

TRAFFIC IMPACT ANALYSIS For PROPOSED C-STORE DEVELOPMENT NEAR SH 6 AT BRANCH FOREST DRIVE

PREPARED FOR

CITY OF HOUSTON, TEXAS
HARRIS COUNTY ENGINEERING DEPARTMENT
TEXAS DEPARTMENT OF TRANSPORTATION

PREPARED BY



nabi

9/8/2025



MIDSTREAM
& TERMINAL

MTS Engineering and Design
9950 Westpark Dr. Suite 426
Houston, TX 77063
FIRM NO. 18844

SEPTEMBER 2025

TRAFFIC IMPACT ANALYSIS
FOR
PROPOSED C-STORE DEVELOPMENT NEAR SH 6 & BRANCH FOREST DRIVE
CITY OF HOUSTON, TEXAS

CONTENTS

	<u>Page</u>
Executive Summary	ES - 1
1 Introduction.....	1
2 Existing Conditions.....	5
3 Projected Traffic	6
4 Traffic Analysis	9
5 Conclusions and Recommendations	12

APPENDICES

- A. Existing Traffic Data
- B. Trip Generation
- C. Intersection Level of Service Analyses

LIST OF TABLES

3-1 Trip Generation for the proposed development	6
4-1 Summary of analysis results for AM peak hour	11
4-2 Summary of analysis results for PM peak hour	11

LIST OF FIGURES

1-1 Project Vicinity Map.....	3
1-2 Proposed Site Plan	4
2-1 Traffic Volume Data	8

EXECUTIVE SUMMARY

This report summarizes the results of analysis and findings of a Traffic Impact Analysis (TIA) that was conducted by MTS Engineering & Design, in connection with the proposed convenience Store Development, to be developed in the City of Houston, Harris County, Texas. The proposed project consists of development of approximately 6,343 square feet of Convenience Store/Gas Station with 24 vehicle fueling positions and 15,043 square feet of Strip Retail Plaza. The proposed project is planned to be constructed on a vacant property located at the northwest corner of the intersection SH 6 at Branch Forest Drive in Harris County, Texas. The purpose of this Traffic Impact Analysis was to document the traffic impacts of the proposed project on the adjacent roadway system and to ensure efficient traffic operations subsequent to the completion and operations of the project.

Access to this development is planned to be provided by means of one driveway abutting SH 6 and one driveway abutting Branch Forest Drive. For study purposes, the access driveway on SH 6 is designated as Driveway # 1. The access driveway on Branch Forest Drive is designated as Driveway # 2. All access driveways are assumed to have one lane entering and one lane exiting. Both driveways are assumed as right in right out only. The construction of this development is anticipated to be complete by the Year 2026.

Existing AM and PM peak hours turning movement counts were collected for the study intersections located in the vicinity of the project site. The background traffic volumes for the analysis intersections were estimated to the Year 2026 by applying a one (1) percent compound annual growth rate. Anticipated AM and PM peak hour trips for the proposed project was projected based on the trip generation procedures recommended by the *Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition)* and based on the anticipated operations of the proposed project. Site generated traffic were distributed on study network based on existing traffic patterns and travel characteristics. The AM and PM peak hour trip assignments for the project were added to the background (Year 2026) traffic volumes to obtain traffic volumes representing AM and PM peak hour Project Conditions for the Year 2026.

Capacity and Level of Service (LOS) Analyses were conducted for the study intersections during AM and PM peak hours under various conditions according to Highway Capacity Manual (HCM) methodologies and by utilizing SYNCHRO traffic analysis program. Based on the analyses, the

proposed development is expected not to have any major impacts to the traffic operations in the study area. However, following design standards are proposed for the access driveways abutting SH 6 and Branch Forest Drive.

Proposed Recommendations

- Configure Driveway # 1 and Driveway # 2 as one lane entering and one lane exiting.
- Configure Driveway # 1 as right in right out only.
- Configure Driveway # 2 as right in right out only.

1. INTRODUCTION

This report summarizes the results of analysis and findings of a Traffic Impact Analysis (TIA) that was conducted by MTS Engineering & Design, in connection with the proposed convenience Store Development, to be developed in the City of Houston, Harris County, Texas. The proposed project consists of development of approximately 6,343 square feet of Convenience Store/Gas Station with 24 vehicle fueling positions and 15,043 square feet of Strip Retail Plaza. The proposed project is planned to be constructed on a vacant property located at the northwest corner of the intersection SH 6 at Branch Forest Drive in Harris County, Texas. The proposed site will also include the required parking facilities and access driveways. The project vicinity map is depicted in Figure 1-1.

Proposed Site Access Plan

As presented in the proposed site plan (Figure 1-2), access to this development is planned to be provided by means of one driveway abutting SH 6 and one driveway abutting Branch Forest Drive. For study purposes, the access driveway on SH 6 is designated as Driveway # 1. The access driveway on Branch Forest Drive is designated as Driveway # 2. Approximate locations and spacing of access driveways are shown in the proposed site plan. All access driveways are assumed to have one lane entering and one lane exiting. Both driveways are assumed as right in right out only.

Land use characteristic of the project area is primarily residential. No schools are presently located within one mile of the project site.

Purpose and Scope

The purpose of this Traffic Impact Analysis (TIA) study was to

- Evaluate the impact of the proposed project on the adjacent roadway system, in accordance with the requirements set forth by the City of Houston, Harris County and TxDOT.
- Identify transportation improvements which would mitigate potential adverse traffic impacts to mobility (if any) within the study area.

The construction of this development is planned in a single phase and is anticipated to be complete by the Year 2026.

The following tasks were covered in this study:

- Conduct a site investigation to establish an opinion of the existing traffic operations, patterns, road inventory, land uses and traffic controls in the vicinity of the project site;
- Conduct the necessary turning movement counts during the weekday peak traffic periods;
- Estimate site generated trips and distribute them on the roadway network;
- Assess the existing and planned roadway system and land developments in the area;
- Conduct Capacity and Level of Service (LOS) analyses for existing, background and project traffic conditions. Background conditions represent the projected roadway traffic in the expected build out year without the development in place;
- Conduct a traffic impact analysis evaluating the impact of the proposed project on the adjacent roadway system;
- Test various improvement scenarios to satisfy the projected travel demand;
- Make recommendations for improvements to traffic operations, if necessary.



FIGURE 1-1: PROJECT VICINITY MAP

◆ TBM: BOX CUT IN CONCRETE CURB @ THE NORTHERLY RIGHT OF WAY OF BRANCH FOREST DRIVE.
ELEVATION=85.29

BENCHMARK:

FLOODPLAIN REFERENCE MARK NUMBER 040295R2 IS A ALUM DISC FROM THE INTERSECTION OF HIGHWAY 6 AND WESTPARK TOLLWAY, GO NORTH ON HIGHWAY 6 A DISTANCE OF 0.26 MILES TO BRIDGE, KEY MAP 528A IN THE BRAYS BAYOU WATERSHED NEAR STREAM D100-00-00.

ELEV. 82.35 FEET NAVD 1988, 2001 ADJUSTED.

FLOOD NOTE:

SUBJECT PROPERTY IS NOT LOCATED IN A FEDERAL INSURANCE ADMINISTRATION DESIGNATED FLOOD HAZARD AREA AND IS IN ZONE "X" (UNSHADDED) MAP # 48201C, PANEL 2007G, DATED 06-18-07.

BEARING DATA TABLE

LINE	BEARING	DISTANCE
L1	S45°0'03"1" W	14.70'
L2	S87°51'28" W	43.46'
L3	N45°01'53" W	50.00'

CURVE	ARC LENGTH	RADIUS	DELTA	CHORD BEARING	DISTANCE
C1	516.04'	11369.16'	2°36'02"	S0°49'55" W	515.99'
C2	209.67'	255.00'	47°06'39"	N68°35'13" W	203.81'
C3	18.41'	345.00'	3°03'24"	N46°33'36" W	18.41'

SITE DATA TABLE

PROPOSED PROPERTY ZONED : COMMERCIAL ZONE

SETBACKS: FRONT = 25' BUILDING LINE
LEFT SIDE = N/A
RIGHT SIDE = 15' BUILDING LINE
REAR = N/A

ITEM	AMOUNT		
	SQ.FT	ACRES	%
SITE AREA	149421.49	3.430	100% OF SITE AREA
BUILDING AREA	26288	0.603	18% OF SITE AREA
PROPOSED PERVIOUS AREA	20986.00	0.482	14% OF SITE AREA
PROPOSED IMPERVIOUS AREA	128435.49	2.948	86% OF SITE AREA
EXISTING PERVIOUS AREA	139210.47	3.196	93% OF SITE AREA
EXISTING IMPERVIOUS AREA	10211.02	0.234	7% OF SITE AREA
PARKING	PARKING REQUIRED = 82 SPACES PARKING PROVIDED = 109 SPACES		

CO-ORDINATE:

POINT	X	Y
①	3033422.10	13826054.03
②	3033430.64	13826569.95
③	3033116.09	13826558.83
④	3033130.02	13826165.01
⑤	3033411.68	13826043.66
⑥	3033386.50	13826108.47
⑦	3033326.53	13826106.41
⑧	3033320.17	13826291.30
⑨	3033380.13	13826293.36
⑩	3033245.23	13826463.61
⑪	3033180.26	13826461.38
⑫	3033186.46	13826281.47
⑬	3033251.42	13826283.71
⑭	3033251.35	13826273.45
⑮	3033186.14	13826271.45
⑯	3033191.19	13826124.55
⑰	3033256.82	13826126.81

LEGEND

- PROPERTY LINE
- BENCHMARK
- [dotted pattern] PROPOSED GREEN AREA
- [A] PROPOSED C-STORE 6,343 SQ.FT.
- [B] PROPOSED CAR PARKING (19'-0" X 9'-0")
- [C] WHEEL STOPPER (5'-0" X 0'-6")
- [D] VACUUM PARKING (19'-0" X 12'-0")
- [E] PROPOSED 6" MONOLITHIC CONCRETE CURB
- [F] PROPOSED RETAIL 11,733 SQ.FT.
- [G] PROPOSED DRIVEWAY-01 (45'-0")
- [H] PROPOSED DRIVEWAY-02 (35'-0")
- [I] PROPOSED TRASH ENCLOSER
- [K] PROPOSED GASOLINE CANOPY
- [L] PROPOSED FUEL TANK
- [M] PROPOSED HANDICAP PARKING (19'-0" X 9'-0")
- [N] PROPOSED DRIVEWAY-03 (25'-0")
- [P] PROPOSED CAR WASH 4902 SQ.FT.
- [LAMP POST]
- [R] LEASE SPACE 3,310 SQ.FT.
- [S] UNDERGROUND DETENTION POND (17595.25 SFT)

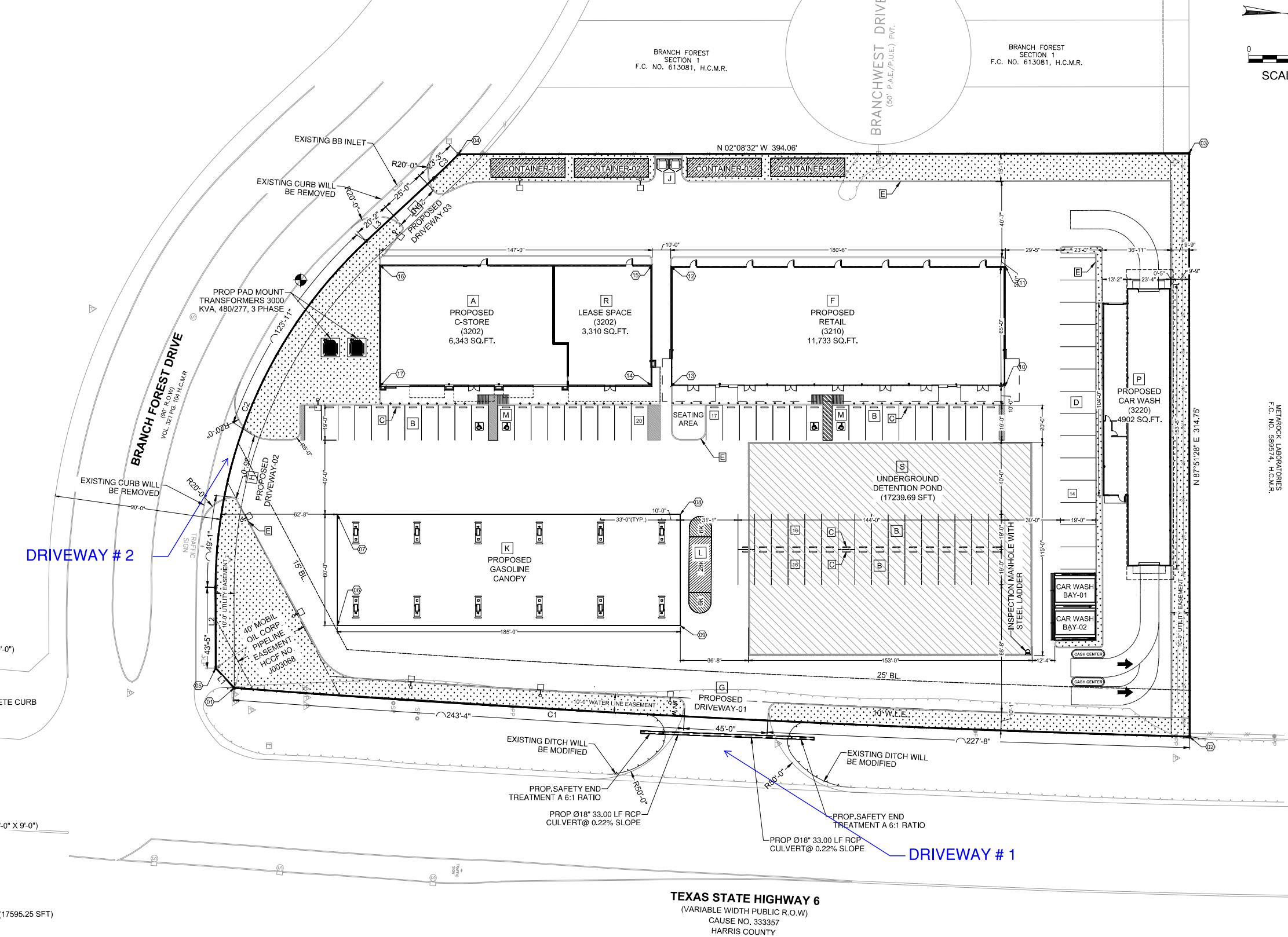
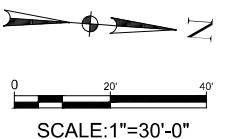


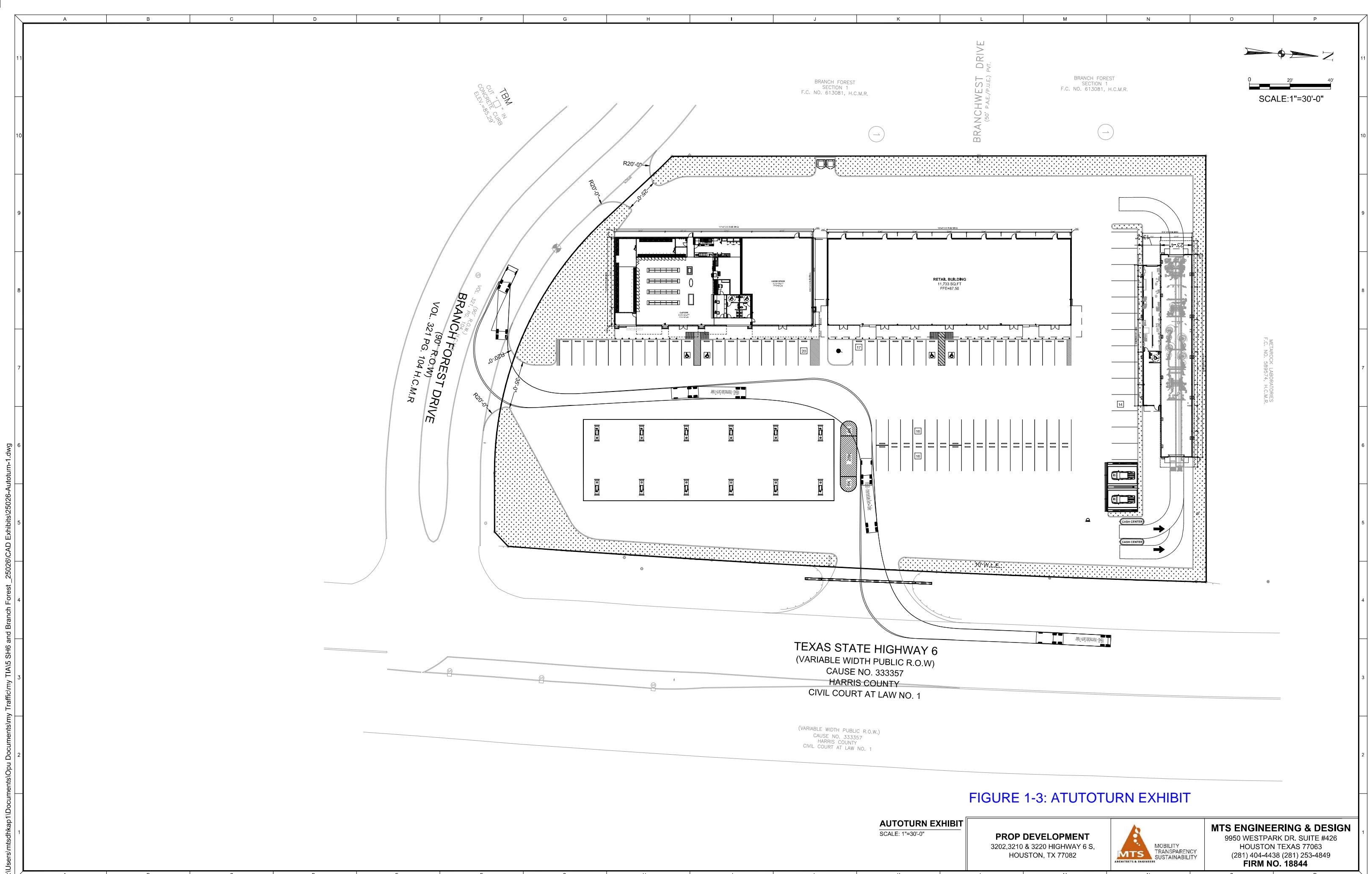
FIGURE 1-2 : PROPOSED SITE PLAN



DWG #	REFERENCE DRAWINGS	REV	DATE:	DESCRIPTION	BY:	CHK	APR	DRAWN BY:		CHECKED BY:		ENGINEER:	DATE:	MTS PROJECT NO.:
								SY	MM	MM	GM			
C008		0	08/10/2025	ISSUED FOR PERMIT								08/10/2025	25026	
								SCALE:		DRAWING TITLE:		DRAWING NUMBER:	REV.	
				1"=30'-0"						SITE LAYOUT PLAN		C008	0	

PROPS DEVELOPMENT
3202,3210 & 3220 HIGHWAY 6 S,
HOUSTON, TX 77082

MTS ENGINEERING & DESIGN
9950 WESTPARK DR. SUITE #426
HOUSTON TEXAS 77063
(281) 404-4438 (281) 253-4849
FIRM NO. 18844



2.0 EXISTING CONDITIONS

A site visit was conducted by MTS to identify the existing conditions, potential issues and type of land uses in the vicinity of the proposed development. The roadways in the vicinity of the proposed site are described in the following section.

Roadways

SH 6 is generally aligned in a north-south direction in the vicinity of the project site. It is a six- lane (three lanes in each direction) principal thoroughfare near the project site. The posted speed limit on SH 6 is 45 miles per hour (mph). Its pavement and pavement markings are in fair to good condition. On the south of proposed development, it intersects with Branch Forest Drive to form an un-signalized T-intersection with stop sign on Branch Forest Drive approach. There are two lanes exiting from Branch Forest Drive as right turn on to SH 6. On the north side, it intersects with Shell Center Access Road to form a signalized intersection. Direct access to the project site will be provided by SH 6.

Branch Forest Drive is generally aligned in an east-west direction in the vicinity of the study area. It is a four-lane (two lanes in each direction) divided collector roadway with curb and gutter. The posted speed limit on this road is 30 mph. Direct access to the project site will be provided by Branch Forest Drive.

Traffic Counts

A traffic counting program was undertaken by MTS on May 1, 2025, by conducting AM and PM peak period turning movement counts, to obtain the existing weekday peak hour traffic data at the analysis intersections.

AM and PM peak hours turning movement counts were collected for the following study intersections located in the vicinity of the project site:

- SH 6 at Shell Center Access Road;
- SH 6 at Branch Forest Drive;
- Branch Forest Drive at Summit Valley Drive.

These volumes were recorded at 15-minute intervals from 6:00 AM to 9:00 AM, 4:00 PM to 7:00 PM during a typical weekday. The existing weekday peak hour intersection traffic data are illustrated in Figure 2-1.

Detailed traffic count spread sheets are included in Appendix A.

3.0 PROJECTED TRAFFIC

Trip Generation

Anticipated AM and PM peak hour trips for the proposed project was projected based on the trip generation procedures recommended by the *Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition)* and based on the anticipated operations of the proposed project.

Table 3-1 presents the trip generation summary for the proposed development. Trip generation computations with Pass by rate table (recommended by ITE) are presented in Appendix B of this report.

Proposed Land Use (ITE Code)	Vehicles Fueling Positions	Gross Floor Area (Sq. feet)	Daily Traffic	AM Peak		PM Peak	
				Enter	Exit	Enter	Exit
Convenience Store/Gas Station (945)	24	6,343	8,140	288	288	249	248
Strip Retail Plaza (Land Use Code 822)		15,043	819	21	14	50	49
Pass-By Trips (ITE recommended 76% during AM peak hour and 75% during PM peak hour for Land Use Code 945)				219	219	187	186
Volume added to the adjacent streets				90	83	112	111

Table 3-1: Trip generation for the proposed development

Background Traffic, Year 2026

The background traffic condition is defined as the condition of traffic at the time of project implementation, without the trips from the proposed project. The background traffic volumes for the analysis intersections were estimated to the Year 2026 by applying a 1 percent compound annual growth rate. This rate was established based on TxDOT's historical annual average daily traffic data

on SH 6, near the project site. The AM and PM background traffic volumes for the study intersections are illustrated in the same Figure 2-1.

