	0	207	
Trucks															1					
%															6%					

Bridge & Main St

7/28/2026

7/28/2026	Southbound					Westbound					Northbound					Eastbound							
Start Time	Left	Through	Right	Ped	Bike	Left	Through	Right	Ped	Bike	Left	Through	Right	Ped	Bike	Left	Through	Right	Ped	Bike	Totals		
16:00	5	3	11	2		0	9	1	0		1	0	1	0		4	14	2	2		55		
16:15	3	5	9	0		0	10	1	0		1	1	0	1		13	8	2	0		54		
16:30	2	5	13	0		0	19	1	0	2	2	2	1	0		11	11	1	0		70		
16:45	2	6	9	0		0	11	3	1	2	1	3	0	0		7	13	1	2		61	240	
17:00	6	3	14	3		1	17	1	0		0	6	0	0		9	16	2	0		78	263	
17:15	4	6	20	1		0	11	3	0		1	4	0	0		9	10	4	0		73	282	
17:30	3	1	11	0		0	7	1	0		1	1	2	0		6	21	1	2		57	269	
17:45	5	8	9	2		2	11	4	3		0	3	1	1		6	37	0	0		92	300	
Totals	14	20	56	4	0	1	58	8	1	4	4	15	1	0	0	36	50	8	2	0	282		
Trucks						1																	
%						2%																	

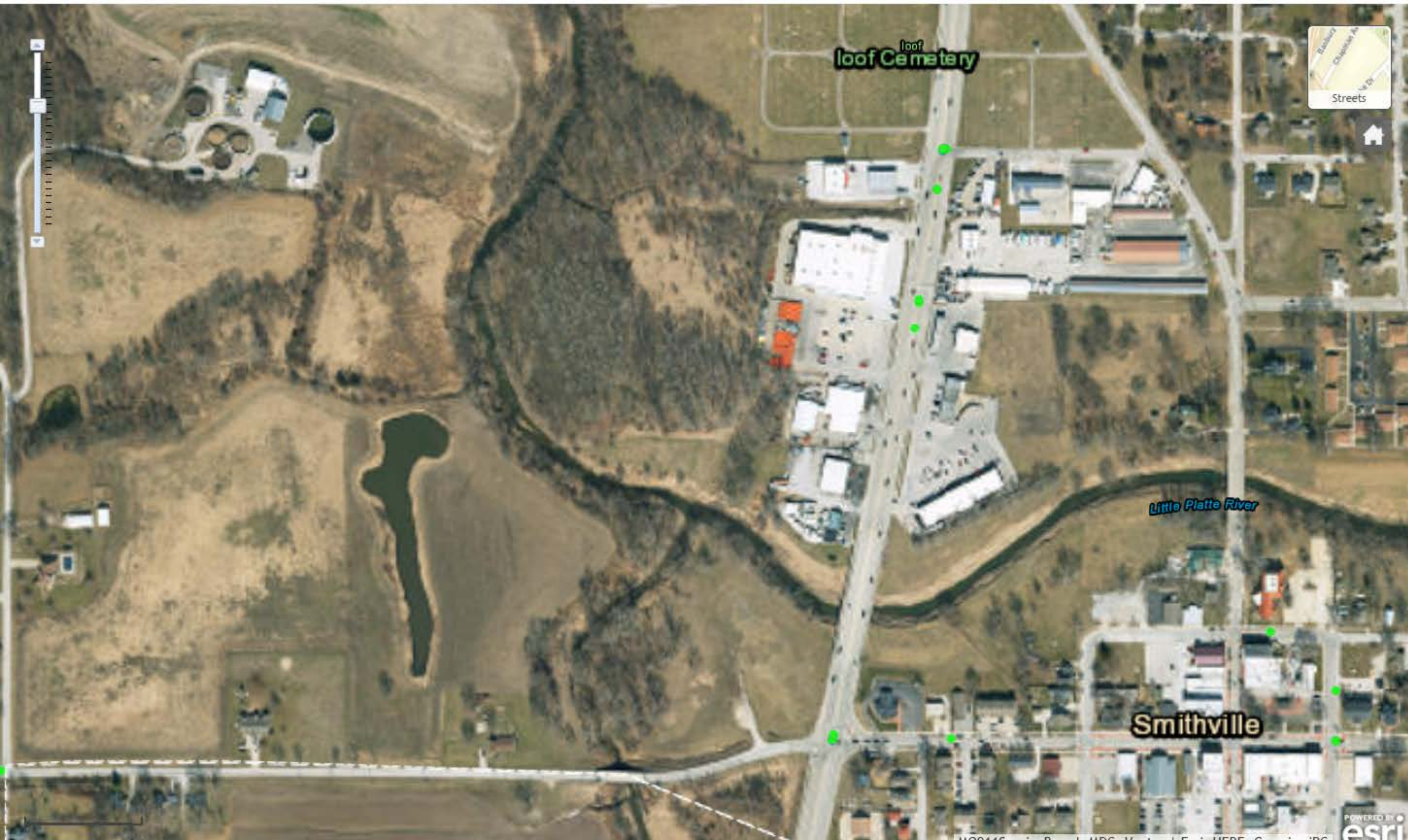
240

263

282

269

300



Traffic Crashes Online Mapping

Your search returned top 10,000 records ordered by date. Please be more specific in your search.

