



Church of Jesus Christ of Latter-Day Saints
McKinney Temple
Traffic Engineering Study

March 2024

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TECHNICAL MEMORANDUM

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Town of Fairview, Texas

From: Pete Kelly, P.E.
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Date: March 6, 2024

Subject: McKinney Temple Traffic Engineering Study
Fairview, Texas

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Executive Summary

This study contains an evaluation of the proposed Church of Jesus of Latter-Day Saints Temple, located at the northeast corner of the intersection of Stacy Road and River Oaks Drive in the Town of Fairview, Texas. The Temple is anticipated to build out in the year 2026. Two (2) full access points are proposed to be provided to the development. Drive 1 is an existing driveway which currently provides access to a church building also owned by the Church of Jesus Christ of Latter-day Saints. Drive 1 will function as a shared driveway for both the church building and the Temple. Drive 2 is a proposed driveway just east of Drive 1 along Stacy Road and is proposed to provide right-in/right-out access only. The focus of this memo is to determine trip generation, trip assignment, auxiliary lane analysis, driveway spacing analysis, and verify adequate sight distance. A previously completed Due Diligence study is included in the Appendix of this memo for reference.

Based on our review of the proposed development, we offer the following conclusions and recommendations:

- The site is anticipated to generate 64 total trips in the AM peak hour and 74 total trips in the PM peak hour.
- No auxiliary lanes are warranted at the proposed site drives.
- A 135-foot variance to the minimum access spacing criteria is recommended to be granted for Drive 2 due to no auxiliary lanes being warranted and the drive operating with right-in/right-out configuration and low volumes.
- Drive 2 along Stacy Road will provide adequate sight distance for right-turns from stop.

Purpose and Scope

This memorandum serves as the traffic engineering study required by TxDOT for a proposed Temple for the Church of Jesus Christ of Latter-Day Saints along Stacy Road in the Town of Fairview, Texas. The Temple is anticipated to be completed in 2026. The Temple is located at the northeast corner of the intersection of Stacy Road and River Oaks Drive. Two (2) full access points are proposed to be provided to the development. Drive 1 is an existing driveway which currently provides access to a church building also owned by the Church of Jesus Christ of Latter-day Saints. Drive 1 will function as a shared driveway for both the church building and the Temple. Drive 2 is a proposed driveway just east of Drive 1 along Stacy Road and is proposed to provide right-in/right-out access only.

This study will include the following information:

- Existing Conditions
- Background Conditions
 - Buildout Background
 - Horizon Background
- Buildout/Horizon Conditions
 - Trip Generation
 - Trip Distribution/Assignment
 - Auxiliary Lane Analysis
 - Driveway Spacing Analysis
 - Sight Distance Analysis

A Conceptual Site Plan is provided in the **Appendix**.

Due Diligence Study

Prior to the submittal of this memo, a Due Diligence Traffic Study for the site was completed by Fehr and Peers. The Due Diligence Traffic Study has not been previously submitted to the Town of Fairview or to TxDOT for review. As such, this memo will act as the formal submittal for the purposes of a TxDOT driveway permit review. Some of the supporting data for this memo was obtained from the Due Diligence Traffic Study. Data obtained from the Due Diligence Traffic Study includes:

- Existing traffic counts
- Trip generation analysis
- Trip distribution

The Due Diligence Traffic Study is provided in the **Appendix** as a reference.

Existing Conditions

Stacy Road is a four-lane divided roadway with a posted speed of 50 mph. The property is currently unoccupied and generates no traffic. As of the November 2021 Town of Fairview zoning map, the property is zoned as RE-1 (One Acre Ranch District).

Existing volumes were collected along Stacy Road on Wednesday, October 12, 2022, and are presented in the **Figure 1**. The raw traffic count data can be found in the Due Diligence Study included in the **Appendix**.

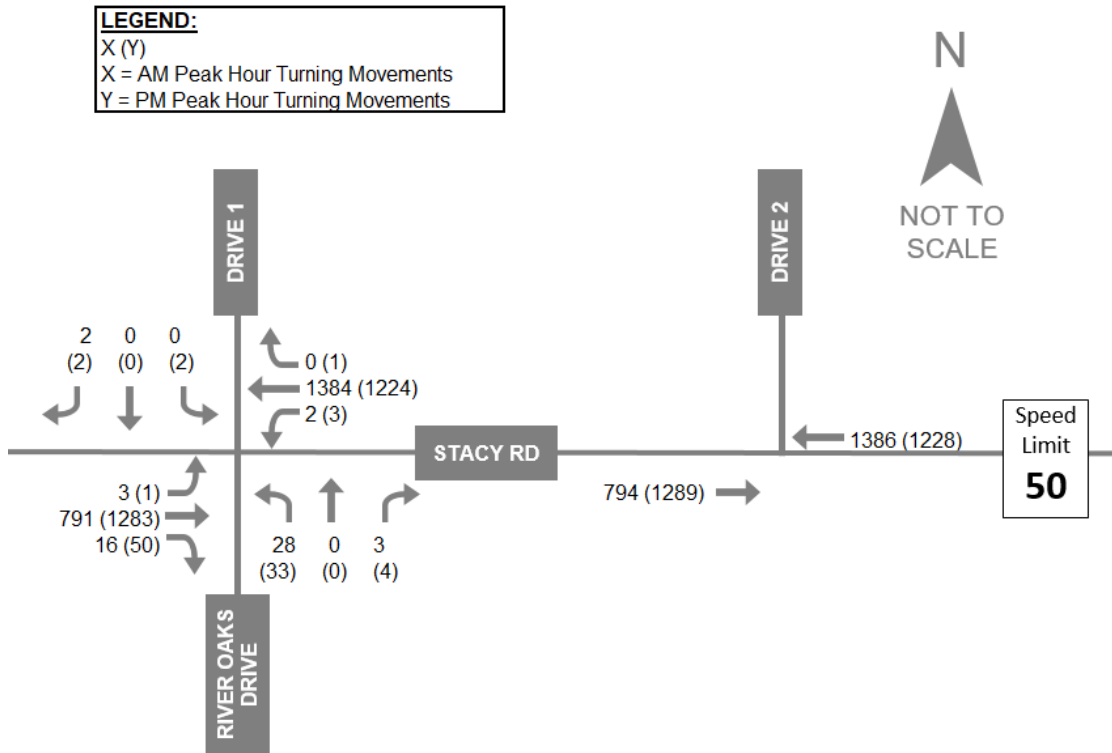


Figure 1. Existing Volumes

Buildout-Horizon Conditions

Background Growth

Based on historical growth data from the TxDOT Traffic Count Database System and future growth projections from the TxDOT Statewide Planning Map, an annual growth rate of 3% was assumed as representative for the roadway network. To project the background volumes at Buildout (2026), the existing volumes were grown at 3% for two years and are presented in **Figure 2**. To project the background volumes at Horizon (2031), the existing volumes were grown at 3% for five years and are presented in **Figure 3**.

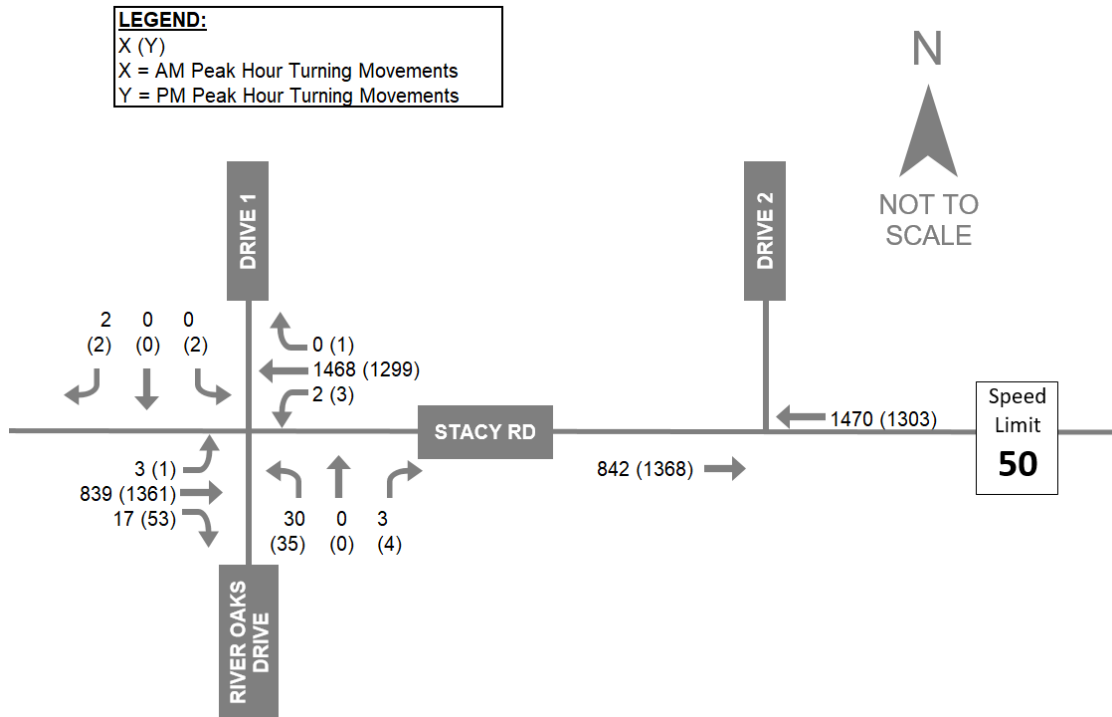


Figure 2. Buildout (2026) Background Volumes

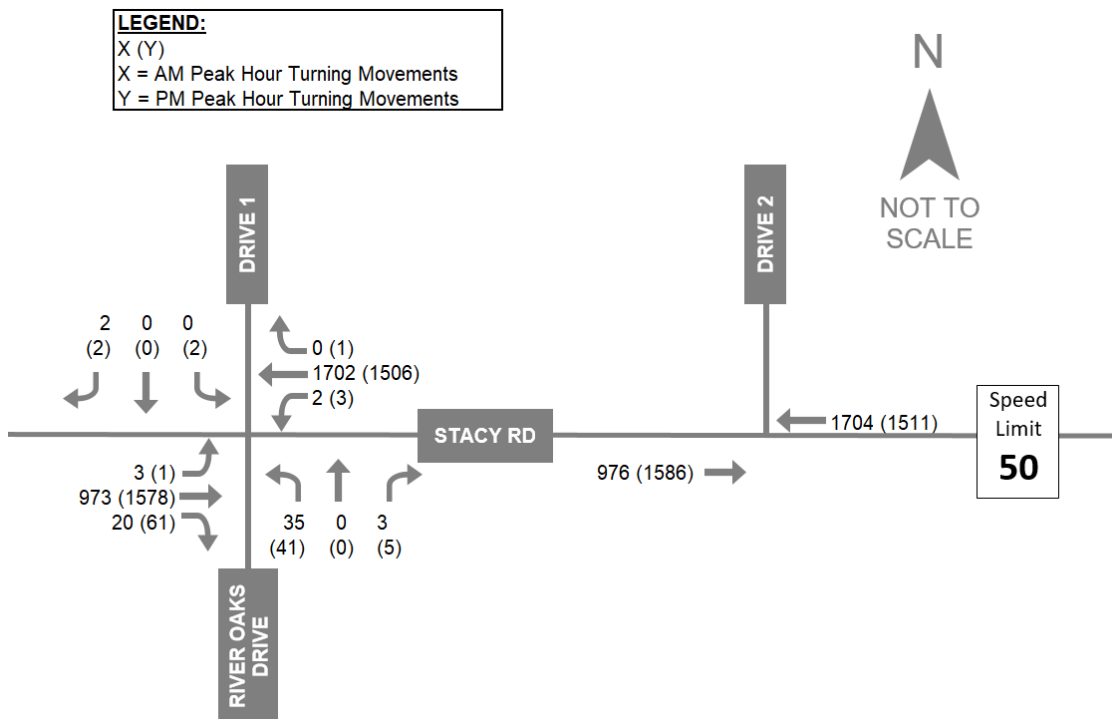


Figure 3. Horizon (2031) Background Volumes

Trip Generation

The trip generation estimates for the Temple were obtained from the Due Diligence Study, which were based on data collected at similar Temple sites. **Table 1** presents the weekday AM and PM peak trips generated for the proposed development. Additional information on the trip generation methodology is in the Due Diligence Study in the **Appendix**.

It is noted that while the Temple is a religious facility, it will not be operational on Sundays and therefore its peak operational period is not anticipated to coincide with the adjacent church buildings which do experience peak operations on Sundays.

Table 1. Estimated Trip Generation

Land Use Description	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Temple	48	16	64	38	36	74

Trip Distribution and Trip Assignment

The trip distribution into and out of the study area was based on the assumptions made in the Due Diligence Study. The trip assignment into Drives 1 and 2 was based on the adjacent roadway network, proposed access type, and existing volumes. The estimated trip distribution is shown in **Figure 4**.

To calculate the trip assignment or site-generate trips, the in/out trips in **Table 1** were multiplied with the trip generation percentages in **Figure 4**. The site-generated trips are presented in **Figure 5**. The total Buildout (2026) traffic was calculated by adding the Buildout (2026) Background volumes (**Figure 2**) to the Site-Generated trips (**Figure 5**). The total Buildout (2026) traffic is shown in **Figure 6**.

To calculate the total Horizon (2031) traffic, the Horizon (2031) Background trips (**Figure 3**) were added to the site-generated trips (**Figure 5**). The total Horizon (2031) traffic is shown in **Figure 7**.

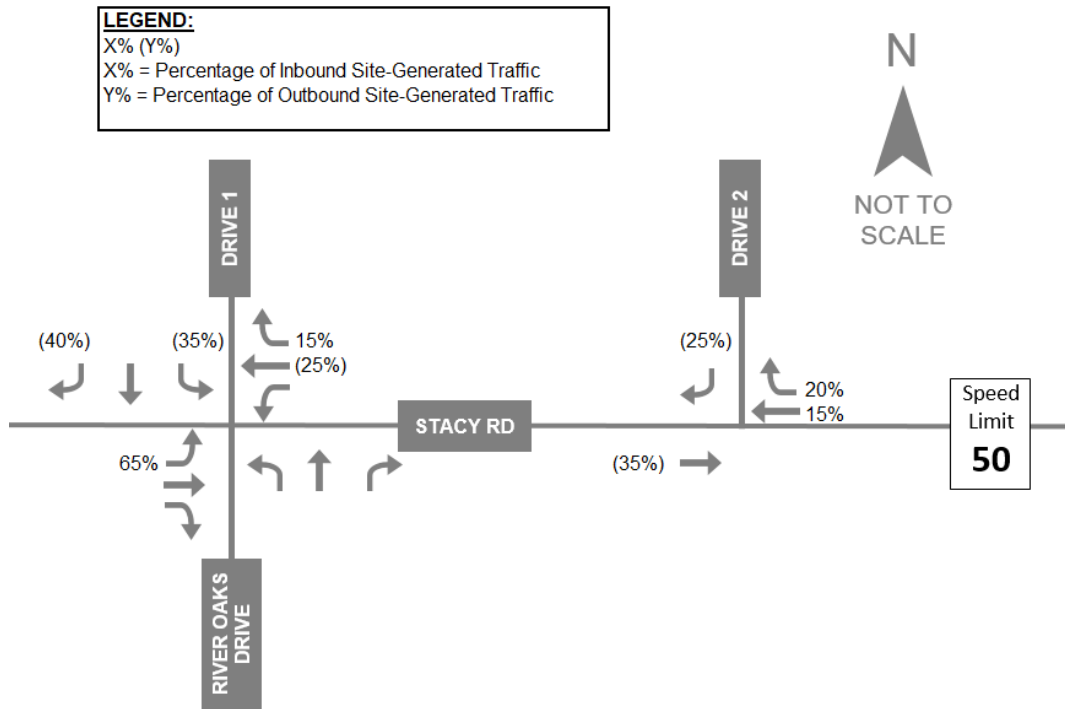


Figure 4. Trip Distribution

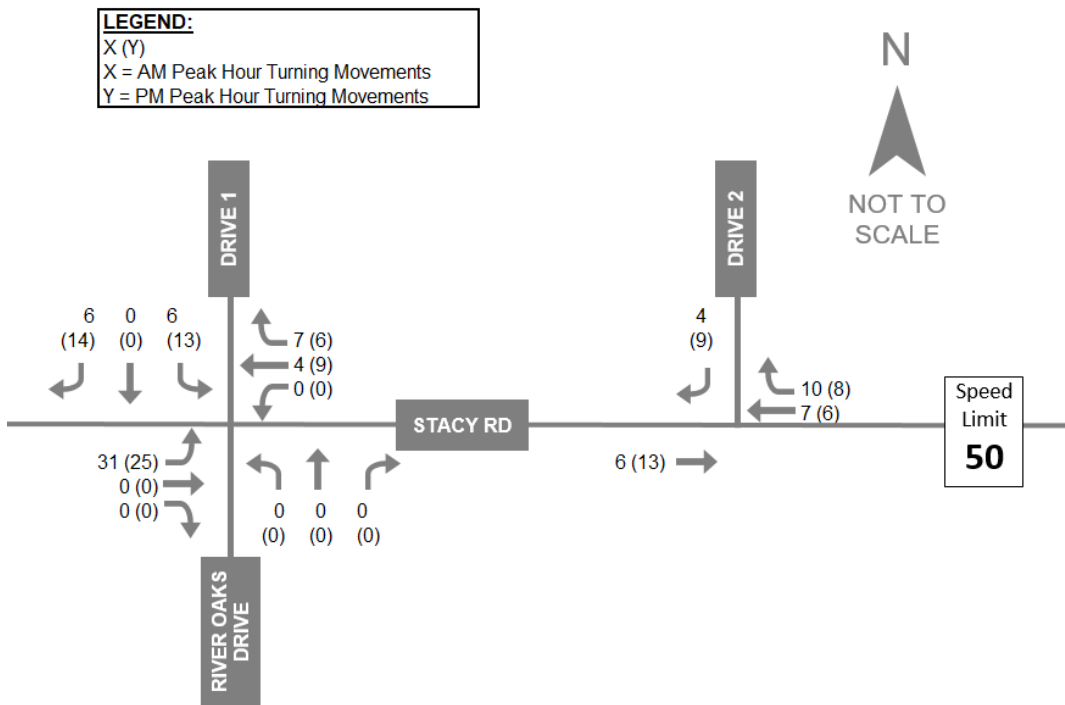


Figure 5. Site-Generated Trips

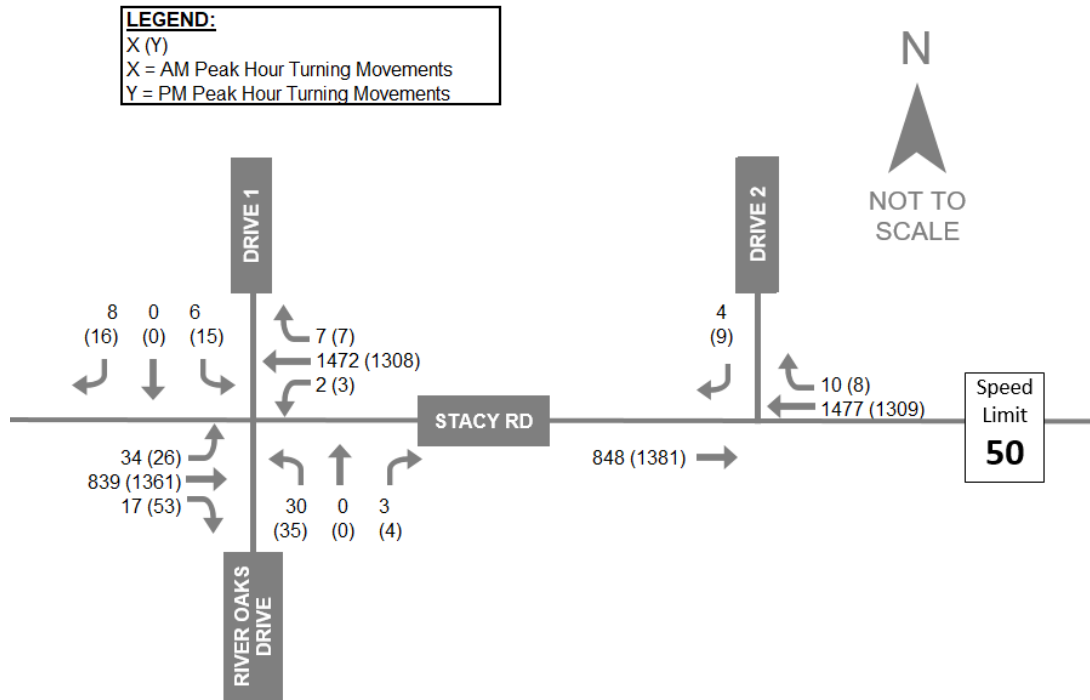


Figure 6. Total Buildout (2026) Traffic

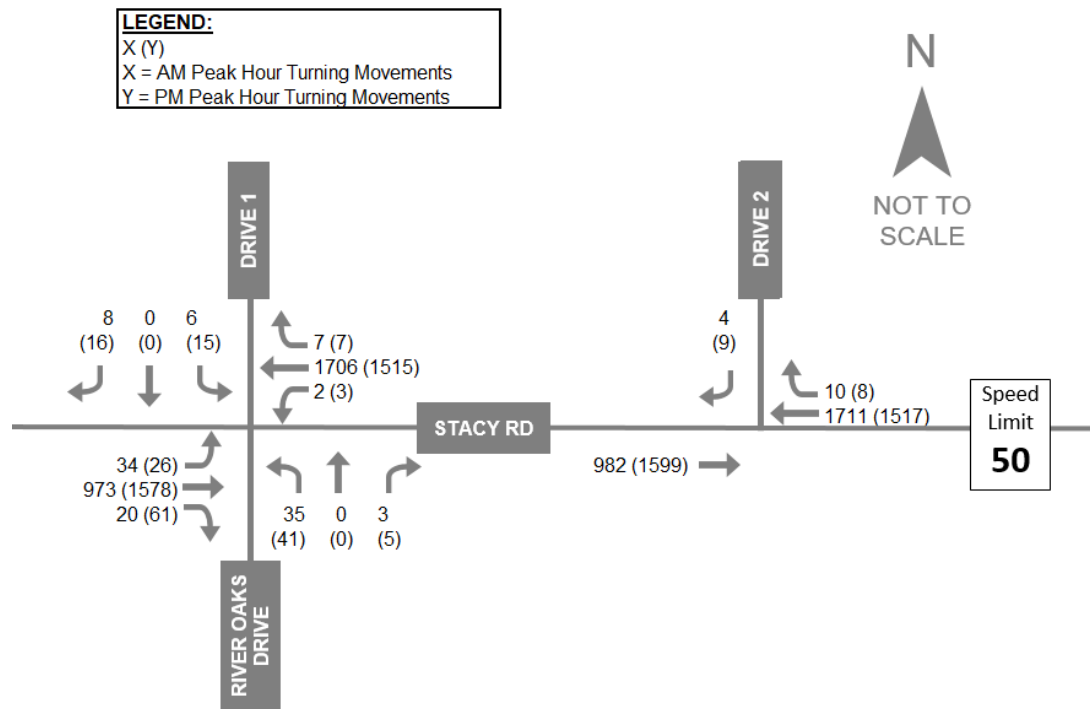


Figure 7. Total Horizon (2027) Traffic

Auxiliary Lane Analysis

Stacy Road is classified as a TxDOT facility, therefore, criteria from the TxDOT Access Management Manual and Roadway Design Manual were used to complete the auxiliary lane analysis.

Right Turn Lane Analysis

For right turn lanes, a volume of 50 right-turn vehicles or more will warrant a right-turn lane along a roadway with a speed limit of greater than 45 mph. The right-turn volumes at the site drives are not anticipated to exceed 10 vehicles in the AM peak hour and 8 vehicles in the PM peak hour. Therefore, a right-turn deceleration lane is not warranted at either site drive.

Left-Turn Lane Analysis

A left-turn lane currently exists at the median opening to Drive 1. Drive 2 is proposed to be configured as right-in/right-out and left-turn movements will be prohibited. Therefore, no left-turn lane analyses were performed for either drive.

Driveway Spacing Analysis

The driveway spacing along Stacy Road was analyzed for Drive 2 based on criteria provided in TxDOT's Access Management Manual. Drive 1 was not analyzed as it is an existing access Drive. Minimum connection spacing along a roadway with a posted speed limit of 50 mph is 425 ft. Drive 2 is located approximately 290 feet east of Drive 1 and 487 feet west of Meandering Way along Stacy Road. In addition, the neighboring property to the west is owned by the Church of Christ and is also proposing a right-in/right-out driveway along Stacy Road. This proposed driveway is approximately 227 feet west of Drive 2.

Based on the proposed location of Drive 2 in relation to Drive 1, a 135-foot variance to access spacing criteria is requested by the development. It is common for the minimum access spacing to be needed to allow adequate space for auxiliary lanes and to minimize disruption to traffic flow along the state facility. In the case of Drive 2, no auxiliary lanes are warranted, and the drive will operate as right-in/right-out with very low peak hour volumes. Therefore, it is recommended that a variance be granted for Drive 2 due to the lack of need for a turn lane and the minimally anticipated disruption to traffic flow along Stacy Road.

Access spacing dimensions are provided on the concept plan in the **Appendix**.

Sight Distance Analysis

The intersection sight distance was analyzed for Drive 2 along Stacy Road. AASHTO's intersection sight distance standards were used as directed by the TxDOT roadway design manual. The minimum recommended sight distance needed to safely complete a right-turn from stop along a 50-mph roadway is 425 ft.

Based on an evaluation of aerial and street-level imagery, the minimum requirements for sight distance are exceeded at Drive 2. A sight distance photolog is provided in the **Appendix**.

Conclusions and Recommendations

Based on our review of the proposed development, we offer the following conclusions and recommendations:

- The site is anticipated to generate 64 total trips in the AM peak hour and 74 total trips in the PM peak hour.
- No auxiliary lanes are warranted at the proposed site drives.
- A 135-foot variance to the minimum access spacing criteria is recommended to be granted for Drive 2 due to no auxiliary lanes being warranted and the drive operating with right-in/right-out configuration and low volumes.
- Drive 2 along Stacy Road will provide adequate sight distance for right-turns from stop.

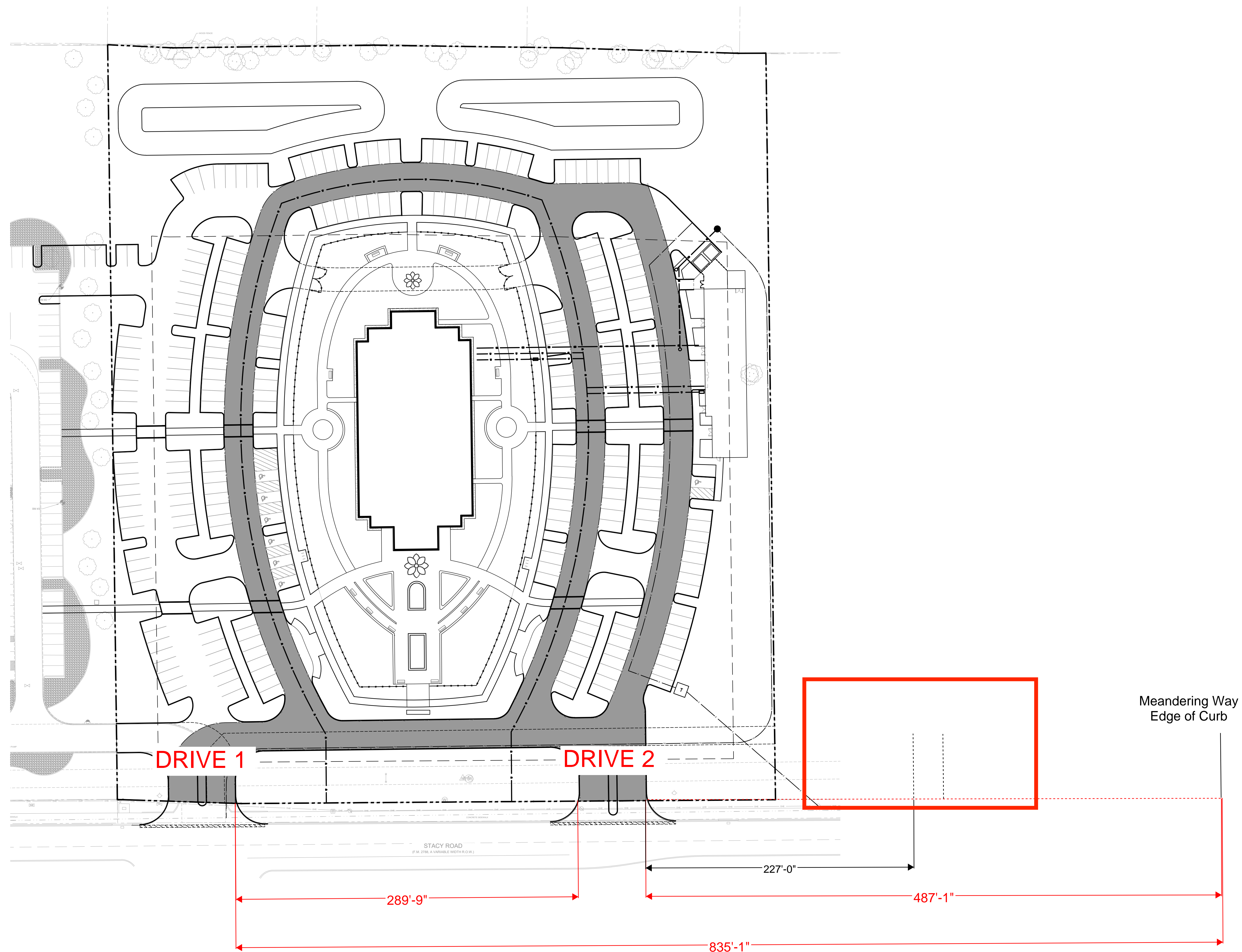


Appendix Sections

1. Conceptual Site Plan & Access Spacing
2. Sight Distance Photolog
3. Due Diligence Study



CONCEPTUAL SITE PLAN & ACCESS SPACING



SIGHT DISTANCE PHOTOLOG



Drive 2 looking East



DUE DILIGENCE TRAFFIC STUDY

Fairview Temple

Due Diligence Traffic Study

Prepared for:
The Church of Jesus Christ of Latter-Day Saints

December 2022

UT22-2393

FEHR  PEERS

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1. Executive Summary

This study summarizes the potential traffic impacts from the temple proposed to be located north of Stacy Road, between River Oaks Drive and Meandering Way, in Fairview, Texas. Fehr & Peers performed this study for due diligence purposes only; if a traffic impact study (TIS) needs to be submitted to the city, **additional analysis may be required to meet city and state requirements. Fehr & Peers recommends working with the city and state to produce a TIS that meets city and state requirements.** Items that should be discussed with the city include, but are not limited to, the following elements: requirements for the study, access locations, level of service (LOS) analysis methodology, amount of growth expected, and any additional concerns the city may have about the development.