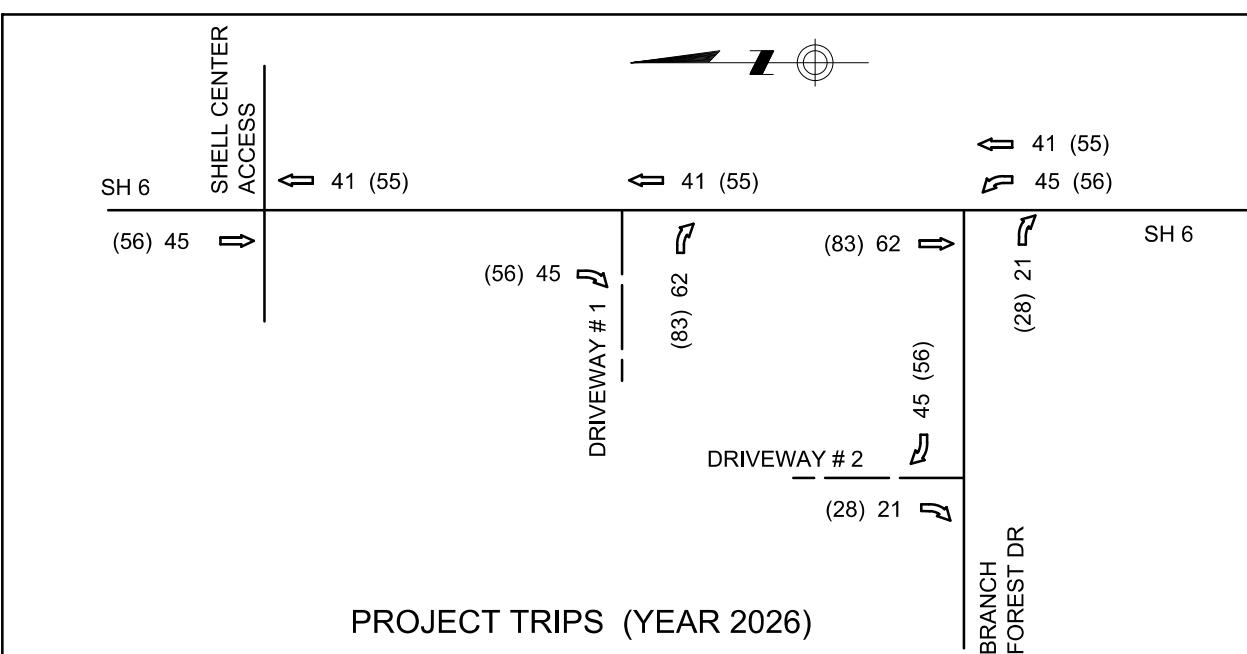
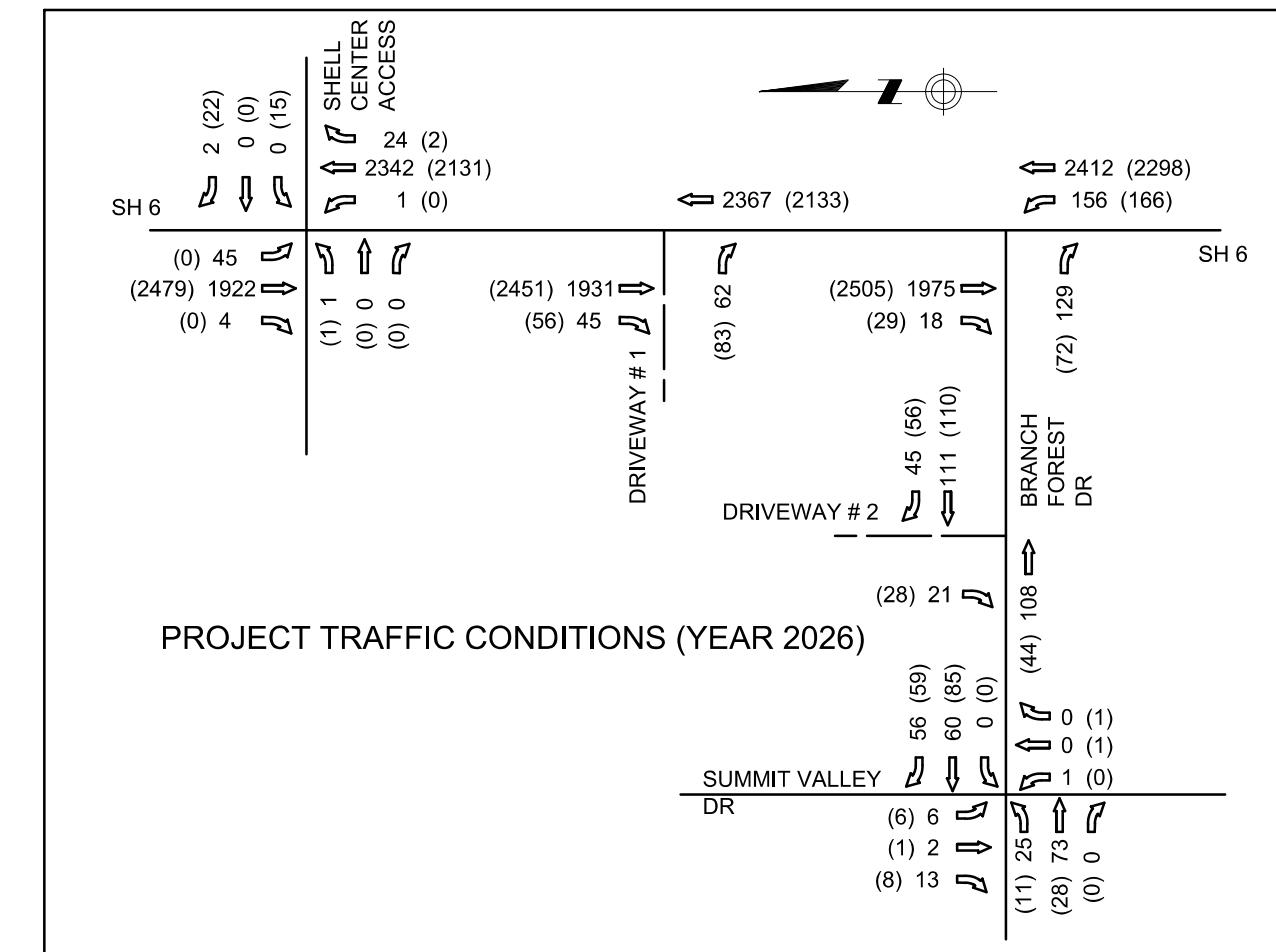
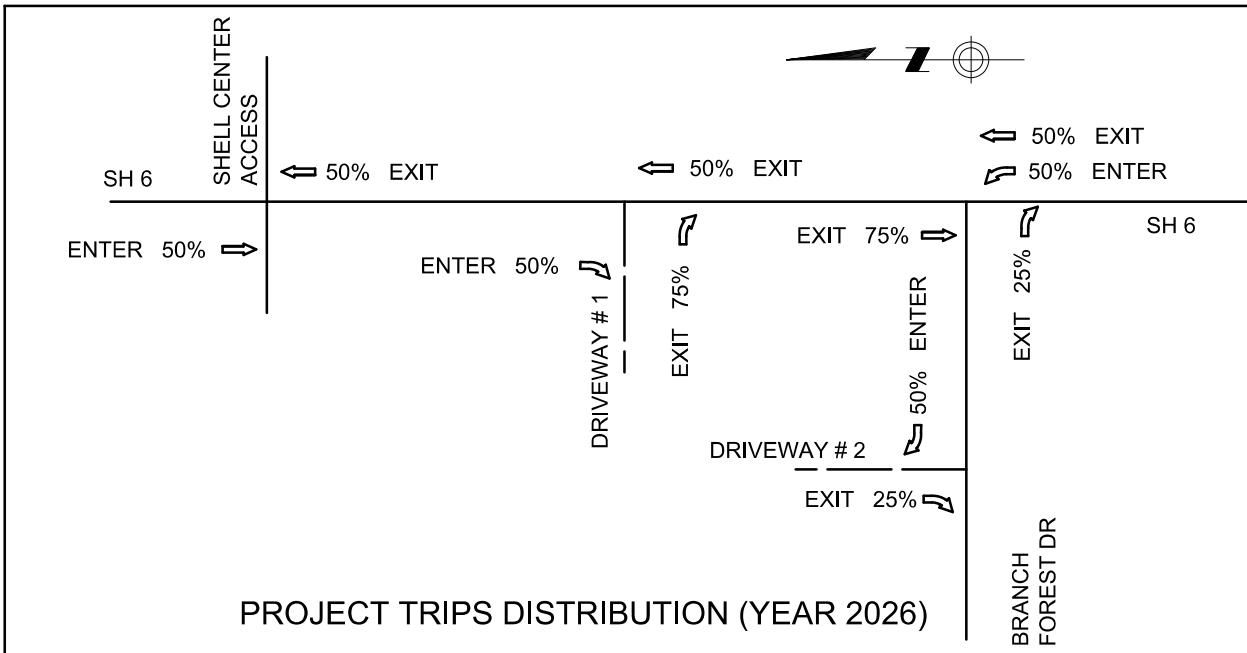
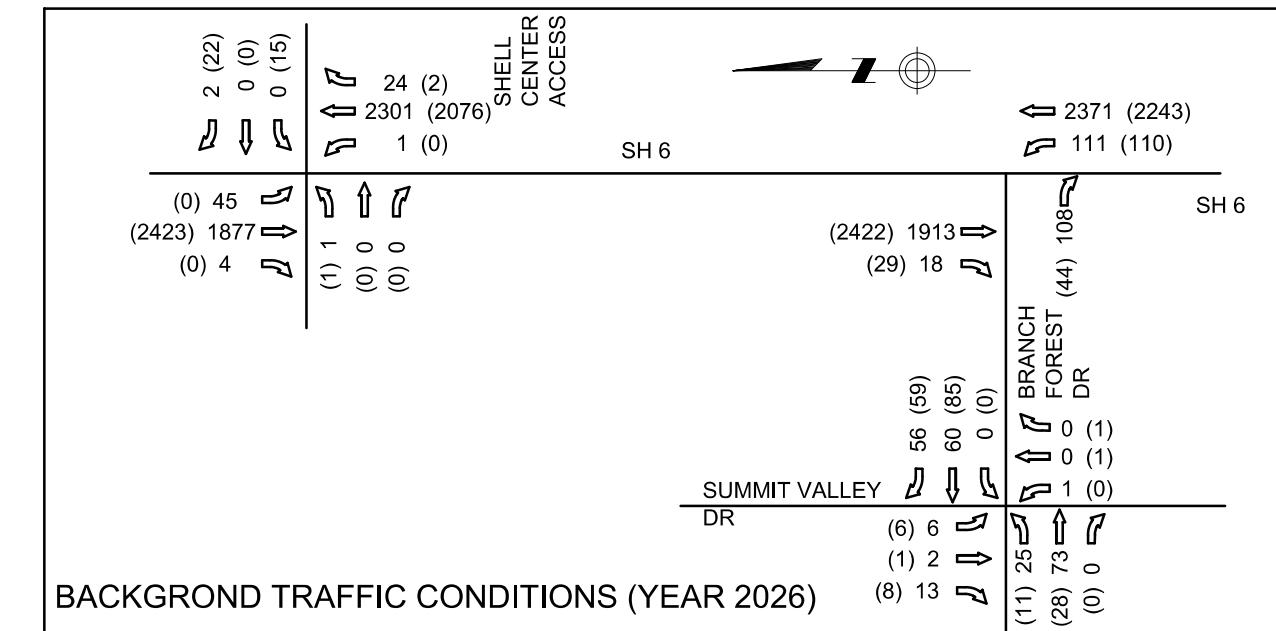
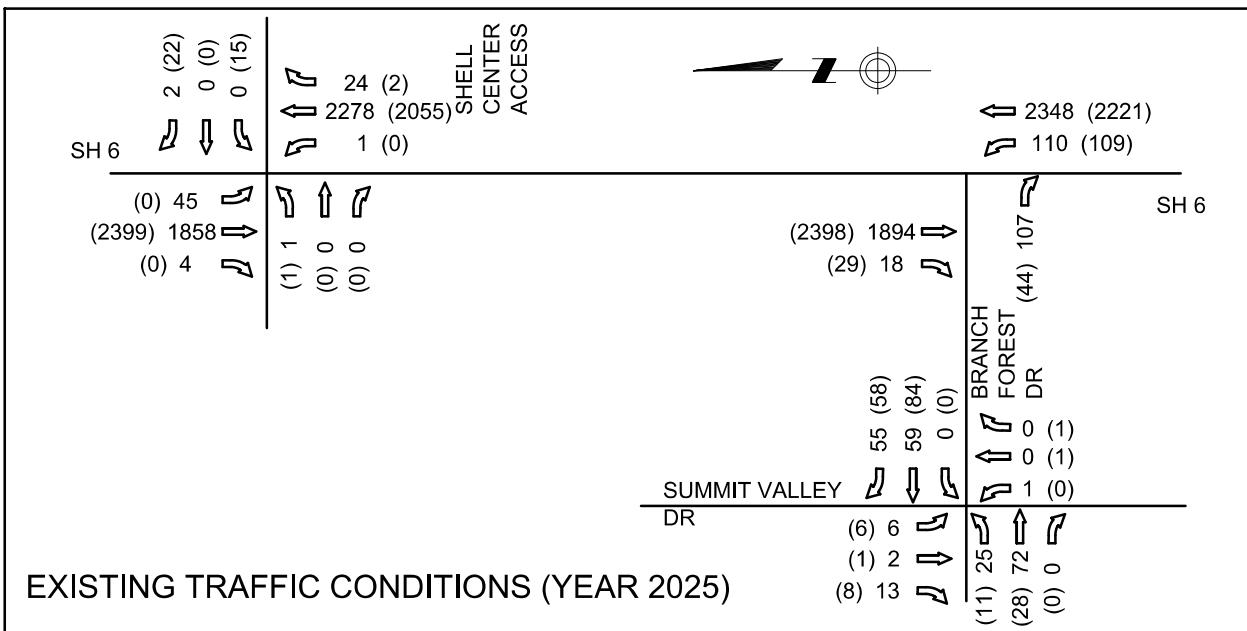
Trip Distribution and Assignment

The estimated trips generated by the proposed development were distributed to the existing and the proposed roadway network in similar proportions, as are the existing traffic patterns. Traffic distribution to and from the new development takes into consideration all possible logical routes, which drivers may take to enter and exit the proposed development.

For the project trips during AM and PM peak hours, it was assumed that 50 percent of the project trips will arrive from southbound SH 6, and the remaining 50 percent from northbound SH 6. It was also assumed that project traffic will be entering as right turn only from SH 6 to Driveway # 1 and from Branch Forest Drive to Driveway # 2. Similarly, project traffic will be exiting as right turn only from Driveway # 1 to SH 6 and from Driveway # 2 Branch Forest Drive. The estimated project trips distribution percentages are presented in Figure 2-1. The anticipated project traffic assignments for the AM and PM peak hours are presented in the same Figure 2-1.

Project Traffic Conditions, Year 2026

The AM and PM peak-hour trip assignments for the project were added to the background (Year 2026) traffic volumes to obtain traffic volumes representing AM and PM peak hour project traffic conditions for the Year 2026. The AM and PM peak hour project condition traffic volumes, for the Year 2026, are presented in the same Figure 2-1.



NOT TO SCALE

XXX - AM PEAK HOUR TRAFFIC VOLUMES
(XXX) - PM PEAK HOUR TRAFFIC VOLUMES

TRAFFIC IMPACT ANALYSIS STUDY - PROPOSED C-STORE DEVELOPMENT NEAR SH 6 AT BRANCH FOREST DR

FIGURE 2-1: TRAFFIC VOLUME DATA

4.0 TRAFFIC ANALYSIS

Level of Service (LOS) Definitions

The concept of Level of Service (LOS) is commonly used to determine the operating conditions of an intersection or a roadway segment. Level of service (LOS), ranging from LOS A to LOS F, is a qualitative measure describing driver satisfaction with a number of factors that influence the degree of traffic congestion. These factors include speed and travel time, traffic interruption, freedom to maneuver, safety, driving comfort and convenience, and delays. Level of Service A, which is the highest level of service, describes a condition of free flow with low volumes. Under LOS A, there is little or no restriction in maneuverability due to the presence of other vehicles and drivers can maintain their desired speeds with little or no delay. LOS C and often LOS D are used for the optimal design of roadway facilities. Level of Service F, the lowest level of service, is described as forced flow and is characterized by volumes greater than the roadway capacity, severe congestion, stop and go conditions on roadway segments and long backups on approaches to signalized intersections. Levels of service for intersections are defined in terms of average delay per vehicle. For this traffic impact analysis study, LOS D is considered the lowest acceptable level of service.

Analysis Tool

In order to evaluate the existing quality of traffic flow and to determine if improvements are necessary, capacity and LOS analysis were performed based on the procedures contained in Highway Capacity Manual (HCM), 6th edition. The input data for these analyses included existing/proposed roadway geometric features, existing/ proposed traffic control at the intersections and peak hour traffic volumes. The analysis software tool SYNCHRO was utilized in this study. It is a macroscopic traffic signal timing tool that is widely used to optimize signal-timing parameters for signalized intersection and generate coordinated traffic signal timing plans for arterials and networks.

Analysis Results

Capacity and LOS analyses were performed for the following conditions during the weekday AM and PM peak hours:

- Existing Conditions, Year 2025- based on existing traffic volumes and existing roadway geometries.
- Background Conditions, Year 2026 - In this Condition, it was assumed that all the existing roadway geometrics and traffic controls within the study network will remain as is and no development takes place. The trip numbers used for analyses are based on the projected traffic volumes. This is the base Condition that provides the basis against which all other Conditions are compared. It gives an idea of how the background traffic will function if no development takes place.
- Project Traffic Conditions, Year 2026 - In this Condition, it was assumed that the proposed development is in place with no improvements to the existing roadway network as well as traffic controls. The trip numbers used for analyses are based on projected traffic volumes plus the project trips. All proposed access driveways are assumed as one lane entering/one lane exiting.

A summary of all analysis results is presented in Tables 4-1 and 4-2 for weekday AM and PM peak hours, respectively. Detailed Level of Service analyses, for the study intersections, are included in Appendix C of this report.

Traffic Impact Analysis – Proposed C-Store Development near SH 6 at Branch Forest Dr

Study Intersections	AM Peak Hour						
	2025 Existing		2026 Background		2026 Project Traffic		
	Delay	LOS	Delay	LOS	Delay	LOS	
Existing Unsignalized Intersections							
SH 6 at Branch Forest Drive	EB	42.1	E	43.6	E	59.4	F
Branch Forest Drive at Summit	NB	10.2	B	10.3	B	10.3	B
Valley Drive	SB	9.7	A	9.7	A	9.7	A
Existing Signalized Intersections							
SH 6 at Shell Center Access Road	EB	43.0	D	43.0	D	43.0	D
	WB	0.0	A	0.0	A	0.0	A
	NB	7.4	A	7.5	A	7.7	A
	SB	6.3	A	6.5	A	6.3	A
	Int.	6.9	A	7.1	A	7.1	A
Proposed Unsignalized Intersections							
SH 6 at Driveway # 1	EB	N/A	N/A	N/A	N/A	35.2	E
Branch Forest Drive at Driveway # 2	SB	N/A	N/A	N/A	N/A	8.9	A

Table 4-1: Summary of analysis results for AM peak hour

Study Intersections	PM Peak Hour						
	2025 Existing		2026 Background		2026 Project Traffic		
	Delay	LOS	Delay	LOS	Delay	LOS	
Existing Unsignalized Intersections							
SH 6 at Branch Forest Drive	EB	45.0	E	46.5	E	68.7	F
Branch Forest Drive at Summit	NB	9.6	A	9.6	A	9.6	A
Valley Drive	SB	9.5	A	9.5	A	9.5	A
Existing Signalized Intersections							
SH 6 at Shell Center Access Road	EB	44.0	D	44.0	D	44.0	D
	WB	16.4	B	16.4	B	16.4	B
	NB	5.9	A	6.0	A	6.1	A
	SB	4.9	A	5.0	A	5.1	A
	Int.	5.5	A	5.5	A	5.7	A
Proposed Unsignalized Intersections							
SH 6 at Driveway # 1	EB	N/A	N/A	N/A	N/A	97.9	F
Branch Forest Drive at Driveway # 2	SB	N/A	N/A	N/A	N/A	8.9	A

Table 4-2: Summary of analysis results for PM peak hour

The signalized intersection of SH 6 at Shell Center Access Road is currently operating at acceptable LOS A, is anticipated to operate at acceptable LOS A under background and project traffic conditions during AM and PM peak hours. The eastbound right turn only traffic from Branch Forest Drive to SH 6 is currently experiencing unacceptable LOS and are anticipated to continue operating at unacceptable LOS E under existing and background traffic conditions during AM and PM peak hours.

The southbound approach of Driveway # 2 at its intersection with Branch Forest Drive is anticipated to operate at acceptable LOS A during AM and PM peak hours under project traffic conditions (Year 2026). The eastbound approach of Driveway # 1 at its intersection with SH 6 is anticipated to operate at unacceptable LOS F during peak hours under project traffic conditions (Year 2026). Since this driveway will function as right in right out only and delays will only be experienced by right turn low volume traffic only, no mitigations are proposed for this intersection. This LOS will only be experienced by those traffic exiting from minor approach (Driveway # 1) as right turn only.

Right Turn Deceleration Lane Warrant Analysis

A southbound right turn deceleration lane warrant analysis was conducted based on the posted speed limit of 45 mph along SH 6 and the anticipated right turn traffic volumes from SH 6 to Driveway # 1 (56 vehicles/hour during worst peak). The analysis was performed based on the guidelines specified in the TxDOT's Access Management Manual (latest edition). The threshold right turn volume to warrant a right turn deceleration lane is 60 vehicles per hour according to the TxDOT's Access Management Manual for speed limit less than or equal to 45 mph. Therefore, A southbound right turn deceleration lane is not warranted along SH 6 at Driveway # 1.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Field investigation, traffic data, and traffic engineering analyses assisted in developing the existing and projected roadway conditions and traffic operations in the study network. The anticipated trips generated by the proposed project were estimated and evaluated based on guidelines developed by the Institute of Transportation Engineers. Trip distribution and traffic assignments were conducted based on existing traffic patterns and travel characteristics. Capacity and LOS analyses were

conducted for the study intersections under various conditions during AM and PM peak hours. Based on the analyses, the proposed development is expected not to have any major impacts to the traffic operations in the study area.