Hide/Show input parameters

Export data table

Hide/Show results

Start Date: 1/1/2023

End Date: 1/1/2026

Start Time: 12:00 AM

End Time: 11:59 PM

Start Weekday: Sunday

End Weekday: Saturday

Crash Severity: All Crashes

Investigated By: Statewide

Crash Type: All

Troop: Statewide

County: CLAY

City: Statewide

Vehicle Type: Statewide

Circumstances:

Gender:

Injury:

Legend

5: US 169 & North Entrance

Existing AM Peak Hour

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	0	1	2	0	0	1	448	0	1	797	0
Future Vol, veh/h	0	0	1	2	0	0	1	448	0	1	797	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	1	2	0	0	1	487	0	1	866	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1114	1358	433	924	1358	243	866	0	0	487	0	0
Stage 1	868	868	-	489	489	-	-	-	-	-	-	-
Stage 2	246	489	-	435	868	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	163	148	571	224	148	757	773	-	-	1072	-	-
Stage 1	313	368	-	529	548	-	-	-	-	-	-	-
Stage 2	736	548	-	569	368	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	162	147	571	223	147	757	773	-	-	1072	-	-
Mov Cap-2 Maneuver	162	147	-	223	147	-	-	-	-	-	-	-
Stage 1	313	367	-	528	547	-	-	-	-	-	-	-
Stage 2	735	547	-	568	367	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v11.32			21.29		0.02		0.01					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	773	-	-	571	223	1072	-	-				
HCM Lane V/C Ratio	0.001	-	-	0.002	0.01	0.001	-	-				
HCM Control Delay (s/veh)	9.7	-	-	11.3	21.3	8.4	-	-				
HCM Lane LOS	A	-	-	B	C	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-				

7: US 169 & South Entrance

Existing AM Peak Hour

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	0	449	0	0	800
Future Vol, veh/h	1	0	449	0	0	800
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	0	488	0	0	870
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	923	244	0	0	488	0
Stage 1	488	-	-	-	-	-
Stage 2	435	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	269	757	-	-	1071	-
Stage 1	583	-	-	-	-	-
Stage 2	620	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	269	757	-	-	1071	-
Mov Cap-2 Maneuver	397	-	-	-	-	-
Stage 1	583	-	-	-	-	-
Stage 2	620	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v	14.1	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	397	1071	-	
HCM Lane V/C Ratio	-	-	0.003	-	-	
HCM Control Delay (s/veh)	-	-	14.1	0	-	
HCM Lane LOS	-	-	B	A	-	
HCM 95th %tile Q(veh)	-	-	0	0	-	

11: Bridge Street & Church Street

Existing AM Peak Hour

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	3	1	7	26	7	13	0	34	82	8
Future Vol, veh/h	1	1	3	1	7	26	7	13	0	34	82	8
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	3	1	8	28	8	14	0	37	89	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7	7	7.3	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	35%	20%	3%	27%
Vol Thru, %	65%	20%	21%	66%
Vol Right, %	0%	60%	76%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	5	34	124
LT Vol	7	1	1	34
Through Vol	13	1	7	82
RT Vol	0	3	26	8
Lane Flow Rate	22	5	37	135
Geometry Grp	1	1	1	1
Degree of Util (X)	0.025	0.006	0.039	0.151
Departure Headway (Hd)	4.18	3.914	3.755	4.041
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	853	902	941	888
Service Time	2.221	1.991	1.828	2.06
HCM Lane V/C Ratio	0.026	0.006	0.039	0.152
HCM Control Delay, s/veh	7.3	7	7	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.1	0.5

14: Bridge Street & Main Street

Existing AM Peak Hour

Intersection

Intersection Delay, s/veh 7.3

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	17	6	4	49	3	2	4	2	12	22	52
Future Vol, veh/h	13	17	6	4	49	3	2	4	2	12	22	52
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	18	7	4	53	3	2	4	2	13	24	57
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.4	7.5	7.2	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	36%	7%	14%
Vol Thru, %	50%	47%	88%	26%
Vol Right, %	25%	17%	5%	60%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	36	56	86
LT Vol	2	13	4	12
Through Vol	4	17	49	22
RT Vol	2	6	3	52
Lane Flow Rate	9	39	61	93
Geometry Grp	1	1	1	1
Degree of Util (X)	0.01	0.045	0.07	0.098
Departure Headway (Hd)	4.079	4.131	4.125	3.779
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	869	862	865	941
Service Time	2.144	2.179	2.167	1.831
HCM Lane V/C Ratio	0.01	0.045	0.071	0.099
HCM Control Delay, s/veh	7.2	7.4	7.5	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.1	0.2	0.3

5: US 169 & North Entrance

Existing PM Peak Hour

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↕		↙	↕	
Traffic Vol, veh/h	0	0	5	3	0	3	5	1098	4	0	578	1
Future Vol, veh/h	0	0	5	3	0	3	5	1098	4	0	578	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	5	3	0	3	5	1193	4	0	628	1
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1236	1838	315	1521	1836	599	629	0	0	1198	0	0
Stage 1	629	629	-	1207	1207	-	-	-	-	-	-	-
Stage 2	608	1209	-	314	629	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	132	75	681	81	75	445	949	-	-	578	-	-
Stage 1	437	474	-	195	255	-	-	-	-	-	-	-
Stage 2	450	254	-	671	473	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	131	74	681	80	75	445	949	-	-	578	-	-
Mov Cap-2 Maneuver	131	74	-	80	75	-	-	-	-	-	-	-
Stage 1	437	474	-	193	253	-	-	-	-	-	-	-
Stage 2	444	253	-	666	473	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v10.33			32.82		0.04		0					
HCM LOS	B		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	949	-	-	681	136	578	-	-				
HCM Lane V/C Ratio	0.006	-	-	0.008	0.048	-	-	-				
HCM Control Delay (s/veh)	8.8	-	-	10.3	32.8	0	-	-				
HCM Lane LOS	A	-	-	B	D	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-				