This study analyzes the traffic operations and LOS for background and plus project conditions for the years 2022 and 2040 at the following key intersections:

- | | |
|--|---|
| 1) Stacy Road & Meandering Way – Signal | 5) Stacy Road & Greenville Ave (Hwy 5) – Signal |
| 2) Stacy Road & River Oaks Drive – Signal | |
| 3) Stacy Road & Lost Creek Drive – Signal | 6) Horseshoe Bend & Meandering Way – Stop Control |
| 4) Stacy Road & Allen Heights Drive – Signal | |

The plus project analysis includes project trips generated from the proposed development. Fehr & Peers estimated the number of vehicles trips for the proposed Temple using traffic data collected at other six Temples (five in Utah and one in Arizona). The estimated vehicle trips for the Fairview Temple are:

- AM peak hour: 64 vehicle trips (48 entering and 16 exiting)
- PM peak hour: 74 vehicle trips (38 entering and 36 exiting)

The proposed project would not introduce any new accesses but would tie into the same accesses that the existing church building uses along Stacy Road. **Table 1** shows the analysis results for all scenarios. Detailed descriptions of the intersection operations can be found in the subsequent chapters. The findings of this study indicate the following:

- In all analyzed scenarios, including existing 2022 background conditions, the side-street stop-controlled study intersections along Stacy Road performed at failing LOS and will require improvements to mitigate the excessive vehicle delay at those intersections,
- Fairview traffic growth has historically increased by approximately 2.1% more vehicles per year. Assuming those growth rates continue, traffic in the area is anticipated to increase by approximately 38% by 2040 which will affect traffic patterns and delay in this area,

- Potential intersection improvements include the following measures:
 - Providing receiving lanes along Stacy Road for left-turning vehicles,
 - Restricting left turns out of the intersections at Allen Heights Drive, Lost Creek Drive, and River Oaks Drive,
 - Conducting a signal warrant study to potentially signalize the intersection at Allen Heights Drive & Stacy Road,
 - **Coordinating with adjacent property owners east of the proposed site to include a cross-access easement and connect to Meandering Way, likely at the intersection at Horseshoe Bend, to provide an alternate route for vehicles traveling to and from the temple.**
- Project generated trips were not found to significantly affect the level of service at the study intersections. All failing intersections were found to operate unacceptably in the background conditions before project traffic was added to the study intersections.

Table 1: AM and PM Peak Hour Level of Service Summary

Intersection			2022 Background	2022 + Project	2040 Background	2040 + Project
ID	Location	Period	LOS / Delay (sec/veh)	LOS / Delay (sec/veh)	LOS / Delay (sec/veh)	LOS / Delay (sec/veh)
1	Meandering Way & Stacy Road	AM	C / 28	C / 29	E / 55	E / 56
		PM	C / 31	C / 31	E / 56	E / 57
2	River Oaks Drive & Stacy Road	AM	F / 52 (NB LT)	F / 66 (NB LT)	F / >300 (NB LT)	F / >300 (NB LT)
		PM	F / 214 (NB LT)	F / >300 (NB LT)	F / >300 (NB LT)	F / >300 (NB LT)
3	Lost Creek Drive & Stacy Road	AM	F / 76 (NB LT)	F / 84 (NB LT)	F / >300 (NB LT)	F / >300 (NB LT)
		PM	F / >300 (NB LT)	F / >300 (NB LT)	F / >300 (NB LT)	F / >300 (NB LT)
4	Allen Heights Drive & Stacy Road	AM	F / 288 (SB LT)	F / >300 (SB LT)	F / >300 (SB LT)	F / >300 (SB LT)
		PM	F / >300 (NB LT)	F / >300 (NB LT)	F / >300 (NB LT)	F / >300 (NB LT)
5	Highway 5 & Stacy Road	AM	D / 55	D / 55	D / 54	D / 54
		PM	D / 54	D / 54	E / 57	E / 57
6	Meandering Way & Horseshoe Bend	AM	A / 9 (WB LT)	A / 9 (WB LT)	A / 10 (WB LT)	A / 10 (WB LT)
		PM	A / 9 (WB LT)	A / 9 (WB LT)	A / 10 (WB LT)	A / 10 (WB LT)

- Worst movement LOS is reported for unsignalized intersections using HCM 6 methodology.
- Overall intersection LOS is reported for signalized intersections using the HCM 6 methodology.
- NB=Northbound, SB=Southbound, EB=Eastbound, WB=Westbound.
- LT = Left Turn, TH = Through, RT = Right Turn
- LOS highlighted in **bold** indicate failing LOS.
- 2040 conditions (background and plus project) include an additional north- and southbound lane on Dale Road.

Source: Fehr & Peers.

2. Introduction

2.1 Purpose

This study provides a summary of the potential level of service effects from the proposed Temple located north of Stacy Road, between River Oaks Drive and Meandering Way, in Fairview, Texas. **Figure 1** shows the project location with the study intersections.

Fehr & Peers performed this study for due diligence purposes only; if a traffic impact study (TIS) needs to be submitted to the city, **additional analysis may be required to meet city and state requirements**. Fehr & Peers recommends working with the city and state to produce a TIS that meets city and state requirements. Items that should be discussed with the city include, but are not limited to, the following elements: requirements for the study, access locations, level of service (LOS) analysis methodology, amount of growth expected, and any additional concerns the city may have about the development.

This study analyzes the traffic operations and LOS for background and plus project conditions for 2022 and 2040 at the key intersections described in the Scope section. The plus project analyses include project trips generated from the proposed project.

2.2 Scope

This study analyzes the traffic conditions of intersections near the proposed project site, specifically at the following study intersections:

- 1) Stacy Road & Meandering Way – Signal
- 2) Stacy Road & River Oaks Drive – Signal
- 3) Stacy Road & Lost Creek Drive – Signal
- 4) Stacy Road & Allen Heights Drive – Signal
- 5) Stacy Road & Greenville Ave (Hwy 5) – Signal
- 6) Horseshoe Bend & Meandering Way – Stop Control

Figure 1 shows the study intersections and project accesses analyzed in this study.



Figure 1
Project Location



2.3 Analysis Methodology

Level of Service (LOS) is a term that describes the operating performance of an intersection or roadway. LOS is measured quantitatively and reported on a scale from A to F, with A representing the best performance and F the worst. Typically, LOS D or better is considered acceptable for urban areas. **Table 2** provides a brief description of each LOS letter designation and an accompanying average delay per vehicle for both signalized and unsignalized intersections. The Highway Capacity Manual 6th Edition (HCM 6) methodology was used in this study to remain consistent with “state of the practice” professional standards. This methodology has different quantitative evaluations for signalized and unsignalized intersections. For signalized intersections, the LOS is provided for the overall intersection (weighted average of all approach delays). For unsignalized intersections, the LOS is provided for the average delay per vehicle on the worst-performing movement. Synchro was used in this study for signalized and unsignalized intersections.

Table 2: Level of Service Descriptions

LOS	Description	Signalized Intersections	Unsignalized Intersections
		Avg. Delay (sec/veh) ¹	Avg. Delay (sec/veh) ²
A	<i>Free Flow / Insignificant Delay</i> Extremely favorable progression. Individual users are virtually unaffected by others in the traffic stream.	< 10.0	< 10.0
B	<i>Stable Operations / Minimum Delays</i> Good progression. The presence of other users in the traffic stream becomes noticeable.	> 10.0 to 20.0	> 10.0 to 15.0
C	<i>Stable Operations / Acceptable Delays</i> Fair progression. The operation of individual users is affected by interactions with others in the traffic stream	> 20.0 to 35.0	> 15.0 to 25.0
D	<i>Approaching Unstable Flows / Tolerable Delays</i> Marginal progression. Operating conditions are noticeably more constrained.	> 35.0 to 55.0	> 25.0 to 35.0
E	<i>Unstable Operations / Significant Delays Can Occur</i> Poor progression. Operating conditions are at or near capacity.	> 55.0 to 80.0	> 35.0 to 50.0
F	<i>Forced, Unpredictable Flows / Excessive Delays</i> Unacceptable progression with forced or breakdown of operating conditions.	> 80.0	> 50.0

1. Overall intersection LOS and average delay (seconds/vehicle) for all approaches. Roundabout intersection operations are measured under these conditions as well.
2. Worst movement LOS and delay (seconds/vehicle) only.

Source: Fehr & Peers descriptions, based on *Highway Capacity Manual 6th Edition*.

3. Existing 2022 Background Conditions

3.1 Purpose

The existing conditions analysis evaluates the study intersections and roadways during the peak travel periods of the day under traffic and geometric conditions during 2022. Through this analysis, Fehr & Peers can identify existing traffic operational deficiencies.

3.2 Traffic Volumes

Fehr & Peers coordinated with a data collection firm to collect AM and PM traffic volumes on Wednesday, October 12, 2022, to establish a baseline of existing conditions and operations for the area. The analysis was performed using the peak AM and PM volumes for each individual intersection since many intersections in the study area experienced varied peak hourly volumes during different parts of the morning and evening periods. **Figure 2** shows existing background AM and PM weekday peak hour volumes.

3.3 Level of Service Analysis

Fehr & Peers used the HCM 6 delay thresholds provided in the introduction to analyze the study intersections. **Table 3** reports the results of the LOS analysis (see **Appendix B** for the detailed LOS reports). These results serve as a baseline to better contextualize the level of service effects of the proposed Temple.

As shown in the table, the results of this analysis indicate that all three of the stop-controlled intersections along Stacy Road already operate at unacceptable of delay during peak hours with existing conditions. Due to the high volume of through traffic along Stacy Road, few gaps are available for left-turning vehicles from the minor roads, which causes high levels of delay on the minor streets. It is possible that some left-turning vehicles are using the center medians to perform two-stage left turns onto Stacy Road which would explain how so many vehicles were able to be counted during data collection with so few gaps in traffic. In this case, the side-street left turning delay would likely be overstated.

Notably, the intersection at Highway 5 & Stacy Road also operates just below LOS E in the AM and PM peak periods.

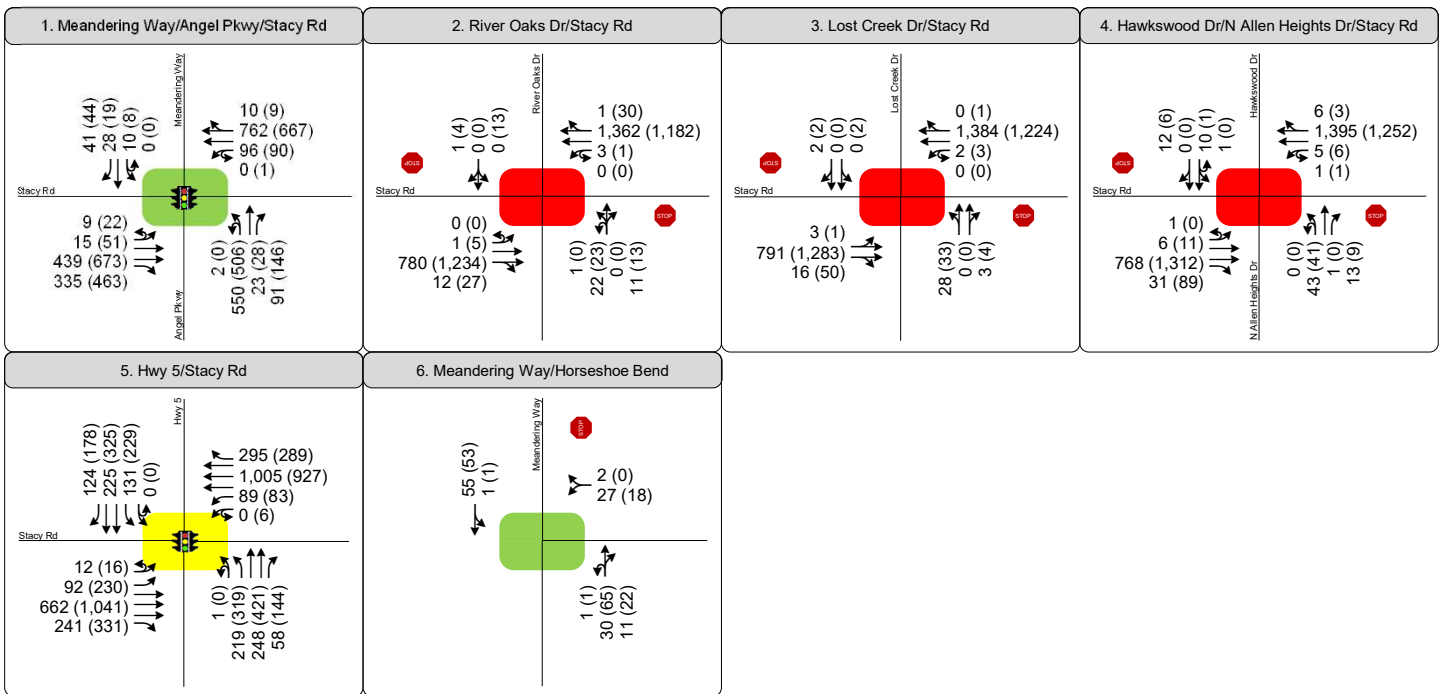


Figure 2
Existing 2022 Background Conditions
AM & PM Peak Hour Volumes & LOS





Table 3: Existing 2022 Background Conditions Level of Service

Intersection				Worst Movement ¹			Overall Intersection ²	
ID	Location	Period	Control	Movement ³	Delay Sec/Veh	LOS	Delay Sec/Veh	LOS
1	Meandering Way & Stacy Road	AM	Signal	-	-	-	28	C
		PM		-	-	-	31	C
2	River Oaks Drive & Stacy Road	AM	TWSC	NB LT	52	F	-	-
		PM		NB LT	214	F	-	-
3	Lost Creek Drive & Stacy Road	AM	TWSC	NB LT	76	F	-	-
		PM		NB LT	510	F	-	-
4	Allen Heights Drive & Stacy Road	AM	TWSC	SB LT	288	F	-	-
		PM		NB LT	632	F	-	-
5	Highway 5 & Stacy Road	AM	Signal	-	-	-	54	D
		PM		-	-	-	54	D
6	Meandering Way & Horseshoe Bend	AM	TWSC	WB LT	9	A	-	-
		PM		WB LT	9	A	-	-

1. This represents the worst movement LOS and is only reported for unsignalized intersections using HCM 6 methodology.
2. This represents the overall intersection LOS and is only reported for signalized intersections using the HCM 6 methodology.
3. NB=Northbound, SB=Southbound, EB=Eastbound, WB=Westbound, LT= Left Turn.
4. LOS highlighted in **bold** indicate a deficient LOS.

Source: Fehr & Peers.

3.4 Intersection Improvements

The side-street turning volumes at the three failing intersections along Stacy Road were low enough that they likely wouldn't warrant signalization. However, the following two options would likely mitigate the high left-turning delay from the side-streets onto Stacy Road without signalization:

1. Providing a left turn receiving lane along Stacy Road.
 - a. This mitigation would likely improve safety for two-stage left turns, which would reduce delay times as more drivers felt comfortable performing a two-stage left turn.
 - b. This mitigation's effects cannot be measured in Synchro without simulation, which is outside the scope of this study.
2. Restricting left-turns from the side-streets onto Stacy Road.
 - a. This would require additional U-turns along Stacy Road.
 - b. **Table 4** shows the results of an HCM analysis assuming all left turns onto Stacy Road are restricted.

Table 4: Existing 2022 Background Conditions with Restricted Left Turns Level of Service

Intersection				Worst Movement ¹			Overall Intersection ²	
ID	Location	Period	Control	Movement ³	Delay Sec/Veh	LOS	Delay Sec/Veh	LOS
1	Meandering Way & Stacy Road	AM	Signal	-	-	-	28	C
		PM		-	-	-	31	C
2	River Oaks Drive & Stacy Road	AM	TWSC	EB LT	38	E	-	-
		PM		EB LT	38	E	-	-
3	Lost Creek Drive & Stacy Road	AM	TWSC	SB TH	15	C	-	-
		PM		WB LT	30	D	-	-
4	Allen Heights Drive & Stacy Road	AM	TWSC	NB TH	108	F	-	-
		PM		WB LT	19	C	-	-
5	Highway 5 & Stacy Road	AM	Signal	-	-	-	54	D
		PM		-	-	-	54	D
6	Meandering Way & Horseshoe Bend	AM	TWSC	WB LT	9	A	-	-
		PM		WB LT	9	A	-	-

1. This represents the worst movement LOS and is only reported for unsignalized intersections using HCM 6 methodology.
 2. This represents the overall intersection LOS and is only reported for signalized intersections using the HCM 6 methodology.
 3. NB=Northbound, SB=Southbound, EB=Eastbound, WB=Westbound, LT= Left Turn.
 4. LOS highlighted in **bold** indicate a deficient LOS.
- Source: Fehr & Peers.

As shown in **Table 4**, restricting left turns onto Stacy Road would significantly improve the operations at the side-street stop-controlled intersections along Stacy Road. However, the intersections at River Oaks Drive and at Allen Heights Drive were still found to operate at unacceptable LOS. As was observed during data collection, U-turns are already common in the study area. It is likely that a combination of two-stage left turns and voluntary U-turns allow the study intersections to operate more acceptably than the HCM analysis indicates.

4. Project Conditions

4.1 Purpose

The project conditions analysis outlines the type and intensity of the proposed development. This provides the basis for trip generation, distribution, and assignment of project trips to the surrounding study intersections defined in the introduction.

4.2 Project Description

The proposed project is a Temple for the Church of Jesus Christ of Latter-Day Saints that will be located north of Stacy Road, between River Oaks Drive and Meandering Way, in Fairview, Texas. The proposed project would not introduce any new accesses but would tie into the same accesses that the existing church building uses along Stacy Road. For this analysis, all project volume is assumed to access Stacy Road via the intersection at River Oaks Drive.

4.3 Trip Generation

Fehr & Peers estimated the trip generation for the Temple using traffic counts completed at six other similar Temples:

- Bountiful, UT
- Draper, UT
- Oquirrh Mountain, UT
- Payson, UT
- Timpanogos, UT
- Gilbert, AZ

We grouped the traffic counts at each Temple by hour to determine the trip generation of each site, and then we averaged the trip generation of all sites to obtain an average trip generation for sites with similar characteristics. For this analysis, we estimated the number of trips expected to be generated by a Temple of these characteristics based on the number of seats in the site. **The proposed Fairview Temple will have 2 rooms with 40 seats each**, so it is expected to generate 64 trips and 74 trips during the weekday AM and PM peak hour, respectively. The project trip generation is shown in **Table 5**.

This seems low for the size of the building

Table 5: Fairview Temple Trip Generation

Peak Hour	Trip Generation	% Entering	% Exiting	Trips Entering	Trips Exiting
Weekday AM	64	75%	25%	48	16
Weekday PM	74	51%	49%	38	36

Source: Fehr & Peers, 2022.

4.4 Trip Distribution and Assignment

Fehr & Peers assigned project traffic to the roadway network based on the location of the Church of Jesus Christ of Latter-day Saints' nearby church buildings; the church buildings are typically built to be close to Church members' homes and are typically a good indication of where trips to and from the Temple are likely to occur. Overall, the project-generated trips were distributed to and from these directions in the corresponding percentages:

- 15% To/From North via Highway 5
- 35% To/From West via Stacy Road
- 15% To/From South via Highway 5
- 15% To/From South via Meandering Way
- 20% To/From East via Stacy Road

Fehr & Peers applied these trip distributions to distribute project-generated traffic to the study area intersections. **Figure 3** shows those trip distributions and the resulting intersection project traffic volumes.



1. Meandering Way/Angel Pkwy/Stacy Rd	2. River Oaks Dr/Stacy Rd	3. Lost Creek Dr/Stacy Rd	4. Hawkswood Dr/N Allen Heights Dr/Stacy Rd
5. Hwy 5/Stacy Rd	6. Meandering Way/Horseshoe Bend		

Figure 3
 Trip Distribution
 AM & PM Peak Hour Volumes



5. Existing 2022 plus Project Conditions

5.1 Purpose

The existing plus project conditions analysis evaluates the level of service effects of the proposed development traffic on the surrounding roadway network. To analyze this effect, Fehr & Peers combined the peak hour background traffic volumes with volumes generated by the proposed Temple at its peak hour. We compared the analysis results to the results of the background traffic volumes to determine the level of service of the proposed project.

5.2 Traffic Volumes

Fehr & Peers added project-generated traffic (**Figure 3**) to the background 2022 volumes (**Figure 2**) to yield “existing 2022 plus project” weekday peak hour volumes as shown in **Figure 4**.

5.3 Level of Service Analysis

Fehr & Peers used the HCM 6 delay thresholds provided in the introduction to analyze the study intersections. **Table 6** reports the results of this analysis (see **Appendix B** for the detailed LOS reports).

As was observed in the existing background conditions scenario, the results of this analysis indicate that all three of the stop-controlled intersections along Stacy Road will likely continue operate at unacceptable of delay during peak hours with existing conditions. Due to the high volume of through traffic along Stacy Road, few gaps are available for left-turning vehicles from the minor roads, which causes high levels of delay on the minor streets. As was mentioned in the existing background conditions scenario, left-turning vehicles may be performing two-stage left turns onto Stacy Road, which would indicate that the delay at those study intersections would likely be overstated.

Notably, the intersection at Highway 5 & Stacy Road also continues to operate just below LOS E in the AM and PM peak periods.



1. Meandering Way/Angel Pkwy/Stacy Rd	2. River Oaks Dr/Stacy Rd	3. Lost Creek Dr/Stacy Rd	4. Hawkswood Dr/N Allen Heights Dr/Stacy Rd
<p>Stacy Rd</p> <p>Meandering Way</p> <p>Angel Pkwy</p> <p>41 (44) 28 (19) 10 (8) 0 (0)</p> <p>10 (9) 762 (675) 96 (90) 0 (1)</p> <p>9 (22) 15 (51) 443 (681) 337 (468)</p> <p>2 (0) 557 (511) 23 (28) 91 (146)</p>	<p>Stacy Rd</p> <p>River Oaks Dr</p> <p>11 (27) 0 (0) 6 (26)</p> <p>8 (43) 1,362 (1,182) 3 (1) 0 (0)</p> <p>0 (0) 32 (30) 780 (1,234) 12 (27)</p> <p>1 (0) 22 (23) 0 (0) 11 (13)</p>	<p>Stacy Rd</p> <p>Lost Creek Dr</p> <p>2 (2) 0 (0) 0 (2)</p> <p>0 (1) 1,394 (1,247) 2 (3) 0 (0)</p> <p>3 (1) 822 (1,308) 16 (50)</p> <p>28 (33) 0 (0) 3 (4)</p>	<p>Stacy Rd</p> <p>Hawkswood Dr</p> <p>N Allen Heights Dr</p> <p>12 (6) 0 (0) 10 (1) 1 (0)</p> <p>6 (3) 1,405 (1,275) 5 (6) 1 (1)</p> <p>1 (0) 6 (11) 799 (1,337) 31 (89)</p> <p>0 (0) 43 (41) 1 (0) 13 (9)</p>
5. Hwy 5/Stacy Rd	6. Meandering Way/Horseshoe Bend		
<p>Stacy Rd</p> <p>Hwy 5</p> <p>124 (176) 225 (325) 138 (235) 0 (0)</p> <p>297 (294) 1,011 (940) 91 (88) 0 (6)</p> <p>12 (16) 92 (230) 679 (1,054) 241 (331)</p> <p>1 (0) 219 (319) 248 (421) 65 (160)</p>	<p>Meandering Way</p> <p>Horseshoe Bend</p> <p>55 (53) 1 (1)</p> <p>2 (0) 27 (18)</p> <p>1 (1) 30 (65) 11 (22)</p>		

Figure 4
Existing 2022 Plus Project Conditions
AM & PM Peak Hour Volumes & LOS



Table 6. 2022 Plus Project Conditions Level of Service

Intersection				Worst Movement ¹			Overall Intersection ²	
ID	Location	Period	Control	Movement ³	Delay Sec/Veh	LOS	Delay Sec/Veh	LOS
1	Meandering Way & Stacy Road	AM	Signal	-	-	-	29	C
		PM		-	-	-	31	C
2	River Oaks Drive & Stacy Road	AM	TWSC	NB LT	66	F	-	-
		PM		NB LT	310	F	-	-
3	Lost Creek Drive & Stacy Road	AM	TWSC	NB LT	84	F	-	-
		PM		NB LT	573	F	-	-
4	Allen Heights Drive & Stacy Road	AM	TWSC	SB LT	308	F	-	-
		PM		NB LT	708	F	-	-
5	Highway 5 & Stacy Road	AM	Signal	-	-	-	54	D
		PM		-	-	-	54	D
6	Meandering Way & Horseshoe Bend	AM	TWSC	WB LT	9	A	-	-
		PM		WB LT	9	A	-	-

1. This represents the worst movement LOS and is only reported for unsignalized intersections using HCM 6 methodology.
 2. This represents the overall intersection LOS and is only reported for signalized intersections using the HCM 6 methodology.
 3. NB=Northbound, SB=Southbound, EB=Eastbound, WB=Westbound, LT= Left Turn.
 4. LOS highlighted in **bold** indicate a deficient LOS.
- Source: Fehr & Peers.

5.4 Intersection Improvements

Similar to the existing background conditions analysis, the side-street turning volumes at the three failing intersections along Stacy Road were low enough that they likely wouldn't warrant signalization. The same two mitigations that were outlined in the previous scenario would likely mitigate the high left-turning delay from the side-streets onto Stacy Road without signalization:

1. Providing a left turn receiving lane along Stacy Road.
 - a. This mitigation would likely improve safety for two-stage left turns, which would reduce delay times as more drivers felt comfortable performing a two-stage left turn.
 - b. This mitigation's effects cannot be measured in Synchro without simulation, which is outside the scope of this study.
2. Restricting left-turns from the side-streets onto Stacy Road.
 - a. This would require additional U-turns along Stacy Road.
 - b. **Table 7** reports the results of an analysis assuming left turns onto Stacy Road are restricted.

Table 7: 2022 Plus Project Conditions with Restricted Left Turns Level of Service

Intersection				Worst Movement ¹			Overall Intersection ²	
ID	Location	Period	Control	Movement ³	Delay Sec/Veh	LOS	Delay Sec/Veh	LOS
1	Meandering Way & Stacy Road	AM	Signal	-	-	-	29	C
		PM		-	-	-	32	C
2	River Oaks Drive & Stacy Road	AM	TWSC	EB LT	38	E	-	-
		PM		EB LT	54	F	-	-
3	Lost Creek Drive & Stacy Road	AM	TWSC	SB TH	15	C	-	-
		PM		WB LT	16	C	-	-
4	Allen Heights Drive & Stacy Road	AM	TWSC	NB TH	114	F	-	-
		PM		WB LT	134	F	-	-
5	Highway 5 & Stacy Road	AM	Signal	-	-	-	55	D
		PM		-	-	-	57	E
6	Meandering Way & Horseshoe Bend	AM	TWSC	WB LT	9	A	-	-
		PM		WB LT	9	A	-	-

1. This represents the worst movement LOS and is only reported for unsignalized intersections using HCM 6 methodology.
 2. This represents the overall intersection LOS and is only reported for signalized intersections using the HCM 6 methodology.
 3. NB=Northbound, SB=Southbound, EB=Eastbound, WB=Westbound, LT= Left Turn.
 4. LOS highlighted in **bold** indicate a deficient LOS.
- Source: Fehr & Peers.

As shown in **Table 7**, restricting left turns onto Stacy Road would significantly improve the operations at the side-street stop-controlled intersections along Stacy Road. However, the intersections at River Oaks Drive and at Allen Heights Drive were still found to operate at unacceptable LOS. As was stated in the previous analysis it is likely that a combination of two-stage left turns and voluntary U-turns allow the study intersections to operate more acceptably than the HCM analysis indicates.

6. Future 2040 Background Conditions

6.1 Purpose

The future background conditions analysis evaluates the study intersections during the peak travel periods of the day using projected horizon year traffic volumes. This analysis provides a baseline condition for the year 2040 to determine future project level of service.

Fehr & Peers reviewed the Fairview Master Transportation Plan and found that Stacy Road was proposed to be widened from a two-lane undivided road to a four-lane divided road, which was already implemented in 2019. No other improvements were outlined in the Fairview Master Transportation Plan or assumed for future analyses.

6.2 Traffic Volumes

Fehr & Peers projected 2040 volumes by reviewing historical annual daily traffic (ADT) counts in the area and calculating a historical growth rate. Fairview traffic growth has historically increased by approximately 2.1% more vehicles per year. Assuming those growth rates continue, traffic in the area is anticipated to increase by approximately 38% by 2040 which will affect traffic patterns and delay in this area. **Figure 5** shows the projected 2040 background weekday peak hour traffic volumes.