Proposed Recommendations

- Configure Driveway # 1 and Driveway # 2 as one lane entering and one lane exiting.
- Configure Driveway # 1 as right in right out only.
- Configure Driveway # 2 as right in right out only.

Appendix A
EXISTING TRAFFIC COUNTS

1. SH 6 at Branch Forest Dr - TMC

Thu May 1, 2025

Full Length (6 AM-9 AM, 4 PM-7 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1293513, Location: 29.723756, -95.64406

cj hensch & associates

Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	SH 6 Southbound					SH 6 Northbound					Branch Forest Dr Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2025-05-01 6:00AM	1	218	0	219	0	341	6	1	348	0	7	0	0	7	0	574
6:15AM	2	298	0	300	0	437	4	0	441	0	8	0	0	8	0	749
6:30AM	2	393	0	395	0	532	5	2	539	1	10	0	0	10	0	944
6:45AM	2	408	0	410	0	573	9	1	583	0	32	0	0	32	0	1025
Hourly Total	7	1317	0	1324	0	1883	24	4	1911	1	57	0	0	57	0	3292
7:00AM	4	449	0	453	0	576	16	3	595	0	25	0	0	25	0	1073
7:15AM	3	492	0	495	0	619	25	4	648	0	21	0	0	21	3	1164
7:30AM	5	516	0	521	0	606	25	2	633	0	24	0	0	24	1	1178
7:45AM	6	437	0	443	0	547	44	0	591	0	37	0	0	37	1	1071
Hourly Total	18	1894	0	1912	0	2348	110	9	2467	0	107	0	0	107	5	4486
8:00AM	5	450	0	455	0	544	30	2	576	0	32	0	2	34	0	1065
8:15AM	3	430	0	433	0	598	20	0	618	0	14	0	0	14	4	1065
8:30AM	0	451	0	451	0	524	20	4	548	0	12	0	0	12	0	1011
8:45AM	4	395	0	399	0	476	23	3	502	0	16	0	0	16	1	917
Hourly Total	12	1726	0	1738	0	2142	93	9	2244	0	74	0	2	76	5	4058
4:00PM	9	574	0	583	0	575	24	5	604	0	9	0	2	11	0	1198
4:15PM	9	569	0	578	0	547	18	8	573	0	14	0	0	14	0	1165
4:30PM	10	590	0	600	0	496	16	7	519	0	5	0	2	7	0	1126
4:45PM	6	526	0	532	0	504	26	4	534	0	22	0	0	22	0	1088
Hourly Total	34	2259	0	2293	0	2122	84	24	2230	0	50	0	4	54	0	4577
5:00PM	4	623	0	627	0	595	29	3	627	0	11	0	0	11	4	1265
5:15PM	8	615	0	623	0	557	25	7	589	0	17	0	0	17	0	1229
5:30PM	12	547	0	559	0	556	27	8	591	0	7	0	0	7	4	1157
5:45PM	5	613	0	618	0	513	28	7	548	0	9	0	0	9	2	1175
Hourly Total	29	2398	0	2427	0	2221	109	25	2355	0	44	0	0	44	10	4826
6:00PM	13	542	0	555	0	489	19	10	518	0	8	0	0	8	1	1081
6:15PM	10	537	0	547	0	461	17	6	484	0	8	0	0	8	1	1039
6:30PM	6	564	0	570	0	490	19	4	513	0	8	0	0	8	4	1091
6:45PM	3	523	0	526	0	492	26	10	528	0	9	0	0	9	1	1063
Hourly Total	32	2166	0	2198	0	1932	81	30	2043	0	33	0	0	33	7	4274
Total	132	11760	0	11892	0	12648	501	101	13250	1	365	0	6	371	27	25513
% Approach	1.1%	98.9%	0%	-	-	95.5%	3.8%	0.8%	-	-	98.4%	0%	1.6%	-	-	-
% Total	0.5%	46.1%	0%	46.6%	-	49.6%	2.0%	0.4%	51.9%	-	1.4%	0%	0%	1.5%	-	-
Lights	119	11594	0	11713	-	12488	495	101	13084	-	354	0	6	360	-	25157
% Lights	90.2%	98.6%	0%	98.5%	-	98.7%	98.8%	100%	98.7%	-	97.0%	0%	100%	97.0%	-	98.6%
Articulated Trucks	0	43	0	43	-	49	0	0	49	-	0	0	0	0	-	92
% Articulated Trucks	0%	0.4%	0%	0.4%	-	0.4%	0%	0%	0.4%	-	0%	0%	0%	0%	-	0.4%
Buses and Single-Unit Trucks	13	123	0	136	-	111	6	0	117	-	11	0	0	11	-	264
% Buses and Single-Unit Trucks	9.8%	1.0%	0%	1.1%	-	0.9%	1.2%	0%	0.9%	-	3.0%	0%	0%	3.0%	-	1.0%
Pedestrians	-	-	-	-	0	-	-	-	-	1	-	-	-	-	27	
% Pedestrians	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	0%	

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

1. SH 6 at Branch Forest Dr - TMC

Thu May 1, 2025

Full Length (6 AM-9 AM, 4 PM-7 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1293513, Location: 29.723756, -95.64406

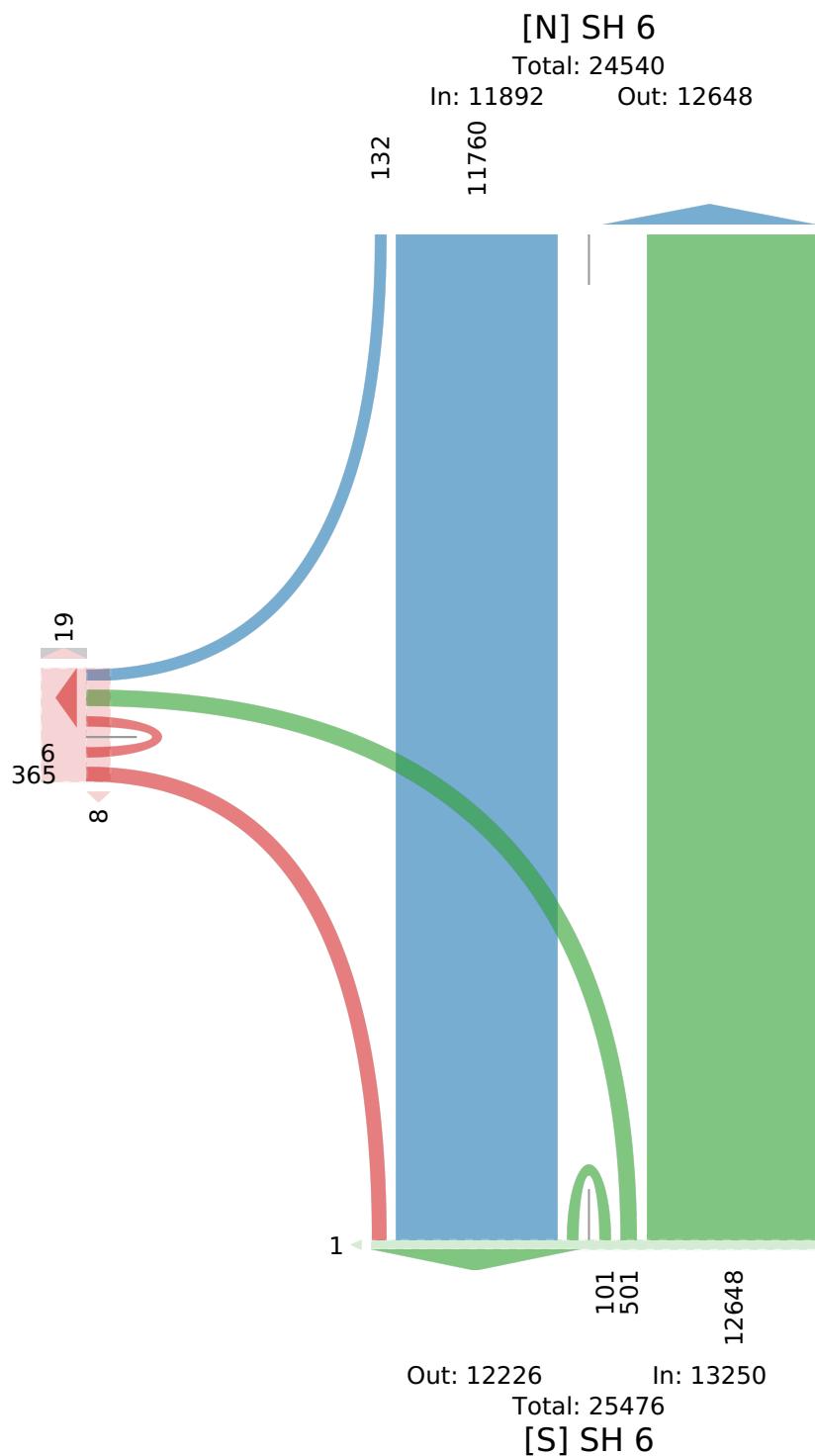
cj hensch & associates

Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

[W] Branch Forest Dr
Total: 1010
In: 371 Out: 639



1. SH 6 at Branch Forest Dr - TMC

Thu May 1, 2025

AM Peak (7 AM - 8 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1293513, Location: 29.723756, -95.64406



Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	SH 6 Southbound					SH 6 Northbound					Branch Forest Dr Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2025-05-01 7:00AM	4	449	0	453	0	576	16	3	595	0	25	0	0	25	0	1073
7:15AM	3	492	0	495	0	619	25	4	648	0	21	0	0	21	3	1164
7:30AM	5	516	0	521	0	606	25	2	633	0	24	0	0	24	1	1178
7:45AM	6	437	0	443	0	547	44	0	591	0	37	0	0	37	1	1071
Total	18	1894	0	1912	0	2348	110	9	2467	0	107	0	0	107	5	4486
% Approach	0.9%	99.1%	0%	-	-	95.2%	4.5%	0.4%	-	-	100%	0%	0%	-	-	-
% Total	0.4%	42.2%	0%	42.6%	-	52.3%	2.5%	0.2%	55.0%	-	2.4%	0%	0%	2.4%	-	-
PHF	0.750	0.918	-	0.917	-	0.948	0.625	0.563	0.952	-	0.723	-	-	0.723	-	0.952
Lights	13	1869	0	1882	-	2313	109	9	2431	-	103	0	0	103	-	4416
% Lights	72.2%	98.7%	0%	98.4%	-	98.5%	99.1%	100%	98.5%	-	96.3%	0%	0%	96.3%	-	98.4%
Articulated Trucks	0	7	0	7	-	9	0	0	9	-	0	0	0	0	-	16
% Articulated Trucks	0%	0.4%	0%	0.4%	-	0.4%	0%	0%	0.4%	-	0%	0%	0%	0%	-	0.4%
Buses and Single-Unit Trucks	5	18	0	23	-	26	1	0	27	-	4	0	0	4	-	54
% Buses and Single-Unit Trucks	27.8%	1.0%	0%	1.2%	-	1.1%	0.9%	0%	1.1%	-	3.7%	0%	0%	3.7%	-	1.2%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	5	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

1. SH 6 at Branch Forest Dr - TMC

Thu May 1, 2025

AM Peak (7 AM - 8 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1293513, Location: 29.723756, -95.64406

cj hensch & associates

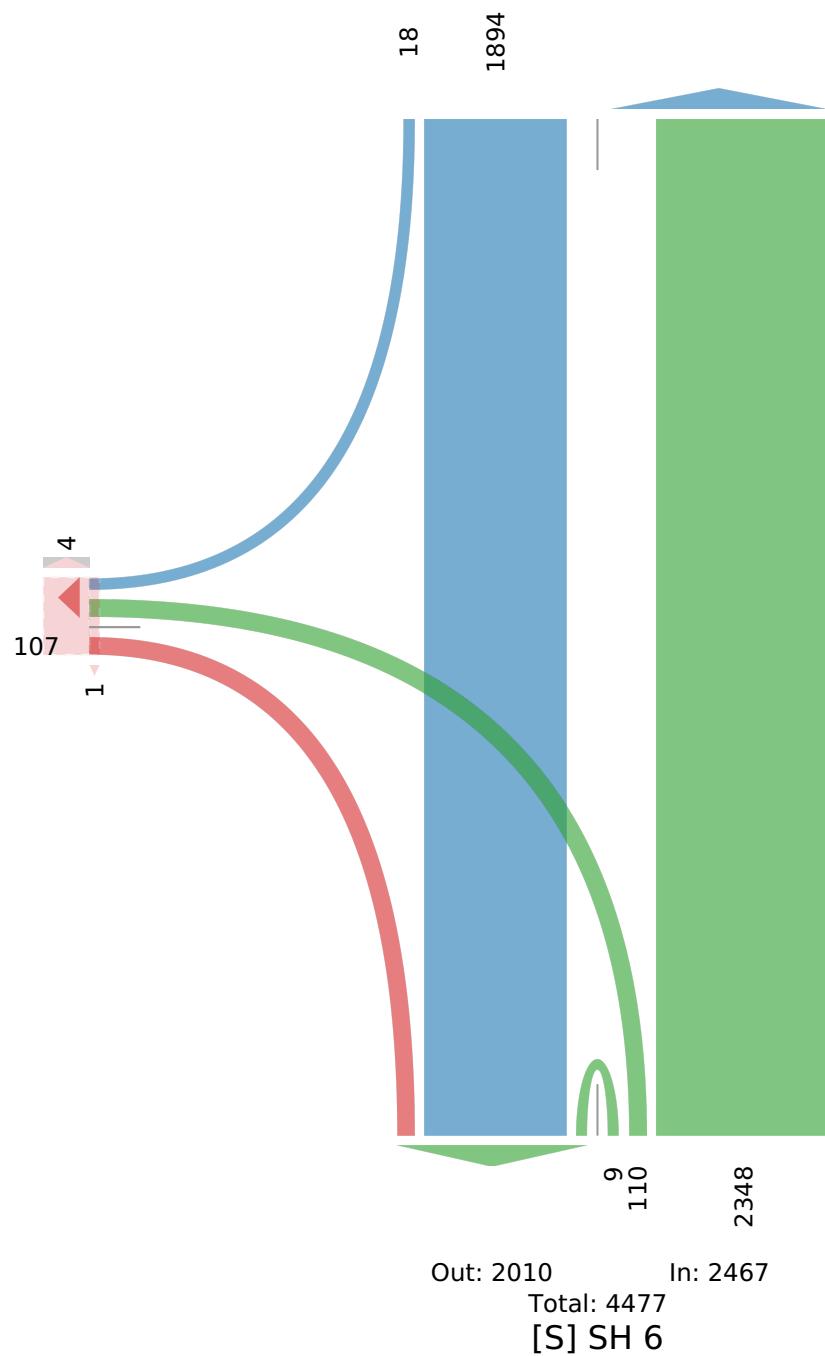
Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

[W] Branch Forest Dr
Total: 235
In: 107 Out: 128

[N] SH 6
Total: 4260
In: 1912 Out: 2348



1. SH 6 at Branch Forest Dr - TMC

Thu May 1, 2025

PM Peak (5 PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1293513, Location: 29.723756, -95.64406



Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	SH 6 Southbound					SH 6 Northbound					Branch Forest Dr Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2025-05-01 5:00PM	4	623	0	627	0	595	29	3	627	0	11	0	0	11	4	1265
5:15PM	8	615	0	623	0	557	25	7	589	0	17	0	0	17	0	1229
5:30PM	12	547	0	559	0	556	27	8	591	0	7	0	0	7	4	1157
5:45PM	5	613	0	618	0	513	28	7	548	0	9	0	0	9	2	1175
Total	29	2398	0	2427	0	2221	109	25	2355	0	44	0	0	44	10	4826
% Approach	1.2%	98.8%	0%	-	-	94.3%	4.6%	1.1%	-	-	100%	0%	0%	-	-	-
% Total	0.6%	49.7%	0%	50.3%	-	46.0%	2.3%	0.5%	48.8%	-	0.9%	0%	0%	0.9%	-	-
PHF	0.604	0.962	-	0.968	-	0.933	0.940	0.781	0.939	-	0.647	-	-	0.647	-	0.954
Lights	28	2364	0	2392	-	2191	108	25	2324	-	42	0	0	42	-	4758
% Lights	96.6%	98.6%	0%	98.6%	-	98.6%	99.1%	100%	98.7%	-	95.5%	0%	0%	95.5%	-	98.6%
Articulated Trucks	0	5	0	5	-	6	0	0	6	-	0	0	0	0	-	11
% Articulated Trucks	0%	0.2%	0%	0.2%	-	0.3%	0%	0%	0.3%	-	0%	0%	0%	0%	-	0.2%
Buses and Single-Unit Trucks	1	29	0	30	-	24	1	0	25	-	2	0	0	2	-	57
% Buses and Single-Unit Trucks	3.4%	1.2%	0%	1.2%	-	1.1%	0.9%	0%	1.1%	-	4.5%	0%	0%	4.5%	-	1.2%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	10	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

1. SH 6 at Branch Forest Dr - TMC

Thu May 1, 2025

PM Peak (5 PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1293513, Location: 29.723756, -95.64406

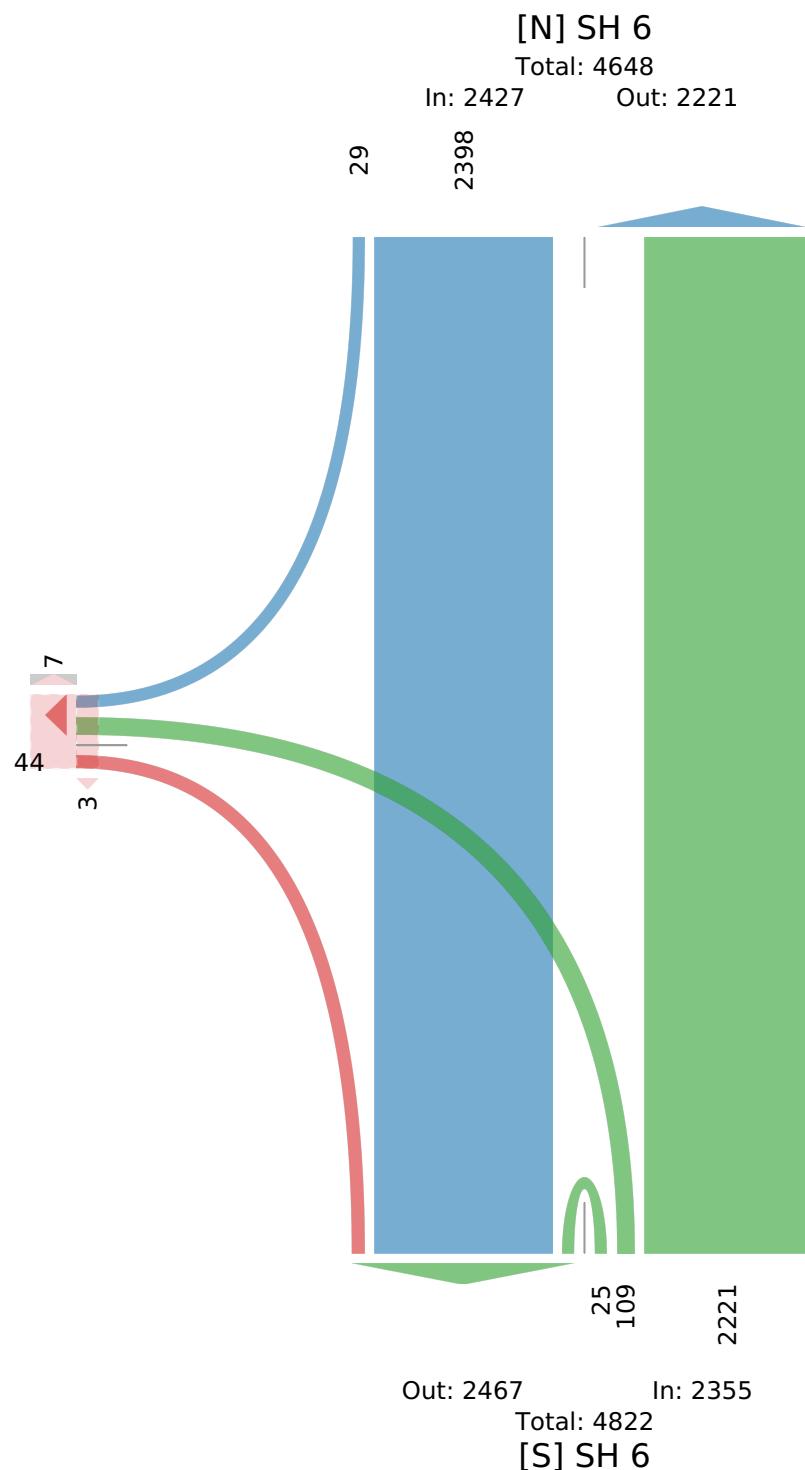
cj hensch & associates

Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

[W] Branch Forest Dr
Total: 182
In: 44 Out: 138



2. SH 6 at Shell Center Access Rd - TMC

Thu May 1, 2025

Full Length (6 AM-9 AM, 4 PM-7 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1293514, Location: 29.725939, -95.64396



Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	SH 6 Southbound						Shell Center Access Rd Westbound						SH 6 Northbound						Unnamed Drwy Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-05-01 6:00AM	0	210	3	0	213	1	0	0	0	0	0	0	4	332	0	0	336	0	0	0	0	0	0	0	549
6:15AM	0	290	2	2	294	0	0	0	0	0	0	0	10	415	0	0	425	0	0	0	0	0	0	0	719
6:30AM	0	393	7	3	403	0	0	0	0	0	0	0	17	489	0	0	506	0	0	0	0	0	0	1	909
6:45AM	0	430	12	0	442	0	0	0	0	0	0	0	15	527	0	0	542	0	0	0	0	0	0	0	984
Hourly Total	0	1323	24	5	1352	1	0	0	0	0	0	0	46	1763	0	0	1809	0	0	0	0	0	0	1	3161
7:00AM	1	456	9	2	468	0	0	0	1	0	1	0	12	509	0	0	521	0	0	0	0	0	0	0	990
7:15AM	0	472	7	4	483	1	0	0	0	0	0	0	4	597	0	0	601	0	0	0	0	0	0	1	1084
7:30AM	1	503	13	5	522	0	2	0	0	0	2	0	9	606	0	0	615	0	0	0	0	0	0	2	1139
7:45AM	2	430	13	4	449	0	0	0	0	0	0	0	6	555	1	1	563	0	0	0	0	0	0	2	1012
Hourly Total	4	1861	42	15	1922	1	2	0	1	0	3	0	31	2267	1	1	2300	0	0	0	0	0	0	5	4225
8:00AM	1	453	12	5	471	0	0	0	0	0	0	0	5	520	0	2	527	0	0	0	1	0	1	1	999
8:15AM	0	416	11	1	428	0	1	0	0	0	1	0	4	553	1	1	559	0	0	0	0	0	0	3	988
8:30AM	1	424	6	0	431	0	1	0	0	0	1	0	12	513	0	2	527	0	0	0	0	0	0	1	959
8:45AM	1	391	9	3	404	0	0	0	0	0	0	0	3	507	1	0	511	0	0	0	0	0	0	0	915
Hourly Total	3	1684	38	9	1734	0	2	0	0	0	2	0	24	2093	2	5	2124	0	0	0	1	0	1	5	3861
4:00PM	0	559	0	8	567	0	8	0	11	0	19	0	0	583	0	2	585	0	1	0	0	0	1	0	1172
4:15PM	0	586	0	2	588	1	10	0	7	0	17	0	0	535	0	1	536	0	0	0	0	0	0	0	1141
4:30PM	0	538	0	1	539	1	15	0	23	0	38	0	0	535	0	1	536	0	1	0	0	0	1	1	1114
4:45PM	0	520	0	0	520	0	17	0	7	0	24	1	1	518	0	1	520	0	0	0	0	0	0	0	1064
Hourly Total	0	2203	0	11	2214	2	50	0	48	0	98	1	1	2171	0	5	2177	0	2	0	0	0	2	1	4491
5:00PM	0	587	0	3	590	0	6	0	11	1	18	0	0	570	0	3	573	0	0	0	0	0	0	0	1181
5:15PM	0	513	1	2	516	0	14	0	9	0	23	0	0	553	0	1	554	0	0	0	0	0	0	0	1093
5:30PM	0	575	0	3	578	0	5	0	5	0	10	0	0	530	0	1	531	0	0	0	0	0	0	0	1119
5:45PM	0	600	0	0	600	1	4	0	4	0	8	0	1	491	0	3	495	0	0	0	0	0	0	0	1103
Hourly Total	0	2275	1	8	2284	1	29	0	29	1	59	0	1	2144	0	8	2153	0	0	0	0	0	0	0	4496
6:00PM	0	630	0	3	633	0	5	0	4	0	9	0	1	539	0	0	540	0	1	0	0	0	1	1	1183
6:15PM	0	594	0	2	596	1	8	0	2	0	10	1	0	495	0	0	495	0	0	0	0	0	0	0	1101
6:30PM	0	567	0	5	572	0	2	0	2	0	4	0	0	511	0	0	511	0	0	0	0	0	0	2	1087
6:45PM	0	509	0	4	513	0	2	0	1	0	3	0	0	475	0	1	476	0	0	0	0	0	0	2	992
Hourly Total	0	2300	0	14	2314	1	17	0	9	0	26	1	1	2020	0	1	2022	0	1	0	0	0	1	5	4363
Total	7	11646	105	62	11820	6	100	0	87	1	188	2	104	12458	3	20	12585	0	3	0	1	0	4	17	24597
% Approach	0.1%	98.5%	0.9%	0.5%	-	-	53.2%	0%	46.3%	0.5%	-	-	0.8%	99.0%	0%	0.2%	-	75.0%	0%	25.0%	0%	-	-	-	-
% Total	0%	47.3%	0.4%	0.3%	48.1%	-	0.4%	0%	0.4%	0%	0.8%	-	0.4%	50.6%	0%	0.1%	51.2%	-	0%	0%	0%	0%	0%	-	-
Lights	7	11464	105	62	11638	-	100	0	87	1	188	-	104	12286	3	20	12413	-	3	0	1	0	4	-	24243
% Lights	100%	98.4%	100%	100%	98.5%	-	100%	0%	100%	100%	100%	-	100%	98.6%	100%	100%	98.6%	-	100%	0%	100%	0%	100%	-	98.6%
Articulated Trucks	0	46	0	0	46	-	0	0	0	0	0	-	0	54	0	0	54	-	0	0	0	0	0	-	100
% Articulated Trucks	0%	0.4%	0%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0%	0.4%	0%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0.4%
Buses and Single-Unit Trucks	0	136	0	0	136	-	0	0	0	0	0	-	0	118	0	0	118	-	0	0	0	0	0	-	254
% Buses and Single-Unit Trucks	0%	1.2%	0%	0%	1.2%	-	0%	0%	0%	0%	0%	-	0%	0.9%	0%	0%	0.9%	-	0%	0%	0%	0%	0%	-	1.0%
Pedestrians	-	-	-	-	-	6	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	17	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	50.0%	-	-	-	-	-	-	-	-	-	-	-	-	100%
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	50.0%	-	-	-	-	-	-	-	-	-	-	-	0%	

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

2. SH 6 at Shell Center Access Rd - TMC

Thu May 1, 2025

Full Length (6 AM-9 AM, 4 PM-7 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

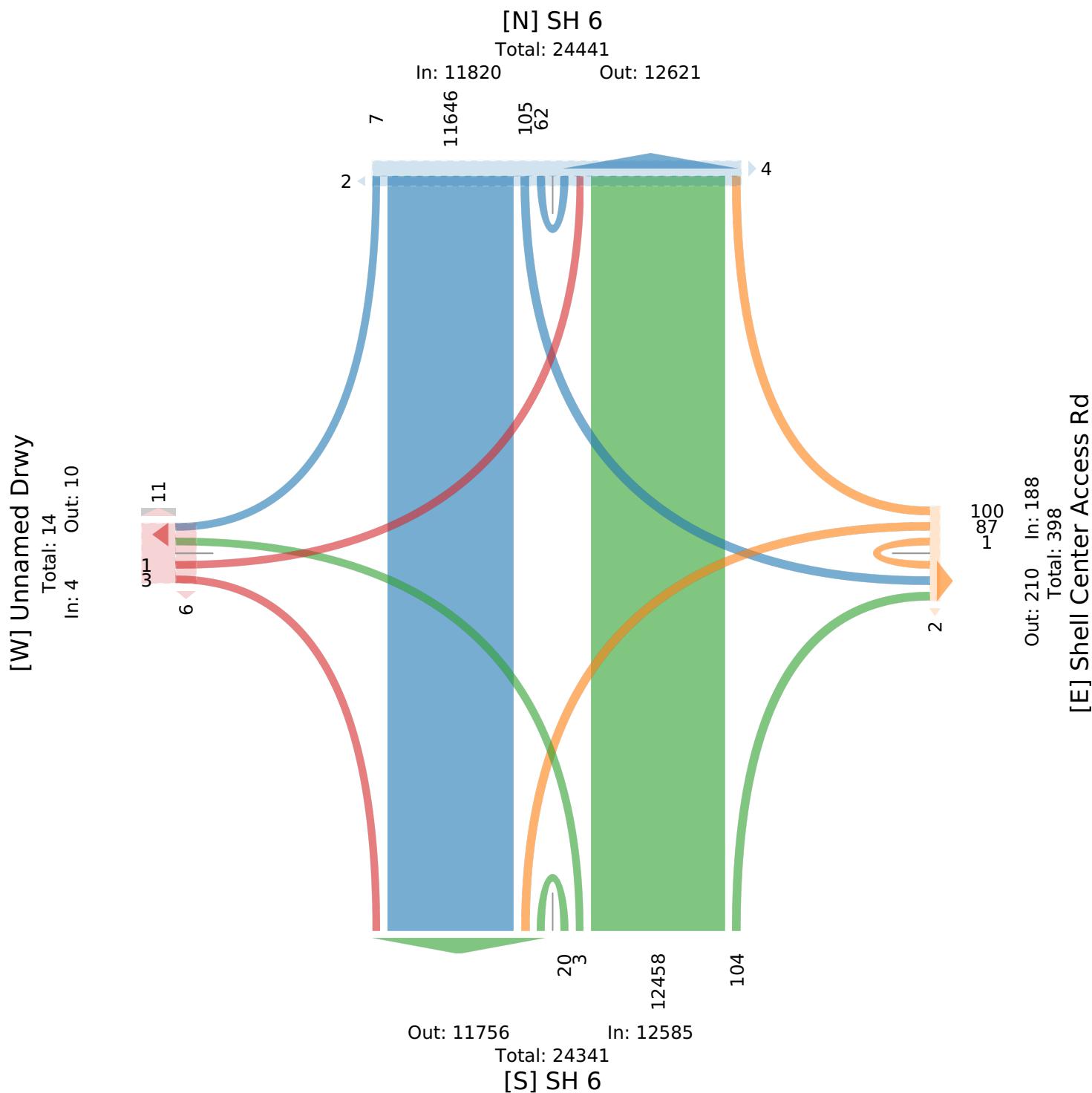
ID: 1293514, Location: 29.725939, -95.64396

cj hensch & associates

Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US



2. SH 6 at Shell Center Access Rd - TMC

Thu May 1, 2025

AM Peak (7:15 AM - 8:15 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1293514, Location: 29.725939, -95.64396

cj hensch & associates

Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	SH 6 Southbound						Shell Center Access Rd Westbound						SH 6 Northbound						Unnamed Drwy Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-05-01 7:15AM	0	472	7	4	483	1	0	0	0	0	0	0	4	597	0	0	601	0	0	0	0	0	0	1	1084
7:30AM	1	503	13	5	522	0	2	0	0	0	2	0	9	606	0	0	615	0	0	0	0	0	0	2	1139
7:45AM	2	430	13	4	449	0	0	0	0	0	0	0	6	555	1	1	563	0	0	0	0	0	0	2	1012
8:00AM	1	453	12	5	471	0	0	0	0	0	0	0	5	520	0	2	527	0	0	0	1	0	1	1	999
Total	4	1858	45	18	1925	1	2	0	0	0	2	0	24	2278	1	3	2306	0	0	0	1	0	1	6	4234
% Approach	0.2%	96.5%	2.3%	0.9%	-	-	100%	0%	0%	0%	-	-	1.0%	98.8%	0%	0.1%	-	-	0%	0%	100%	0%	-	-	-
% Total	0.1%	43.9%	1.1%	0.4%	45.5%	-	0%	0%	0%	0%	-	-	0.6%	53.8%	0%	0.1%	54.5%	-	0%	0%	0%	0%	0%	-	-
PHF	0.500	0.923	0.865	0.900	0.922	-	0.250	-	-	-	0.250	-	0.667	0.940	0.250	0.375	0.937	-	-	-	0.250	-	0.250	-	0.929
Lights	4	1827	45	18	1894	-	2	0	0	0	2	-	24	2238	1	3	2266	-	0	0	1	0	1	-	4163
% Lights	100%	98.3%	100%	100%	98.4%	-	100%	0%	0%	0%	100%	-	100%	98.2%	100%	100%	98.3%	-	0%	0%	100%	0%	100%	-	98.3%
Articulated Trucks	0	7	0	0	7	-	0	0	0	0	0	-	0	11	0	0	11	-	0	0	0	0	0	-	18
% Articulated Trucks	0%	0.4%	0%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0%	0.5%	0%	0%	0.5%	-	0%	0%	0%	0%	0%	-	0.4%
Buses and Single-Unit Trucks	0	24	0	0	24	-	0	0	0	0	0	-	0	29	0	0	29	-	0	0	0	0	0	-	53
% Buses and Single-Unit Trucks	0%	1.3%	0%	0%	1.2%	-	0%	0%	0%	0%	0%	-	0%	1.3%	0%	0%	1.3%	-	0%	0%	0%	0%	0%	-	1.3%
Pedestrians	-	-	-	-	-	1	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	6	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

2. SH 6 at Shell Center Access Rd - TMC

Thu May 1, 2025

AM Peak (7:15 AM - 8:15 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

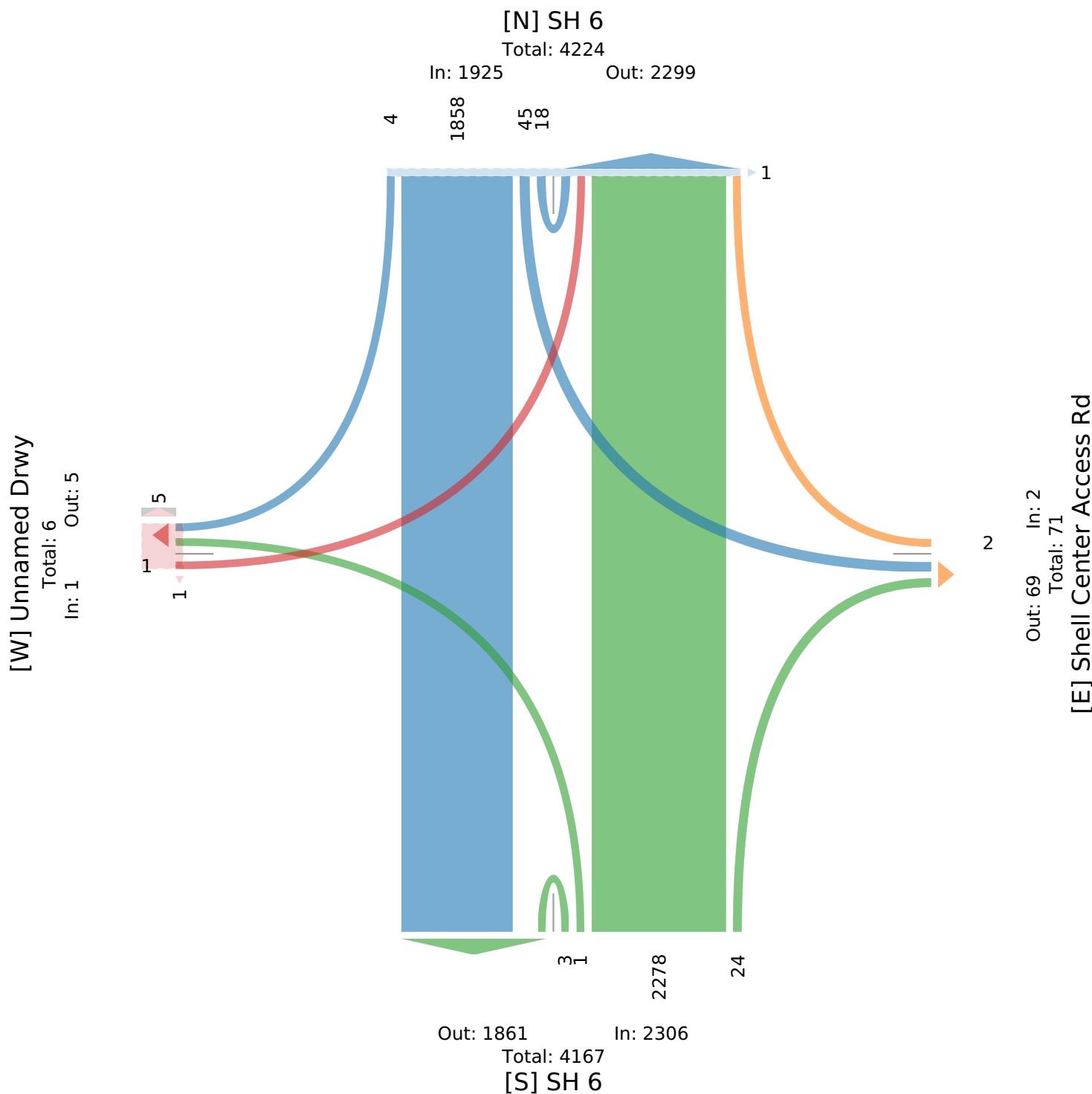
ID: 1293514, Location: 29.725939, -95.64396

cj hensch & associates

Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US



2. SH 6 at Shell Center Access Rd - TMC

Thu May 1, 2025

PM Peak (5:30 PM - 6:30 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1293514, Location: 29.725939, -95.64396

cj hensch & associates

Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	SH 6 Southbound						Shell Center Access Rd Westbound						SH 6 Northbound						Unnamed Drwy Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-05-01 5:30PM	0	575	0	3	578	0	5	0	5	0	10	0	0	530	0	1	531	0	0	0	0	0	0	0	1119
5:45PM	0	600	0	0	600	1	4	0	4	0	8	0	1	491	0	3	495	0	0	0	0	0	0	0	1103
6:00PM	0	630	0	3	633	0	5	0	4	0	9	0	1	539	0	0	540	0	1	0	0	0	1	1	1183
6:15PM	0	594	0	2	596	1	8	0	2	0	10	1	0	495	0	0	495	0	0	0	0	0	0	0	1101
Total	0	2399	0	8	2407	2	22	0	15	0	37	1	2	2055	0	4	2061	0	1	0	0	0	1	1	4506
% Approach	0%	99.7%	0%	0.3%	-	-	59.5%	0%	40.5%	0%	-	-	0.1%	99.7%	0%	0.2%	-	100%	0%	0%	0%	-	-	-	-
% Total	0%	53.2%	0%	0.2%	53.4%	-	0.5%	0%	0.3%	0%	0.8%	-	0%	45.6%	0%	0.1%	45.7%	-	0%	0%	0%	0%	0%	-	-
PHF	-	0.952	-	-0.667	0.951	-	0.688	-	0.750	-	-0.925	-	0.500	0.953	-	-0.333	0.954	-	0.250	-	-	-	-0.250	-	0.952
Lights	0	2369	0	8	2377	-	22	0	15	0	37	-	2	2036	0	4	2042	-	1	0	0	0	1	-	4457
% Lights	0%	98.7%	0%	100%	98.8%	-	100%	0%	100%	0%	100%	-	100%	99.1%	0%	100%	99.1%	-	100%	0%	0%	0%	100%	-	98.9%
Articulated Trucks	0	8	0	0	8	-	0	0	0	0	0	-	0	2	0	0	2	-	0	0	0	0	0	-	10
% Articulated Trucks	0%	0.3%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0.2%
Buses and Single-Unit Trucks	0	22	0	0	22	-	0	0	0	0	0	-	0	17	0	0	17	-	0	0	0	0	0	-	39
% Buses and Single-Unit Trucks	0%	0.9%	0%	0%	0.9%	-	0%	0%	0%	0%	0%	-	0%	0.8%	0%	0%	0.8%	-	0%	0%	0%	0%	0%	-	0.9%
Pedestrians	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	100%	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	0%	

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

2. SH 6 at Shell Center Access Rd - TMC

Thu May 1, 2025

PM Peak (5:30 PM - 6:30 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1293514, Location: 29.725939, -95.64396

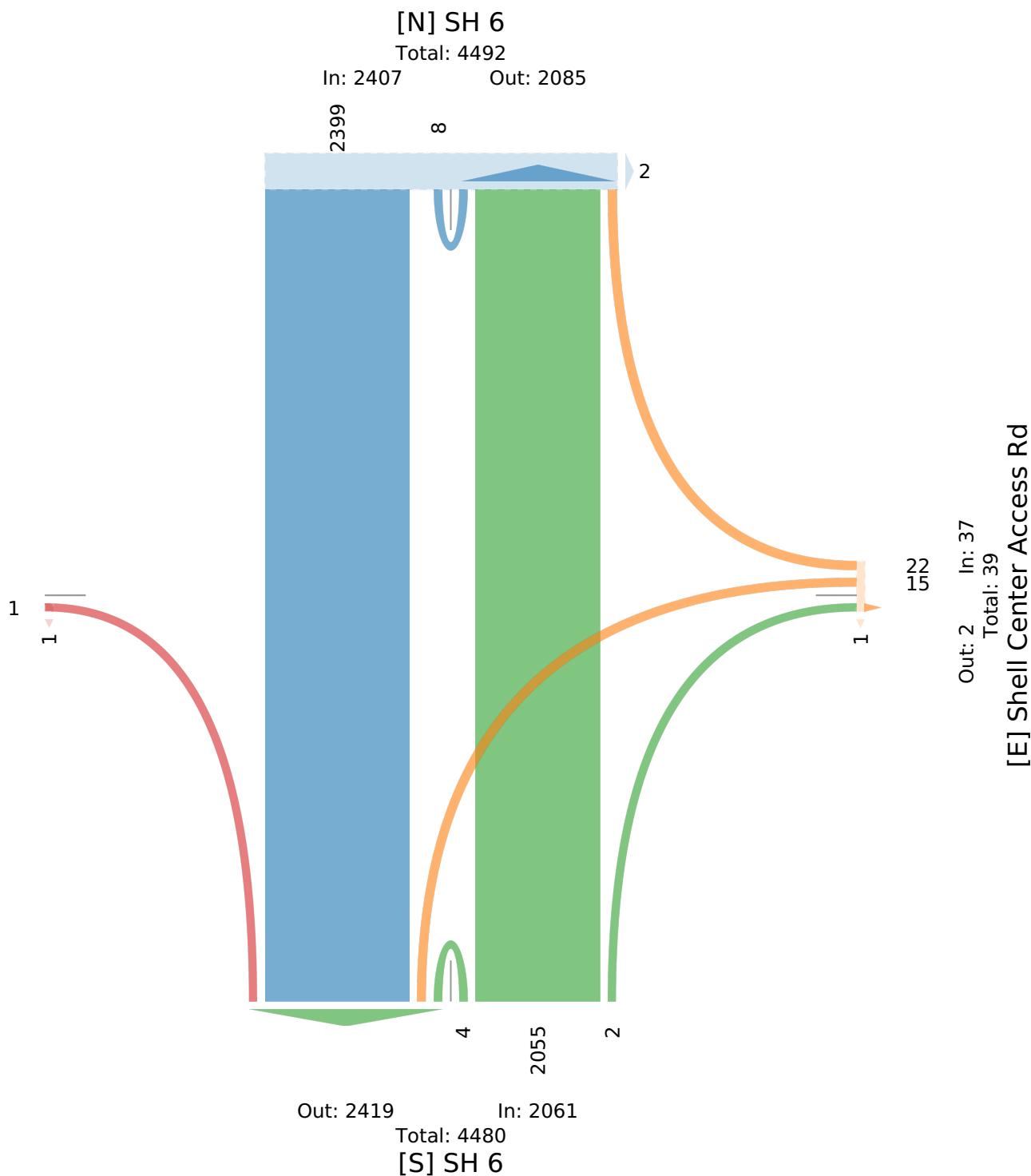
cj hensch & associates

Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

[W] Unnamed Drwy
Total: 1
In: 1 Out: 0



Branch Forest Dr at Summit Valley - TMC

Thu Aug 14, 2025

Full Length (6 AM-9 AM, 4 PM-7 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1326164, Location: 29.724398, -95.649824