7: US 169 & South Entrance

Existing PM Peak Hour

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	1107	4	1	585
Future Vol, veh/h	0	0	1107	4	1	585
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1203	4	1	636
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1526	604	0	0	1208	0
Stage 1	1205	-	-	-	-	-
Stage 2	320	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	108	442	-	-	574	-
Stage 1	246	-	-	-	-	-
Stage 2	709	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	108	442	-	-	574	-
Mov Cap-2 Maneuver	201	-	-	-	-	-
Stage 1	246	-	-	-	-	-
Stage 2	707	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s/v	0		0		0.02	
HCM LOS	A					
Minor Lane/Major Mvmt			NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)			-	-	574	-
HCM Lane V/C Ratio			-	-	0.002	-
HCM Control Delay (s/veh)			-	-	0	11.3
HCM Lane LOS			-	-	A	B
HCM 95th %tile Q(veh)			-	-	0	-

11: Bridge Street & Church Street

Existing PM Peak Hour

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	1	2	9	0	43	4	52	4	33	80	9
Future Vol, veh/h	2	1	2	9	0	43	4	52	4	33	80	9
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	1	2	10	0	47	4	57	4	36	87	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.3	7.2	7.5	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	40%	17%	27%
Vol Thru, %	87%	20%	0%	66%
Vol Right, %	7%	40%	83%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	5	52	122
LT Vol	4	2	9	33
Through Vol	52	1	0	80
RT Vol	4	2	43	9
Lane Flow Rate	65	5	57	133
Geometry Grp	1	1	1	1
Degree of Util (X)	0.075	0.006	0.06	0.151
Departure Headway (Hd)	4.116	4.265	3.816	4.101
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	865	844	921	873
Service Time	2.167	2.265	1.912	2.138
HCM Lane V/C Ratio	0.075	0.006	0.062	0.152
HCM Control Delay, s/veh	7.5	7.3	7.2	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0	0.2	0.5

14: Bridge Street & Main Street

Existing PM Peak Hour

Intersection

Intersection Delay, s/veh 7.7

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	50	8	1	58	8	4	16	1	14	21	56
Future Vol, veh/h	36	50	8	1	58	8	4	16	1	14	21	56
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	39	54	9	1	63	9	4	17	1	15	23	61
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.9	7.6	7.6	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	38%	1%	15%
Vol Thru, %	76%	53%	87%	23%
Vol Right, %	5%	9%	12%	62%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	94	67	91
LT Vol	4	36	1	14
Through Vol	16	50	58	21
RT Vol	1	8	8	56
Lane Flow Rate	23	102	73	99
Geometry Grp	1	1	1	1
Degree of Util (X)	0.028	0.12	0.084	0.108
Departure Headway (Hd)	4.437	4.227	4.156	3.914
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	812	839	851	898
Service Time	2.437	2.299	2.237	2.013
HCM Lane V/C Ratio	0.028	0.122	0.086	0.11
HCM Control Delay, s/veh	7.6	7.9	7.6	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.4	0.3	0.4

5: US 169 & North Entrance

Existing + Rebuilt Development AM Peak Hour

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↕		↙	↕	
Traffic Vol, veh/h	0	0	1	3	0	3	1	449	2	4	798	0
Future Vol, veh/h	0	0	1	3	0	3	1	449	2	4	798	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	1	3	0	3	1	488	2	4	867	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1122	1368	434	934	1367	245	867	0	0	490	0	0
Stage 1	876	876	-	491	491	-	-	-	-	-	-	-
Stage 2	246	492	-	442	876	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	161	145	570	221	146	755	772	-	-	1069	-	-
Stage 1	310	365	-	528	546	-	-	-	-	-	-	-
Stage 2	736	546	-	564	365	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	159	145	570	219	145	755	772	-	-	1069	-	-
Mov Cap-2 Maneuver	159	145	-	219	145	-	-	-	-	-	-	-
Stage 1	309	363	-	527	546	-	-	-	-	-	-	-
Stage 2	732	545	-	561	363	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v11.33			15.81		0.02		0.04					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	772	-	-	570	340	1069	-	-				
HCM Lane V/C Ratio	0.001	-	-	0.002	0.019	0.004	-	-				
HCM Control Delay (s/veh)	9.7	-	-	11.3	15.8	8.4	-	-				
HCM Lane LOS	A	-	-	B	C	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-				

7: US 169 & South Entrance

Existing + Rebuilt Development AM Peak Hour

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	1	451	5	1	801
Future Vol, veh/h	5	1	451	5	1	801
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	1	490	5	1	871

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	930	248	0
Stage 1	493	-	-
Stage 2	437	-	-
Critical Hdwy	6.84	6.94	-
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.32	-
Pot Cap-1 Maneuver	266	752	-
Stage 1	579	-	-
Stage 2	618	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	266	752	-
Mov Cap-2 Maneuver	394	-	-
Stage 1	579	-	-
Stage 2	618	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v13.54		0	0.01
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	428	1064
HCM Lane V/C Ratio	-	-	0.015	0.001
HCM Control Delay (s/veh)	-	-	13.5	8.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0	0

