



September 21, 2022

Traffic Impact Analysis 19th Street Cargo Redevelopment Dallas Fort Worth (DFW) International Airport





**Traffic Impact Analysis
19th Street Cargo Redevelopment
Dallas Fort Worth (DFW)
International Airport**

September 21, 2022
DFW Airport, TX

Contract No.: 9500791
RS&H No.: 1027-005-0007

I hereby certify that this report was prepared by
me or under my direct supervision, and that I
am a duly Licensed Professional Engineer under
the laws of the State of Texas.

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Executive Summary

Project Description

Dallas Fort Worth (DFW) International Airport is proposing a development of two warehouse buildings totaling 311,220 square feet in the southeast quadrant of the intersection of W 19th Street and W Airfield Drive. Access to the site is proposed via four full access driveways to W 19th Street, one full access driveway to W Airfield Drive, and one right-in/right-out access driveway to W Airfield Drive.

DFW required this Traffic Impact Analysis (TIA) to quantify and evaluate the traffic impacts of the proposed development to surrounding roadways and intersections.

Trip Generation

The proposed new development is expected to generate 1,440 daily trips, with 104 entering trips and 104 exiting trips in the AM peak hour, and 125 entering and 59 exiting trips in the PM peak hour per the industry's standard ITE Trip Generation Manual.

Traffic Impacts

Analysis shows that most intersections in the study area are expected to experience minimal impact after development and continue to operate at acceptable levels of service (LOS).

In the AM peak hour, the project generated traffic is expected to cause two existing study intersections' overall LOS to drop one letter grade when compared to background conditions. However, all existing study intersections continue to operate at an acceptable LOS. In the PM peak hour, the project generated traffic is not expected to cause any existing study intersections' overall LOS to drop a letter grade when compared to background conditions.

The development is anticipated to have the greatest impact on the operations at the W Airfield Drive & W 19th Street intersection. However, the intersection is still projected to operate well in both peak hours. The AM LOS is expected to change from "A" in the Background condition to "B" in the Build Condition, and the PM will remain at LOS "B" in both conditions. Westbound queue lengths along W 19th Street are expected to increase slightly but are still accommodated by the existing storage lane lengths.

No roadway improvements are recommended to mitigate project traffic impacts at the study intersections. However, to optimize the performance and safety of the existing transportation network, operational and maintenance improvements such as signal re-timing, right-turn overlap phase implementation, and tree/vegetation trimming should be considerations in the future.

Table of Contents

- 1 Introduction 1
- 2 Existing Conditions (2022)..... 3
 - 2.1 Study Area 3
 - 2.2 Traffic Data Collection & Existing Conditions Volumes 3
 - 2.3 Intersection Capacity Analysis..... 9
 - 2.4 Existing (2022) Traffic Analysis..... 9
- 3 Methodology 15
 - 3.1 Base Assumptions..... 15
 - 3.2 Background Growth..... 15
 - 3.3 Trip Generation..... 15
 - 3.4 Trip Distribution 15
- 4 Future (2025) Background Growth..... 19
 - 4.1 Future (2025) Background Volumes 19
 - 4.2 Future (2025) Background Traffic Analysis..... 22
- 5 Build Condition (2025) Impact Analysis..... 27
 - 5.1 Project Generated Volumes 27
 - 5.2 Build Condition (2025) Volumes 27
 - 5.3 Build Condition (2025) Traffic Analysis..... 32
- 6 Site Access Review..... 39
 - 6.1 Driveway Spacing..... 39
 - 6.2 Intersection Sight Distance 40
 - 6.3 AutoTURN Analysis 41
- 7 Summary and Conclusions 42

List of Tables

Table 2-1: HCM 6 th Ed. Intersection LOS and Delay Criteria	9
Table 2-2: Existing (2022) Overall Intersection Operations	10
Table 2-3: Existing (2022) AM Peak Hour Intersection Operations	11
Table 2-4: Existing (2022) PM Peak Hour Intersection Operations.....	13
Table 3-1: ITE Trip Generation.....	15
Table 4-1: Future (2025) Background Overall Intersection Operations	22
Table 4-2: Future (2025) Background AM Peak Hour Intersection Operations.....	23
Table 4-3: Future (2025) Background PM Peak Hour Intersection Operations	25
Table 5-1: Build Condition (2025) Overall Intersection Operations	33
Table 5-2: Build Condition (2025) AM Peak Hour Intersection Operations	34
Table 5-3: Build Condition (2025) PM Peak Hour Intersection Operations.....	36
Table 6-1: City of Arlington Driveway Spacing Criteria	39
Table 6-2: Driveway Spacing Evaluation Summary	40
Table 6-3: Intersection Sight Distance Evaluation Summary.....	41

List of Figures

Figure 1-1: Project Location & Study Intersections	2
Figure 2-1: Existing Lane Configuration	5
Figure 2-2: Existing Volumes.....	7
Figure 3-1: Overall Study Area Trip Distribution – Outbound.....	17
Figure 3-2: Overall Study Area Trip Distribution - Inbound	18
Figure 4-1: Future (2025) Background Volumes	20
Figure 5-1: Project Generated Volumes - Outbound.....	28
Figure 5-2: Project Generated Volumes - Inbound.....	29
Figure 5-3: Build Condition (2025) Volumes	30
Figure 5-4: Project Site Driveway Numbering.....	32

List of Appendices

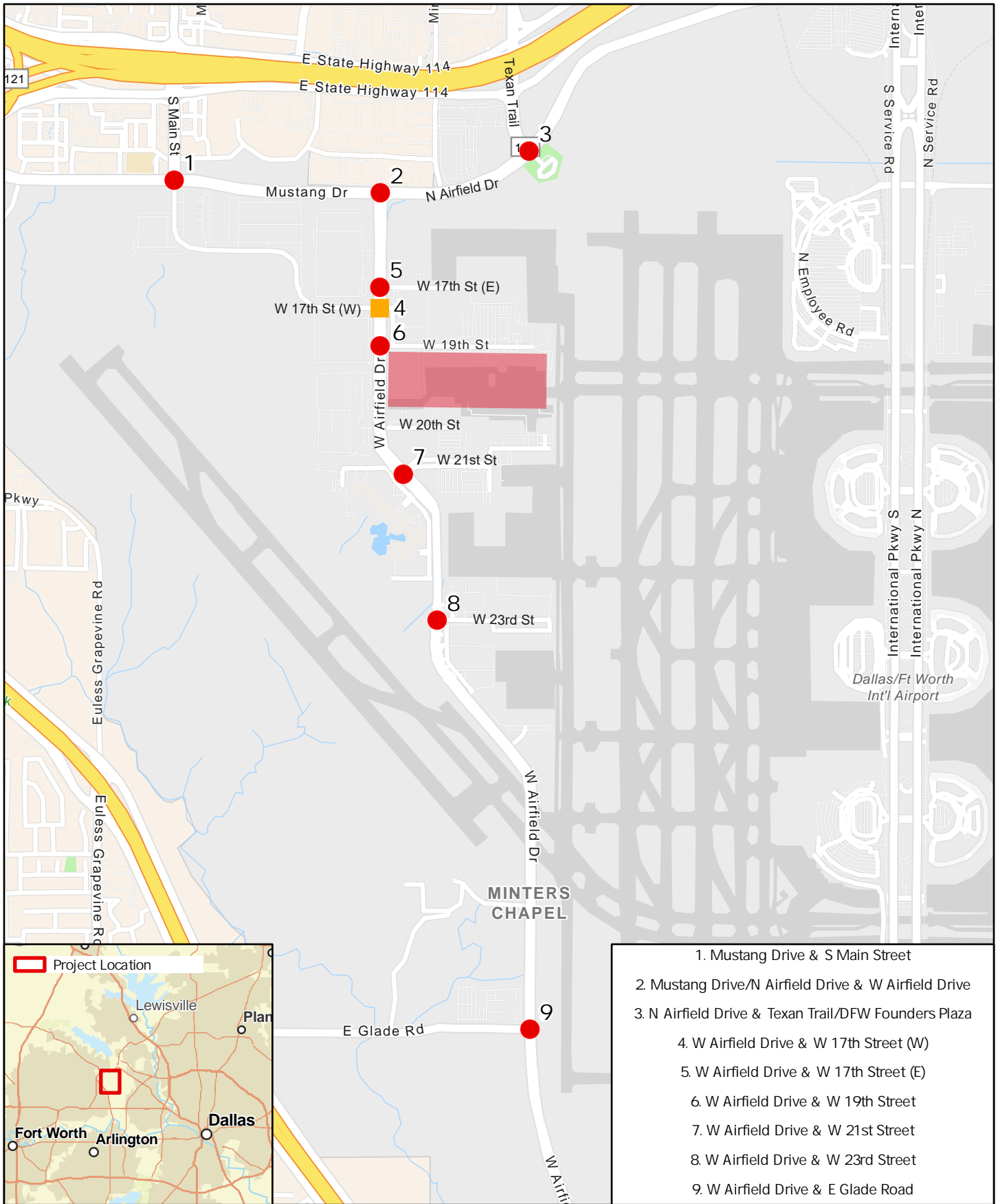
Appendix A: Project Site Plan
Appendix B: 2019 & 2022 Volume Count Data
Appendix C: Signal Timing Plans
Appendix D: Existing Conditions (2022) HCM 6 th Ed. & Synchro Reports
Appendix E: High-Cube Warehouse Vehicle Trip Generation Analysis Report
Appendix F: Trip Generation & Distribution Documentation
Appendix G: Future (2025) Background HCM 6 th Ed. & Synchro Reports
Appendix H: Build Condition (2025) HCM 6 th Ed. & Synchro Reports
Appendix I: Site Access Review Documentation

1 Introduction

RS&H was retained to complete a traffic impact analysis for the proposed warehouse development located in the southeast corner of the W Airfield Drive and W 19th Street intersection at the Dallas Fort Worth (DFW) International Airport. The Project is referred to herein as 19th Street Cargo Redevelopment. The 19th Street Cargo Redevelopment consists of the following land uses:

- Warehouse (Building 1) with vestibule offices (x2): 187,716 square feet
- Warehouse (Building 2) with vestibule office (x1): 123,504 square feet

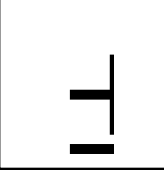
According to the DFW Airport Land Use Plan map (2021), the subject site lies within an area designated for Direct Aviation Uses & Support. **Figure 1-1** shows the location of the project site. The project site plan can be found in **Appendix A**. Building 1 of the project is anticipated to have three total driveway connections: two connections with W Airfield Drive and one with W 19th Street. Building 2 of the project is anticipated to have three total driveway connections, all with W 19th Street. There is one additional driveway access point between the two buildings to provide access to the Air Operations Area (AOA).



1. Mustang Drive & S Main Street
2. Mustang Drive/N Airfield Drive & W Airfield Drive
3. N Airfield Drive & Texan Trail/DFW Founders Plaza
4. W Airfield Drive & W 17th Street (W)
5. W Airfield Drive & W 17th Street (E)
6. W Airfield Drive & W 19th Street
7. W Airfield Drive & W 21st Street
8. W Airfield Drive & W 23rd Street
9. W Airfield Drive & E Glade Road

LEGEND

- Project Site
- Signalized Study Intersections
- Unsignalized Study Intersections



Dallas Fort Worth International Airport

Figure 1-1: Project Location & Study Intersections
 DFW 19th Street Cargo Redevelopment

2 Existing Conditions (2022)

2.1 Study Area

The following intersections are included in the study area:

1. Mustang Drive & S Main Street
2. Mustang Drive/N Airfield Drive & W Airfield Drive
3. N Airfield Drive & Texan Trail/DFW Founders Plaza
4. W Airfield Drive & W 17th Street (W)
5. W Airfield Drive & W 17th Street (E)
6. W Airfield Drive & W 19th Street
7. W Airfield Drive & W 21st Street
8. W Airfield Drive & W 23rd Street
9. W Airfield Drive & E Glade Road

The study intersections are also shown in **Figure 1-1**. The existing lane configurations for the study intersections are shown in **Figure 2-1**.

2.2 Traffic Data Collection & Existing Conditions Volumes

Turning movement counts (TMC) conducted in April/May 2019 as part of a previous study were provided by DFW airport planning staff. Recent TMCs were conducted at all nine study intersections on July 6, 2022 for the following time periods:

- 7:00 AM – 9:00 AM
- 4:00 PM – 6:00 PM

The 2019 and 2022 TMCs were compared in order to identify any major changes in traffic conditions due to changes in land use or activity levels that occurred between 2019 and 2022. Overall, most traffic volumes at the study intersections decreased significantly between 2019 and 2022. Part of the reason for this difference was the temporary closure of E Glade Road west of W Airfield Drive for ongoing construction in 2022. Based on engineering judgment and stakeholder discussions, the 2019 and 2022 count data were merged to represent a conservative representation of existing traffic demand that incorporates the latest land uses in the area.

The traffic volumes were merged in the following manner: The 2019 TMC data was grown by the selected annual background growth rate of 1.00% for 3 years to represent 2022 existing conditions. These “adjusted” 2019 turning movement volumes (TMVs) were then compared directly to the recently conducted 2022 TMCs. For intersection movements where the conducted 2022 TMCs were significantly greater than the “adjusted” 2019 TMVs, the 2022 TMCs were adopted as the existing conditions turning volumes. For every other intersection movement where the “adjusted” 2019 TMVs were greater than or nearly equal to the conducted 2022 TMCs, the “adjusted” 2019 TMVs were adopted as the existing conditions turning volumes. A

majority of the existing conditions turning volumes were adopted from the “adjusted” 2019 TMVs.

Forty-eight hour bidirectional supporting volume counts were also conducted at the following two locations on July 6-7, 2022:

- W Airfield Drive south of Mustang Drive/N Airfield Drive
- W Airfield Drive north of W 21st Street

Both the 2019 and 2022 volume count data can be found in **Appendix B**. The Existing Conditions (2022) intersection turning volumes are shown in **Figure 2-2**.

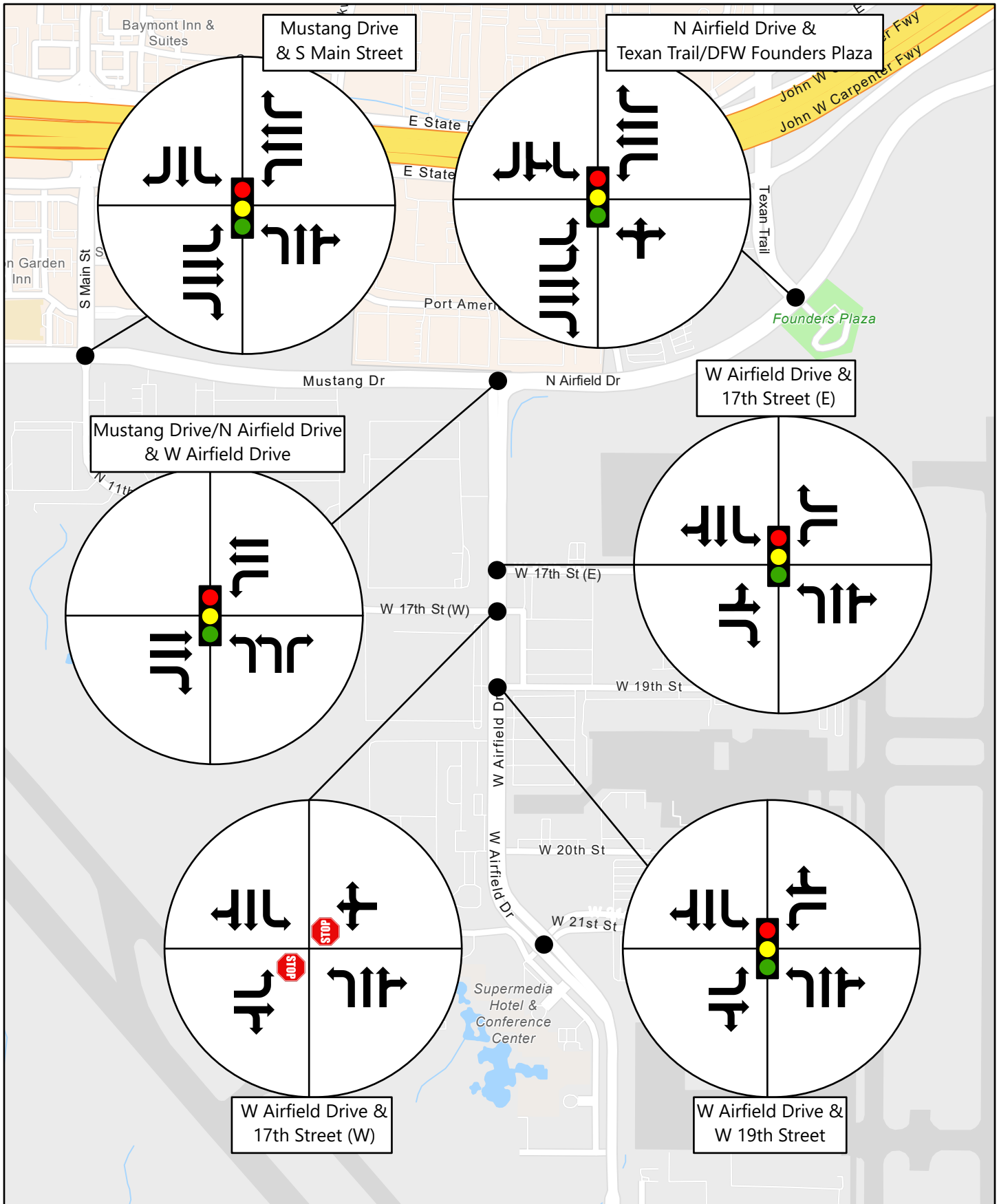
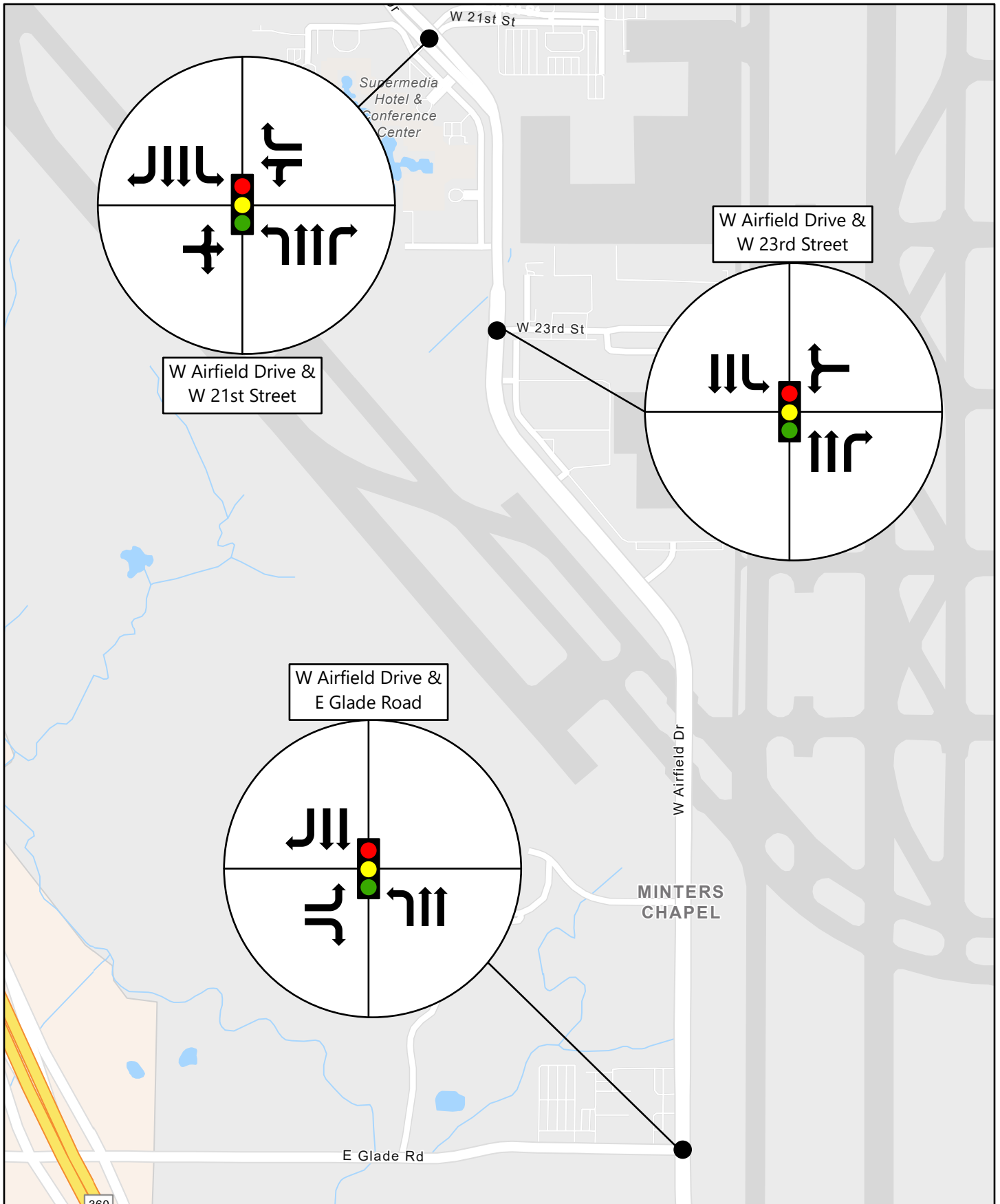


Figure 2-1: Existing Lane Configuration (page 1 of 2)
DFW 19th Street Cargo Redevelopment

LEGEND





LEGEND



Lane Configuration



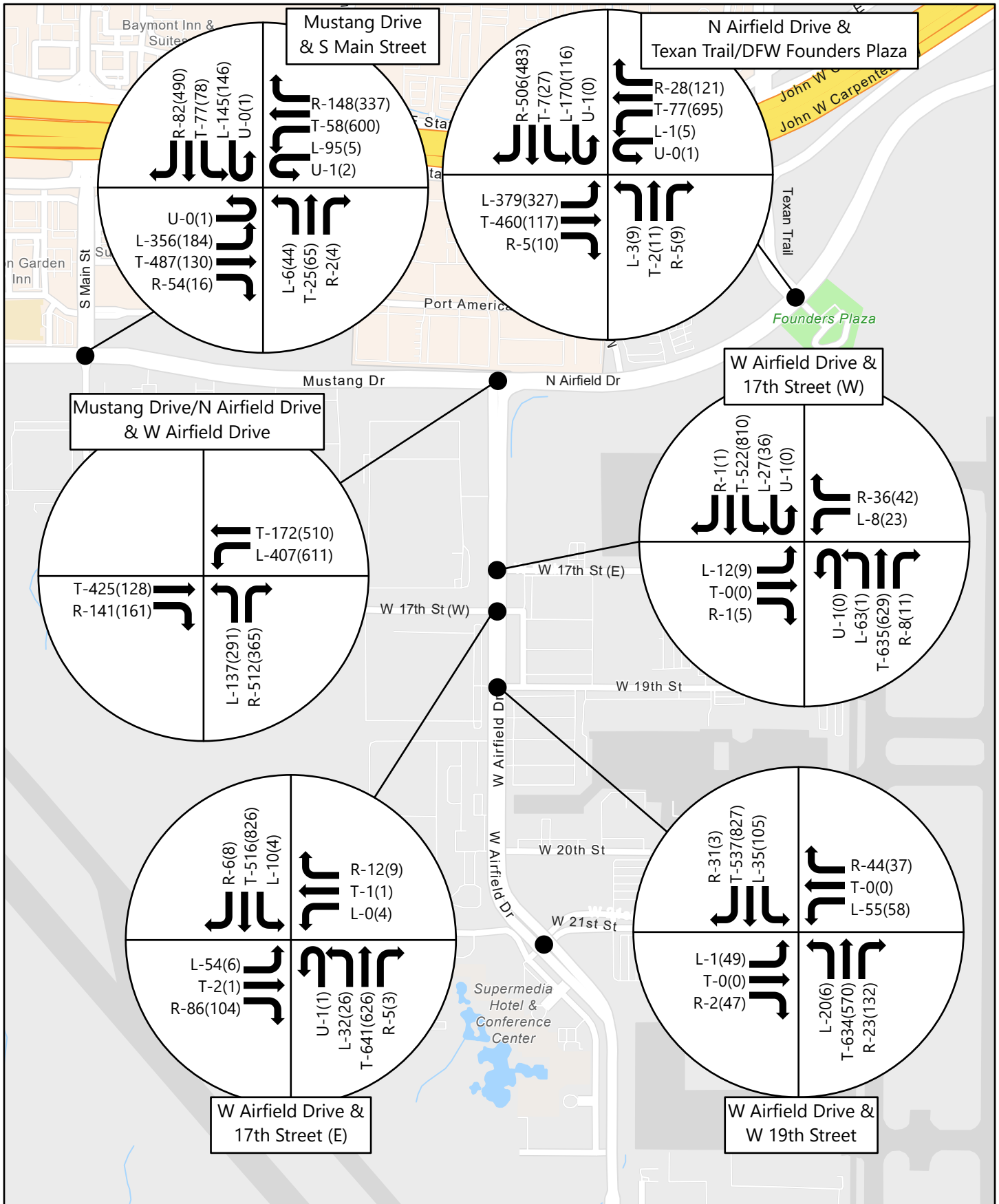


Figure 2-2: Existing Volumes
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DFW 19th Street Cargo Redevelopment

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Turn Movement

AM(PM) Peak Hour Volumes



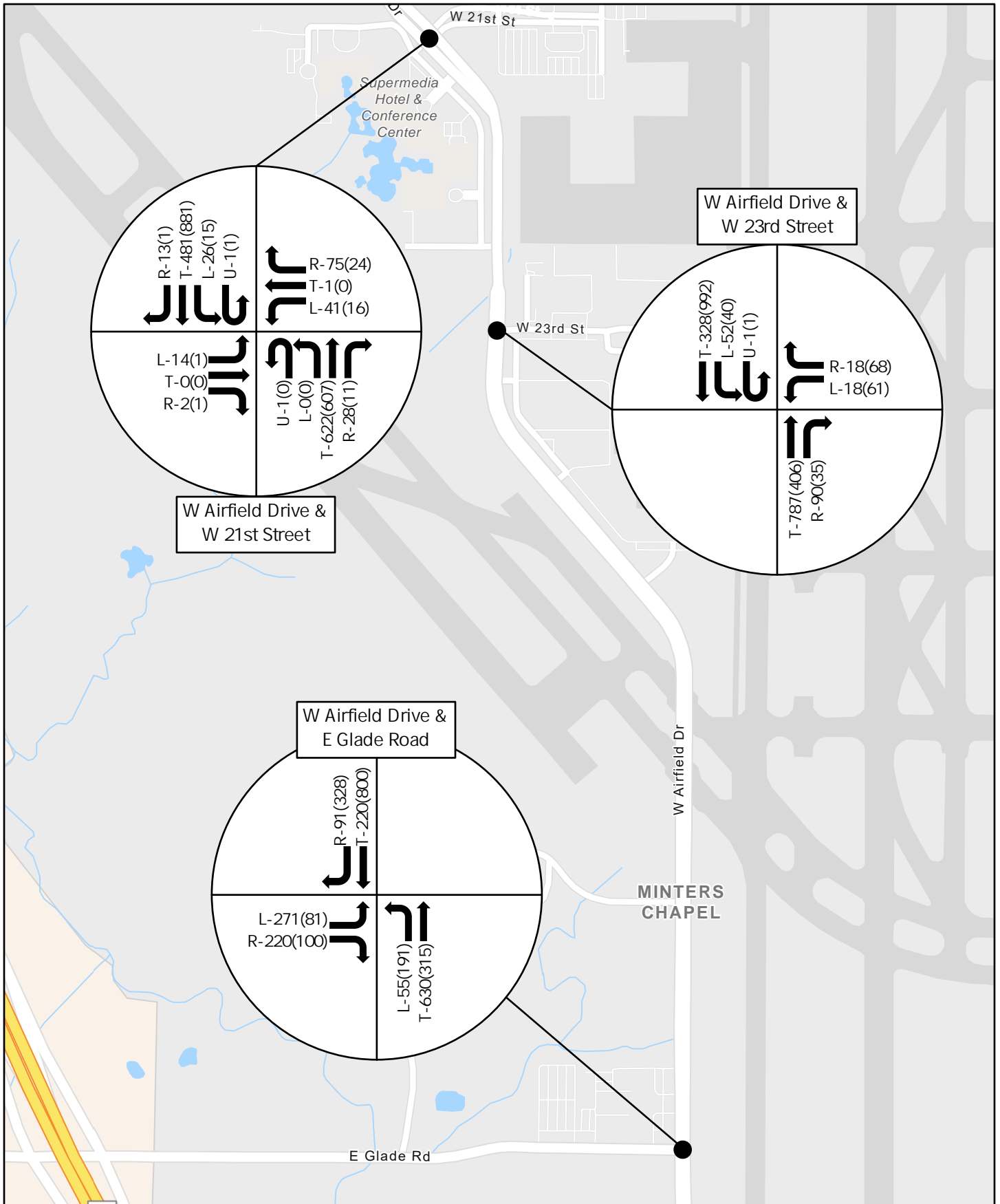


Figure 2-2: Existing Volumes
(page 2 of 2)

DFW 19th Street Cargo Redevelopment

LEGEND

- Turn Movement
- AM(PM) Peak Hour Volumes



2.3 Intersection Capacity Analysis

The Transportation Research Board’s Highway Capacity Manual 6th Edition (HCM) measures the average vehicle’s overall delay and assigns a letter grade or a level of service (LOS). LOS grades range from A to F with LOS “A” representing the best operational conditions and LOS “F” representing the worst operational conditions. **Table 2-1** summarizes the HCM 6th Edition LOS criteria for signalized and unsignalized intersections.

Table 2-1: HCM 6th Ed. Intersection LOS and Delay Criteria

LOS	Signalized Intersection	Unsignalized Intersection
	Average Delay per Vehicle (sec)	Average Delay per Vehicle (sec)
A	≤ 10	≤ 10
B	> 10 - 20	> 10 - 15
C	> 20 - 35	> 15 - 25
D	> 35 - 55	> 25 - 35
E	> 55 - 80	> 35 - 50
F	> 80	> 50

2.4 Existing (2022) Traffic Analysis

Trafficware’s *Synchro 11* was used to perform the intersection analysis and provide LOS/delay results. Signal timing plans were requested for all signalized study intersections analyzed and are provided in text file format in **Appendix C**. No signal timing plan was provided for the intersection of Mustang Drive & S Main Street so a signal timing plan was assumed based on adjacent signal operations, existing signal heads, and pavement markings. The City of Grapevine maintains and controls this signal so no recommendations to DFW are made as part of this study. In addition to the volume adjustments mentioned in **Section 2.2**, volumes were balanced between study intersections, where appropriate. For roadway segments where driveways were present between study intersections, a dummy intersection was used as a source/sink for volume balancing. For the segments between W 17th Street (East) and W 19th Street, volumes were added along W Airfield Drive in order to balance. The existing turning movement counts were already nearly balanced, so only a max of 16 vehicles per hour (vph) needed to be added to the network. **Table 2-2**, **Table 2-3**, and **Table 2-4** summarize the *Synchro* intersection analysis for overall intersection performance, AM peak performance by movement, and PM peak performance by movement. Existing Conditions HCM 6th Ed. and *Synchro* reports are provided in **Appendix D**.

During the AM peak hour, overall intersection operations perform generally well, with all intersections operating at LOS “C” or better. There are some higher volume left-turn movements that operate at LOS “E”.

During the PM peak hour, overall intersection operations are generally worse, with three intersections operating at LOS "D". There is one left-turn movement that operates at LOS "E" and two right-turn movements that operate at LOS "F".

Table 2-2: Existing (2022) Overall Intersection Operations

Int. #	Intersection	Control Type	AM Peak Hour		PM Peak Hour	
			Delay ¹	LOS ²	Delay ¹	LOS ²
1	Mustang Drive & S Main Street	Signalized	18.3	B	47.2	D
2	Mustang Drive/N Airfield Drive & W Airfield Drive	Signalized	9.7	A	12.5	B
3	N Airfield Drive & Texan Trail/DFW Founders Plaza	Signalized	27.8	C	53.9	D
4	W Airfield Drive & W 17th Street (W)	TWSC ³	23.0 (EB)	C	25.0 (WB)	D
5	W Airfield Drive & W 17th Street (E)	Signalized	5.0	A	4.4	A
6	W Airfield Drive & W 19th Street	Signalized	9.5	A	12.0	B
7	W Airfield Drive & W 21st Street	Signalized	8.7	A	5.8	A
8	W Airfield Drive & W 23rd Street	Signalized	5.7	A	5.4	A
9	W Airfield Drive & E Glade Road	Signalized	17.5	B	7.6	A

1: Average Delay (Seconds/Vehicle)

2: Level of Service

3: For unsignalized intersections, worst approach delay is presented rather than overall intersection delay

Table 2-3: Existing (2022) AM Peak Hour Intersection Operations

Int. #	Intersection	Approach	Movement	Delay ¹	LOS ²	95% Queue ³	
1	Mustang Drive & S Main Street	EB	Left	11.8	B	160	
			Through	16.2	B	137.5	
			Right	-	-	-	
		WB	Left	14.8	B	47.5	
			Through	17.9	B	17.5	
			Right	-	-	-	
		NB	Left	27.5	C	5	
			Through/Right	32.1	C	12.5	
		SB	Left	27.3	C	115	
Through	30.2		C	62.5			
Right	30.7		C	70			
2	Mustang Drive/N Airfield Drive & W Airfield Drive	EB	Through/Right	9.4	A	75	
			Left	5.5	A	70	
		WB	Through	2.5	A	7.5	
			NB	Left	32.6	C	55
				Right	-	-	-
3	N Airfield Drive & Texan Trail/DFW Founders Plaza	SEB	Left	12.9	B	32.5	
			Through	0.0	A	0	
			Right	41.7	D	402.5	
		NWB	Left/Through/Right	36.5	D	7.5	
			NEB	Left	26.5	C	122.5
				Through	19.6	B	122.5
		Right		16.7	B	2.5	
		SWB	Left	63.0	E	2.5	
			Through	25.8	C	22.5	
Right	-		-	-			
4	W Airfield Drive & W 17th Street (W)	EB	Left	40.7	E	40	
			Through/Right	12.2	B	15	
		WB	Left/Through/Right	14.3	B	2.5	
			Left	9.0	A	2.5	
		NB	Through/Right	-	-	-	
			Left	9.2	A	0	
SB	Through/Right	-	-	-			
	Left/Through	42.4	D	12.5			
5	W Airfield Drive & W 17th Street (E)	EB	Right	40.7	D	0	
			WB	Left	0.0	A	0
		Right		0.0	A	0	
		NB	Left	2.4	A	5	
			Through/Right	5.1	A	75	
		SB	Left	2.2	A	2.5	
			Through/Right	4.3	A	52.5	

1: Average Delay (Seconds/Vehicle)

2: Level of Service

3: 95th-percentile Queue Length (Feet)

Table 2-3: Existing (2022) AM Peak Hour Intersection Operations (cont.)

Int. #	Intersection	Approach	Movement	Delay ¹	LOS ²	95% Queue ³
6	W Airfield Drive & W 19th Street	EB	Left	16.6	B	0
			Through/Right	16.7	B	0
		WB	Left	14.8	B	17.5
			Through/Right	15.3	B	15
		NB	Left	7.1	A	2.5
			Through/Right	9.6	A	65
SB	Left	7.1	A	5		
	Through/Right	8.7	A	52.5		
7	W Airfield Drive & W 21st Street	SEB	Left	34.2	C	20
			Through	3.5	A	32.5
			Right	2.8	A	2.5
		NWB	Left	0.0	A	0
			Through	7.8	A	95
			Right	6.1	A	7.5
		NEB	Left/Through/Right	28.7	C	2.5
		SWB	Left/Through	29.6	C	32.5
			Right	30.8	C	60
8	W Airfield Drive & W 23rd Street	WB	Left/Right	23.5	C	10
			Through	7.0	A	65
		NB	Right	5.3	A	12.5
			Left	3.6	A	2.5
SB	Through	1.9	A	2.5		
	Left	54.1	D	322.5		
9	W Airfield Drive & E Glade Road	EB	Right	-	-	-
			Left	5.7	A	15
		NB	Through	5.8	A	95
			Through	9.0	A	45
		SB	Through	9.0	A	45
			Right	-	-	-

1: Average Delay (Seconds/Vehicle)

2: Level of Service

3: 95th-percentile Queue Length (Feet)

Table 2-4: Existing (2022) PM Peak Hour Intersection Operations

Int. #	Intersection	Approach	Movement	Delay ¹	LOS ²	95% Queue ³
1	Mustang Drive & S Main Street	EB	Left	20.4	C	117.5
			Through	18.0	B	40
			Right	-	-	-
		WB	Left	22.1	C	2.5
			Through	28.6	C	245
			Right	-	-	-
		NB	Left	21.0	C	32.5
			Through/Right	24.3	C	25
		SB	Left	20.5	C	102.5
Through	22.8		C	57.5		
Right	105.4		F	727.5		
2	Mustang Drive/N Airfield Drive & W Airfield Drive	EB	Through/Right	13.4	B	32.5
		WB	Left	7.3	A	185
			Through	3.5	A	40
		NB	Left	38.9	D	142.5
			Right	-	-	-
3	N Airfield Drive & Texan Trail/DFW Founders Plaza	SEB	Left	20.0	B	40
			Through	0.0	A	0
			Right	116.3	F	732.5
		NWB	Left/Through/Right	41.8	D	30
		NEB	Left	35.3	D	145
			Through	15.6	B	30
			Right	15.1	B	5
		SWB	Left	49.2	D	5
			Through	33.5	C	280
Right	-		-	-		
4	W Airfield Drive & W 17th Street (W)	EB	Left	44.3	E	5
			Through/Right	14.5	B	22.5
		WB	Left/Through/Right	25.0	D	7.5
		NB	Left	10.6	B	2.5
			Through/Right	-	-	-
		SB	Left	9.2	A	0
Through/Right	-		-	-		
5	W Airfield Drive & W 17th Street (E)	EB	Left/Through	41.6	D	10
			Right	41.1	D	5
		WB	Left	0.0	A	0
			Right	0.0	A	0
		NB	Left	3.7	A	0
			Through/Right	5.2	A	77.5
		SB	Left	2.0	A	2.5
Through/Right	3.3		A	52.5		

1: Average Delay (Seconds/Vehicle)

2: Level of Service

3: 95th-percentile Queue Length (Feet)

Table 2-4: Existing (2022) PM Peak Hour Intersection Operations (cont.)