Fehr & Peers recommends discussing the growth of the area with the City of Fairview to confirm that the city anticipates that future growth projections follow the observed historical trends. The city likely has more detailed plans about the future of the area and may recommend volume changes, particularly for the turning movements at the intersections.

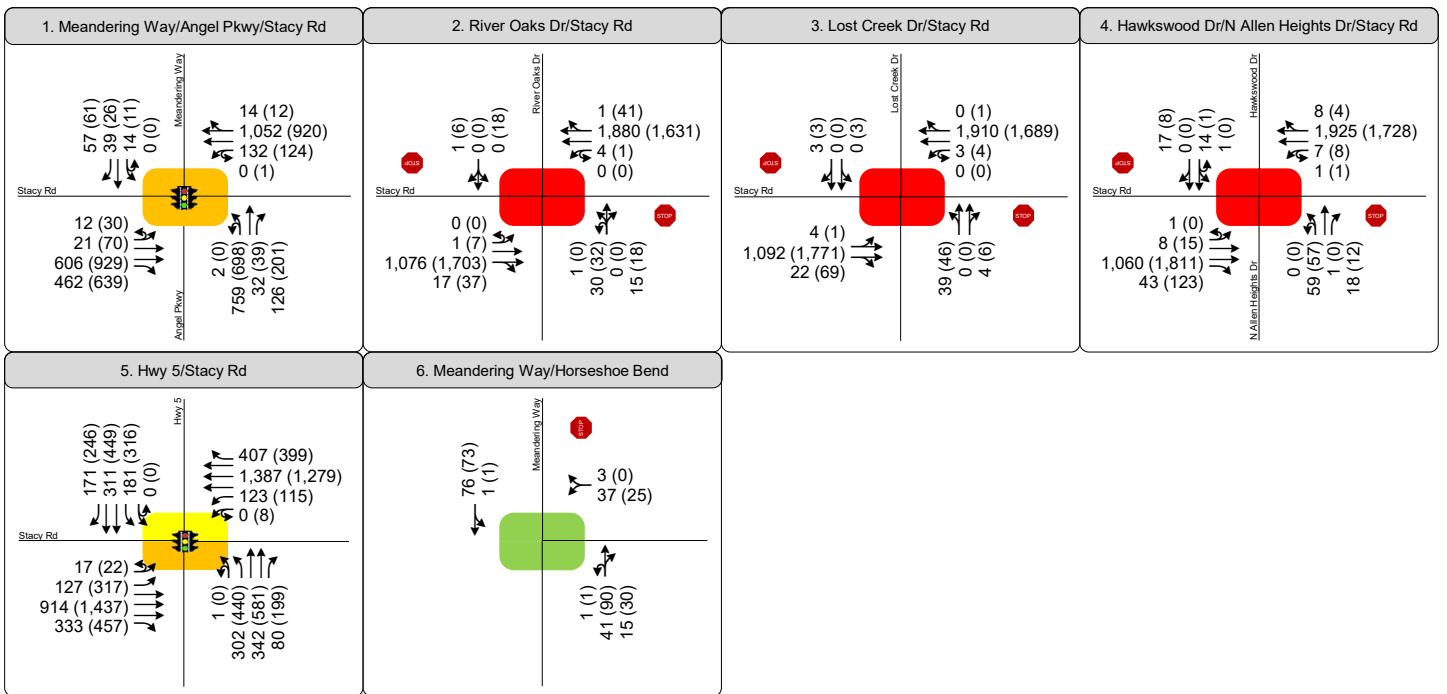


Figure 5
Future 2040 Background Conditions
AM & PM Peak Hour Volumes & LOS



6.3 Level of Service Analysis

Fehr & Peers used the HCM 6 delay thresholds provided in the introduction to analyze the study intersections. **Table 8** reports the results of this analysis (see **Appendix B** for the detailed LOS report).

As was observed in the existing background conditions scenario, the results of this analysis indicate that all three of the stop-controlled intersections along Stacy Road will likely continue operate at unacceptable of delay during peak hours with existing conditions. Due to the high volume of through traffic along Stacy Road, few gaps are available for left-turning vehicles from the minor roads, which causes high levels of delay on the minor streets. As was mentioned in the existing background conditions scenario, left-turning vehicles may be performing two-stage left turns onto Stacy Road, which would indicate that the delay at those study intersections would likely be overstated.

Notably, the intersections at Meandering Way & Stacy Road and at Highway 5 & Stacy Road begins to operate at LOS E in the 2040 background conditions.

Table 8. Future 2040 Background Conditions Peak Hour Level of Service

Intersection				Worst Movement ¹			Overall Intersection ²	
ID	Location	Period	Control	Movement ³	Delay Sec/Veh	LOS	Delay Sec/Veh	LOS
1	Meandering Way & Stacy Road	AM	Signal	-	-	-	55	E
		PM		-	-	-	56	E
2	River Oaks Drive & Stacy Road	AM	TWSC	NB LT	322	F	-	-
		PM		NB LT	2258	F	-	-
3	Lost Creek Drive & Stacy Road	AM	TWSC	NB LT	567	F	-	-
		PM		NB LT	3825	F	-	-
4	Allen Heights Drive & Stacy Road	AM	TWSC	SB LT	2836	F	-	-
		PM		NB LT	5385	F	-	-
5	Highway 5 & Stacy Road	AM	Signal	-	-	-	54	D
		PM		-	-	-	57	E
6	Meandering Way & Horseshoe Bend	AM	TWSC	WB LT	10	A	-	-
		PM		WB LT	10	A	-	-

1. This represents the worst movement LOS and is only reported for unsignalized intersections using HCM 6 methodology.
 2. This represents the overall intersection LOS and is only reported for signalized intersections using the HCM 6 methodology.
 3. NB=Northbound, SB=Southbound, EB=Eastbound, WB=Westbound.
 4. LOS highlighted in **bold** indicate a deficient LOS.
- Source: Fehr & Peers.

6.4 Intersection Improvements

As shown in **Table 8**, the side-street stop-controlled intersections along Stacy Road do not have the capacity to serve the future turning volumes caused by the growth projected in Fairview. Even in 2040, the side-street turning volumes at the three failing intersections along Stacy Road were low enough that they likely wouldn't warrant signalization. However, due to the high delay experienced at the intersection of Allen Heights Drive & Stacy Road, Fehr & Peers recommends that the City of Fairview should monitor the intersection and perform a signal warrant analysis when the intersection begins to operate unacceptably. Altogether, the following improvements to the study intersections could be considered to mitigate the high side-street delay onto Stacy Road:

1. Providing a left turn receiving lane along Stacy Road.
 - a. This mitigation would likely improve safety for two-stage left turns, which would reduce delay times as more drivers felt comfortable performing a two-stage left turn.
 - b. This mitigation's effects cannot be measured in Synchro without simulation, which is outside the scope of this study.
2. Restricting left-turns from the side-streets onto Stacy Road.
 - a. This would require additional U-turns along Stacy Road.
 - b. **Table 9** shows the results of an HCM analysis assuming all left turns onto Stacy Road are restricted.
3. Conducting a signal warrant study to potentially signalize the intersection at Allen Heights Drive & Stacy Road.

Table 9: Future 2040 Background Conditions with Restricted Left Turns Level of Service

Intersection				Worst Movement ¹			Overall Intersection ²	
ID	Location	Period	Control	Movement ³	Delay Sec/Veh	LOS	Delay Sec/Veh	LOS
1	Meandering Way & Stacy Road	AM	Signal	-	-	-	55	E
		PM		-	-	-	74	E
2	River Oaks Drive & Stacy Road	AM	TWSC	EB LT	280	F	-	-
		PM		EB LT	494	F	-	-
3	Lost Creek Drive & Stacy Road	AM	TWSC	SB TH	21	C	-	-
		PM		WB LT	23	C	-	-
4	Allen Heights Drive & Stacy Road	AM	TWSC	NB TH	451	F	-	-
		PM		WB LT	598	F	-	-
5	Highway 5 & Stacy Road	AM	Signal	-	-	-	54	D
		PM		-	-	-	55	D
6	Meandering Way & Horseshoe Bend	AM	TWSC	WB LT	10	A	-	-
		PM		WB LT	9	A	-	-

1. This represents the worst movement LOS and is only reported for unsignalized intersections using HCM 6 methodology.
2. This represents the overall intersection LOS and is only reported for signalized intersections using the HCM 6 methodology.
3. NB=Northbound, SB=Southbound, EB=Eastbound, WB=Westbound, LT= Left Turn.
4. LOS highlighted in **bold** indicate a deficient LOS.

Source: Fehr & Peers.

As shown in **Table 9**, restricting left turns onto Stacy Road would significantly improve the operations at the side-street stop-controlled intersections along Stacy Road. However, the intersections at River Oaks Drive and at Allen Heights Drive were still found to operate at unacceptable LOS. As was stated in the previous analyses it is likely that a combination of two-stage left turns and voluntary U-turns allow the study intersections to operate more acceptably than the HCM analysis indicates. However, due to the high delay still anticipated at the intersections at River Oaks Drive and at Allen Heights Drive even after restricting left turns, these intersections may require further mitigations and should be studied further

7. Future 2040 plus Project Conditions

7.1 Purpose

The future plus project conditions analysis evaluates the level of service effects of the proposed development traffic on the surrounding roadway network in the year 2040. To analyze this effect, Fehr & Peers combined the future background traffic volumes with volumes generated by the proposed Temple. We compared the analysis results to the results of the future background traffic volumes to determine the level of service effects of the proposed project.

7.2 Traffic Volumes

Fehr & Peers added the project-generated traffic (**Figure 3**) to the future 2040 background volumes (**Figure 5**) to yield “future 2040 plus project” weekday AM and PM peak hour traffic volumes at the study intersections, as shown in **Figure 6**.

7.3 Level of Service Analysis

Fehr & Peers used the HCM 6 delay thresholds provided in the introduction to analyze the study intersections. **Table 10** reports the results of this analysis (see **Appendix B** for the detailed LOS report). As shown in the table, the results of this analysis indicate that the intersections that were operating at unacceptable LOS in the 2040 background conditions analyses continue to operate at unacceptable LOS for the same reasons.

As was observed in the existing background conditions scenario, the results of this analysis indicate that all three of the stop-controlled intersections along Stacy Road will likely continue operate at unacceptable of delay during peak hours with existing conditions. Due to the high volume of through traffic along Stacy Road, few gaps are available for left-turning vehicles from the minor roads, which causes high levels of delay on the minor streets. As was mentioned in the existing background conditions scenario, left-turning vehicles may be performing two-stage left turns onto Stacy Road, which would indicate that the delay at those study intersections would likely be overstated.

The intersections at Meandering Way & Stacy Road and at Highway 5 & Stacy Road continue to operate at LOS E in the 2040 background conditions.

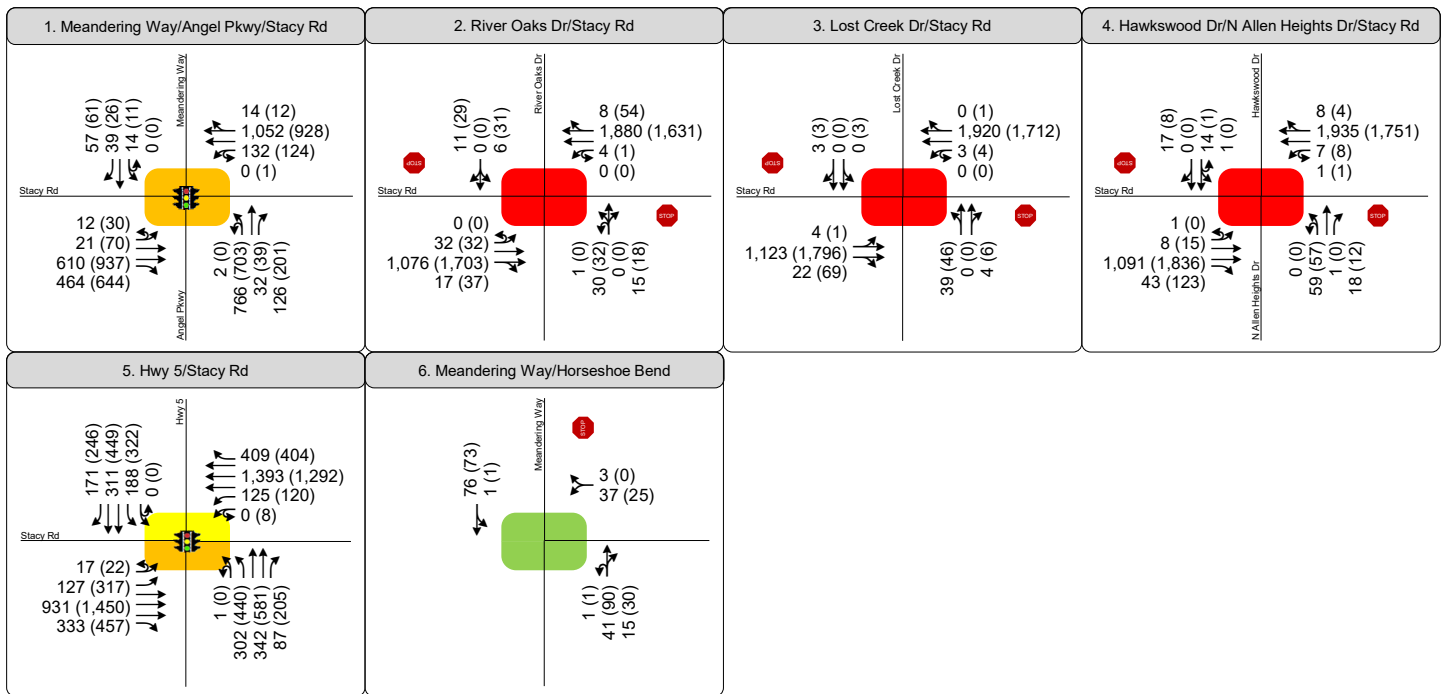


Figure 6
 Future 2040 Plus Project Conditions
 AM & PM Peak Hour Volumes & LOS



Table 10. Future 2040 Plus Project Conditions Peak Hour Level of Service

Intersection				Worst Movement ¹			Overall Intersection ²	
ID	Location	Period	Control	Movement ³	Delay Sec/Veh	LOS	Delay Sec/Veh	LOS
1	Meandering Way & Stacy Road	AM	Signal	-	-	-	56	E
		PM		-	-	-	57	E
2	River Oaks Drive & Stacy Road	AM	TWSC	NB LT	461	F	-	-
		PM		NB LT	3139	F	-	-
3	Lost Creek Drive & Stacy Road	AM	TWSC	NB LT	600	F	-	-
		PM		NB LT	4526	F	-	-
4	Allen Heights Drive & Stacy Road	AM	TWSC	SB LT	2836	F	-	-
		PM		NB LT	6541	F	-	-
5	Highway 5 & Stacy Road	AM	Signal	-	-	-	54	D
		PM		-	-	-	57	E
6	Meandering Way & Horseshoe Bend	AM	TWSC	WB LT	10	A	-	-
		PM		WB LT	10	A	-	-

1. This represents the worst movement LOS and is only reported for unsignalized intersections using HCM 6 methodology.
2. This represents the overall intersection LOS and is only reported for signalized intersections using the HCM 6 methodology.
3. NB=Northbound, SB=Southbound, EB=Eastbound, WB=Westbound.
4. LOS highlighted in **bold** indicate a deficient LOS.

Source: Fehr & Peers.

7.4 Intersection Improvements

As shown in **Table 10**, the side-street stop-controlled intersections along Stacy Road do not have the capacity to serve the future turning volumes caused by the growth projected in Fairview. Even in 2040, the side-street turning volumes at the three failing intersections along Stacy Road were low enough that they likely wouldn't warrant signalization. However, due to the high delay experienced at the intersection of Allen Heights Drive & Stacy Road, Fehr & Peers recommends that the City of Fairview should monitor the intersection and perform a signal warrant analysis when the intersection begins to operate unacceptably. Altogether, the following improvements to the study intersections could be considered to mitigate the high side-street delay onto Stacy Road:

1. Providing a left turn receiving lane along Stacy Road.
 - a. This mitigation would likely improve safety for two-stage left turns, which would reduce delay times as more drivers felt comfortable performing a two-stage left turn.
 - b. This mitigation’s effects cannot be measured in Synchro without simulation, which is outside the scope of this study.
2. Restricting left-turns from the side-streets onto Stacy Road.
 - a. This would require additional U-turns along Stacy Road.
 - b. **Table 9** shows the results of an HCM analysis assuming all left turns onto Stacy Road are restricted.
3. Conducting a signal warrant study to potentially signalize the intersection at Allen Heights Drive & Stacy Road.
4. **Coordinating with adjacent property owners east of the proposed site to include a cross-access easement and connect to Meandering Way, likely at the intersection at Horseshoe Bend, to provide an alternate route for vehicles traveling to and from the temple.**

Table 11: Future 2040 Background Conditions with Restricted Left Turns Level of Service

Intersection				Worst Movement ¹			Overall Intersection ²	
ID	Location	Period	Control	Movement ³	Delay Sec/Veh	LOS	Delay Sec/Veh	LOS
1	Meandering Way & Stacy Road	AM	Signal	-	-	-	56	E
		PM		-	-	-	76	E
2	River Oaks Drive & Stacy Road	AM	TWSC	EB LT	346	F	-	-
		PM		EB LT	612	F	-	-
3	Lost Creek Drive & Stacy Road	AM	TWSC	SB TH	21	C	-	-
		PM		WB LT	23	C	-	-
4	Allen Heights Drive & Stacy Road	AM	TWSC	NB TH	451	F	-	-
		PM		WB LT	709	F	-	-
5	Highway 5 & Stacy Road	AM	Signal	-	-	-	54	D
		PM		-	-	-	54	D
6	Meandering Way & Horseshoe Bend	AM	TWSC	WB LT	10	A	-	-
		PM		WB LT	9	A	-	-

1. This represents the worst movement LOS and is only reported for unsignalized intersections using HCM 6 methodology.
 2. This represents the overall intersection LOS and is only reported for signalized intersections using the HCM 6 methodology.
 3. NB=Northbound, SB=Southbound, EB=Eastbound, WB=Westbound, LT= Left Turn.
 4. LOS highlighted in **bold** indicate a deficient LOS.
- Source: Fehr & Peers.

As shown in **Table 11**, restricting left turns onto Stacy Road would significantly improve the operations at the side-street stop-controlled intersections along Stacy Road. However, the intersections at River Oaks Drive and at Allen Heights Drive were still found to operate at unacceptable LOS. As was stated in the previous analyses it is likely that a combination of two-stage left turns and voluntary U-turns allow the study intersections to operate more acceptably than the HCM analysis indicates. However, due to the high delay still anticipated at the intersections at River Oaks Drive and at Allen Heights Drive even after restricting left turns, these intersections may require further mitigations and should be studied further.

8. Conclusion

In all analyzed scenarios, including existing 2022 background conditions, the side-street stop-controlled study intersections along Stacy Road were found to perform at failing LOS and will require improvements to mitigate the excessive vehicle delay at those intersections.

Fairview traffic growth has historically increased by approximately 2.1% more vehicles per year. Assuming those growth rates continue, traffic in the area is anticipated to increase by approximately 38% by 2040 which will affect traffic patterns and delay in this area. Fehr & Peers recommends discussing the growth of the area with the City of Fairview to confirm that the city anticipates that future growth projections follow the observed historical trends. The city likely has more detailed plans about the future of the area and may recommend volume changes, particularly for the turning movements at the intersections.


Potential intersection improvements include the following measures:

- Providing receiving lanes along Stacy Road for left-turning vehicles,
- Restricting left turns out of the intersections at Allen Heights Drive, Lost Creek Drive, and River Oaks Drive,
- Conducting a signal warrant study to potentially signalize the intersection at Allen Heights Drive & Stacy Road, Fehr & Peers recommends that the City of Fairview should monitor the intersection and perform a signal warrant analysis when the intersection begins to operate unacceptably.
- Coordinating with adjacent property owners east of the proposed site to include a cross-access easement and connect to Meandering Way, likely at the intersection at Horseshoe Bend, to provide an alternate route for vehicles traveling to and from the temple.

Project generated trips were not found to significantly affect the level of service at the study intersections. All failing intersections were found to operate unacceptably in the background conditions before project traffic was added to the study intersections.



Appendix A: Traffic Counts

 [Click here for Map](#)

Peak Hour Turning Movement Count

Fairview, TX



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Wednesday, October 12, 2022	
Period	0700 - 0900
Peak Hour	0800 - 0900

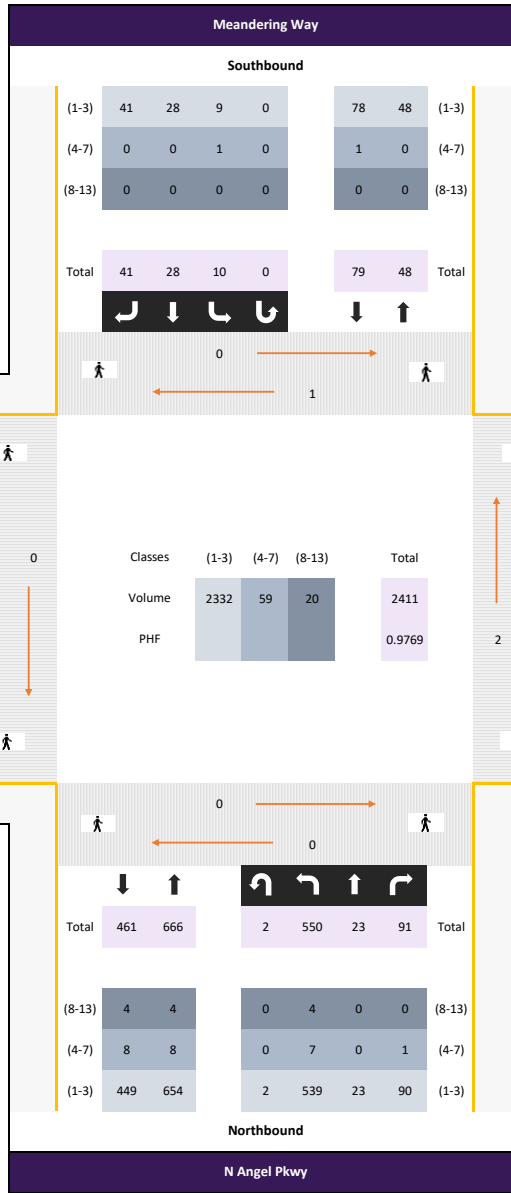
* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

Peak Hour

Volume




	(1-3)	(4-7)	(8-13)	Total
Eastbound	1324	25	13	1362
	760	31	7	798
	9	0	0	9
	15	0	0	15
	412	24	3	439
	324	7	4	335
	(1-3)	(4-7)	(8-13)	Total

	Total	(8-13)	(4-7)	(1-3)
Westbound	10	0	0	10
	762	9	18	735
	96	0	1	95
	0	0	0	0
	868	9	19	840
	540	3	26	511
	Total	(8-13)	(4-7)	(1-3)

Classes	(1-3)	(4-7)	(8-13)	Total
Volume	2332	59	20	2411
PHF				0.9769

	(1-3)	(4-7)	(8-13)	Total
Total	461	666		
	2	550	23	91
	4	4	0	4
	8	8	0	7
	449	654	2	539
	2	539	23	90
	(1-3)	(4-7)	(8-13)	Total

N Angel Pkwy

 [Click here for Map](#)

Peak Hour Turning Movement Count

Fairview, TX



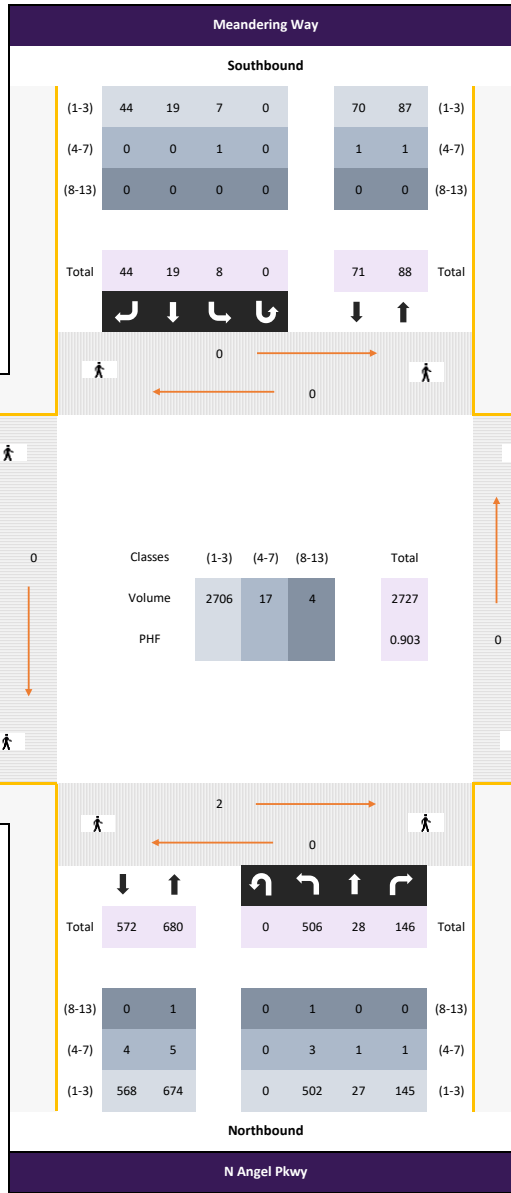
www.marrtraffic.com

Wednesday, October 12, 2022	
Period	1600 - 1800
Peak Hour	1630 - 1730

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)



Stacy Rd (West)

Stacy Rd (East)

 [Click here for Map](#)

Peak Hour Turning Movement Count

Fairview, TX



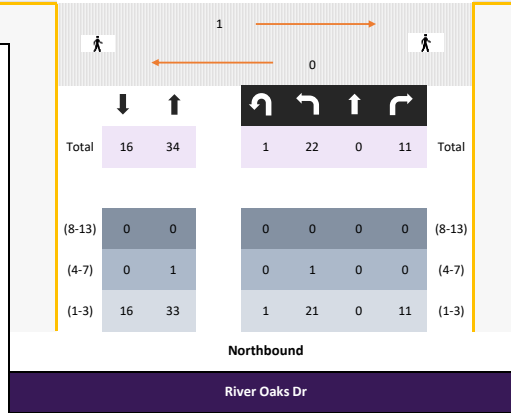
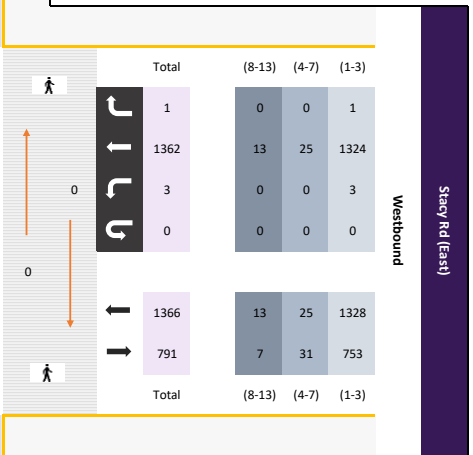
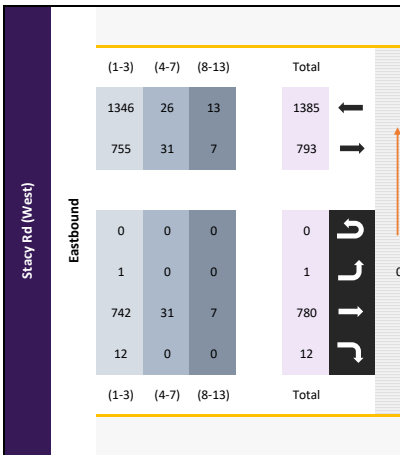
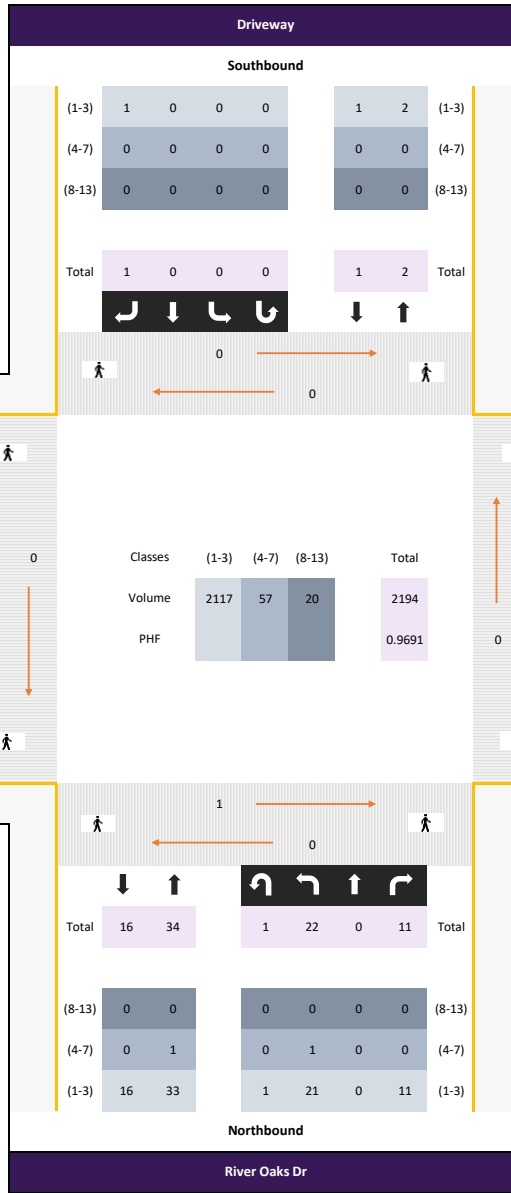
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Wednesday, October 12, 2022	
Period	0700 - 0900
Peak Hour	0800 - 0900