cj hensch & associates

Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Summit Valley Southbound						Branch Forest Dr Westbound						Summit Valley Northbound						Branch Forest Dr Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-08-14 6:00AM	1	0	0	0	1	0	2	6	0	0	8	0	0	0	0	0	0	0	0	8	1	0	9	0	18
6:15AM	0	0	0	0	0	0	4	8	0	0	12	0	0	0	0	0	0	0	0	7	7	0	14	0	26
6:30AM	2	0	4	0	6	0	9	3	0	0	12	0	0	0	0	0	0	0	0	7	2	0	9	0	27
6:45AM	1	0	4	0	5	0	9	6	0	0	15	0	0	0	0	0	0	0	0	16	6	0	22	1	42
Hourly Total	4	0	8	0	12	0	24	23	0	0	47	0	0	0	0	0	0	0	0	38	16	0	54	1	113
7:00AM	2	0	1	0	3	0	12	7	0	0	19	0	0	0	0	0	0	0	0	13	4	0	17	0	39
7:15AM	5	0	1	0	6	0	15	16	0	0	31	0	0	0	1	0	1	0	0	17	8	2	27	0	65
7:30AM	3	1	0	0	4	0	17	21	0	0	38	0	0	0	0	0	0	0	0	18	4	0	22	0	64
7:45AM	4	1	3	0	8	0	15	8	0	0	23	0	0	0	0	0	0	0	0	22	10	0	32	0	63
Hourly Total	14	2	5	0	21	0	59	52	0	0	111	0	0	0	1	0	1	0	0	70	26	2	98	0	231
8:00AM	1	0	2	0	3	0	8	14	0	0	22	0	0	0	0	0	0	0	0	15	3	0	18	0	43
8:15AM	1	0	0	0	1	0	11	9	0	0	20	1	1	0	0	0	1	0	0	10	4	0	14	0	36
8:30AM	1	0	2	0	3	1	6	9	0	0	15	1	0	0	0	0	0	0	0	8	1	0	9	0	27
8:45AM	0	0	1	0	1	0	14	16	0	0	30	1	0	0	0	0	0	0	0	11	1	0	12	0	43
Hourly Total	3	0	5	0	8	1	39	48	0	0	87	3	1	0	0	0	1	0	0	44	9	0	53	0	149
4:00PM	2	0	2	0	4	0	15	23	0	0	38	0	0	0	0	0	0	0	0	10	3	0	13	0	55
4:15PM	1	0	1	0	2	0	19	17	0	1	37	0	1	0	0	0	1	0	0	8	6	1	15	0	55
4:30PM	1	0	1	0	2	0	12	23	0	0	35	0	0	1	0	0	1	0	0	7	1	0	8	1	46
4:45PM	4	1	2	0	7	0	12	21	0	0	33	0	0	0	0	0	0	0	0	3	1	0	4	0	44
Hourly Total	8	1	6	0	15	0	58	84	0	1	143	0	1	1	0	0	2	0	0	28	11	1	40	1	200
5:00PM	3	1	1	0	5	0	10	17	0	0	27	0	0	0	0	0	0	0	0	9	6	0	15	1	47
5:15PM	3	0	1	0	4	0	10	13	0	0	23	0	0	0	0	0	0	0	0	6	6	0	12	0	39
5:30PM	5	0	1	0	6	0	10	10	0	0	20	0	0	0	0	0	0	0	0	10	6	0	16	0	42
5:45PM	2	0	0	0	2	0	14	18	0	0	32	0	0	0	0	0	0	0	0	11	2	0	13	1	47
Hourly Total	13	1	3	0	17	0	44	58	0	0	102	0	0	0	0	0	0	0	0	36	20	0	56	2	175
6:00PM	1	0	1	0	2	0	8	15	0	0	23	0	0	0	0	0	0	0	0	8	5	0	13	1	38
6:15PM	5	0	1	0	6	0	16	18	0	0	34	0	0	0	0	0	0	0	0	10	2	0	12	0	52
6:30PM	3	0	2	0	5	0	14	16	0	0	30	1	0	0	0	0	0	0	0	8	2	1	11	0	46
6:45PM	2	0	0	0	2	0	14	18	0	0	32	0	0	0	0	0	0	0	0	8	2	0	10	0	44
Hourly Total	11	0	4	0	15	0	52	67	0	0	119	1	0	0	0	0	0	0	0	34	11	1	46	1	180
Total	53	4	31	0	88	1	276	332	0	1	609	4	2	1	1	0	4	0	0	250	93	4	347	5	1048
% Approach	60.2%	4.5%	35.2%	0%	-	-	45.3%	54.5%	0%	0.2%	-	-	50.0%	25.0%	25.0%	0%	-	-	0%	72.0%	26.8%	1.2%	-	-	-
% Total	5.1%	0.4%	3.0%	0%	8.4%	-	26.3%	31.7%	0%	0.1%	58.1%	-	0.2%	0.1%	0.1%	0%	0.4%	-	0%	23.9%	8.9%	0.4%	33.1%	-	-
Lights	51	4	30	0	85	-	267	321	0	1	589	-	2	1	1	0	4	-	0	241	86	3	330	-	1008
% Lights	96.2%	100%	96.8%	0%	96.6%	-	96.7%	96.7%	0%	100%	96.7%	-	100%	100%	100%	0%	100%	-	0%	96.4%	92.5%	75.0%	95.1%	-	96.2%
Articulated Trucks	0	0	0	0	0	0	-	1	0	0	0	1	-	0	0	0	0	0	-	0	0	0	0	0	-
% Articulated Trucks	0%	0%	0%	0%	0%	-	0.4%	0%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.1%
Buses and Single-Unit Trucks	2	0	1	0	3	-	8	11	0	0	19	-	0	0	0	0	0	-	0	9	7	1	17	-	39
% Buses and Single-Unit Trucks	3.8%	0%	3.2%	0%	3.4%	-	2.9%	3.3%	0%	0%	3.1%	-	0%	0%	0%	0%	0%	-	0%	3.6%	7.5%	25.0%	4.9%	-	3.7%
Pedestrians	-	-	-	-	-	1	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	-	5	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	-	0%	

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Branch Forest Dr at Summit Valley - TMC

Thu Aug 14, 2025

Full Length (6 AM-9 AM, 4 PM-7 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1326164, Location: 29.724398, -95.649824

cj hensch & associates

Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

[N] Summit Valley

Total: 458

In: 88 Out: 370

53
4
31

[W] Branch Forest Dr

Total: 737
In: 347 Out: 390

3
4
93
250

2

276
332

Out: 284 Total: 893

In: 609

[E] Branch Forest Dr

1

2

Out: 4 In: 4
Total: 8

[S] Summit Valley

1

1/2

Branch Forest Dr at Summit Valley - TMC

Thu Aug 14, 2025

AM Peak (7:15 AM - 8:15 AM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1326164, Location: 29.724398, -95.649824

cj hensch & associates

Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Summit Valley Southbound					Branch Forest Dr Westbound					Summit Valley Northbound					Branch Forest Dr Eastbound									
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-08-14 7:15AM	5	0	1	0	6	0	15	16	0	0	31	0	0	0	1	0	1	0	0	17	8	2	27	0	65
7:30AM	3	1	0	0	4	0	17	21	0	0	38	0	0	0	0	0	0	0	0	18	4	0	22	0	64
7:45AM	4	1	3	0	8	0	15	8	0	0	23	0	0	0	0	0	0	0	0	22	10	0	32	0	63
8:00AM	1	0	2	0	3	0	8	14	0	0	22	0	0	0	0	0	0	0	0	15	3	0	18	0	43
Total	13	2	6	0	21	0	55	59	0	0	114	0	0	0	1	0	1	0	0	72	25	2	99	0	235
% Approach	61.9%	9.5%	28.6%	0%	-	-	48.2%	51.8%	0%	0%	-	-	0%	0%	100%	0%	-	-	0%	72.7%	25.3%	2.0%	-	-	-
% Total	5.5%	0.9%	2.6%	0%	8.9%	-	23.4%	25.1%	0%	0%	48.5%	-	0%	0%	0.4%	0%	0.4%	-	0%	30.6%	10.6%	0.9%	42.1%	-	-
PHF	0.650	0.500	0.500	-	0.656	-	0.809	0.702	-	-	0.750	-	-	-	0.250	-	0.250	-	-	0.818	0.625	0.250	0.773	-	0.904
Lights	12	2	6	0	20	-	51	56	0	0	107	-	0	0	1	0	1	-	0	67	23	1	91	-	219
% Lights	92.3%	100%	100%	0%	95.2%	-	92.7%	94.9%	0%	0%	93.9%	-	0%	0%	100%	0%	100%	-	0%	93.1%	92.0%	50.0%	91.9%	-	93.2%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses and Single-Unit Trucks	1	0	0	0	1	-	4	3	0	0	7	-	0	0	0	0	0	-	0	5	2	1	8	-	16
% Buses and Single-Unit Trucks	7.7%	0%	0%	0%	4.8%	-	7.3%	5.1%	0%	0%	6.1%	-	0%	0%	0%	0%	0%	-	0%	6.9%	8.0%	50.0%	8.1%	-	6.8%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Branch Forest Dr at Summit Valley - TMC

Thu Aug 14, 2025

AM Peak (7:15 AM - 8:15 AM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1326164, Location: 29.724398, -95.649824

cj hensch & associates

Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

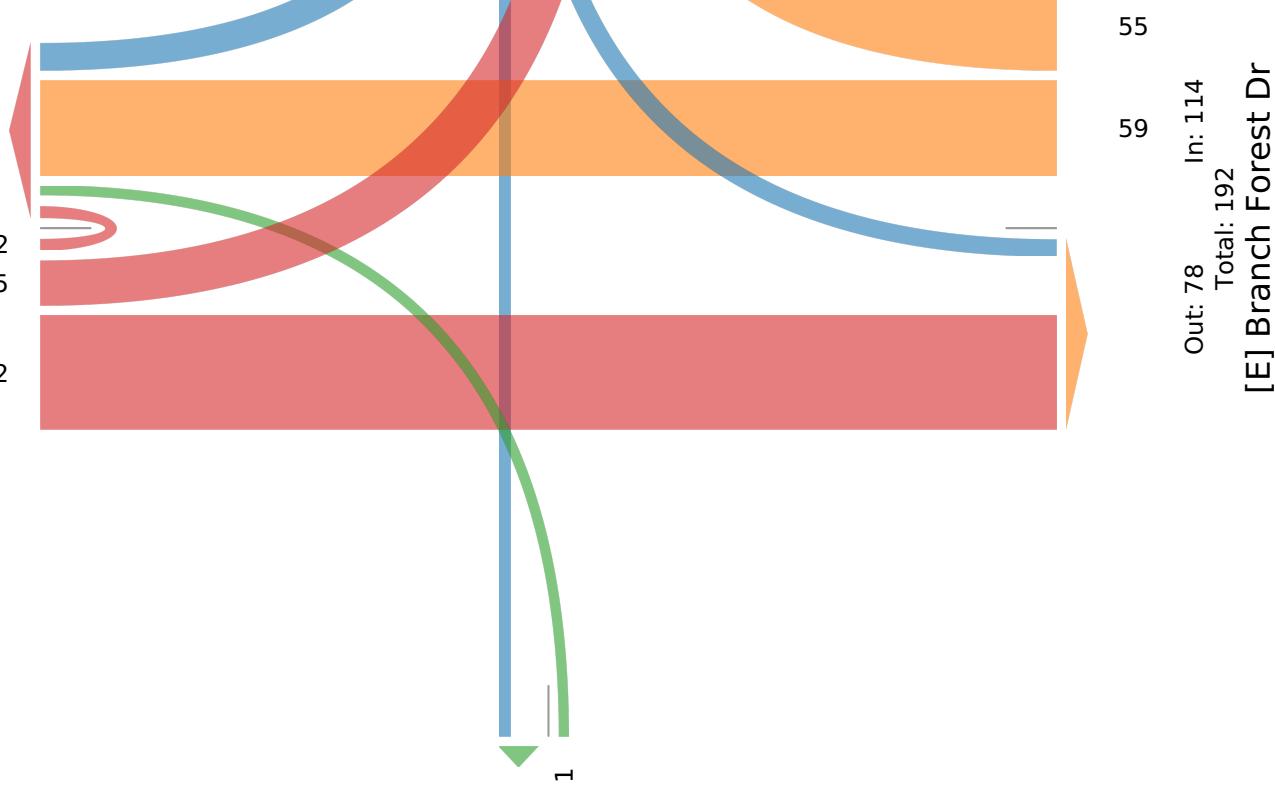
[N] Summit Valley

Total: 101

In: 21 Out: 80

13 2 6

[W] Branch Forest Dr
In: 99 Total: 174
Out: 75



Out: 2 In: 1
Total: 3
[S] Summit Valley

Branch Forest Dr at Summit Valley - TMC

Thu Aug 14, 2025

PM Peak (4 PM - 5 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1326164, Location: 29.724398, -95.649824



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Summit Valley Southbound					Branch Forest Dr Westbound					Summit Valley Northbound					Branch Forest Dr Eastbound									
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-08-14 4:00PM	2	0	2	0	4	0	15	23	0	0	38	0	0	0	0	0	0	0	0	10	3	0	13	0	55
4:15PM	1	0	1	0	2	0	19	17	0	1	37	0	1	0	0	0	1	0	0	8	6	1	15	0	55
4:30PM	1	0	1	0	2	0	12	23	0	0	35	0	0	1	0	0	1	0	0	7	1	0	8	1	46
4:45PM	4	1	2	0	7	0	12	21	0	0	33	0	0	0	0	0	0	0	0	3	1	0	4	0	44
Total	8	1	6	0	15	0	58	84	0	1	143	0	1	1	0	0	2	0	0	28	11	1	40	1	200
% Approach	53.3%	6.7%	40.0%	0%	-	-	40.6%	58.7%	0%	0.7%	-	-	50.0%	50.0%	0%	0%	-	-	0%	70.0%	27.5%	2.5%	-	-	-
% Total	4.0%	0.5%	3.0%	0%	7.5%	-	29.0%	42.0%	0%	0.5%	71.5%	-	0.5%	0.5%	0%	0%	1.0%	-	0%	14.0%	5.5%	0.5%	20.0%	-	-
PHF	0.500	0.250	0.750	-	0.536	-	0.763	0.913	-	0.250	0.941	-	0.250	0.250	-	-	0.500	-	-	0.700	0.458	0.250	0.667	-	0.909
Lights	8	1	6	0	15	-	56	81	0	1	138	-	1	1	0	0	2	-	0	27	10	1	38	-	193
% Lights	100%	100%	100%	0%	100%	-	96.6%	96.4%	0%	100%	96.5%	-	100%	100%	0%	0%	100%	-	0%	96.4%	90.9%	100%	95.0%	-	96.5%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses and Single-Unit Trucks	0	0	0	0	0	-	2	3	0	0	5	-	0	0	0	0	0	-	0	1	1	0	2	-	7
% Buses and Single-Unit Trucks	0%	0%	0%	0%	0%	-	3.4%	3.6%	0%	0%	3.5%	-	0%	0%	0%	0%	0%	-	0%	3.6%	9.1%	0%	5.0%	-	3.5%
Pedestrians	-	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	1	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%	

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Branch Forest Dr at Summit Valley - TMC

Thu Aug 14, 2025

PM Peak (4 PM - 5 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1326164, Location: 29.724398, -95.649824

cj hensch & associates

Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

[N] Summit Valley

Total: 85
In: 15 Out: 70

8 16

[W] Branch Forest Dr
Total: 133
In: 40 Out: 93

1
11
28

58
84
1
Out: 36 In: 179
Total: 179
[E] Branch Forest Dr

11

Out: 1 In: 2
Total: 3
[S] Summit Valley

Appendix B
TRIP GENERATION

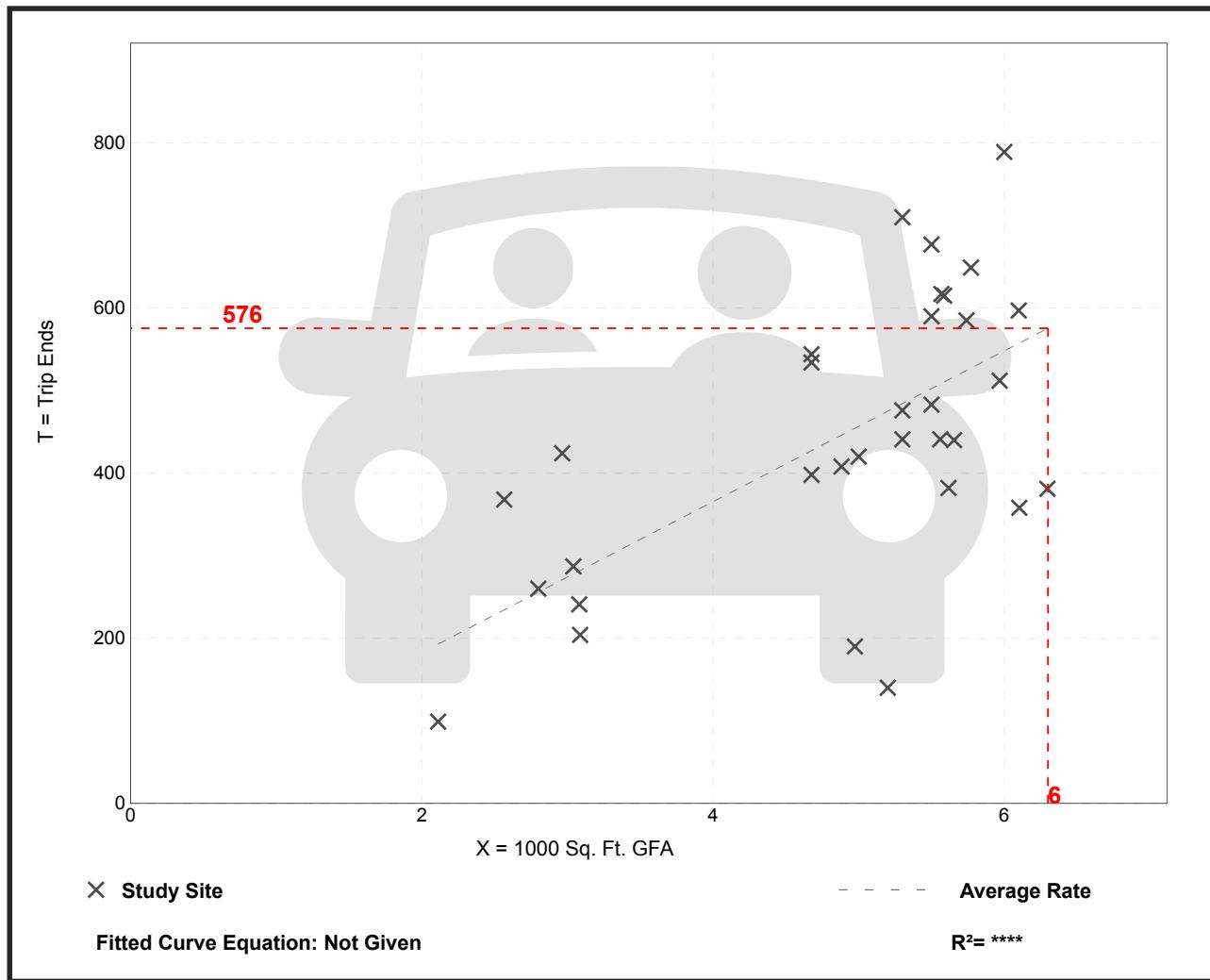
Convenience Store/Gas Station - VFP (16-24) (945)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 32
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
91.35	26.92 - 143.41	27.59

Data Plot and Equation



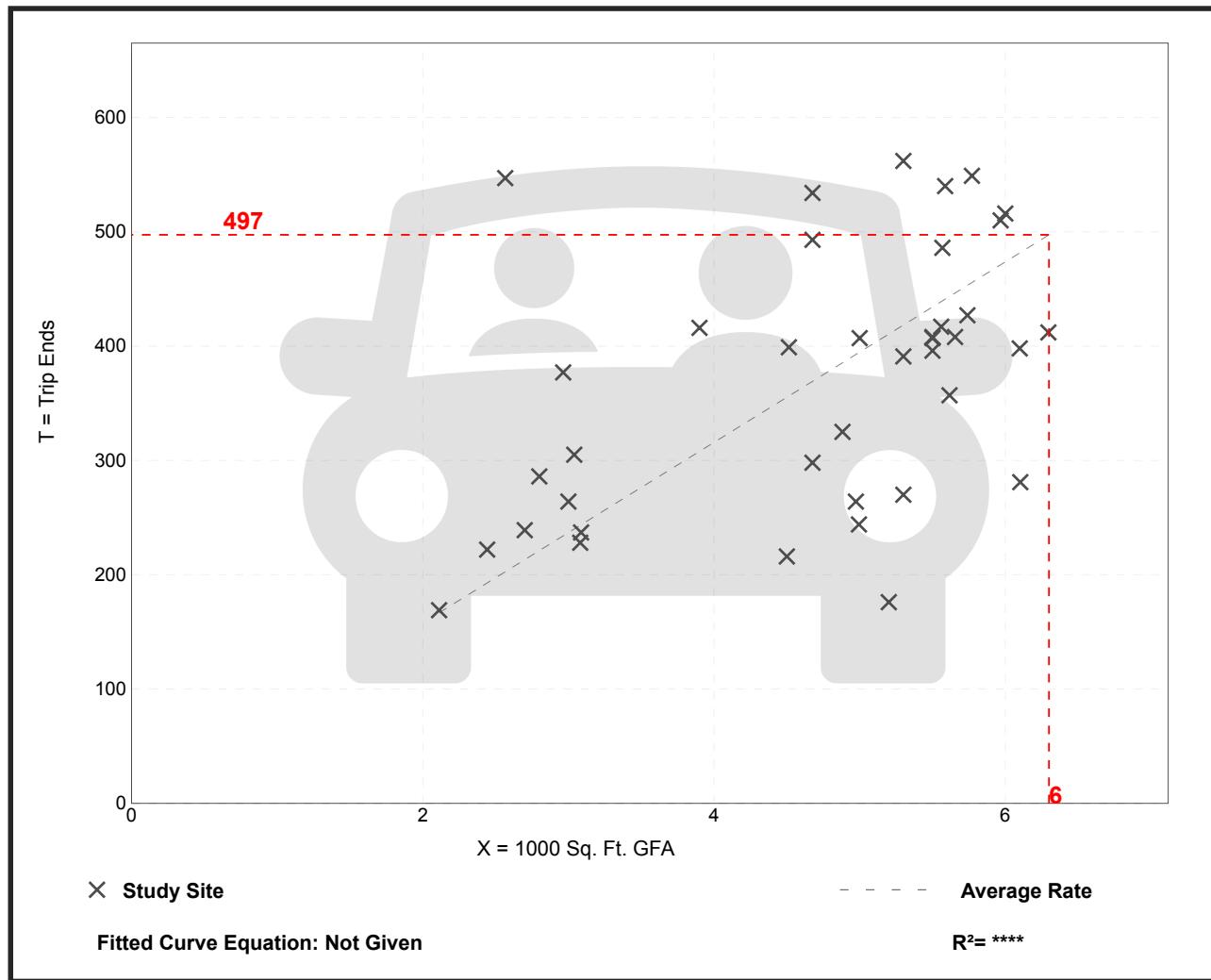
Convenience Store/Gas Station - VFP (16-24) (945)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 39
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
78.95	33.85 - 213.17	25.75