Int. #	Intersection	Approach	Movement	Delay ¹	LOS ²	95% Queue ³
6	W Airfield Drive & W 19th Street	EB	Left	15.2	B	17.5
			Through/Right	17.5	B	20
		WB	Left	15.1	B	20
			Through/Right	17.1	B	15
		NB	Left	9.8	A	2.5
			Through/Right	13.0	B	105
SB	Left	8.5	A	17.5		
	Through/Right	10.6	B	105		
7	W Airfield Drive & W 21st Street	SEB	Left	33.7	C	12.5
			Through	3.6	A	50
			Right	2.3	A	0
		NWB	Left	0.0	A	0
			Through	6.1	A	70
			Right	4.7	A	2.5
		NEB	Left/Through/Right	29.3	C	12.5
		SWB	Left/Through	29.1	C	12.5
			Right	29.4	C	17.5
8	W Airfield Drive & W 23rd Street	WB	Left/Right	21.9	C	32.5
			Through	6.5	A	35
		NB	Right	5.6	A	5
			Left	3.7	A	2.5
SB	Through	3.9	A	27.5		
	Left	43.5	D	87.5		
9	W Airfield Drive & E Glade Road	EB	Right	-	-	-
			Left	4.0	A	25
		NB	Through	2.0	A	12.5
			Through	7.0	A	127.5
		SB	Right	-	-	-
			Through	-	-	-

1: Average Delay (Seconds/Vehicle)

2: Level of Service

3: 95th-percentile Queue Length (Feet)

3 Methodology

3.1 Base Assumptions

Intersection capacity analysis was conducted using Trafficware’s *Synchro 11*. Trip generation was calculated using the 11th edition of the Institute of Transportation Engineer’s (ITE) Trip Generation Manual. Right-turn and left-turn lanes were examined using the Texas DOT (TxDOT) *Roadway Design Manual*.

3.2 Background Growth

The average compounded annual background growth rate of 1.00% was provided by and agreed upon for use by DFW planning staff. Existing traffic volumes were grown by 1.00% per year to estimate background growth for future 2025 conditions (the project is scheduled to be constructed and operational by the year 2025).

3.3 Trip Generation

Daily, AM and PM peak hour trip generation for the project was estimated using the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition (2021). Based on the proposed e-commerce operations of the two warehouse buildings, and the direct access to DFW International Airport, the land use code (LUC) 156 for High-Cube Parcel Hub Warehouse was deemed most appropriate for this project. A review of the *High-Cube Warehouse Vehicle Trip Generation Analysis* report (**Appendix E**) prepared by ITE was conducted to confirm that LUC 156 was the most appropriate for trip generation. **Table 3-1** reports the Daily, AM, and PM peak hour trip generation for the project. Further documentation of the trip generation calculations can be found in **Appendix F**. Warehouse land uses are not anticipated to experience internal or pass-by trips and are therefore excluded from total trip generation.

Table 3-1: ITE Trip Generation

Average Weekday Volumes				AM Peak Hour		PM Peak Hour	
Land Use	ITE Code	Size	Daily Trips	Enter	Exit	Enter	Exit
High-Cube Parcel Hub Warehouse	156	311 Th. Sq. Ft. GFA	1440	104	104	125	59

3.4 Trip Distribution

The overall trip distribution was primarily based on engineering judgment, combined with the existing turning volumes in the network, which represented similar warehouse-type land uses in the 2019 condition. The outbound/inbound percentages were calculated for both existing peak hours and were used to distribute the project trips. Some of the proposed project driveways are dedicated for truck traffic while others are for passenger car traffic only. Consideration also

needed to be provided for the distribution between which warehouse trips started/ended. Based on overall square footage, Building 1 (western warehouse) was assumed to generate 60% of the project traffic while Building 2 (eastern warehouse) was assumed to generate the remaining 40%.

All vehicle trips to/from Building 2 are assumed to use W 19th Street to enter/leave the network, but trips to/from Building 1 were assigned a route based on the considerations discussed above.

The overall study area trip distribution is shown in **Figure 4-1** and **Figure 3-2**. Further documentation on the trip distribution at the project driveways is provided in **Appendix F**.

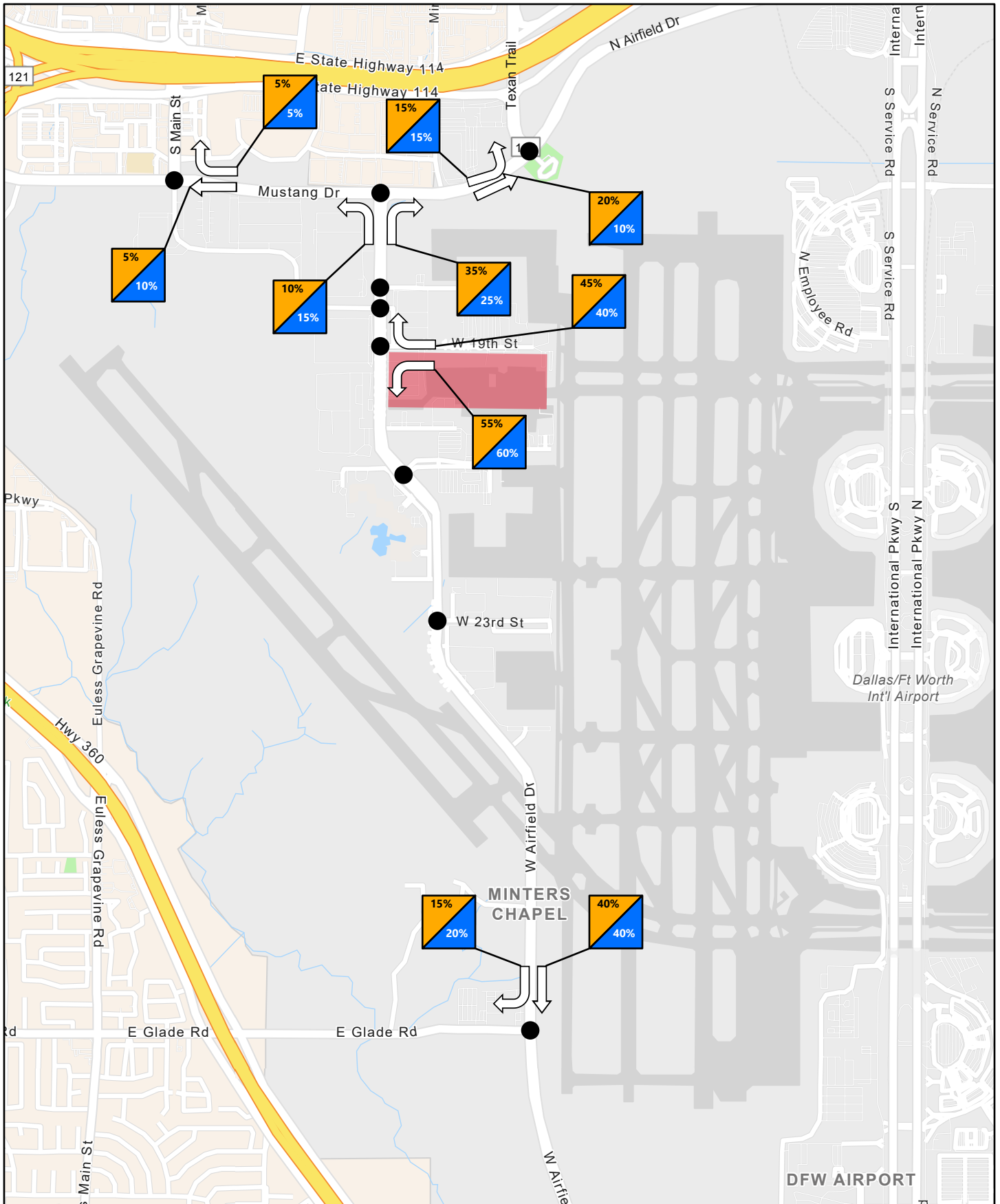


Figure 3-1: Overall Study Area Trip Distribution - Outbound
 DFW 19th Street Cargo Redevelopment

LEGEND

- Project Site
- Study Intersections
- Trip Distribution Percentage



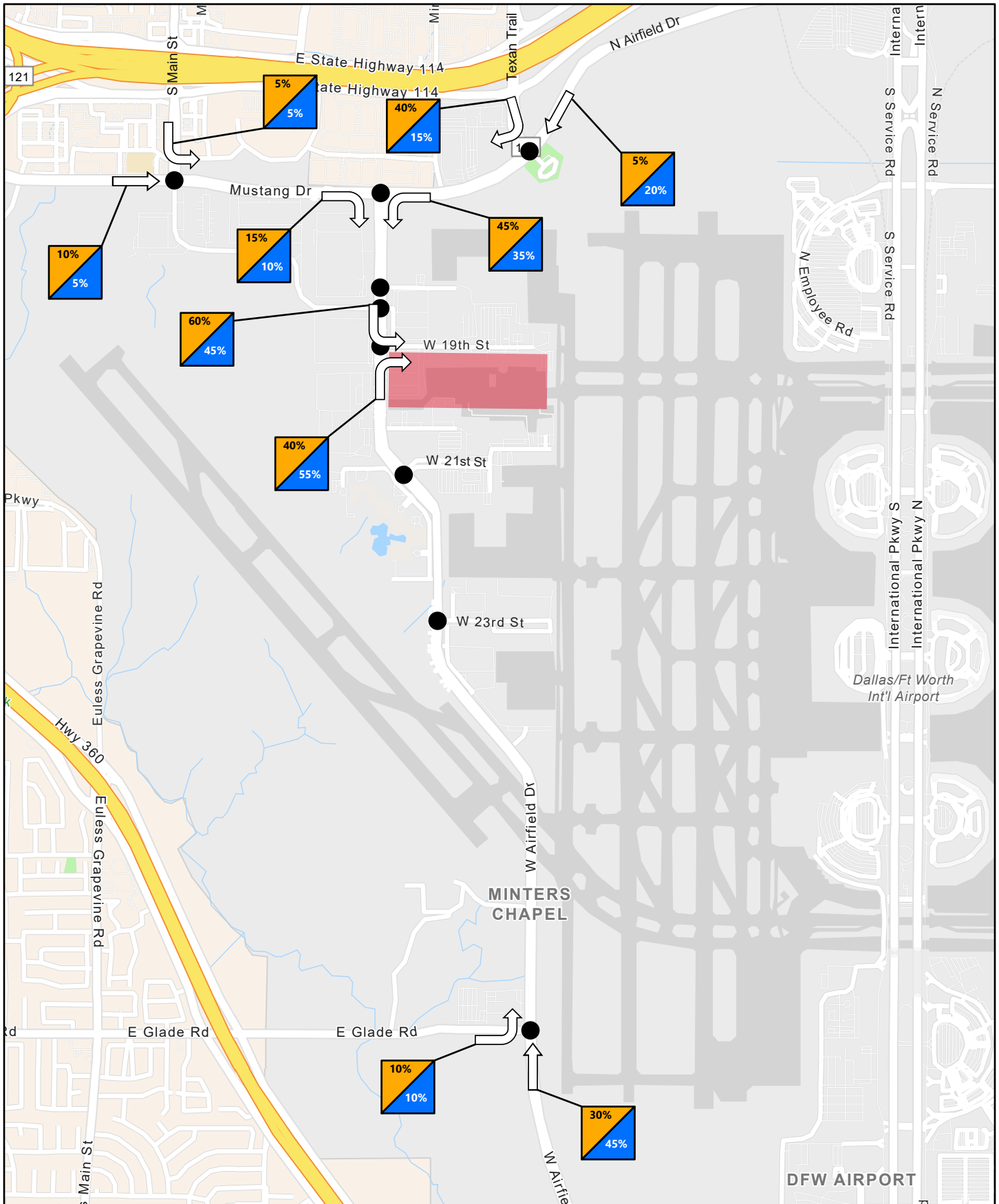


Figure 3-2: Overall Study Area Trip Distribution - Inbound
 DFW 19th Street Cargo Redevelopment

LEGEND

- Project Site
- Study Intersections
- Trip Distribution Percentage



4 Future (2025) Background Growth

4.1 Future (2025) Background Volumes

Similar to the 2019 volumes that were grown to 2022 to represent the Existing Conditions volumes, a 1% annual growth rate was applied for three years to represent 2025 Background volumes. The same volume balancing principles were also applied to the Future Background volumes. The Future (2025) Background intersection turning volumes are shown in **Figure 4-1**.

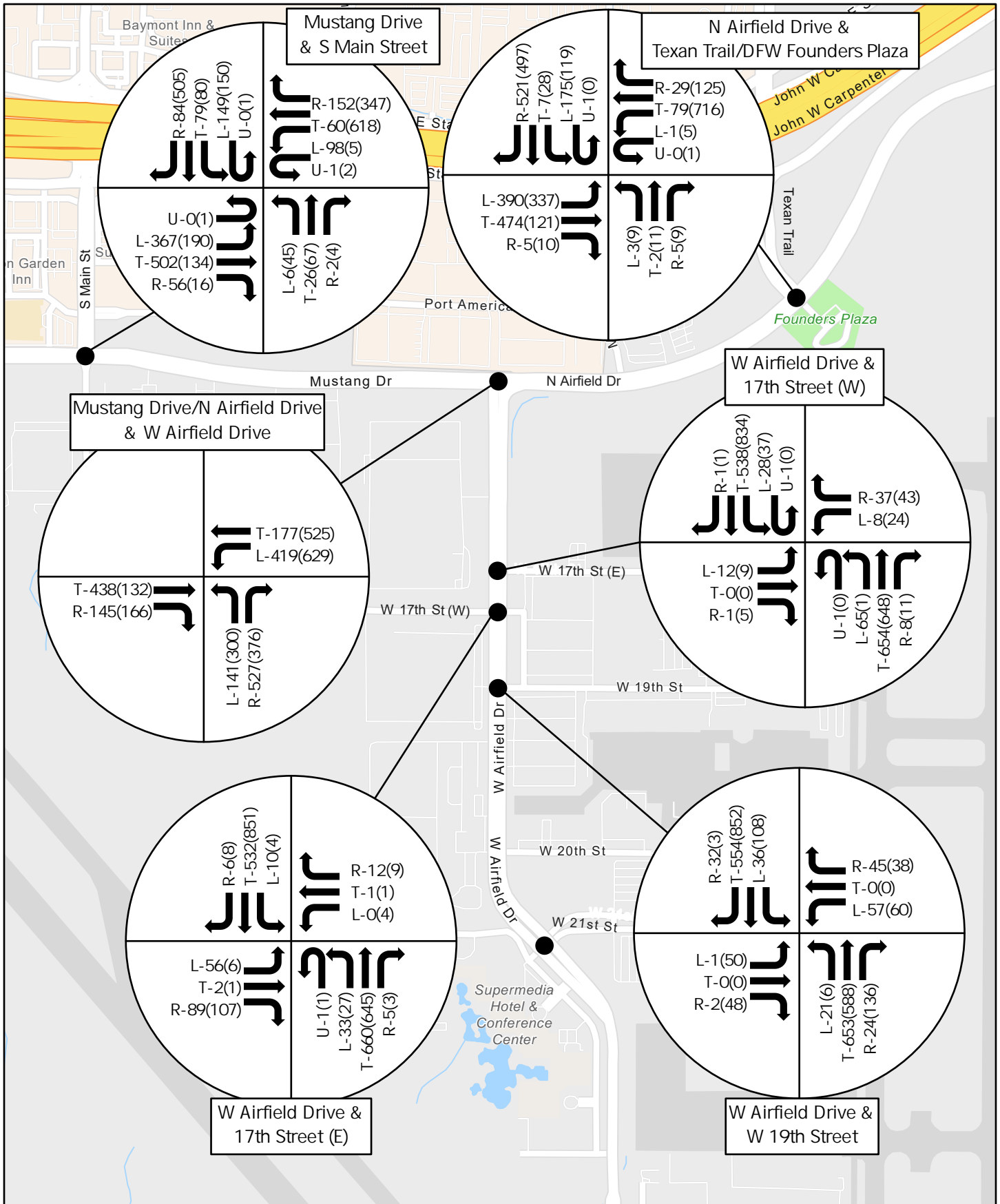
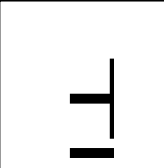


Figure 4-1: Future (2025)
Background Volumes (page 1 of 2)
DFW 19th Street Cargo Redevelopment

LEGEND	
	Turn Movement
XX(XX)	AM(PM) Peak Hour Volumes



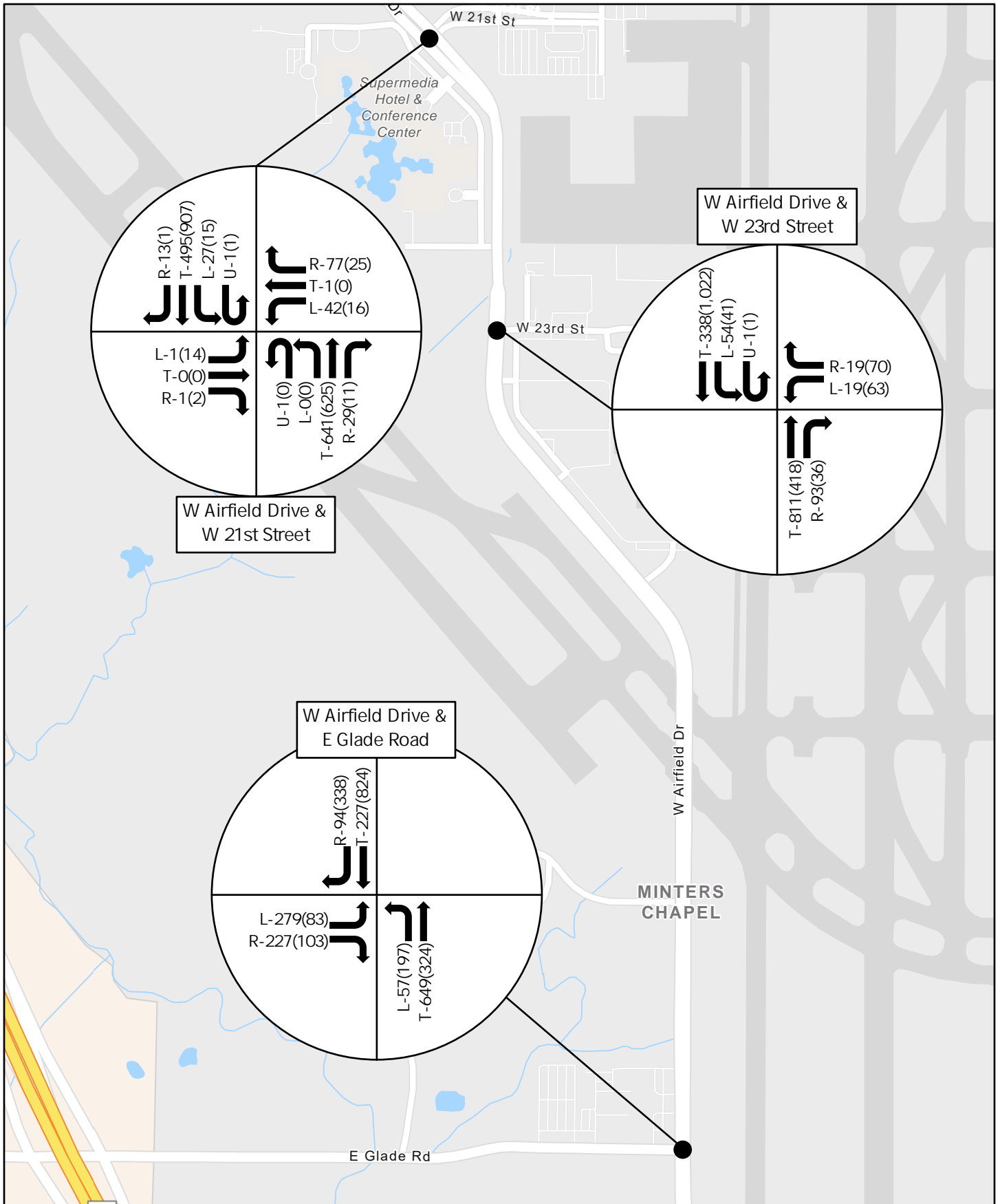


Figure 4-1: Future (2025)
Background Volumes (page 2 of 2)
DFW 19th Street Cargo Redevelopment

LEGEND

Turn Movement

AM(PM) Peak Hour Volumes



4.2 Future (2025) Background Traffic Analysis

Table 4-1, Table 4-2, and Table 4-3 summarize the *Synchro* intersection analysis for overall intersection performance, AM peak performance by movement, and PM peak performance by movement. Future (2025) Background HCM 6th Ed. and *Synchro* reports are in **Appendix G**.

During the AM peak hour, overall intersection operations perform generally well, with all intersections operating at LOS "C" or better. Some higher volume left-turn movements that operate at LOS "E" in the Existing Conditions continue to operate at LOS "E" in the Background condition.

During the PM peak hour, overall intersection operations are generally worse, with three intersections operating at LOS "D". Similar to the AM peak hour, the same movements that are operating poorly in the Existing Conditions continue to operate poorly in the Background condition. There is one left-turn movement that operates at LOS "E", one right-turn movement that operate at LOS "E", and one right-turn movement that operate at LOS "F".

Some intersection operations are reported to improve compared to the Existing Condition for a couple reasons. Firstly, there is very little traffic growth at 1.00% annually for three years, so traffic volumes are very similar to Existing Conditions. Secondly, to fairly represent future Background conditions, all signalized intersections were optimized (splits only) in *Synchro*, which redistributed green time to movements that most needed it, and therefore brought down the average vehicle delay at some locations, compared to Existing Conditions.

Table 4-1: Future (2025) Background Overall Intersection Operations

Int. #	Intersection	Control Type	AM Peak Hour		PM Peak Hour	
			Delay ¹	LOS ²	Delay ¹	LOS ²
1	Mustang Drive & S Main Street	Signalized	18.7	B	37.3	D
2	Mustang Drive/N Airfield Drive & W Airfield Drive	Signalized	10.3	B	11.1	B
3	N Airfield Drive & Texan Trail/DFW Founders Plaza	Signalized	24.0	C	54.8	D
4	W Airfield Drive & W 17th Street (W)	TWSC ³	24.8 (EB)	C	26.6 (WB)	D
5	W Airfield Drive & W 17th Street (E)	Signalized	4.5	A	3.9	A
6	W Airfield Drive & W 19th Street	Signalized	9.7	A	12.2	B
7	W Airfield Drive & W 21st Street	Signalized	9.4	A	5.6	A
8	W Airfield Drive & W 23rd Street	Signalized	5.0	A	5.1	A
9	W Airfield Drive & E Glade Road	Signalized	13.3	B	7.6	A

1: Average Delay (Seconds/Vehicle)

2: Level of Service

3: For unsignalized intersections, worst approach delay is presented rather than overall intersection delay

Table 4-2: Future (2025) Background AM Peak Hour Intersection Operations

Int. #	Intersection	Approach	Movement	Delay ¹	LOS ²	95% Queue ³
1	Mustang Drive & S Main Street	EB	Left	11.4	B	170
			Through	15.5	B	145
			Right	-	-	-
		WB	Left	14.4	B	52.5
			Through	17.4	B	17.5
			Right	-	-	-
		NB	Left	31.4	C	5
			Through/Right	36.2	D	15
		SB	Left	30.1	C	132.5
Through	33.6		C	72.5		
Right	34.1		C	80		
2	Mustang Drive/N Airfield Drive & W Airfield Drive	EB	Through/Right	11.8	B	80
			Left	6.8	A	72.5
		WB	Through	3.0	A	7.5
			Left	25.5	C	42.5
		NB	Right	-	-	-
			Left	25.5	C	42.5
3	N Airfield Drive & Texan Trail/DFW Founders Plaza	SEB	Left	12.7	B	35
			Through	0.0	A	0
			Right	28.0	C	345
		NWB	Left/Through/Right	37.2	D	7.5
			Left	27.5	C	130
		NEB	Through	20.5	C	132.5
			Right	17.4	B	2.5
			Left	65.4	E	2.5
		SWB	Through	26.6	C	25
Right	-		-	-		
4	W Airfield Drive & W 17th Street (W)	EB	Left	44.9	E	45
			Through/Right	12.4	B	15
		WB	Left/Through/Right	14.6	B	2.5
			Left	9.1	A	2.5
		NB	Through/Right	-	-	-
			Left	9.3	A	0
SB	Through/Right	-	-	-		
	Left/Through	50.9	D	15		
5	W Airfield Drive & W 17th Street (E)	EB	Right	49.0	D	0
			Left	0.0	A	0
		WB	Right	0.0	A	0
			Left	2.0	A	5
		NB	Through/Right	4.4	A	80
			Left	1.9	A	2.5
		SB	Through/Right	3.9	A	57.5
			Left	1.9	A	2.5

1: Average Delay (Seconds/Vehicle)

2: Level of Service

3: 95th-percentile Queue Length (Feet)

Table 4-2: Future (2025) Background AM Peak Hour Intersection Operations (cont.)

Int. #	Intersection	Approach	Movement	Delay ¹	LOS ²	95% Queue ³
6	W Airfield Drive & W 19th Street	EB	Left	16.6	B	0
			Through/Right	16.7	B	0
		WB	Left	14.8	B	17.5
			Through/Right	15.2	B	15
		NB	Left	7.2	A	2.5
			Through/Right	9.8	A	70
SB	Left	7.2	A	5		
	Through/Right	8.9	A	52.5		
7	W Airfield Drive & W 21st Street	SEB	Left	46.9	D	32.5
			Through	2.7	A	35
			Right	2.2	A	2.5
		NWB	Left	0.0	A	0
			Through	6.4	A	105
			Right	5.0	A	7.5
		NEB	Left/Through/Right	41.7	D	2.5
		SWB	Left/Through	43.0	D	50
			Right	47.2	D	97.5
8	W Airfield Drive & W 23rd Street	WB	Left/Right	30.7	C	15
		NB	Through	5.9	A	75
			Right	4.5	A	15
		SB	Left	3.0	A	2.5
			Through	1.6	A	2.5
9	W Airfield Drive & E Glade Road	EB	Left	34.8	C	245
			Right	-	-	-
		NB	Left	6.0	A	15
			Through	6.1	A	85
		SB	Through	9.5	A	42.5
			Right	-	-	-

1: Average Delay (Seconds/Vehicle)

2: Level of Service

3: 95th-percentile Queue Length (Feet)

Table 4-3: Future (2025) Background PM Peak Hour Intersection Operations

Int. #	Intersection	Approach	Movement	Delay ¹	LOS ²	95% Queue ³
1	Mustang Drive & S Main Street	EB	Left	26.1	C	152.5
			Through	21.8	C	50
			Right	-	-	-
		WB	Left	26.7	C	5
			Through	35.4	D	292.5
			Right	-	-	-
		NB	Left	19.1	B	32.5
			Through/Right	22.1	C	27.5
		SB	Left	19.2	B	107.5
Through	21.3		C	60		
Right	59.7		E	595		
2	Mustang Drive/N Airfield Drive & W Airfield Drive	EB	Through/Right	17.6	B	32.5
		WB	Left	8.6	A	155
			Through	4.1	A	30
		NB	Left	25.5	C	90
			Right	-	-	-
		3	N Airfield Drive & Texan Trail/DFW Founders Plaza	SEB	Left	21.1	C	50
Through	21.3				C	60
Right	115.5				F	770
NWB	Left/Through/Right			45.3	D	32.5
NEB	Left			42.7	D	177.5
	Through			16.4	B	35
	Right			15.8	B	5
SWB	Left			52.7	D	5
	Through			33.5	C	300
	Right			-	-	-
4	W Airfield Drive & W 17th Street (W)	EB	Left	47.6	E	5
			Through/Right	14.8	B	22.5
		WB	Left/Through/Right	26.6	D	7.5
		NB	Left	10.8	B	2.5
			Through/Right	-	-	-
		SB	Left	9.3	A	0
Through/Right	-		-	-		
5	W Airfield Drive & W 17th Street (E)	EB	Left/Through	53.1	D	12.5
			Right	52.5	D	7.5
		WB	Left	0.0	A	0
			Right	0.0	A	0
		NB	Left	3.0	A	0
			Through/Right	4.3	A	77.5
		SB	Left	1.7	A	2.5
			Through/Right	2.8	A	57.5

1: Average Delay (Seconds/Vehicle)

2: Level of Service

3: 95th-percentile Queue Length (Feet)

Table 4-3: Future (2025) Background PM Peak Hour Intersection Operations (cont.)

Int. #	Intersection	Approach	Movement	Delay ¹	LOS ²	95% Queue ³
6	W Airfield Drive & W 19th Street	EB	Left	15.2	B	17.5
			Through/Right	17.5	B	20
		WB	Left	15.1	B	20
			Through/Right	17.1	B	15
		NB	Left	10.0	A	2.5
			Through/Right	13.2	B	110
SB	Left	8.7	A	17.5		
	Through/Right	10.8	B	105		
7	W Airfield Drive & W 21st Street	SEB	Left	47.8	D	17.5
			Through	3.0	A	62.5
			Right	1.8	A	0
		NWB	Left	0.0	A	0
			Through	5.1	A	82.5
		NEB	Left/Through/Right	43.2	D	17.5
			Left/Through	42.7	D	17.5
		SWB	Right	43.3	D	27.5
Left/Right	26.7		C	40		
8	W Airfield Drive & W 23rd Street	NB	Through	6.0	A	40
			Right	5.2	A	7.5
		SB	Left	3.3	A	2.5
			Through	3.6	A	32.5
9	W Airfield Drive & E Glade Road	EB	Left	52.0	D	107.5
			Right	-	-	-
		NB	Left	3.7	A	25
			Through	1.9	A	15
		SB	Through	6.3	A	135
			Right	-	-	-

1: Average Delay (Seconds/Vehicle)

2: Level of Service

3: 95th-percentile Queue Length (Feet)

5 Build Condition (2025) Impact Analysis

5.1 Project Generated Volumes

Based on the trip generation and distribution analyses described above, the estimated project trips along roadway segments between each study intersection are shown in **Figure 5-1** and **Figure 5-2**. The percentage of project trips in relation to the segment's total directional volume is also included in parenthesis.

Table 4 in the *High-Cube Warehouse Vehicle Trip Generation Analysis* report included data on truck percentages based on observed similar warehouse operations. Based on this information, a T_f (truck factor) of 50% was assumed in the AM peak hour and a T_f of 30% was assumed in the PM peak hour for the project-generated trips.

5.2 Build Condition (2025) Volumes

Build Condition (2025) volumes were calculated as the sum of the Background volumes and the Project Generated volumes. The same volume balancing principles were also applied to the Build Condition volumes. The Build Condition (2025) intersection turning volumes are shown in **Figure 5-3**.

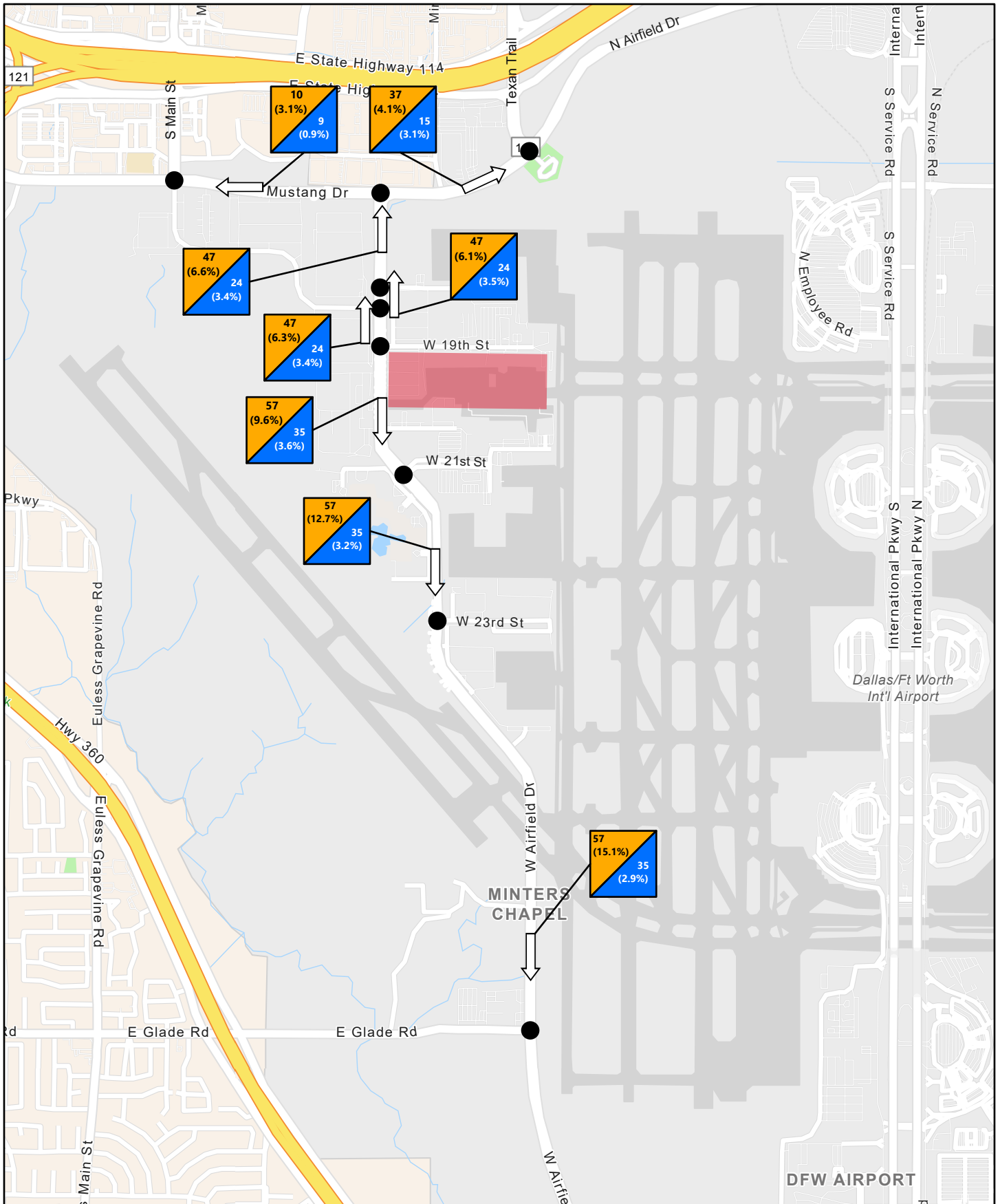


Figure 5-1: Project Generated Volumes - Outbound
DFW 19th Street Cargo Redevelopment

LEGEND

- Project Site
- Study Intersections
- Number of Project Trips (Percentage of Total Volume)



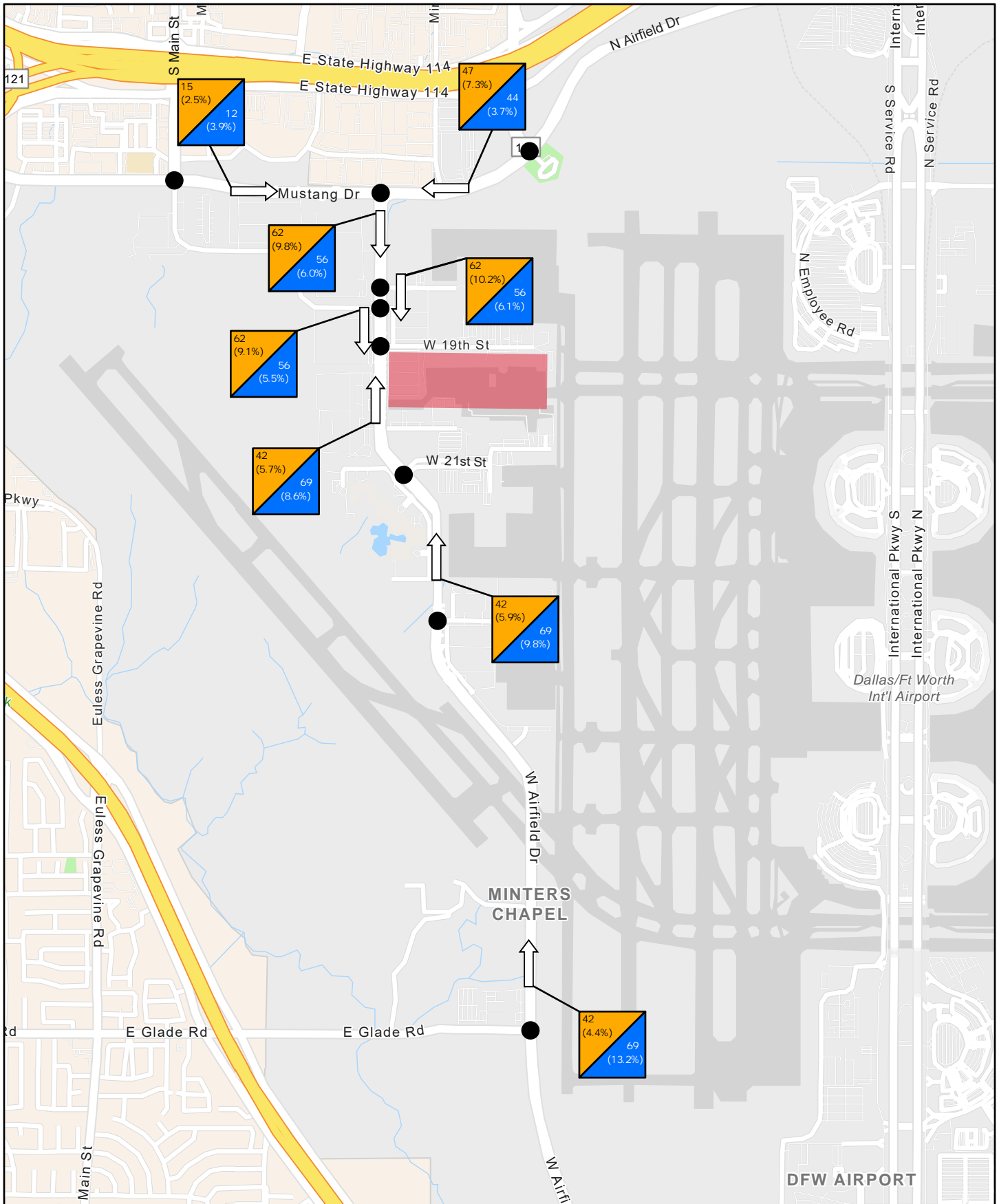
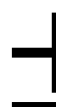


Figure 5-2: Project Generated Volumes - Inbound
DFW 19th Street Cargo Redevelopment