11: Bridge Street & Church Street

Existing + Rebuilt Development AM Peak Hour

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	3	1	7	26	7	13	0	34	82	8
Future Vol, veh/h	1	1	3	1	7	26	7	13	0	34	82	8
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	3	1	8	28	8	14	0	37	89	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7	7	7.3	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	35%	20%	3%	27%
Vol Thru, %	65%	20%	21%	66%
Vol Right, %	0%	60%	76%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	5	34	124
LT Vol	7	1	1	34
Through Vol	13	1	7	82
RT Vol	0	3	26	8
Lane Flow Rate	22	5	37	135
Geometry Grp	1	1	1	1
Degree of Util (X)	0.025	0.006	0.039	0.151
Departure Headway (Hd)	4.18	3.914	3.755	4.041
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	853	902	941	888
Service Time	2.221	1.991	1.828	2.06
HCM Lane V/C Ratio	0.026	0.006	0.039	0.152
HCM Control Delay, s/veh	7.3	7	7	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.1	0.5

14: Bridge Street & Main Street

Existing + Rebuilt Development AM Peak Hour

Intersection

Intersection Delay, s/veh 7.3

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	17	6	4	49	3	2	4	2	12	22	52
Future Vol, veh/h	13	17	6	4	49	3	2	4	2	12	22	52
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	18	7	4	53	3	2	4	2	13	24	57
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.4	7.5	7.2	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	36%	7%	14%
Vol Thru, %	50%	47%	88%	26%
Vol Right, %	25%	17%	5%	60%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	36	56	86
LT Vol	2	13	4	12
Through Vol	4	17	49	22
RT Vol	2	6	3	52
Lane Flow Rate	9	39	61	93
Geometry Grp	1	1	1	1
Degree of Util (X)	0.01	0.045	0.07	0.098
Departure Headway (Hd)	4.079	4.131	4.125	3.779
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	869	862	865	941
Service Time	2.144	2.179	2.167	1.831
HCM Lane V/C Ratio	0.01	0.045	0.071	0.099
HCM Control Delay, s/veh	7.2	7.4	7.5	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.1	0.2	0.3

5: US 169 & North Entrance

Existing + Rebuilt Development PM Peak Hour

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↕		↙	↕	
Traffic Vol, veh/h	0	0	5	10	0	15	5	1103	13	15	584	1
Future Vol, veh/h	0	0	5	10	0	15	5	1103	13	15	584	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	5	11	0	16	5	1199	14	16	635	1
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1278	1892	318	1567	1885	607	636	0	0	1213	0	0
Stage 1	668	668	-	1217	1217	-	-	-	-	-	-	-
Stage 2	610	1224	-	350	668	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	123	69	678	75	70	440	943	-	-	571	-	-
Stage 1	414	455	-	192	252	-	-	-	-	-	-	-
Stage 2	448	250	-	639	454	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	115	67	678	72	67	440	943	-	-	571	-	-
Mov Cap-2 Maneuver	115	67	-	72	67	-	-	-	-	-	-	-
Stage 1	402	442	-	191	250	-	-	-	-	-	-	-
Stage 2	429	248	-	616	441	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v10.35			35.62		0.04		0.29					
HCM LOS	B		E									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	943	-	-	678	144	571	-	-				
HCM Lane V/C Ratio	0.006	-	-	0.008	0.188	0.029	-	-				
HCM Control Delay (s/veh)	8.8	-	-	10.4	35.6	11.5	-	-				
HCM Lane LOS	A	-	-	B	E	B	-	-				
HCM 95th %tile Q(veh)	0	-	-	0	0.7	0.1	-	-				

7: US 169 & South Entrance

Existing + Rebuilt Development PM Peak Hour

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	5	1116	26	7	592
Future Vol, veh/h	18	5	1116	26	7	592
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	5	1213	28	8	643
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1564	621	0	0	1241	0
Stage 1	1227	-	-	-	-	-
Stage 2	337	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	102	430	-	-	557	-
Stage 1	240	-	-	-	-	-
Stage 2	695	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	101	430	-	-	557	-
Mov Cap-2 Maneuver	195	-	-	-	-	-
Stage 1	240	-	-	-	-	-
Stage 2	685	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v23.37		0		0.14		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	221	557	-	
HCM Lane V/C Ratio	-	-	0.113	0.014	-	
HCM Control Delay (s/veh)	-	-	23.4	11.6	-	
HCM Lane LOS	-	-	C	B	-	
HCM 95th %tile Q(veh)	-	-	0.4	0	-	

11: Bridge Street & Church Street

Existing + Rebuilt Development PM Peak Hour

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	1	2	9	0	43	4	52	4	33	80	9
Future Vol, veh/h	2	1	2	9	0	43	4	52	4	33	80	9
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	1	2	10	0	47	4	57	4	36	87	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.3	7.2	7.5	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	40%	17%	27%
Vol Thru, %	87%	20%	0%	66%
Vol Right, %	7%	40%	83%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	5	52	122
LT Vol	4	2	9	33
Through Vol	52	1	0	80
RT Vol	4	2	43	9
Lane Flow Rate	65	5	57	133
Geometry Grp	1	1	1	1
Degree of Util (X)	0.075	0.006	0.06	0.151
Departure Headway (Hd)	4.116	4.265	3.816	4.101
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	865	844	921	873
Service Time	2.167	2.265	1.912	2.138
HCM Lane V/C Ratio	0.075	0.006	0.062	0.152
HCM Control Delay, s/veh	7.5	7.3	7.2	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0	0.2	0.5