Data Plot and Equation



Strip Retail Plaza (<40k) (822)

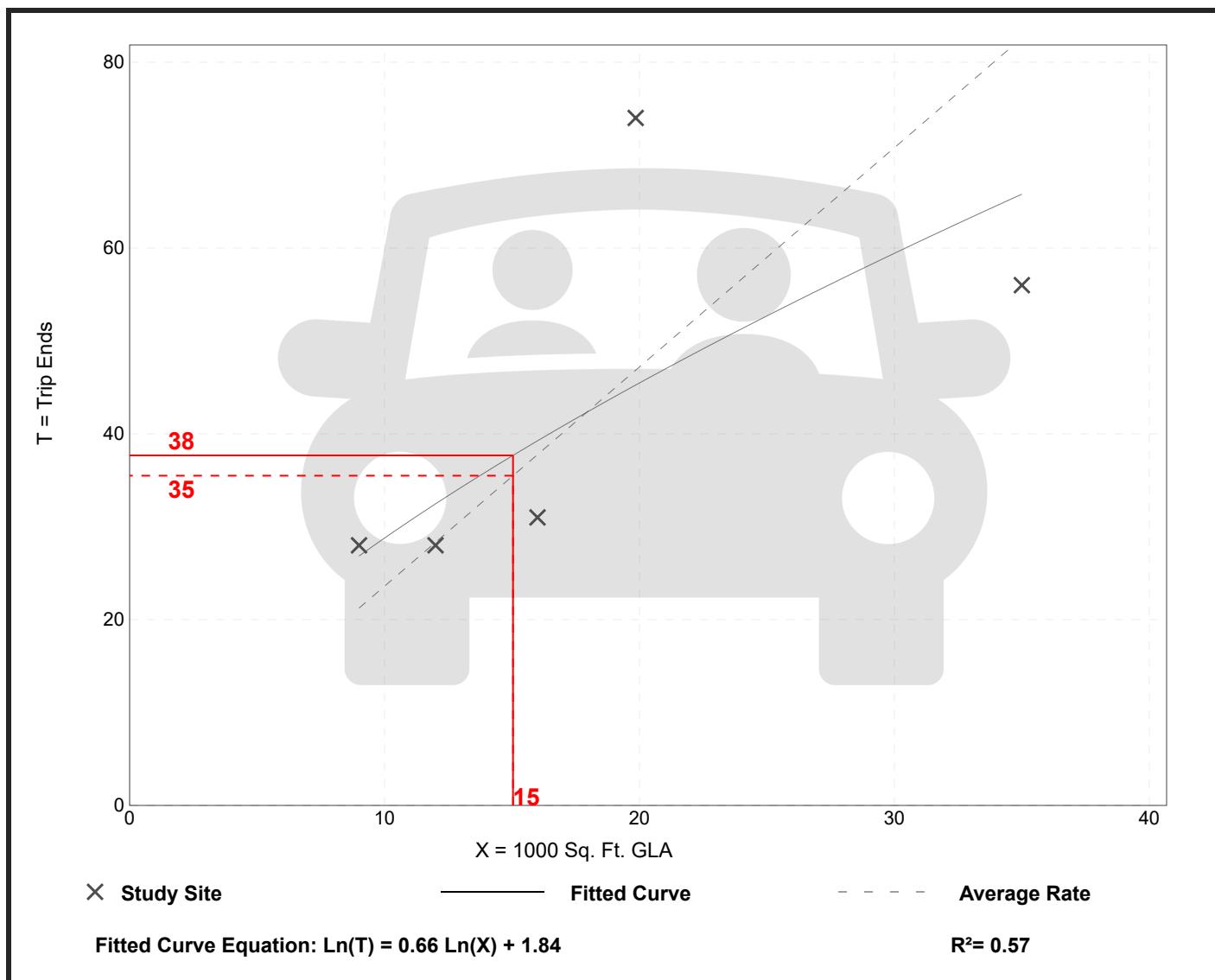
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 5
Avg. 1000 Sq. Ft. GLA: 18
Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
2.36	1.60 - 3.73	0.94

Data Plot and Equation

Caution – Small Sample Size



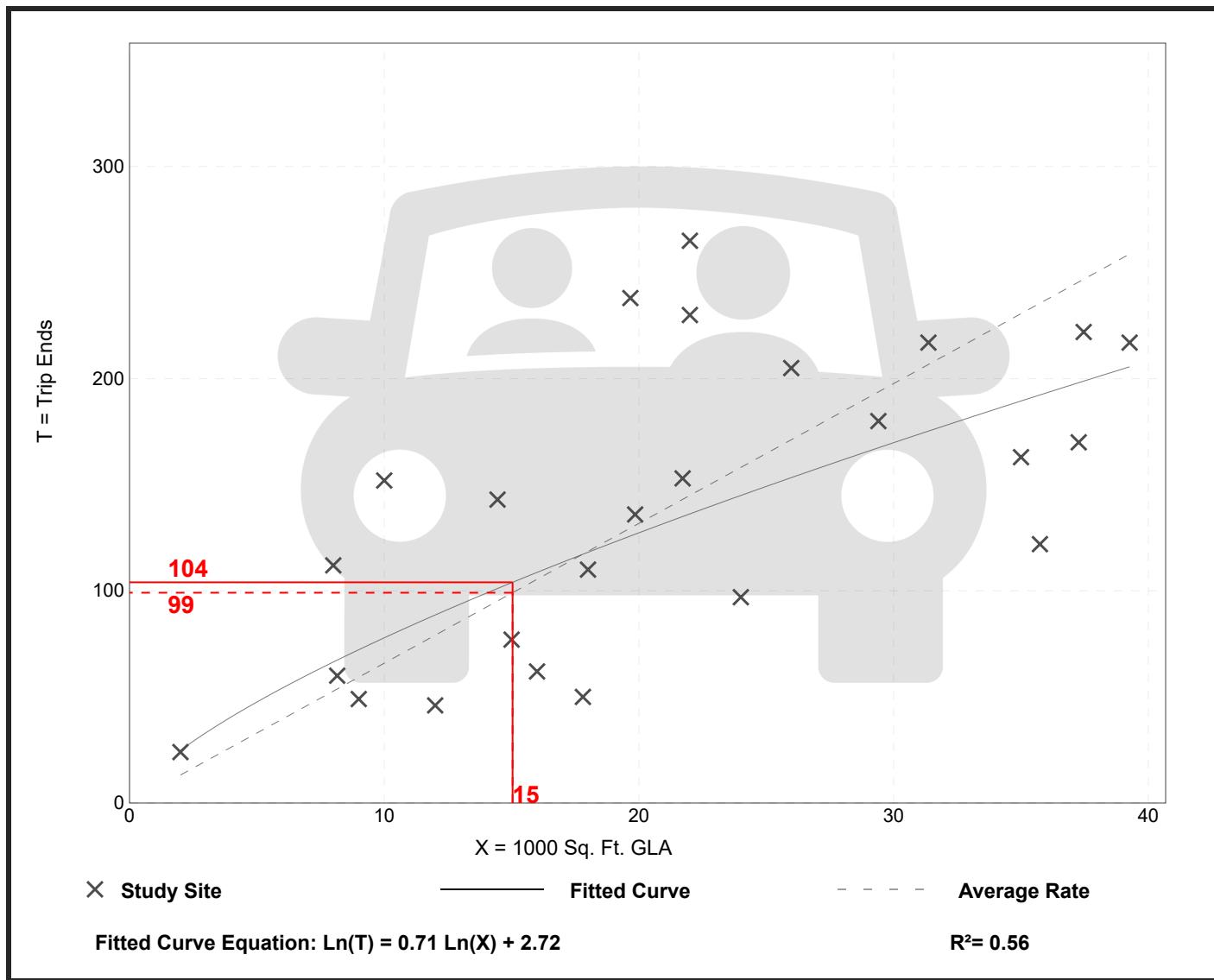
Strip Retail Plaza (<40k) (822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 25
Avg. 1000 Sq. Ft. GLA: 21
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
6.59	2.81 - 15.20	2.94

Data Plot and Equation



Vehicle Pass-By Rates by Land Use										
Source: ITE Trip Generation Manual, 11th Edition										
Land Use Code	945									
Land Use	Convenience Store/Gas Station									
Setting	General Urban/Suburban									
Time Period	Weekday AM Peak Period									
# Data Sites	16 Sites with between 2 and 8 VFP					28 Sites with between 9 and 20 VFP				
Average Pass-By Rate	60% for Sites with between 2 and 8 VFP					76% for Sites with between 9 and 20 VFP				
	Pass-By Characteristics for Individual Sites									
GFA (000)	VFP	State or Province	Survey Year	# Interviews	Pass-By Trip (%)	Non-Pass-By Trips			Adj Street Peak Hour Volume	Source
						Primary (%)	Diverted (%)	Total (%)		
2	8	Maryland	1992	46	87	13	0	13	2235	25
2.1	6	Maryland	1992	26	58	23	19	42	2080	25
2.1	6	Maryland	1992	26	58	23	19	42	2080	25
2.2	8	Maryland	1992	31	47	34	19	53	1785	25
2.2	< 8	Indiana	1993	79	56	6	38	44	635	2
2.2	8	Maryland	1992	35	78	9	13	22	7080	25
2.3	6	Maryland	1992	37	32	41	27	68	2080	25
2.3	< 8	Kentucky	1993	58	64	5	31	36	1255	2
2.3	6	Maryland	1992	37	32	41	27	68	2080	25
2.4	< 8	Kentucky	1993	—	48	17	35	52	1210	2
2.6	< 8	Kentucky	1993	—	72	15	13	28	940	2
2.8	< 8	Kentucky	1993	—	54	11	35	46	1240	2
3	< 8	Indiana	1993	62	74	10	16	26	790	2
3.6	< 8	Kentucky	1993	49	67	4	29	33	1985	2
3.7	< 8	Kentucky	1993	49	66	16	18	34	990	2
4.694	12	Maryland	2000	—	72	—	—	28	2440	30
4.694	12	Maryland	2000	—	78	—	—	22	1561	30
4.694	12	Maryland	2000	—	79	—	—	21	2764	30
4.848	12	Virginia	2000	—	55	—	—	45	1398	30
5.06	12	Pennsylvania	2000	—	84	—	—	16	3219	30
5.242	12	Virginia	2000	—	74	—	—	26	1160	30
5.242	12	Virginia	2000	—	71	—	—	29	548	30
5.488	12	Delaware	2000	—	80	—	—	20	—	30
5.5	12	Pennsylvania	2000	—	85	—	—	15	2975	30
4.2	< 8	Kentucky	1993	47	62	19	19	38	1705	2
4.694	16	Maryland	2000	—	90	—	—	10	2278	30
4.694	16	Delaware	2000	—	74	—	—	26	2185	30
4.694	16	Delaware	2000	—	58	—	—	42	962	30
4.694	16	Delaware	2000	—	84	—	—	16	2956	30
4.694	16	New Jersey	2000	—	79	—	—	21	1859	30
4.694	20	Delaware	2000	—	84	—	—	16	3864	30
4.848	16	Virginia	2000	—	68	—	—	32	2106	30
4.848	16	Virginia	2000	—	85	—	—	15	2676	30
4.848	16	Virginia	2000	—	75	—	—	25	3244	30
4.848	16	Virginia	2000	—	71	—	—	29	1663	30
4.993	16	Pennsylvania	2000	—	75	—	—	25	1991	30
5.094	16	New Jersey	2000	—	86	—	—	14	1260	30
5.5	16	Pennsylvania	2000	—	82	—	—	18	1570	30
5.543	16	Pennsylvania	2000	—	84	—	—	16	1933	30
5.565	16	Pennsylvania	2000	—	77	—	—	23	2262	30
5.565	16	Pennsylvania	2000	—	68	—	—	32	2854	30
5.565	16	New Jersey	2000	—	58	—	—	42	1253	30
5.565	16	New Jersey	2000	—	79	—	—	21	1928	30
5.565	16	New Jersey	2000	---	84	---	---	16	1953	30

Vehicle Pass-By Rates by Land Use

Source: ITE *Trip Generation Manual*, 11th Edition

Land Use Code	945									
Land Use	Convenience Store/Gas Station									
Setting	General Urban/Suburban									
Time Period	Weekday PM Peak Period									
# Data Sites	12 Sites with between 2 and 8 VFP					28 Sites with between 9 and 20 VFP				
Average Pass-By Rate	56% for Sites with between 2 and 8 VFP					75% for Sites with between 9 and 20 VFP				
	Pass-By Characteristics for Individual Sites									
GFA (000)	VFP	State or Province	Survey Year	# Interviews	Pass-By Trip (%)	Non-Pass-By Trips			Adj Street Peak Hour Volume	Source
						Primary (%)	Diverted (%)	Total (%)		
2.1	8	Maryland	1992	31	52	13	35	48	1785	25
2.1	6	Maryland	1992	30	53	20	27	47	1060	25
2.2	< 8	Indiana	1993	115	48	16	36	52	820	2
2.3	< 8	Kentucky	1993	67	57	16	27	43	1954	2
2.3	6	Maryland	1992	55	40	11	49	60	2760	25
2.4	< 8	Kentucky	1993	—	58	13	29	42	2655	2
2.6	< 8	Kentucky	1993	68	67	15	18	33	950	2
2.8	< 8	Kentucky	1993	—	62	11	27	38	2875	2
3	< 8	Indiana	1993	80	65	15	20	35	1165	2
3.6	< 8	Kentucky	1993	60	56	17	27	44	2505	2
3.7	< 8	Kentucky	1993	70	61	16	23	39	2175	2
4.2	< 8	Kentucky	1993	61	58	26	16	42	2300	2
4.694	12	Maryland	2000	—	78	—	—	22	3549	30
4.694	12	Maryland	2000	—	67	—	—	33	2272	30
4.694	12	Maryland	2000	—	66	—	—	34	3514	30
4.848	12	Virginia	2000	—	71	—	—	29	2350	30
5.06	12	Pennsylvania	2000	—	91	—	—	9	4181	30
5.242	12	Virginia	2000	—	70	—	—	30	2445	30
5.242	12	Virginia	2000	—	56	—	—	44	950	30
5.488	12	Delaware	2000	—	73	—	—	27	—	30
5.5	12	Pennsylvania	2000	—	84	—	—	16	4025	30
4.694	16	Maryland	2000	—	89	—	—	11	2755	30
4.694	16	Delaware	2000	—	73	—	—	27	1858	30
4.694	16	Delaware	2000	—	59	—	—	41	1344	30
4.694	16	Delaware	2000	—	72	—	—	28	3434	30
4.694	16	New Jersey	2000	—	81	—	—	19	1734	30
4.694	20	Delaware	2000	—	76	—	—	24	1616	30
4.848	16	Virginia	2000	—	67	—	—	33	2.954	30
4.848	16	Virginia	2000	—	78	—	—	22	3086	30
4.848	16	Virginia	2000	—	83	—	—	17	4143	30
4.848	16	Virginia	2000	—	73	—	—	27	2534	30
4.993	16	Pennsylvania	2000	—	72	—	—	28	2917	30
5.094	16	New Jersey	2000	—	86	—	—	14	1730	30
5.5	16	Pennsylvania	2000	—	90	—	—	10	2616	30
5.543	16	Pennsylvania	2000	—	87	—	—	13	2363	30
5.565	16	Pennsylvania	2000	—	81	—	—	19	2770	30
5.565	16	Pennsylvania	2000	—	76	—	—	24	3362	30
5.565	16	New Jersey	2000	—	61	—	—	39	1713	30
5.565	16	New Jersey	2000	—	86	—	—	14	1721	30
5.565	16	New Jersey	2000	---	81	---	---	19	2227	30

Appendix C

INTERSECTION LEVEL OF SERVICE ANALYSIS

Lanes, Volumes, Timings
5: SH 6 & Shell Center Access

Existing Conditions_Year 2025
AM Peak

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	1	0	0	0	0	2	1	2278	24	18	45	1858
Future Volume (vph)	1	0	0	0	0	2	1	2278	24	18	45	1858
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%				0%
Storage Length (ft)	0		0	0		0	375		0		375	
Storage Lanes	0		0	1		1	1		0		1	
Taper Length (ft)	25			25			200				150	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.91	0.95	1.00	0.91	0.91	0.91	1.00	0.91
Ped Bike Factor												
Frt					0.850	0.850		0.998				
Flt Protected		0.950					0.950				0.950	
Satd. Flow (prot)	0	1770	0	1770	1441	1504	1770	5075	0	0	1770	5085
Flt Permitted		0.950					0.950				0.950	
Satd. Flow (perm)	0	1770	0	1770	1441	1504	1770	5075	0	0	1770	5085
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)					271	271		2				
Link Speed (mph)		30			30			45				45
Link Distance (ft)		201			261			799				866
Travel Time (s)		4.6			5.9			12.1				13.1
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Adj. Flow (vph)	1	0	0	0	0	2	1	2449	26	19	48	1998
Shared Lane Traffic (%)				0%		50%						
Lane Group Flow (vph)	0	1	0	0	1	1	1	2475	0	0	67	2002
Enter Blocked Intersection	No	No	No	No								
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		12			12			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2		1	2	1	1	2		1	1	2
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Left	Thru
Leading Detector (ft)	20	100		20	100	20	20	100		20	20	100
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	0
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	Prot	NA
Protected Phases	4	4		8	8		5	2		1	1	6
Permitted Phases						8						
Detector Phase	4	4		8	8	8	5	2		1	1	6
Switch Phase												

Lanes, Volumes, Timings
5: SH 6 & Shell Center Access

Existing Conditions_Year 2025
AM Peak

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	4
Future Volume (vph)	4
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Grade (%)	
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	0.91
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.93
Growth Factor	100%
Heavy Vehicles (%)	2%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Adj. Flow (vph)	4
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	

Lanes, Volumes, Timings
5: SH 6 & Shell Center Access

Existing Conditions_Year 2025
AM Peak

	→	→	→	←	←	↑	↑	↓	↓	↓	↓	↓
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	24.0	24.0		24.0	24.0	24.0	11.0	24.0		11.0	11.0	24.0
Total Split (s)	24.0	24.0		24.0	24.0	24.0	11.0	66.0		11.0	11.0	66.0
Total Split (%)	19.2%	19.2%		19.2%	19.2%	19.2%	8.8%	52.8%		8.8%	8.8%	52.8%
Maximum Green (s)	18.0	18.0		18.0	18.0	18.0	5.0	60.0		5.0	5.0	60.0
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag							Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	None		None	None	None	Max			None	None	Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0		7.0				7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0		11.0				11.0
Pedestrian Calls (#/hr)	0	0		0	0	0		0				0
Act Effect Green (s)	5.6			5.5	5.5	5.0	71.2			5.0		85.2
Actuated g/C Ratio	0.06			0.06	0.06	0.05	0.77			0.05		0.92
v/c Ratio	0.01			0.00	0.00	0.01	0.63			0.71		0.43
Control Delay	43.0			0.0	0.0	43.0	7.4			80.8		3.8
Queue Delay	0.0			0.0	0.0	0.0	0.0			0.0		0.0
Total Delay	43.0			0.0	0.0	43.0	7.4			80.8		3.8
LOS	D			A	A	D	A			F		A
Approach Delay	43.0						7.4					6.3
Approach LOS	D						A					A
Queue Length 50th (ft)	1			0	0	1	135			39		0
Queue Length 95th (ft)	6			0	0	6	492			#120		339
Internal Link Dist (ft)	121			181			719					786
Turn Bay Length (ft)							375					375
Base Capacity (vph)	345			498	511	95	3904			95		4676
Starvation Cap Reductn	0			0	0	0	0			0		0
Spillback Cap Reductn	0			0	0	0	0			0		0
Storage Cap Reductn	0			0	0	0	0			0		0
Reduced v/c Ratio	0.00			0.00	0.00	0.01	0.63			0.71		0.43

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 92.6

Natural Cycle: 125

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 6.9

Intersection LOS: A

Intersection Capacity Utilization 75.7%

ICU Level of Service D

Analysis Period (min) 15

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

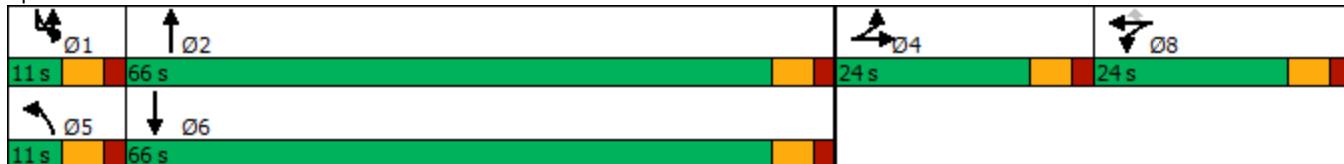
Lane Group	SBR
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Minimum Gap (s)	
Time Before Reduce (s)	
Time To Reduce (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effect Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
5: SH 6 & Shell Center Access

Existing Conditions_Year 2025
AM Peak

Queue shown is maximum after two cycles.