LEGEND

- Project Site
- Study Intersections
- Number of Project Trips (Percentage of Total Volume)



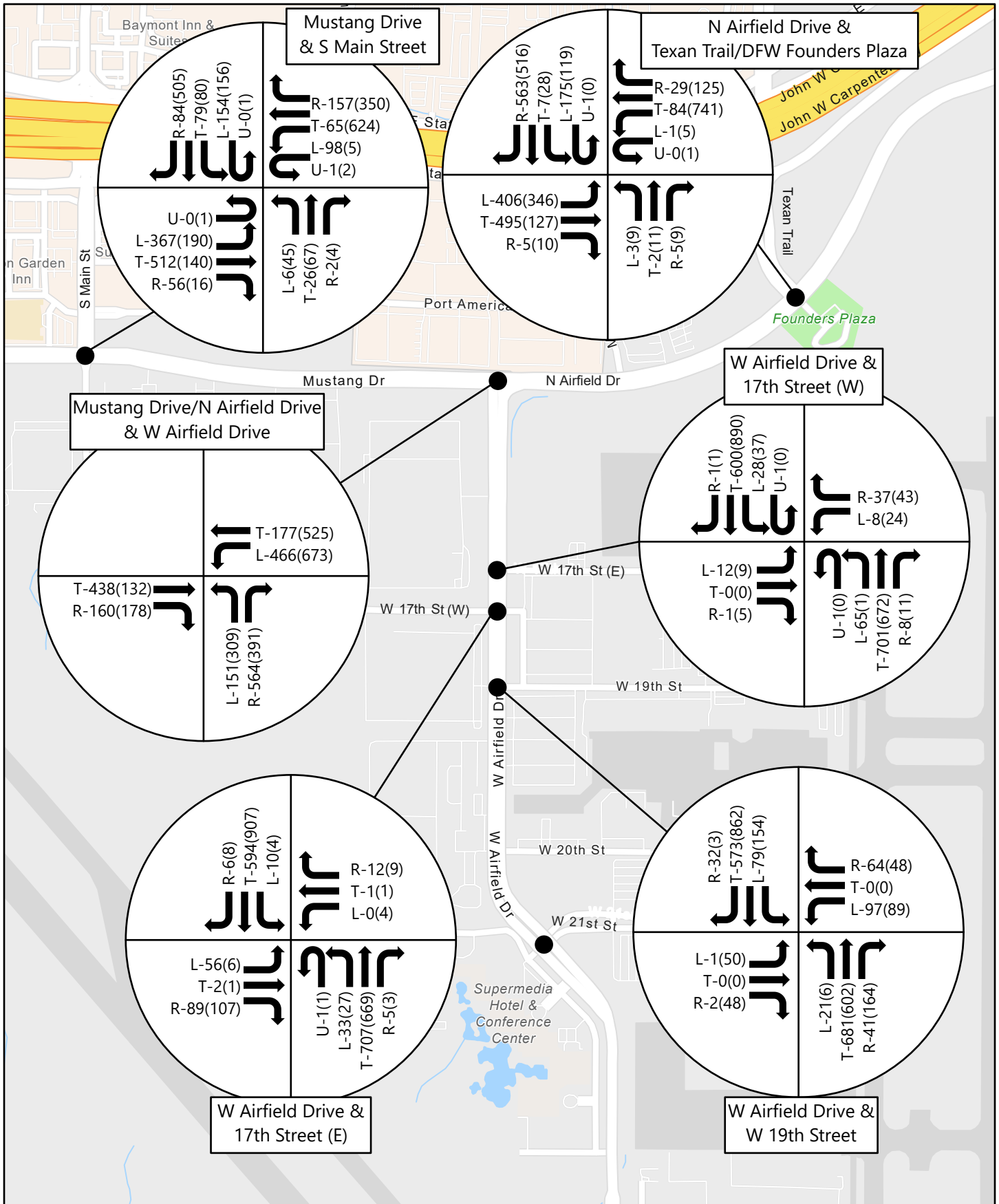


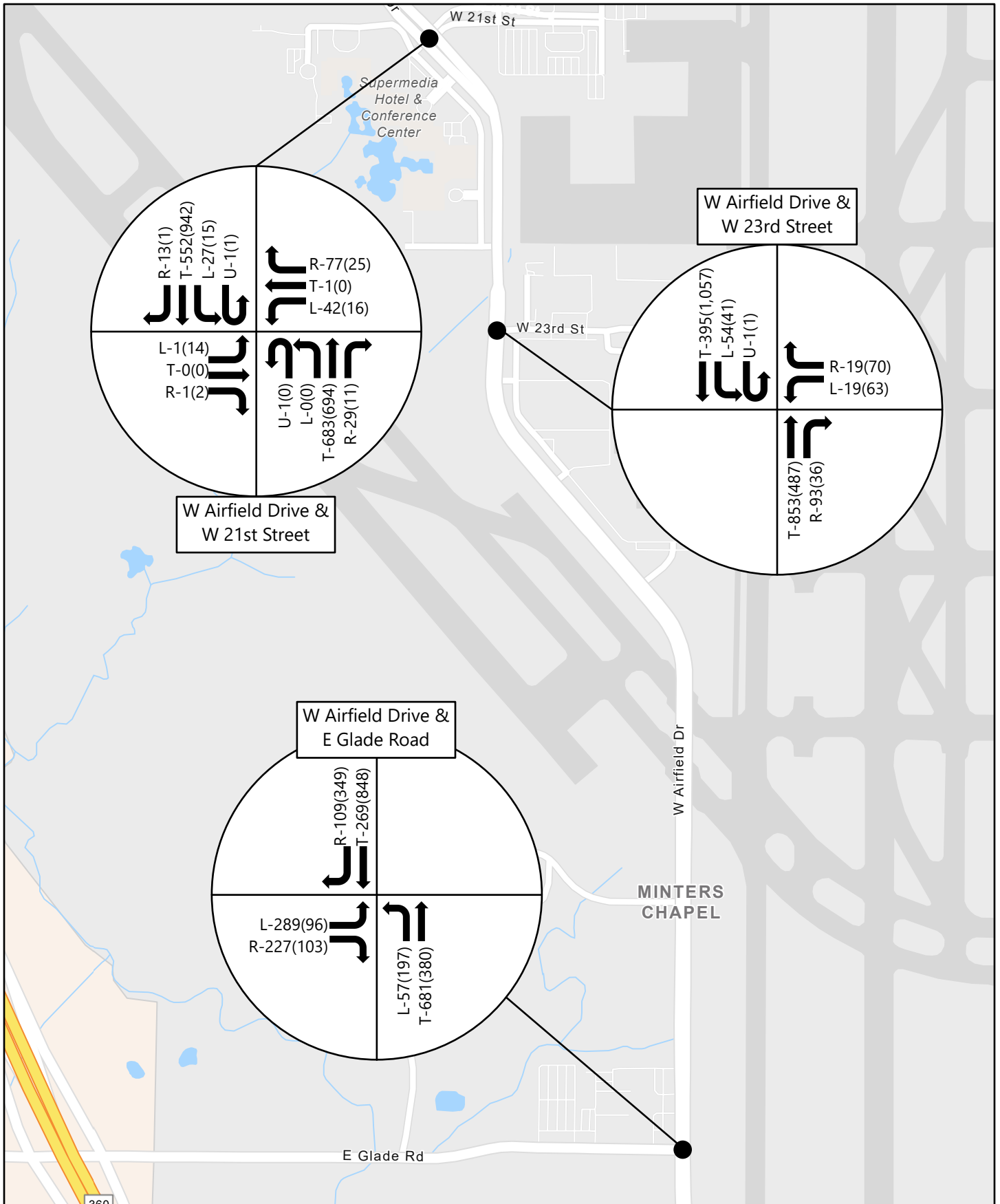
Figure 5-3: Build Condition (2025) Volumes (page 1 of 2)
DFW 19th Street Cargo Redevelopment

LEGEND

Turn Movement

AM(PM) Peak Hour Volumes





5.3 Build Condition (2025) Traffic Analysis

For clarity in analysis, the driveways for each building were numbered as shown in **Figure 5-4** below. All study intersections, including the project driveways, have also been numbered 1 through 15 (node numbers in *Synchro*), and are identified as such in the following tables.

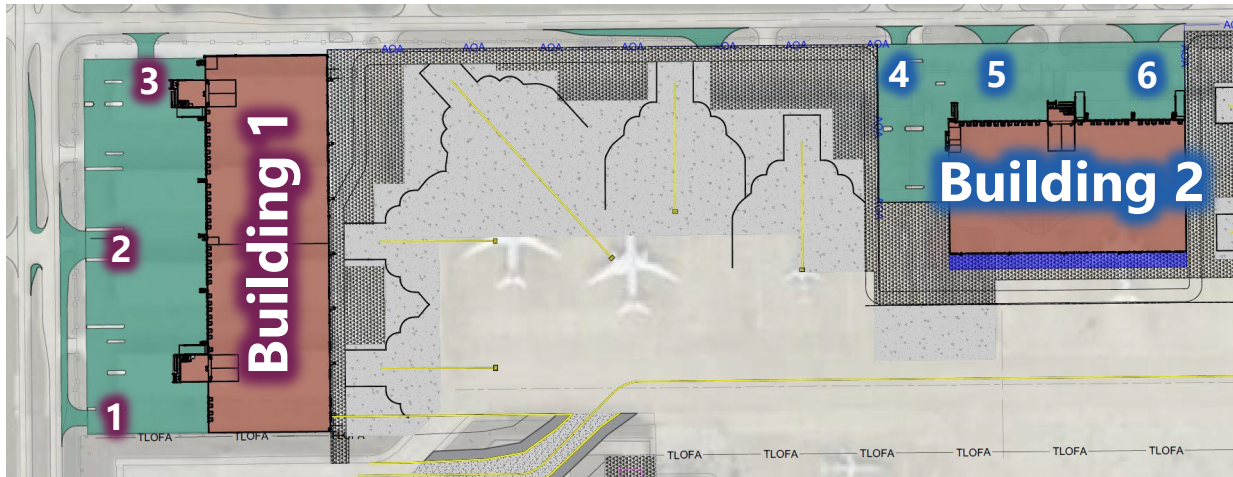


Figure 5-4: Project Site Driveway Numbering

Table 5-1, Table 5-2, and Table 5-3 summarize the *Synchro* intersection analysis for overall intersection performance, AM peak performance by movement, and PM peak performance by movement. Build Condition (2025) HCM 6th Ed. *Synchro* reports are provided in **Appendix H**.

During the AM peak hour, overall intersection operations perform generally well, with one intersection operating at LOS "D" and all other existing intersections operating at LOS "C" or better. While the project generated traffic caused two existing study intersections' overall LOS to drop one letter grade when compared to background conditions, all existing study intersections continue to operate at an acceptable LOS in the Build condition. The westbound approach at the newly proposed Building 1 Driveway 2 operates at LOS "E". Again, some higher volume left-turn movements that operate at LOS "E" in the Background condition continue to operate at LOS "E" or worse in the Build Condition. While the westbound approach at Building 1 Driveway 1 operates at LOS "E", very few vehicles are expected to experience this LOS. Left turning vehicles have the option of rerouting (turning right), if necessary.

During the PM peak hour, overall intersection operations are generally worse, with three intersections operating at LOS "D" and the westbound approach at the newly proposed Building 1 Driveway 2 operating at LOS "F". Like the AM peak hour, in the PM, While the westbound approach at Building 1 Driveway 1 operates at LOS "F", very few vehicles are expected to experience this LOS. Left turning vehicles have the option of rerouting (turning right), if necessary. Similar to the AM peak hour, the same movements that are operating poorly in the

Background conditions continue to operate poorly in the Build Condition. There are two left-turn movement that operates at LOS "F", one right-turn movement that operate at LOS "F", one right-turn movement that operate at LOS "E", one left-turn movement that operates at LOS "E", and one shared left/through movement that operates at LOS "E". The project generated traffic does not cause any existing study intersections' overall LOS's to drop a letter grade when compared to background conditions.

Similar to how some intersection operations in the Background Condition were better than the Existing Conditions, for the same reason, some Build Condition intersections operate better than the Background Condition. Once again, this is a product of the optimized splits at signalized intersections which are redistributing green time to movements that most need them. However, the intersection of W Airfield Drive and W 19th Street, which experiences almost all of the project generated traffic, saw slight increases in overall intersection delay in both peak hours (and a drop in LOS; from LOS "A" to LOS "B"), as expected. Intersection operations at this location are still considered acceptable in the Build Condition.

Table 5-1: Build Condition (2025) Overall Intersection Operations

Int. #	Intersection	Control Type	AM Peak Hour		PM Peak Hour	
			Delay ¹	LOS ²	Delay ¹	LOS ²
1	Mustang Drive & S Main Street	Signalized	18.8	B	37.3	D
2	Mustang Drive/N Airfield Drive & W Airfield Drive	Signalized	10.9	B	11.6	B
3	N Airfield Drive & Texan Trail/DFW Founders Plaza	Signalized	26.8	C	54.9	D
4	W Airfield Drive & W 17th Street (W)	TWSC ³	30.1 (EB)	D	29.2 (WB)	D
5	W Airfield Drive & W 17th Street (E)	Signalized	4.5	A	3.8	A
6	W Airfield Drive & W 19th Street	Signalized	11.3	B	13.1	B
7	W Airfield Drive & W 21st Street	Signalized	9.1	A	5.6	A
8	W Airfield Drive & W 23rd Street	Signalized	4.9	A	5.3	A
9	W Airfield Drive & E Glade Road	Signalized	13.5	B	8.0	A
10	W Airfield Drive & Building 1 Driveway 1	TWSC ³	11.1 (WB)	B	11.4 (WB)	B
11	W Airfield Drive & Building 1 Driveway 2	TWSC ³	41.7 (WB)	E	55.2 (WB)	F
12	W 19th Street & Building 1 Driveway 3	TWSC ³	9.7 (NB)	A	11.2 (NB)	B
13	W 19th Street & Building 2 Driveway 4	TWSC ³	8.9 (NB)	A	8.8 (NB)	A
14	W 19th Street & Building 2 Driveway 5	TWSC ³	9.7 (NB)	A	9.5 (NB)	A
15	W 19th Street & Building 2 Driveway 6	TWSC ³	9.5 (NB)	A	9.5 (NB)	A

1: Average Delay (Seconds/Vehicle)

2: Level of Service

3: For unsignalized intersections, worst approach delay is presented rather than overall intersection delay

Table 5-2: Build Condition (2025) AM Peak Hour Intersection Operations

Int. #	Intersection	Approach	Movement	Delay ¹	LOS ²	95% Queue ³
1	Mustang Drive & S Main Street	EB	Left	11.5	B	172.5
			Through	15.7	B	150
			Right	-	-	-
		WB	Left	14.5	B	52.5
			Through	17.6	B	20
			Right	-	-	-
		NB	Left	31.6	C	5
			Through/Right	36.4	D	15
		SB	Left	30.0	C	135
Through	33.5		C	72.5		
Right	34.0		C	80		
2	Mustang Drive/N Airfield Drive & W Airfield Drive	EB	Through/Right	12.6	B	85
			Left	7.3	A	87.5
		WB	Through	3.0	A	7.5
			Left	26.3	C	47.5
			Right	-	-	-
3	N Airfield Drive & Texan Trail/DFW Founders Plaza	SEB	Left	12.4	B	35
			Through	0.0	A	0
			Right	32.8	C	412.5
		NWB	Left/Through/Right	39.6	D	10
		NEB	Left	29.6	C	150
			Through	22.5	C	152.5
			Right	18.9	B	2.5
		SWB	Left	43.3	D	0
			Through	29.1	C	30
			Right	-	-	-
4	W Airfield Drive & W 17th Street (W)	EB	Left	57.8	F	55
			Through/Right	13.0	B	17.5
		WB	Left/Through/Right	15.6	C	2.5
			Left	9.3	A	2.5
		NB	Through/Right	-	-	-
			Left	9.5	A	0
			Through/Right	-	-	-
5	W Airfield Drive & W 17th Street (E)	EB	Left/Through	51.4	D	15
			Right	49.5	D	0
		WB	Left	0.0	A	0
			Right	0.0	A	0
		NB	Left	2.0	A	5
			Through/Right	4.5	A	87.5
		SB	Left	1.9	A	2.5
			Through/Right	4.0	A	67.5

1: Average Delay (Seconds/Vehicle)

2: Level of Service

3: 95th-percentile Queue Length (Feet)

Table 5-2: Build Condition (2025) AM Peak Hour Intersection Operations (cont.)

Int. #	Intersection	Approach	Movement	Delay ¹	LOS ²	95% Queue ³
6	W Airfield Drive & W 19th Street	EB	Left	17.5	B	0
			Through/Right	17.6	B	0
		WB	Left	14.3	B	32.5
			Through/Right	15.4	B	22.5
		NB	Left	8.6	A	5
			Through/Right	12.1	B	100
SB	Left	8.4	A	12.5		
	Through/Right	9.8	A	67.5		
7	W Airfield Drive & W 21st Street	SEB	Left	46.9	D	32.5
			Through	2.8	A	40
			Right	2.2	A	2.5
		NWB	Left	0.0	A	0
			Through	6.5	A	115
			Right	5.0	A	7.5
		NEB	Left/Through/Right	41.7	D	2.5
		SWB	Left/Through	43.0	D	50
			Right	47.2	D	97.5
8	W Airfield Drive & W 23rd Street	WB	Left/Right	31.2	C	15
		NB	Through	6.0	A	82.5
			Right	4.5	A	15
		SB	Left	3.0	A	2.5
Through	1.6		A	2.5		
9	W Airfield Drive & E Glade Road	EB	Left	34.8	C	252.5
			Right	-	-	-
		NB	Left	6.2	A	15
			Through	6.4	A	95
		SB	Through	9.9	A	52.5
Right	-	-	-			
10	W Airfield Drive & Building 1 Driveway 1	WB	Right	11.1	B	2.5
		NB	Through/Right	-	-	-
		SB	Through	-	-	-
11	W Airfield Drive & Building 1 Driveway 2	WB	Left	64	F	20
			Right	14.6	B	2.5
		NB	Through/Right	-	-	-
			SB	Left	14.4	B	5
Through	-	-		-		
12	W 19th Street & Building 1 Driveway 3	EB	Through/Right	-	-	-
		WB	Left/Through	0	A	0
		NB	Left/Right	9.7	A	2.5
13	W 19th Street & Building 2 Driveway 4	EB	Through/Right	-	-	-
		WB	Left/Through	0	A	0
		NB	Left/Right	8.9	A	2.5

1: Average Delay (Seconds/Vehicle)

2: Level of Service

3: 95th-percentile Queue Length (Feet)

Table 5-2: Build Condition (2025) AM Peak Hour Intersection Operations (cont.)

Int. #	Intersection	Approach	Movement	Delay ¹	LOS ²	95% Queue ³
14	W 19th Street & Building 2 Driveway 5	EB	Through/Right	-	-	-
		WB	Left/Through	0	A	0
		NB	Left/Right	9.7	A	0
15	W 19th Street & Building 2 Driveway 6	EB	Through/Right	-	-	-
		WB	Left/Through	0	A	0
		NB	Left/Right	9.5	A	0

1: Average Delay (Seconds/Vehicle)

2: Level of Service

3: 95th-percentile Queue Length (Feet)

Table 5-3: Build Condition (2025) PM Peak Hour Intersection Operations

Int. #	Intersection	Approach	Movement	Delay ¹	LOS ²	95% Queue ³
1	Mustang Drive & S Main Street	EB	Left	26.3	C	152.5
			Through	21.9	C	52.5
			Right	-	-	-
		WB	Left	26.7	C	5
			Through	35.5	D	295
			Right	-	-	-
		NB	Left	19.1	B	32.5
			Through/Right	22.1	C	27.5
		SB	Left	19.3	B	112.5
Through	21.3		C	60		
Right	59.7		E	595		
2	Mustang Drive/N Airfield Drive & W Airfield Drive	EB	Through/Right	19.6	B	35
		WB	Left	9.3	A	177.5
			Through	4.1	A	32.5
		NB	Left	25.7	C	92.5
			Right	-	-	-
3	N Airfield Drive & Texan Trail/DFW Founders Plaza	SEB	Left	20.9	C	52.5
			Through	21.1	C	65
			Right	81.6	F	702.5
		NWB	Left/Through/Right	51.5	D	37.5
		NEB	Left	61.3	E	232.5
			Through	19.4	B	42.5
			Right	18.8	B	7.5
		SWB	Left	50.6	D	2.5
			Through	47.7	D	390
Right	-		-	-		

1: Average Delay (Seconds/Vehicle)

2: Level of Service

3: 95th-percentile Queue Length (Feet)

Table 5-3: Build Condition (2025) PM Peak Hour Intersection Operations (cont.)

Int. #	Intersection	Approach	Movement	Delay ¹	LOS ²	95% Queue ³		
4	W Airfield Drive & W 17th Street (W)	EB	Left	54.6	F	7.5		
			Through/Right	15.5	C	25		
		WB	Left/Through/Right	29.2	D	7.5		
			NB	Left	11.2	B	5	
		SB		Through/Right	-	-	-	
				Left	9.4	A	0	
	Through/Right	-		-	-			
5	W Airfield Drive & W 17th Street (E)	EB	Left/Through	55.1	E	12.5		
			Right	54.5	D	7.5		
		WB	Left	0.0	A	0		
			Right	0.0	A	0		
		NB	Left	2.9	A	0		
			Through/Right	4.2	A	85		
		SB	Left	1.7	A	2.5		
			Through/Right	2.9	A	62.5		
		6	W Airfield Drive & W 19th Street	EB	Left	15.8	B	20
					Through/Right	18.1	B	20
WB	Left			15.4	B	32.5		
	Through/Right			17.2	B	20		
NB	Left			10.6	B	2.5		
	Through/Right			14.7	B	132.5		
SB	Left			9.8	A	27.5		
	Through/Right			11.3	B	120		
7	W Airfield Drive & W 21st Street	SEB	Left	47.8	D	17.5		
			Through	3.0	A	65		
			Right	1.8	A	0		
		NWB	Left	0.0	A	0		
			Through	5.3	A	95		
			Right	3.9	A	2.5		
			NEB	Left/Through/Right	43.2	D	17.5	
		SWB		Left/Through	42.7	D	17.5	
				Right	43.3	D	27.5	
		8	W Airfield Drive & W 23rd Street	WB	Left/Right	26.7	C	40
NB	Through				6.2	A	47.5	
	Right			5.2	A	7.5		
SB	Left			3.4	A	2.5		
	Through			3.6	A	35		
9	W Airfield Drive & E Glade Road			EB	Left	51.7	D	125
		Right	-		-	-		
		NB	Left	4.1	A	30		
			Through	2.1	A	20		
		SB	Through	6.7	A	147.5		
			Right	-	-	-		

1: Average Delay (Seconds/Vehicle)

2: Level of Service

3: 95th-percentile Queue Length (Feet)

Table 5-3: Build Condition (2025) PM Peak Hour Intersection Operations (cont.)

Int. #	Intersection	Approach	Movement	Delay ¹	LOS ²	95% Queue ³	
10	W Airfield Drive & Building 1 Driveway 1	WB	Right	11.4	B	2.5	
		NB	Through/Right	-	-	-	
		SB	Through	-	-	-	
11	W Airfield Drive & Building 1 Driveway 2	WB	Left	82.2	F	10	
			Right	14.7	B	0	
		NB	Through/Right	-	-	-	
			SB	Left	14.7	B	2.5
				Through	-	-	-
12	W 19th Street & Building 1 Driveway 3	EB	Through/Right	-	-	-	
		WB	Left/Through	0	A	0	
		NB	Left/Right	11.2	B	2.5	
13	W 19th Street & Building 2 Driveway 4	EB	Through/Right	-	-	-	
		WB	Left/Through	0	A	0	
		NB	Left/Right	8.8	A	2.5	
14	W 19th Street & Building 2 Driveway 5	EB	Through/Right	-	-	-	
		WB	Left/Through	0	A	0	
		NB	Left/Right	9.5	A	0	
15	W 19th Street & Building 2 Driveway 6	EB	Through/Right	-	-	-	
		WB	Left/Through	0	A	0	
		NB	Left/Right	9.5	A	0	

1: Average Delay (Seconds/Vehicle)

2: Level of Service

3: 95th-percentile Queue Length (Feet)

6 Site Access Review

This study included a site access review evaluation for the proposed driveways accessing the project site. The following three sections provide an evaluation for driveway spacing, intersection sight distance and AutoTURN analysis according to TxDOT guidelines as observed by DFW airport.

6.1 Driveway Spacing

The City of Arlington has guidelines for spacing of new driveways along city roads based upon functional classification. The criteria are summarized in **Table 6-1** below. Driveway spacing measurements are taken from inside-edge-of driveway pavement)-to-inside edge.

Table 6-1: City of Arlington Driveway Spacing Criteria

Functional Classification (Road Name)	Minimum Driveway- Driveway Spacing (feet)	Minimum Intersection- Driveway Spacing (feet)
Major Collector (Airfield Drive)	200'	150'
Minor Collector (W 19 th Street)	150'	100'

A summary of the driveway spacing provided for each of the proposed site access points is presented in **Table 6-2** and graphically shown in **Appendix I**. All driveways currently meet the spacing standards applicable for city roads.

Table 6-2: Driveway Spacing Evaluation Summary

Proposed Driveway	Spacing Provided		Spacing Requirement	Meets Criteria?
Building 1 Driveway 1	W 20 th Street	495'	150'	Yes
	Building 1 Driveway 2	300'	150'	Yes
Building 1 Driveway 2	Building 1 Driveway 1	300'	150'	Yes
	W 19 th Street	385'	150'	Yes
Building 1 Driveway 3	W Airfield Drive	150'	100'	Yes
	AOA Proposed Driveway	1070'	150'	Yes
Building 2 Driveway 4	AOA Proposed Driveway	330'	150'	Yes
	Building 2 Driveway 5	150'	150'	Yes
Building 2 Driveway 5	Building 2 Driveway 4	150'	150'	Yes
	Building 2 Driveway 6	250'	150'	Yes
Building 2 Driveway 6	Building 2 Driveway 5	250'	150'	Yes

6.2 Intersection Sight Distance

Sight Distance is the metric used to describe the ability of a motorist to physically see, via a direct line of sight, objects and/or other vehicles to a degree sufficient to allow safe and efficient use of roadway in the intended manner. The sight distance is a function of the major roadway's geometric characteristics and 85th percentile speed.

For the 19th Street Cargo Redevelopment Plan, the sight distances were analyzed for all access points that included major and minor driveways along W 19th Street and W Airfield Drive. Intersection Sight triangles for vehicles approaching from both directions were developed for a design speed of 35mph (for W 19th Street) and 45mph (for W Airfield Drive) for two design vehicles as follows:

- Major Driveway - WB-67 Design vehicle
- Minor Driveway - SU Commercial Truck

The analysis showed that no major obstructions were observed besides a few existing roadside safety signs and few trees that may need trimming for a clear unobstructed view along W 19th Street. **Table 6-3** summarizes the sight distance evaluation for each site driveway. A sight distance triangle exhibit is also provided in **Appendix I**. Three trees were identified for recommended trimming or removal for a clear driver line of sight. Three trees were identified as likely requiring removal for construction of Driveway 5 to Building 2.

Table 6-3: Intersection Sight Distance Evaluation Summary

Proposed Driveway	Design Speed (mph)	Condition	Sight Distance Requirement	Status
Building 1 Driveway 1	45	Left Side	810'	Appears Sufficient
Building 1 Driveway 2	45	Left Side	1000'	Appears Sufficient
	45	Right Side	1000'	Appears Sufficient
Building 1 Driveway 3	35	Left Side	290'	Appears Sufficient
	35	Right Side	200'	Appears Sufficient
Building 2 Driveway 4	35	Left Side	290'	Appears Sufficient
	35	Right Side	200'	Appears Sufficient
Building 2 Driveway 5	35	Left Side	345'	Appears Sufficient
	35	Right Side	240'	Some trees may present visibility issue
Building 2 Driveway 6	35	Left Side	345'	Some trees may present visibility issue
	35	Right Side	240'	Appears Sufficient

6.3 AutoTURN Analysis

An AutoTURN Analysis was also performed to determine if proposed access driveways have appropriate curb radius to accommodate design vehicle turns. For the 19th Street Cargo Redevelopment Plan, Turning Swept Path analysis was performed using the AutoTURN software templates for all access points that included major and minor driveways along W 19th Street and W Airfield Drive. All proposed access points were analyzed for exiting and entering turning movements as well. The design vehicles used were: TxDOT 2014 (US) SU Commercial Truck and AASHTO 2018 (US) WB-67 Transport Truck.

All driveways were verified as meeting the necessary geometry for proper turning movements. The turning movements were designed for 5mph. The AutoTURN analysis exhibits are provided in **Appendix I**.

7 Summary and Conclusions

The 19th Street Cargo Redevelopment is expected to generate 1,441 daily trips, with 104 entering trips and 104 exiting trips in the AM peak hour, and 125 entering and 59 exiting trips in the PM peak hour.

In the AM peak hour, the project generated traffic is expected to cause two existing study intersections' overall LOS to drop one letter grade when compared to background conditions. However, all existing study intersections continue to operate at an acceptable LOS. In the PM peak hour, the project generated traffic is not expected to cause any existing study intersections' overall LOS to drop a letter grade when compared to background conditions.

The 19th Street Cargo Redevelopment was anticipated to have the greatest impact on the operations at the W Airfield Drive & W 19th Street intersection. However, the impact analysis conducted shows that the AM LOS is expected to change from "A" to "B" and PM LOS is expected to remain a "B". Queue lengths along W 19th Street are expected to increase but are still accommodated by the existing storage lane lengths. A summary of the impact to the other study intersections is provided below.

In the Existing Condition, there are three turn lane where queue storage may already be inadequate based on the 95th percentile queues lengths recorded in *Synchro*. These locations are as follows:

- In the AM peak hour, eastbound left-turn lane at Mustang Drive & S Main Street; possible queue spillback into through lanes.
- In the PM peak hour, southbound left-turn lane at Mustang Drive & S Main Street; possible queue spillback into through lanes.
- In the PM peak hour, southeastbound right-turn lane at N Airfield Drive & Texan Trail/DFW Founders Plaza; 95 %-tile queue length extends to E State Highway 114 off-ramp.

In the Background Condition, which are very similar to Existing Conditions, the same locations may have inadequate storage based on the 95th percentile queues lengths.

- In both the AM and PM peak hours, eastbound left-turn lane at Mustang Drive & S Main Street; possible queue spillback into through lanes.
- In both the AM and PM peak hours, southbound left-turn lane at Mustang Drive & S Main Street; possible queue spillback into through lanes.
- In the PM peak hour, southeastbound right-turn lane at N Airfield Drive & Texan Trail/DFW Founders Plaza; 95 %-tile queue length extends to E State Highway 114 off-ramp.

In the Build Condition, the same locations may have inadequate storage based on the 95th percentile queues lengths. Overall, intersection operations in the Build Condition are similar to the Background condition.

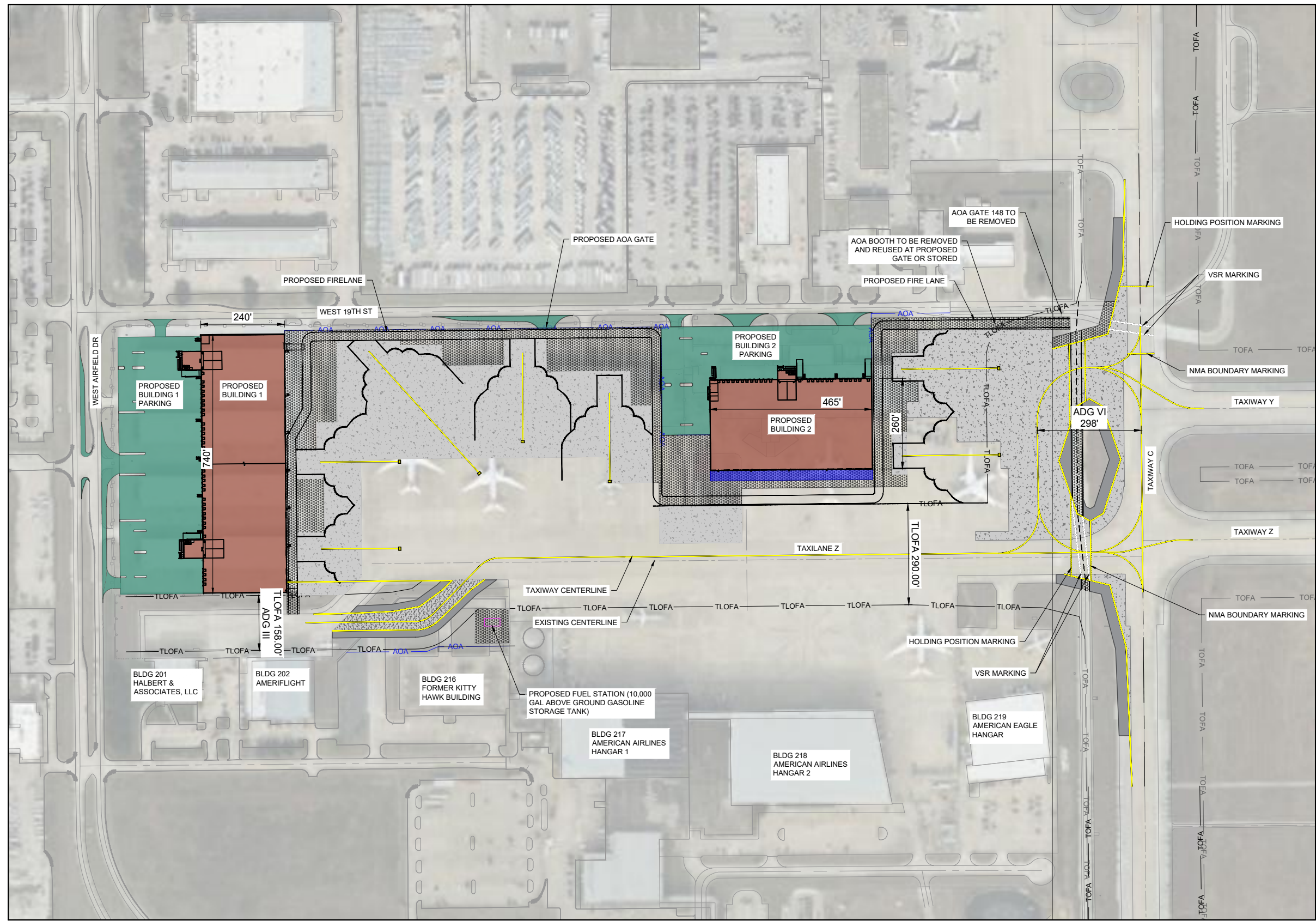
Traffic Impact Analysis - 19th Street Cargo Redevelopment DFW International Airport

- In both the AM and PM peak hours, eastbound left-turn lane at Mustang Drive & S Main Street; possible queue spillback into through lanes.
- In both the AM and PM peak hours, southbound left-turn lane at Mustang Drive & S Main Street; possible queue spillback into through lanes.
- In the PM peak hour, southeastbound right-turn lane at N Airfield Drive & Texan Trail/DFW Founders Plaza; 95 %-tile queue length nearly extends to E State Highway 114 off-ramp.

The southeastbound right-turn movement at the N Airfield Drive & Texan Trail/DFW Founders Plaza intersection could benefit from an improvement project. While the overall intersection LOS is not predicted to change as a result of the project, due to the high southeastbound right-turn volume at this intersection (present in the background and build conditions), consideration should be given to the implementation of a right-turn overlap phase to provide additional capacity for this movement. This improvement is recommended for consideration as it would primarily benefit traffic operations in the background conditions. It is not required to mitigate delay caused by project generated traffic.

No roadway improvements are recommended to mitigate project traffic impacts at the study intersections. However, to optimize the performance and safety of the existing transportation network, operational and maintenance improvements such as signal re-timing, right-turn overlap phase implementation, and tree/vegetation trimming should be considerations in the future. As previously mentioned in **Section 6.2**, specific tree/vegetation locations that may need attention are depicted in the Intersection Sight Triangles exhibit in **Appendix I**.