14: Bridge Street & Main Street

Existing + Rebuilt Development PM Peak Hour

Intersection

Intersection Delay, s/veh 7.7

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	36	50	8	1	58	8	4	16	1	14	21	56
Future Vol, veh/h	36	50	8	1	58	8	4	16	1	14	21	56
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	39	54	9	1	63	9	4	17	1	15	23	61
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.9	7.6	7.6	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	38%	1%	15%
Vol Thru, %	76%	53%	87%	23%
Vol Right, %	5%	9%	12%	62%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	94	67	91
LT Vol	4	36	1	14
Through Vol	16	50	58	21
RT Vol	1	8	8	56
Lane Flow Rate	23	102	73	99
Geometry Grp	1	1	1	1
Degree of Util (X)	0.028	0.12	0.084	0.108
Departure Headway (Hd)	4.437	4.227	4.156	3.914
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	812	839	851	898
Service Time	2.437	2.299	2.237	2.013
HCM Lane V/C Ratio	0.028	0.122	0.086	0.11
HCM Control Delay, s/veh	7.6	7.9	7.6	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.4	0.3	0.4

5: US 169 & North Entrance

Existing + Rebuilt + Proposed Development AM Peak Hour

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	0	1	5	0	14	1	450	3	7	799	0
Future Vol, veh/h	0	0	1	5	0	14	1	450	3	7	799	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	1	5	0	15	1	489	3	8	868	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1130	1378	434	942	1377	246	868	0	0	492	0	0
Stage 1	884	884	-	493	493	-	-	-	-	-	-	-
Stage 2	247	495	-	449	884	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	158	143	570	217	144	754	771	-	-	1067	-	-
Stage 1	307	362	-	526	545	-	-	-	-	-	-	-
Stage 2	735	544	-	559	362	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	154	142	570	215	143	754	771	-	-	1067	-	-
Mov Cap-2 Maneuver	154	142	-	215	143	-	-	-	-	-	-	-
Stage 1	305	359	-	526	545	-	-	-	-	-	-	-
Stage 2	719	544	-	554	359	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v11.33			13.3		0.02		0.07					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	771	-	-	570	455	1067	-	-				
HCM Lane V/C Ratio	0.001	-	-	0.002	0.045	0.007	-	-				
HCM Control Delay (s/veh)	9.7	-	-	11.3	13.3	8.4	-	-				
HCM Lane LOS	A	-	-	B	B	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-				

7: US 169 & South Entrance

Existing + Rebuilt + Proposed Development AM Peak Hour

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	2	452	11	2	803
Future Vol, veh/h	26	2	452	11	2	803
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	2	491	12	2	873
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	938	252	0	0	503	0
Stage 1	497	-	-	-	-	-
Stage 2	441	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	263	748	-	-	1057	-
Stage 1	576	-	-	-	-	-
Stage 2	616	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	262	748	-	-	1057	-
Mov Cap-2 Maneuver	391	-	-	-	-	-
Stage 1	576	-	-	-	-	-
Stage 2	615	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s/v	14.61	0	0.02			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	405	1057	-	
HCM Lane V/C Ratio	-	-	0.075	0.002	-	
HCM Control Delay (s/veh)	-	-	14.6	8.4	-	
HCM Lane LOS	-	-	B	A	-	
HCM 95th %tile Q(veh)	-	-	0.2	0	-	

9: Bridge Street & East Entrance

Existing + Rebuilt + Proposed Development AM Peak Hour

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	20	6	40	124	1
Future Vol, veh/h	3	20	6	40	124	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	22	7	43	135	1
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	192	135	136	0	-	0
Stage 1	135	-	-	-	-	-
Stage 2	57	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	797	913	1448	-	-	-
Stage 1	891	-	-	-	-	-
Stage 2	966	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	793	913	1448	-	-	-
Mov Cap-2 Maneuver	793	-	-	-	-	-
Stage 1	887	-	-	-	-	-
Stage 2	966	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s/v	9.13	0.98		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	235	-	896	-	-	
HCM Lane V/C Ratio	0.005	-	0.028	-	-	
HCM Control Delay (s/veh)	7.5	0	9.1	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

11: Bridge Street & Church Street

Existing + Rebuilt + Proposed Development AM Peak Hour

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	3	1	7	26	7	19	0	34	102	8
Future Vol, veh/h	1	1	3	1	7	26	7	19	0	34	102	8
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	3	1	8	28	8	21	0	37	111	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.1	7	7.4	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	20%	3%	24%
Vol Thru, %	73%	20%	21%	71%
Vol Right, %	0%	60%	76%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	26	5	34	144
LT Vol	7	1	1	34
Through Vol	19	1	7	102
RT Vol	0	3	26	8
Lane Flow Rate	28	5	37	157
Geometry Grp	1	1	1	1
Degree of Util (X)	0.033	0.006	0.039	0.176
Departure Headway (Hd)	4.18	3.962	3.803	4.044
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	852	888	926	887
Service Time	2.226	2.055	1.891	2.064
HCM Lane V/C Ratio	0.033	0.006	0.04	0.177
HCM Control Delay, s/veh	7.4	7.1	7	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.1	0.6