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)



 [Click here for Map](#)

Peak Hour Turning Movement Count

Fairview, TX



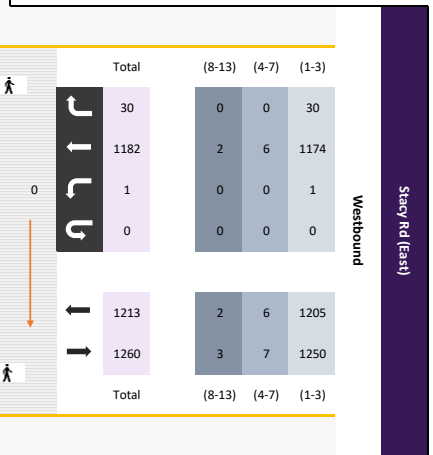
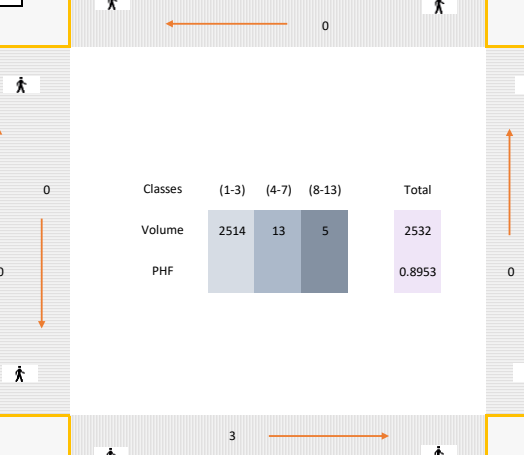
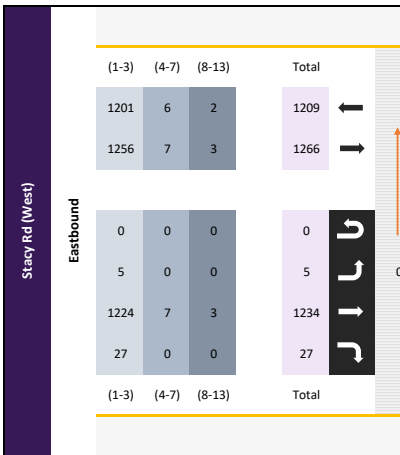
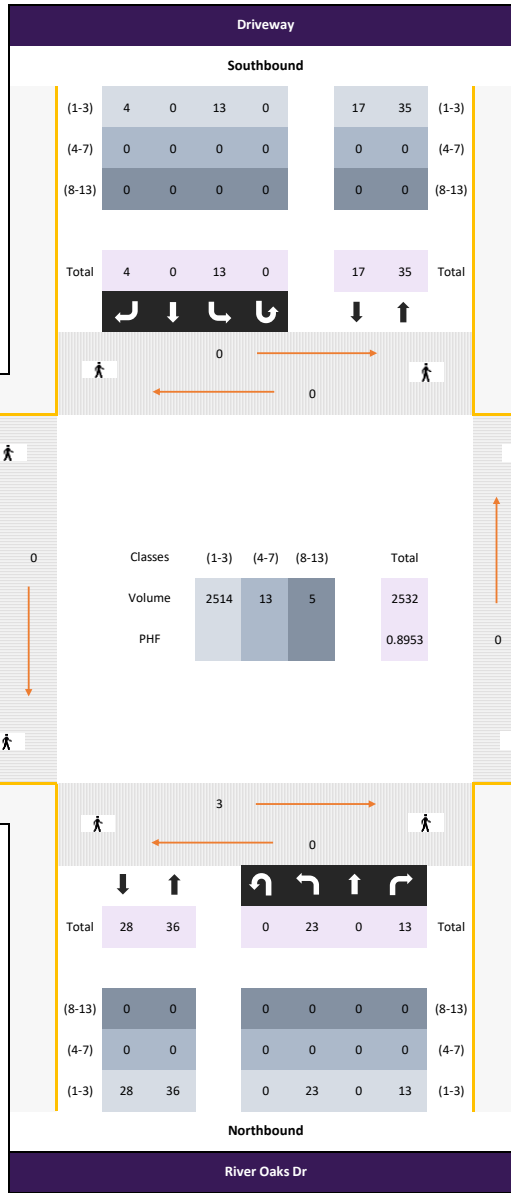
www.marrtraffic.com

Wednesday, October 12, 2022	
Period	1600 - 1800
Peak Hour	1700 - 1800

* the Peak Hour Diagram does not include Bikes

Session Parameters


(Drop Down Menu)



Stacy Rd (West)

Stacy Rd (East)

River Oaks Dr

 [Click here for Map](#)

Peak Hour Turning Movement Count

Fairview, TX



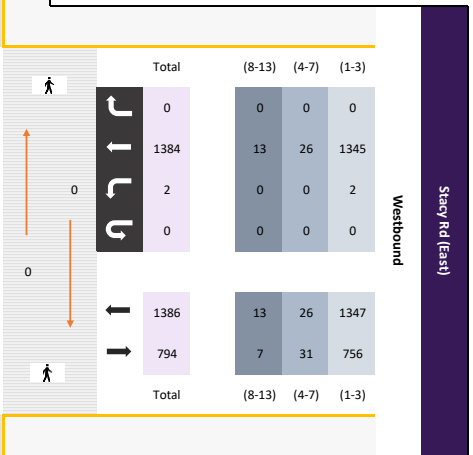
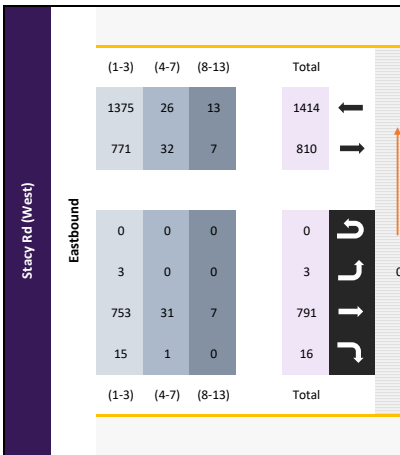
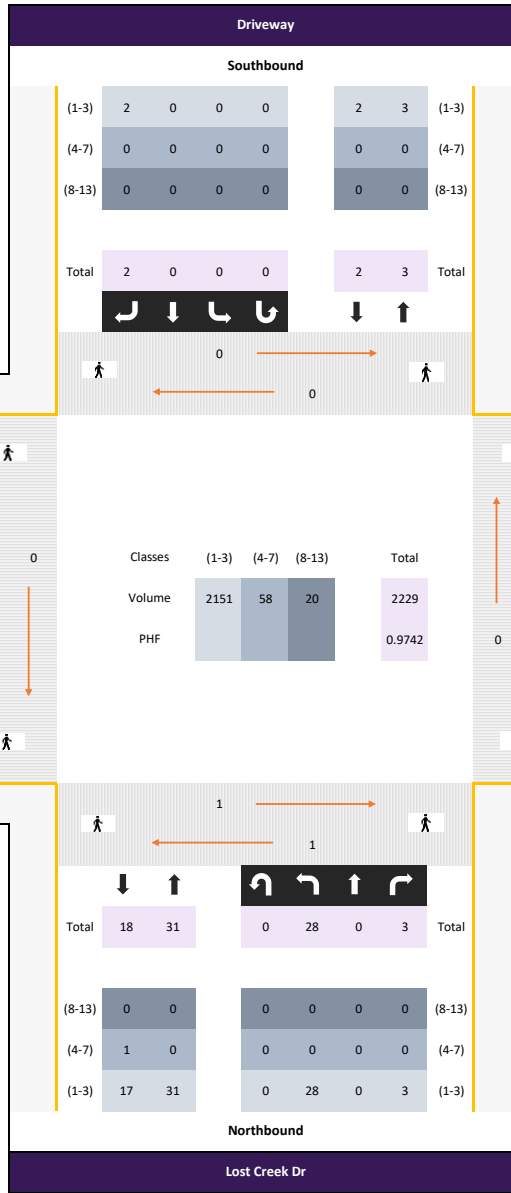
www.marrtraffic.com

Wednesday, October 12, 2022	
Period	0700 - 0900
Peak Hour	0800 - 0900

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)



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Peak Hour Turning Movement Count

Fairview, TX



www.marrtraffic.com

Wednesday, October 12, 2022	
Period	1600 - 1800
Peak Hour	1700 - 1800

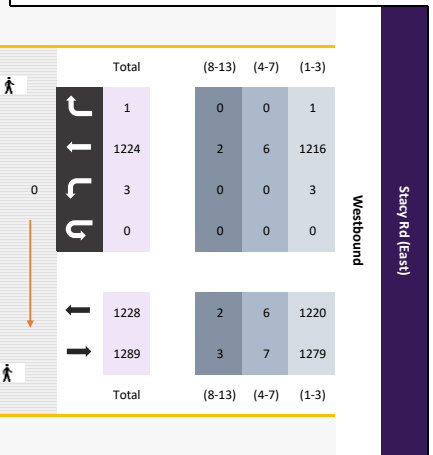
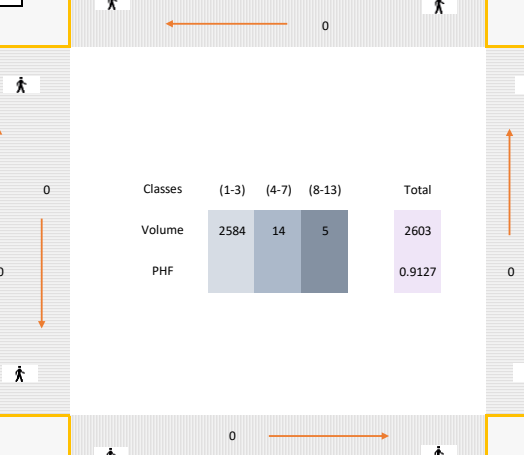
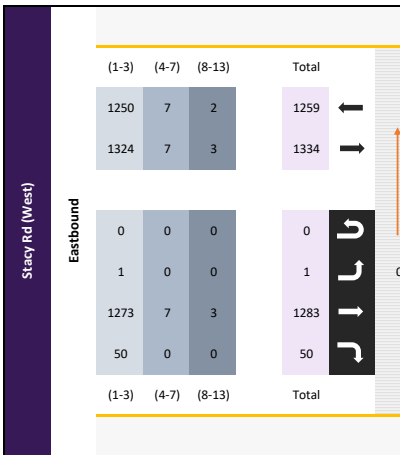
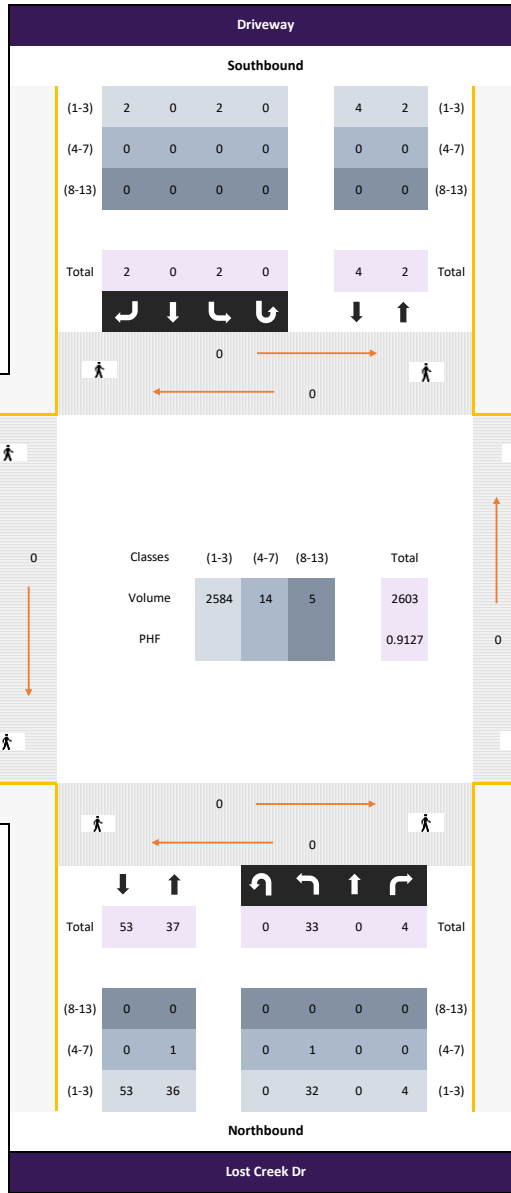
* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

Peak Hour


Volume



Stacy Rd (West)

Stacy Rd (East)

Lost Creek Dr

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Peak Hour Turning Movement Count

Fairview, TX



www.marrtraffic.com


Wednesday, October 12, 2022	
Period	0700 - 0900
Peak Hour	0800 - 0900

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)



 [Click here for Map](#)

Peak Hour Turning Movement Count

Fairview, TX



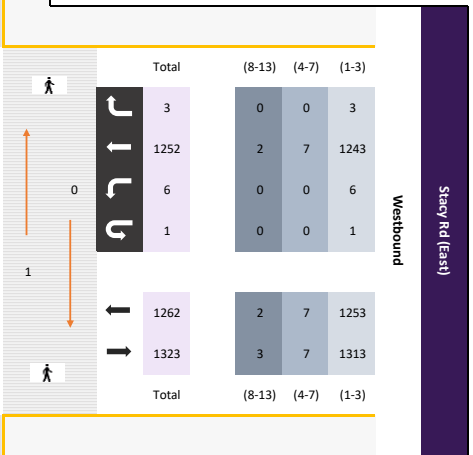
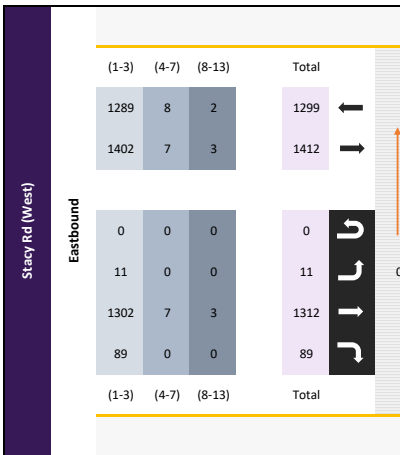
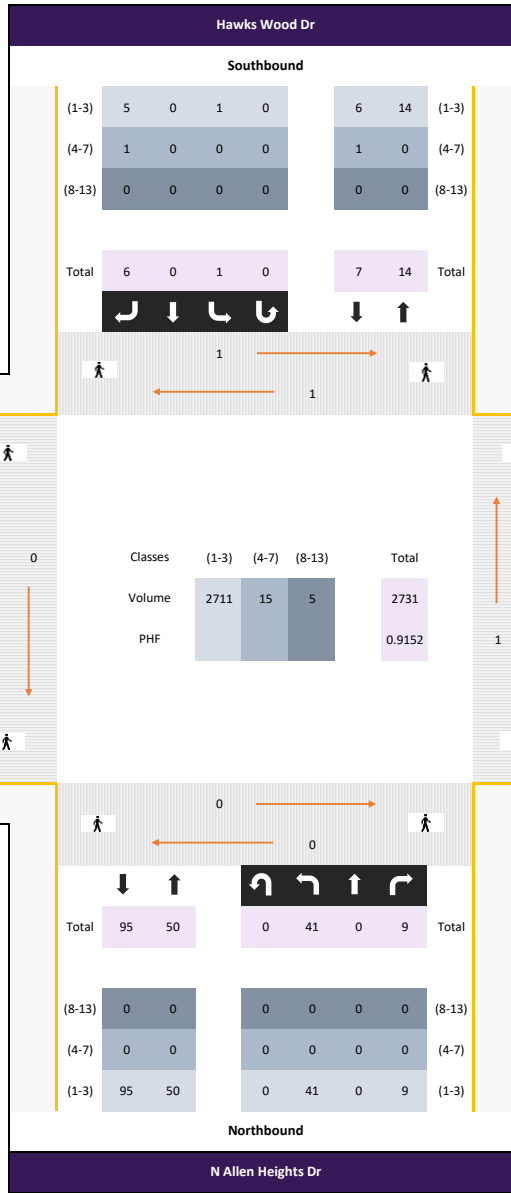
www.marrtraffic.com


Wednesday, October 12, 2022	
Period	1600 - 1800
Peak Hour	1700 - 1800

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)



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Peak Hour Turning Movement Count

Fairview, TX



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Wednesday, October 12, 2022	
Period	0700 - 0900
Peak Hour	0745 - 0845

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)



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Peak Hour Turning Movement Count

Fairview, TX



www.marrtraffic.com

Wednesday, October 12, 2022	
Period	1600 - 1800
Peak Hour	1700 - 1800

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)



 [Click here for Map](#)

Peak Hour Turning Movement Count

Fairview, TX



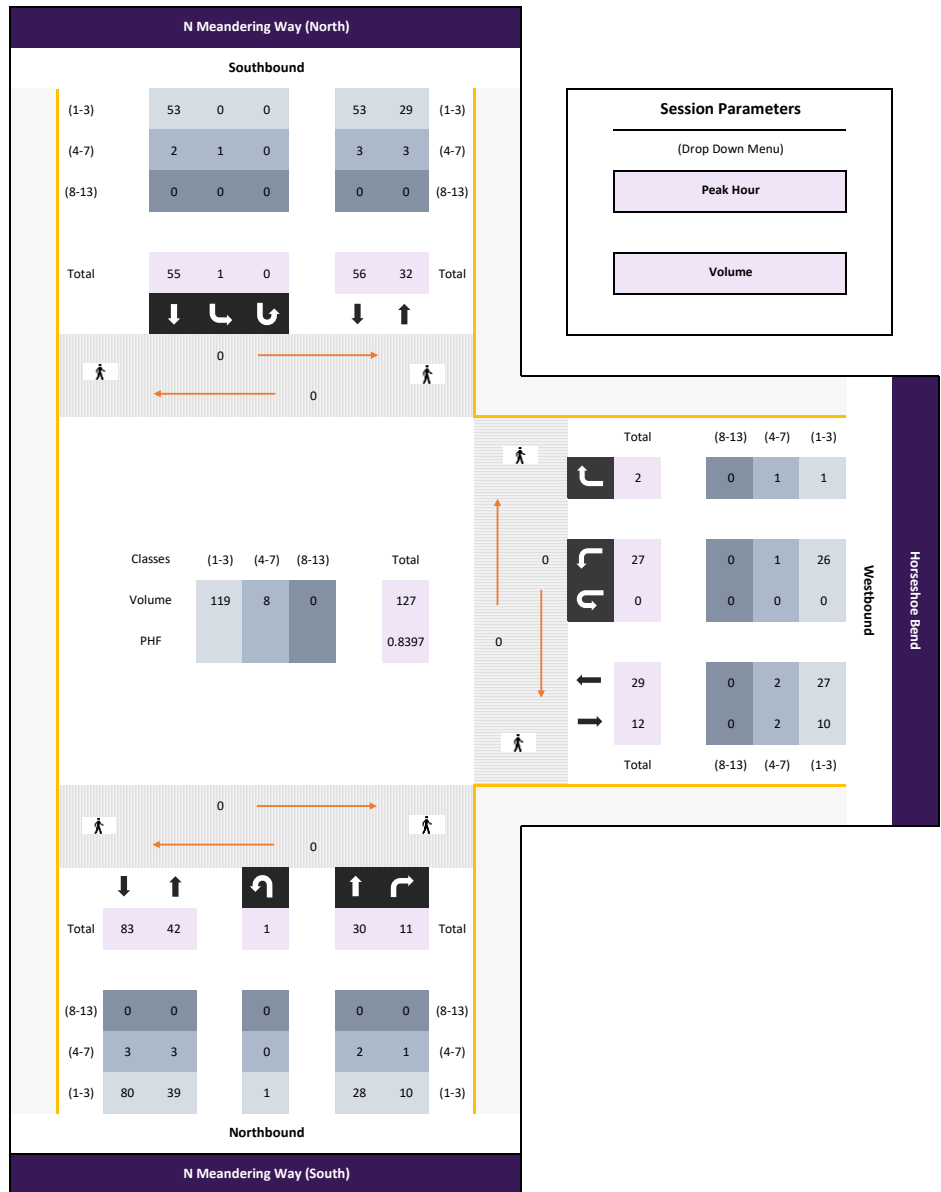
www.marrtraffic.com

Wednesday, October 12, 2022	
Period	0700 - 0900
Peak Hour	0715 - 0815

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)



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Peak Hour Turning Movement Count

Fairview, TX



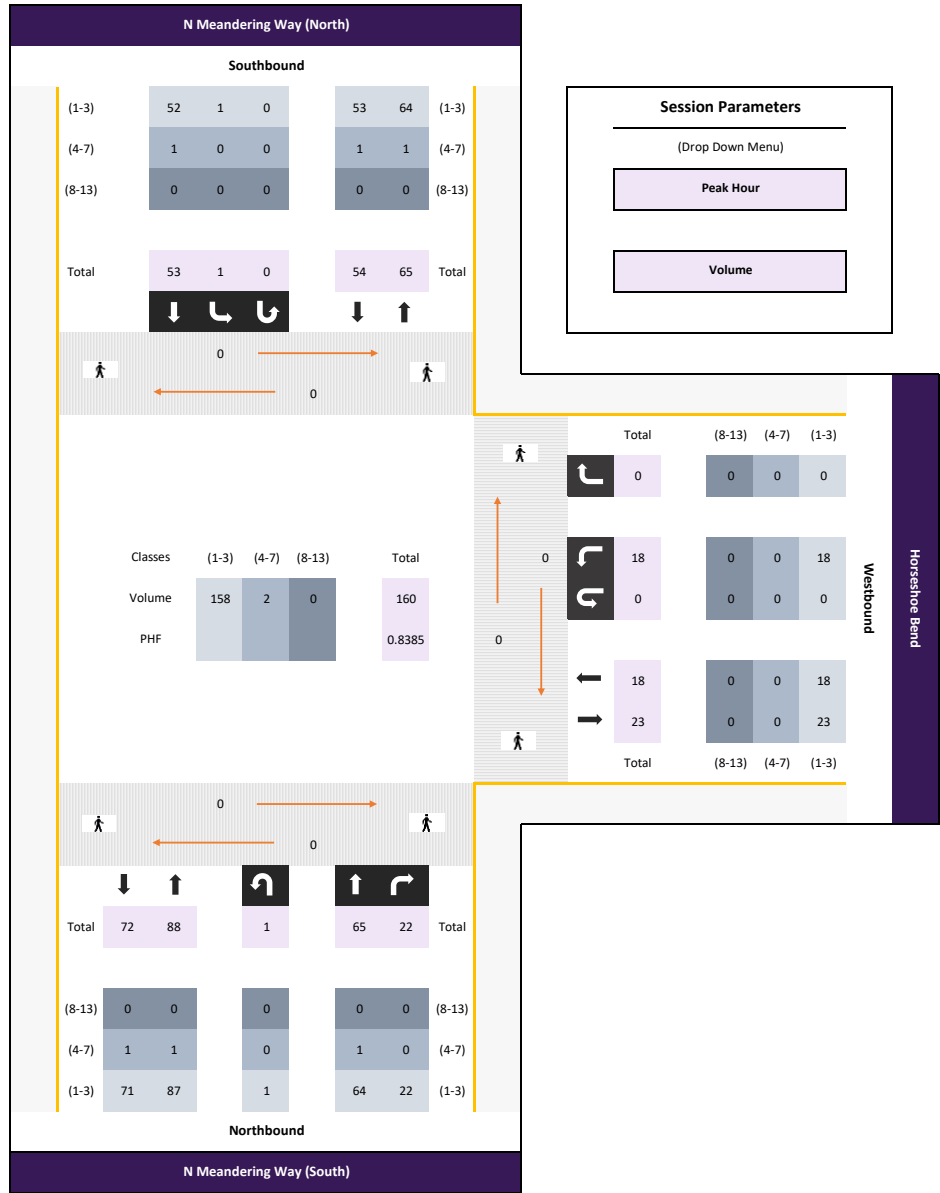
www.marrtraffic.com

Wednesday, October 12, 2022	
Period	1600 - 1800
Peak Hour	1630 - 1730

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)



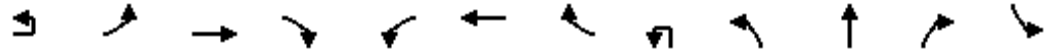
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Appendix B: Synchro (HCM) LOS Reports

HCM 6th Signalized Intersection Summary
 1: Angel Pkwy/Meandering Way & Stacy Rd

LDS Confidential Fairview
 Existing AM



Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations		↔	↕	↗	↔	↕	↕		↔	↕	↗	↔
Traffic Volume (veh/h)	9	15	439	335	96	762	10	2	550	23	91	10
Future Volume (veh/h)	9	15	439	335	96	762	10	2	550	23	91	10
Initial Q (Qb), veh		0	0	0	0	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00		0.99		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach			No			No				No		
Adj Sat Flow, veh/h/ln		1900	1811	1856	1885	1841	1900		1870	1900	1885	1752
Adj Flow Rate, veh/h		15	448	71	98	778	9		561	23	38	10
Peak Hour Factor		0.98	0.98	0.98	0.98	0.98	0.98		0.98	0.98	0.98	0.98
Percent Heavy Veh, %		0	6	3	1	4	0		2	0	1	10
Cap, veh/h		169	732	334	305	932	11		729	708	594	573
Arrive On Green		0.02	0.21	0.21	0.08	0.26	0.26		0.31	0.37	0.37	0.02
Sat Flow, veh/h		1810	3441	1570	1795	3541	41		1781	1900	1595	1668
Grp Volume(v), veh/h		15	448	71	98	384	403		561	23	38	10
Grp Sat Flow(s),veh/h/ln		1810	1721	1570	1795	1749	1833		1781	1900	1595	1668
Q Serve(g_s), s		0.5	9.9	3.1	3.4	17.4	17.4		23.5	0.6	1.3	0.3
Cycle Q Clear(g_c), s		0.5	9.9	3.1	3.4	17.4	17.4		23.5	0.6	1.3	0.3
Prop In Lane		1.00		1.00	1.00		0.02		1.00		1.00	1.00
Lane Grp Cap(c), veh/h		169	732	334	305	460	482		729	708	594	573
V/C Ratio(X)		0.09	0.61	0.21	0.32	0.84	0.84		0.77	0.03	0.06	0.02
Avail Cap(c_a), veh/h		298	2177	993	385	1148	1203		886	828	695	713
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		23.3	29.9	27.2	23.1	29.2	29.2		22.8	16.7	16.9	15.7
Incr Delay (d2), s/veh		0.1	0.3	0.1	0.2	1.6	1.5		2.6	0.0	0.0	0.0
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.2	3.8	1.1	1.3	6.8	7.1		9.4	0.3	0.4	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		23.4	30.2	27.3	23.4	30.7	30.6		25.4	16.7	16.9	15.7
LnGrp LOS		C	C	C	C	C	C		C	B	B	B
Approach Vol, veh/h			534			885				622		
Approach Delay, s/veh			29.6			29.9				24.5		
Approach LOS			C			C				C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.3	24.8	32.6	13.0	9.1	29.0	8.0	37.7				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	10.0	53.0	33.5	11.5	8.0	55.0	8.5	36.5				
Max Q Clear Time (g_c+I1), s	5.4	11.9	25.5	3.2	2.5	19.4	2.3	3.3				
Green Ext Time (p_c), s	0.0	1.8	0.6	0.0	0.0	2.7	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	28.2
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
 1: Angel Pkwy/Meandering Way & Stacy Rd

LDS Confidential Fairview
 Existing AM



Movement	SBT	SBR
Lane Configurations	↑	↗
Traffic Volume (veh/h)	28	41
Future Volume (veh/h)	28	41
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1900	1900
Adj Flow Rate, veh/h	29	-1
Peak Hour Factor	0.98	0.98
Percent Heavy Veh, %	0	0
Cap, veh/h	148	126
Arrive On Green	0.08	0.00
Sat Flow, veh/h	1900	1610
Grp Volume(v), veh/h	29	-1
Grp Sat Flow(s),veh/h/ln	1900	1610
Q Serve(g_s), s	1.2	0.0
Cycle Q Clear(g_c), s	1.2	0.0
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	148	126
V/C Ratio(X)	0.20	-0.01
Avail Cap(c_a), veh/h	261	221
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	0.00
Uniform Delay (d), s/veh	36.2	0.0
Incr Delay (d2), s/veh	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	36.4	0.0
LnGrp LOS	D	A
Approach Vol, veh/h	38	
Approach Delay, s/veh	31.9	
Approach LOS	C	
Timer - Assigned Phs		

Intersection

Int Delay, s/veh 0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↑↓		↔	↑↓				↔			↔	
Traffic Vol, veh/h	1	780	12	3	1362	1	1	22	0	11	0	0	1
Future Vol, veh/h	1	780	12	3	1362	1	1	22	0	11	0	0	1
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	None
Storage Length	360	-	-	275	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	92	97	97	97	97	97	97
Heavy Vehicles, %	0	5	0	0	3	0	0	5	0	0	0	0	0
Mvmt Flow	1	804	12	3	1404	1	1	23	0	11	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	1405	0	0	817	0	0	0	1521	2224	409	1815	2230	703
Stage 1	-	-	-	-	-	-	0	813	813	-	1411	1411	-
Stage 2	-	-	-	-	-	-	0	708	1411	-	404	819	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	7.6	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.6	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.6	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	3.55	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	492	-	-	820	-	-	0	79	44	597	50	43	385
Stage 1	-	-	-	-	-	-	0	332	395	-	148	206	-
Stage 2	-	-	-	-	-	-	0	385	206	-	600	392	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	492	-	-	819	-	-	0	78	44	596	49	43	385
Mov Cap-2 Maneuver	-	-	-	-	-	-	0	78	44	-	49	43	-
Stage 1	-	-	-	-	-	-	0	331	394	-	148	205	-
Stage 2	-	-	-	-	-	-	0	383	205	-	587	391	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	51.7	14.4
HCM LOS			F	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	110	492	-	-	819	-	-	385
HCM Lane V/C Ratio	0.309	0.002	-	-	0.004	-	-	0.003
HCM Control Delay (s)	51.7	12.3	-	-	9.4	-	-	14.4
HCM Lane LOS	F	B	-	-	A	-	-	B
HCM 95th %tile Q(veh)	1.2	0	-	-	0	-	-	0