Appendix A: Project Site Plan



LEGEND

- SHOULDER PAVEMENT
- FAA ITEM P-501 REINFORCED CONCRETE PAVEMENT
- NON-AIRCRAFT RATED ARFF/GSE
- SE APRON TAXILANE PAVEMENT
- PROPOSED BUILDING
- LANDSIDE PAVEMENT
- BUILDING 2 CANOPY
- PROPOSED PAVEMENT MARKING
- PROPOSED AOA FENCE
- PROPOSED FUEL TANK

DESIGN STANDARDS

DESCRIPTION	TDG	ADG	OFA (FT)
TAXIWAY C	6	VI	335
TAXILANE Z	6	VI*	290
SE APRON	3	III	158

*OFA DESIGN AIRCRAFT IS B747-8F

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DALLAS FORT WORTH INTERNATIONAL AIRPORT
AIRPORT DESIGN, CODE & CONSTRUCTION DEPARTMENT (DCC)
3003 SOUTH SERVICE ROAD
DFW AIRPORT, TX 75261

CONCEPTUAL
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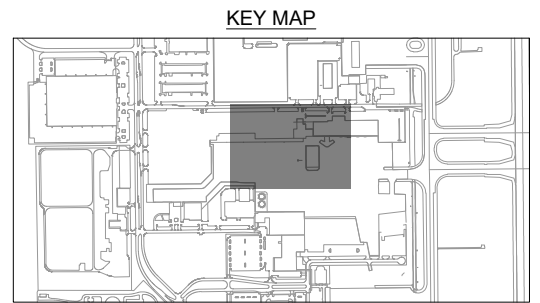
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 SUITE 800
 DALLAS, TX 75244
 TBPE REGISTRATION NO. F-3401

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 APPROVED BY: BB
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NO.	DATE	REVISION

19TH STREET CARGO REDEVELOPMENT
OVERALL SITE LAYOUT PLAN
 CONTRACT NUMBER: 9500791
 PERMIT NUMBERS: A22-068B

DRAWING NUMBER
GC001

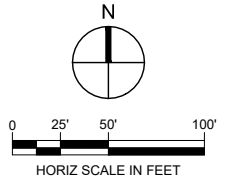
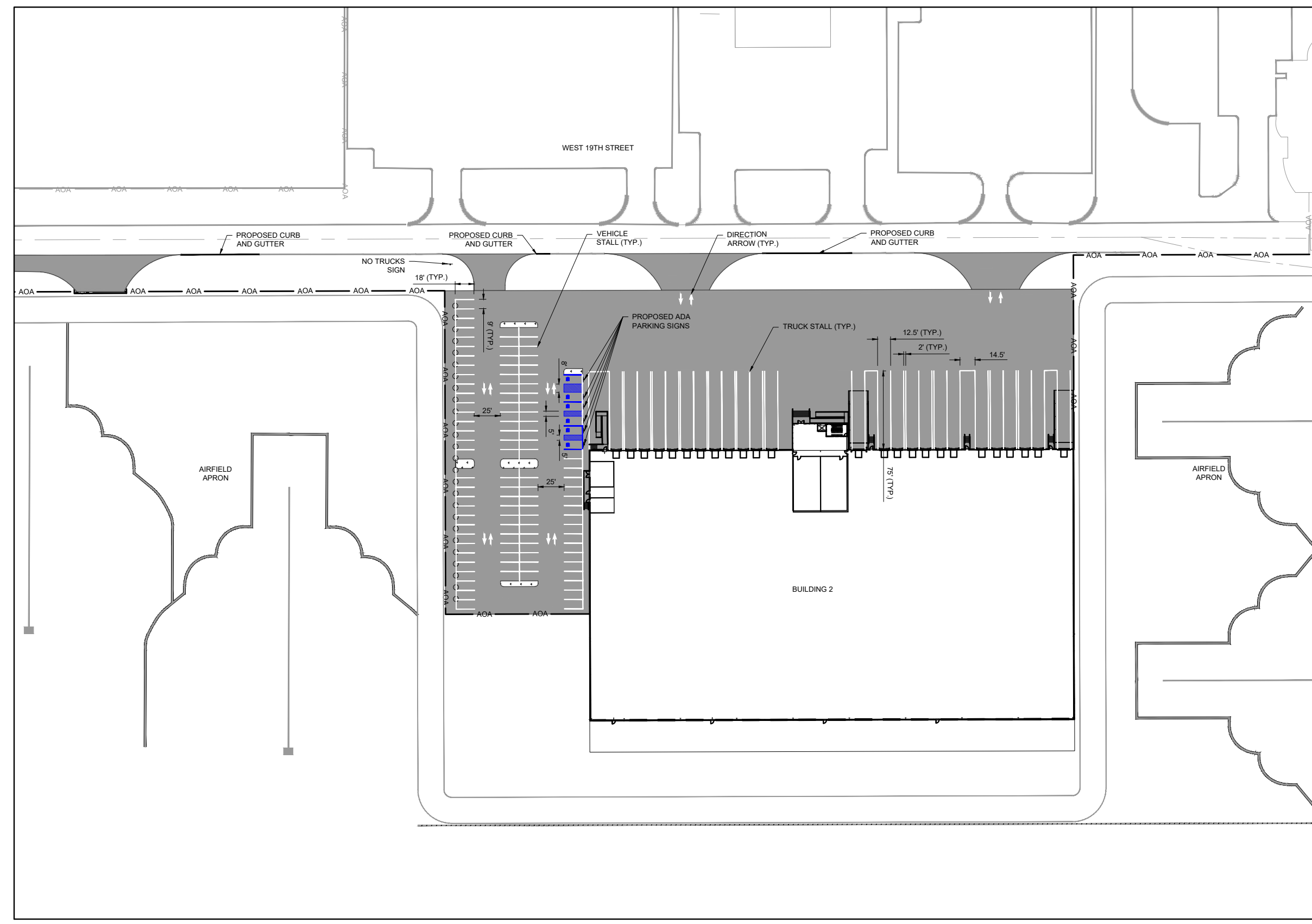


LEGEND

- PROPOSED LANDSIDE PAVEMENT
- PROPOSED PAVEMENT MARKING
- PROPOSED AOA FENCE

NOTES

1. ACCESSIBLE PARKING STALL STRIPING AND SIGNAGE MUST COMPLY WITH TEXAS ACCESSIBILITY STANDARDS.
2. PAVEMENT MARKINGS IMPACTED BY PAVEMENT REPAIRS MUST BE RESTORED TO THEIR ORIGINAL CONDITION.



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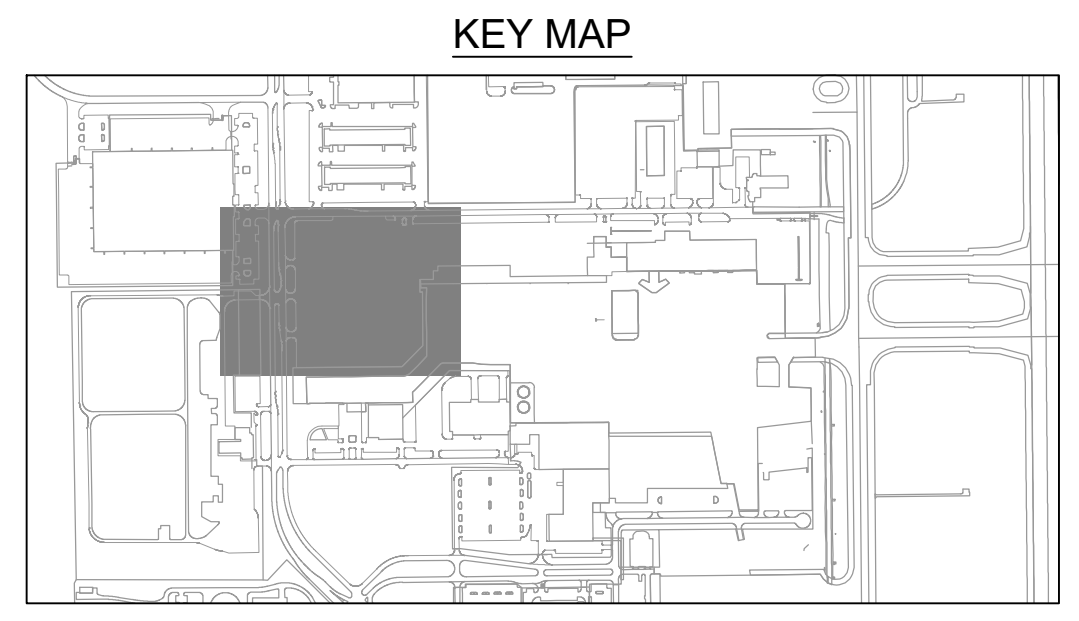
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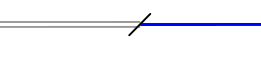


19TH STREET CARGO REDEVELOPMENT
LANDSIDE PAVEMENT MARKING PLAN 2

CONTRACT NUMBER: 9500791 PERMIT NUMBERS: A22-068B

DRAWING NUMBER
CM104

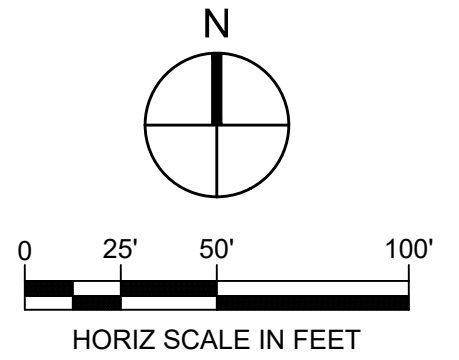
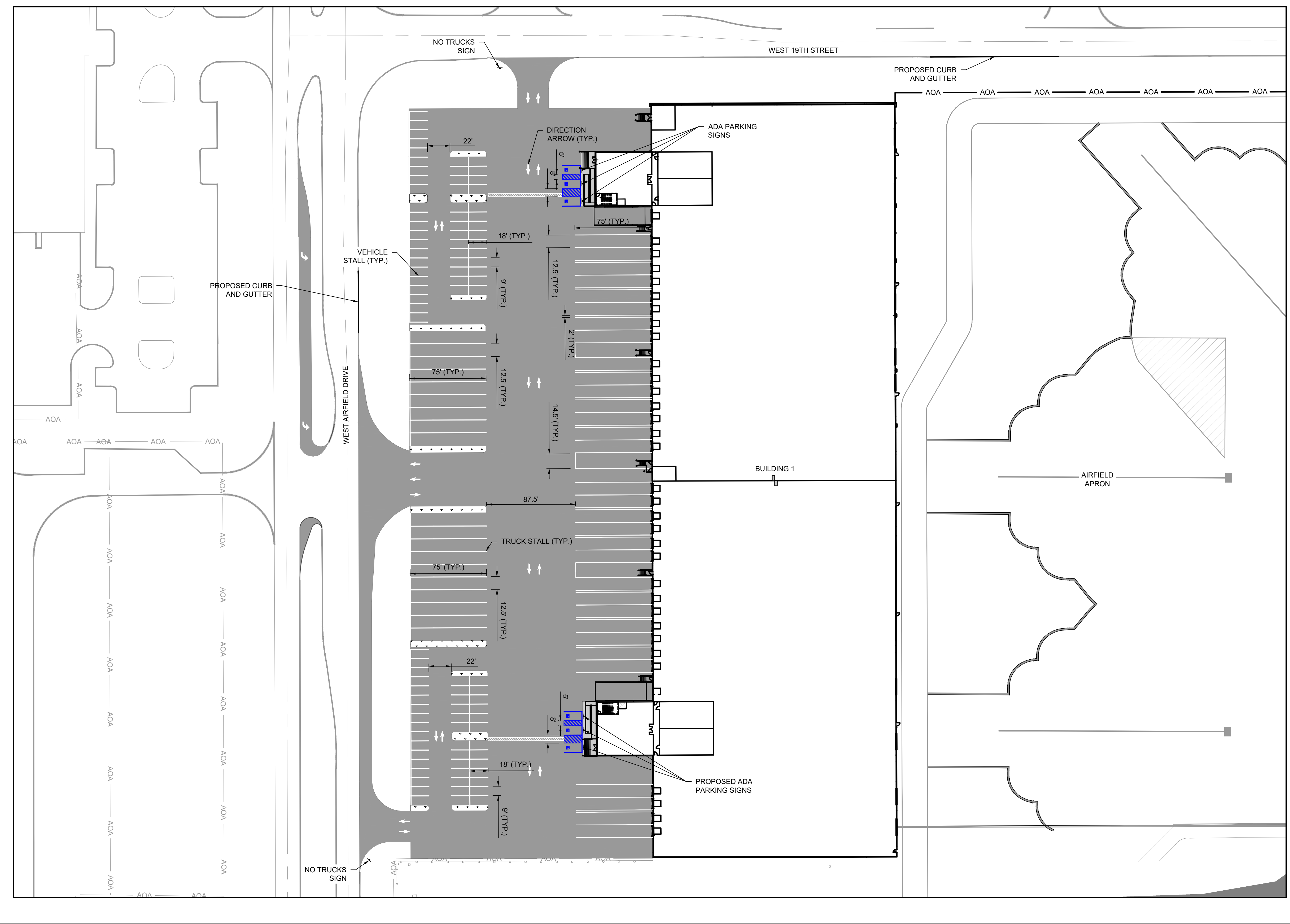


LEGEND

-  PROPOSED LANDSIDE PAVEMENT
-  PROPOSED PAVEMENT MARKING
-  AOA
-  PROPOSED AOA FENCE


NOTES

1. ACCESSIBLE PARKING STALL STRIPING AND SIGNAGE MUST COMPLY WITH TEXAS ACCESSIBILITY STANDARDS.
2. PAVEMENT MARKINGS IMPACTED BY PAVEMENT REPAIRS MUST BE RESTORED TO THEIR ORIGINAL CONDITION.



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19TH STREET CARGO REDEVELOPMENT
 LANDSIDE PAVEMENT MARKING
 PLAN 1

CONTRACT NUMBER: 9500791 PERMIT NUMBERS: A22-068B

DRAWING NUMBER
CM103

Appendix B: 2019 & 2022 Volume Count Data

1. Mustang Drive at S Main Street - TMC

Tue Apr 30, 2019

Fu Length (7 AM 9 AM, 4:30 PM 6:30 PM)

A C asses (Lights, Articulated Trucks, Buses and Single Unit Trucks, Pedestrians, Bicycles on Crosswalk)

A Movements

ID: 645612, Location: 32 918187, 97 078222



Provided by: C J Hensch & Associates Inc
5215 Sycamore Ave , Pasadena, TX, 77503, US

eg D irection	S Ma n Street Southbound					Mustang Dr ve Westbound					S Ma n Street Northbound					Mustang Dr ve Eastbound					Int				
	R	T	U	App	Ped*	R	T	U	App	Ped*	R	T	U	App	Ped*	R	T	U	App	Ped*					
2019-04-30 7:00AM	83	71	146	0	300	0	148	43	5	1	197	0	1	24	6	0	31	0	50	476	349	0	875	0	1403
8:00AM	82	74	147	0	303	0	125	60	8	1	194	0	3	30	12	0	45	0	45	337	255	0	637	0	1179
4:00PM	194	21	44	0	259	0	146	230	1	0	377	0	1	38	21	0	60	0	6	63	93	0	162	0	858
5:00PM	565	80	137	0	782	0	343	651	2	2	998	0	5	65	47	0	117	0	15	138	172	0	325	0	2222
6:00PM	216	19	53	0	288	0	100	223	2	1	326	0	1	19	11	0	31	0	6	47	50	1	104	0	749
otal	1140	265	527	0	1932	0	862	1207	18	5	2092	0	11	176	97	0	284	0	122	1061	919	1	2103	0	6411
% Approach	59.0%	13.7%	27.3%	0%	30.1%	-	41.2%	57.7%	0.9%	0.2%	-	-	3.9%	62.0%	34.2%	0%	-	-	5.8%	50.5%	43.7%	0%	-	-	-
% otal	17.8%	4.1%	8.2%	0%	30.1%	-	13.4%	18.8%	0.3%	0.1%	32.6%	-	0.2%	2.7%	1.5%	0%	4.4%	-	1.9%	16.5%	14.3%	0%	32.8%	-	-
Lights	1127	227	495	0	1849	-	792	1180	15	5	1992	-	10	123	85	0	218	-	112	1036	901	1	2050	-	6109
% Lights	98.9%	85.7%	93.9%	0%	95.7%	-	91.9%	97.8%	83.3%	100%	95.2%	-	90.9%	69.9%	87.6%	0%	76.8%	-	91.8%	97.6%	98.0%	100%	97.5%	-	95.3%
Articulated rucks	4	10	10	0	24	-	22	9	2	0	33	-	1	20	4	0	25	-	3	14	0	0	17	-	99
% Articulated rucks	0.4%	3.8%	1.9%	0%	1.2%	-	2.6%	0.7%	11.1%	0%	1.6%	-	9.1%	11.4%	4.1%	0%	8.8%	-	2.5%	1.3%	0%	0%	0.8%	-	1.5%
Buses and Single-Unit rucks	9	28	22	0	59	-	48	18	1	0	67	-	0	33	8	0	41	-	7	11	18	0	36	-	203
% Buses and Single-Unit rucks	0.8%	10.6%	4.2%	0%	3.1%	-	5.6%	1.5%	5.6%	0%	3.2%	-	0%	18.8%	8.2%	0%	14.4%	-	5.7%	1.0%	2.0%	0%	1.7%	-	3.2%
Pedestrans	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	-	0
% Pedestrans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B cycles on Crosswa k	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	-	0
% B cycles on Crosswa k	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswa k L: Left, R: Right, T: Thru, U: U Turn

1. Mustang Drive at S Main Street - TMC

Tue Apr 30, 2019

Full Length (7 AM-9 AM, 4:30 PM-6:30 PM)

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

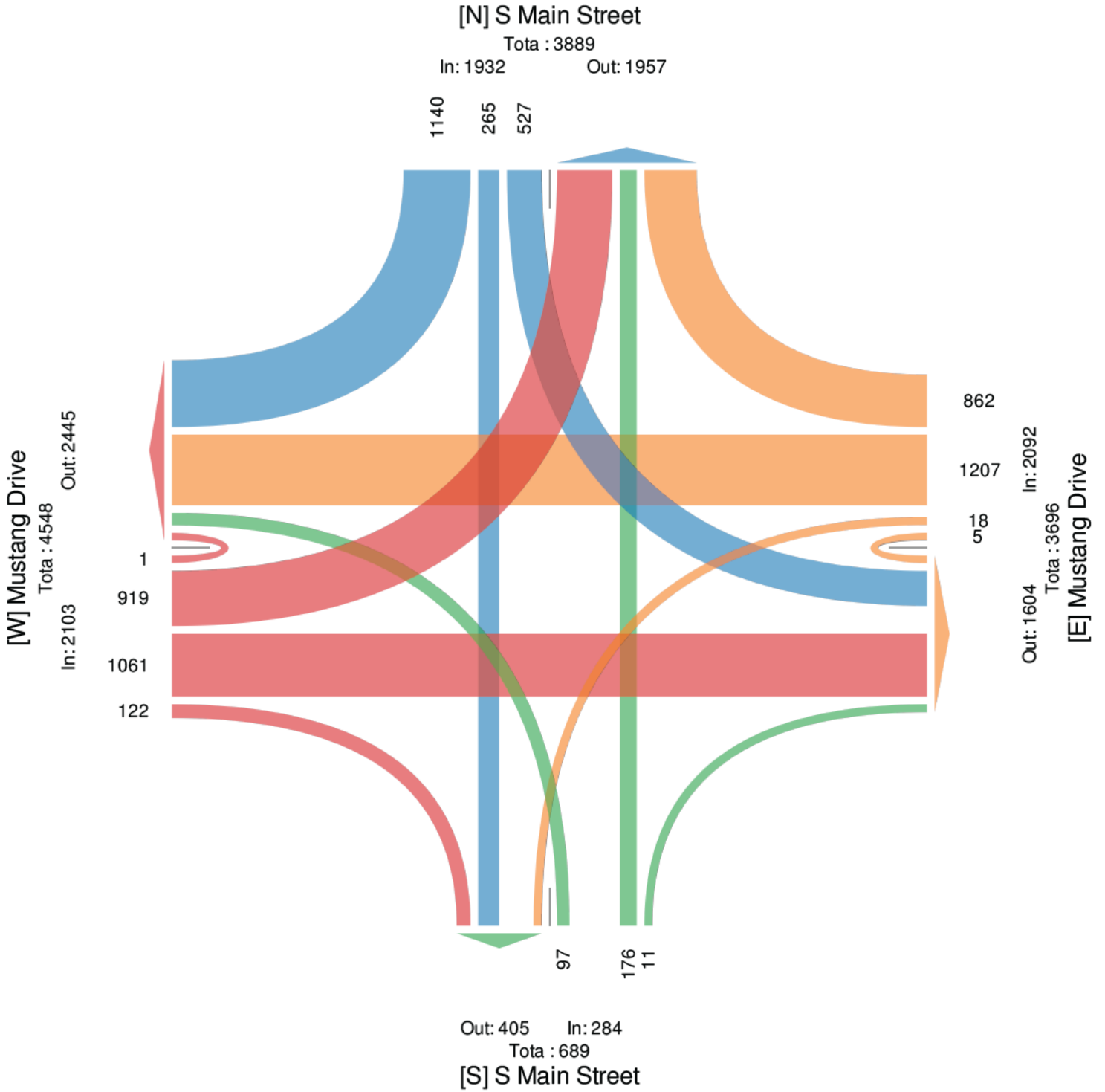
All Movements

ID: 645612, Location: 32.918187, -97.078222



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

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



1. Mustang Drive at S Main Street - TMC

Tue Apr 30, 2019

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

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

All Movements

ID: 645612, Location: 32.918187, 97.078222



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Segment	S Main Street Southbound					Mustang Drive Westbound					S Main Street Northbound					Mustang Drive Eastbound					Total				
	R	U	App	ed*		R	U	App	ed*		R	U	App	ed*		R	U	App	ed*						
2019-04-30 7:15AM	15	11	39	0	65	0	33	4	1	0	38	0	0	10	1	0	11	0	11	116	85	0	212	0	326
7:30AM	25	20	36	0	81	0	20	13	2	0	35	0	0	6	1	0	7	0	8	124	106	0	238	0	361
7:45AM	29	20	38	0	87	0	38	9	0	0	47	0	0	3	1	0	4	0	13	140	92	0	245	0	383
8:00AM	29	32	33	0	94	0	33	14	6	0	53	0	0	5	1	0	6	0	11	109	91	0	211	0	364
Total	98	83	146	0	327	0	124	40	9	0	173	0	0	24	4	0	28	0	43	489	374	0	906	0	1434
% Approach	30.0%	25.4%	44.6%	0%	-	-	71.7%	23.1%	5.2%	0%	-	-	0%	85.7%	14.3%	0%	-	-	4.7%	54.0%	41.3%	0%	-	-	-
% Total	6.8%	5.8%	10.2%	0%	22.8%	-	8.6%	2.8%	0.6%	0%	12.1%	-	0%	1.7%	0.3%	0%	2.0%	-	3.0%	34.1%	26.1%	0%	63.2%	-	-
PHF	0.845	0.648	0.936	-	0.870	-	0.816	0.714	0.375	-	0.816	-	-	0.600	1.000	-	0.636	-	0.827	0.873	0.882	-	0.924	-	0.936
Lights	95	71	140	0	306	-	108	36	6	0	150	-	0	7	2	0	9	-	40	484	367	0	891	-	1356
% Lights	96.9%	85.5%	95.9%	0%	93.6%	-	87.1%	90.0%	66.7%	0%	86.7%	-	0%	29.2%	50.0%	0%	32.1%	-	93.0%	99.0%	98.1%	0%	98.3%	-	94.6%
Articulated Trucks	0	4	3	0	7	-	2	0	2	0	4	-	0	3	0	0	3	-	1	2	0	0	3	-	17
% Articulated Trucks	0%	4.8%	2.1%	0%	2.1%	-	1.6%	0%	22.2%	0%	2.3%	-	0%	12.5%	0%	0%	10.7%	-	2.3%	0.4%	0%	0%	0.3%	-	1.2%
Buses and Single-Unit Trucks	3	8	3	0	14	-	14	4	1	0	19	-	0	14	2	0	16	-	2	3	7	0	12	-	61
% Buses and Single-Unit Trucks	3.1%	9.6%	2.1%	0%	4.3%	-	11.3%	10.0%	11.1%	0%	11.0%	-	0%	58.3%	50.0%	0%	57.1%	-	4.7%	0.6%	1.9%	0%	1.3%	-	4.3%
pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

1. Mustang Drive at S Main Street - TMC

Tue Apr 30, 2019

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

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

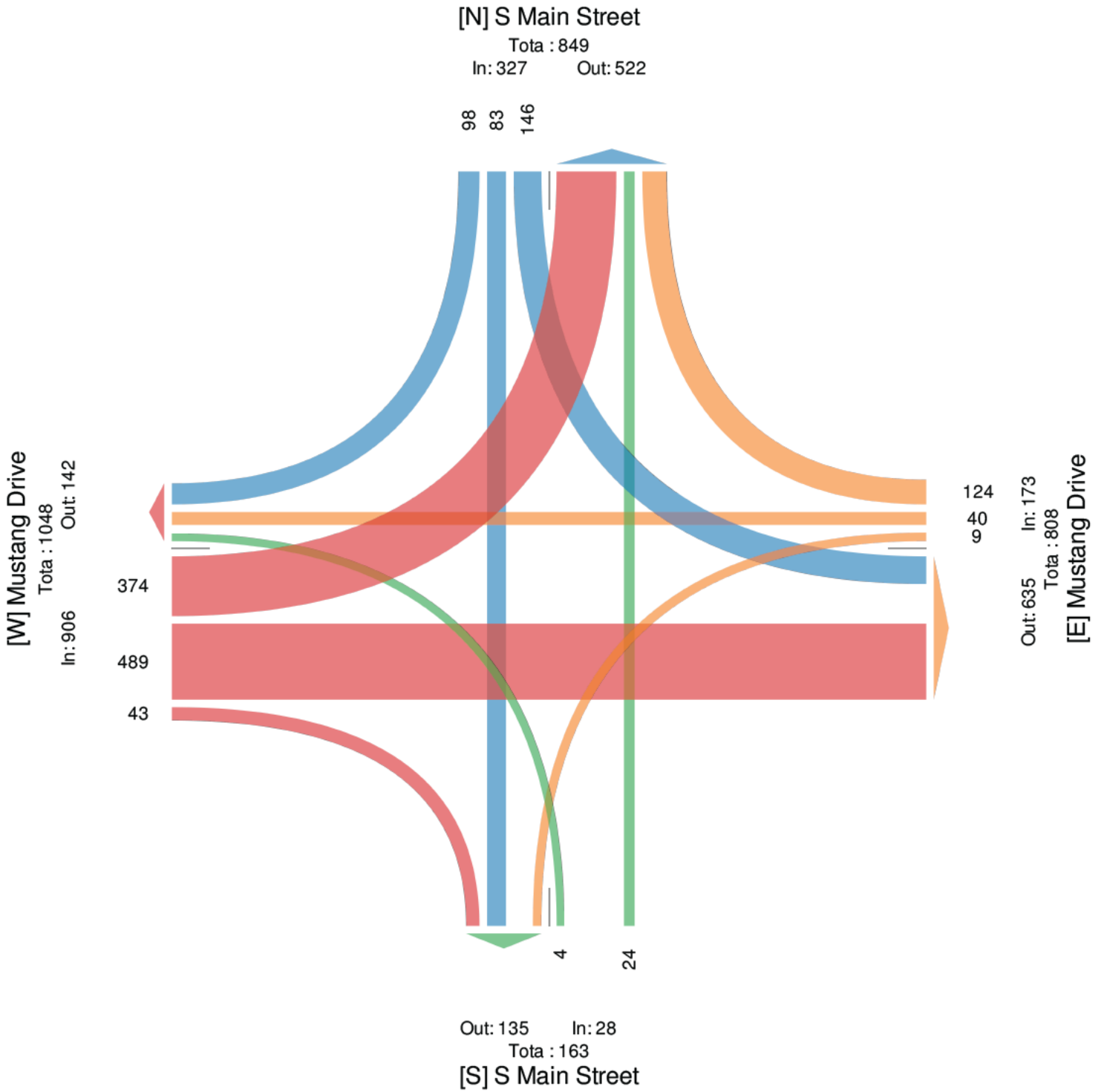
All Movements

ID: 645612, Location: 32.918187, -97.078222



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

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



1. Mustang Drive at S Main Street - TMC

Tue Apr 30, 20 9

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

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

All Movements

ID: 6456 2, Location: 32 9 8 87, 97 078222



Provided by: C J Hensch & Associates Inc
52 5 Sycamore Ave , Pasadena, TX, 77503, US

eg D rect on T me	S Ma n Street Southbound					Mustang Dr ve Westbound					S Ma n Street Northbound					Mustang Dr ve Eastbound					Int
	R	T	U	App	Ped*	R	T	U	App	Ped*	R	T	U	App	Ped*	R	T	U	App	Ped*	
2019-04-30 5:00PM	119	25	46	0	190	98	143	2	0	243	3	33	23	0	59	7	53	52	0	112	604
5:15PM	141	15	33	0	189	75	147	0	0	222	2	10	7	0	19	3	30	41	0	74	504
5:30PM	174	21	27	0	222	96	186	0	1	283	0	12	10	0	22	0	25	39	0	64	591
5:45PM	131	19	31	0	181	74	175	0	1	250	0	10	7	0	17	5	30	40	0	75	523
Total	565	80	137	0	782	343	651	2	2	998	5	65	47	0	117	15	138	172	0	325	2222
% Approach	72.3%	10.2%	17.5%	0%	-	34.4%	65.2%	0.2%	0.2%	-	4.3%	55.6%	40.2%	0%	-	4.6%	42.5%	52.9%	0%	-	-
% Total	25.4%	3.6%	6.2%	0%	35.2%	15.4%	29.3%	0.1%	0.1%	44.9%	0.2%	2.9%	2.1%	0%	5.3%	0.7%	6.2%	7.7%	0%	14.6%	-
PHF	0.812	0.800	0.745	-	0.881	0.875	0.875	0.250	0.500	0.882	0.417	0.492	0.511	-	0.496	0.536	0.651	0.827	-	0.725	0.920
Lights	561	67	130	0	758	329	644	2	2	977	5	53	43	0	101	14	134	168	0	316	2152
% Lights	99.3%	83.8%	94.9%	0%	96.9%	95.9%	98.9%	100%	100%	97.9%	100%	81.5%	91.5%	0%	86.3%	93.3%	97.1%	97.7%	0%	97.2%	96.8%
Articulated Trucks	1	2	2	0	5	7	2	0	0	9	0	7	2	0	9	0	2	0	0	2	25
% Articulate d Trucks	0.2%	2.5%	1.5%	0%	0.6%	2.0%	0.3%	0%	0%	0.9%	0%	10.8%	4.3%	0%	7.7%	0%	1.4%	0%	0%	0.6%	1.1%
Buses and Single-Unit Trucks	3	11	5	0	19	7	5	0	0	12	0	5	2	0	7	1	2	4	0	7	45
% Buses and Single-Unit Trucks	0.5%	13.8%	3.6%	0%	2.4%	2.0%	0.8%	0%	0%	1.2%	0%	7.7%	4.3%	0%	6.0%	6.7%	1.4%	2.3%	0%	2.2%	2.0%
Pedestrans	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0
% Pedestrans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B cyc es on Crosswa k	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0
% B cyc es on Crosswa k	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

1. Mustang Drive at S Main Street - TMC

Tue Apr 30, 2019

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

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

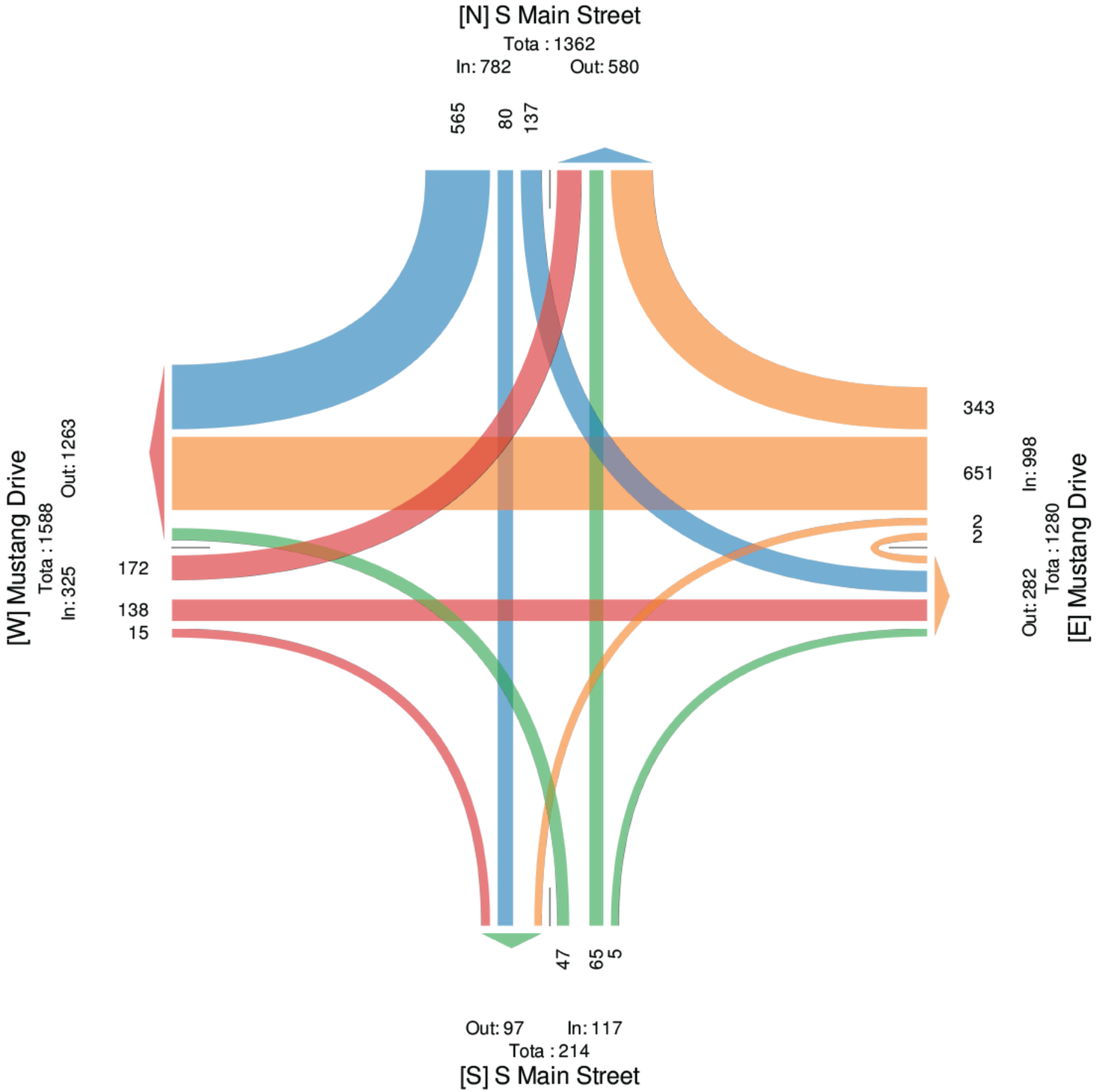
All Movements

ID: 645612, Location: 32.918187, -97.078222



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

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



1. Mustang Drive at S Main Street - TMC

Wed May 1, 2019

Fu Length (7 AM 9 AM, 4 30 PM 6 30 PM)

A C asses (Lights, Articulated Trucks, Buses and Single Unit Trucks, Pedestrians, Bicycles on Crosswalk)

A Movements

ID 645626, Location 32 918197, 97 078384



Provided by C J Hensch & Associates Inc
5215 Sycamore Ave , Pasadena, TX, 77503, US

eg Direction	S Main Street Southbound						Mustang Drive Westbound						S Main Street Northbound						Mustang Drive Eastbound						Int
	R	T	U	App	Ped*		R	T	U	App	Ped*		R	T	U	App	Ped*		R	T	U	App	Ped*		
2019-05-01 7:00AM	77	78	135	0	290	1	140	69	5	0	214	0	2	23	6	0	31	0	54	469	342	0	865	0	1400
8:00AM	98	70	132	0	300	0	124	64	7	0	195	0	1	25	12	0	38	0	52	351	301	0	704	1	1237
4:00PM	145	32	42	0	219	0	136	218	2	1	357	0	2	37	25	0	64	0	4	74	89	0	167	0	807
5:00PM	387	72	147	2	608	0	311	514	7	1	833	0	2	60	39	0	101	0	17	114	186	1	318	0	1860
6:00PM	145	23	44	0	212	0	125	158	1	0	284	0	1	23	10	0	34	0	9	36	55	0	100	0	630
total	852	275	500	2	1629	1	836	1023	22	2	1883	0	8	168	92	0	268	0	136	1044	973	1	2154	1	5934
% Approach	52.3%	16.9%	30.7%	0.1%	-	-	44.4%	54.3%	1.2%	0.1%	-	-	3.0%	62.7%	34.3%	0%	-	-	6.3%	48.5%	45.2%	0%	-	-	-
% total	14.4%	4.6%	8.4%	0%	27.5%	-	14.1%	17.2%	0.4%	0%	31.7%	-	0.1%	2.8%	1.6%	0%	4.5%	-	2.3%	17.6%	16.4%	0%	36.3%	-	-
Lights	837	235	471	2	1545	-	771	998	19	2	1790	-	6	123	84	0	213	-	123	1025	954	1	2103	-	5651
% Lights	98.2%	85.5%	94.2%	100%	94.8%	-	92.2%	97.6%	86.4%	100%	95.1%	-	75.0%	73.2%	91.3%	0%	79.5%	-	90.4%	98.2%	98.0%	100%	97.6%	-	95.2%
Articulated trucks	0	13	8	0	21	-	22	6	0	0	28	-	0	10	5	0	15	-	3	8	1	0	12	-	76
% Articulated trucks	0%	4.7%	1.6%	0%	1.3%	-	2.6%	0.6%	0%	0%	1.5%	-	0%	6.0%	5.4%	0%	5.6%	-	2.2%	0.8%	0.1%	0%	0.6%	-	1.3%
Buses and Single-Unit trucks	15	27	21	0	63	-	43	19	3	0	65	-	2	35	3	0	40	-	10	11	18	0	39	-	207
% Buses and Single-Unit trucks	1.8%	9.8%	4.2%	0%	3.9%	-	5.1%	1.9%	13.6%	0%	3.5%	-	25.0%	20.8%	3.3%	0%	14.9%	-	7.4%	1.1%	1.8%	0%	1.8%	-	3.5%
Pedestrians	-	-	-	-	-	1	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	-	1
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%

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

1. Mustang Drive at S Main Street - TMC

Wed May 1, 2019

Full Length (7 AM-9 AM, 4:30 PM-6:30 PM)