14: Bridge Street & Main Street

Existing + Rebuilt + Proposed Development AM Peak Hour

Intersection

Intersection Delay, s/veh 7.4

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	18	17	6	4	49	4	2	4	2	14	22	70
Future Vol, veh/h	18	17	6	4	49	4	2	4	2	14	22	70
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	18	7	4	53	4	2	4	2	15	24	76
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.5	7.5	7.2	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	44%	7%	13%
Vol Thru, %	50%	41%	86%	21%
Vol Right, %	25%	15%	7%	66%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	41	57	106
LT Vol	2	18	4	14
Through Vol	4	17	49	22
RT Vol	2	6	4	70
Lane Flow Rate	9	45	62	115
Geometry Grp	1	1	1	1
Degree of Util (X)	0.01	0.052	0.072	0.12
Departure Headway (Hd)	4.108	4.198	4.156	3.755
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	861	847	857	946
Service Time	2.181	2.252	2.206	1.813
HCM Lane V/C Ratio	0.01	0.053	0.072	0.122
HCM Control Delay, s/veh	7.2	7.5	7.5	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.2	0.2	0.4

5: US 169 & North Entrance

Existing + Rebuilt + Proposed Development PM Peak Hour

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	0	5	11	0	20	5	1103	15	22	587	1
Future Vol, veh/h	0	0	5	11	0	20	5	1103	15	22	587	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	5	12	0	22	5	1199	16	24	638	1
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1297	1913	320	1585	1905	608	639	0	0	1215	0	0
Stage 1	686	686	-	1218	1218	-	-	-	-	-	-	-
Stage 2	610	1226	-	367	687	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	119	67	676	73	68	439	941	-	-	570	-	-
Stage 1	403	446	-	191	251	-	-	-	-	-	-	-
Stage 2	448	249	-	625	446	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	108	64	676	69	65	439	941	-	-	570	-	-
Mov Cap-2 Maneuver	108	64	-	69	65	-	-	-	-	-	-	-
Stage 1	387	427	-	190	250	-	-	-	-	-	-	-
Stage 2	423	248	-	594	427	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v10.37			35.6		0.04		0.42					
HCM LOS	B		E									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	941	-	-	676	151	570	-	-				
HCM Lane V/C Ratio	0.006	-	-	0.008	0.223	0.042	-	-				
HCM Control Delay (s/veh)	8.8	-	-	10.4	35.6	11.6	-	-				
HCM Lane LOS	A	-	-	B	E	B	-	-				
HCM 95th %tile Q(veh)	0	-	-	0	0.8	0.1	-	-				

7: US 169 & South Entrance

Existing + Rebuilt + Proposed Development PM Peak Hour

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	28	5	1118	43	10	593
Future Vol, veh/h	28	5	1118	43	10	593
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	5	1215	47	11	645
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1583	631	0	0	1262	0
Stage 1	1239	-	-	-	-	-
Stage 2	344	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	99	424	-	-	547	-
Stage 1	237	-	-	-	-	-
Stage 2	689	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	97	424	-	-	547	-
Mov Cap-2 Maneuver	191	-	-	-	-	-
Stage 1	237	-	-	-	-	-
Stage 2	676	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v25.81		0		0.19		
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	209	547	-	
HCM Lane V/C Ratio	-	-	0.172	0.02	-	
HCM Control Delay (s/veh)	-	-	25.8	11.7	-	
HCM Lane LOS	-	-	D	B	-	
HCM 95th %tile Q(veh)	-	-	0.6	0.1	-	

9: Bridge Street & East Entrance

Existing + Rebuilt + Proposed Development PM Peak Hour

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	10	17	97	122	2
Future Vol, veh/h	1	10	17	97	122	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	11	18	105	133	2
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	276	134	135	0	-	0
Stage 1	134	-	-	-	-	-
Stage 2	142	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	714	915	1450	-	-	-
Stage 1	893	-	-	-	-	-
Stage 2	885	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	704	915	1450	-	-	-
Mov Cap-2 Maneuver	704	-	-	-	-	-
Stage 1	881	-	-	-	-	-
Stage 2	885	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s/v	9.1	1.12		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	268	-	891	-	-	
HCM Lane V/C Ratio	0.013	-	0.013	-	-	
HCM Control Delay (s/veh)	7.5	0	9.1	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

11: Bridge Street & Church Street

Existing + Rebuilt + Proposed Development PM Peak Hour

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	1	2	9	0	43	4	69	4	33	90	9
Future Vol, veh/h	2	1	2	9	0	43	4	69	4	33	90	9
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	1	2	10	0	47	4	75	4	36	98	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.4	7.2	7.6	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	40%	17%	25%
Vol Thru, %	90%	20%	0%	68%
Vol Right, %	5%	40%	83%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	77	5	52	132
LT Vol	4	2	9	33
Through Vol	69	1	0	90
RT Vol	4	2	43	9
Lane Flow Rate	84	5	57	143
Geometry Grp	1	1	1	1
Degree of Util (X)	0.096	0.007	0.062	0.164
Departure Headway (Hd)	4.131	4.331	3.975	4.114
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	860	831	906	868
Service Time	2.19	2.332	1.976	2.161
HCM Lane V/C Ratio	0.098	0.006	0.063	0.165
HCM Control Delay, s/veh	7.6	7.4	7.2	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0	0.2	0.6