Splits and Phases: 5: SH 6 & Shell Center Access



Intersection						
Int Delay, s/veh	4.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	107	110	2348	1894	18
Future Vol, veh/h	0	107	110	2348	1894	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	350	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	113	116	2472	1994	19
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	1007	2013	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	205	123	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	205	123	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	42.1	6		0		
HCM LOS	E					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	123	-	205	-	-	
HCM Lane V/C Ratio	0.941	-	0.549	-	-	
HCM Control Delay (s)	133.2	-	42.1	-	-	
HCM Lane LOS	F	-	E	-	-	
HCM 95th %tile Q(veh)	6.2	-	2.9	-	-	

Intersection

Int Delay, s/veh 2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑ ↗	↑ ↗		↑ ↗	↑ ↗		↔	↔		↔	↔	
Traffic Vol, veh/h	25	72	0	0	59	55	1	0	0	6	2	13
Future Vol, veh/h	25	72	0	0	59	55	1	0	0	6	2	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	125	-	-	165	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	62	82	92	92	70	81	25	92	92	50	50	65
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	88	0	0	84	68	4	0	0	12	4	20

Major/Minor	Major1	Major2		Minor1		Minor2						
Conflicting Flow All	152	0	0	88	0	0	212	320	44	242	286	76
Stage 1	-	-	-	-	-	-	168	168	-	118	118	-
Stage 2	-	-	-	-	-	-	44	152	-	124	168	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1426	-	-	1506	-	-	726	596	1017	692	622	970
Stage 1	-	-	-	-	-	-	817	758	-	874	797	-
Stage 2	-	-	-	-	-	-	965	771	-	867	758	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1426	-	-	1506	-	-	693	579	1017	677	605	970
Mov Cap-2 Maneuver	-	-	-	-	-	-	693	579	-	677	605	-
Stage 1	-	-	-	-	-	-	794	737	-	850	797	-
Stage 2	-	-	-	-	-	-	940	771	-	843	737	-

Approach	EB	WB		NB		SB	
HCM Control Delay, s	2.4	0		10.2		9.7	
HCM LOS				B		A	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	693	1426	-	-	1506	-	-	801
HCM Lane V/C Ratio	0.006	0.028	-	-	-	-	-	0.045
HCM Control Delay (s)	10.2	7.6	-	-	0	-	-	9.7
HCM Lane LOS	B	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1

Lanes, Volumes, Timings
3: SH 6 & Branch Forest Dr

Existing Conditions_Year 2025
PM Peak



Lane Group	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	0	44	25	109	2221	2398	29
Future Volume (vph)	0	44	25	109	2221	2398	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12
Grade (%)	0%				0%	0%	
Storage Length (ft)	0	0		350			0
Storage Lanes	0	1		1			0
Taper Length (ft)	25			150			
Lane Util. Factor	1.00	1.00	0.91	1.00	0.91	0.91	0.91
Ped Bike Factor							
Frt		0.865				0.998	
Flt Protected				0.950			
Satd. Flow (prot)	0	1611	0	1770	5085	5075	0
Flt Permitted				0.950			
Satd. Flow (perm)	0	1611	0	1770	5085	5075	0
Link Speed (mph)	30			45	45		
Link Distance (ft)	888			1090	799		
Travel Time (s)	20.2				16.5	12.1	
Confl. Peds. (#/hr)							
Confl. Bikes (#/hr)							
Peak Hour Factor	0.95	0.95	0.92	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0
Parking (#/hr)							
Mid-Block Traffic (%)	0%				0%	0%	
Adj. Flow (vph)	0	46	27	115	2338	2524	31
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	46	0	142	2338	2555	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	R NA	Left	Left	Left	Right
Median Width(ft)	20				12	12	
Link Offset(ft)	0				0	0	
Crosswalk Width(ft)	16				16	16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9	15			9
Sign Control	Stop				Free	Free	
Intersection Summary							
Area Type:	Other						
Control Type:	Unsignalized						
Intersection Capacity Utilization	67.7%				ICU Level of Service C		
Analysis Period (min)	15						

Lanes, Volumes, Timings
5: SH 6 & Shell Center Access

Existing Conditions_Year 2025
PM Peak

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	1	0	0	15	0	22	0	2055	2	8	0	2399
Future Volume (vph)	1	0	0	15	0	22	0	2055	2	8	0	2399
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%				0%
Storage Length (ft)	0		0	0		0	375		0		375	
Storage Lanes	0		0	1		1	1		0		1	
Taper Length (ft)	25			25			200				150	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.91	0.95	1.00	0.91	0.91	0.91	1.00	0.91
Ped Bike Factor												
Frt						0.873	0.850					
Flt Protected		0.950		0.950	0.992						0.950	
Satd. Flow (prot)	0	1770	0	1681	1468	1504	1863	5085	0	0	1770	5085
Flt Permitted		0.950		0.950	0.992						0.950	
Satd. Flow (perm)	0	1770	0	1681	1468	1504	1863	5085	0	0	1770	5085
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)					131	131						
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		201			261			799			866	
Travel Time (s)		4.6			5.9			12.1			13.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	1	0	0	16	0	23	0	2163	2	8	0	2525
Shared Lane Traffic (%)				15%		46%						
Lane Group Flow (vph)	0	1	0	14	13	12	0	2165	0	0	8	2525
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		12			12			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2		1	2	1	1	2		1	1	2
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Left	Thru
Leading Detector (ft)	20	100		20	100	20	20	100		20	20	100
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	0
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	Prot	NA
Protected Phases	4	4		8	8		5	2		1	1	6
Permitted Phases						8						
Detector Phase	4	4		8	8	8	5	2		1	1	6
Switch Phase												

Lanes, Volumes, Timings
5: SH 6 & Shell Center Access

Existing Conditions_Year 2025
PM Peak

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	0
Future Volume (vph)	0
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Grade (%)	
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	0.91
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.95
Growth Factor	100%
Heavy Vehicles (%)	2%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Adj. Flow (vph)	0
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	

Lanes, Volumes, Timings
5: SH 6 & Shell Center Access

Existing Conditions_Year 2025
PM Peak

	↗	→	↘	↖	←	↙	↑	↗	↖	↘	↓	
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	24.0	24.0		24.0	24.0	24.0	11.0	24.0		11.0	11.0	24.0
Total Split (s)	24.0	24.0		24.0	24.0	24.0	11.0	66.0		11.0	11.0	66.0
Total Split (%)	19.2%	19.2%		19.2%	19.2%	19.2%	8.8%	52.8%		8.8%	8.8%	52.8%
Maximum Green (s)	18.0	18.0		18.0	18.0	18.0	5.0	60.0		5.0	5.0	60.0
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag							Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	None		None	None	None	None	Max		None	None	Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0		7.0				7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0		11.0				11.0
Pedestrian Calls (#/hr)	0	0		0	0	0		0				0
Act Effect Green (s)	5.7		6.4	6.4	6.4		75.5			5.0		77.5
Actuated g/C Ratio	0.06		0.07	0.07	0.07		0.84			0.06		0.86
v/c Ratio	0.01		0.12	0.06	0.05		0.51			0.08		0.58
Control Delay	44.0		44.8	0.5	0.5		5.9			46.4		4.8
Queue Delay	0.0		0.0	0.0	0.0		0.0			0.0		0.0
Total Delay	44.0		44.8	0.5	0.5		5.9			46.4		4.8
LOS	D		D	A	A		A			D		A
Approach Delay	44.0			16.4			5.9					4.9
Approach LOS	D			B			A					A
Queue Length 50th (ft)	1		8	0	0		117			5		155
Queue Length 95th (ft)	6		30	0	0		410			21		380
Internal Link Dist (ft)	121			181			719					786
Turn Bay Length (ft)												375
Base Capacity (vph)	356		338	400	407		4258			99		4367
Starvation Cap Reductn	0		0	0	0		0			0		0
Spillback Cap Reductn	0		0	0	0		0			0		0
Storage Cap Reductn	0		0	0	0		0			0		0
Reduced v/c Ratio	0.00		0.04	0.03	0.03		0.51			0.08		0.58

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 90.2

Natural Cycle: 125

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 5.5

Intersection LOS: A

Intersection Capacity Utilization 69.7%

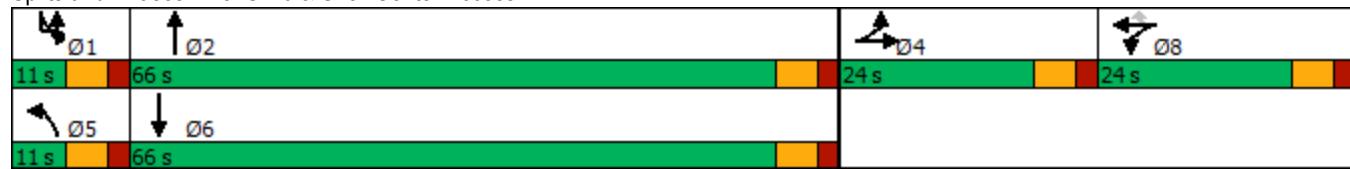
ICU Level of Service C

Analysis Period (min) 15

Lanes, Volumes, Timings
5: SH 6 & Shell Center Access

Existing Conditions_Year 2025
PM Peak

Splits and Phases: 5: SH 6 & Shell Center Access



Lane Group	SBR
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Minimum Gap (s)	
Time Before Reduce (s)	
Time To Reduce (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effect Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Intersection							
Int Delay, s/veh	17.5						
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Vol, veh/h	0	44	25	109	2221	2398	29
Future Vol, veh/h	0	44	25	109	2221	2398	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	-	0	-	350	-	-	-
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	95	95	92	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	0	46	27	115	2338	2524	31
Major/Minor	Minor2	Major1		Major2			
Conflicting Flow All	-	1278	1865	2555	0	-	0
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.64	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	2.32	3.12	-	-	-
Pot Cap-1 Maneuver	0	135	144	~ 65	-	-	-
Stage 1	0	-	-	-	-	-	-
Stage 2	0	-	-	-	-	-	-
Platoon blocked, %					-	-	-
Mov Cap-1 Maneuver	-	135	69	~ 69	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-
Approach	EB	NB		SB			
HCM Control Delay, s	45	35.1		0			
HCM LOS	E						
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR		
Capacity (veh/h)	~ 69	-	135	-	-		
HCM Lane V/C Ratio	2.057	-	0.343	-	-		
HCM Control Delay (s)	\$ 613.1	-	45	-	-		
HCM Lane LOS	F	-	E	-	-		
HCM 95th %tile Q(veh)	13.2	-	1.4	-	-		
Notes							
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon	

Intersection

Int Delay, s/veh

2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑ ↗	↑ ↗		↑ ↗	↑ ↗		↔	↔		↔	↔	
Traffic Vol, veh/h	11	28	0	0	84	58	0	1	1	6	1	8
Future Vol, veh/h	11	28	0	0	84	58	0	1	1	6	1	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	125	-	-	165	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	46	70	92	92	92	76	92	25	25	75	25	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	40	0	0	91	76	0	4	4	8	4	16

Major/Minor	Major1	Major2			Minor1			Minor2				
Conflicting Flow All	167	0	0	40	0	0	136	255	20	199	217	84
Stage 1	-	-	-	-	-	-	88	88	-	129	129	-
Stage 2	-	-	-	-	-	-	48	167	-	70	88	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1408	-	-	1568	-	-	822	648	1053	742	680	958
Stage 1	-	-	-	-	-	-	910	821	-	861	788	-
Stage 2	-	-	-	-	-	-	959	759	-	932	821	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1408	-	-	1568	-	-	794	637	1053	726	668	958
Mov Cap-2 Maneuver	-	-	-	-	-	-	794	637	-	726	668	-
Stage 1	-	-	-	-	-	-	895	807	-	846	788	-
Stage 2	-	-	-	-	-	-	938	759	-	908	807	-

Approach	EB	WB			NB			SB			
HCM Control Delay, s	2.8	0			9.6			9.5			
HCM LOS					A			A			
<hr/>											
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	794	1408	-	-	1568	-	-	831			
HCM Lane V/C Ratio	0.01	0.017	-	-	-	-	-	0.034			
HCM Control Delay (s)	9.6	7.6	-	-	0	-	-	9.5			
HCM Lane LOS	A	A	-	-	A	-	-	A			
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1			

Lanes, Volumes, Timings
5: SH 6 & Shell Center Access

Background Conditions_Year 2026
AM Peak

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	1	0	0	0	0	2	1	2278	24	18	45	1858
Future Volume (vph)	1	0	0	0	0	2	1	2278	24	18	45	1858
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%				0%
Storage Length (ft)	0		0	0		0	375		0		375	
Storage Lanes	0		0	1		1	1		0		1	
Taper Length (ft)	25			25			200				150	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.91	0.95	1.00	0.91	0.91	0.91	1.00	0.91
Ped Bike Factor												
Frt					0.850	0.850		0.998				
Flt Protected		0.950					0.950				0.950	
Satd. Flow (prot)	0	1770	0	1770	1441	1504	1770	5075	0	0	1770	5085
Flt Permitted		0.950					0.950				0.950	
Satd. Flow (perm)	0	1770	0	1770	1441	1504	1770	5075	0	0	1770	5085
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)				269	269		2					
Link Speed (mph)		30			30		45				45	
Link Distance (ft)		201			261		799				866	
Travel Time (s)		4.6			5.9		12.1				13.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	101%	101%	101%	101%	101%	101%	101%	101%	101%	101%	101%	101%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	1	0	0	0	0	2	1	2474	26	20	49	2018
Shared Lane Traffic (%)				0%		50%						
Lane Group Flow (vph)	0	1	0	0	1	1	1	2500	0	0	69	2022
Enter Blocked Intersection	No	No	No	No								
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		12			12			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2		1	2	1	1	2		1	1	2
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Left	Thru
Leading Detector (ft)	20	100		20	100	20	20	100		20	20	100
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	0
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	Prot	NA
Protected Phases	4	4		8	8		5	2		1	1	6
Permitted Phases						8						
Detector Phase	4	4		8	8	8	5	2		1	1	6
Switch Phase												

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	4
Future Volume (vph)	4
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Grade (%)	
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	0.91
Ped Bike Factor	
Fr	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.93
Growth Factor	101%
Heavy Vehicles (%)	2%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Adj. Flow (vph)	4
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	

Lanes, Volumes, Timings
5: SH 6 & Shell Center Access

Background Conditions_Year 2026
AM Peak

	→	→	←	←	↑	↑	↓	↓				
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	24.0	24.0		24.0	24.0	24.0	11.0	24.0		11.0	11.0	24.0
Total Split (s)	24.0	24.0		24.0	24.0	24.0	11.0	66.0		11.0	11.0	66.0
Total Split (%)	19.2%	19.2%		19.2%	19.2%	19.2%	8.8%	52.8%		8.8%	8.8%	52.8%
Maximum Green (s)	18.0	18.0		18.0	18.0	18.0	5.0	60.0		5.0	5.0	60.0
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag							Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	None		None	None	None	Max			None	None	Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0		7.0				7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0		11.0				11.0
Pedestrian Calls (#/hr)	0	0		0	0	0		0				0
Act Effect Green (s)	5.6			5.5	5.5	5.0	71.1			5.0	85.0	
Actuated g/C Ratio	0.06			0.06	0.06	0.05	0.77			0.05	0.92	
v/c Ratio	0.01			0.00	0.00	0.01	0.64			0.72	0.43	
Control Delay	43.0			0.0	0.0	43.0	7.5			82.8	3.9	
Queue Delay	0.0			0.0	0.0	0.0	0.0			0.0	0.0	
Total Delay	43.0			0.0	0.0	43.0	7.5			82.8	3.9	
LOS	D			A	A	D	A			F	A	
Approach Delay	43.0						7.5				6.5	
Approach LOS	D						A				A	
Queue Length 50th (ft)	1			0	0	1	138			40	0	
Queue Length 95th (ft)	6			0	0	6	502			#123	344	
Internal Link Dist (ft)	121			181			719				786	
Turn Bay Length (ft)							375				375	
Base Capacity (vph)	345			497	510	96	3903			96	4676	
Starvation Cap Reductn	0			0	0	0	0			0	0	
Spillback Cap Reductn	0			0	0	0	0			0	0	
Storage Cap Reductn	0			0	0	0	0			0	0	
Reduced v/c Ratio	0.00			0.00	0.00	0.01	0.64			0.72	0.43	

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 92.4

Natural Cycle: 125

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 7.1

Intersection LOS: A

Intersection Capacity Utilization 76.2%

ICU Level of Service D

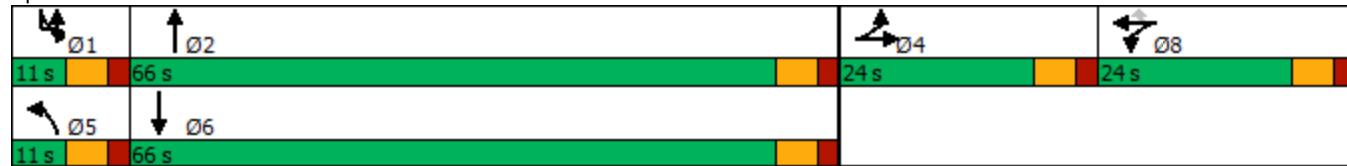
Analysis Period (min) 15

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

Lane Group	SBR
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Minimum Gap (s)	
Time Before Reduce (s)	
Time To Reduce (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effect Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Queue shown is maximum after two cycles.

Splits and Phases: 5: SH 6 & Shell Center Access



Intersection						
Int Delay, s/veh	4.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	107	110	2348	1894	18
Future Vol, veh/h	0	107	110	2348	1894	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	350	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	114	117	2496	2014	19
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	1017	2033	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	202	120	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	202	120	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	43.6	6.4	0			
HCM LOS	E					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	120	-	202	-	-	
HCM Lane V/C Ratio	0.975	-	0.563	-	-	
HCM Control Delay (s)	144.1	-	43.6	-	-	
HCM Lane LOS	F	-	E	-	-	
HCM 95th %tile Q(veh)	6.4	-	3	-	-	

Intersection

Int Delay, s/veh 2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑ ↗	↑ ↗		↑ ↗	↑ ↗		↔	↔		↔	↔	
Traffic Vol, veh/h	25	72	0	0	59	55	1	0	0	6	2	13
Future Vol, veh/h	25	72	0	0	59	55	1	0	0	6	2	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	125	-	-	165	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	62	82	92	92	70	81	25	92	92	50	50	65
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	41	89	0	0	85	69	4	0	0	12	4	20

Major/Minor	Major1	Major2		Minor1		Minor2		
Conflicting Flow All	154	0	0	89	0	0	216	325
Stage 1	-	-	-	-	-	-	171	171
Stage 2	-	-	-	-	-	-	45	154
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02
Pot Cap-1 Maneuver	1424	-	-	1504	-	-	722	592
Stage 1	-	-	-	-	-	-	814	756
Stage 2	-	-	-	-	-	-	963	769
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1424	-	-	1504	-	-	688	575
Mov Cap-2 Maneuver	-	-	-	-	-	-	688	575
Stage 1	-	-	-	-	-	-	790	734
Stage 2	-	-	-	-	-	-	938	769

Approach	EB	WB		NB		SB	
HCM Control Delay, s	2.4	0		10.3		9.7	
HCM LOS				B		A	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	688	1424	-	-	1504	-	-	796
HCM Lane V/C Ratio	0.006	0.029	-	-	-	-	-	0.046
HCM Control Delay (s)	10.3	7.6	-	-	0	-	-	9.7
HCM Lane LOS	B	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1

Lanes, Volumes, Timings
5: SH 6 & Shell Center Access

Background Conditions_Year 2026
PM Peak

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	1	0	0	15	0	22	0	2055	2	8	0	2399
Future Volume (vph)	1	0	0	15	0	22	0	2055	2	8	0	2399
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%				0%
Storage Length (ft)	0		0	0		0	375		0		375	
Storage Lanes	0		0	1		1	1		0		1	
Taper Length (ft)	25			25			200				150	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.91	0.95	1.00	0.91	0.91	0.91	1.00	0.91
Ped Bike Factor												
Frt						0.873	0.850					
Flt Protected		0.950		0.950	0.992						0.950	
Satd. Flow (prot)	0	1770	0	1681	1468	1504	1863	5085	0	0	1770	5085
Flt Permitted		0.950		0.950	0.992						0.950	
Satd. Flow (perm)	0	1770	0	1681	1468	1504	1863	5085	0	0	1770	5085
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)					131	131						
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		201			261			799			866	
Travel Time (s)		4.6			5.9			12.1			13.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	101%	101%	101%	101%	101%	101%	101%	101%	101%	101%	101%	101%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	1	0	0	16	0	23	0	2185	2	9	0	2551
Shared Lane Traffic (%)				15%		46%						
Lane Group Flow (vph)	0	1	0	14	13	12	0	2187	0	0	9	2551
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		12			12			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2		1	2	1	1	2		1	1	2
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Left	Thru
Leading Detector (ft)	20	100		20	100	20	20	100		20	20	100
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	0
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	Prot	NA
Protected Phases	4	4		8	8		5	2		1	1	6
Permitted Phases						8						
Detector Phase	4	4		8	8	8	5	2		1	1	6
Switch Phase												

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	0
Future Volume (vph)	0
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Grade (%)	
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	0.91
Ped Bike Factor	
Fr	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.95
Growth Factor	101%
Heavy Vehicles (%)	2%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Adj. Flow (vph)	0
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	

Lanes, Volumes, Timings
5: SH 6 & Shell Center Access

Background Conditions_Year 2026
PM Peak

	↗	→	↘	↙	←	↖	↑	↗	↖	↘	↓	
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	24.0	24.0		24.0	24.0	24.0	11.0	24.0		11.0	11.0	24.0
Total Split (s)	24.0	24.0		24.0	24.0	24.0	11.0	66.0		11.0	11.0	66.0
Total Split (%)	19.2%	19.2%		19.2%	19.2%	19.2%	8.8%	52.8%		8.8%	8.8%	52.8%
Maximum Green (s)	18.0	18.0		18.0	18.0	18.0	5.0	60.0		5.0	5.0	60.0
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag							Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	None		None	None	None	None	Max		None	None	Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0		7.0				7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0		11.0				11.0
Pedestrian Calls (#/hr)	0	0		0	0	0		0				0
Act Effect Green (s)	5.7	6.4		6.4	6.4		75.5			5.0		77.5
Actuated g/C Ratio	0.06	0.07		0.07	0.07		0.84			0.06		0.86
v/c Ratio	0.01	0.12		0.06	0.05		0.51			0.09		0.58
Control Delay	44.0	44.8		0.5	0.5		6.0			46.7		4.8
Queue Delay	0.0	0.0		0.0	0.0		0.0			0.0		0.0
Total Delay	44.0	44.8		0.5	0.5		6.0			46.7		4.8
LOS	D	D	A	A			A			D		A
Approach Delay	44.0		16.4				6.0					5.0
Approach LOS	D		B				A					A
Queue Length 50th (ft)	1	8	0	0		119				5		159
Queue Length 95th (ft)	6	30	0	0		417				22		389
Internal Link Dist (ft)	121		181			719						786
Turn Bay Length (ft)												375
Base Capacity (vph)	356	338	400	407		4257				99		4366
Starvation Cap Reductn	0	0	0	0		0				0		0
Spillback Cap Reductn	0	0	0	0		0				0		0
Storage Cap Reductn	0	0	0	0		0				0		0
Reduced v/c Ratio	0.00	0.04	0.03	0.03		0.51				0.09		0.58