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

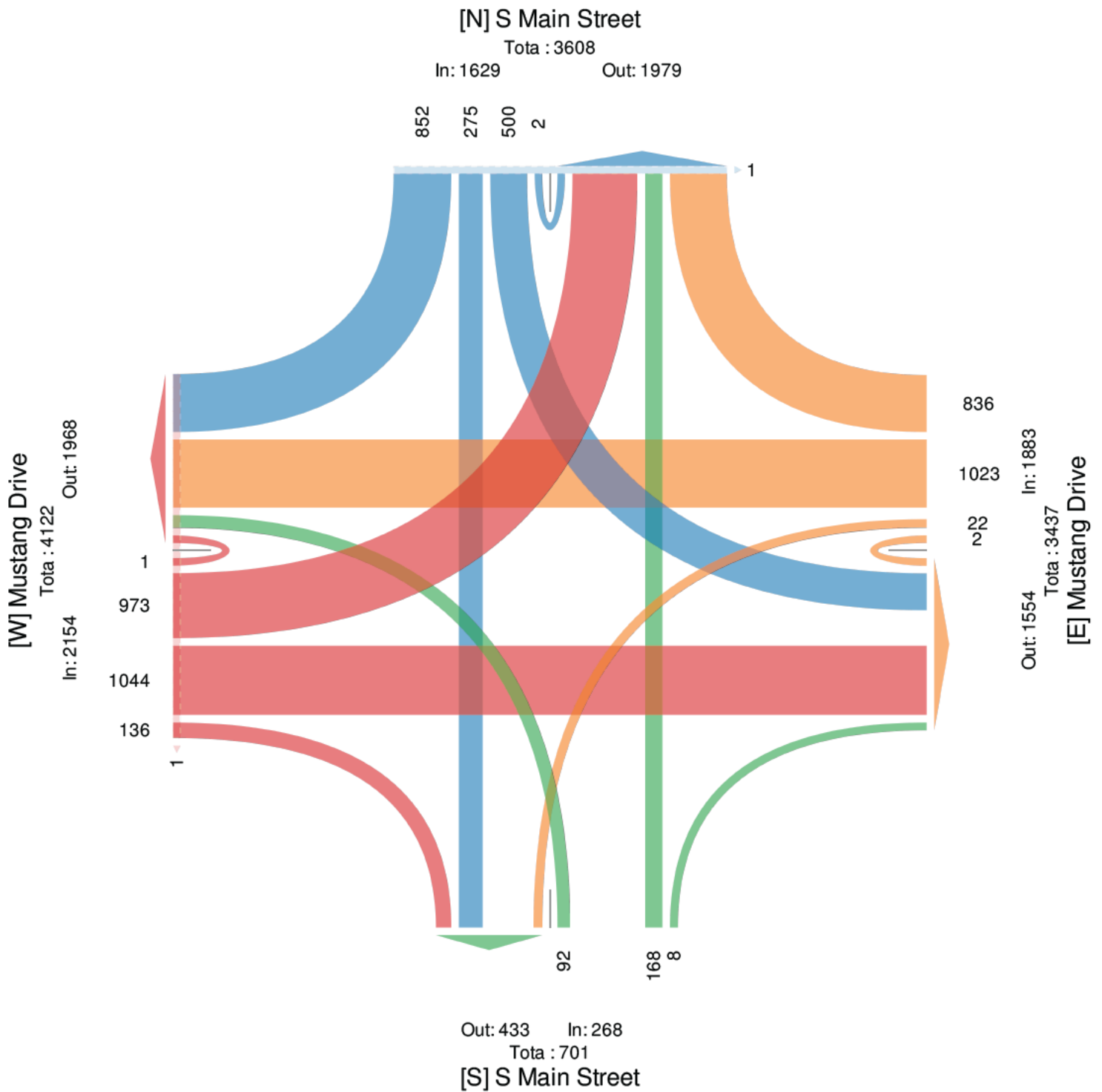
All Movements

ID: 645626, Location: 32.918197, -97.078384



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

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



1. Mustang Drive at S Main Street - TMC

Wed May , 20 9

AM Peak (7: 5 AM 8: 5 AM)

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

All Movements

ID: 645626, Location: 32 9 8 97, 97 078384



Provided by: C J Hensch & Associates Inc
52 5 Sycamore Ave , Pasadena, TX, 77503, US

eg D rect on T me	S Ma n Street Southbound					Mustang Dr ve Westbound					S Ma n Street Northbound					Mustang Dr ve Eastbound					Int				
	R	T	U	App	Ped*	R	T	U	App	Ped*	R	T	U	App	Ped*	R	T	U	App	Ped*					
2019-05-01 7:15AM	15	15	46	0	76	0	36	18	2	0	56	0	1	7	2	0	10	0	9	113	81	0	203	0	345
7:30AM	13	25	39	0	77	0	26	14	1	0	41	0	0	7	0	0	7	0	9	130	104	0	243	0	368
7:45AM	40	19	29	0	88	0	27	19	1	0	47	0	1	4	0	0	5	0	15	136	88	0	239	0	379
8:00AM	21	22	46	0	89	0	27	21	4	0	52	0	0	4	3	0	7	0	13	108	98	0	219	0	367
Total	89	81	160	0	330	0	116	72	8	0	196	0	2	22	5	0	29	0	46	487	371	0	904	0	1459
% Approach	27.0%	24.5%	48.5%	0%	-	-	59.2%	36.7%	4.1%	0%	-	-	6.9%	75.9%	17.2%	0%	-	-	5.1%	53.9%	41.0%	0%	-	-	-
% Total	6.1%	5.6%	11.0%	0%	22.6%	-	8.0%	4.9%	0.5%	0%	13.4%	-	0.1%	1.5%	0.3%	0%	2.0%	-	3.2%	33.4%	25.4%	0%	62.0%	-	-
PHF	0.556	0.810	0.870	-	0.927	-	0.806	0.857	0.500	-	0.875	-	0.500	0.786	0.417	-	0.725	-	0.767	0.895	0.892	-	0.930	-	0.962
Lights	83	74	154	0	311	-	96	62	7	0	165	-	2	7	4	0	13	-	43	481	362	0	886	-	1375
% Lights	93.3%	91.4%	96.3%	0%	94.2%	-	82.8%	86.1%	87.5%	0%	84.2%	-	100%	31.8%	80.0%	0%	44.8%	-	93.5%	98.8%	97.6%	0%	98.0%	-	94.2%
Articulate d Trucks	0	2	2	0	4	-	1	1	0	0	2	-	0	2	0	0	2	-	0	2	0	0	2	-	10
% Articulate d Trucks	0%	2.5%	1.3%	0%	1.2%	-	0.9%	1.4%	0%	0%	1.0%	-	0%	9.1%	0%	0%	6.9%	-	0%	0.4%	0%	0%	0.2%	-	0.7%
Buses and Single-Unit Trucks	6	5	4	0	15	-	19	9	1	0	29	-	0	13	1	0	14	-	3	4	9	0	16	-	74
% Buses and Single-Unit Trucks	6.7%	6.2%	2.5%	0%	4.5%	-	16.4%	12.5%	12.5%	0%	14.8%	-	0%	59.1%	20.0%	0%	48.3%	-	6.5%	0.8%	2.4%	0%	1.8%	-	5.1%
Pedestr ans	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	-	0
% Pedestr ans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B cyc es on Crosswa k	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	-	0
% B cyc es on Crosswa k	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

1. Mustang Drive at S Main Street - TMC

Wed May 1, 2019

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

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

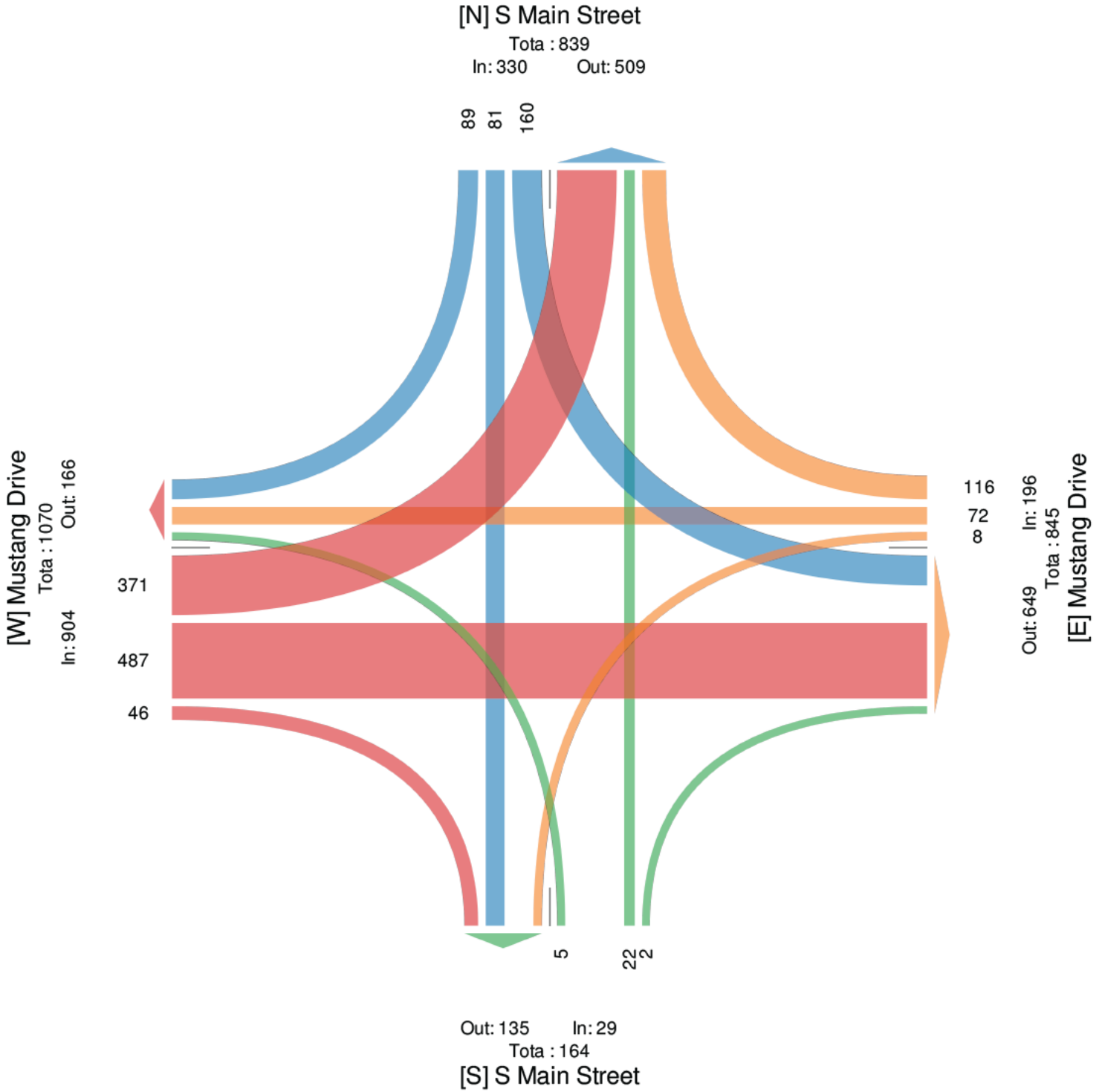
All Movements

ID: 645626, Location: 32.918197, -97.078384



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

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



1. Mustang Drive at S Main Street - TMC

Wed May 1, 2019

PM Peak (5 PM - 6 PM) Over a Peak Hour

Accesses (Lights, Articulated Trucks, Buses and Single Unit Trucks, Pedestrians, Bicycles on Crosswalk)

Access Movements

ID: 645626, Location: 32 918197, 97 078384



Provided by: C J Hensch & Associates Inc
5215 Sycamore Ave, Pasadena, TX, 77503, US

Direction	S Main Street Southbound					Mustang Drive Westbound					S Main Street Northbound					Mustang Drive Eastbound					Int				
	R	T	U	App	Ped*	R	T	U	App	Ped*	R	T	U	App	Ped*	R	T	U	App	Ped*					
2019-05-01 5:00PM	101	18	39	0	158	0	84	124	3	0	211	0	2	17	19	0	38	0	3	33	45	1	82	0	489
5:15PM	94	21	44	0	159	0	81	158	1	0	240	0	0	15	6	0	21	0	6	32	48	0	86	0	506
5:30PM	82	16	31	2	131	0	88	130	2	1	221	0	0	18	9	0	27	0	2	24	49	0	75	0	454
5:45PM	110	17	33	0	160	0	58	102	1	0	161	0	0	10	5	0	15	0	6	25	44	0	75	0	411
total	387	72	147	2	608	0	311	514	7	1	833	0	2	60	39	0	101	0	17	114	186	1	318	0	1860
% Approach	63.7%	11.8%	24.2%	0.3%	-	-	37.3%	61.7%	0.8%	0.1%	-	-	2.0%	59.4%	38.6%	0%	-	-	5.3%	35.8%	58.5%	0.3%	-	-	-
% total	20.8%	3.9%	7.9%	0.1%	32.7%	-	16.7%	27.6%	0.4%	0.1%	44.8%	-	0.1%	3.2%	2.1%	0%	5.4%	-	0.9%	6.1%	10.0%	0.1%	17.1%	-	-
PHF	0.880	0.857	0.835	0.250	0.950	-	0.884	0.813	0.583	0.250	0.868	-	0.250	0.833	0.513	-	0.664	-	0.708	0.864	0.949	0.250	0.924	-	0.919
Lights	385	55	136	2	578	-	301	513	6	1	821	-	2	51	37	0	90	-	13	110	184	1	308	-	1797
% Lights	99.5%	76.4%	92.5%	100%	95.1%	-	96.8%	99.8%	85.7%	100%	98.6%	-	100%	85.0%	94.9%	0%	89.1%	-	76.5%	96.5%	98.9%	100%	96.9%	-	96.6%
Articulated trucks	0	7	4	0	11	-	5	0	0	0	5	-	0	2	2	0	4	-	0	2	0	0	2	-	22
% Articulated trucks	0%	9.7%	2.7%	0%	1.8%	-	1.6%	0%	0%	0%	0.6%	-	0%	3.3%	5.1%	0%	4.0%	-	0%	1.8%	0%	0%	0.6%	-	1.2%
Buses and Single-Unit trucks	2	10	7	0	19	-	5	1	1	0	7	-	0	7	0	0	7	-	4	2	2	0	8	-	41
% Buses and Single-Unit trucks	0.5%	13.9%	4.8%	0%	3.1%	-	1.6%	0.2%	14.3%	0%	0.8%	-	0%	11.7%	0%	0%	6.9%	-	23.5%	1.8%	1.1%	0%	2.5%	-	2.2%
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

1. Mustang Drive at S Main Street - TMC

Wed May 1, 2019

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

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

All Movements

ID: 645626, Location: 32.918197, -97.078384



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

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

[N] S Main Street

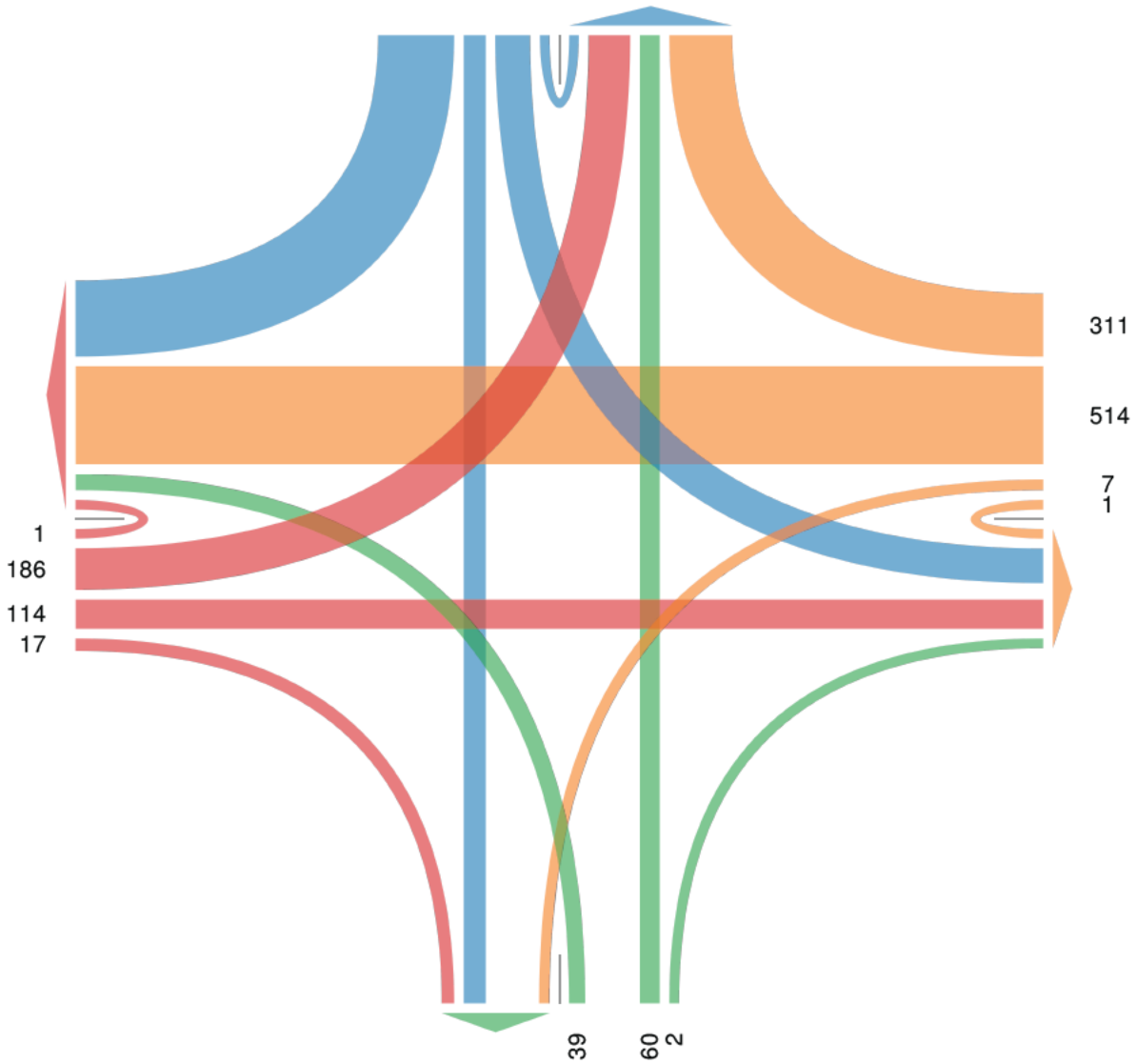
Tota : 1167

In: 608

Out: 559

387
72
147
2

[W] Mustang Drive
Tota : 1259
In: 318
Out: 941



[E] Mustang Drive
Out: 264
Tota : 1097
In: 833

Out: 96
Tota : 197
In: 101
[S] S Main Street

2. W Airfield Drive at N Airfield Drive - TMC

Tue May 7, 2019

Full Length (7 AM-9 AM, 4:30 PM-6:30 PM)

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

All Movements

ID: 645627, Location: 32.917649, -97.067712



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	N Airfield Drive Westbound					W Airfield Drive Northbound					Mustang Drive Eastbound					Int
	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	
2019 05 07 7 00AM	88	394	0	482	0	497	133	0	630	0	137	408	2	547	0	1659
8 00AM	111	449	1	561	0	357	125	1	483	0	133	283	2	418	0	1462
4 00PM	203	288	0	491	0	160	133	0	293	0	70	48	0	118	0	902
5 00PM	539	623	0	1162	0	365	268	0	633	0	158	125	2	285	0	2080
6 00PM	166	200	1	367	0	130	110	0	240	0	55	36	1	92	0	699
Total	1107	1954	2	3063	0	1509	769	1	2279	0	553	900	7	1460	0	6802
% Approach	36.1%	63.8%	0.1%	-	-	66.2%	33.7%	0%	-	-	37.9%	61.6%	0.5%	-	-	-
% Total	16.3%	28.7%	0%	45.0%	-	22.2%	11.3%	0%	33.5%	-	8.1%	13.2%	0.1%	21.5%	-	-
Lights	1064	1738	2	2804	-	1354	711	1	2066	-	520	860	6	1386	-	6256
% Lights	96.1%	88.9%	100%	91.5%	-	89.7%	92.5%	100%	90.7%	-	94.0%	95.6%	85.7%	94.9%	-	92.0%
Articulated Trucks	16	77	0	93	-	48	20	0	68	-	12	13	0	25	-	186
% Articulated Trucks	1.4%	3.9%	0%	3.0%	-	3.2%	2.6%	0%	3.0%	-	2.2%	1.4%	0%	1.7%	-	2.7%
Buses and Single-Unit Trucks	27	139	0	166	-	107	38	0	145	-	21	27	1	49	-	360
% Buses and Single-Unit Trucks	2.4%	7.1%	0%	5.4%	-	7.1%	4.9%	0%	6.4%	-	3.8%	3.0%	14.3%	3.4%	-	5.3%
Pedestrians					0					0						0
% Pedestrians																
Bicycles on Crosswalk					0					0						0
% Bicycles on Crosswalk																

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

2. W Airfield Drive at N Airfield Drive - TMC

Tue May 7, 2019

Full Length (7 AM-9 AM, 4:30 PM-6:30 PM)

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

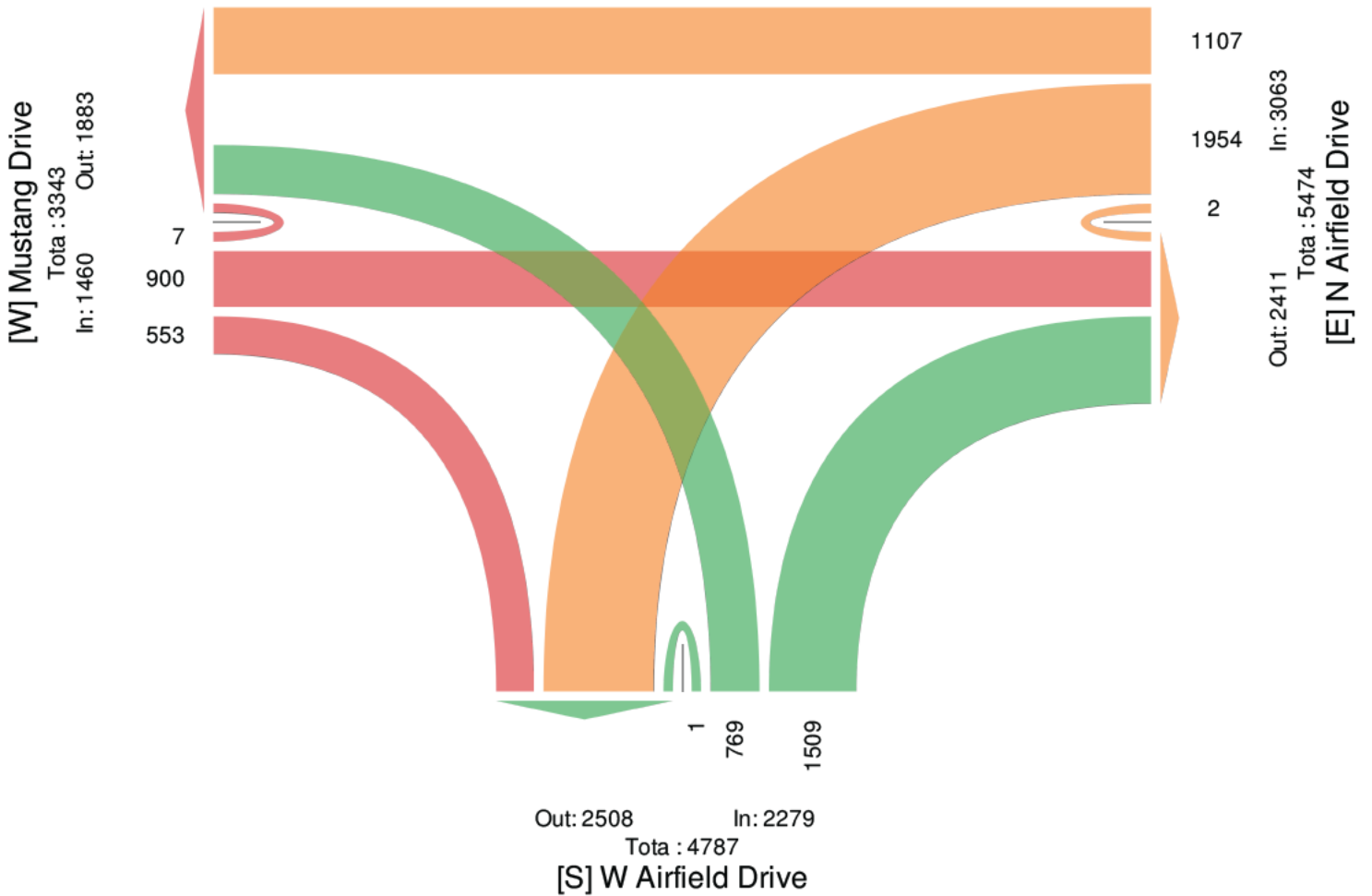
All Movements

ID: 645627, Location: 32.917649, -97.067712



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

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



2. W Airfield Drive at N Airfield Drive - TMC

Tue May 7, 2019

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

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

All Movements

ID: 645627, Location: 32.917649, -97.067712



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	N Airfield Drive Westbound					W Airfield Drive Northbound					Mustang Drive Eastbound					
Time	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	Int
2019 05 07 7 15AM	22	79	0	101	0	100	26	0	126	0	36	110	0	146	0	373
7 30AM	23	109	0	132	0	140	30	0	170	0	33	126	2	161	0	463
7 45AM	29	121	0	150	0	153	36	0	189	0	47	104	0	151	0	490
8 00AM	26	114	0	140	0	108	41	1	150	0	33	88	1	122	0	412
Total	100	423	0	523	0	501	133	1	635	0	149	428	3	580	0	1738
% Approach	19.1%	80.9%	0%	-	-	78.9%	20.9%	0.2%	-	-	25.7%	73.8%	0.5%	-	-	
% Total	5.8%	24.3%	0%	30.1%		28.8%	7.7%	0.1%	36.5%		8.6%	24.6%	0.2%	33.4%		
PHF	0.862	0.874		0.872		0.819	0.811	0.250	0.840		0.793	0.849	0.375	0.901		0.887
Lights	91	392	0	483		480	117	1	598		143	423	3	569		1650
% Lights	91.0%	92.7%	0%	92.4%		95.8%	88.0%	100%	94.2%		96.0%	98.8%	100%	98.1%		94.9%
Articulated Trucks	4	16	0	20		5	2	0	7		1	0	0	1		28
% Articulated Trucks	4.0%	3.8%	0%	3.8%		1.0%	1.5%	0%	1.1%		0.7%	0%	0%	0.2%		1.6%
Buses and Single-Unit Trucks	5	15	0	20		16	14	0	30		5	5	0	10		60
% Buses and Single-Unit Trucks	5.0%	3.5%	0%	3.8%		3.2%	10.5%	0%	4.7%		3.4%	1.2%	0%	1.7%		3.5%
Pedestrians					0					0					0	
% Pedestrians																
Bicycles on Crosswalk					0					0					0	
% Bicycles on Crosswalk																

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

2. W Airfield Drive at N Airfield Drive - TMC

Tue May 7, 2019

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

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

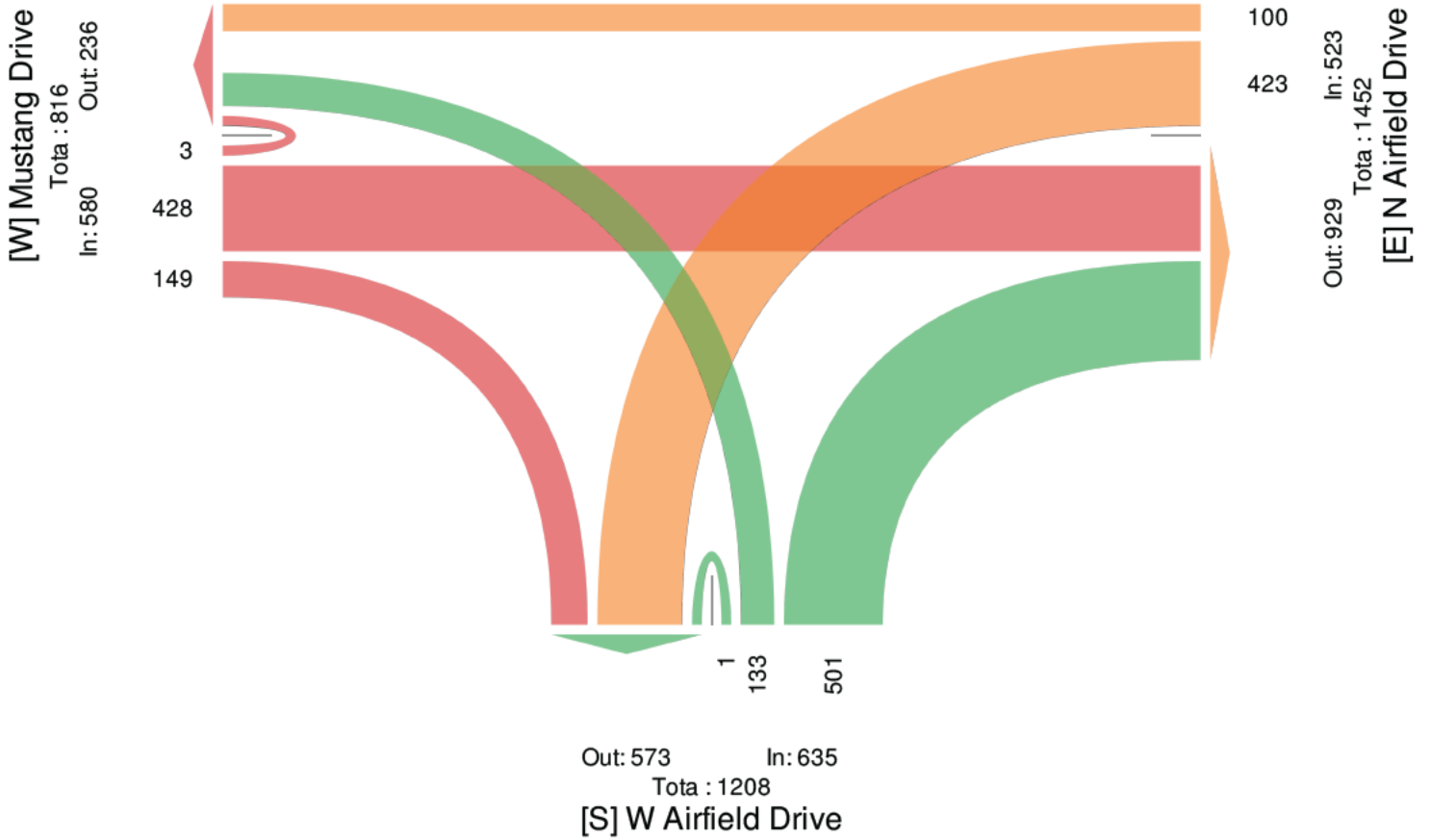
All Movements

ID: 645627, Location: 32.917649, -97.067712



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

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



2. W Airfield Drive at N Airfield Drive - TMC

Tue May 7, 2019

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

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

All Movements

ID: 645627, Location: 32.917649, -97.067712



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	N Airfield Drive Westbound					W Airfield Drive Northbound					Mustang Drive Eastbound					
Time	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	Int
2019 05 07 4 45PM	111	149	0	260	0	77	61	0	138	0	36	25	0	61	0	459
5 00PM	151	167	0	318	0	124	80	0	204	0	50	43	0	93	0	615
5 15PM	143	166	0	309	0	89	78	0	167	0	30	34	1	65	0	541
5 30PM	124	162	0	286	0	87	60	0	147	0	39	20	0	59	0	492
Total	529	644	0	1173	0	377	279	0	656	0	155	122	1	278	0	2107
% Approach	45.1%	54.9%	0%	-	-	57.5%	42.5%	0%	-	-	55.8%	43.9%	0.4%	-	-	
% Total	25.1%	30.6%	0%	55.7%		17.9%	13.2%	0%	31.1%		7.4%	5.8%	0%	13.2%		
PHF	0.876	0.964		0.922		0.760	0.872		0.804		0.775	0.709	0.250	0.747		0.857
Lights	515	574	0	1089		328	266	0	594		148	111	1	260		1943
% Lights	97.4%	89.1%	0%	92.8%		87.0%	95.3%	0%	90.5%		95.5%	91.0%	100%	93.5%		92.2%
Articulated Trucks	4	26	0	30		17	4	0	21		4	5	0	9		60
% Articulated Trucks	0.8%	4.0%	0%	2.6%		4.5%	1.4%	0%	3.2%		2.6%	4.1%	0%	3.2%		2.8%
Buses and Single-Unit Trucks	10	44	0	54		32	9	0	41		3	6	0	9		104
% Buses and Single-Unit Trucks	1.9%	6.8%	0%	4.6%		8.5%	3.2%	0%	6.3%		1.9%	4.9%	0%	3.2%		4.9%
Pedestrians					0					0					0	
% Pedestrians																
Bicycles on Crosswalk					0					0					0	
% Bicycles on Crosswalk																

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

2. W Airfield Drive at N Airfield Drive - TMC

Tue May 7, 2019

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

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

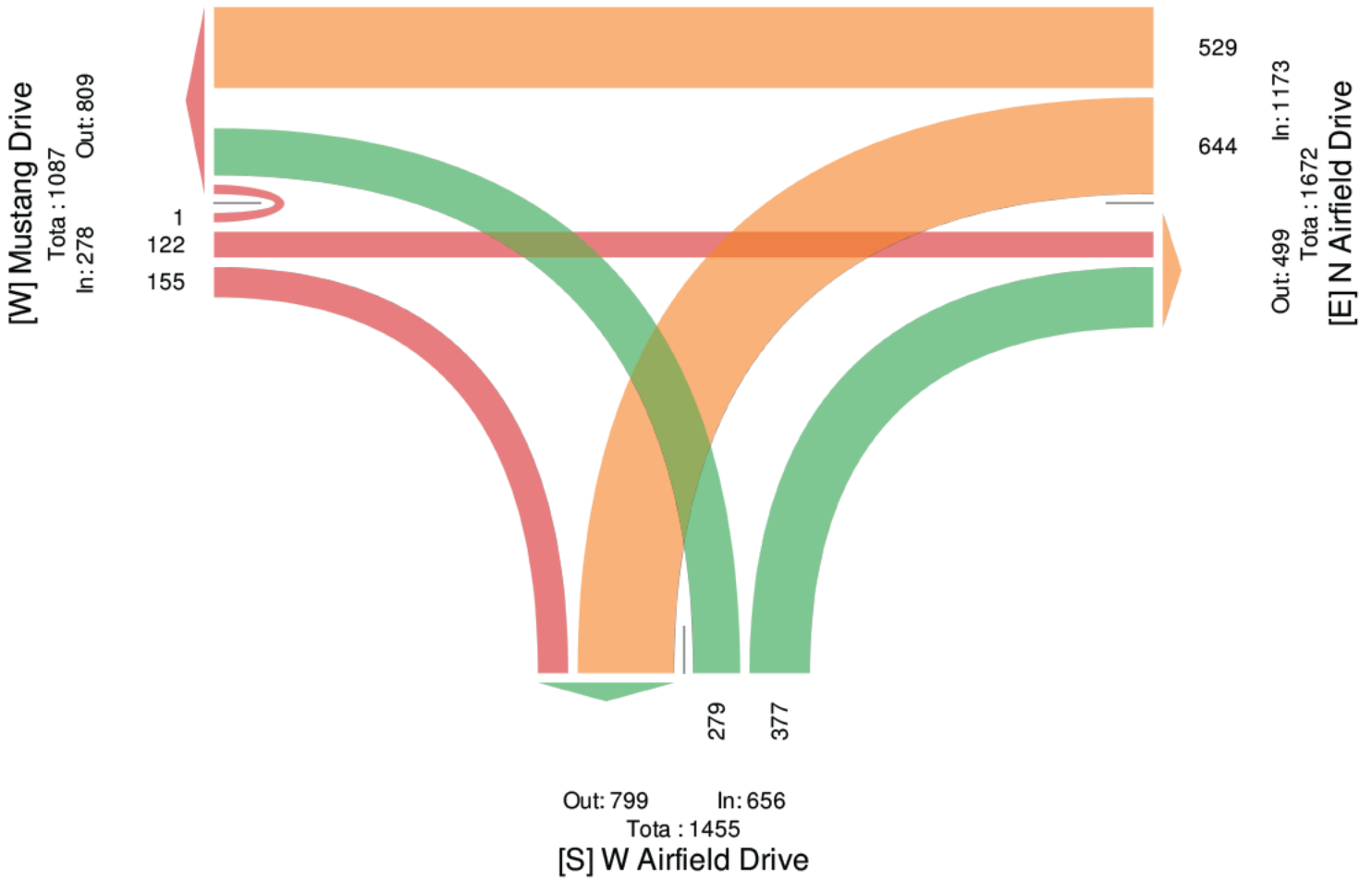
All Movements

ID: 645627, Location: 32.917649, -97.067712



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

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



2. W Airfield Drive at N Airfield Drive (Day... - TMC

Tue May 7, 2019

Full Length (7 AM-9 AM)

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

All Movements

ID: 652240, Location: 32.917595, -97.06768, Site Code: 2



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	N Airfield Drive Westbound					W Airfield Drive Northbound					Mustang Drive Eastbound					Int
	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	
2019 05 07 7 00AM	88	396	0	484	0	497	133	0	630	0	137	397	2	536	0	1650
8 00AM	105	445	1	551	0	355	107	0	462	0	133	289	2	424	0	1437
Total	193	841	1	1035	0	852	240	0	1092	0	270	686	4	960	0	3087
% Approach	18.6%	81.3%	0.1%	-	-	78.0%	22.0%	0%	-	-	28.1%	71.5%	0.4%	-	-	
% Total	6.3%	27.2%	0%	33.5%		27.6%	7.8%	0%	35.4%		8.7%	22.2%	0.1%	31.1%		
Lights	177	758	1	936		799	213	0	1012		254	668	4	926		2874
% Lights	91.7%	90.1%	100%	90.4%		93.8%	88.8%	0%	92.7%		94.1%	97.4%	100%	96.5%		93.1%
Articulated Trucks	7	30	0	37		14	8	0	22		3	4	0	7		66
% Articulated Trucks	3.6%	3.6%	0%	3.6%		1.6%	3.3%	0%	2.0%		1.1%	0.6%	0%	0.7%		2.1%
Buses and Single-Unit Trucks	9	53	0	62		39	19	0	58		13	14	0	27		147
% Buses and Single-Unit Trucks	4.7%	6.3%	0%	6.0%		4.6%	7.9%	0%	5.3%		4.8%	2.0%	0%	2.8%		4.8%
Pedestrians					0					0						0
% Pedestrians																
Bicycles on Crosswalk					0					0						0
% Bicycles on Crosswalk																

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

2. W Airfield Drive at N Airfield Drive (Day... - TMC

Tue May 7, 2019

Full Length (7 AM-9 AM)