14: Bridge Street & Main Street

Existing + Rebuilt + Proposed Development PM Peak Hour

Intersection												
Intersection Delay, s/veh	7.8											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	51	50	8	1	58	10	4	16	1	15	21	65
Future Vol, veh/h	51	50	8	1	58	10	4	16	1	15	21	65
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	55	54	9	1	63	11	4	17	1	16	23	71
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.1	7.7	7.6	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	47%	1%	15%
Vol Thru, %	76%	46%	84%	21%
Vol Right, %	5%	7%	14%	64%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	109	69	101
LT Vol	4	51	1	15
Through Vol	16	50	58	21
RT Vol	1	8	10	65
Lane Flow Rate	23	118	75	110
Geometry Grp	1	1	1	1
Degree of Util (X)	0.029	0.141	0.087	0.123
Departure Headway (Hd)	4.495	4.273	4.173	4.041
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	801	828	844	893
Service Time	2.498	2.358	2.272	2.042
HCM Lane V/C Ratio	0.029	0.143	0.089	0.123
HCM Control Delay, s/veh	7.6	8.1	7.7	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.5	0.3	0.4

5: US 169 & North Entrance

Future (2046) AM Peak Hour

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	0	1	6	0	15	1	668	4	9	1187	0
Future Vol, veh/h	0	0	1	6	0	15	1	668	4	9	1187	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	1	7	0	16	1	726	4	10	1290	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1675	2042	645	1395	2040	365	1290	0	0	730	0	0
Stage 1	1310	1310	-	730	730	-	-	-	-	-	-	-
Stage 2	365	733	-	665	1310	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	62	56	415	101	56	632	533	-	-	870	-	-
Stage 1	168	227	-	380	426	-	-	-	-	-	-	-
Stage 2	626	425	-	416	227	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	60	55	415	99	55	632	533	-	-	870	-	-
Mov Cap-2 Maneuver	60	55	-	99	55	-	-	-	-	-	-	-
Stage 1	166	225	-	379	425	-	-	-	-	-	-	-
Stage 2	609	424	-	410	225	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v	13.7		20.88		0.02		0.07					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	533	-	-	415	249	870	-	-				
HCM Lane V/C Ratio	0.002	-	-	0.003	0.092	0.011	-	-				
HCM Control Delay (s/veh)	11.8	-	-	13.7	20.9	9.2	-	-				
HCM Lane LOS	B	-	-	B	C	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0	0.3	0	-	-				

7: US 169 & South Entrance

Future (2046) AM Peak Hour

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	28	2	671	13	2	1192
Future Vol, veh/h	28	2	671	13	2	1192
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	2	729	14	2	1296

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1389	372	0
Stage 1	736	-	-
Stage 2	652	-	-
Critical Hdwy	6.84	6.94	-
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.32	-
Pot Cap-1 Maneuver	134	626	-
Stage 1	434	-	-
Stage 2	480	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	133	626	-
Mov Cap-2 Maneuver	269	-	-
Stage 1	434	-	-
Stage 2	479	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v19.59		0	0.02
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	279	860
HCM Lane V/C Ratio	-	-	0.117	0.003
HCM Control Delay (s/veh)	-	-	19.6	9.2
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.4	0

9: Bridge Street & East Entrance

Future (2046) AM Peak Hour

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	20	6	59	185	1
Future Vol, veh/h	3	20	6	59	185	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	22	7	64	201	1
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	279	202	202	0	-	0
Stage 1	202	-	-	-	-	-
Stage 2	77	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	711	839	1370	-	-	-
Stage 1	832	-	-	-	-	-
Stage 2	946	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	708	839	1370	-	-	-
Mov Cap-2 Maneuver	708	-	-	-	-	-
Stage 1	828	-	-	-	-	-
Stage 2	946	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s/v	9.53	0.71		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	166	-	819	-	-	
HCM Lane V/C Ratio	0.005	-	0.031	-	-	
HCM Control Delay (s/veh)	7.6	0	9.5	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

11: Bridge Street & Church Street

Future (2046) AM Peak Hour

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	4	1	10	39	10	25	0	51	142	12
Future Vol, veh/h	1	1	4	1	10	39	10	25	0	51	142	12
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	4	1	11	42	11	27	0	55	154	13
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.2	7.3	7.5	8.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	29%	17%	2%	25%
Vol Thru, %	71%	17%	20%	69%
Vol Right, %	0%	67%	78%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	35	6	50	205
LT Vol	10	1	1	51
Through Vol	25	1	10	142
RT Vol	0	4	39	12
Lane Flow Rate	38	7	54	223
Geometry Grp	1	1	1	1
Degree of Util (X)	0.045	0.008	0.061	0.253
Departure Headway (Hd)	4.267	4.199	4.051	4.083
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	829	857	889	876
Service Time	2.345	2.201	2.052	2.122
HCM Lane V/C Ratio	0.046	0.008	0.061	0.255
HCM Control Delay, s/veh	7.5	7.2	7.3	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.2	1

14: Bridge Street & Main Street

Future (2046) AM Peak Hour

Intersection

Intersection Delay, s/veh 7.8

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	24	25	9	6	73	5	3	6	3	20	33	94
Future Vol, veh/h	24	25	9	6	73	5	3	6	3	20	33	94
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	27	10	7	79	5	3	7	3	22	36	102
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.7	7.9	7.4	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	41%	7%	14%
Vol Thru, %	50%	43%	87%	22%
Vol Right, %	25%	16%	6%	64%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	58	84	147
LT Vol	3	24	6	20
Through Vol	6	25	73	33
RT Vol	3	9	5	94
Lane Flow Rate	13	63	91	160
Geometry Grp	1	1	1	1
Degree of Util (X)	0.016	0.075	0.108	0.171
Departure Headway (Hd)	4.344	4.297	4.264	3.853
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	829	821	830	916
Service Time	2.344	2.387	2.346	1.944
HCM Lane V/C Ratio	0.016	0.077	0.11	0.175
HCM Control Delay, s/veh	7.4	7.7	7.9	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.2	0.4	0.6