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 90.2

Natural Cycle: 125

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 5.5

Intersection LOS: A

Intersection Capacity Utilization 70.1%

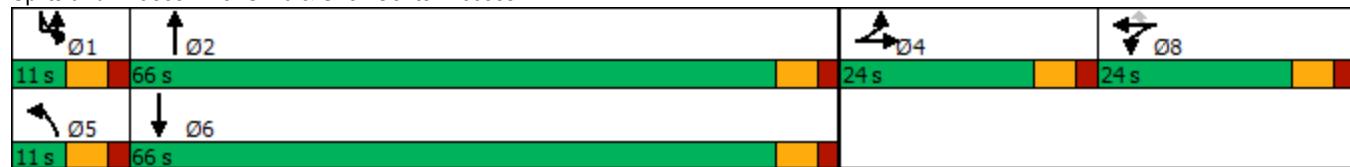
ICU Level of Service C

Analysis Period (min) 15

Lanes, Volumes, Timings
5: SH 6 & Shell Center Access

Background Conditions_Year 2026
PM Peak

Splits and Phases: 5: SH 6 & Shell Center Access



Lane Group	SBR
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Minimum Gap (s)	
Time Before Reduce (s)	
Time To Reduce (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effect Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Intersection							
Int Delay, s/veh	18.7						
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Vol, veh/h	0	44	25	109	2221	2398	29
Future Vol, veh/h	0	44	25	109	2221	2398	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	-	0	-	350	-	-	-
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	95	95	92	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	0	47	27	116	2361	2549	31
Major/Minor	Minor2	Major1		Major2			
Conflicting Flow All	-	1290	1884	2580	0	-	0
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.64	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	2.32	3.12	-	-	-
Pot Cap-1 Maneuver	0	132	140	~ 63	-	-	-
Stage 1	0	-	-	-	-	-	-
Stage 2	0	-	-	-	-	-	-
Platoon blocked, %					-	-	-
Mov Cap-1 Maneuver	-	132	67	~ 67	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-
Approach	EB	NB		SB			
HCM Control Delay, s	46.5	37.5		0			
HCM LOS	E						
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR		
Capacity (veh/h)	~ 67	-	132	-	-		
HCM Lane V/C Ratio	2.139	-	0.354	-	-		
HCM Control Delay (s)	\$ 655.4	-	46.5	-	-		
HCM Lane LOS	F	-	E	-	-		
HCM 95th %tile Q(veh)	13.5	-	1.4	-	-		
Notes							
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon	

Intersection

Int Delay, s/veh 2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑ ↗	↑ ↗		↑ ↗	↑ ↗		↔	↔		↔	↔	
Traffic Vol, veh/h	11	28	0	0	84	58	0	1	1	6	1	8
Future Vol, veh/h	11	28	0	0	84	58	0	1	1	6	1	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	125	-	-	165	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	46	70	92	92	92	76	92	25	25	75	25	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	40	0	0	92	77	0	4	4	8	4	16

Major/Minor	Major1	Major2			Minor1			Minor2				
Conflicting Flow All	169	0	0	40	0	0	136	257	20	201	219	85
Stage 1	-	-	-	-	-	-	88	88	-	131	131	-
Stage 2	-	-	-	-	-	-	48	169	-	70	88	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1406	-	-	1568	-	-	822	646	1053	739	678	957
Stage 1	-	-	-	-	-	-	910	821	-	859	787	-
Stage 2	-	-	-	-	-	-	959	758	-	932	821	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1406	-	-	1568	-	-	794	635	1053	723	666	957
Mov Cap-2 Maneuver	-	-	-	-	-	-	794	635	-	723	666	-
Stage 1	-	-	-	-	-	-	895	807	-	844	787	-
Stage 2	-	-	-	-	-	-	938	758	-	908	807	-

Approach	EB	WB			NB			SB					
HCM Control Delay, s	2.8	0			9.6			9.5					
HCM LOS					A			A					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	792	1406	-	-	1568	-	-	829					
HCM Lane V/C Ratio	0.01	0.017	-	-	-	-	-	0.034					
HCM Control Delay (s)	9.6	7.6	-	-	0	-	-	9.5					
HCM Lane LOS	A	A	-	-	A	-	-	A					
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1					

Lanes, Volumes, Timings
5: SH 6 & Shell Center Access

Project Traffic Conditions_Year 2026
AM Peak

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	1	0	0	0	0	2	1	2342	24	18	45	1922
Future Volume (vph)	1	0	0	0	0	2	1	2342	24	18	45	1922
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%				0%
Storage Length (ft)	0		0	0		0	375		0		375	
Storage Lanes	0		0	1		1	1		0		1	
Taper Length (ft)	25			25			200				150	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.91	0.95	1.00	0.91	0.91	0.91	1.00	0.91
Ped Bike Factor												
Frt					0.850	0.850		0.998				
Flt Protected		0.950					0.950				0.950	
Satd. Flow (prot)	0	1770	0	1770	1441	1504	1770	5075	0	0	1770	5085
Flt Permitted		0.950					0.950				0.950	
Satd. Flow (perm)	0	1770	0	1770	1441	1504	1770	5075	0	0	1770	5085
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)					270	270		2				
Link Speed (mph)		30			30			45				45
Link Distance (ft)		201			261			438				866
Travel Time (s)		4.6			5.9			6.6				13.1
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Adj. Flow (vph)	1	0	0	0	0	2	1	2518	26	19	48	2067
Shared Lane Traffic (%)				0%		50%						
Lane Group Flow (vph)	0	1	0	0	1	1	1	2544	0	0	67	2071
Enter Blocked Intersection	No	No	No	No								
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		12			12			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2		1	2	1	1	2		1	1	2
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Left	Thru
Leading Detector (ft)	20	100		20	100	20	20	100		20	20	100
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	0
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	Prot	NA
Protected Phases	4	4		8	8		5	2		1	1	6
Permitted Phases						8						
Detector Phase	4	4		8	8	8	5	2		1	1	6
Switch Phase												

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	4
Future Volume (vph)	4
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Grade (%)	
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	0.91
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.93
Growth Factor	100%
Heavy Vehicles (%)	2%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Adj. Flow (vph)	4
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	

Lanes, Volumes, Timings
5: SH 6 & Shell Center Access

Project Traffic Conditions_Year 2026
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	24.0	24.0		24.0	24.0	24.0	11.0	24.0		11.0	11.0	24.0
Total Split (s)	24.0	24.0		24.0	24.0	24.0	11.0	66.0		11.0	11.0	66.0
Total Split (%)	19.2%	19.2%		19.2%	19.2%	19.2%	8.8%	52.8%		8.8%	8.8%	52.8%
Maximum Green (s)	18.0	18.0		18.0	18.0	18.0	5.0	60.0		5.0	5.0	60.0
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag							Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	None		None	None	None	Max			None	None	Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0		7.0				7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0		11.0				11.0
Pedestrian Calls (#/hr)	0	0		0	0	0		0				0
Act Effect Green (s)	5.6			5.5	5.5	5.0	71.2			5.0		85.2
Actuated g/C Ratio	0.06			0.06	0.06	0.05	0.77			0.05		0.92
v/c Ratio	0.01			0.00	0.00	0.01	0.65			0.71		0.44
Control Delay	43.0			0.0	0.0	43.0	7.7			80.8		3.9
Queue Delay	0.0			0.0	0.0	0.0	0.0			0.0		0.0
Total Delay	43.0			0.0	0.0	43.0	7.7			80.8		3.9
LOS	D			A	A	D	A			F		A
Approach Delay	43.0						7.7					6.3
Approach LOS	D						A					A
Queue Length 50th (ft)	1			0	0	1	143			39		0
Queue Length 95th (ft)	6			0	0	6	520			#120		358
Internal Link Dist (ft)	121			181			358					786
Turn Bay Length (ft)							375					375
Base Capacity (vph)	345			498	510	95	3904			95		4676
Starvation Cap Reductn	0			0	0	0	0			0		0
Spillback Cap Reductn	0			0	0	0	0			0		0
Storage Cap Reductn	0			0	0	0	0			0		0
Reduced v/c Ratio	0.00			0.00	0.00	0.01	0.65			0.71		0.44

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 92.6

Natural Cycle: 125

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 7.1

Intersection LOS: A

Intersection Capacity Utilization 75.7%

ICU Level of Service D

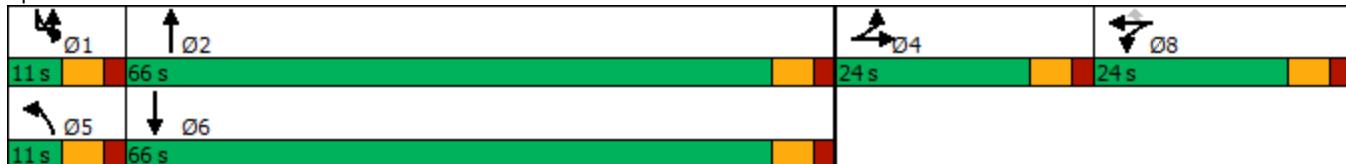
Analysis Period (min) 15

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

Lane Group	SBR
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Minimum Gap (s)	
Time Before Reduce (s)	
Time To Reduce (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effect Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Queue shown is maximum after two cycles.

Splits and Phases: 5: SH 6 & Shell Center Access



Intersection						
Int Delay, s/veh	12.5					
Movement	EBL	EBC	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	129	156	2412	1975	18
Future Vol, veh/h	0	129	156	2412	1975	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	350	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	136	164	2539	2079	19
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	1049	2098	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	192	~ 111	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	192	~ 111	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	59.4	19.9	0			
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	~ 111	-	192	-	-	
HCM Lane V/C Ratio	1.479	-	0.707	-	-	
HCM Control Delay (s)	\$ 327.6	-	59.4	-	-	
HCM Lane LOS	F	-	F	-	-	
HCM 95th %tile Q(veh)	11.8	-	4.4	-	-	
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↑	↑↑↑↑	↑↑↑↑		
Traffic Vol, veh/h	0	62	0	2367	1931	45
Future Vol, veh/h	0	62	0	2367	1931	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	67	0	2573	2099	49
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	1074	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	185	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	185	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	35.2	0		0		
HCM LOS	E					
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR		
Capacity (veh/h)	-	185	-	-		
HCM Lane V/C Ratio	-	0.364	-	-		
HCM Control Delay (s)	-	35.2	-	-		
HCM Lane LOS	-	E	-	-		
HCM 95th %tile Q(veh)	-	1.6	-	-		

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↗	
Traffic Vol, veh/h	0	108	111	45	0	21
Future Vol, veh/h	0	108	111	45	0	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	117	121	49	0	23
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	-	0	-	0	-	85
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	957
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	957
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB	SB			
HCM Control Delay, s	0	0	8.9			
HCM LOS			A			
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	957		
HCM Lane V/C Ratio	-	-	-	0.024		
HCM Control Delay (s)	-	-	-	8.9		
HCM Lane LOS	-	-	-	A		
HCM 95th %tile Q(veh)	-	-	-	0.1		

Intersection

Int Delay, s/veh 2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑ ↗	↑ ↗		↑ ↗	↑ ↗		↔	↔		↔	↔	
Traffic Vol, veh/h	25	73	0	0	60	56	1	0	0	6	2	13
Future Vol, veh/h	25	73	0	0	60	56	1	0	0	6	2	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	125	-	-	165	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	62	82	92	92	70	81	25	92	92	50	50	65
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	89	0	0	86	69	4	0	0	12	4	20

Major/Minor	Major1	Major2		Minor1		Minor2						
Conflicting Flow All	155	0	0	89	0	0	214	324	45	246	290	78
Stage 1	-	-	-	-	-	-	169	169	-	121	121	-
Stage 2	-	-	-	-	-	-	45	155	-	125	169	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1423	-	-	1504	-	-	724	592	1015	687	619	967
Stage 1	-	-	-	-	-	-	816	758	-	870	795	-
Stage 2	-	-	-	-	-	-	963	768	-	866	758	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1423	-	-	1504	-	-	690	575	1015	673	602	967
Mov Cap-2 Maneuver	-	-	-	-	-	-	690	575	-	673	602	-
Stage 1	-	-	-	-	-	-	793	737	-	846	795	-
Stage 2	-	-	-	-	-	-	938	768	-	842	737	-

Approach	EB	WB		NB		SB	
HCM Control Delay, s	2.4	0		10.2		9.7	
HCM LOS				B		A	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	690	1423	-	-	1504	-	-	797
HCM Lane V/C Ratio	0.006	0.028	-	-	-	-	-	0.045
HCM Control Delay (s)	10.2	7.6	-	-	0	-	-	9.7
HCM Lane LOS	B	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1

Lanes, Volumes, Timings
5: SH 6 & Shell Center Access

Project Traffic Conditions_Year 2026
PM Peak

	→	→	→	←	←	←	↑	↑	↑	↓	↓	↓
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	↔			↑	↔	↑	↑	↑↑			↑	↑↑
Traffic Volume (vph)	1	0	0	15	0	22	0	2131	2	8	0	2479
Future Volume (vph)	1	0	0	15	0	22	0	2131	2	8	0	2479
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%				0%
Storage Length (ft)	0		0	0		0	375		0		375	
Storage Lanes	0		0	1		1	1		0		1	
Taper Length (ft)	25			25			200				150	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.91	0.95	1.00	0.91	0.91	0.91	1.00	0.91
Ped Bike Factor												
Frt						0.873	0.850					
Flt Protected		0.950		0.950	0.992						0.950	
Satd. Flow (prot)	0	1770	0	1681	1468	1504	1863	5085	0	0	1770	5085
Flt Permitted		0.950		0.950	0.992						0.950	
Satd. Flow (perm)	0	1770	0	1681	1468	1504	1863	5085	0	0	1770	5085
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)					131	131						
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		201			261			438			866	
Travel Time (s)		4.6			5.9			6.6			13.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	1	0	0	16	0	23	0	2243	2	8	0	2609
Shared Lane Traffic (%)				15%		46%						
Lane Group Flow (vph)	0	1	0	14	13	12	0	2245	0	0	8	2609
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2		1	2	1	1	2		1	1	2
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Left	Thru
Leading Detector (ft)	20	100		20	100	20	20	100		20	20	100
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	0
Turn Type	Split	NA		Split	NA	Perm	Prot	NA		Prot	Prot	NA
Protected Phases	4	4		8	8		5	2		1	1	6
Permitted Phases						8						
Detector Phase	4	4		8	8	8	5	2		1	1	6
Switch Phase												

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	0
Future Volume (vph)	0
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Grade (%)	
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	0.91
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.95
Growth Factor	100%
Heavy Vehicles (%)	2%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Adj. Flow (vph)	0
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	

Lanes, Volumes, Timings
5: SH 6 & Shell Center Access

Project Traffic Conditions_Year 2026
PM Peak

	↗	→	↘	↙	←	↖	↑	↗	↖	↘	↓	
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	24.0	24.0		24.0	24.0	24.0	11.0	24.0		11.0	11.0	24.0
Total Split (s)	24.0	24.0		24.0	24.0	24.0	11.0	66.0		11.0	11.0	66.0
Total Split (%)	19.2%	19.2%		19.2%	19.2%	19.2%	8.8%	52.8%		8.8%	8.8%	52.8%
Maximum Green (s)	18.0	18.0		18.0	18.0	18.0	5.0	60.0		5.0	5.0	60.0
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag							Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	None		None	None	None	None	Max		None	None	Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0		7.0				7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0		11.0				11.0
Pedestrian Calls (#/hr)	0	0		0	0	0		0				0
Act Effect Green (s)	5.7		6.4	6.4	6.4		75.5			5.0		77.5
Actuated g/C Ratio	0.06		0.07	0.07	0.07		0.84			0.06		0.86
v/c Ratio	0.01		0.12	0.06	0.05		0.53			0.08		0.60
Control Delay	44.0		44.8	0.5	0.5		6.1			46.4		5.0
Queue Delay	0.0		0.0	0.0	0.0		0.0			0.0		0.0
Total Delay	44.0		44.8	0.5	0.5		6.1			46.4		5.0
LOS	D		D	A	A		A			D		A
Approach Delay	44.0			16.4			6.1					5.1
Approach LOS	D			B			A					A
Queue Length 50th (ft)	1		8	0	0		124			5		167
Queue Length 95th (ft)	6		30	0	0		436			21		406
Internal Link Dist (ft)	121			181			358					786
Turn Bay Length (ft)												375
Base Capacity (vph)	356		338	400	407		4258			99		4367
Starvation Cap Reductn	0		0	0	0		0			0		0
Spillback Cap Reductn	0		0	0	0		0			0		0
Storage Cap Reductn	0		0	0	0		0			0		0
Reduced v/c Ratio	0.00		0.04	0.03	0.03		0.53			0.08		0.60

Intersection Summary

Area Type: Other

Cycle Length: 125

Actuated Cycle Length: 90.2

Natural Cycle: 125

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 5.7

Intersection LOS: A

Intersection Capacity Utilization 71.2%

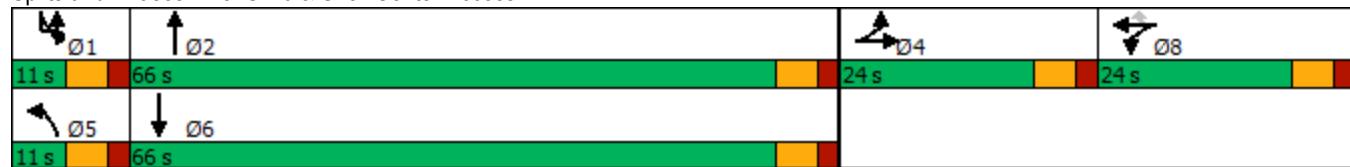
ICU Level of Service C

Analysis Period (min) 15

Lanes, Volumes, Timings
5: SH 6 & Shell Center Access

Project Traffic Conditions_Year 2026
PM Peak

Splits and Phases: 5: SH 6 & Shell Center Access



Lane Group	SBR
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Minimum Gap (s)	
Time Before Reduce (s)	
Time To Reduce (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effect Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Intersection							
Int Delay, s/veh	50.2						
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Vol, veh/h	0	72	25	166	2298	2505	29
Future Vol, veh/h	0	72	25	166	2298	2505	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	-	0	-	350	-	-	-
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	95	95	92	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	0	76	27	175	2419	2637	31
Major/Minor	Minor2	Major1		Major2			
Conflicting Flow All	-	1334	1947	2668	0	-	0
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.64	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	2.32	3.12	-	-	-
Pot Cap-1 Maneuver	0	124	129	~ 57	-	-	-
Stage 1	0	-	-	-	-	-	-
Stage 2	0	-	-	-	-	-	-
Platoon blocked, %					-	-	-
Mov Cap-1 Maneuver	-	124	57	~ 57	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-
Approach	EB	NB		SB			
HCM Control Delay, s	71.6	100.7		0			
HCM LOS	F						
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR		
Capacity (veh/h)	~ 57	-	124	-	-		
HCM Lane V/C Ratio	3.542	-	0.611	-	-		
HCM Control Delay (s)	\$ 1307.1	-	71.6	-	-		
HCM Lane LOS	F	-	F	-	-		
HCM 95th %tile Q(veh)	21.6	-	3.1	-	-		
Notes							
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon	

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	83	0	2133	2451	56
Future Vol, veh/h	0	83	0	2133	2451	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	90	0	2318	2664	61
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	1363	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	118	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	118	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	97.9	0		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR		
Capacity (veh/h)	-	118	-	-		
HCM Lane V/C Ratio	-	0.765	-	-		
HCM Control Delay (s)	-	97.9	-	-		
HCM Lane LOS	-	F	-	-		
HCM 95th %tile Q(veh)	-	4.3	-	-		

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↗	
Traffic Vol, veh/h	0	44	110	56	0	28
Future Vol, veh/h	0	44	110	56	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	48	120	61	0	30
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	-	0	-	0	-	91
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	949
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	949
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB	SB			
HCM Control Delay, s	0	0	8.9			
HCM LOS			A			
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	949		
HCM Lane V/C Ratio	-	-	-	0.032		
HCM Control Delay (s)	-	-	-	8.9		
HCM Lane LOS	-	-	-	A		
HCM 95th %tile Q(veh)	-	-	-	0.1		

Intersection

Int Delay, s/veh 1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑ ↗	↑ ↗		↑ ↗	↑ ↗		↔	↔		↔	↔	
Traffic Vol, veh/h	11	28	0	0	85	59	0	1	1	6	1	8
Future Vol, veh/h	11	28	0	0	85	59	0	1	1	6	1	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	125	-	-	165	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	46	70	92	92	92	76	92	25	25	75	25	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	40	0	0	92	78	0	4	4	8	4	16

Major/Minor	Major1	Major2			Minor1			Minor2					
Conflicting Flow All	170	0	0	40	0	0	136	258	20	201	219	85	
Stage 1	-	-	-	-	-	-	88	88	-	131	131	-	
Stage 2	-	-	-	-	-	-	48	170	-	70	88	-	
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94	
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32	
Pot Cap-1 Maneuver	1405	-	-	1568	-	-	822	645	1053	739	678	957	
Stage 1	-	-	-	-	-	-	910	821	-	859	787	-	
Stage 2	-	-	-	-	-	-	959	757	-	932	821	-	
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-	
Mov Cap-1 Maneuver	1405	-	-	1568	-	-	794	634	1053	723	666	957	
Mov Cap-2 Maneuver	-	-	-	-	-	-	794	634	-	723	666	-	
Stage 1	-	-	-	-	-	-	895	807	-	844	787	-	
Stage 2	-	-	-	-	-	-	938	757	-	908	807	-	

Approach	EB	WB			NB			SB					
HCM Control Delay, s	2.8	0			9.6			9.5					
HCM LOS					A			A					
<hr/>													
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	791	1405	-	-	1568	-	-	829					
HCM Lane V/C Ratio	0.01	0.017	-	-	-	-	-	0.034					
HCM Control Delay (s)	9.6	7.6	-	-	0	-	-	9.5					
HCM Lane LOS	A	A	-	-	A	-	-	A					
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1					