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔			↔			↔	
Traffic Vol, veh/h	3	791	16	2	1384	0	28	0	3	0	0	2
Future Vol, veh/h	3	791	16	2	1384	0	28	0	3	0	0	2
Conflicting Peds, #/hr	0	0	2	2	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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	340	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	5	6	0	3	0	0	0	0	0	0	0
Mvmt Flow	3	815	16	2	1427	0	29	0	3	0	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1427	0	0	833	0	0	1549	2262	418	1845	2270	714
Stage 1	-	-	-	-	-	-	831	831	-	1431	1431	-
Stage 2	-	-	-	-	-	-	718	1431	-	414	839	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	483	-	-	809	-	-	79	41	589	47	41	378
Stage 1	-	-	-	-	-	-	334	387	-	144	202	-
Stage 2	-	-	-	-	-	-	391	202	-	592	384	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	483	-	-	807	-	-	78	40	588	46	40	378
Mov Cap-2 Maneuver	-	-	-	-	-	-	78	40	-	46	40	-
Stage 1	-	-	-	-	-	-	329	382	-	142	202	-
Stage 2	-	-	-	-	-	-	388	202	-	582	379	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	69.8	14.6
HCM LOS			F	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	78	588	483	-	-	807	-	-	-	378
HCM Lane V/C Ratio	0.37	0.005	0.006	-	-	0.003	-	-	-	0.005
HCM Control Delay (s)	76.1	11.2	12.5	0.1	-	9.5	-	-	0	14.6
HCM Lane LOS	F	B	B	A	-	A	-	-	A	B
HCM 95th %tile Q(veh)	1.4	0	0	-	-	0	-	-	-	0

Intersection																
Int Delay, s/veh	3.6															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Lane Configurations		↔	↕↕	↗		↔	↕↕		↔	↕	↗			↕↔		
Traffic Vol, veh/h	1	6	768	31	1	5	1395	6	43	1	13	1	10	0	12	
Future Vol, veh/h	1	6	768	31	1	5	1395	6	43	1	13	1	10	0	12	
Conflicting Peds, #/hr	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop	
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	-	None	
Storage Length	-	220	-	220	-	325	-	-	160	-	0	-	-	-	-	
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	-	0	-	
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	-	0	-	
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	
Heavy Vehicles, %	100	67	4	3	0	0	3	67	0	0	15	0	60	0	8	
Mvmt Flow	1	6	792	32	1	5	1438	6	44	1	13	1	10	0	12	

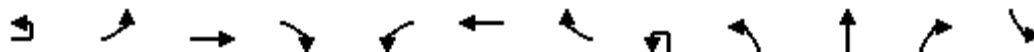
Major/Minor	Major1			Major2			Minor1			Minor2					
Conflicting Flow All	1444	1444	0	0	792	827	0	0	1540	2265	399	0	1864	2294	722
Stage 1	-	-	-	-	-	-	-	-	809	809	-	0	1453	1453	-
Stage 2	-	-	-	-	-	-	-	-	731	1456	-	0	411	841	-
Critical Hdwy	8.4	5.44	-	-	6.4	4.1	-	-	7.5	6.5	7.2	-	8.7	6.5	7.06
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	6.5	5.5	-	-	7.7	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	6.5	5.5	-	-	7.7	5.5	-
Follow-up Hdwy	3.5	2.87	-	-	2.5	2.2	-	-	3.5	4	3.45	-	4.1	4	3.38
Pot Cap-1 Maneuver	66	238	-	-	458	813	-	-	80	41	565	0	23	40	356
Stage 1	-	-	-	-	-	-	-	-	345	396	-	0	80	197	-
Stage 2	-	-	-	-	-	-	-	-	384	196	-	0	456	383	-
Platoon blocked, %			-	-			-	-				-			
Mov Cap-1 Maneuver	171	171	-	-	714	714	-	-	74	39	563	0	21	38	356
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	74	39	-	0	21	38	-
Stage 1	-	-	-	-	-	-	-	-	330	379	-	0	77	195	-
Stage 2	-	-	-	-	-	-	-	-	368	194	-	0	426	366	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	86.8	139.2
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	74	39	563	171	-	-	714	-	-	21	356
HCM Lane V/C Ratio	0.599	0.026	0.024	0.042	-	-	0.009	-	-	0.491	0.035
HCM Control Delay (s)	109.2	99.8	11.6	26.9	-	-	10.1	-	-	287.7	15.5
HCM Lane LOS	F	F	B	D	-	-	B	-	-	F	C
HCM 95th %tile Q(veh)	2.6	0.1	0.1	0.1	-	-	0	-	-	1.4	0.1

HCM 6th Signalized Intersection Summary
5: Hwy 5 & Stacy Rd

LDS Confidential Fairview
Existing AM



Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations		↘ ↙	↑ ↑ ↑	↗	↘ ↙	↑ ↑ ↑	↗		↘ ↙	↑ ↑	↗	↘ ↙
Traffic Volume (veh/h)	12	92	662	241	89	1005	295	1	219	248	58	131
Future Volume (veh/h)	12	92	662	241	89	1005	295	1	219	248	58	131
Initial Q (Qb), veh		0	0	0	0	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00		1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach			No			No				No		
Adj Sat Flow, veh/h/ln		1826	1841	1870	1856	1856	1885		1885	1870	1856	1870
Adj Flow Rate, veh/h		93	669	0	90	1015	0		221	251	5	132
Peak Hour Factor		0.99	0.99	0.99	0.99	0.99	0.99		0.99	0.99	0.99	0.99
Percent Heavy Veh, %		5	4	2	3	3	1		1	2	3	2
Cap, veh/h		1509	3210		130	1180			264	311	138	244
Arrive On Green		0.45	0.64	0.00	0.04	0.23	0.00		0.08	0.09	0.09	0.07
Sat Flow, veh/h		3374	5025	1585	3428	5066	1598		3483	3554	1572	3456
Grp Volume(v), veh/h		93	669	0	90	1015	0		221	251	5	132
Grp Sat Flow(s),veh/h/ln		1687	1675	1585	1714	1689	1598		1742	1777	1572	1728
Q Serve(g_s), s		2.5	8.9	0.0	4.1	30.7	0.0		10.0	11.1	0.4	5.9
Cycle Q Clear(g_c), s		2.5	8.9	0.0	4.1	30.7	0.0		10.0	11.1	0.4	5.9
Prop In Lane		1.00		1.00	1.00		1.00		1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1509	3210		130	1180			264	311	138	244
V/C Ratio(X)		0.06	0.21		0.69	0.86			0.84	0.81	0.04	0.54
Avail Cap(c_a), veh/h		1509	3210		219	2210			340	888	393	244
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	0.00	1.00	1.00	0.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		25.1	12.0	0.0	76.0	58.9	0.0		72.9	71.7	50.7	71.8
Incr Delay (d2), s/veh		0.0	0.1	0.0	2.4	8.3	0.0		10.8	1.9	0.0	1.3
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.0	3.2	0.0	1.8	13.7	0.0		4.8	5.1	0.2	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		25.1	12.2	0.0	78.5	67.1	0.0		83.7	73.6	50.7	73.2
LnGrp LOS		C	B		E	E			F	E	D	E
Approach Vol, veh/h			762			1105				477		
Approach Delay, s/veh			13.8			68.0				78.0		
Approach LOS			B			E				E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.9	108.6	18.5	20.0	78.0	43.5	18.5	20.0				
Change Period (Y+Rc), s	6.8	* 6.4	6.4	* 7.2	6.4	6.2	* 7.2	6.0				
Max Green Setting (Gmax), s	10.2	* 73	15.6	* 35	13.6	69.8	* 11	40.0				
Max Q Clear Time (g_c+I1), s	6.1	10.9	12.0	12.0	4.5	32.7	7.9	13.1				
Green Ext Time (p_c), s	0.0	2.8	0.1	0.7	0.1	4.5	0.0	0.9				

Intersection Summary

HCM 6th Ctrl Delay	55.1
HCM 6th LOS	E

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved ignoring U-Turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
5: Hwy 5 & Stacy Rd

LDS Confidential Fairview
Existing AM



Movement	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (veh/h)	225	124
Future Volume (veh/h)	225	124
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1870	1885
Adj Flow Rate, veh/h	227	10
Peak Hour Factor	0.99	0.99
Percent Heavy Veh, %	2	1
Cap, veh/h	284	128
Arrive On Green	0.08	0.08
Sat Flow, veh/h	3554	1598
Grp Volume(v), veh/h	227	10
Grp Sat Flow(s),veh/h/ln	1777	1598
Q Serve(g_s), s	10.0	0.4
Cycle Q Clear(g_c), s	10.0	0.4
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	284	128
V/C Ratio(X)	0.80	0.08
Avail Cap(c_a), veh/h	786	353
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	72.4	12.1
Incr Delay (d2), s/veh	2.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.4
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	74.3	12.2
LnGrp LOS	E	B
Approach Vol, veh/h	369	
Approach Delay, s/veh	72.2	
Approach LOS	E	

Timer - Assigned Phs

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection							
Int Delay, s/veh	2.1						
Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations	TT			TT			TT
Traffic Vol, veh/h	27	2	1	30	11	1	55
Future Vol, veh/h	27	2	1	30	11	1	55
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	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0
Grade, %	0	-	-	0	-	-	0
Peak Hour Factor	84	84	92	84	84	84	84
Heavy Vehicles, %	4	50	0	7	9	100	3
Mvmt Flow	32	2	1	36	13	1	65

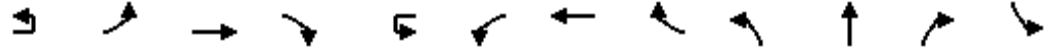
Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	110	43	0
Stage 1	43	-	-
Stage 2	67	-	-
Critical Hdwy	6.44	6.7	5.1
Critical Hdwy Stg 1	5.44	-	-
Critical Hdwy Stg 2	5.44	-	-
Follow-up Hdwy	3.536	3.75	3.1
Pot Cap-1 Maneuver	882	906	1106
Stage 1	974	-	-
Stage 2	951	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	881	906	1106
Mov Cap-2 Maneuver	881	-	-
Stage 1	974	-	-
Stage 2	950	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2		0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	883	1106
HCM Lane V/C Ratio	-	-	0.039	0.001
HCM Control Delay (s)	-	-	9.2	8.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 6th Signalized Intersection Summary
 1: Angel Pkwy/Meandering Way & Stacy Rd

LDS Confidential Fairview
 Existing PM



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		↔	↕	↗		↔	↕		↔	↕	↗	↘
Traffic Volume (veh/h)	22	51	673	463	1	90	667	9	506	28	146	8
Future Volume (veh/h)	22	51	673	463	1	90	667	9	506	28	146	8
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No				No				No		
Adj Sat Flow, veh/h/ln		1900	1900	1885		1900	1885	1900	1885	1841	1885	1900
Adj Flow Rate, veh/h		57	748	96		100	741	9	562	31	53	9
Peak Hour Factor		0.90	0.90	0.90		0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %		0	0	1		0	1	0	1	4	1	0
Cap, veh/h		240	918	405		245	965	12	720	673	585	580
Arrive On Green		0.06	0.25	0.25		0.07	0.27	0.27	0.31	0.37	0.37	0.02
Sat Flow, veh/h		1810	3610	1594		1810	3624	44	1795	1841	1598	1810
Grp Volume(v), veh/h		57	748	96		100	366	384	562	31	53	9
Grp Sat Flow(s),veh/h/ln		1810	1805	1594		1810	1791	1877	1795	1841	1598	1810
Q Serve(g_s), s		2.0	17.9	4.4		3.6	17.3	17.3	25.9	1.0	2.0	0.3
Cycle Q Clear(g_c), s		2.0	17.9	4.4		3.6	17.3	17.3	25.9	1.0	2.0	0.3
Prop In Lane		1.00		1.00		1.00		0.02	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		240	918	405		245	477	500	720	673	585	580
V/C Ratio(X)		0.24	0.81	0.24		0.41	0.77	0.77	0.78	0.05	0.09	0.02
Avail Cap(c_a), veh/h		292	2082	919		315	1072	1124	819	731	635	720
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		23.4	32.2	27.2		24.2	31.1	31.1	25.6	18.8	19.1	17.7
Incr Delay (d2), s/veh		0.2	0.7	0.1		0.4	1.0	0.9	3.6	0.0	0.0	0.0
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.8	7.3	1.6		1.4	7.0	7.3	10.9	0.4	0.7	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		23.6	32.9	27.3		24.6	32.1	32.0	29.2	18.8	19.1	17.7
LnGrp LOS		C	C	C		C	C	C	C	B	B	B
Approach Vol, veh/h			901				850			646		
Approach Delay, s/veh			31.7				31.2			27.9		
Approach LOS			C				C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.5	30.4	34.9	13.1	12.4	31.5	7.9	40.1				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	10.0	53.0	33.5	11.5	8.0	55.0	8.5	36.5				
Max Q Clear Time (g_c+I1), s	5.6	19.9	27.9	3.0	4.0	19.3	2.3	4.0				
Green Ext Time (p_c), s	0.0	3.2	0.5	0.0	0.0	2.5	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay	30.5
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
 1: Angel Pkwy/Meandering Way & Stacy Rd

LDS Confidential Fairview
 Existing PM



Movement	SBT	SBR
Lane Configurations	↑	↑
Traffic Volume (veh/h)	19	44
Future Volume (veh/h)	19	44
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1900	1900
Adj Flow Rate, veh/h	21	0
Peak Hour Factor	0.90	0.90
Percent Heavy Veh, %	0	0
Cap, veh/h	137	116
Arrive On Green	0.07	0.00
Sat Flow, veh/h	1900	1610
Grp Volume(v), veh/h	21	0
Grp Sat Flow(s),veh/h/ln	1900	1610
Q Serve(g_s), s	1.0	0.0
Cycle Q Clear(g_c), s	1.0	0.0
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	137	116
V/C Ratio(X)	0.15	0.00
Avail Cap(c_a), veh/h	238	202
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	0.00
Uniform Delay (d), s/veh	40.0	0.0
Incr Delay (d2), s/veh	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	40.2	0.0
LnGrp LOS	D	A
Approach Vol, veh/h	30	
Approach Delay, s/veh	33.4	
Approach LOS	C	
Timer - Assigned Phs		

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	1234	27	1	1182	30	23	0	13	13	0	4
Future Vol, veh/h	5	1234	27	1	1182	30	23	0	13	13	0	4
Conflicting Peds, #/hr	0	0	3	3	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	-	-	None	-	-	None	-	-	None
Storage Length	360	-	-	275	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	6	1371	30	1	1313	33	26	0	14	14	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1346	0	0	1404	0	0	2060	2749	704	2030	2748	673
Stage 1	-	-	-	-	-	-	1401	1401	-	1332	1332	-
Stage 2	-	-	-	-	-	-	659	1348	-	698	1416	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	518	-	-	493	-	-	33	20	384	34	20	402
Stage 1	-	-	-	-	-	-	150	209	-	166	225	-
Stage 2	-	-	-	-	-	-	424	221	-	402	205	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	518	-	-	492	-	-	32	20	383	32	20	402
Mov Cap-2 Maneuver	-	-	-	-	-	-	32	20	-	32	20	-
Stage 1	-	-	-	-	-	-	148	206	-	164	225	-
Stage 2	-	-	-	-	-	-	418	221	-	382	202	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	214.3	152.9
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	48	518	-	-	492	-	-	41
HCM Lane V/C Ratio	0.833	0.011	-	-	0.002	-	-	0.461
HCM Control Delay (s)	214.3	12	-	-	12.3	-	-	152.9
HCM Lane LOS	F	B	-	-	B	-	-	F
HCM 95th %tile Q(veh)	3.4	0	-	-	0	-	-	1.6

Intersection												
Int Delay, s/veh	6.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔			↔↔			↔↔			↔↔		
Traffic Vol, veh/h	1	1283	50	3	1224	1	33	0	4	2	0	2
Future Vol, veh/h	1	1283	50	3	1224	1	33	0	4	2	0	2
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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	340	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	1	0	0	1	0	3	0	0	0	0	0
Mvmt Flow	1	1410	55	3	1345	1	36	0	4	2	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1346	0	0	1465	0	0	2119	2792	733	2059	2819	673
Stage 1	-	-	-	-	-	-	1440	1440	-	1352	1352	-
Stage 2	-	-	-	-	-	-	679	1352	-	707	1467	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.56	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.56	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.56	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.53	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	518	-	-	467	-	-	~ 28	19	368	33	18	402
Stage 1	-	-	-	-	-	-	138	200	-	161	220	-
Stage 2	-	-	-	-	-	-	405	220	-	397	194	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	518	-	-	467	-	-	~ 27	19	368	32	18	402
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 27	19	-	32	18	-
Stage 1	-	-	-	-	-	-	136	198	-	159	219	-
Stage 2	-	-	-	-	-	-	400	219	-	388	192	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	\$ 456.2	69.8
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	27	368	518	-	-	467	-	-	32	402
HCM Lane V/C Ratio	1.343	0.012	0.002	-	-	0.007	-	-	0.069	0.005
HCM Control Delay (s)	\$ 509.7	14.9	12	0.1	-	12.8	-	-	125.6	14
HCM Lane LOS	F	B	B	A	-	B	-	-	F	B
HCM 95th %tile Q(veh)	4.3	0	0	-	-	0	-	-	0.2	0

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 9.7

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↑↑	↗		↔	↑↑		↔	↑	↗		↔	
Traffic Vol, veh/h	11	1312	89	1	6	1252	3	41	0	9	1	0	6
Future Vol, veh/h	11	1312	89	1	6	1252	3	41	0	9	1	0	6
Conflicting Peds, #/hr	2	0	0	1	0	0	2	0	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	220	-	220	-	325	-	-	160	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	0	0	0	1	0	0	0	0	0	0	17
Mvmt Flow	12	1426	97	1	7	1361	3	45	0	10	1	0	7

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	1366	0	0	1426	1523	0	0	2147	2832	714	2119	2928	684
Stage 1	-	-	-	-	-	-	-	1450	1450	-	1381	1381	-
Stage 2	-	-	-	-	-	-	-	697	1382	-	738	1547	-
Critical Hdwy	4.1	-	-	6.4	4.1	-	-	7.5	6.5	6.9	7.5	6.5	7.24
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.5	2.2	-	-	3.5	4	3.3	3.5	4	3.47
Pot Cap-1 Maneuver	509	-	-	180	444	-	-	~ 28	18	378	29	15	358
Stage 1	-	-	-	-	-	-	-	140	198	-	154	213	-
Stage 2	-	-	-	-	-	-	-	402	213	-	380	177	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	508	-	-	365	365	-	-	~ 27	17	378	27	14	357
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 27	17	-	27	14	-
Stage 1	-	-	-	-	-	-	-	137	193	-	150	208	-
Stage 2	-	-	-	-	-	-	-	386	208	-	361	173	-

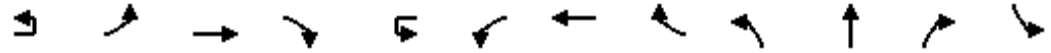
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	\$ 520.7	33.7
HCM LOS			F	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	27	-	378	508	-	-	365	-	-	27	357
HCM Lane V/C Ratio	1.651	-	0.026	0.024	-	-	0.021	-	-	0.04	0.018
HCM Control Delay (s)	\$ 631.8	0	14.8	12.3	-	-	15.1	-	-	143.9	15.3
HCM Lane LOS	F	A	B	B	-	-	C	-	-	F	C
HCM 95th %tile Q(veh)	5.3	-	0.1	0.1	-	-	0.1	-	-	0.1	0.1

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th Signalized Intersection Summary
5: Hwy 5 & Stacy Rd

LDS Confidential Fairview
Existing PM



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		↔	↔↔	↔		↔	↔↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	16	230	1041	331	6	83	927	289	319	421	144	229
Future Volume (veh/h)	16	230	1041	331	6	83	927	289	319	421	144	229
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No				No			No		
Adj Sat Flow, veh/h/ln		1900	1885	1870		1870	1900	1885	1885	1885	1885	1900
Adj Flow Rate, veh/h		245	1107	0		88	986	0	339	448	16	244
Peak Hour Factor		0.94	0.94	0.94		0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %		0	1	2		2	0	1	1	1	1	0
Cap, veh/h		1370	2936			128	1147		388	521	233	287
Arrive On Green		0.39	0.57	0.00		0.04	0.22	0.00	0.11	0.15	0.15	0.08
Sat Flow, veh/h		3510	5147	1585		3456	5187	1598	3483	3582	1598	3510
Grp Volume(v), veh/h		245	1107	0		88	986	0	339	448	16	244
Grp Sat Flow(s),veh/h/ln		1755	1716	1585		1728	1729	1598	1742	1791	1598	1755
Q Serve(g_s), s		7.3	18.8	0.0		4.0	29.2	0.0	15.3	19.5	1.2	11.0
Cycle Q Clear(g_c), s		7.3	18.8	0.0		4.0	29.2	0.0	15.3	19.5	1.2	11.0
Prop In Lane		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1370	2936			128	1147		388	521	233	287
V/C Ratio(X)		0.18	0.38			0.69	0.86		0.87	0.86	0.07	0.85
Avail Cap(c_a), veh/h		1370	2936			199	1777		623	1075	479	347
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	0.00		1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		32.0	18.8	0.0		76.1	59.9	0.0	70.0	66.8	43.9	72.5
Incr Delay (d2), s/veh		0.0	0.4	0.0		2.4	8.5	0.0	4.8	1.6	0.0	13.4
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		3.1	7.3	0.0		1.8	13.4	0.0	7.0	8.9	0.6	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		32.0	19.2	0.0		78.5	68.4	0.0	74.8	68.4	44.0	85.9
LnGrp LOS		C	B			E	E		E	E	D	F
Approach Vol, veh/h			1352				1074			803		
Approach Delay, s/veh			21.5				69.2			70.6		
Approach LOS			C				E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.7	97.7	24.2	25.4	68.8	41.6	20.3	29.3				
Change Period (Y+Rc), s	6.8	* 6.4	6.4	* 7.2	6.4	6.2	* 7.2	6.0				
Max Green Setting (Gmax), s	9.2	* 61	28.6	* 35	15.6	54.8	* 16	48.0				
Max Q Clear Time (g_c+I1), s	6.0	20.8	17.3	17.0	9.3	31.2	13.0	21.5				
Green Ext Time (p_c), s	0.0	5.1	0.5	1.1	0.2	4.1	0.1	1.7				

Intersection Summary

HCM 6th Ctrl Delay	53.7
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved ignoring U-Turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
5: Hwy 5 & Stacy Rd

LDS Confidential Fairview
Existing PM



Movement	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (veh/h)	325	178
Future Volume (veh/h)	325	178
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1900	1900
Adj Flow Rate, veh/h	346	20
Peak Hour Factor	0.94	0.94
Percent Heavy Veh, %	0	0
Cap, veh/h	410	183
Arrive On Green	0.11	0.11
Sat Flow, veh/h	3610	1610
Grp Volume(v), veh/h	346	20
Grp Sat Flow(s),veh/h/ln	1805	1610
Q Serve(g_s), s	15.0	0.8
Cycle Q Clear(g_c), s	15.0	0.8
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	410	183
V/C Ratio(X)	0.84	0.11
Avail Cap(c_a), veh/h	799	356
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	69.5	13.7
Incr Delay (d2), s/veh	1.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	0.7
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	71.4	13.8
LnGrp LOS	E	B
Approach Vol, veh/h	610	
Approach Delay, s/veh	75.3	
Approach LOS	E	

Timer - Assigned Phs

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

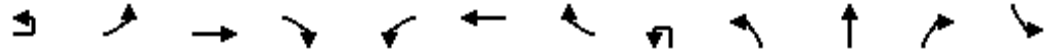
Intersection							
Int Delay, s/veh	1.1						
Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations	FF			FB			FB
Traffic Vol, veh/h	18	0	1	65	22	1	53
Future Vol, veh/h	18	0	1	65	22	1	53
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0
Grade, %	0	-	-	0	-	-	0
Peak Hour Factor	84	84	90	84	84	84	84
Heavy Vehicles, %	0	0	0	2	0	0	2
Mvmt Flow	21	0	1	77	26	1	63

Major/Minor	Minor1	Major1	Major2	Major2	Major2	Major2
Conflicting Flow All	155	90	-	0	0	103
Stage 1	90	-	-	-	-	-
Stage 2	65	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	2.2
Pot Cap-1 Maneuver	841	973	-	-	-	1502
Stage 1	939	-	-	-	-	-
Stage 2	963	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	840	973	-	-	-	1502
Mov Cap-2 Maneuver	840	-	-	-	-	-
Stage 1	939	-	-	-	-	-
Stage 2	962	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4		0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	840	1502
HCM Lane V/C Ratio	-	-	0.026	0.001
HCM Control Delay (s)	-	-	9.4	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 6th Signalized Intersection Summary
 1: Angel Pkwy/Meandering Way & Stacy Rd



Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (veh/h)	9	15	443	337	96	762	10	2	557	23	91	10
Future Volume (veh/h)	9	15	443	337	96	762	10	2	557	23	91	10
Initial Q (Qb), veh		0	0	0	0	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00		0.99		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach			No			No				No		
Adj Sat Flow, veh/h/ln		1900	1811	1856	1885	1841	1900		1870	1900	1885	1752
Adj Flow Rate, veh/h		15	452	77	98	778	9		568	23	38	10
Peak Hour Factor		0.98	0.98	0.98	0.98	0.98	0.98		0.98	0.98	0.98	0.98
Percent Heavy Veh, %		0	6	3	1	4	0		2	0	1	10
Cap, veh/h		168	732	334	301	930	11		734	715	600	576
Arrive On Green		0.02	0.21	0.21	0.07	0.26	0.26		0.32	0.38	0.38	0.02
Sat Flow, veh/h		1810	3441	1570	1795	3541	41		1781	1900	1595	1668
Grp Volume(v), veh/h		15	452	77	98	384	403		568	23	38	10
Grp Sat Flow(s),veh/h/ln		1810	1721	1570	1795	1749	1833		1781	1900	1595	1668
Q Serve(g_s), s		0.5	10.1	3.4	3.5	17.6	17.6		24.0	0.6	1.3	0.3
Cycle Q Clear(g_c), s		0.5	10.1	3.4	3.5	17.6	17.6		24.0	0.6	1.3	0.3
Prop In Lane		1.00		1.00	1.00		0.02		1.00		1.00	1.00
Lane Grp Cap(c), veh/h		168	732	334	301	459	482		734	715	600	576
V/C Ratio(X)		0.09	0.62	0.23	0.33	0.84	0.84		0.77	0.03	0.06	0.02
Avail Cap(c_a), veh/h		295	2157	984	380	1137	1192		878	820	689	715
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		23.5	30.2	27.6	23.4	29.5	29.5		22.9	16.7	16.9	15.7
Incr Delay (d2), s/veh		0.1	0.3	0.1	0.2	1.6	1.5		2.9	0.0	0.0	0.0
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.2	3.9	1.2	1.4	6.9	7.2		9.7	0.3	0.4	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		23.6	30.5	27.7	23.6	31.0	31.0		25.7	16.7	16.9	15.7
LnGrp LOS		C	C	C	C	C	C		C	B	B	B
Approach Vol, veh/h			544			885				629		
Approach Delay, s/veh			29.9			30.2				24.8		
Approach LOS			C			C				C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.3	25.0	33.1	13.1	9.1	29.2	8.0	38.3				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	10.0	53.0	33.5	11.5	8.0	55.0	8.5	36.5				
Max Q Clear Time (g_c+I1), s	5.5	12.1	26.0	3.2	2.5	19.6	2.3	3.3				
Green Ext Time (p_c), s	0.0	1.8	0.6	0.0	0.0	2.7	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	28.5
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
 1: Angel Pkwy/Meandering Way & Stacy Rd



Movement	SBT	SBR
Lane Configurations	↑	↗
Traffic Volume (veh/h)	28	41
Future Volume (veh/h)	28	41
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		0.99
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1900	1900
Adj Flow Rate, veh/h	29	3
Peak Hour Factor	0.98	0.98
Percent Heavy Veh, %	0	0
Cap, veh/h	149	125
Arrive On Green	0.08	0.08
Sat Flow, veh/h	1900	1598
Grp Volume(v), veh/h	29	3
Grp Sat Flow(s),veh/h/ln	1900	1598
Q Serve(g_s), s	1.2	0.1
Cycle Q Clear(g_c), s	1.2	0.1
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	149	125
V/C Ratio(X)	0.20	0.02
Avail Cap(c_a), veh/h	258	217
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	1.00	1.00
Uniform Delay (d), s/veh	36.5	36.0
Incr Delay (d2), s/veh	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.1
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	36.7	36.0
LnGrp LOS	D	D
Approach Vol, veh/h	42	
Approach Delay, s/veh	31.6	
Approach LOS	C	
Timer - Assigned Phs		

Intersection

Int Delay, s/veh 1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	32	780	12	3	1362	8	1	22	0	11	6	0	11
Future Vol, veh/h	32	780	12	3	1362	8	1	22	0	11	6	0	11
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	None
Storage Length	360	-	-	275	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	92	97	97	97	97	97	97
Heavy Vehicles, %	0	5	0	0	3	0	0	5	0	0	0	0	0
Mvmt Flow	33	804	12	3	1404	8	1	23	0	11	6	0	11