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

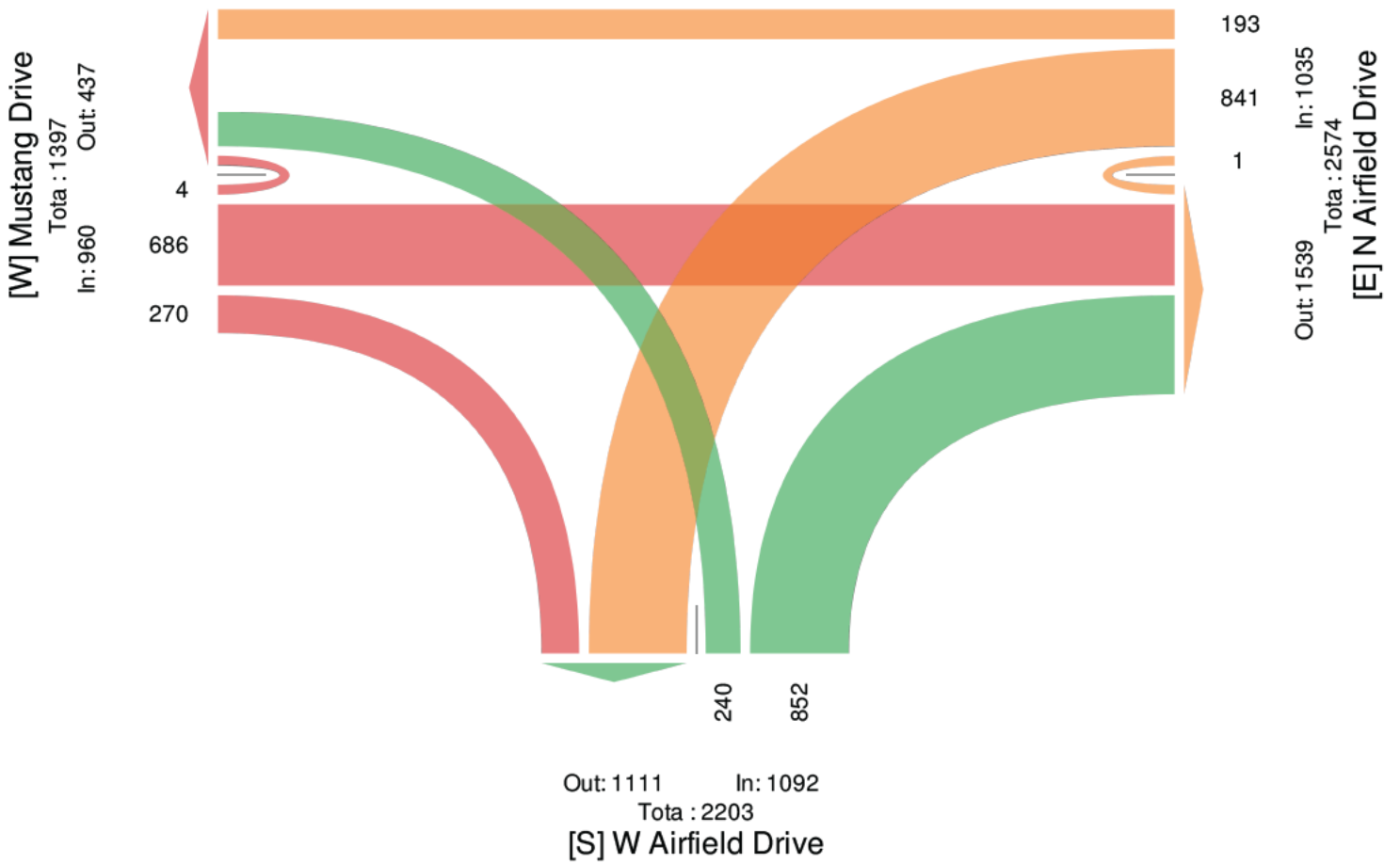
All Movements

ID: 652240, Location: 32.917595, -97.06768, Site Code: 2



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

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



2. W Airfield Drive at N Airfield Drive (Day... - TMC

Tue May 7, 2019

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

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

All Movements

ID: 652240, Location: 32.917595, -97.06768, Site Code: 2



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	N Airfield Drive Westbound					W Airfield Drive Northbound					Mustang Drive Eastbound					Int
	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	
2019 05 07 7 15AM	22	80	0	102	0	101	26	0	127	0	35	108	0	143	0	372
7 30AM	23	109	0	132	0	138	30	0	168	0	33	119	2	154	0	454
7 45AM	29	122	0	151	0	153	36	0	189	0	47	102	0	149	0	489
8 00AM	25	114	0	139	0	108	41	0	149	0	32	91	1	124	0	412
Total	99	425	0	524	0	500	133	0	633	0	147	420	3	570	0	1727
% Approach	18.9%	81.1%	0%	-	-	79.0%	21.0%	0%	-	-	25.8%	73.7%	0.5%	-	-	
% Total	5.7%	24.6%	0%	30.3%		29.0%	7.7%	0%	36.7%		8.5%	24.3%	0.2%	33.0%		
PHF	0.853	0.871		0.868		0.817	0.811		0.837		0.782	0.882	0.375	0.925		0.883
Lights	90	394	0	484		478	117	0	595		141	415	3	559		1638
% Lights	90.9%	92.7%	0%	92.4%		95.6%	88.0%	0%	94.0%		95.9%	98.8%	100%	98.1%		94.8%
Articulated Trucks	5	16	0	21		5	2	0	7		1	0	0	1		29
% Articulated Trucks	5.1%	3.8%	0%	4.0%		1.0%	1.5%	0%	1.1%		0.7%	0%	0%	0.2%		1.7%
Buses and Single-Unit Trucks	4	15	0	19		17	14	0	31		5	5	0	10		60
% Buses and Single-Unit Trucks	4.0%	3.5%	0%	3.6%		3.4%	10.5%	0%	4.9%		3.4%	1.2%	0%	1.8%		3.5%
Pedestrians					0					0					0	
% Pedestrians																
Bicycles on Crosswalk					0					0					0	
% Bicycles on Crosswalk																

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

2. W Airfield Drive at N Airfield Drive (Day... - TMC

Tue May 7, 2019

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

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

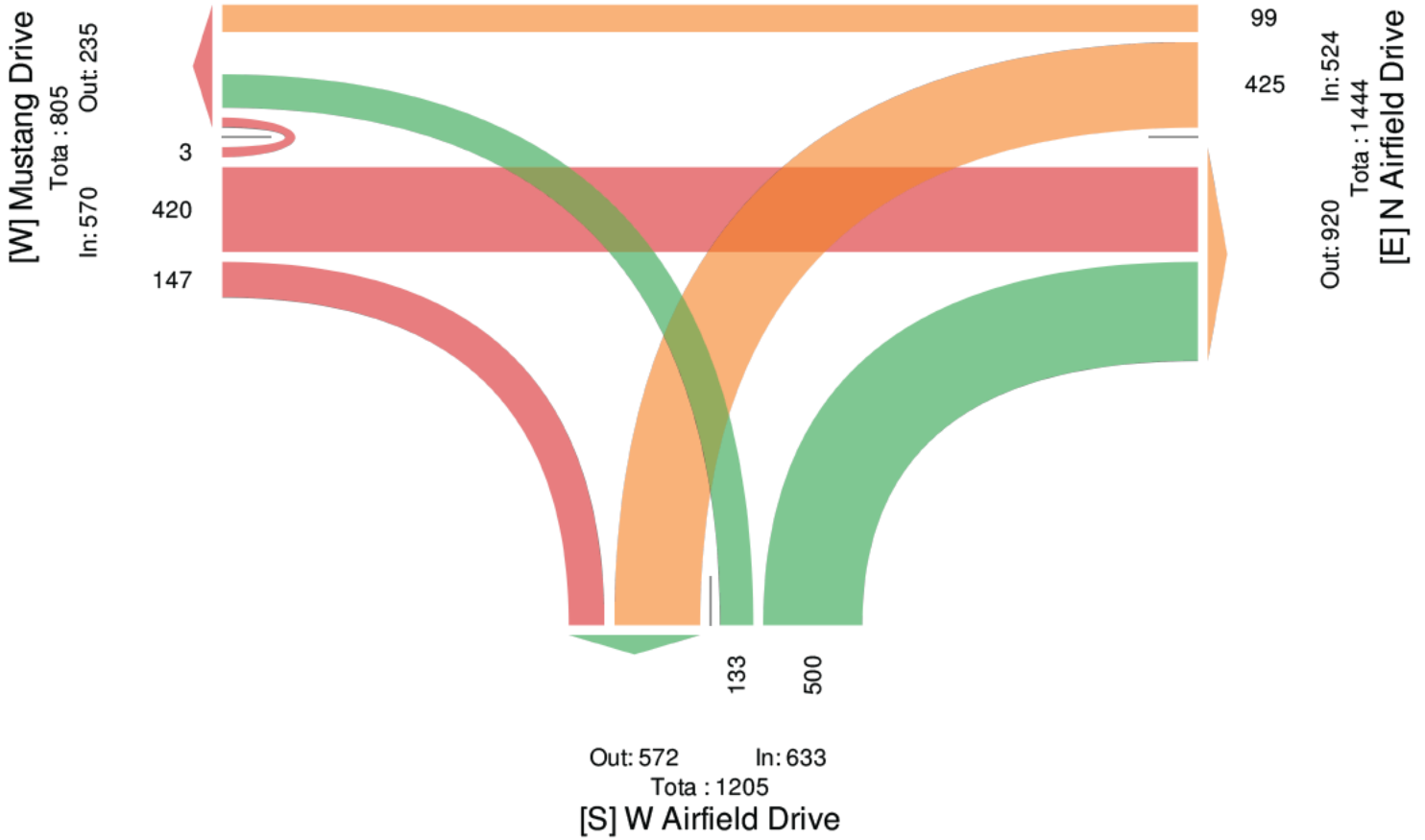
All Movements

ID: 652240, Location: 32.917595, -97.06768, Site Code: 2



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

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



2. W Airfield Drive at N Airfield Drive (Day... - TMC

Wed May 8, 2019

Full Length (4:30 PM-6:30 PM)

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

All Movements

ID: 645613, Location: 32.917595, -97.06768



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	N Airfield Drive Westbound					W Airfield Drive Northbound					Mustang Drive Eastbound					
Time	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	Int
2019 05 08 4 00PM	189	264	0	453	0	144	114	0	258	0	73	46	0	119	0	830
5 00PM	451	563	0	1014	0	343	298	0	641	0	154	117	3	274	0	1929
6 00PM	128	169	0	297	0	131	108	0	239	0	49	37	1	87	0	623
Total	768	996	0	1764	0	618	520	0	1138	0	276	200	4	480	0	3382
% Approach	43.5%	56.5%	0%	-	-	54.3%	45.7%	0%	-	-	57.5%	41.7%	0.8%	-	-	
% Total	22.7%	29.5%	0%	52.2%		18.3%	15.4%	0%	33.6%		8.2%	5.9%	0.1%	14.2%		
Lights	734	870	0	1604		531	473	0	1004		261	184	4	449		3057
% Lights	95.6%	87.3%	0%	90.9%		85.9%	91.0%	0%	88.2%		94.6%	92.0%	100%	93.5%		90.4%
Articulated Trucks	10	53	0	63		25	23	0	48		9	5	0	14		125
% Articulated Trucks	1.3%	5.3%	0%	3.6%		4.0%	4.4%	0%	4.2%		3.3%	2.5%	0%	2.9%		3.7%
Buses and Single-Unit Trucks	24	73	0	97		62	24	0	86		6	11	0	17		200
% Buses and Single-Unit Trucks	3.1%	7.3%	0%	5.5%		10.0%	4.6%	0%	7.6%		2.2%	5.5%	0%	3.5%		5.9%
Pedestrians					0					0						0
% Pedestrians																
Bicycles on Crosswalk					0					0						0
% Bicycles on Crosswalk																

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

2. W Airfield Drive at N Airfield Drive (Day... - TMC

Wed May 8, 2019

Full Length (4:30 PM-6:30 PM)

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

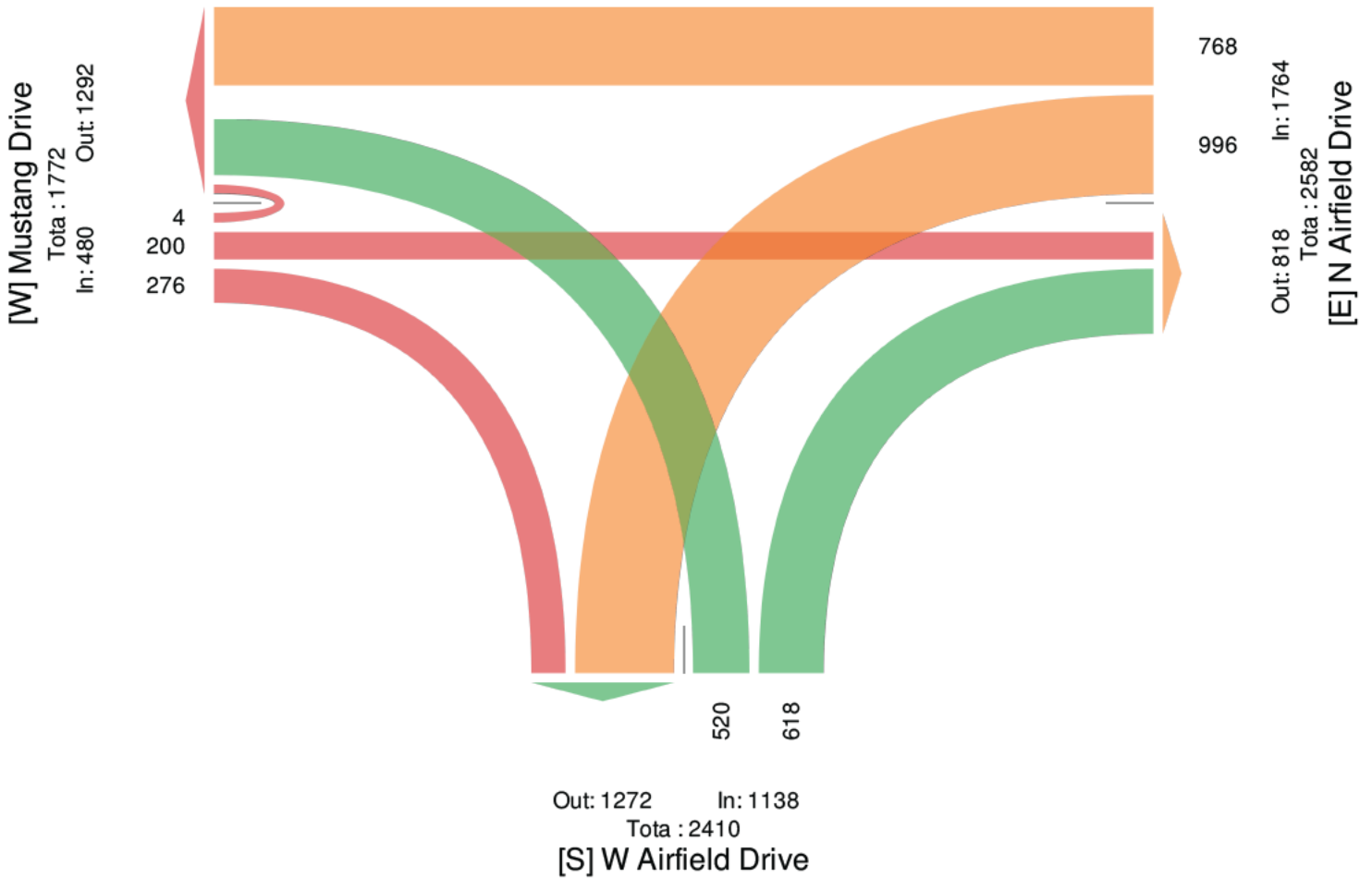
All Movements

ID: 645613, Location: 32.917595, -97.06768



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

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



2. W Airfield Drive at N Airfield Drive (Day... - TMC

Wed May 8, 2019

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

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

All Movements

ID: 645613, Location: 32.917595, -97.06768



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	N Airfield Drive Westbound					W Airfield Drive Northbound					Mustang Drive Eastbound					Int
	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	
2019 05 08 4 45PM	108	148	0	256	0	71	53	0	124	0	41	28	0	69	0	449
5 00PM	120	147	0	267	0	101	106	0	207	0	47	37	0	84	0	558
5 15PM	114	154	0	268	0	98	71	0	169	0	46	33	0	79	0	516
5 30PM	122	142	0	264	0	78	59	0	137	0	35	31	2	68	0	469
Total	464	591	0	1055	0	348	289	0	637	0	169	129	2	300	0	1992
% Approach	44.0%	56.0%	0%	-	-	54.6%	45.4%	0%	-	-	56.3%	43.0%	0.7%	-	-	-
% Total	23.3%	29.7%	0%	53.0%	-	17.5%	14.5%	0%	32.0%	-	8.5%	6.5%	0.1%	15.1%	-	-
PHF	0.951	0.959	0	0.984	0	0.861	0.682	0	0.769	0	0.899	0.872	0.250	0.893	0	0.892
Lights	451	518	0	969	0	311	272	0	583	0	161	121	2	284	0	1836
% Lights	97.2%	87.6%	0%	91.8%	0%	89.4%	94.1%	0%	91.5%	0%	95.3%	93.8%	100%	94.7%	0%	92.2%
Articulated Trucks	3	27	0	30	0	11	8	0	19	0	5	4	0	9	0	58
% Articulated Trucks	0.6%	4.6%	0%	2.8%	0%	3.2%	2.8%	0%	3.0%	0%	3.0%	3.1%	0%	3.0%	0%	2.9%
Buses and Single-Unit Trucks	10	46	0	56	0	26	9	0	35	0	3	4	0	7	0	98
% Buses and Single-Unit Trucks	2.2%	7.8%	0%	5.3%	0%	7.5%	3.1%	0%	5.5%	0%	1.8%	3.1%	0%	2.3%	0%	4.9%
Pedestrians					0					0					0	
% Pedestrians																
Bicycles on Crosswalk					0					0					0	
% Bicycles on Crosswalk																

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

2. W Airfield Drive at N Airfield Drive (Day... - TMC

Wed May 8, 2019

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

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

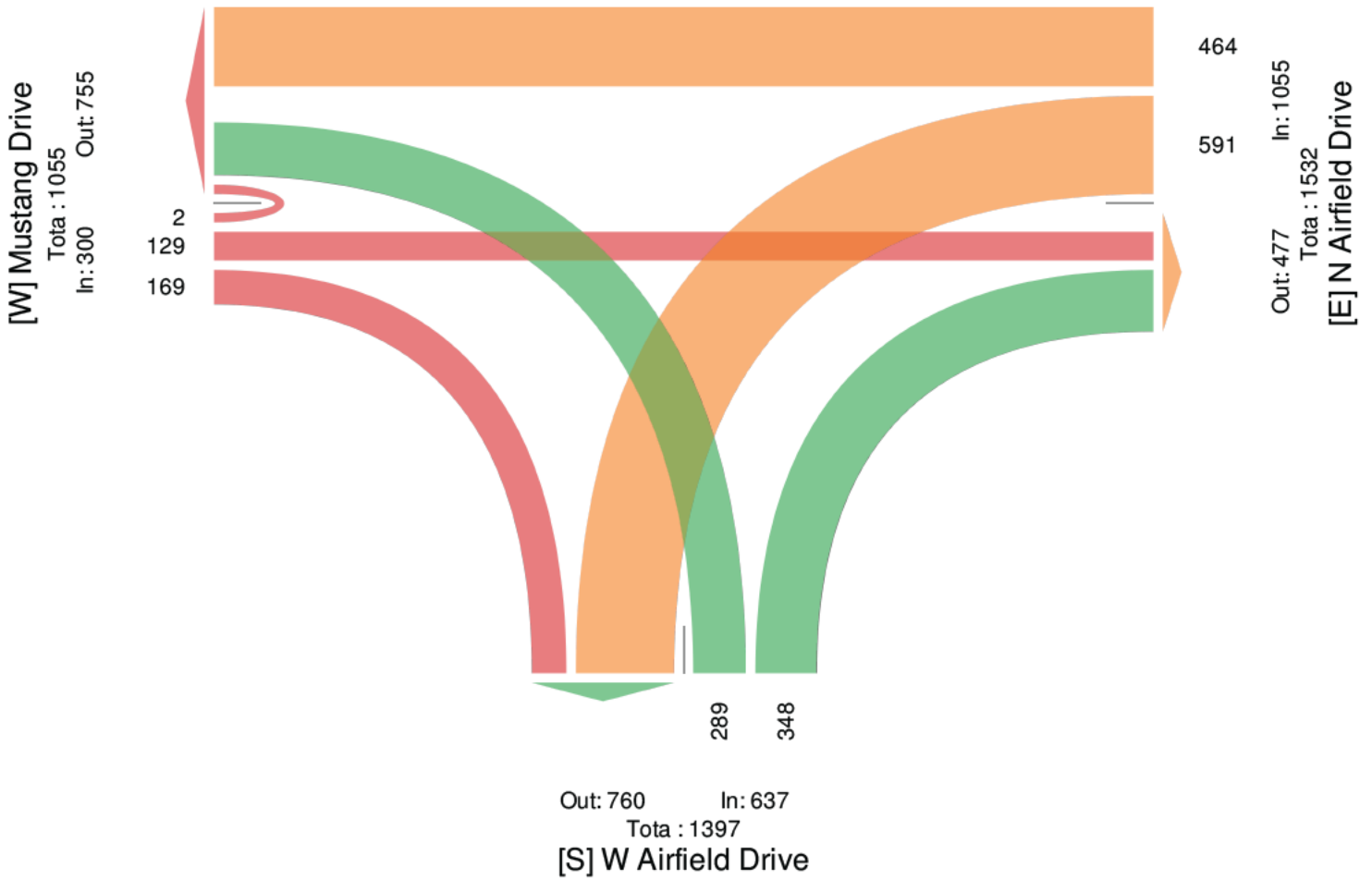
All Movements

ID: 645613, Location: 32.917595, -97.06768



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

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



3. Texan Trail at N Airfield Drive - TMC

Tue Apr 30, 2019

Full Length (7 AM 9 AM, 4:30 PM 6:30 PM)

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

All Movements

ID: 645614, Location: 32 919387, 97 059911



Provided by: C J Hensch & Associates Inc
5215 Sycamore Ave , Pasadena, TX, 77503, US

eg D rect on T me	Texan Tra Southbound						N A r e d Dr ve Westbound						Texan Tra Northbound						N A r e d Dr ve Eastbound						Int
	R	T	U	App	Ped*		R	T	U	App	Ped*		R	T	U	App	Ped*		R	T	U	App	Ped*		
2019-04-30 7:00AM	493	12	153	0	658	0	22	68	0	0	90	0	7	1	5	0	13	0	6	456	353	0	815	0	1576
8:00AM	480	12	120	0	612	0	29	75	1	0	105	0	7	3	4	0	14	1	6	348	251	0	605	0	1336
4:00PM	206	6	36	0	248	0	41	284	1	1	327	0	4	2	3	0	9	0	5	60	119	0	184	0	768
5:00PM	498	10	122	0	630	0	116	733	4	2	855	0	4	13	8	1	26	0	7	112	342	0	461	0	1972
6:00PM	242	4	35	0	281	0	44	218	1	0	263	0	4	5	2	0	11	0	4	48	131	0	183	0	738
Total	1919	44	466	0	2429	0	252	1378	7	3	1640	0	26	24	22	1	73	1	28	1024	1196	0	2248	0	6390
% Approach	79.0%	1.8%	19.2%	0%	-	-	15.4%	84.0%	0.4%	0.2%	-	-	35.6%	32.9%	30.1%	1.4%	-	-	1.2%	45.6%	53.2%	0%	-	-	-
% Total	30.0%	0.7%	7.3%	0%	38.0%	-	3.9%	21.6%	0.1%	0%	25.7%	-	0.4%	0.4%	0.3%	0%	1.1%	-	0.4%	16.0%	18.7%	0%	35.2%	-	-
Lights	1739	44	436	0	2219	-	238	1299	7	3	1547	-	26	24	22	1	73	-	28	952	1087	0	2067	-	5906
% Lights	90.6%	100%	93.6%	0%	91.4%	-	94.4%	94.3%	100%	100%	94.3%	-	100%	100%	100%	100%	100%	-	100%	93.0%	90.9%	0%	91.9%	-	92.4%
Articulated Trucks	72	0	12	0	84	-	4	33	0	0	37	-	0	0	0	0	0	-	0	23	50	0	73	-	194
% Articulated Trucks	3.8%	0%	2.6%	0%	3.5%	-	1.6%	2.4%	0%	0%	2.3%	-	0%	0%	0%	0%	0%	-	0%	2.2%	4.2%	0%	3.2%	-	3.0%
Buses and Single-Unit Trucks	108	0	18	0	126	-	10	46	0	0	56	-	0	0	0	0	0	-	0	49	59	0	108	-	290
% Buses and Single-Unit Trucks	5.6%	0%	3.9%	0%	5.2%	-	4.0%	3.3%	0%	0%	3.4%	-	0%	0%	0%	0%	0%	-	0%	4.8%	4.9%	0%	4.8%	-	4.5%
Pedestrans	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-
% Pedestrans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	-	-
B cyc es on Crosswa k	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% B cyc es on Crosswa k	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	-	-

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

3. Texan Trail at N Airfield Drive - TMC

Tue Apr 30, 2019

Full Length (7 AM-9 AM, 4:30 PM-6:30 PM)

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

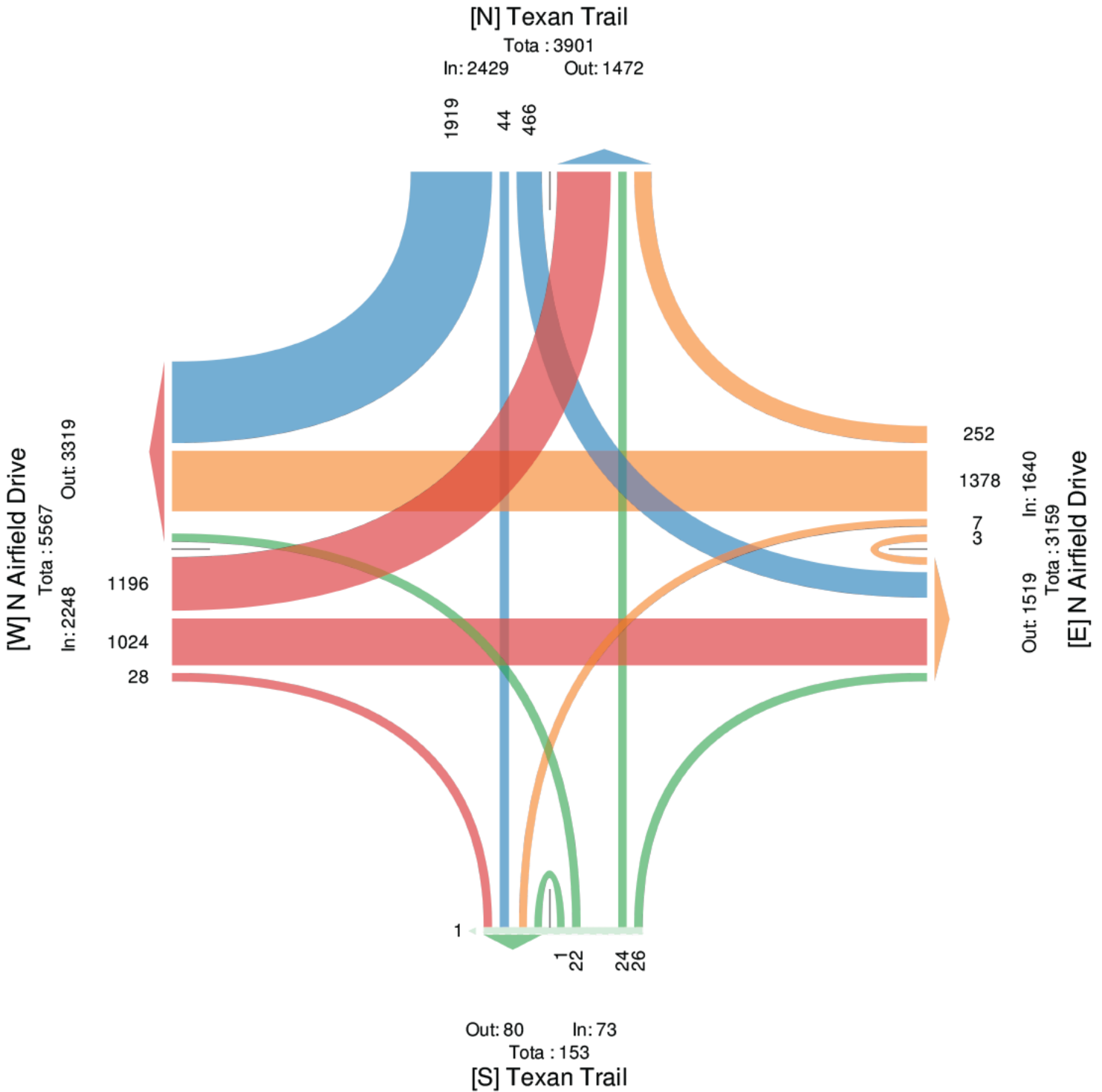
All Movements

ID: 645614, Location: 32.919387, -97.059911



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

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



3. Texan Trail at N Airfield Drive - TMC

Tue Apr 30, 2019

AM Peak (7:30 AM - 8:30 AM)

Accidents (Lights, Articulated Trucks, Buses and Single Unit Trucks, Pedestrians, Bicycles on Crosswalk)

Accident Movements

ID: 645614, Location: 32.919387, 97.059911



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Texan Trail Southbound					N Airfield Drive Westbound					Texan Trail Northbound					N Airfield Drive Eastbound					Total				
	R	L	U	App	ed*	R	L	U	App	ed*	R	L	U	App	ed*	R	L	U	App	ed*					
2019-04-30 7:30AM	141	4	53	0	198	0	10	19	0	0	29	0	2	0	1	0	3	0	1	120	90	0	211	0	441
7:45AM	157	2	41	0	200	0	6	25	0	0	31	0	2	1	0	0	3	0	2	117	101	0	220	0	454
8:00AM	128	1	30	0	159	0	5	25	0	0	30	0	1	1	2	0	4	0	3	105	82	0	190	0	383
8:15AM	108	3	40	0	151	0	8	17	0	0	25	0	2	2	0	0	4	0	0	110	63	0	173	0	353
Total	534	10	164	0	708	0	29	86	0	0	115	0	7	4	3	0	14	0	6	452	336	0	794	0	1631
% Approach	75.4%	1.4%	23.2%	0%	-	-	25.2%	74.8%	0%	0%	-	-	50.0%	28.6%	21.4%	0%	-	-	0.8%	56.9%	42.3%	0%	-	-	-
% Total	32.7%	0.6%	10.1%	0%	43.4%	-	1.8%	5.3%	0%	0%	7.1%	-	0.4%	0.2%	0.2%	0%	0.9%	-	0.4%	27.7%	20.6%	0%	48.7%	-	-
PHF	0.850	0.625	0.774	-	0.885	-	0.725	0.860	-	-	0.927	-	0.875	0.500	0.375	-	0.875	-	0.500	0.942	0.832	-	0.902	-	0.898
Lights	502	10	156	0	668	-	26	75	0	0	101	-	7	4	3	0	14	-	6	439	322	0	767	-	1550
% Lights	94.0%	100%	95.1%	0%	94.4%	-	89.7%	87.2%	0%	0%	87.8%	-	100%	100%	100%	0%	100%	-	100%	97.1%	95.8%	0%	96.6%	-	95.0%
Articulated Trucks	14	0	2	0	16	-	2	7	0	0	9	-	0	0	0	0	0	-	0	3	7	0	10	-	35
% Articulated Trucks	2.6%	0%	1.2%	0%	2.3%	-	6.9%	8.1%	0%	0%	7.8%	-	0%	0%	0%	0%	0%	-	0%	0.7%	2.1%	0%	1.3%	-	2.1%
Buses and Single-Unit Trucks	18	0	6	0	24	-	1	4	0	0	5	-	0	0	0	0	0	-	0	10	7	0	17	-	46
% Buses and Single-Unit Trucks	3.4%	0%	3.7%	0%	3.4%	-	3.4%	4.7%	0%	0%	4.3%	-	0%	0%	0%	0%	0%	-	0%	2.2%	2.1%	0%	2.1%	-	2.8%
pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

3. Texan Trail at N Airfield Drive - TMC

Tue Apr 30, 2019

AM Peak (7:30 AM - 8:30 AM)

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

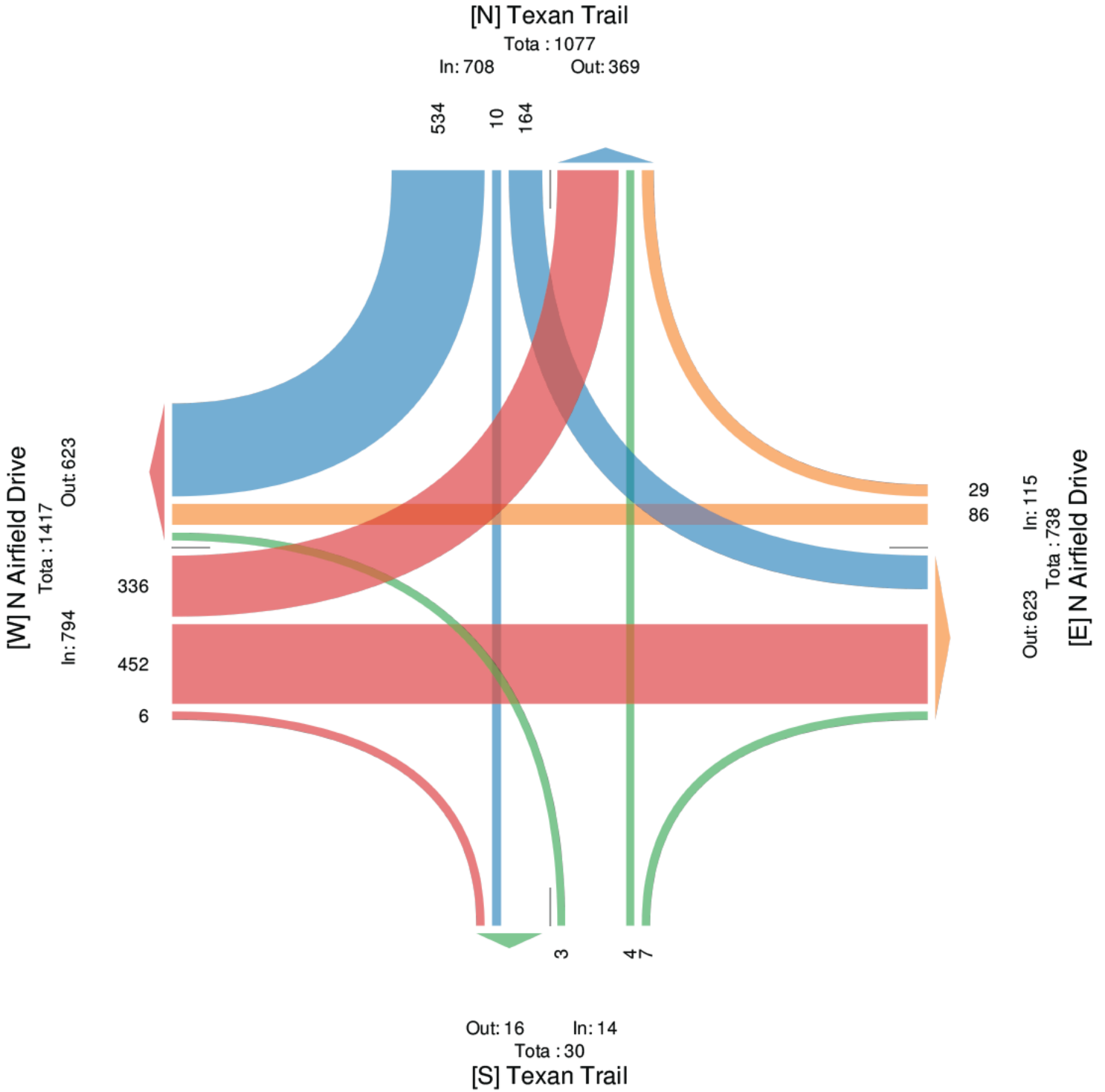
All Movements

ID: 645614, Location: 32.919387, -97.059911



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

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



3. Texan Trail at N Airfield Drive - TMC

Tue Apr 30, 2019

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

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

All Movements

ID: 645614, Location: 32 919387, 97 059911



Provided by: C J Hensch & Associates Inc
5215 Sycamore Ave , Pasadena, TX, 77503, US

eg D rect on T me	Texan Tra Southbound					N A r e d Dr ve Westbound					Texan Tra Northbound					N A r e d Dr ve Eastbound					Int				
	R	T	U	App	Ped*	R	T	U	App	Ped*	R	T	U	App	Ped*	R	T	U	App	Ped*					
2019-04-30 5:00PM	109	3	21	0	133	0	23	173	1	0	197	0	2	5	3	0	10	0	2	34	110	0	146	0	486
5:15PM	110	2	30	0	142	0	33	175	1	1	210	0	0	4	2	0	6	0	1	28	99	0	128	0	486
5:30PM	135	5	42	0	182	0	28	204	1	0	233	0	1	2	1	1	5	0	0	22	64	0	86	0	506
5:45PM	144	0	29	0	173	0	32	181	1	1	215	0	1	2	2	0	5	0	4	28	69	0	101	0	494
Total	498	10	122	0	630	0	116	733	4	2	855	0	4	13	8	1	26	0	7	112	342	0	461	0	1972
% Approach	79.0%	1.6%	19.4%	0%	-	-	13.6%	85.7%	0.5%	0.2%	-	-	15.4%	50.0%	30.8%	3.8%	-	-	1.5%	24.3%	74.2%	0%	-	-	-
% Total	25.3%	0.5%	6.2%	0%	31.9%	-	5.9%	37.2%	0.2%	0.1%	43.4%	-	0.2%	0.7%	0.4%	0.1%	1.3%	-	0.4%	5.7%	17.3%	0%	23.4%	-	-
PHF	0.865	0.500	0.726	-	0.865	-	0.879	0.898	1.000	0.500	0.917	-	0.500	0.650	0.667	0.250	0.650	-	0.438	0.824	0.777	-	0.789	-	0.974
Lights	449	10	111	0	570	-	112	689	4	2	807	-	4	13	8	1	26	-	7	88	309	0	404	-	1807
% Lights	90.2%	100%	91.0%	0%	90.5%	-	96.6%	94.0%	100%	100%	94.4%	-	100%	100%	100%	100%	100%	-	100%	78.6%	90.4%	0%	87.6%	-	91.6%
Articulated Trucks	24	0	6	0	30	-	1	16	0	0	17	-	0	0	0	0	0	-	0	9	13	0	22	-	69
% Articulated Trucks	4.8%	0%	4.9%	0%	4.8%	-	0.9%	2.2%	0%	0%	2.0%	-	0%	0%	0%	0%	0%	-	0%	8.0%	3.8%	0%	4.8%	-	3.5%
Buses and Single-Unit Trucks	25	0	5	0	30	-	3	28	0	0	31	-	0	0	0	0	0	-	0	15	20	0	35	-	96
% Buses and Single-Unit Trucks	5.0%	0%	4.1%	0%	4.8%	-	2.6%	3.8%	0%	0%	3.6%	-	0%	0%	0%	0%	0%	-	0%	13.4%	5.8%	0%	7.6%	-	4.9%
Pedestrans	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% Pedestrans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B cyc es on Crosswa k	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% B cyc es on Crosswa k	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