5: US 169 & North Entrance

Future (2046) PM Peak Hour

Intersection												
Int Delay, s/veh	5.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↕		↙	↕	
Traffic Vol, veh/h	0	0	7	16	0	27	7	1639	21	29	871	1
Future Vol, veh/h	0	0	7	16	0	27	7	1639	21	29	871	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	8	17	0	29	8	1782	23	32	947	1
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1916	2830	474	2345	2819	902	948	0	0	1804	0	0
Stage 1	1010	1010	-	1808	1808	-	-	-	-	-	-	-
Stage 2	906	1820	-	536	1011	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	41	17	537	19	18	281	720	-	-	337	-	-
Stage 1	257	316	-	82	129	-	-	-	-	-	-	-
Stage 2	297	127	-	496	315	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	33	16	537	~ 17	16	281	720	-	-	337	-	-
Mov Cap-2 Maneuver	33	16	-	~ 17	16	-	-	-	-	-	-	-
Stage 1	233	286	-	81	128	-	-	-	-	-	-	-
Stage 2	263	126	-	443	286	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v	11.8		\$ 332.66		0.04		0.54					
HCM LOS	B		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	720	-	-	537	41	337	-	-				
HCM Lane V/C Ratio	0.011	-	-	0.014	1.128	0.093	-	-				
HCM Control Delay (s/veh)	10.1	-	-	11.8	\$ 332.7	16.8	-	-				
HCM Lane LOS	B	-	-	B	F	C	-	-				
HCM 95th %tile Q(veh)	0	-	-	0	4.5	0.3	-	-				
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon						

7: US 169 & South Entrance

Future (2046) PM Peak Hour

Intersection						
Int Delay, s/veh	1.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	37	7	1660	56	13	881
Future Vol, veh/h	37	7	1660	56	13	881
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	8	1804	61	14	958
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	2342	933	0	0	1865	0
Stage 1	1835	-	-	-	-	-
Stage 2	507	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 30	268	-	-	320	-
Stage 1	112	-	-	-	-	-
Stage 2	570	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 29	268	-	-	320	-
Mov Cap-2 Maneuver	92	-	-	-	-	-
Stage 1	112	-	-	-	-	-
Stage 2	545	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s/v67.58			0		0.24	
HCM LOS	F					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-	103	320	-	
HCM Lane V/C Ratio	-	-	0.466	0.044	-	
HCM Control Delay (s/veh)	-	-	67.6	16.8	-	
HCM Lane LOS	-	-	F	C	-	
HCM 95th %tile Q(veh)	-	-	2	0.1	-	
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

9: Bridge Street & East Entrance

Future (2046) PM Peak Hour

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	10	17	144	181	2
Future Vol, veh/h	1	10	17	144	181	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	11	18	157	197	2
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	391	198	199	0	-	0
Stage 1	198	-	-	-	-	-
Stage 2	193	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	613	843	1373	-	-	-
Stage 1	836	-	-	-	-	-
Stage 2	839	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	604	843	1373	-	-	-
Mov Cap-2 Maneuver	604	-	-	-	-	-
Stage 1	823	-	-	-	-	-
Stage 2	839	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s/v	9.49	0.81		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	190	-	814	-	-	
HCM Lane V/C Ratio	0.013	-	0.015	-	-	
HCM Control Delay (s/veh)	7.7	0	9.5	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

11: Bridge Street & Church Street

Future (2046) PM Peak Hour

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	1	3	13	0	64	6	94	6	49	129	13
Future Vol, veh/h	3	1	3	13	0	64	6	94	6	49	129	13
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	1	3	14	0	70	7	102	7	53	140	14
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.6	7.7	8	8.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	43%	17%	26%
Vol Thru, %	89%	14%	0%	68%
Vol Right, %	6%	43%	83%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	106	7	77	191
LT Vol	6	3	13	49
Through Vol	94	1	0	129
RT Vol	6	3	64	13
Lane Flow Rate	115	8	84	208
Geometry Grp	1	1	1	1
Degree of Util (X)	0.139	0.01	0.097	0.242
Departure Headway (Hd)	4.333	4.575	4.192	4.192
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	833	785	859	845
Service Time	2.333	2.585	2.2	2.276
HCM Lane V/C Ratio	0.138	0.01	0.098	0.246
HCM Control Delay, s/veh	8	7.6	7.7	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0	0.3	0.9

14: Bridge Street & Main Street

Future (2046) PM Peak Hour

Intersection

Intersection Delay, s/veh 8.4

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	68	74	12	1	86	14	6	24	1	22	31	92
Future Vol, veh/h	68	74	12	1	86	14	6	24	1	22	31	92
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	74	80	13	1	93	15	7	26	1	24	34	100
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.8	8.2	8	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	44%	1%	15%
Vol Thru, %	77%	48%	85%	21%
Vol Right, %	3%	8%	14%	63%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	154	101	145
LT Vol	6	68	1	22
Through Vol	24	74	86	31
RT Vol	1	12	14	92
Lane Flow Rate	34	167	110	158
Geometry Grp	1	1	1	1
Degree of Util (X)	0.045	0.211	0.136	0.187
Departure Headway (Hd)	4.774	4.529	4.473	4.265
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	750	793	801	842
Service Time	2.803	2.553	2.5	2.287
HCM Lane V/C Ratio	0.045	0.211	0.137	0.188
HCM Control Delay, s/veh	8	8.8	8.2	8.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.8	0.5	0.7