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	1412	0	0	817	0	0	0	1585	2295	409	1882	2297	706
Stage 1	-	-	-	-	-	-	0	877	877	-	1414	1414	-
Stage 2	-	-	-	-	-	-	0	708	1418	-	468	883	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	7.6	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.6	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.6	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	3.55	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	489	-	-	820	-	-	0	71	39	597	44	39	383
Stage 1	-	-	-	-	-	-	0	303	369	-	147	206	-
Stage 2	-	-	-	-	-	-	0	385	205	-	550	367	-
Platoon blocked, %		-	-		-	-	-						
Mov Cap-1 Maneuver	489	-	-	819	-	-	0	65	36	596	41	36	383
Mov Cap-2 Maneuver	-	-	-	-	-	-	0	65	36	-	41	36	-
Stage 1	-	-	-	-	-	-	0	282	344	-	137	205	-
Stage 2	-	-	-	-	-	-	0	372	204	-	503	342	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0	65.5	50.1
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	92	489	-	-	819	-	-	97
HCM Lane V/C Ratio	0.37	0.067	-	-	0.004	-	-	0.181
HCM Control Delay (s)	65.5	12.9	-	-	9.4	-	-	50.1
HCM Lane LOS	F	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	1.5	0.2	-	-	0	-	-	0.6

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔			↔	↔↔		↔↔			↔↔		
Traffic Vol, veh/h	3	822	16	2	1394	0	28	0	3	0	0	2
Future Vol, veh/h	3	822	16	2	1394	0	28	0	3	0	0	2
Conflicting Peds, #/hr	0	0	2	2	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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	340	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	5	6	0	3	0	0	0	0	0	0	0
Mvmt Flow	3	847	16	2	1437	0	29	0	3	0	0	2

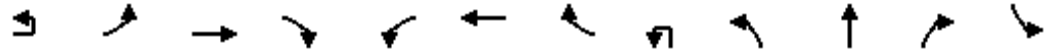
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1437	0	0	865	0	0	1586	2304	434	1871	2312	719
Stage 1	-	-	-	-	-	-	863	863	-	1441	1441	-
Stage 2	-	-	-	-	-	-	723	1441	-	430	871	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	479	-	-	787	-	-	74	39	576	45	39	375
Stage 1	-	-	-	-	-	-	320	374	-	142	200	-
Stage 2	-	-	-	-	-	-	388	200	-	579	371	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	479	-	-	786	-	-	73	38	575	44	38	375
Mov Cap-2 Maneuver	-	-	-	-	-	-	73	38	-	44	38	-
Stage 1	-	-	-	-	-	-	316	369	-	140	199	-
Stage 2	-	-	-	-	-	-	385	199	-	569	366	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	76.5	14.7
HCM LOS			F	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	73	575	479	-	-	786	-	-	-	375
HCM Lane V/C Ratio	0.395	0.005	0.006	-	-	0.003	-	-	-	0.005
HCM Control Delay (s)	83.5	11.3	12.6	0.1	-	9.6	-	-	0	14.7
HCM Lane LOS	F	B	B	A	-	A	-	-	A	B
HCM 95th %tile Q(veh)	1.5	0	0	-	-	0	-	-	-	0

Intersection																
Int Delay, s/veh	3.9															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Lane Configurations		↔	↕	↗		↔	↕		↔	↕	↗			↕	↗	
Traffic Vol, veh/h	1	6	799	31	1	5	1405	6	43	1	13	1	10	0	12	
Future Vol, veh/h	1	6	799	31	1	5	1405	6	43	1	13	1	10	0	12	
Conflicting Peds, #/hr	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop	
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	-	None	
Storage Length	-	220	-	220	-	325	-	-	160	-	0	-	-	-	-	
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	-	0	-	
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	-	0	-	
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	
Heavy Vehicles, %	100	67	4	3	0	0	3	67	0	0	15	0	60	0	8	
Mvmt Flow	1	6	824	32	1	5	1448	6	44	1	13	1	10	0	12	
Major/Minor	Major1				Major2				Minor1			Minor2				
Conflicting Flow All	1455	1454	0	0	824	859	0	0	1577	2307	415	0	1890	2336	727	
Stage 1	-	-	-	-	-	-	-	-	841	841	-	0	1463	1463	-	
Stage 2	-	-	-	-	-	-	-	-	736	1466	-	0	427	873	-	
Critical Hdwy	8.4	5.44	-	-	6.4	4.1	-	-	7.5	6.5	7.2	-	8.7	6.5	7.06	
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	6.5	5.5	-	-	7.7	5.5	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	6.5	5.5	-	-	7.7	5.5	-	
Follow-up Hdwy	3.5	2.87	-	-	2.5	2.2	-	-	3.5	4	3.45	-	4.1	4	3.38	
Pot Cap-1 Maneuver	64	235	-	-	437	791	-	-	75	39	551	0	22	37	353	
Stage 1	-	-	-	-	-	-	-	-	330	383	-	0	79	195	-	
Stage 2	-	-	-	-	-	-	-	-	381	194	-	0	445	370	-	
Platoon blocked, %			-	-			-	-				-				
Mov Cap-1 Maneuver	168	168	-	-	691	691	-	-	69	37	549	0	20	35	353	
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	69	37	-	0	20	35	-	
Stage 1	-	-	-	-	-	-	-	-	315	366	-	0	76	193	-	
Stage 2	-	-	-	-	-	-	-	-	364	192	-	0	415	353	-	
Approach	EB				WB				NB			SB				
HCM Control Delay, s	0.2				0				97.7			148.3				
HCM LOS									F			F				
Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2					
Capacity (veh/h)	69	37	549	168	-	-	691	-	-	20	353					
HCM Lane V/C Ratio	0.642	0.028	0.024	0.043	-	-	0.009	-	-	0.515	0.035					
HCM Control Delay (s)	123.5	105.1	11.7	27.4	-	-	10.3	-	-	307.6	15.6					
HCM Lane LOS	F	F	B	D	-	-	B	-	-	F	C					
HCM 95th %tile Q(veh)	2.8	0.1	0.1	0.1	-	-	0	-	-	1.5	0.1					

HCM 6th Signalized Intersection Summary
5: Hwy 5 & Stacy Rd



Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations		↘ ↙	↑ ↑ ↑	↗	↘ ↙	↑ ↑ ↑	↗		↘ ↙	↑ ↑	↗	↘ ↙
Traffic Volume (veh/h)	12	92	679	241	91	1011	297	1	219	248	65	138
Future Volume (veh/h)	12	92	679	241	91	1011	297	1	219	248	65	138
Initial Q (Qb), veh		0	0	0	0	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00		1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach			No			No				No		
Adj Sat Flow, veh/h/ln		1826	1841	1870	1856	1856	1885		1885	1870	1856	1870
Adj Flow Rate, veh/h		93	686	0	92	1021	0		221	251	6	139
Peak Hour Factor		0.99	0.99	0.99	0.99	0.99	0.99		0.99	0.99	0.99	0.99
Percent Heavy Veh, %		5	4	2	3	3	1		1	2	3	2
Cap, veh/h		1505	3207		132	1187			264	311	138	244
Arrive On Green		0.45	0.64	0.00	0.04	0.23	0.00		0.08	0.09	0.09	0.07
Sat Flow, veh/h		3374	5025	1585	3428	5066	1598		3483	3554	1572	3456
Grp Volume(v), veh/h		93	686	0	92	1021	0		221	251	6	139
Grp Sat Flow(s),veh/h/ln		1687	1675	1585	1714	1689	1598		1742	1777	1572	1728
Q Serve(g_s), s		2.5	9.2	0.0	4.2	30.9	0.0		10.0	11.1	0.5	6.2
Cycle Q Clear(g_c), s		2.5	9.2	0.0	4.2	30.9	0.0		10.0	11.1	0.5	6.2
Prop In Lane		1.00		1.00	1.00		1.00		1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1505	3207		132	1187			264	311	138	244
V/C Ratio(X)		0.06	0.21		0.70	0.86			0.84	0.81	0.04	0.57
Avail Cap(c_a), veh/h		1505	3207		219	2210			340	888	393	244
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	0.00	1.00	1.00	0.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		25.2	12.1	0.0	76.0	58.7	0.0		72.9	71.7	50.6	72.0
Incr Delay (d2), s/veh		0.0	0.2	0.0	2.4	8.2	0.0		10.8	1.9	0.0	2.0
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.0	3.3	0.0	1.9	13.8	0.0		4.8	5.1	0.2	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		25.2	12.3	0.0	78.4	67.0	0.0		83.7	73.6	50.7	74.0
LnGrp LOS		C	B		E	E			F	E	D	E
Approach Vol, veh/h			779			1113				478		
Approach Delay, s/veh			13.8			67.9				78.0		
Approach LOS			B			E				E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	108.5	18.5	20.0	77.8	43.7	18.5	20.0				
Change Period (Y+Rc), s	6.8	* 6.4	6.4	* 7.2	6.4	6.2	* 7.2	6.0				
Max Green Setting (Gmax), s	10.2	* 73	15.6	* 35	13.6	69.8	* 11	40.0				
Max Q Clear Time (g_c+I1), s	6.2	11.2	12.0	12.0	4.5	32.9	8.2	13.1				
Green Ext Time (p_c), s	0.0	2.9	0.1	0.7	0.1	4.6	0.0	0.9				

Intersection Summary

HCM 6th Ctrl Delay	55.0
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved ignoring U-Turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
5: Hwy 5 & Stacy Rd



Movement	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (veh/h)	225	124
Future Volume (veh/h)	225	124
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1870	1885
Adj Flow Rate, veh/h	227	10
Peak Hour Factor	0.99	0.99
Percent Heavy Veh, %	2	1
Cap, veh/h	284	128
Arrive On Green	0.08	0.08
Sat Flow, veh/h	3554	1598
Grp Volume(v), veh/h	227	10
Grp Sat Flow(s),veh/h/ln	1777	1598
Q Serve(g_s), s	10.0	0.4
Cycle Q Clear(g_c), s	10.0	0.4
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	284	128
V/C Ratio(X)	0.80	0.08
Avail Cap(c_a), veh/h	786	353
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	72.4	12.2
Incr Delay (d2), s/veh	2.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.4
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	74.3	12.3
LnGrp LOS	E	B
Approach Vol, veh/h	376	
Approach Delay, s/veh	72.6	
Approach LOS	E	

Timer - Assigned Phs

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

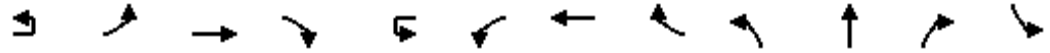
Intersection							
Int Delay, s/veh	2.1						
Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations	TT			TT			TT
Traffic Vol, veh/h	27	2	1	30	11	1	55
Future Vol, veh/h	27	2	1	30	11	1	55
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0
Grade, %	0	-	-	0	-	-	0
Peak Hour Factor	84	84	92	84	84	84	84
Heavy Vehicles, %	4	50	0	7	9	100	3
Mvmt Flow	32	2	1	36	13	1	65

Major/Minor	Minor1	Major1	Major2	Major2
Conflicting Flow All	110	43	-	0
Stage 1	43	-	-	-
Stage 2	67	-	-	-
Critical Hdwy	6.44	6.7	-	5.1
Critical Hdwy Stg 1	5.44	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-
Follow-up Hdwy	3.536	3.75	-	3.1
Pot Cap-1 Maneuver	882	906	-	1106
Stage 1	974	-	-	-
Stage 2	951	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	881	906	-	1106
Mov Cap-2 Maneuver	881	-	-	-
Stage 1	974	-	-	-
Stage 2	950	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2		0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	883	1106
HCM Lane V/C Ratio	-	-	0.039	0.001
HCM Control Delay (s)	-	-	9.2	8.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 6th Signalized Intersection Summary
 1: Angel Pkwy/Meandering Way & Stacy Rd



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		↔	↕	↗		↔	↕		↔	↕	↗	↘
Traffic Volume (veh/h)	22	51	681	468	1	90	675	9	511	28	146	8
Future Volume (veh/h)	22	51	681	468	1	90	675	9	511	28	146	8
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No				No				No		
Adj Sat Flow, veh/h/ln		1900	1900	1885		1900	1885	1900	1885	1841	1885	1900
Adj Flow Rate, veh/h		57	757	98		100	750	9	568	31	52	9
Peak Hour Factor		0.90	0.90	0.90		0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %		0	0	1		0	1	0	1	4	1	0
Cap, veh/h		238	926	409		242	971	12	723	677	588	583
Arrive On Green		0.06	0.26	0.26		0.07	0.27	0.27	0.31	0.37	0.37	0.02
Sat Flow, veh/h		1810	3610	1594		1810	3625	43	1795	1841	1598	1810
Grp Volume(v), veh/h		57	757	98		100	371	388	568	31	52	9
Grp Sat Flow(s),veh/h/ln		1810	1805	1594		1810	1791	1877	1795	1841	1598	1810
Q Serve(g_s), s		2.0	18.3	4.5		3.7	17.8	17.8	26.5	1.0	2.0	0.3
Cycle Q Clear(g_c), s		2.0	18.3	4.5		3.7	17.8	17.8	26.5	1.0	2.0	0.3
Prop In Lane		1.00		1.00		1.00		0.02	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		238	926	409		242	480	503	723	677	588	583
V/C Ratio(X)		0.24	0.82	0.24		0.41	0.77	0.77	0.79	0.05	0.09	0.02
Avail Cap(c_a), veh/h		288	2058	909		311	1060	1111	810	723	627	720
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		23.6	32.5	27.4		24.5	31.4	31.4	25.8	18.9	19.2	17.8
Incr Delay (d2), s/veh		0.2	0.7	0.1		0.4	1.0	1.0	3.9	0.0	0.0	0.0
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.8	7.5	1.7		1.5	7.2	7.5	11.2	0.4	0.7	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		23.8	33.2	27.5		24.9	32.4	32.4	29.8	18.9	19.2	17.8
LnGrp LOS		C	C	C		C	C	C	C	B	B	B
Approach Vol, veh/h		912				859				651		
Approach Delay, s/veh		32.0				31.5				28.4		
Approach LOS		C				C				C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.5	30.8	35.5	13.1	12.4	31.9	8.0	40.7				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	10.0	53.0	33.5	11.5	8.0	55.0	8.5	36.5				
Max Q Clear Time (g_c+I1), s	5.7	20.3	28.5	3.0	4.0	19.8	2.3	4.0				
Green Ext Time (p_c), s	0.0	3.2	0.5	0.0	0.0	2.5	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay	30.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
 1: Angel Pkwy/Meandering Way & Stacy Rd



Movement	SBT	SBR
Lane Configurations	↑	↗
Traffic Volume (veh/h)	19	44
Future Volume (veh/h)	19	44
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1900	1900
Adj Flow Rate, veh/h	21	0
Peak Hour Factor	0.90	0.90
Percent Heavy Veh, %	0	0
Cap, veh/h	135	115
Arrive On Green	0.07	0.00
Sat Flow, veh/h	1900	1610
Grp Volume(v), veh/h	21	0
Grp Sat Flow(s),veh/h/ln	1900	1610
Q Serve(g_s), s	1.0	0.0
Cycle Q Clear(g_c), s	1.0	0.0
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	135	115
V/C Ratio(X)	0.16	0.00
Avail Cap(c_a), veh/h	235	199
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	0.00
Uniform Delay (d), s/veh	40.5	0.0
Incr Delay (d2), s/veh	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	40.7	0.0
LnGrp LOS	D	A
Approach Vol, veh/h	30	
Approach Delay, s/veh	33.8	
Approach LOS	C	
Timer - Assigned Phs		

Intersection

Int Delay, s/veh 10.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔ ↑↔			↔ ↑↔				↔			↔	
Traffic Vol, veh/h	30	1234	27	1	1182	43	23	0	13	26	0	27
Future Vol, veh/h	30	1234	27	1	1182	43	23	0	13	26	0	27
Conflicting Peds, #/hr	0	0	3	3	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	-	-	None	-	-	None	-	-	None
Storage Length	360	-	-	275	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	33	1371	30	1	1313	48	26	0	14	29	0	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1361	0	0	1404	0	0	2114	2818	704	2091	2809	681
Stage 1	-	-	-	-	-	-	1455	1455	-	1339	1339	-
Stage 2	-	-	-	-	-	-	659	1363	-	752	1470	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	512	-	-	493	-	-	30	18	384	31	18	398
Stage 1	-	-	-	-	-	-	139	197	-	164	224	-
Stage 2	-	-	-	-	-	-	424	218	-	373	193	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	512	-	-	492	-	-	26	17	383	~ 28	17	398
Mov Cap-2 Maneuver	-	-	-	-	-	-	26	17	-	~ 28	17	-
Stage 1	-	-	-	-	-	-	130	184	-	154	224	-
Stage 2	-	-	-	-	-	-	391	218	-	336	180	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0	\$ 309.6	283.9
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	39	512	-	-	492	-	-	53
HCM Lane V/C Ratio	1.026	0.065	-	-	0.002	-	-	1.111
HCM Control Delay (s)	\$ 309.6	12.5	-	-	12.3	-	-	283.9
HCM Lane LOS	F	B	-	-	B	-	-	F
HCM 95th %tile Q(veh)	3.9	0.2	-	-	0	-	-	5.1

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	7.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔			↔↔			↔↔			↔↔		
Traffic Vol, veh/h	1	1308	50	3	1247	1	33	0	4	2	0	2
Future Vol, veh/h	1	1308	50	3	1247	1	33	0	4	2	0	2
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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	340	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	1	0	0	1	0	3	0	0	0	0	0
Mvmt Flow	1	1437	55	3	1370	1	36	0	4	2	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1371	0	0	1492	0	0	2158	2844	746	2098	2871	686
Stage 1	-	-	-	-	-	-	1467	1467	-	1377	1377	-
Stage 2	-	-	-	-	-	-	691	1377	-	721	1494	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.56	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.56	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.56	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.53	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	507	-	-	456	-	-	~ 26	17	360	30	17	395
Stage 1	-	-	-	-	-	-	133	194	-	155	214	-
Stage 2	-	-	-	-	-	-	399	214	-	389	188	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	507	-	-	456	-	-	~ 25	17	360	29	17	395
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 25	17	-	29	17	-
Stage 1	-	-	-	-	-	-	131	192	-	153	213	-
Stage 2	-	-	-	-	-	-	394	213	-	380	186	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	\$ 513	76.6
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	25	360	507	-	-	456	-	-	29	395
HCM Lane V/C Ratio	1.451	0.012	0.002	-	-	0.007	-	-	0.076	0.006
HCM Control Delay (s)	\$ 573.3	15.1	12.1	0.1	-	13	-	-	139.1	14.2
HCM Lane LOS	F	C	B	A	-	B	-	-	F	B
HCM 95th %tile Q(veh)	4.5	0	0	-	-	0	-	-	0.2	0

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 10.7

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↑↑	↗		↔	↑↑		↔	↑	↗		↑↑	
Traffic Vol, veh/h	11	1337	89	1	6	1275	3	41	0	9	1	0	6
Future Vol, veh/h	11	1337	89	1	6	1275	3	41	0	9	1	0	6
Conflicting Peds, #/hr	2	0	0	1	0	0	2	0	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	220	-	220	-	325	-	-	160	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	0	0	0	1	0	0	0	0	0	0	17
Mvmt Flow	12	1453	97	1	7	1386	3	45	0	10	1	0	7

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	1391	0	0	1453	1550	0	0	2186	2884	728	2158	2980	697
Stage 1	-	-	-	-	-	-	-	1477	1477	-	1406	1406	-
Stage 2	-	-	-	-	-	-	-	709	1407	-	752	1574	-
Critical Hdwy	4.1	-	-	6.4	4.1	-	-	7.5	6.5	6.9	7.5	6.5	7.24
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.5	2.2	-	-	3.5	4	3.3	3.5	4	3.47
Pot Cap-1 Maneuver	498	-	-	173	433	-	-	~ 26	16	370	27	14	351
Stage 1	-	-	-	-	-	-	-	135	192	-	149	208	-
Stage 2	-	-	-	-	-	-	-	396	207	-	373	172	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	497	-	-	354	354	-	-	~ 25	15	370	25	13	350
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 25	15	-	25	13	-
Stage 1	-	-	-	-	-	-	-	132	187	-	145	203	-
Stage 2	-	-	-	-	-	-	-	380	202	-	354	168	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	\$ 583.2	35.5
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	25	-	370	497	-	-	354	-	-	25	350
HCM Lane V/C Ratio	1.783	-	0.026	0.024	-	-	0.021	-	-	0.043	0.019
HCM Control Delay (s)	\$ 707.9	0	15	12.4	-	-	15.4	-	-	155.4	15.5
HCM Lane LOS	F	A	C	B	-	-	C	-	-	F	C
HCM 95th %tile Q(veh)	5.5	-	0.1	0.1	-	-	0.1	-	-	0.1	0.1

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th Signalized Intersection Summary
5: Hwy 5 & Stacy Rd

LDS Confidential Fairview
EX+P PM



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		↔	↔↔	↔		↔	↔↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	16	230	1054	331	6	88	940	294	319	421	150	235
Future Volume (veh/h)	16	230	1054	331	6	88	940	294	319	421	150	235
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No				No			No		
Adj Sat Flow, veh/h/ln		1900	1885	1870		1870	1900	1885	1885	1885	1885	1900
Adj Flow Rate, veh/h		245	1121	0		94	1000	0	339	448	16	250
Peak Hour Factor		0.94	0.94	0.94		0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %		0	1	2		2	0	1	1	1	1	0
Cap, veh/h		1354	2918			135	1162		388	521	233	293
Arrive On Green		0.39	0.57	0.00		0.04	0.22	0.00	0.11	0.15	0.15	0.08
Sat Flow, veh/h		3510	5147	1585		3456	5187	1598	3483	3582	1598	3510
Grp Volume(v), veh/h		245	1121	0		94	1000	0	339	448	16	250
Grp Sat Flow(s),veh/h/ln		1755	1716	1585		1728	1729	1598	1742	1791	1598	1755
Q Serve(g_s), s		7.4	19.3	0.0		4.3	29.7	0.0	15.3	19.5	1.2	11.2
Cycle Q Clear(g_c), s		7.4	19.3	0.0		4.3	29.7	0.0	15.3	19.5	1.2	11.2
Prop In Lane		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1354	2918			135	1162		388	521	233	293
V/C Ratio(X)		0.18	0.38			0.70	0.86		0.87	0.86	0.07	0.85
Avail Cap(c_a), veh/h		1354	2918			199	1777		623	1075	479	347
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	0.00		1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		32.5	19.2	0.0		76.0	59.7	0.0	70.0	66.8	43.7	72.4
Incr Delay (d2), s/veh		0.0	0.4	0.0		2.4	8.4	0.0	4.8	1.6	0.0	14.3
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		3.1	7.5	0.0		1.9	13.6	0.0	7.0	8.9	0.6	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		32.5	19.6	0.0		78.4	68.1	0.0	74.8	68.4	43.8	86.6
LnGrp LOS		C	B			E	E		E	E	D	F
Approach Vol, veh/h			1366				1094			803		
Approach Delay, s/veh			21.9				69.0			70.6		
Approach LOS			C				E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	97.1	24.2	25.6	68.1	42.0	20.6	29.3				
Change Period (Y+Rc), s	6.8	* 6.4	6.4	* 7.2	6.4	6.2	* 7.2	6.0				
Max Green Setting (Gmax), s	9.2	* 61	28.6	* 35	15.6	54.8	* 16	48.0				
Max Q Clear Time (g_c+I1), s	6.3	21.3	17.3	17.0	9.4	31.7	13.2	21.5				
Green Ext Time (p_c), s	0.0	5.2	0.5	1.1	0.2	4.2	0.1	1.7				

Intersection Summary

HCM 6th Ctrl Delay	53.8
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved ignoring U-Turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
5: Hwy 5 & Stacy Rd



Movement	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (veh/h)	325	178
Future Volume (veh/h)	325	178
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1900	1900
Adj Flow Rate, veh/h	346	21
Peak Hour Factor	0.94	0.94
Percent Heavy Veh, %	0	0
Cap, veh/h	416	186
Arrive On Green	0.12	0.12
Sat Flow, veh/h	3610	1610
Grp Volume(v), veh/h	346	21
Grp Sat Flow(s),veh/h/ln	1805	1610
Q Serve(g_s), s	15.0	0.9
Cycle Q Clear(g_c), s	15.0	0.9
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	416	186
V/C Ratio(X)	0.83	0.11
Avail Cap(c_a), veh/h	799	356
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	69.3	13.9
Incr Delay (d2), s/veh	1.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	0.8
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	70.9	14.0
LnGrp LOS	E	B
Approach Vol, veh/h	617	
Approach Delay, s/veh	75.4	
Approach LOS	E	

Timer - Assigned Phs

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection							
Int Delay, s/veh	1.1						
Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations	FF			FF			FF
Traffic Vol, veh/h	18	0	1	65	22	1	53
Future Vol, veh/h	18	0	1	65	22	1	53
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	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0
Grade, %	0	-	-	0	-	-	0
Peak Hour Factor	84	84	90	84	84	84	84
Heavy Vehicles, %	0	0	0	2	0	0	2
Mvmt Flow	21	0	1	77	26	1	63

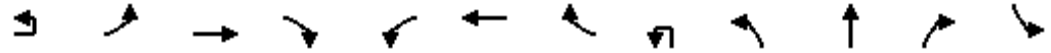
Major/Minor	Minor1	Major1	Major2	Major2	Major2	Major2
Conflicting Flow All	155	90	-	0	0	103
Stage 1	90	-	-	-	-	-
Stage 2	65	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	2.2
Pot Cap-1 Maneuver	841	973	-	-	-	1502
Stage 1	939	-	-	-	-	-
Stage 2	963	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	840	973	-	-	-	1502
Mov Cap-2 Maneuver	840	-	-	-	-	-
Stage 1	939	-	-	-	-	-
Stage 2	962	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4		0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	840	1502
HCM Lane V/C Ratio	-	-	0.026	0.001
HCM Control Delay (s)	-	-	9.4	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 6th Signalized Intersection Summary
 1: Angel Pkwy/Meandering Way & Stacy Rd

LDS Confidential Fairview
 2040 AM



Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations		↔	↕	↗	↔	↕	↕		↔	↕	↗	↔
Traffic Volume (veh/h)	12	21	606	462	132	1052	14	2	759	32	126	14
Future Volume (veh/h)	12	21	606	462	132	1052	14	2	759	32	126	14
Initial Q (Qb), veh		0	0	0	0	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00		0.99		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach			No			No				No		
Adj Sat Flow, veh/h/ln		1900	1811	1856	1885	1841	1900		1870	1900	1885	1752
Adj Flow Rate, veh/h		21	618	140	135	1073	13		774	33	44	14
Peak Hour Factor		0.98	0.98	0.98	0.98	0.98	0.98		0.98	0.98	0.98	0.98
Percent Heavy Veh, %		0	6	3	1	4	0		2	0	1	10
Cap, veh/h		151	1042	476	297	1207	15		684	675	567	529
Arrive On Green		0.03	0.30	0.30	0.07	0.34	0.34		0.31	0.36	0.36	0.02
Sat Flow, veh/h		1810	3441	1571	1795	3539	43		1781	1900	1595	1668
Grp Volume(v), veh/h		21	618	140	135	530	556		774	33	44	14
Grp Sat Flow(s),veh/h/ln		1810	1721	1571	1795	1749	1833		1781	1900	1595	1668
Q Serve(g_s), s		0.8	16.4	7.3	5.5	30.9	30.9		33.5	1.2	2.0	0.6
Cycle Q Clear(g_c), s		0.8	16.4	7.3	5.5	30.9	30.9		33.5	1.2	2.0	0.6
Prop In Lane		1.00		1.00	1.00		0.02		1.00		1.00	1.00
Lane Grp Cap(c), veh/h		151	1042	476	297	597	625		684	675	567	529
V/C Ratio(X)		0.14	0.59	0.29	0.45	0.89	0.89		1.13	0.05	0.08	0.03
Avail Cap(c_a), veh/h		230	1694	774	341	894	937		684	675	567	624
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		26.1	31.9	28.7	24.5	33.5	33.5		34.2	22.8	23.0	21.0
Incr Delay (d2), s/veh		0.2	0.2	0.1	0.4	5.5	5.2		76.7	0.0	0.0	0.0
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.3	6.4	2.7	2.2	13.0	13.6		32.4	0.5	0.7	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		26.3	32.1	28.9	24.9	39.0	38.8		110.9	22.8	23.0	21.0
LnGrp LOS		C	C	C	C	D	D		F	C	C	C
Approach Vol, veh/h			779			1221				851		
Approach Delay, s/veh			31.4			37.3				102.9		
Approach LOS			C			D				F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.4	39.6	40.0	13.6	10.3	43.7	8.9	44.8				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	10.0	53.0	33.5	11.5	8.0	55.0	8.5	36.5				
Max Q Clear Time (g_c+I1), s	7.5	18.4	35.5	4.2	2.8	32.9	2.6	4.0				
Green Ext Time (p_c), s	0.0	2.6	0.0	0.0	0.0	3.9	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	55.0
HCM 6th LOS	E

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
 1: Angel Pkwy/Meandering Way & Stacy Rd



Movement	SBT	SBR
Lane Configurations	↑	↑
Traffic Volume (veh/h)	39	57
Future Volume (veh/h)	39	57
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		0.99
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1900	1900
Adj Flow Rate, veh/h	40	3
Peak Hour Factor	0.98	0.98
Percent Heavy Veh, %	0	0
Cap, veh/h	126	106
Arrive On Green	0.07	0.07
Sat Flow, veh/h	1900	1596
Grp Volume(v), veh/h	40	3
Grp Sat Flow(s),veh/h/ln	1900	1596
Q Serve(g_s), s	2.2	0.2
Cycle Q Clear(g_c), s	2.2	0.2
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	126	106
V/C Ratio(X)	0.32	0.03
Avail Cap(c_a), veh/h	203	170
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	1.00	1.00
Uniform Delay (d), s/veh	47.9	47.0
Incr Delay (d2), s/veh	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.1
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	48.4	47.0
LnGrp LOS	D	D
Approach Vol, veh/h	57	
Approach Delay, s/veh	41.6	
Approach LOS	D	
Timer - Assigned Phs		