3. Texan Trail at N Airfield Drive - TMC

Tue Apr 30, 2019

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

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

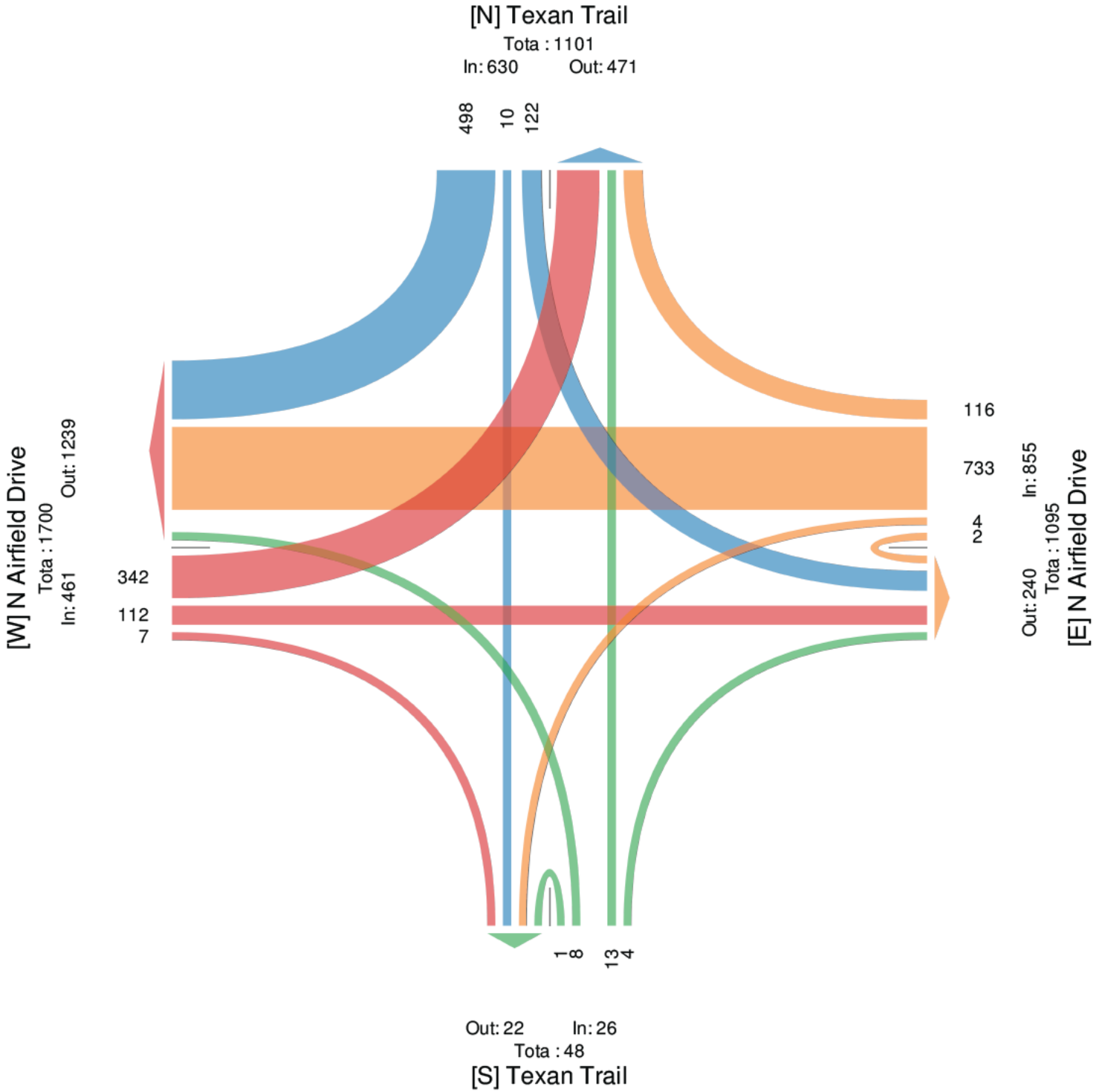
All Movements

ID: 645614, Location: 32.919387, -97.059911



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

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



3. Texan Trail at N Airfield Drive - TMC

Wed May 1, 2019

Full Length (7 AM 9 AM, 4 30 PM 6:30 PM)

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

All Movements

ID: 645628, Location: 32 919477, 97 059986



Provided by: C J Hensch & Associates Inc
5215 Sycamore Ave , Pasadena, TX, 77503, US

eg D r e c t i o n	Texan Tra Southbound					N A r e d D r e v e Westbound					Texan Tra Northbound					N A r e d D r e v e Eastbound					Int				
	R	T	U	App	Ped*	R	T	U	App	Ped*	R	T	U	App	Ped*	R	T	U	App	Ped*					
2019-05-01 7:00AM	489	2	176	1	668	0	32	81	2	0	115	0	2	3	1	0	6	0	3	438	383	0	824	0	1613
8:00AM	477	11	166	3	657	0	25	70	2	0	97	0	5	0	5	0	10	1	5	317	238	0	560	0	1324
4:00PM	202	11	39	0	252	0	41	284	4	1	330	0	6	7	8	0	21	0	5	69	156	0	230	0	833
5:00PM	440	7	103	0	550	0	118	616	6	0	740	0	14	8	7	0	29	0	13	116	291	0	420	0	1739
6:00PM	140	9	33	0	182	0	28	172	1	0	201	0	2	6	5	0	13	0	3	50	109	0	162	0	558
Total	1748	40	517	4	2309	0	244	1223	15	1	1483	0	29	24	26	0	79	1	29	990	1177	0	2196	0	6067
% Approach	75.7%	1.7%	22.4%	0.2%	-	-	16.5%	82.5%	1.0%	0.1%	-	-	36.7%	30.4%	32.9%	0%	-	-	1.3%	45.1%	53.6%	0%	-	-	-
% Total	28.8%	0.7%	8.5%	0.1%	38.1%	-	4.0%	20.2%	0.2%	0%	24.4%	-	0.5%	0.4%	0.4%	0%	1.3%	-	0.5%	16.3%	19.4%	0%	36.2%	-	-
Lights	1575	40	486	4	2105	-	229	1147	15	1	1392	-	28	24	26	0	78	-	27	929	1080	0	2036	-	5611
% Lights	90.1%	100%	94.0%	100%	91.2%	-	93.9%	93.8%	100%	100%	93.9%	-	96.6%	100%	100%	0%	98.7%	-	93.1%	93.8%	91.8%	0%	92.7%	-	92.5%
Articulated Trucks	74	0	11	0	85	-	3	29	0	0	32	-	0	0	0	0	0	-	0	21	33	0	54	-	171
% Articulated Trucks	4.2%	0%	2.1%	0%	3.7%	-	1.2%	2.4%	0%	0%	2.2%	-	0%	0%	0%	0%	0%	-	0%	2.1%	2.8%	0%	2.5%	-	2.8%
Buses and Single-Unit Trucks	99	0	20	0	119	-	12	47	0	0	59	-	1	0	0	0	1	-	2	40	64	0	106	-	285
% Buses and Single-Unit Trucks	5.7%	0%	3.9%	0%	5.2%	-	4.9%	3.8%	0%	0%	4.0%	-	3.4%	0%	0%	0%	1.3%	-	6.9%	4.0%	5.4%	0%	4.8%	-	4.7%
Pedestrans	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	-	0	-
% Pedestrans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-100%	-	-	-	-	-	-	-	-
B c y c l e s o n C r o s s w a l k	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0	-
% B c y c l e s o n C r o s s w a l k	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	-	-	-

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

3. Texan Trail at N Airfield Drive - TMC

Wed May 1, 2019

Full Length (7 AM-9 AM, 4:30 PM-6:30 PM)

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

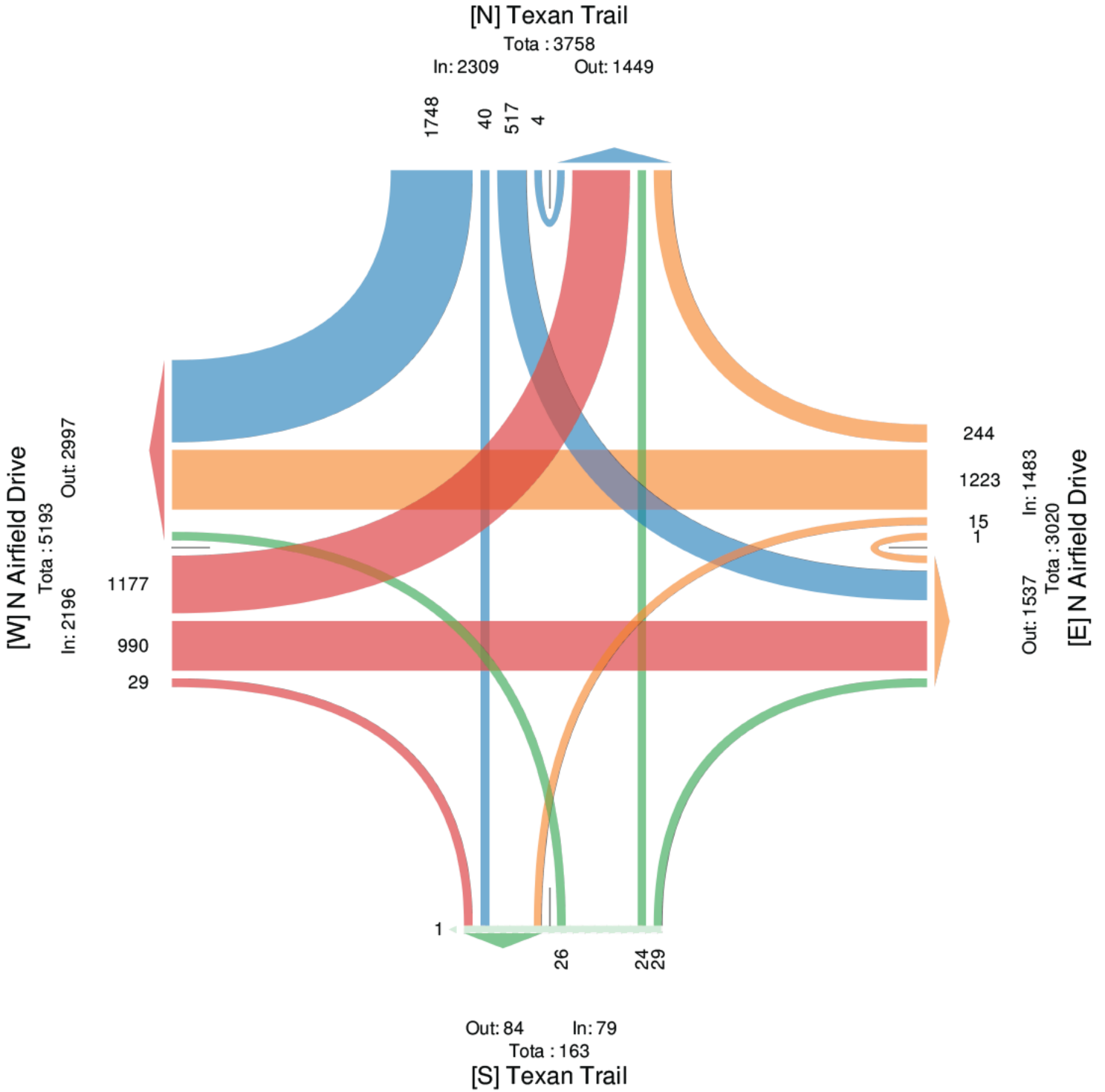
All Movements

ID: 645628, Location: 32.919477, -97.059986



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

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



3. Texan Trail at N Airfield Drive - TMC

Wed May , 20 9

AM Peak (7:30 AM 8:30 AM)

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

All Movements

ID: 645628, Location: 32 9 9477, 97 059986



Provided by: C J Hensch & Associates Inc
52 5 Sycamore Ave , Pasadena, TX, 77503, US

eg D rect on T me	Texan Tra Southbound						N A r e d Dr ve Westbound						Texan Tra Northbound						N A r e d Dr ve Eastbound						Int
	R	T	U	App	Ped*		R	T	U	App	Ped*		R	T	U	App	Ped*		R	T	U	App	Ped*		
2019-05-01 7:30AM	126	1	37	0	164	0	11	17	0	0	28	0	0	0	0	0	0	0	0	130	100	0	230	0	422
7:45AM	150	0	48	0	198	0	8	31	0	0	39	0	0	1	0	0	1	0	0	99	114	0	213	0	451
8:00AM	132	1	58	0	191	0	7	26	1	0	34	0	0	0	1	0	1	0	0	95	78	0	173	0	399
8:15AM	138	4	54	1	197	0	6	17	0	0	23	0	3	0	0	0	3	0	2	99	76	0	177	0	400
Total	546	6	197	1	750	0	32	91	1	0	124	0	3	1	1	0	5	0	2	423	368	0	793	0	1672
% Approach	72.8%	0.8%	26.3%	0.1%	-	-	25.8%	73.4%	0.8%	0%	-	-	60.0%	20.0%	20.0%	0%	-	-	0.3%	53.3%	46.4%	0%	-	-	-
% Total	32.7%	0.4%	11.8%	0.1%	44.9%	-	1.9%	5.4%	0.1%	0%	7.4%	-	0.2%	0.1%	0.1%	0%	0.3%	-	0.1%	25.3%	22.0%	0%	47.4%	-	-
PHF	0.910	0.375	0.849	0.250	0.947	-	0.727	0.734	0.250	-	0.795	-	0.250	0.250	0.250	-	0.417	-	0.250	0.813	0.807	-	0.862	-	0.927
Lights	515	6	187	1	709	-	27	81	1	0	109	-	3	1	1	0	5	-	2	410	348	0	760	-	1583
% Lights	94.3%	100%	94.9%	100%	94.5%	-	84.4%	89.0%	100%	0%	87.9%	-	100%	100%	100%	0%	100%	-	100%	96.9%	94.6%	0%	95.8%	-	94.7%
Articulated Trucks	13	0	1	0	14	-	1	4	0	0	5	-	0	0	0	0	0	-	0	3	5	0	8	-	27
% Articulated Trucks	2.4%	0%	0.5%	0%	1.9%	-	3.1%	4.4%	0%	0%	4.0%	-	0%	0%	0%	0%	0%	-	0%	0.7%	1.4%	0%	1.0%	-	1.6%
Buses and Single-Unit Trucks	18	0	9	0	27	-	4	6	0	0	10	-	0	0	0	0	0	-	0	10	15	0	25	-	62
% Buses and Single-Unit Trucks	3.3%	0%	4.6%	0%	3.6%	-	12.5%	6.6%	0%	0%	8.1%	-	0%	0%	0%	0%	0%	-	0%	2.4%	4.1%	0%	3.2%	-	3.7%
Pedestrans	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% Pedestrans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B cyc es on Crosswa k	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% B cyc es on Crosswa k	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

3. Texan Trail at N Airfield Drive - TMC

Wed May 1, 2019

AM Peak (7:30 AM - 8:30 AM)

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

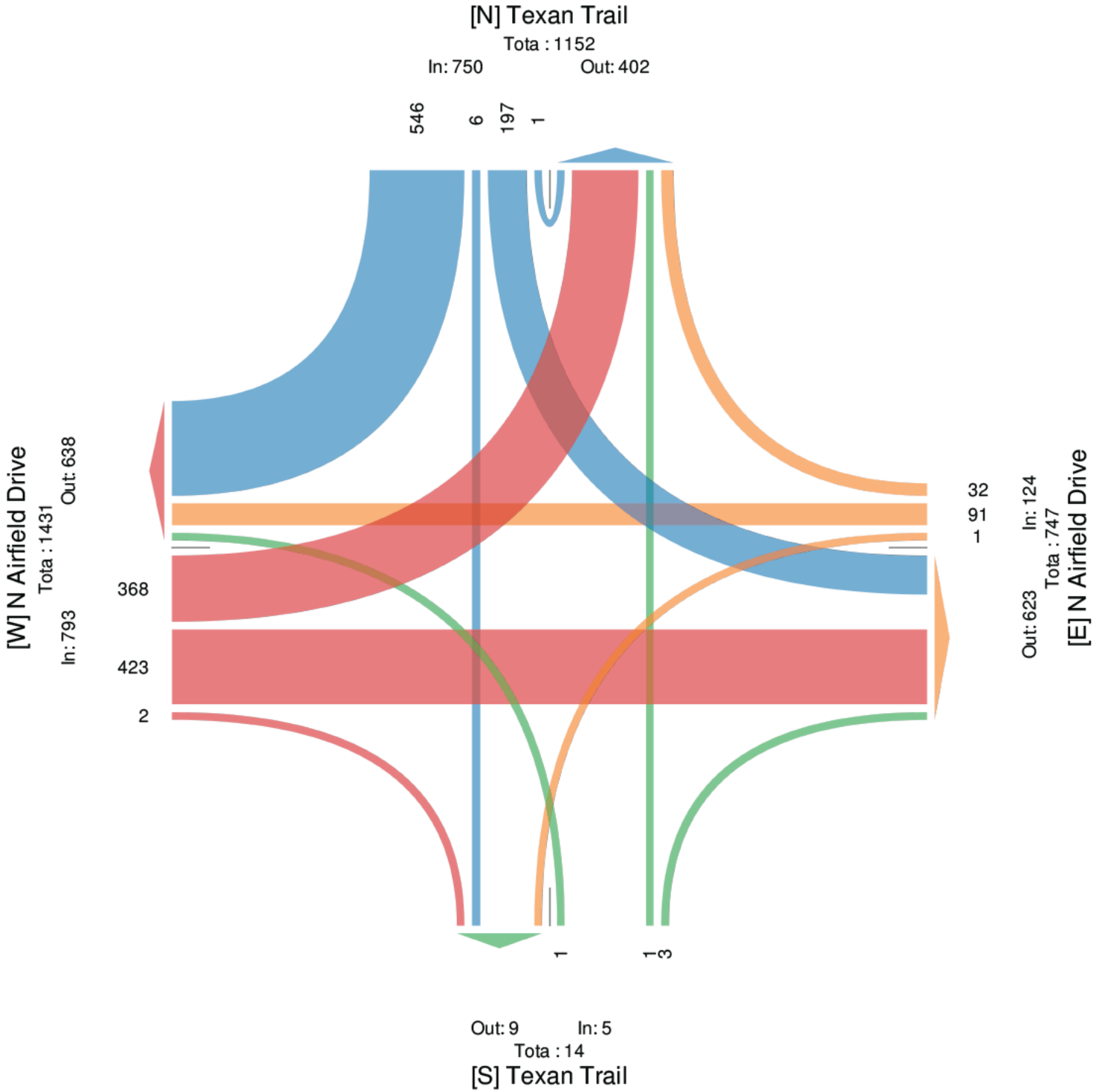
All Movements

ID: 645628, Location: 32.919477, -97.059986



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

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



3. Texan Trail at N Airfield Drive - TMC

Wed May , 20 9

PM Peak (4:30 PM 5:30 PM) Overall Peak Hour

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

All Movements

ID: 645628, Location: 32 9 9477, 97 059986



Provided by: C J Hensch & Associates Inc
52 5 Sycamore Ave , Pasadena, TX, 77503, US

eg D r e c t i o n T i m e	Texan Tra Southbound						N A r e d D r v e Westbound						Texan Tra Northbound						N A r e d D r v e Eastbound						Int
	R	T	U	App	Ped*		R	T	U	App	Ped*		R	T	U	App	Ped*		R	T	U	App	Ped*		
2019-05-01 4:30PM	116	6	21	0	143	0	20	131	3	0	154	0	5	2	4	0	11	0	2	40	80	0	122	0	430
4:45PM	86	5	18	0	109	0	21	153	1	1	176	0	1	5	4	0	10	0	3	29	76	0	108	0	403
5:00PM	102	0	30	0	132	0	29	154	2	0	185	0	4	3	2	0	9	0	1	27	85	0	113	0	439
5:15PM	126	3	26	0	155	0	20	185	1	0	206	0	4	2	2	0	8	0	3	36	91	0	130	0	499
Total	430	14	95	0	539	0	90	623	7	1	721	0	14	12	12	0	38	0	9	132	332	0	473	0	1771
% Approach	79.8%	2.6%	17.6%	0%	-	-	12.5%	86.4%	1.0%	0.1%	-	-	36.8%	31.6%	31.6%	0%	-	-	1.9%	27.9%	70.2%	0%	-	-	-
% Total	24.3%	0.8%	5.4%	0%	30.4%	-	5.1%	35.2%	0.4%	0.1%	40.7%	-	0.8%	0.7%	0.7%	0%	2.1%	-	0.5%	7.5%	18.7%	0%	26.7%	-	-
PHF	0.853	0.583	0.792	-	0.869	-	0.776	0.842	0.583	0.250	0.875	-	0.700	0.600	0.750	-	0.864	-	0.750	0.825	0.912	-	0.910	-	0.887
Lights	379	14	82	0	475	-	87	598	7	1	693	-	13	12	12	0	37	-	8	111	307	0	426	-	1631
% Lights	88.1%	100%	86.3%	0%	88.1%	-	96.7%	96.0%	100%	100%	96.1%	-	92.9%	100%	100%	0%	97.4%	-	88.9%	84.1%	92.5%	0%	90.1%	-	92.1%
Articulated Trucks	22	0	6	0	28	-	0	9	0	0	9	-	0	0	0	0	0	-	0	8	12	0	20	-	57
% Articulated Trucks	5.1%	0%	6.3%	0%	5.2%	-	0%	1.4%	0%	0%	1.2%	-	0%	0%	0%	0%	0%	-	0%	6.1%	3.6%	0%	4.2%	-	3.2%
Buses and Single-Unit Trucks	29	0	7	0	36	-	3	16	0	0	19	-	1	0	0	0	1	-	1	13	13	0	27	-	83
% Buses and Single-Unit Trucks	6.7%	0%	7.4%	0%	6.7%	-	3.3%	2.6%	0%	0%	2.6%	-	7.1%	0%	0%	0%	2.6%	-	11.1%	9.8%	3.9%	0%	5.7%	-	4.7%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

3. Texan Trail at N Airfield Drive - TMC

Wed May 1, 2019

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

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

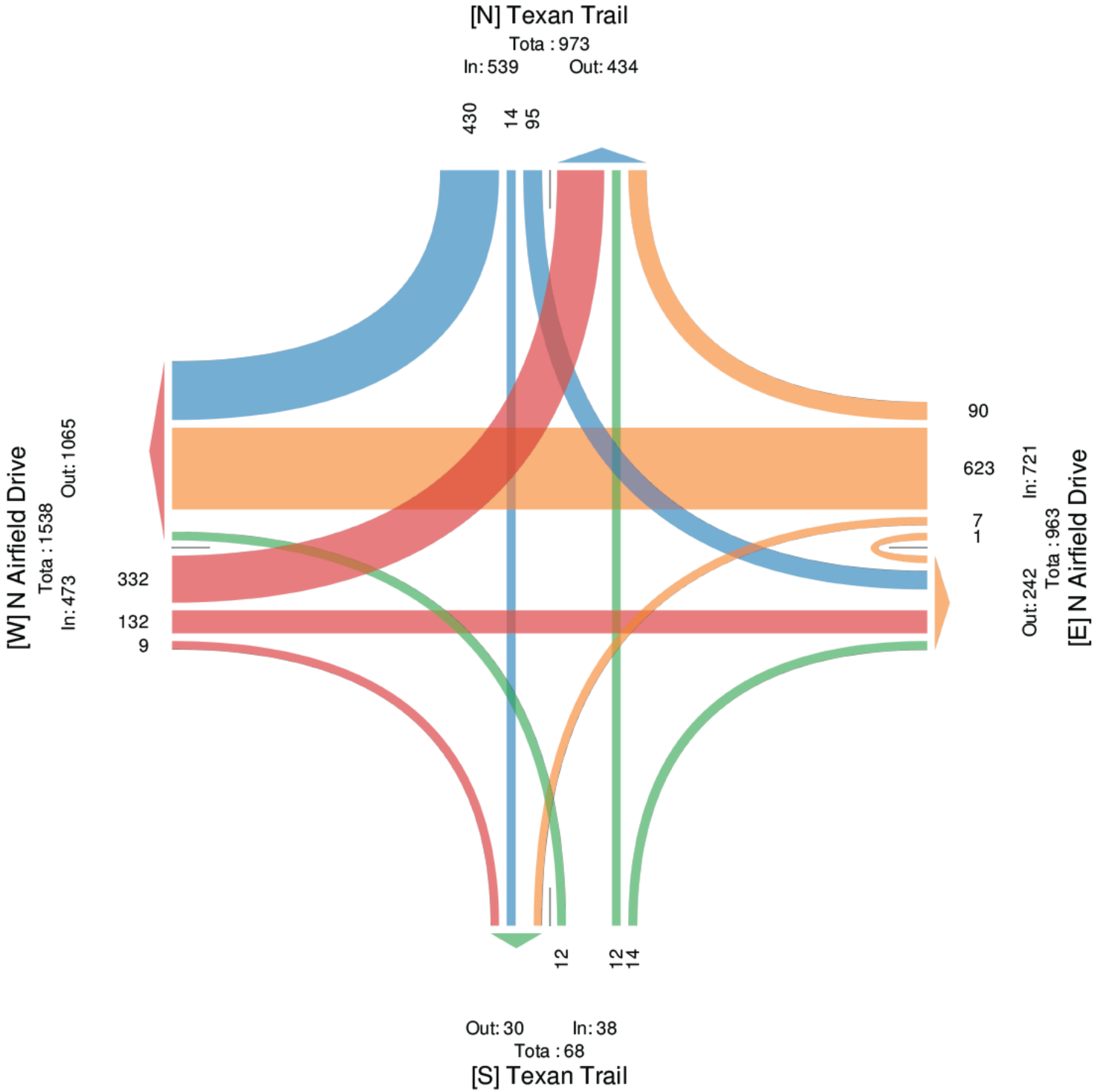
All Movements

ID: 645628, Location: 32.919477, -97.059986



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

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



5. 17th West Street at W Airfield Drive - TMC

Tue Apr 30, 20 9

Full Length (7 AM 9 AM, 4:30 PM 6:30 PM)

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

All Movements

ID: 6456 6, Location: 32 9 2647, 97 067624



Provided by: C J Hensch & Associates Inc
52 5 Sycamore Ave , Pasadena, TX, 77503, US

eg D rect on T me	W A r e d Dr ve Southbound					17th West Street Westbound					W A r e d Dr ve Northbound					17th West Street Eastbound					Int				
	R	T	U	App	Ped*	R	T	U	App	Ped*	R	T	U	App	Ped*	R	T	U	App	Ped*					
2019-04-30 7:00AM	6	505	9	0	520	1	0	0	0	0	0	2	609	29	0	640	0	42	2	1	0	45	0	1205	
8:00AM	12	474	8	0	494	0	11	2	1	0	14	0	7	465	24	0	496	0	58	0	2	0	60	0	1064
4:00PM	2	360	0	0	362	0	6	0	2	0	8	0	1	270	14	0	285	0	43	1	2	0	46	0	701
5:00PM	11	841	3	0	855	0	5	2	5	0	12	0	2	642	26	0	670	0	96	0	8	0	104	0	1641
6:00PM	8	323	2	0	333	0	6	1	1	0	8	0	2	191	5	0	198	0	33	2	1	0	36	0	575
Total	39	2503	22	0	2564	1	28	5	9	0	42	0	14	2177	98	0	2289	0	272	5	14	0	291	0	5186
% Approach	1.5%	97.6%	0.9%	0%	-	-	66.7%	11.9%	21.4%	0%	-	-	0.6%	95.1%	4.3%	0%	-	-	93.5%	1.7%	4.8%	0%	-	-	-
% Total	0.8%	48.3%	0.4%	0%	49.4%	-	0.5%	0.1%	0.2%	0%	0.8%	-	0.3%	42.0%	1.9%	0%	44.1%	-	5.2%	0.1%	0.3%	0%	5.6%	-	-
Lights	12	2339	19	0	2370	-	23	4	5	0	32	-	11	2020	70	0	2101	-	233	2	7	0	242	-	4745
% Lights	30.8%	93.4%	86.4%	0%	92.4%	-	82.1%	80.0%	55.6%	0%	76.2%	-	78.6%	92.8%	71.4%	0%	91.8%	-	85.7%	40.0%	50.0%	0%	83.2%	-	91.5%
Articulated Trucks	13	61	0	0	74	-	1	0	1	0	2	-	0	57	14	0	71	-	12	1	3	0	16	-	163
% Articulate d Trucks	33.3%	2.4%	0%	0%	2.9%	-	3.6%	0%	11.1%	0%	4.8%	-	0%	2.6%	14.3%	0%	3.1%	-	4.4%	20.0%	21.4%	0%	5.5%	-	3.1%
Buses and Single-Unit Trucks	14	103	3	0	120	-	4	1	3	0	8	-	3	100	14	0	117	-	27	2	4	0	33	-	278
% Buses and Single-Unit Trucks	35.9%	4.1%	13.6%	0%	4.7%	-	14.3%	20.0%	33.3%	0%	19.0%	-	21.4%	4.6%	14.3%	0%	5.1%	-	9.9%	40.0%	28.6%	0%	11.3%	-	5.4%
Pedestrans	-	-	-	-	-	1	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	-	0
% Pedestrans	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B cyc es on Crosswa k	-	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	-	0
% B cyc es on Crosswa k	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

5. 17th West Street at W Airfield Drive - TMC

Tue Apr 30, 2019

Full Length (7 AM-9 AM, 4:30 PM-6:30 PM)

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

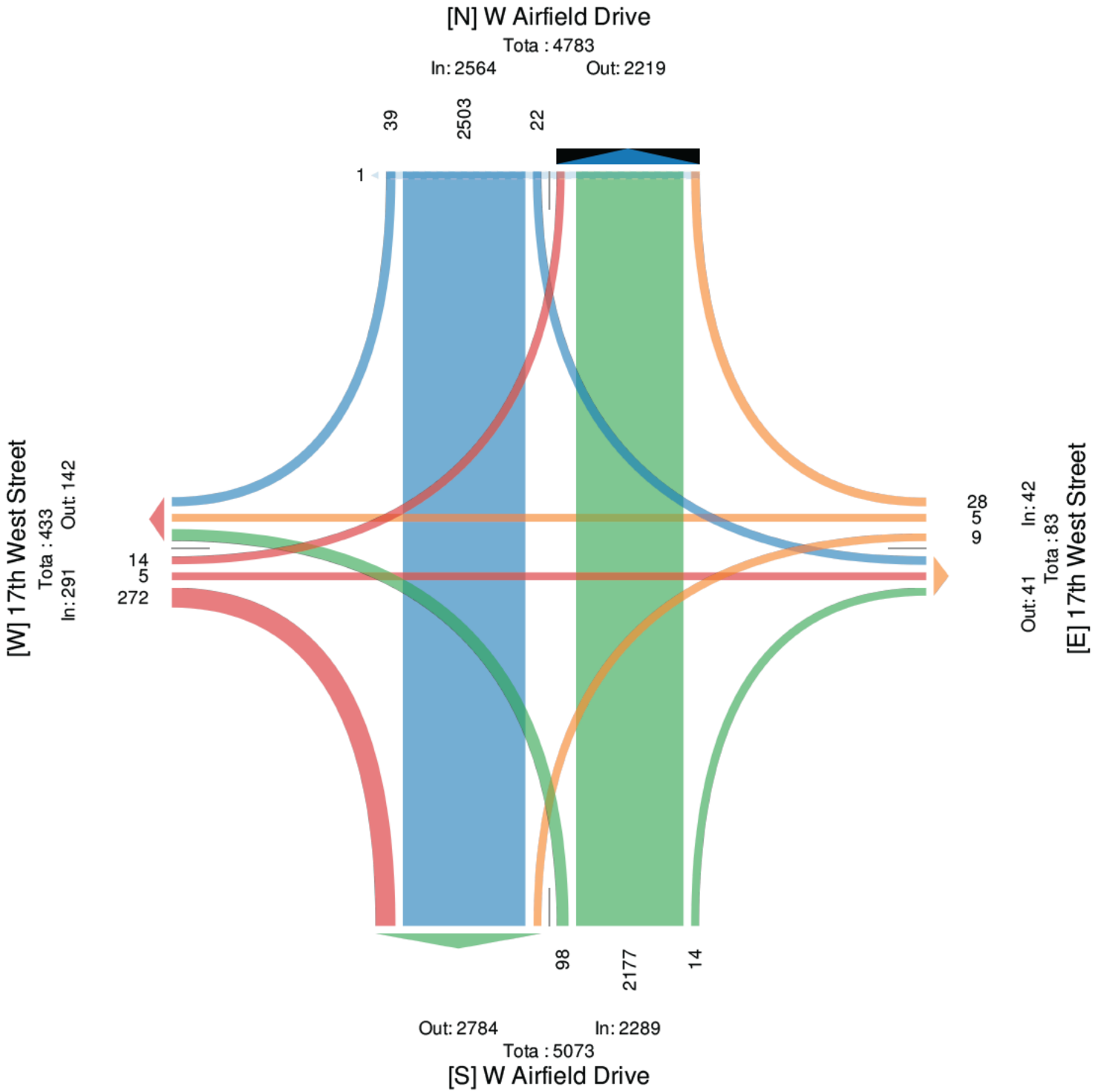
All Movements

ID: 645616, Location: 32.912647, -97.067624



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

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



5. 17th West Street at W Airfield Drive - TMC

Tue Apr 30, 2019

AM Peak (7:30 AM - 8:30 AM)

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

All Movements

ID: 645616, Location: 32.912647, 97.067624



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound					17th West Street Westbound					W Airfield Drive Northbound					17th West Street Eastbound					Int				
	R	L	U	App	ed*	R	L	U	App	ed*	R	L	U	App	ed*	R	L	U	App	ed*					
2019-04-30 7:30AM	1	132	0	0	133	0	0	0	0	0	0	1	152	10	0	163	0	8	0	0	0	8	0	304	
7:45AM	2	180	5	0	187	0	0	0	0	0	0	1	163	8	0	172	0	14	0	0	0	14	0	373	
8:00AM	2	123	2	0	127	0	0	1	0	0	1	1	132	8	0	141	0	24	0	0	0	24	0	293	
8:15AM	6	122	3	0	131	0	3	1	0	0	4	0	3	121	6	0	130	0	14	0	1	0	15	0	280
Total	11	557	10	0	578	0	3	2	0	0	5	0	6	568	32	0	606	0	60	0	1	0	61	0	1250
% Approach	1.9%	96.4%	1.7%	0%	-	-	60.0%	40.0%	0%	0%	-	-	1.0%	93.7%	5.3%	0%	-	-	98.4%	0%	1.6%	0%	-	-	-
% Total	0.9%	44.6%	0.8%	0%	46.2%	-	0.2%	0.2%	0%	0%	0.4%	-	0.5%	45.4%	2.6%	0%	48.5%	-	4.8%	0%	0.1%	0%	4.9%	-	-
PHF	0.458	0.774	0.500	-	0.773	-	0.250	0.500	-	-	0.313	-	0.500	0.871	0.800	-	0.881	-	0.625	-	0.250	-	0.635	-	0.838
Lights	4	534	10	0	548	-	2	2	0	0	4	-	5	534	25	0	564	-	48	0	1	0	49	-	1165
% Lights	36.4%	95.9%	100%	0%	94.8%	-	66.7%	100%	0%	0%	80.0%	-	83.3%	94.0%	78.1%	0%	93.1%	-	80.0%	0%	100%	0%	80.3%	-	93.2%
Articulated Trucks	5	10	0	0	15	-	0	0	0	0	0	-	0	11	3	0	14	-	4	0	0	0	4	-	33
% Articulated Trucks	45.5%	1.8%	0%	0%	2.6%	-	0%	0%	0%	0%	0%	-	0%	1.9%	9.4%	0%	2.3%	-	6.7%	0%	0%	0%	6.6%	-	2.6%
Buses and Single-Unit Trucks	2	13	0	0	15	-	1	0	0	0	1	-	1	23	4	0	28	-	8	0	0	0	8	-	52
% Buses and Single-Unit Trucks	18.2%	2.3%	0%	0%	2.6%	-	33.3%	0%	0%	0%	20.0%	-	16.7%	4.0%	12.5%	0%	4.6%	-	13.3%	0%	0%	0%	13.1%	-	4.2%
pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

5. 17th West Street at W Airfield Drive - TMC

Tue Apr 30, 2019

AM Peak (7:30 AM - 8:30 AM)