Intersection

Int Delay, s/veh 4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔ ↑↑			↔ ↑↑					↔			↔	
Traffic Vol, veh/h	1	1076	17	4	1880	1	1	30	0	15	0	0	1
Future Vol, veh/h	1	1076	17	4	1880	1	1	30	0	15	0	0	1
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	None
Storage Length	360	-	-	275	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	92	97	97	97	97	97	97
Heavy Vehicles, %	0	5	0	0	3	0	0	5	0	0	0	0	0
Mvmt Flow	1	1109	18	4	1938	1	1	31	0	15	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	1939	0	0	1128	0	0	0	2098	3068	565	2504	3077	970
Stage 1	-	-	-	-	-	-	0	1121	1121	-	1947	1947	-
Stage 2	-	-	-	-	-	-	0	977	1947	-	557	1130	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	7.6	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.6	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.6	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	3.55	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	307	-	-	627	-	-	0	~ 29	12	473	15	12	257
Stage 1	-	-	-	-	-	-	0	215	284	-	68	112	-
Stage 2	-	-	-	-	-	-	0	263	112	-	487	281	-
Platoon blocked, %		-	-		-	-	-						
Mov Cap-1 Maneuver	307	-	-	626	-	-	0	~ 29	12	473	14	12	257
Mov Cap-2 Maneuver	-	-	-	-	-	-	0	~ 29	12	-	14	12	-
Stage 1	-	-	-	-	-	-	0	214	283	-	68	111	-
Stage 2	-	-	-	-	-	-	0	260	111	-	470	280	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	\$ 322	19.1
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	42	307	-	-	626	-	-	257
HCM Lane V/C Ratio	1.105	0.003	-	-	0.007	-	-	0.004
HCM Control Delay (s)	\$ 322	16.8	-	-	10.8	-	-	19.1
HCM Lane LOS	F	C	-	-	B	-	-	C
HCM 95th %tile Q(veh)	4.5	0	-	-	0	-	-	0

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	7.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↔	↔		↔			↔		
Traffic Vol, veh/h	4	1092	22	3	1910	0	39	0	4	0	0	3
Future Vol, veh/h	4	1092	22	3	1910	0	39	0	4	0	0	3
Conflicting Peds, #/hr	0	0	2	2	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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	340	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	5	6	0	3	0	0	0	0	0	0	0
Mvmt Flow	4	1126	23	3	1969	0	40	0	4	0	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1969	0	0	1151	0	0	2139	3123	577	2546	3134	985
Stage 1	-	-	-	-	-	-	1148	1148	-	1975	1975	-
Stage 2	-	-	-	-	-	-	991	1975	-	571	1159	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	299	-	-	614	-	-	~ 28	11	465	14	11	251
Stage 1	-	-	-	-	-	-	215	276	-	65	109	-
Stage 2	-	-	-	-	-	-	268	109	-	478	272	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	299	-	-	613	-	-	~ 27	11	464	13	11	251
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 27	11	-	13	11	-
Stage 1	-	-	-	-	-	-	207	265	-	63	108	-
Stage 2	-	-	-	-	-	-	263	108	-	456	261	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	\$ 515.4	19.5
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	27	464	299	-	-	613	-	-	-	251
HCM Lane V/C Ratio	1.489	0.009	0.014	-	-	0.005	-	-	-	0.012
HCM Control Delay (s)	\$ 566.9	12.8	17.2	0.3	-	10.9	-	-	0	19.5
HCM Lane LOS	F	B	C	A	-	B	-	-	A	C
HCM 95th %tile Q(veh)	4.8	0	0	-	-	0	-	-	-	0

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection																
Int Delay, s/veh	32.8															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Lane Configurations		↔	↑↑	↗		↔	↑↑		↔	↑	↗				↔↗	
Traffic Vol, veh/h	1	8	1060	43	1	7	1925	8	59	1	18	1	14	0	17	
Future Vol, veh/h	1	8	1060	43	1	7	1925	8	59	1	18	1	14	0	17	
Conflicting Peds, #/hr	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop	
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	-	None	
Storage Length	-	220	-	220	-	325	-	-	160	-	0	-	-	-	-	
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	-	0	-	
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	-	0	-	
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	
Heavy Vehicles, %	100	67	4	3	0	0	3	67	0	0	15	0	60	0	8	
Mvmt Flow	1	8	1093	44	1	7	1985	8	61	1	19	1	14	0	18	

Major/Minor	Major1				Major2				Minor1			Minor2			
Conflicting Flow All	1993	1993	0	0	1093	1140	0	0	2123	3123	550	0	2570	3163	997
Stage 1	-	-	-	-	-	-	-	-	1114	1114	-	0	2005	2005	-
Stage 2	-	-	-	-	-	-	-	-	1009	2009	-	0	565	1158	-
Critical Hdwy	8.4	5.44	-	-	6.4	4.1	-	-	7.5	6.5	7.2	-	8.7	6.5	7.06
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	6.5	5.5	-	-	7.7	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	6.5	5.5	-	-	7.7	5.5	-
Follow-up Hdwy	3.5	2.87	-	-	2.5	2.2	-	-	3.5	4	3.45	-	4.1	4	3.38
Pot Cap-1 Maneuver	22	123	-	-	294	620	-	-	~ 29	11	447	0	~ 5	11	232
Stage 1	-	-	-	-	-	-	-	-	225	286	-	0	31	105	-
Stage 2	-	-	-	-	-	-	-	-	261	105	-	0	356	273	-
Platoon blocked, %			-	-			-	-				-			
Mov Cap-1 Maneuver	78	78	-	-	538	538	-	-	~ 24	10	446	0	~ 4	10	232
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	~ 24	10	-	0	~ 4	10	-
Stage 1	-	-	-	-	-	-	-	-	198	252	-	0	27	103	-
Stage 2	-	-	-	-	-	-	-	-	238	103	-	0	301	241	-

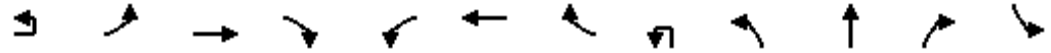
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0	\$ 794.2	\$ 1292.5
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	24	10	446	78	-	-	538	-	-	4	232
HCM Lane V/C Ratio	2.534	0.103	0.042	0.119	-	-	0.015	-	-	3.608	0.076
HCM Control Delay (s)	\$ 1039	\$ 402.8	13.4	57.1	-	-	11.8	-	-	\$ 2835.6	21.8
HCM Lane LOS	F	F	B	F	-	-	B	-	-	F	C
HCM 95th %tile Q(veh)	7.6	0.3	0.1	0.4	-	-	0	-	-	3.1	0.2

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th Signalized Intersection Summary
5: Hwy 5 & Stacy Rd

LDS Confidential Fairview
2040 AM



Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations		↘ ↙	↑ ↑ ↑	↗	↘ ↙	↑ ↑ ↑	↗		↘ ↙	↑ ↑	↗	↘ ↙
Traffic Volume (veh/h)	17	127	914	333	123	1387	407	1	302	342	80	181
Future Volume (veh/h)	17	127	914	333	123	1387	407	1	302	342	80	181
Initial Q (Qb), veh		0	0	0	0	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00		1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach			No			No				No		
Adj Sat Flow, veh/h/ln		1826	1841	1870	1856	1856	1885		1885	1870	1856	1870
Adj Flow Rate, veh/h		128	923	0	124	1401	0		305	345	9	183
Peak Hour Factor		0.99	0.99	0.99	0.99	0.99	0.99		0.99	0.99	0.99	0.99
Percent Heavy Veh, %		5	4	2	3	3	1		1	2	3	2
Cap, veh/h		1071	2920		165	1599			340	411	182	312
Arrive On Green		0.32	0.58	0.00	0.05	0.32	0.00		0.10	0.12	0.12	0.09
Sat Flow, veh/h		3374	5025	1585	3428	5066	1598		3483	3554	1572	3456
Grp Volume(v), veh/h		128	923	0	124	1401	0		305	345	9	183
Grp Sat Flow(s),veh/h/ln		1687	1675	1585	1714	1689	1598		1742	1777	1572	1728
Q Serve(g_s), s		4.3	15.1	0.0	5.7	41.9	0.0		13.9	15.2	0.7	8.1
Cycle Q Clear(g_c), s		4.3	15.1	0.0	5.7	41.9	0.0		13.9	15.2	0.7	8.1
Prop In Lane		1.00		1.00	1.00		1.00		1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1071	2920		165	1599			340	411	182	312
V/C Ratio(X)		0.12	0.32		0.75	0.88			0.90	0.84	0.05	0.59
Avail Cap(c_a), veh/h		1071	2920		219	2210			340	888	393	312
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	0.00	1.00	1.00	0.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		38.7	17.2	0.0	75.2	51.8	0.0		71.4	69.3	46.0	69.9
Incr Delay (d2), s/veh		0.0	0.3	0.0	6.3	7.1	0.0		24.7	1.8	0.0	2.0
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.8	5.7	0.0	2.6	18.2	0.0		7.3	6.9	0.3	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		38.8	17.5	0.0	81.5	58.9	0.0		96.1	71.1	46.1	71.9
LnGrp LOS		D	B		F	E			F	E	D	E
Approach Vol, veh/h			1051			1525				659		
Approach Delay, s/veh			20.1			60.7				82.3		
Approach LOS			C			E				F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.5	99.4	22.0	24.1	57.2	56.7	21.6	24.5				
Change Period (Y+Rc), s	6.8	* 6.4	6.4	* 7.2	6.4	6.2	* 7.2	6.0				
Max Green Setting (Gmax), s	10.2	* 73	15.6	* 35	13.6	69.8	* 11	40.0				
Max Q Clear Time (g_c+I1), s	7.7	17.1	15.9	15.9	6.3	43.9	10.1	17.2				
Green Ext Time (p_c), s	0.0	4.1	0.0	1.0	0.1	6.6	0.0	1.3				

Intersection Summary

HCM 6th Ctrl Delay	54.3
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved ignoring U-Turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
5: Hwy 5 & Stacy Rd

LDS Confidential Fairview
2040 AM



Movement	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (veh/h)	311	171
Future Volume (veh/h)	311	171
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1870	1885
Adj Flow Rate, veh/h	314	35
Peak Hour Factor	0.99	0.99
Percent Heavy Veh, %	2	1
Cap, veh/h	376	169
Arrive On Green	0.11	0.11
Sat Flow, veh/h	3554	1598
Grp Volume(v), veh/h	314	35
Grp Sat Flow(s),veh/h/ln	1777	1598
Q Serve(g_s), s	13.9	1.8
Cycle Q Clear(g_c), s	13.9	1.8
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	376	169
V/C Ratio(X)	0.84	0.21
Avail Cap(c_a), veh/h	786	353
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	1.00	1.00
Uniform Delay (d), s/veh	70.2	19.8
Incr Delay (d2), s/veh	1.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	1.3
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	72.1	20.0
LnGrp LOS	E	C
Approach Vol, veh/h	532	
Approach Delay, s/veh	68.6	
Approach LOS	E	

Timer - Assigned Phs

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection							
Int Delay, s/veh	2.2						
Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations	Y			Y			Y
Traffic Vol, veh/h	37	3	1	41	15	1	76
Future Vol, veh/h	37	3	1	41	15	1	76
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	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0
Grade, %	0	-	-	0	-	-	0
Peak Hour Factor	84	84	92	84	84	84	84
Heavy Vehicles, %	4	50	0	7	9	100	3
Mvmt Flow	44	4	1	49	18	1	90

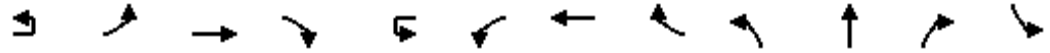
Major/Minor	Minor1	Major1	Major2	Major2	Major2	Major2	Major2
Conflicting Flow All	150	58	-	0	0	67	0
Stage 1	58	-	-	-	-	-	-
Stage 2	92	-	-	-	-	-	-
Critical Hdwy	6.44	6.7	-	-	-	5.1	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-	-
Follow-up Hdwy	3.536	3.75	-	-	-	3.1	-
Pot Cap-1 Maneuver	837	888	-	-	-	1087	-
Stage 1	959	-	-	-	-	-	-
Stage 2	927	-	-	-	-	-	-
Platoon blocked, %				-	-	-	-
Mov Cap-1 Maneuver	836	888	-	-	-	1087	-
Mov Cap-2 Maneuver	836	-	-	-	-	-	-
Stage 1	959	-	-	-	-	-	-
Stage 2	926	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5		0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	840	1087
HCM Lane V/C Ratio	-	-	0.057	0.001
HCM Control Delay (s)	-	-	9.5	8.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0

HCM 6th Signalized Intersection Summary
 1: Angel Pkwy/Meandering Way & Stacy Rd

LDS Confidential Fairview
 2040 PM



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		↔	↕	↗		↔	↕		↔	↕	↗	↘
Traffic Volume (veh/h)	30	70	929	639	1	124	920	12	698	39	201	11
Future Volume (veh/h)	30	70	929	639	1	124	920	12	698	39	201	11
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No				No				No		
Adj Sat Flow, veh/h/ln		1900	1900	1885		1900	1885	1900	1885	1841	1885	1900
Adj Flow Rate, veh/h		78	1032	247		138	1022	12	776	43	59	12
Peak Hour Factor		0.90	0.90	0.90		0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %		0	0	1		0	1	0	1	4	1	0
Cap, veh/h		212	1187	524		212	1228	14	669	631	547	529
Arrive On Green		0.06	0.33	0.33		0.07	0.34	0.34	0.30	0.34	0.34	0.02
Sat Flow, veh/h		1810	3610	1595		1810	3626	43	1795	1841	1598	1810
Grp Volume(v), veh/h		78	1032	247		138	505	529	776	43	59	12
Grp Sat Flow(s),veh/h/ln		1810	1805	1595		1810	1791	1877	1795	1841	1598	1810
Q Serve(g_s), s		3.0	30.0	13.7		5.6	29.0	29.0	33.5	1.8	2.8	0.5
Cycle Q Clear(g_c), s		3.0	30.0	13.7		5.6	29.0	29.0	33.5	1.8	2.8	0.5
Prop In Lane		1.00		1.00		1.00		0.02	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		212	1187	524		212	607	636	669	631	547	529
V/C Ratio(X)		0.37	0.87	0.47		0.65	0.83	0.83	1.16	0.07	0.11	0.02
Avail Cap(c_a), veh/h		238	1714	757		253	883	925	669	631	547	632
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		25.7	35.2	29.7		27.4	34.0	34.0	36.5	24.7	25.0	22.9
Incr Delay (d2), s/veh		0.4	2.6	0.2		2.5	3.0	2.9	87.6	0.0	0.0	0.0
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.2	12.7	5.1		2.4	12.2	12.8	34.6	0.8	1.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		26.1	37.8	30.0		30.0	37.0	36.8	124.1	24.7	25.1	22.9
LnGrp LOS		C	D	C		C	D	D	F	C	C	C
Approach Vol, veh/h		1357				1172				878		
Approach Delay, s/veh		35.7				36.1				112.6		
Approach LOS		D				D				F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.5	43.7	40.0	13.4	13.4	44.8	8.7	44.7				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	10.0	53.0	33.5	11.5	8.0	55.0	8.5	36.5				
Max Q Clear Time (g_c+I1), s	7.6	32.0	35.5	3.6	5.0	31.0	2.5	4.8				
Green Ext Time (p_c), s	0.0	4.7	0.0	0.0	0.0	3.6	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay	55.5
HCM 6th LOS	E

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
 1: Angel Pkwy/Meandering Way & Stacy Rd



Movement	SBT	SBR
Lane Configurations	↑	↑
Traffic Volume (veh/h)	26	61
Future Volume (veh/h)	26	61
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1900	1900
Adj Flow Rate, veh/h	29	0
Peak Hour Factor	0.90	0.90
Percent Heavy Veh, %	0	0
Cap, veh/h	118	100
Arrive On Green	0.06	0.00
Sat Flow, veh/h	1900	1610
Grp Volume(v), veh/h	29	0
Grp Sat Flow(s),veh/h/ln	1900	1610
Q Serve(g_s), s	1.6	0.0
Cycle Q Clear(g_c), s	1.6	0.0
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	118	100
V/C Ratio(X)	0.25	0.00
Avail Cap(c_a), veh/h	196	166
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	1.00	0.00
Uniform Delay (d), s/veh	49.9	0.0
Incr Delay (d2), s/veh	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	50.3	0.0
LnGrp LOS	D	A
Approach Vol, veh/h	41	
Approach Delay, s/veh	42.2	
Approach LOS	D	
Timer - Assigned Phs		

Intersection

Int Delay, s/veh 41.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↑↓		↔	↑↓			↔			↔	
Traffic Vol, veh/h	7	1703	37	1	1631	41	32	0	18	18	0	6
Future Vol, veh/h	7	1703	37	1	1631	41	32	0	18	18	0	6
Conflicting Peds, #/hr	0	0	3	3	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	-	-	None	-	-	None	-	-	None
Storage Length	360	-	-	275	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	8	1892	41	1	1812	46	36	0	20	20	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1858	0	0	1936	0	0	2840	3792	970	2799	3789	929
Stage 1	-	-	-	-	-	-	1932	1932	-	1837	1837	-
Stage 2	-	-	-	-	-	-	908	1860	-	962	1952	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	330	-	-	308	-	-	~8	4	257	~9	4	273
Stage 1	-	-	-	-	-	-	70	114	-	80	128	-
Stage 2	-	-	-	-	-	-	301	124	-	279	112	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	330	-	-	307	-	-	~8	4	256	~8	4	273
Mov Cap-2 Maneuver	-	-	-	-	-	-	~8	4	-	~8	4	-
Stage 1	-	-	-	-	-	-	68	111	-	78	128	-
Stage 2	-	-	-	-	-	-	293	124	-	251	109	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	\$ 2258.3	\$ 1330.8
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	12	330	-	-	307	-	-	11
HCM Lane V/C Ratio	4.63	0.024	-	-	0.004	-	-	2.424
HCM Control Delay (s)	\$ 2258.3	16.2	-	-	16.8	-	-	\$ 1330.8
HCM Lane LOS	F	C	-	-	C	-	-	F
HCM 95th %tile Q(veh)	8	0.1	-	-	0	-	-	4.3

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	49.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔			↔↔			↔↔			↔↔		
Traffic Vol, veh/h	1	1771	69	4	1689	1	46	0	6	3	0	3
Future Vol, veh/h	1	1771	69	4	1689	1	46	0	6	3	0	3
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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	340	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	1	0	0	1	0	3	0	0	0	0	0
Mvmt Flow	1	1946	76	4	1856	1	51	0	7	3	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1857	0	0	2022	0	0	2922	3851	1011	2840	3889	929
Stage 1	-	-	-	-	-	-	1986	1986	-	1865	1865	-
Stage 2	-	-	-	-	-	-	936	1865	-	975	2024	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.56	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.56	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.56	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.53	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	330	-	-	285	-	-	~7	4	241	8	4	273
Stage 1	-	-	-	-	-	-	62	107	-	77	124	-
Stage 2	-	-	-	-	-	-	283	124	-	274	103	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	330	-	-	285	-	-	~7	4	241	8	4	273
Mov Cap-2 Maneuver	-	-	-	-	-	-	~7	4	-	8	4	-
Stage 1	-	-	-	-	-	-	62	107	-	77	122	-
Stage 2	-	-	-	-	-	-	276	122	-	267	103	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	\$ 3385.6	\$ 329.4
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	7	241	330	-	-	285	-	-	8	273
HCM Lane V/C Ratio	7.221	0.027	0.003	-	-	0.015	-	-	0.412	0.012
HCM Control Delay (s)	\$ 3824.5	20.4	15.9	0	-	17.8	-	-	\$ 640.4	18.3
HCM Lane LOS	F	C	C	A	-	C	-	-	F	C
HCM 95th %tile Q(veh)	7.9	0.1	0	-	-	0	-	-	0.9	0

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 81.9

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↑↑	↗		↔	↑↑		↔	↑	↗		↑↑	
Traffic Vol, veh/h	15	1811	123	1	8	1728	4	57	0	12	1	0	8
Future Vol, veh/h	15	1811	123	1	8	1728	4	57	0	12	1	0	8
Conflicting Peds, #/hr	2	0	0	1	0	0	2	0	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	220	-	220	-	325	-	-	160	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	0	0	0	1	0	0	0	0	0	0	17
Mvmt Flow	16	1968	134	1	9	1878	4	62	0	13	1	0	9

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	1884	0	0	1968	2102	0	0	2959	3904	985	2919	4036	943
Stage 1	-	-	-	-	-	-	-	2000	2000	-	1902	1902	-
Stage 2	-	-	-	-	-	-	-	959	1904	-	1017	2134	-
Critical Hdwy	4.1	-	-	6.4	4.1	-	-	7.5	6.5	6.9	7.5	6.5	7.24
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.5	2.2	-	-	3.5	4	3.3	3.5	4	3.47
Pot Cap-1 Maneuver	322	-	-	80	265	-	-	~7	3	251	7	3	237
Stage 1	-	-	-	-	-	-	-	63	106	-	73	118	-
Stage 2	-	-	-	-	-	-	-	280	118	-	258	90	-
Platoon blocked, %		-	-		-	-							
Mov Cap-1 Maneuver	321	-	-	208	208	-	-	~6	3	251	6	3	237
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~6	3	-	6	3	-
Stage 1	-	-	-	-	-	-	-	~60	101	-	69	112	-
Stage 2	-	-	-	-	-	-	-	257	112	-	232	86	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	\$ 4452	97.2
HCM LOS			F	F

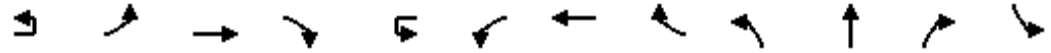
Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	6	-	251	321	-	-	208	-	-	6	237
HCM Lane V/C Ratio	10.326	-	0.052	0.051	-	-	0.047	-	-	0.181	0.037
HCM Control Delay (s)	\$ 5385	0	20.1	16.8	-	-	23.2	-	-	\$ 708.6	20.8
HCM Lane LOS	F	A	C	C	-	-	C	-	-	F	C
HCM 95th %tile Q(veh)	9.5	-	0.2	0.2	-	-	0.1	-	-	0.4	0.1

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th Signalized Intersection Summary
5: Hwy 5 & Stacy Rd

LDS Confidential Fairview
2040 PM



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		↔↔	↑↑↑	↗		↔↔	↑↑↑	↗	↔↔	↑↑	↗	↔↔
Traffic Volume (veh/h)	22	317	1437	457	8	115	1279	399	440	581	199	316
Future Volume (veh/h)	22	317	1437	457	8	115	1279	399	440	581	199	316
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No				No			No		
Adj Sat Flow, veh/h/ln		1900	1885	1870		1870	1900	1885	1885	1885	1885	1900
Adj Flow Rate, veh/h		337	1529	0		122	1361	0	468	618	76	336
Peak Hour Factor		0.94	0.94	0.94		0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %		0	1	2		2	0	1	1	1	1	0
Cap, veh/h		851	2498			164	1526		515	701	313	374
Arrive On Green		0.24	0.49	0.00		0.05	0.29	0.00	0.15	0.20	0.20	0.11
Sat Flow, veh/h		3510	5147	1585		3456	5187	1598	3483	3582	1598	3510
Grp Volume(v), veh/h		337	1529	0		122	1361	0	468	618	76	336
Grp Sat Flow(s),veh/h/ln		1755	1716	1585		1728	1729	1598	1742	1791	1598	1755
Q Serve(g_s), s		12.9	34.8	0.0		5.6	40.2	0.0	21.2	26.8	5.4	15.1
Cycle Q Clear(g_c), s		12.9	34.8	0.0		5.6	40.2	0.0	21.2	26.8	5.4	15.1
Prop In Lane		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		851	2498			164	1526		515	701	313	374
V/C Ratio(X)		0.40	0.61			0.75	0.89		0.91	0.88	0.24	0.90
Avail Cap(c_a), veh/h		851	2498			199	1777		623	1075	479	374
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	0.00		1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		50.8	30.1	0.0		75.3	54.0	0.0	67.1	62.6	38.5	70.6
Incr Delay (d2), s/veh		0.1	1.1	0.0		8.7	8.3	0.0	14.1	3.9	0.1	22.9
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		5.6	14.1	0.0		2.6	18.2	0.0	10.3	12.4	2.6	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		50.9	31.3	0.0		84.0	62.4	0.0	81.2	66.5	38.7	93.5
LnGrp LOS		D	C			F	E		F	E	D	F
Approach Vol, veh/h			1866				1483			1162		
Approach Delay, s/veh			34.8				64.1			70.6		
Approach LOS			C				E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.4	84.1	30.1	31.5	45.2	53.3	24.3	37.3				
Change Period (Y+Rc), s	6.8	* 6.4	6.4	* 7.2	6.4	6.2	* 7.2	6.0				
Max Green Setting (Gmax), s	9.2	* 61	28.6	* 35	15.6	54.8	* 16	48.0				
Max Q Clear Time (g_c+I1), s	7.6	36.8	23.2	22.7	14.9	42.2	17.1	28.8				
Green Ext Time (p_c), s	0.0	7.3	0.5	1.6	0.1	4.9	0.0	2.5				

Intersection Summary

HCM 6th Ctrl Delay	57.0
HCM 6th LOS	E

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved ignoring U-Turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
5: Hwy 5 & Stacy Rd

LDS Confidential Fairview
2040 PM



Movement	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (veh/h)	449	246
Future Volume (veh/h)	449	246
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1900	1900
Adj Flow Rate, veh/h	478	127
Peak Hour Factor	0.94	0.94
Percent Heavy Veh, %	0	0
Cap, veh/h	548	245
Arrive On Green	0.15	0.15
Sat Flow, veh/h	3610	1610
Grp Volume(v), veh/h	478	127
Grp Sat Flow(s),veh/h/ln	1805	1610
Q Serve(g_s), s	20.7	7.1
Cycle Q Clear(g_c), s	20.7	7.1
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	548	245
V/C Ratio(X)	0.87	0.52
Avail Cap(c_a), veh/h	799	356
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	1.00	1.00
Uniform Delay (d), s/veh	66.3	23.6
Incr Delay (d2), s/veh	5.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	4.6
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	71.7	24.2
LnGrp LOS	E	C
Approach Vol, veh/h	941	
Approach Delay, s/veh	73.0	
Approach LOS	E	

Timer - Assigned Phs

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection							
Int Delay, s/veh	1.1						
Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations	Y			Y			Y
Traffic Vol, veh/h	25	0	1	90	30	1	73
Future Vol, veh/h	25	0	1	90	30	1	73
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	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0
Grade, %	0	-	-	0	-	-	0
Peak Hour Factor	84	84	90	84	84	84	84
Heavy Vehicles, %	0	0	0	2	0	0	2
Mvmt Flow	30	0	1	107	36	1	87

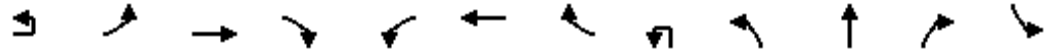
Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	214	125	0
Stage 1	125	-	-
Stage 2	89	-	-
Critical Hdwy	6.4	6.2	4.1
Critical Hdwy Stg 1	5.4	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	2.2
Pot Cap-1 Maneuver	779	931	1452
Stage 1	906	-	-
Stage 2	940	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	778	931	1452
Mov Cap-2 Maneuver	778	-	-
Stage 1	906	-	-
Stage 2	939	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8		0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	778	1452
HCM Lane V/C Ratio	-	-	0.038	0.001
HCM Control Delay (s)	-	-	9.8	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 6th Signalized Intersection Summary
 1: Angel Pkwy/Meandering Way & Stacy Rd

LDS Confidential Fairview
 2040+P AM



Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations		↔	↕	↗	↔	↕	↕		↔	↕	↗	↔
Traffic Volume (veh/h)	12	21	610	464	132	1052	14	2	766	32	126	14
Future Volume (veh/h)	12	21	610	464	132	1052	14	2	766	32	126	14
Initial Q (Qb), veh		0	0	0	0	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00		0.99		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach			No			No				No		
Adj Sat Flow, veh/h/ln		1900	1811	1856	1885	1841	1900		1870	1900	1885	1752
Adj Flow Rate, veh/h		21	622	141	135	1073	13		782	33	44	14
Peak Hour Factor		0.98	0.98	0.98	0.98	0.98	0.98		0.98	0.98	0.98	0.98
Percent Heavy Veh, %		0	6	3	1	4	0		2	0	1	10
Cap, veh/h		151	1042	476	296	1207	15		684	675	567	529
Arrive On Green		0.03	0.30	0.30	0.07	0.34	0.34		0.31	0.36	0.36	0.02
Sat Flow, veh/h		1810	3441	1571	1795	3539	43		1781	1900	1595	1668
Grp Volume(v), veh/h		21	622	141	135	530	556		782	33	44	14
Grp Sat Flow(s),veh/h/ln		1810	1721	1571	1795	1749	1833		1781	1900	1595	1668
Q Serve(g_s), s		0.8	16.6	7.4	5.5	30.9	30.9		33.5	1.2	2.0	0.6
Cycle Q Clear(g_c), s		0.8	16.6	7.4	5.5	30.9	30.9		33.5	1.2	2.0	0.6
Prop In Lane		1.00		1.00	1.00		0.02		1.00		1.00	1.00
Lane Grp Cap(c), veh/h		151	1042	476	296	597	625		684	675	567	529
V/C Ratio(X)		0.14	0.60	0.30	0.46	0.89	0.89		1.14	0.05	0.08	0.03
Avail Cap(c_a), veh/h		230	1694	774	339	894	937		684	675	567	624
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		26.1	31.9	28.7	24.6	33.5	33.5		34.2	22.8	23.0	21.0
Incr Delay (d2), s/veh		0.2	0.2	0.1	0.4	5.5	5.2		81.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.3	6.5	2.7	2.2	13.0	13.6		33.3	0.5	0.7	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		26.3	32.1	28.9	25.0	39.0	38.8		115.4	22.8	23.0	21.0
LnGrp LOS		C	C	C	C	D	D		F	C	C	C
Approach Vol, veh/h			784			1221				859		
Approach Delay, s/veh			31.4			37.3				107.1		
Approach LOS			C			D				F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.4	39.6	40.0	13.6	10.3	43.7	8.9	44.8				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	10.0	53.0	33.5	11.5	8.0	55.0	8.5	36.5				
Max Q Clear Time (g_c+I1), s	7.5	18.6	35.5	4.2	2.8	32.9	2.6	4.0				
Green Ext Time (p_c), s	0.0	2.7	0.0	0.0	0.0	3.9	0.0	0.1				

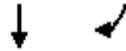
Intersection Summary

HCM 6th Ctrl Delay	56.3
HCM 6th LOS	E

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
 1: Angel Pkwy/Meandering Way & Stacy Rd



Movement	SBT	SBR
Lane Configurations	↑	↑
Traffic Volume (veh/h)	39	57
Future Volume (veh/h)	39	57
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		0.99
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1900	1900
Adj Flow Rate, veh/h	40	3
Peak Hour Factor	0.98	0.98
Percent Heavy Veh, %	0	0
Cap, veh/h	126	106
Arrive On Green	0.07	0.07
Sat Flow, veh/h	1900	1596
Grp Volume(v), veh/h	40	3
Grp Sat Flow(s),veh/h/ln	1900	1596
Q Serve(g_s), s	2.2	0.2
Cycle Q Clear(g_c), s	2.2	0.2
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	126	106
V/C Ratio(X)	0.32	0.03
Avail Cap(c_a), veh/h	203	170
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	47.9	47.0
Incr Delay (d2), s/veh	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.1
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	48.4	47.0
LnGrp LOS	D	D
Approach Vol, veh/h	57	
Approach Delay, s/veh	41.6	
Approach LOS	D	
Timer - Assigned Phs		

Intersection

Int Delay, s/veh 8.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↑↓		↔	↑↓				↔			↔	
Traffic Vol, veh/h	32	1076	17	4	1880	8	1	30	0	15	6	0	11
Future Vol, veh/h	32	1076	17	4	1880	8	1	30	0	15	6	0	11
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	None
Storage Length	360	-	-	275	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	92	97	97	97	97	97	97
Heavy Vehicles, %	0	5	0	0	3	0	0	5	0	0	0	0	0
Mvmt Flow	33	1109	18	4	1938	8	1	31	0	15	6	0	11

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	1946	0	0	1128	0	0	0	2162	3139	565	2571	3144	973
Stage 1	-	-	-	-	-	-	0	1185	1185	-	1950	1950	-
Stage 2	-	-	-	-	-	-	0	977	1954	-	621	1194	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	7.6	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.6	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.6	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	3.55	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	305	-	-	627	-	-	0	~ 26	11	473	13	11	255
Stage 1	-	-	-	-	-	-	0	196	265	-	68	112	-
Stage 2	-	-	-	-	-	-	0	263	111	-	446	262	-
Platoon blocked, %		-	-		-	-	-						
Mov Cap-1 Maneuver	305	-	-	626	-	-	0	~ 23	10	473	11	10	255
Mov Cap-2 Maneuver	-	-	-	-	-	-	0	~ 23	10	-	11	10	-
Stage 1	-	-	-	-	-	-	0	175	236	-	61	111	-
Stage 2	-	-	-	-	-	-	0	250	110	-	385	233	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0	\$ 460.7	244.3
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	34	305	-	-	626	-	-	29
HCM Lane V/C Ratio	1.364	0.108	-	-	0.007	-	-	0.604
HCM Control Delay (s)	\$ 460.7	18.2	-	-	10.8	-	-	244.3
HCM Lane LOS	F	C	-	-	B	-	-	F
HCM 95th %tile Q(veh)	5	0.4	-	-	0	-	-	1.9

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	7.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↔			↔			↔		
Traffic Vol, veh/h	4	1123	22	3	1920	0	39	0	4	0	0	3
Future Vol, veh/h	4	1123	22	3	1920	0	39	0	4	0	0	3
Conflicting Peds, #/hr	0	0	2	2	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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	340	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	5	6	0	3	0	0	0	0	0	0	0
Mvmt Flow	4	1158	23	3	1979	0	40	0	4	0	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1979	0	0	1183	0	0	2176	3165	593	2572	3176	990
Stage 1	-	-	-	-	-	-	1180	1180	-	1985	1985	-
Stage 2	-	-	-	-	-	-	996	1985	-	587	1191	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	296	-	-	597	-	-	~ 27	11	454	13	11	249
Stage 1	-	-	-	-	-	-	205	266	-	64	107	-
Stage 2	-	-	-	-	-	-	266	107	-	468	263	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	296	-	-	596	-	-	~ 26	10	453	12	10	249
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 26	10	-	12	10	-
Stage 1	-	-	-	-	-	-	196	255	-	61	106	-
Stage 2	-	-	-	-	-	-	261	106	-	445	252	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	\$ 545.7	19.6
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	26	453	296	-	-	596	-	-	-	249
HCM Lane V/C Ratio	1.546	0.009	0.014	-	-	0.005	-	-	-	0.012
HCM Control Delay (s)	\$ 600.3	13	17.3	0.3	-	11.1	-	-	0	19.6
HCM Lane LOS	F	B	C	A	-	B	-	-	A	C
HCM 95th %tile Q(veh)	4.9	0	0	-	-	0	-	-	-	0

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection																
Int Delay, s/veh	34.8															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Lane Configurations		↔	↑↑	↗		↔	↑↑		↔	↑	↗				↔↗	
Traffic Vol, veh/h	1	8	1091	43	1	7	1935	8	59	1	18	1	14	0	17	
Future Vol, veh/h	1	8	1091	43	1	7	1935	8	59	1	18	1	14	0	17	
Conflicting Peds, #/hr	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop	
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	-	None	
Storage Length	-	220	-	220	-	325	-	-	160	-	0	-	-	-	-	
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	-	0	-	
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	-	0	-	
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	
Heavy Vehicles, %	100	67	4	3	0	0	3	67	0	0	15	0	60	0	8	
Mvmt Flow	1	8	1125	44	1	7	1995	8	61	1	19	1	14	0	18	

Major/Minor	Major1			Major2			Minor1			Minor2					
Conflicting Flow All	2003	2003	0	0	1125	1172	0	0	2160	3165	566	0	2596	3205	1002
Stage 1	-	-	-	-	-	-	-	-	1146	1146	-	0	2015	2015	-
Stage 2	-	-	-	-	-	-	-	-	1014	2019	-	0	581	1190	-
Critical Hdwy	8.4	5.44	-	-	6.4	4.1	-	-	7.5	6.5	7.2	-	8.7	6.5	7.06
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	6.5	5.5	-	-	7.7	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	6.5	5.5	-	-	7.7	5.5	-
Follow-up Hdwy	3.5	2.87	-	-	2.5	2.2	-	-	3.5	4	3.45	-	4.1	4	3.38
Pot Cap-1 Maneuver	22	122	-	-	281	603	-	-	~ 27	11	436	0	~ 5	10	230
Stage 1	-	-	-	-	-	-	-	-	215	276	-	0	30	104	-
Stage 2	-	-	-	-	-	-	-	-	259	103	-	0	346	263	-
Platoon blocked, %			-	-			-	-				-			
Mov Cap-1 Maneuver	78	78	-	-	521	521	-	-	~ 22	10	435	0	~ 4	9	230
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	~ 22	10	-	0	~ 4	9	-
Stage 1	-	-	-	-	-	-	-	-	190	243	-	0	27	102	-
Stage 2	-	-	-	-	-	-	-	-	236	101	-	0	292	232	-

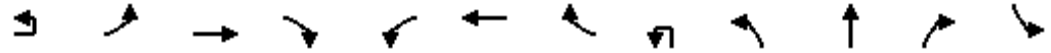
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0	\$ 890.9	\$ 1292.6
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	22	10	435	78	-	-	521	-	-	4	230
HCM Lane V/C Ratio	2.765	0.103	0.043	0.119	-	-	0.016	-	-	3.608	0.076
HCM Control Delay (s)	\$ 1166.8	\$ 402.8	13.6	57.4	-	-	12	-	-	\$ 2835.6	21.9
HCM Lane LOS	F	F	B	F	-	-	B	-	-	F	C
HCM 95th %tile Q(veh)	7.8	0.3	0.1	0.4	-	-	0	-	-	3.1	0.2

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th Signalized Intersection Summary
5: Hwy 5 & Stacy Rd

LDS Confidential Fairview
2040+P AM



Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations		↔	↔↔	↔	↔	↔↔	↔		↔	↔	↔	↔
Traffic Volume (veh/h)	17	127	931	333	125	1393	409	1	302	342	87	188
Future Volume (veh/h)	17	127	931	333	125	1393	409	1	302	342	87	188
Initial Q (Qb), veh		0	0	0	0	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00		1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach			No			No				No		
Adj Sat Flow, veh/h/ln		1826	1841	1870	1856	1856	1885		1885	1870	1856	1870
Adj Flow Rate, veh/h		128	940	0	126	1407	0		305	345	10	190
Peak Hour Factor		0.99	0.99	0.99	0.99	0.99	0.99		0.99	0.99	0.99	0.99
Percent Heavy Veh, %		5	4	2	3	3	1		1	2	3	2
Cap, veh/h		1067	2917		167	1605			340	411	182	312
Arrive On Green		0.32	0.58	0.00	0.05	0.32	0.00		0.10	0.12	0.12	0.09
Sat Flow, veh/h		3374	5025	1585	3428	5066	1598		3483	3554	1572	3456
Grp Volume(v), veh/h		128	940	0	126	1407	0		305	345	10	190
Grp Sat Flow(s),veh/h/ln		1687	1675	1585	1714	1689	1598		1742	1777	1572	1728
Q Serve(g_s), s		4.3	15.4	0.0	5.8	42.0	0.0		13.9	15.2	0.8	8.5
Cycle Q Clear(g_c), s		4.3	15.4	0.0	5.8	42.0	0.0		13.9	15.2	0.8	8.5
Prop In Lane		1.00		1.00	1.00		1.00		1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1067	2917		167	1605			340	411	182	312
V/C Ratio(X)		0.12	0.32		0.75	0.88			0.90	0.84	0.06	0.61
Avail Cap(c_a), veh/h		1067	2917		219	2210			340	888	393	312
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	0.00	1.00	1.00	0.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		38.9	17.3	0.0	75.1	51.7	0.0		71.4	69.3	46.0	70.1
Incr Delay (d2), s/veh		0.0	0.3	0.0	6.8	7.1	0.0		24.7	1.8	0.0	2.5
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.8	5.8	0.0	2.7	18.3	0.0		7.3	6.9	0.4	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		38.9	17.6	0.0	81.9	58.8	0.0		96.1	71.1	46.0	72.6
LnGrp LOS		D	B		F	E			F	E	D	E
Approach Vol, veh/h			1068			1533				660		
Approach Delay, s/veh			20.2			60.7				82.3		
Approach LOS			C			E				F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.6	99.3	22.0	24.1	57.0	56.9	21.6	24.5				
Change Period (Y+Rc), s	6.8	* 6.4	6.4	* 7.2	6.4	6.2	* 7.2	6.0				
Max Green Setting (Gmax), s	10.2	* 73	15.6	* 35	13.6	69.8	* 11	40.0				
Max Q Clear Time (g_c+1), s	7.8	17.4	15.9	15.9	6.3	44.0	10.5	17.2				
Green Ext Time (p_c), s	0.0	4.2	0.0	1.0	0.1	6.7	0.0	1.3				

Intersection Summary

HCM 6th Ctrl Delay	54.2
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved ignoring U-Turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
5: Hwy 5 & Stacy Rd

LDS Confidential Fairview
2040+P AM



Movement	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (veh/h)	311	171
Future Volume (veh/h)	311	171
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1870	1885
Adj Flow Rate, veh/h	314	35
Peak Hour Factor	0.99	0.99
Percent Heavy Veh, %	2	1
Cap, veh/h	376	169
Arrive On Green	0.11	0.11
Sat Flow, veh/h	3554	1598
Grp Volume(v), veh/h	314	35
Grp Sat Flow(s),veh/h/ln	1777	1598
Q Serve(g_s), s	13.9	1.8
Cycle Q Clear(g_c), s	13.9	1.8
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	376	169
V/C Ratio(X)	0.84	0.21
Avail Cap(c_a), veh/h	786	353
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	70.2	19.9
Incr Delay (d2), s/veh	1.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	1.3
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	72.1	20.1
LnGrp LOS	E	C
Approach Vol, veh/h	539	
Approach Delay, s/veh	68.9	
Approach LOS	E	

Timer - Assigned Phs

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection							
Int Delay, s/veh	2.2						
Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations	Y			T			T
Traffic Vol, veh/h	37	3	1	41	15	1	76
Future Vol, veh/h	37	3	1	41	15	1	76
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	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0
Grade, %	0	-	-	0	-	-	0
Peak Hour Factor	84	84	92	84	84	84	84
Heavy Vehicles, %	4	50	0	7	9	100	3
Mvmt Flow	44	4	1	49	18	1	90

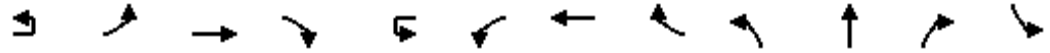
Major/Minor	Minor1	Major1	Major2	Major2	Major2	Major2	Major2
Conflicting Flow All	150	58	-	0	0	67	0
Stage 1	58	-	-	-	-	-	-
Stage 2	92	-	-	-	-	-	-
Critical Hdwy	6.44	6.7	-	-	-	5.1	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-	-
Follow-up Hdwy	3.536	3.75	-	-	-	3.1	-
Pot Cap-1 Maneuver	837	888	-	-	-	1087	-
Stage 1	959	-	-	-	-	-	-
Stage 2	927	-	-	-	-	-	-
Platoon blocked, %				-	-	-	-
Mov Cap-1 Maneuver	836	888	-	-	-	1087	-
Mov Cap-2 Maneuver	836	-	-	-	-	-	-
Stage 1	959	-	-	-	-	-	-
Stage 2	926	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5		0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	840	1087
HCM Lane V/C Ratio	-	-	0.057	0.001
HCM Control Delay (s)	-	-	9.5	8.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0

HCM 6th Signalized Intersection Summary
 1: Angel Pkwy/Meandering Way & Stacy Rd

LDS Confidential Fairview
 2040+P PM



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		↔	↕	↗		↔	↕	↗	↔	↕	↗	↘
Traffic Volume (veh/h)	30	70	937	644	1	124	928	12	703	39	201	11
Future Volume (veh/h)	30	70	937	644	1	124	928	12	703	39	201	11
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No				No			No		
Adj Sat Flow, veh/h/ln		1900	1900	1885		1900	1885	1900	1885	1841	1885	1900
Adj Flow Rate, veh/h		78	1041	254		138	1031	12	781	43	59	12
Peak Hour Factor		0.90	0.90	0.90		0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %		0	0	1		0	1	0	1	4	1	0
Cap, veh/h		211	1196	528		211	1237	14	667	628	545	527
Arrive On Green		0.06	0.33	0.33		0.07	0.34	0.34	0.30	0.34	0.34	0.02
Sat Flow, veh/h		1810	3610	1595		1810	3626	42	1795	1841	1598	1810
Grp Volume(v), veh/h		78	1041	254		138	509	534	781	43	59	12
Grp Sat Flow(s),veh/h/ln		1810	1805	1595		1810	1791	1877	1795	1841	1598	1810
Q Serve(g_s), s		3.0	30.4	14.2		5.6	29.3	29.3	33.5	1.8	2.8	0.5
Cycle Q Clear(g_c), s		3.0	30.4	14.2		5.6	29.3	29.3	33.5	1.8	2.8	0.5
Prop In Lane		1.00		1.00		1.00		0.02	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		211	1196	528		211	611	641	667	628	545	527
V/C Ratio(X)		0.37	0.87	0.48		0.65	0.83	0.83	1.17	0.07	0.11	0.02
Avail Cap(c_a), veh/h		237	1708	754		252	879	922	667	628	545	629
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		25.7	35.2	29.8		27.5	34.0	34.0	36.7	24.9	25.2	23.1
Incr Delay (d2), s/veh		0.4	2.7	0.3		2.6	3.2	3.0	92.4	0.0	0.0	0.0
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.2	12.9	5.3		2.4	12.4	13.0	35.4	0.8	1.1	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		26.1	37.9	30.0		30.1	37.2	37.0	129.1	24.9	25.3	23.1
LnGrp LOS		C	D	C		C	D	D	F	C	C	C
Approach Vol, veh/h			1373				1181			883		
Approach Delay, s/veh			35.8				36.3			117.1		
Approach LOS			D				D			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.5	44.1	40.0	13.4	13.4	45.2	8.7	44.7				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	10.0	53.0	33.5	11.5	8.0	55.0	8.5	36.5				
Max Q Clear Time (g_c+I1), s	7.6	32.4	35.5	3.6	5.0	31.3	2.5	4.8				
Green Ext Time (p_c), s	0.0	4.7	0.0	0.0	0.0	3.7	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay	56.7
HCM 6th LOS	E

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
 1: Angel Pkwy/Meandering Way & Stacy Rd



Movement	SBT	SBR
Lane Configurations	↑	↑
Traffic Volume (veh/h)	26	61
Future Volume (veh/h)	26	61
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1900	1900
Adj Flow Rate, veh/h	29	0
Peak Hour Factor	0.90	0.90
Percent Heavy Veh, %	0	0
Cap, veh/h	117	99
Arrive On Green	0.06	0.00
Sat Flow, veh/h	1900	1610
Grp Volume(v), veh/h	29	0
Grp Sat Flow(s),veh/h/ln	1900	1610
Q Serve(g_s), s	1.6	0.0
Cycle Q Clear(g_c), s	1.6	0.0
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	117	99
V/C Ratio(X)	0.25	0.00
Avail Cap(c_a), veh/h	195	165
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	0.00
Uniform Delay (d), s/veh	50.1	0.0
Incr Delay (d2), s/veh	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	50.5	0.0
LnGrp LOS	D	A
Approach Vol, veh/h	41	
Approach Delay, s/veh	42.5	
Approach LOS	D	
Timer - Assigned Phs		

Intersection

Int Delay, s/veh 85.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↑↓		↔	↑↓			↔			↔	
Traffic Vol, veh/h	32	1703	37	1	1631	54	32	0	18	31	0	29
Future Vol, veh/h	32	1703	37	1	1631	54	32	0	18	31	0	29
Conflicting Peds, #/hr	0	0	3	3	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	-	-	None	-	-	None	-	-	None
Storage Length	360	-	-	275	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	36	1892	41	1	1812	60	36	0	20	34	0	32

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1872	0	0	1936	0	0	2896	3862	970	2862	3852	936
Stage 1	-	-	-	-	-	-	1988	1988	-	1844	1844	-
Stage 2	-	-	-	-	-	-	908	1874	-	1018	2008	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	326	-	-	308	-	-	~7	4	257	~8	4	270
Stage 1	-	-	-	-	-	-	64	107	-	79	127	-
Stage 2	-	-	-	-	-	-	301	122	-	258	105	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	326	-	-	307	-	-	~6	4	256	~7	4	270
Mov Cap-2 Maneuver	-	-	-	-	-	-	~6	4	-	~7	4	-
Stage 1	-	-	-	-	-	-	57	95	-	70	127	-
Stage 2	-	-	-	-	-	-	264	122	-	212	93	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0	\$ 3139.2	\$ 2436.3
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	9	326	-	-	307	-	-	13
HCM Lane V/C Ratio	6.173	0.109	-	-	0.004	-	-	5.128
HCM Control Delay (s)	\$ 3139.2	17.4	-	-	16.8	-	-	\$ 2436.3
HCM Lane LOS	F	C	-	-	C	-	-	F
HCM 95th %tile Q(veh)	8.3	0.4	-	-	0	-	-	9.4

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	57.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔			↔↔			↔↔			↔↔		
Traffic Vol, veh/h	1	1796	69	4	1712	1	46	0	6	3	0	3
Future Vol, veh/h	1	1796	69	4	1712	1	46	0	6	3	0	3
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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	340	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	1	0	0	1	0	3	0	0	0	0	0
Mvmt Flow	1	1974	76	4	1881	1	51	0	7	3	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1882	0	0	2050	0	0	2963	3904	1025	2879	3942	941
Stage 1	-	-	-	-	-	-	2014	2014	-	1890	1890	-
Stage 2	-	-	-	-	-	-	949	1890	-	989	2052	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.56	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.56	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.56	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.53	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	323	-	-	278	-	-	~6	3	236	8	3	268
Stage 1	-	-	-	-	-	-	60	104	-	74	120	-
Stage 2	-	-	-	-	-	-	278	120	-	268	99	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	323	-	-	278	-	-	~6	3	236	8	3	268
Mov Cap-2 Maneuver	-	-	-	-	-	-	~6	3	-	8	3	-
Stage 1	-	-	-	-	-	-	60	104	-	74	118	-
Stage 2	-	-	-	-	-	-	271	118	-	261	99	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	\$ 4006.4	\$ 329.5
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	6	236	323	-	-	278	-	-	8	268
HCM Lane V/C Ratio	8.425	0.028	0.003	-	-	0.016	-	-	0.412	0.012
HCM Control Delay (s)	\$ 4526.3	20.7	16.2	0	-	18.2	-	-	\$ 640.4	18.6
HCM Lane LOS	F	C	C	A	-	C	-	-	F	C
HCM 95th %tile Q(veh)	8	0.1	0	-	-	0	-	-	0.9	0

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 98.1

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↑↑	↗		↔	↑↑		↔	↑	↗		↔	
Traffic Vol, veh/h	15	1836	123	1	8	1751	4	57	0	12	1	0	8
Future Vol, veh/h	15	1836	123	1	8	1751	4	57	0	12	1	0	8
Conflicting Peds, #/hr	2	0	0	1	0	0	2	0	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	220	-	220	-	325	-	-	160	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	0	0	0	1	0	0	0	0	0	0	17
Mvmt Flow	16	1996	134	1	9	1903	4	62	0	13	1	0	9

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	1909	0	0	1996	2130	0	0	3000	3957	999	2958	4089	956
Stage 1	-	-	-	-	-	-	-	2028	2028	-	1927	1927	-
Stage 2	-	-	-	-	-	-	-	972	1929	-	1031	2162	-
Critical Hdwy	4.1	-	-	6.4	4.1	-	-	7.5	6.5	6.9	7.5	6.5	7.24
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.5	2.2	-	-	3.5	4	3.3	3.5	4	3.47
Pot Cap-1 Maneuver	315	-	-	77	259	-	-	~6	3	245	7	3	232
Stage 1	-	-	-	-	-	-	-	~61	102	-	70	115	-
Stage 2	-	-	-	-	-	-	-	275	115	-	253	87	-
Platoon blocked, %		-	-		-	-							
Mov Cap-1 Maneuver	314	-	-	202	202	-	-	~5	3	245	6	3	232
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~5	3	-	6	3	-
Stage 1	-	-	-	-	-	-	-	~58	97	-	66	109	-
Stage 2	-	-	-	-	-	-	-	252	109	-	227	83	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	\$ 5407.2	97.5
HCM LOS			F	F

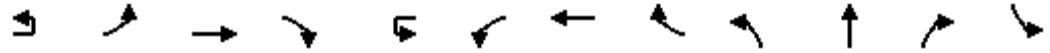
Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	5	-	245	314	-	-	202	-	-	6	232
HCM Lane V/C Ratio	12.391	-	0.053	0.052	-	-	0.048	-	-	0.181	0.037
HCM Control Delay (s)	\$ 6541.3	0	20.5	17.1	-	-	23.7	-	-	\$ 708.6	21.1
HCM Lane LOS	F	A	C	C	-	-	C	-	-	F	C
HCM 95th %tile Q(veh)	9.6	-	0.2	0.2	-	-	0.2	-	-	0.4	0.1

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th Signalized Intersection Summary
5: Hwy 5 & Stacy Rd

LDS Confidential Fairview
2040+P PM



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		↔	↔↔	↔		↔	↔↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	22	317	1450	457	8	120	1292	404	440	581	205	322
Future Volume (veh/h)	22	317	1450	457	8	120	1292	404	440	581	205	322
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No				No			No		
Adj Sat Flow, veh/h/ln		1900	1885	1870		1870	1900	1885	1885	1885	1885	1900
Adj Flow Rate, veh/h		337	1543	0		128	1374	0	468	618	82	343
Peak Hour Factor		0.94	0.94	0.94		0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %		0	1	2		2	0	1	1	1	1	0
Cap, veh/h		843	2489			170	1538		515	701	313	374
Arrive On Green		0.24	0.48	0.00		0.05	0.30	0.00	0.15	0.20	0.20	0.11
Sat Flow, veh/h		3510	5147	1585		3456	5187	1598	3483	3582	1598	3510
Grp Volume(v), veh/h		337	1543	0		128	1374	0	468	618	82	343
Grp Sat Flow(s),veh/h/ln		1755	1716	1585		1728	1729	1598	1742	1791	1598	1755
Q Serve(g_s), s		12.9	35.4	0.0		5.9	40.6	0.0	21.2	26.8	5.8	15.5
Cycle Q Clear(g_c), s		12.9	35.4	0.0		5.9	40.6	0.0	21.2	26.8	5.8	15.5
Prop In Lane		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		843	2489			170	1538		515	701	313	374
V/C Ratio(X)		0.40	0.62			0.75	0.89		0.91	0.88	0.26	0.92
Avail Cap(c_a), veh/h		843	2489			199	1777		623	1075	479	374
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	0.00		1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		51.1	30.5	0.0		75.1	53.9	0.0	67.1	62.5	38.5	70.8
Incr Delay (d2), s/veh		0.1	1.2	0.0		10.3	8.4	0.0	14.1	3.9	0.2	26.3
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		5.6	14.4	0.0		2.8	18.3	0.0	10.3	12.4	2.8	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		51.2	31.6	0.0		85.5	62.2	0.0	81.2	66.4	38.6	97.1
LnGrp LOS		D	C			F	E		F	E	D	F
Approach Vol, veh/h			1880				1502			1168		
Approach Delay, s/veh			35.1				64.2			70.4		
Approach LOS			D				E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.6	83.8	30.1	31.5	44.8	53.6	24.3	37.3				
Change Period (Y+Rc), s	6.8	* 6.4	6.4	* 7.2	6.4	6.2	* 7.2	6.0				
Max Green Setting (Gmax), s	9.2	* 61	28.6	* 35	15.6	54.8	* 16	48.0				
Max Q Clear Time (g_c+1), s	7.9	37.4	23.2	22.7	14.9	42.6	17.5	28.8				
Green Ext Time (p_c), s	0.0	7.4	0.5	1.6	0.1	4.9	0.0	2.5				

Intersection Summary

HCM 6th Ctrl Delay	57.4
HCM 6th LOS	E

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved ignoring U-Turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
 5: Hwy 5 & Stacy Rd

LDS Confidential Fairview
 2040+P PM



Movement	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (veh/h)	449	246
Future Volume (veh/h)	449	246
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1900	1900
Adj Flow Rate, veh/h	478	128
Peak Hour Factor	0.94	0.94
Percent Heavy Veh, %	0	0
Cap, veh/h	548	245
Arrive On Green	0.15	0.15
Sat Flow, veh/h	3610	1610
Grp Volume(v), veh/h	478	128
Grp Sat Flow(s),veh/h/ln	1805	1610
Q Serve(g_s), s	20.7	7.2
Cycle Q Clear(g_c), s	20.7	7.2
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	548	245
V/C Ratio(X)	0.87	0.52
Avail Cap(c_a), veh/h	799	356
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	1.00	1.00
Uniform Delay (d), s/veh	66.3	23.8
Incr Delay (d2), s/veh	5.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	4.6
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	71.7	24.4
LnGrp LOS	E	C
Approach Vol, veh/h	949	
Approach Delay, s/veh	74.5	
Approach LOS	E	

Timer - Assigned Phs

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection							
Int Delay, s/veh	1.1						
Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations	Y			Y			Y
Traffic Vol, veh/h	25	0	1	90	30	1	73
Future Vol, veh/h	25	0	1	90	30	1	73
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	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0
Grade, %	0	-	-	0	-	-	0
Peak Hour Factor	84	84	90	84	84	84	84
Heavy Vehicles, %	0	0	0	2	0	0	2
Mvmt Flow	30	0	1	107	36	1	87

Major/Minor	Minor1	Major1	Major2	Major2	Major2	Major2
Conflicting Flow All	214	125	-	0	0	143
Stage 1	125	-	-	-	-	-
Stage 2	89	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	2.2
Pot Cap-1 Maneuver	779	931	-	-	-	1452
Stage 1	906	-	-	-	-	-
Stage 2	940	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	778	931	-	-	-	1452
Mov Cap-2 Maneuver	778	-	-	-	-	-
Stage 1	906	-	-	-	-	-
Stage 2	939	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8		0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	778	1452
HCM Lane V/C Ratio	-	-	0.038	0.001
HCM Control Delay (s)	-	-	9.8	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0