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

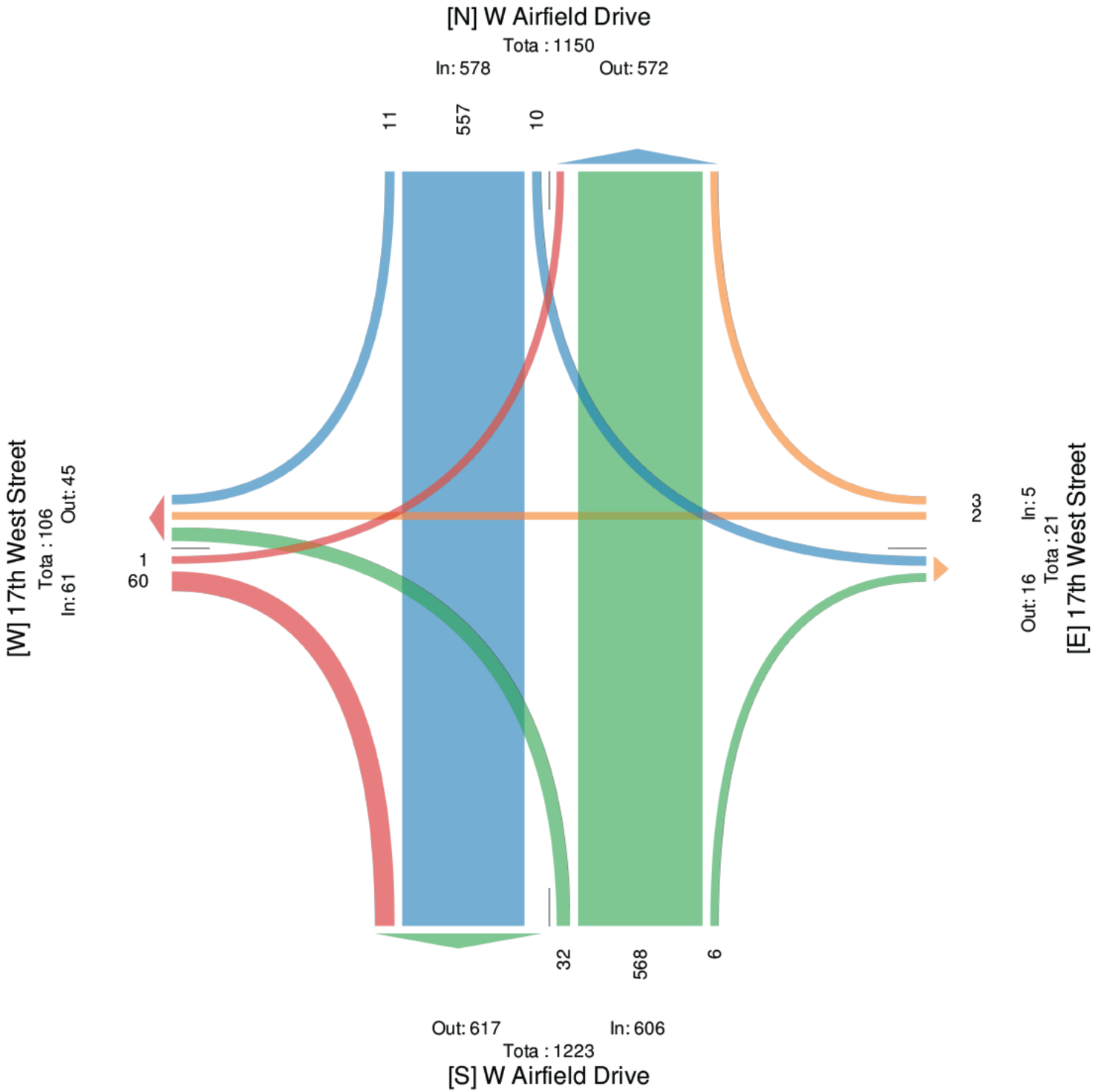
All Movements

ID: 645616, Location: 32.912647, -97.067624



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

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



5. 17th West Street at W Airfield Drive - TMC

Tue Apr 30, 2019

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

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

All Movements

ID: 645616, Location: 32.912647, 97.067624



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Segment	W Airfield Drive Southbound				17th West Street Westbound				W Airfield Drive Northbound				17th West Street Eastbound				Total								
	R	U	App	ed*	R	U	App	ed*	R	U	App	ed*	R	U	App	ed*									
2019-04-30 5:00 M	3	222	1	0	226	0	4	0	4	0	8	0	2	183	9	0	194	0	36	0	4	0	40	0	468
5:15 M	4	223	0	0	227	0	0	0	1	0	1	0	0	159	2	0	161	0	25	0	0	0	25	0	414
5:30 M	3	188	0	0	191	0	1	0	0	0	1	0	0	163	9	0	172	0	16	0	2	0	18	0	382
5:45 M	1	208	2	0	211	0	0	2	0	0	2	0	0	137	6	0	143	0	19	0	2	0	21	0	377
Total	11	841	3	0	855	0	5	2	5	0	12	0	2	642	26	0	670	0	96	0	8	0	104	0	1641
% Approach	1.3%	98.4%	0.4%	0%	-	-	41.7%	16.7%	41.7%	0%	-	-	0.3%	95.8%	3.9%	0%	-	-	92.3%	0%	7.7%	0%	-	-	-
% Total	0.7%	51.2%	0.2%	0%	52.1%	-	0.3%	0.1%	0.3%	0%	0.7%	-	0.1%	39.1%	1.6%	0%	40.8%	-	5.9%	0%	0.5%	0%	6.3%	-	-
PHF	0.688	0.943	0.375	-	0.942	-	0.313	0.250	0.313	-	0.375	-	0.250	0.877	0.722	-	0.863	-	0.667	-	0.500	-	0.650	-	0.877
Lights	2	776	1	0	779	-	4	1	3	0	8	-	1	587	17	0	605	-	86	0	4	0	90	-	1482
% Lights	18.2%	92.3%	33.3%	0%	91.1%	-	80.0%	50.0%	60.0%	0%	66.7%	-	50.0%	91.4%	65.4%	0%	90.3%	-	89.6%	0%	50.0%	0%	86.5%	-	90.3%
Articulated Trucks	4	26	0	0	30	-	0	0	0	0	0	-	0	22	4	0	26	-	1	0	2	0	3	-	59
% Articulated Trucks	36.4%	3.1%	0%	0%	3.5%	-	0%	0%	0%	0%	0%	-	0%	3.4%	15.4%	0%	3.9%	-	1.0%	0%	25.0%	0%	2.9%	-	3.6%
Buses and Single-Unit Trucks	5	39	2	0	46	-	1	1	2	0	4	-	1	33	5	0	39	-	9	0	2	0	11	-	100
% Buses and Single-Unit Trucks	45.5%	4.6%	66.7%	0%	5.4%	-	20.0%	50.0%	40.0%	0%	33.3%	-	50.0%	5.1%	19.2%	0%	5.8%	-	9.4%	0%	25.0%	0%	10.6%	-	6.1%
pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

5. 17th West Street at W Airfield Drive - TMC

Tue Apr 30, 2019

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

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

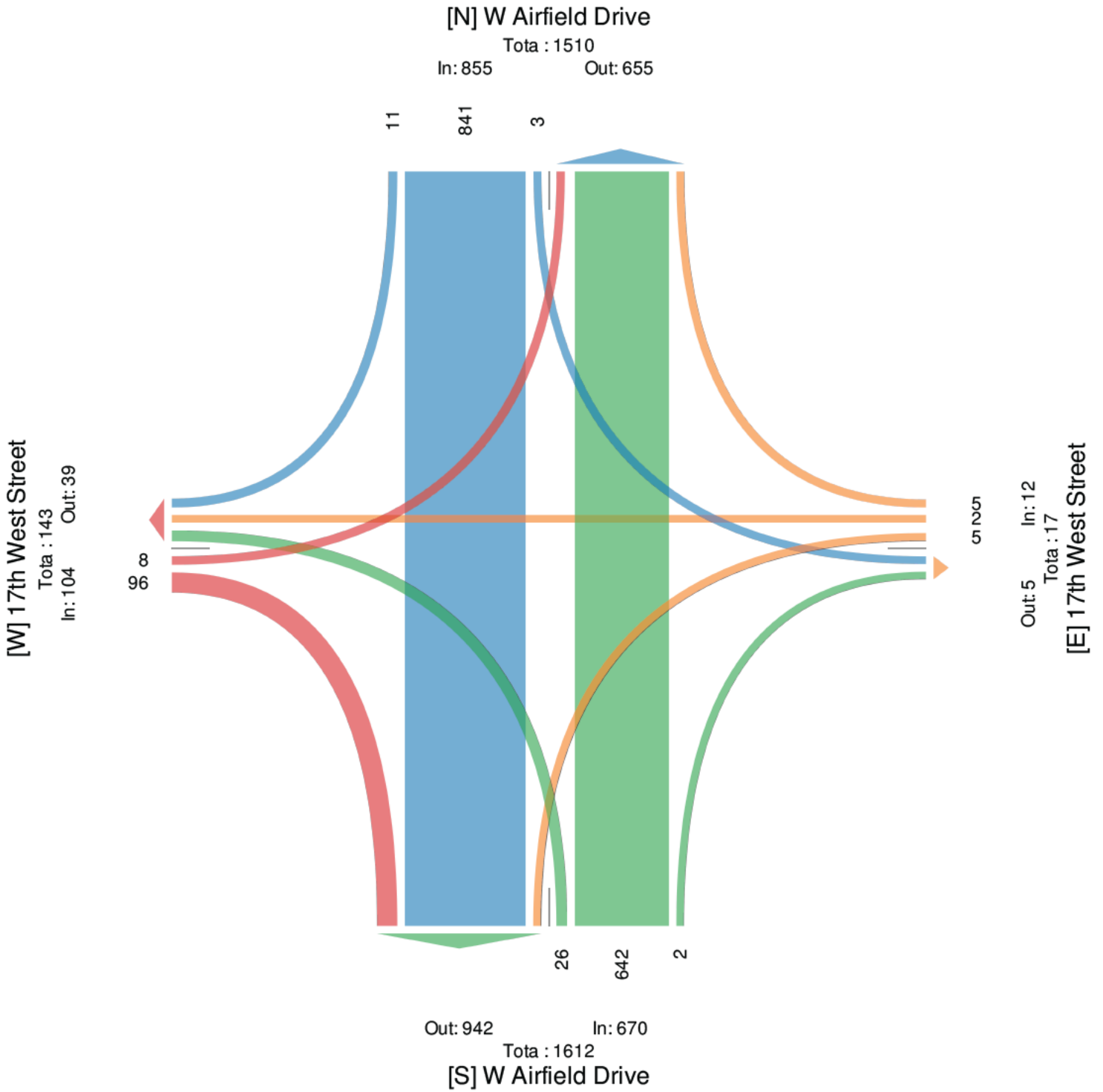
All Movements

ID: 645616, Location: 32.912647, -97.067624



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

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



5. 17th West Street at W Airfield Drive - TMC

Wed May 1, 2019

Full Length (7 AM 9 AM, 4:30 PM 6:30 PM)

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

All Movements

ID: 645630, Location: 32 912656, 97 06772



Provided by: C J Hensch & Associates Inc
5215 Sycamore Ave , Pasadena, TX, 77503, US

eg D r e c t i o n	W A r e d D r v e Southbound					17th West Street Westbound					W A r e d D r v e Northbound					17th West Street Eastbound					Int				
	R	T	U	App	Ped*	R	T	U	App	Ped*	R	T	U	App	Ped*	R	T	U	App	Ped*					
2019-05-01 7:00AM	6	493	10	0	509	0	1	1	0	0	2	0	7	630	32	1	670	0	45	1	2	0	48	0	1229
8:00AM	7	481	8	0	496	0	3	1	0	0	4	0	9	431	28	1	469	0	57	1	6	0	64	0	1033
4:00PM	4	374	2	0	380	0	5	0	3	0	8	0	0	264	11	0	275	0	39	0	1	0	40	0	703
5:00PM	5	763	4	0	772	0	12	0	2	0	14	0	3	573	24	1	601	0	106	1	4	0	111	0	1498
6:00PM	2	254	0	0	256	0	5	1	2	0	8	0	3	217	9	0	229	0	35	0	0	0	35	0	528
Total	24	2365	24	0	2413	0	26	3	7	0	36	0	22	2115	104	3	2244	0	282	3	13	0	298	0	4991
% Approach	1.0%	98.0%	1.0%	0%	-	-	72.2%	8.3%	19.4%	0%	0.7%	-	1.0%	94.3%	4.6%	0.1%	-	-	94.6%	1.0%	4.4%	0%	-	-	-
% Total	0.5%	47.4%	0.5%	0%	48.3%	-	0.5%	0.1%	0.1%	0%	0.7%	-	0.4%	42.4%	2.1%	0.1%	45.0%	-	5.7%	0.1%	0.3%	0%	6.0%	-	-
Lights	5	2190	19	0	2214	-	23	2	6	0	31	-	18	1981	72	3	2074	-	233	1	7	0	241	-	4560
% Lights	20.8%	92.6%	79.2%	0%	91.8%	-	88.5%	66.7%	85.7%	0%	86.1%	-	81.8%	93.7%	69.2%	100%	92.4%	-	82.6%	33.3%	53.8%	0%	80.9%	-	91.4%
Articulated Trucks	13	64	0	0	77	-	0	0	0	0	0	-	2	44	15	0	61	-	15	0	1	0	16	-	154
% Articulated Trucks	54.2%	2.7%	0%	0%	3.2%	-	0%	0%	0%	0%	0%	-	9.1%	2.1%	14.4%	0%	2.7%	-	5.3%	0%	7.7%	0%	5.4%	-	3.1%
Buses and Single-Unit Trucks	6	111	5	0	122	-	3	1	1	0	5	-	2	90	17	0	109	-	34	2	5	0	41	-	277
% Buses and Single-Unit Trucks	25.0%	4.7%	20.8%	0%	5.1%	-	11.5%	33.3%	14.3%	0%	13.9%	-	9.1%	4.3%	16.3%	0%	4.9%	-	12.1%	66.7%	38.5%	0%	13.8%	-	5.5%
Pedestrians	-	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

5. 17th West Street at W Airfield Drive - TMC

Wed May 1, 2019

Full Length (7 AM-9 AM, 4:30 PM-6:30 PM)

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

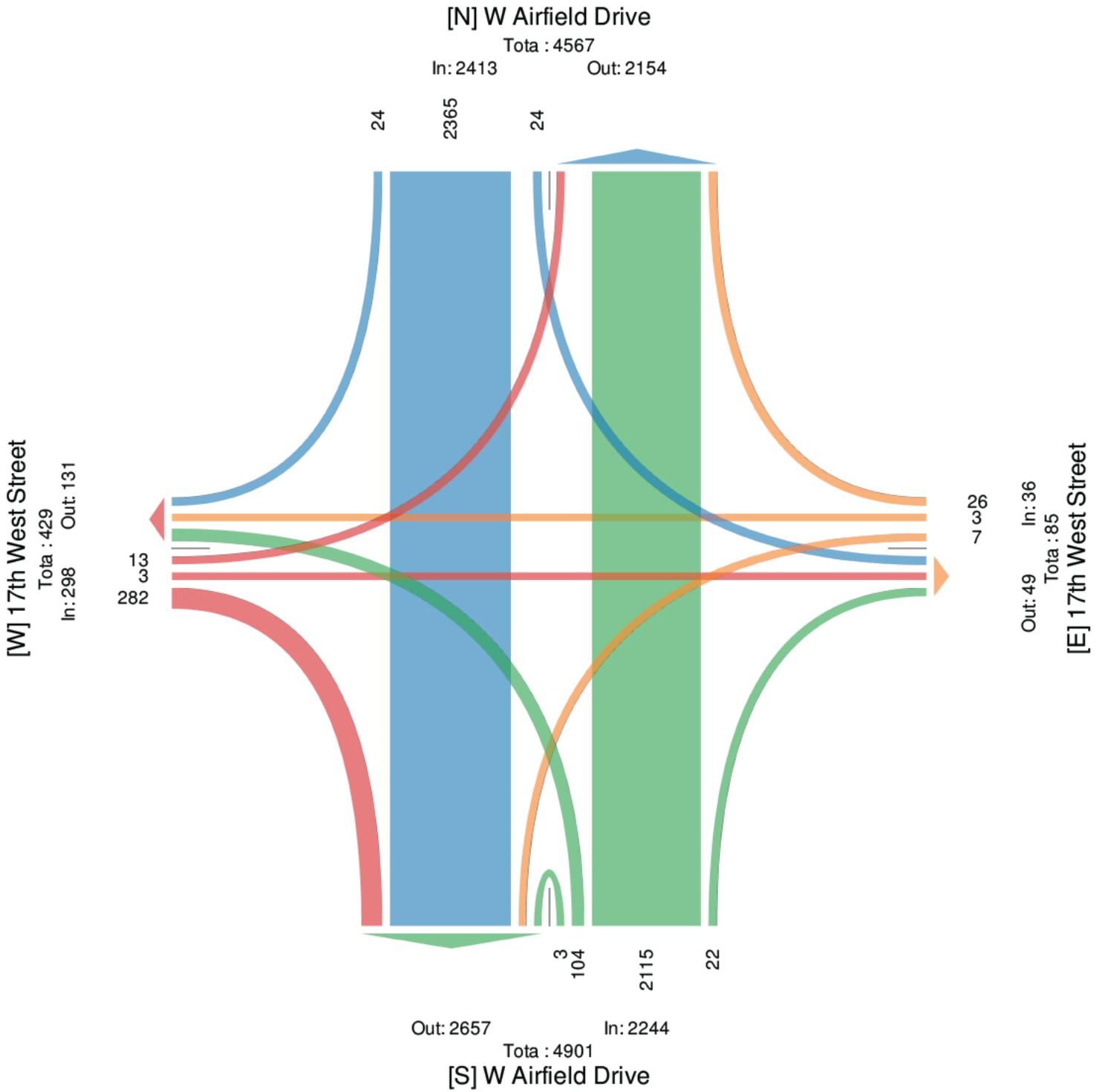
All Movements

ID: 645630, Location: 32.912656, -97.06772



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

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



5. 17th West Street at W Airfield Drive - TMC

Wed May , 20 9

AM Peak (7:30 AM - 8:30 AM)

All Classes (Lghts, Articulated Trucks, Buses and Single Unit Trucks, Pedestrans, Bicycles on Crosswalk)

All Movements

ID: 645630, Location: 32 9 2656, 97 06772



Provided by: C J Hensch & Associates Inc
52 5 Sycamore Ave , Pasadena, TX, 77503, US

Leg Direction	W A r e d Dr ve Southbound					17th West Street Westbound					W A r e d Dr ve Northbound					17th West Street Eastbound					Int				
	R	T	U	App	Ped*	R	T	U	App	Ped*	R	T	U	App	Ped*	R	T	U	App	Ped*					
2019-05-01 7:30AM	3	127	2	0	132	0	0	0	0	0	2	152	10	1	165	0	12	1	0	0	13	0	310		
7:45AM	1	159	6	0	166	0	0	0	0	0	4	170	9	0	183	0	13	0	0	0	13	0	362		
8:00AM	2	139	4	0	145	0	0	0	0	0	2	126	12	0	140	0	10	0	3	0	13	0	298		
8:15AM	1	137	1	0	139	0	2	1	0	0	3	104	7	1	113	0	16	0	1	0	17	0	272		
Total	7	562	13	0	582	0	2	1	0	0	3	9	552	38	2	601	0	51	1	4	0	56	0	1242	
% Approach	1.2%	96.6%	2.2%	0%	-	66.7%	33.3%	0%	0%	-	-	1.5%	91.8%	6.3%	0.3%	-	91.1%	1.8%	7.1%	0%	-	-	-	-	
% Total	0.6%	45.2%	1.0%	0%	46.9%	-	0.2%	0.1%	0%	0%	0.2%	-	0.7%	44.4%	3.1%	0.2%	48.4%	-	4.1%	0.1%	0.3%	0%	4.5%	-	-
PHF	0.583	0.884	0.542	-	0.877	-	0.250	0.250	-	-	0.250	-	0.563	0.812	0.792	0.500	0.821	-	0.797	0.250	0.333	-	0.824	-	0.858
Lights	0	530	12	0	542	-	1	0	0	0	1	-	8	518	23	2	551	-	42	1	1	0	44	-	1138
% Lights	0%	94.3%	92.3%	0%	93.1%	-	50.0%	0%	0%	0%	33.3%	-	88.9%	93.8%	60.5%	100%	91.7%	-	82.4%	100%	25.0%	0%	78.6%	-	91.6%
Articulated Trucks	6	6	0	0	12	-	0	0	0	0	0	-	0	6	9	0	15	-	2	0	0	0	2	-	29
% Articulated Trucks	85.7%	1.1%	0%	0%	2.1%	-	0%	0%	0%	0%	0%	-	0%	1.1%	23.7%	0%	2.5%	-	3.9%	0%	0%	0%	3.6%	-	2.3%
Buses and Single-Unit Trucks	1	26	1	0	28	-	1	1	0	0	2	-	1	28	6	0	35	-	7	0	3	0	10	-	75
% Buses and Single-Unit Trucks	14.3%	4.6%	7.7%	0%	4.8%	-	50.0%	100%	0%	0%	66.7%	-	11.1%	5.1%	15.8%	0%	5.8%	-	13.7%	0%	75.0%	0%	17.9%	-	6.0%
Pedestrans	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0	-
% Pedestrans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrans and Bicycles on Crosswalk L: Left, R: Right, T: Thru, U: U Turn

5. 17th West Street at W Airfield Drive - TMC

Wed May 1, 2019

AM Peak (7:30 AM - 8:30 AM)

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

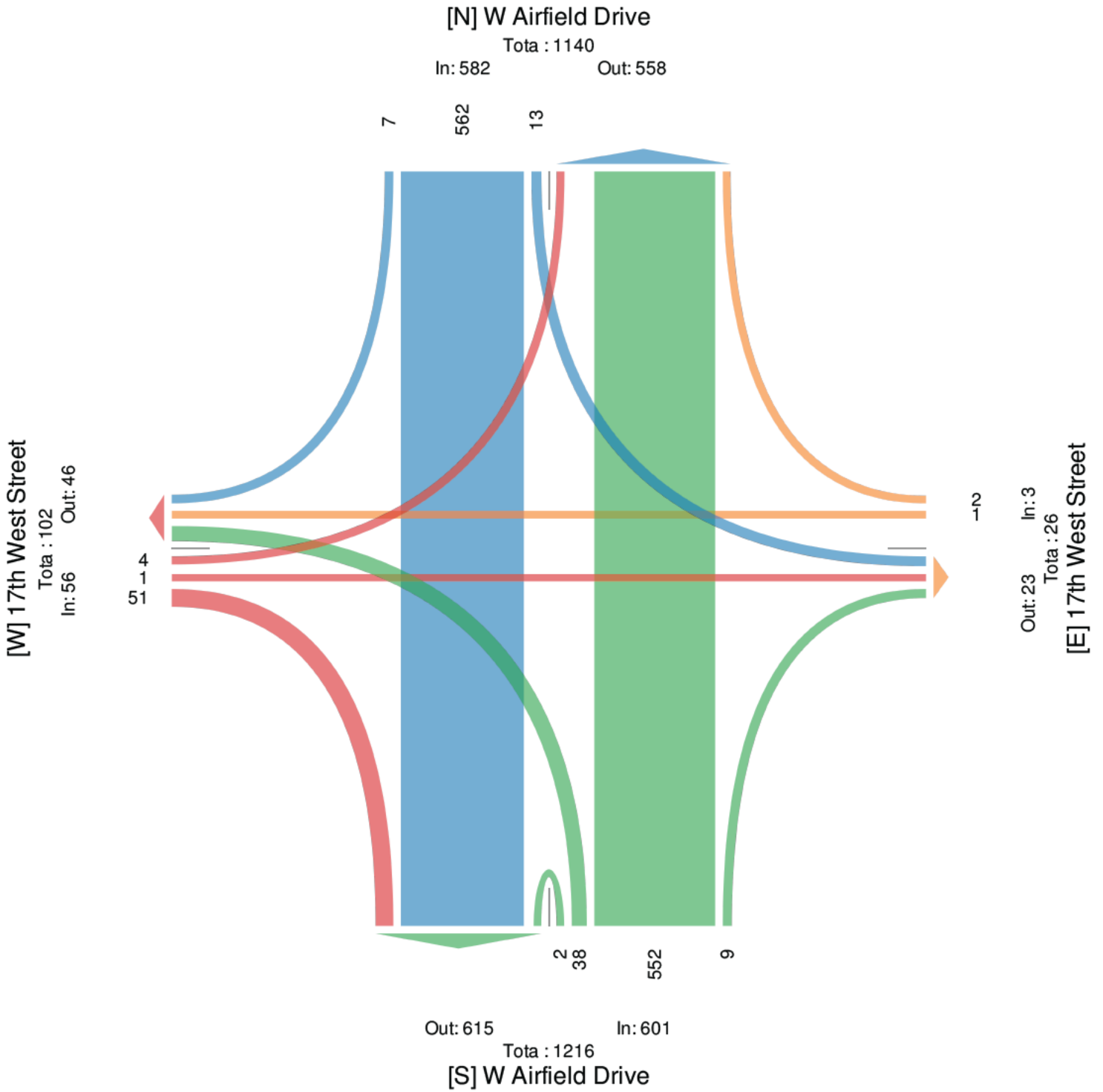
All Movements

ID: 645630, Location: 32.912656, -97.06772



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

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



5. 17th West Street at W Airfield Drive - TMC

Wed May 1, 2019

PM Peak (4:45 PM - 5:45 PM) Over a Peak Hour

Accidents (Lights, Articulated Trucks, Buses and Single Unit Trucks, Pedestrians, Bicycles on Crosswalk)

Accident Movements

ID: 645630, Location: 32 912656, 97.06772



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Segment	W Airfield Drive Southbound				17th West Street Westbound				W Airfield Drive Northbound				17th West Street Eastbound				Total								
	R	U	App	ed*	R	U	App	ed*	R	U	App	ed*	R	U	App	ed*									
2019-05-01 4:45 M	1	193	1	0	195	0	2	0	2	0	4	0	0	116	6	0	122	0	19	0	1	0	20	0	341
5:00 M	0	178	2	0	180	0	5	0	1	0	6	0	2	162	0	0	164	0	33	0	2	0	35	0	385
5:15 M	2	213	1	0	216	0	5	0	0	0	5	0	0	144	9	1	154	0	30	0	1	0	31	0	406
5:30 M	1	195	0	0	196	0	1	0	0	0	1	0	0	163	11	0	174	0	21	0	0	0	21	0	392
Total	4	779	4	0	787	0	13	0	3	0	16	0	2	585	26	1	614	0	103	0	4	0	107	0	1524
% Approach	0.5%	99.0%	0.5%	0%	-	-	81.3%	0%	18.8%	0%	-	-	0.3%	95.3%	4.2%	0.2%	-	-	96.3%	0%	3.7%	0%	-	-	-
% Total	0.3%	51.1%	0.3%	0%	51.6%	-	0.9%	0%	0.2%	0%	1.0%	-	0.1%	38.4%	1.7%	0.1%	40.3%	-	6.8%	0%	0.3%	0%	7.0%	-	-
PHF	0.500	0.914	0.500	-	0.911	-	0.650	-	0.375	-	0.667	-	0.250	0.897	0.591	0.250	0.882	-	0.780	-	0.500	-	0.764	-	0.938
Lights	1	717	1	0	719	-	12	0	3	0	15	-	1	546	19	1	567	-	86	0	3	0	89	-	1390
% Lights	25.0%	92.0%	25.0%	0%	91.4%	-	92.3%	0%	100%	0%	93.8%	-	50.0%	93.3%	73.1%	100%	92.3%	-	83.5%	0%	75.0%	0%	83.2%	-	91.2%
Articulated Trucks	2	24	0	0	26	-	0	0	0	0	0	-	1	14	2	0	17	-	7	0	1	0	8	-	51
% Articulated Trucks	50.0%	3.1%	0%	0%	3.3%	-	0%	0%	0%	0%	0%	-	50.0%	2.4%	7.7%	0%	2.8%	-	6.8%	0%	25.0%	0%	7.5%	-	3.3%
Buses and Single-Unit Trucks	1	38	3	0	42	-	1	0	0	0	1	-	0	25	5	0	30	-	10	0	0	0	10	-	83
% Buses and Single-Unit Trucks	25.0%	4.9%	75.0%	0%	5.3%	-	7.7%	0%	0%	0%	6.3%	-	0%	4.3%	19.2%	0%	4.9%	-	9.7%	0%	0%	0%	9.3%	-	5.4%
pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

5. 17th West Street at W Airfield Drive - TMC

Wed May 1, 2019

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

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

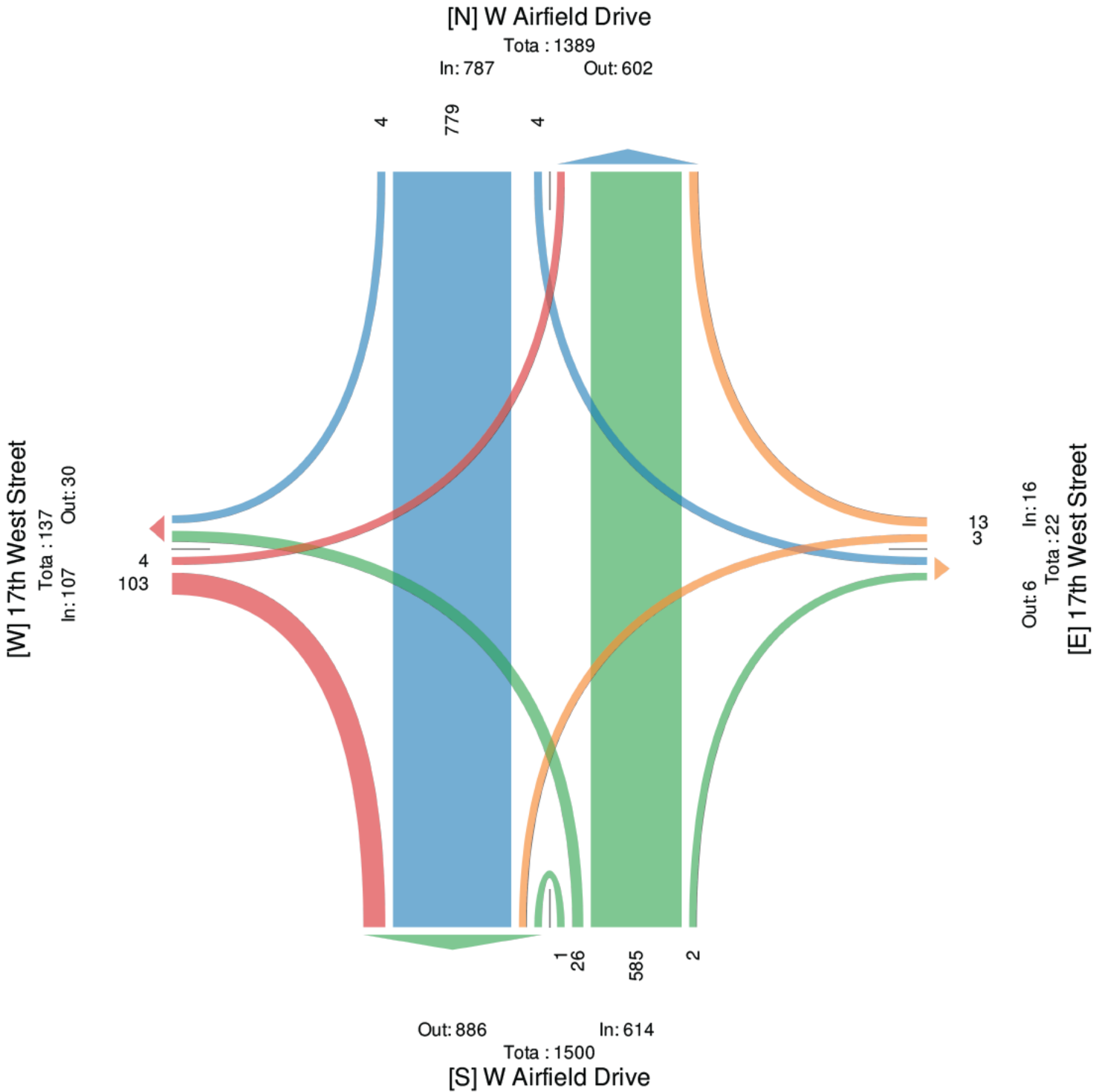
All Movements

ID: 645630, Location: 32.912656, -97.06772



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

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



6. 17th East Street at W Airfield Drive - TMC

Tue Apr 30, 2019

Full Length (7 AM-9 AM, 4:30 PM-6:30 PM)

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

All Movements

ID: 645617, Location: 32.913557, -97.067624



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound					17th East Street Westbound					W Airfield Drive Northbound					Int
	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	
2019 04 30 7 00AM	514	30	0	544	0	28	5	0	33	0	10	594	1	605	0	1182
8 00AM	491	49	0	540	0	10	5	0	15	0	12	475	1	488	0	1043
4 00PM	353	9	0	362	0	20	4	0	24	0	5	268	1	274	0	660
5 00PM	822	32	0	854	0	41	20	0	61	0	13	631	0	644	0	1559
6 00PM	324	13	1	338	0	28	8	0	36	0	1	192	0	193	0	567
Total	2504	133	1	2638	0	127	42	0	169	0	41	2160	3	2204	0	5011
% Approach	94.9%	5.0%	0%	-	-	75.1%	24.9%	0%	-	-	1.9%	98.0%	0.1%	-	-	
% Total	50.0%	2.7%	0%	52.6%		2.5%	0.8%	0%	3.4%		0.8%	43.1%	0.1%	44.0%		
Lights	2336	77	1	2414		61	20	0	81		27	2002	3	2032		4527
% Lights	93.3%	57.9%	100%	91.5%		48.0%	47.6%	0%	47.9%		65.9%	92.7%	100%	92.2%		90.3%
Articulated Trucks	70	20	0	90		21	3	0	24		7	52	0	59		173
% Articulated Trucks	2.8%	15.0%	0%	3.4%		16.5%	7.1%	0%	14.2%		17.1%	2.4%	0%	2.7%		3.5%
Buses and Single-Unit Trucks	98	36	0	134		45	19	0	64		7	106	0	113		311
% Buses and Single-Unit Trucks	3.9%	27.1%	0%	5.1%		35.4%	45.2%	0%	37.9%		17.1%	4.9%	0%	5.1%		6.2%
Pedestrians					0					0					0	
% Pedestrians																
Bicycles on Crosswalk					0					0					0	
% Bicycles on Crosswalk																

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

6. 17th East Street at W Airfield Drive - TMC

Tue Apr 30, 2019

Full Length (7 AM-9 AM, 4:30 PM-6:30 PM)

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

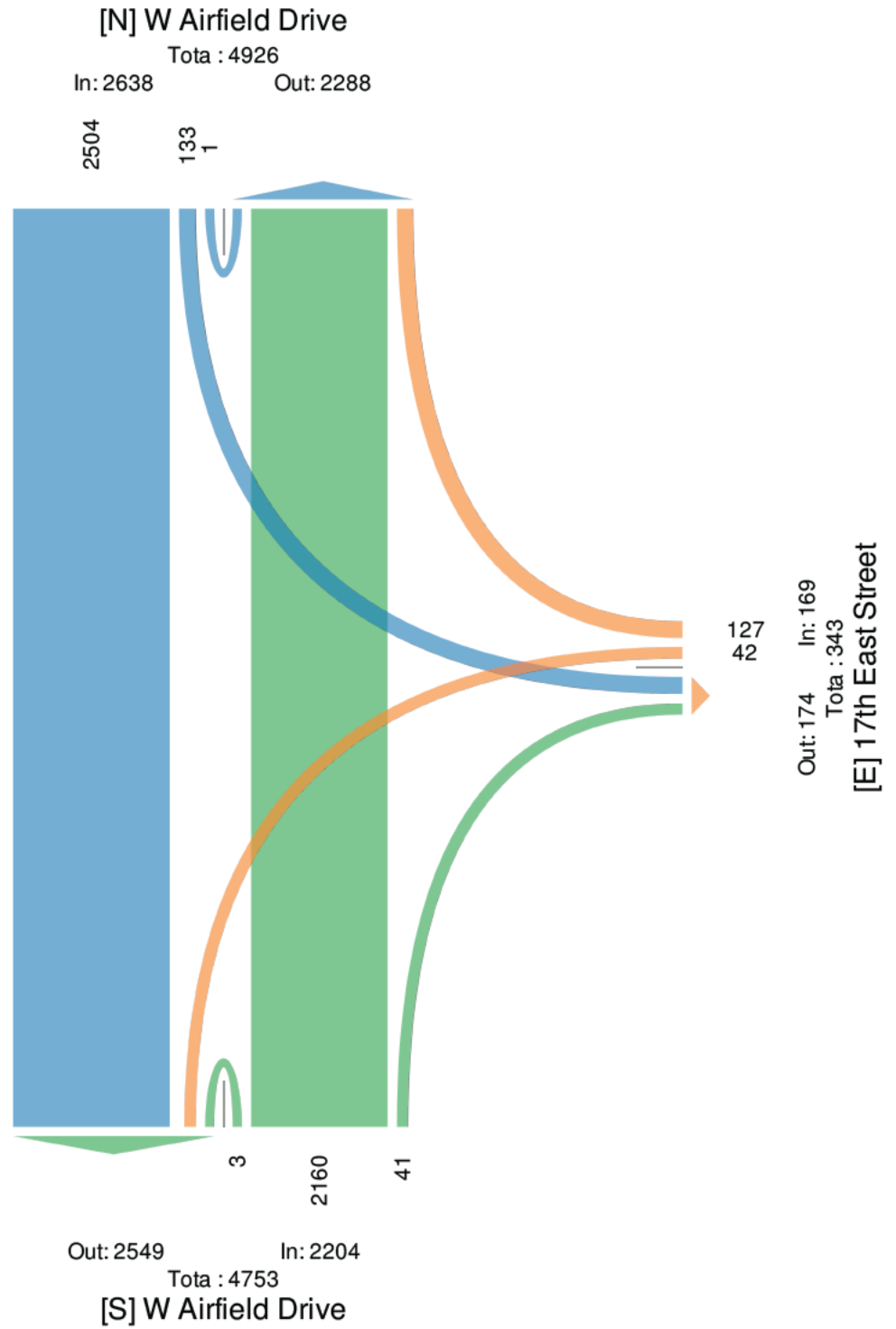
All Movements

ID: 645617, Location: 32.913557, -97.067624



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

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



6. 17th East Street at W Airfield Drive - TMC

Tue Apr 30, 2019

AM Peak (7:30 AM - 8:30 AM)

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

All Movements

ID: 645617, Location: 32.913557, -97.067624



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound					17th East Street Westbound					W Airfield Drive Northbound					Int
	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	
2019 04 30 7 30AM	136	3	0	139	0	0	0	0	0	0	6	141	0	147	0	286
7 45AM	184	14	0	198	0	3	0	0	3	0	2	158	0	160	0	361
8 00AM	127	10	0	137	0	4	1	0	5	0	4	137	0	141	0	283
8 15AM	129	9	0	138	0	3	2	0	5	0	5	120	0	125	0	268
Total	576	36	0	612	0	10	3	0	13	0	17	556	0	573	0	1198
% Approach	94.1%	5.9%	0%	-		76.9%	23.1%	0%	-		3.0%	97.0%	0%	-		
% Total	48.1%	3.0%	0%	51.1%		0.8%	0.3%	0%	1.1%		1.4%	46.4%	0%	47.8%		
PHF	0.783	0.643		0.773		0.625	0.375		0.650		0.708	0.880		0.895		0.830
Lights	546	29	0	575		7	3	0	10		12	525	0	537		1122
% Lights	94.8%	80.6%	0%	94.0%		70.0%	100%	0%	76.9%		70.6%	94.4%	0%	93.7%		93.7%
Articulated Trucks	14	2	0	16		2	0	0	2		3	8	0	11		29
% Articulated Trucks	2.4%	5.6%	0%	2.6%		20.0%	0%	0%	15.4%		17.6%	1.4%	0%	1.9%		2.4%
Buses and Single-Unit Trucks	16	5	0	21		1	0	0	1		2	23	0	25		47
% Buses and Single-Unit Trucks	2.8%	13.9%	0%	3.4%		10.0%	0%	0%	7.7%		11.8%	4.1%	0%	4.4%		3.9%
Pedestrians					0					0					0	
% Pedestrians																
Bicycles on Crosswalk					0					0					0	
% Bicycles on Crosswalk																

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

6. 17th East Street at W Airfield Drive - TMC

Tue Apr 30, 2019

AM Peak (7:30 AM - 8:30 AM)

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

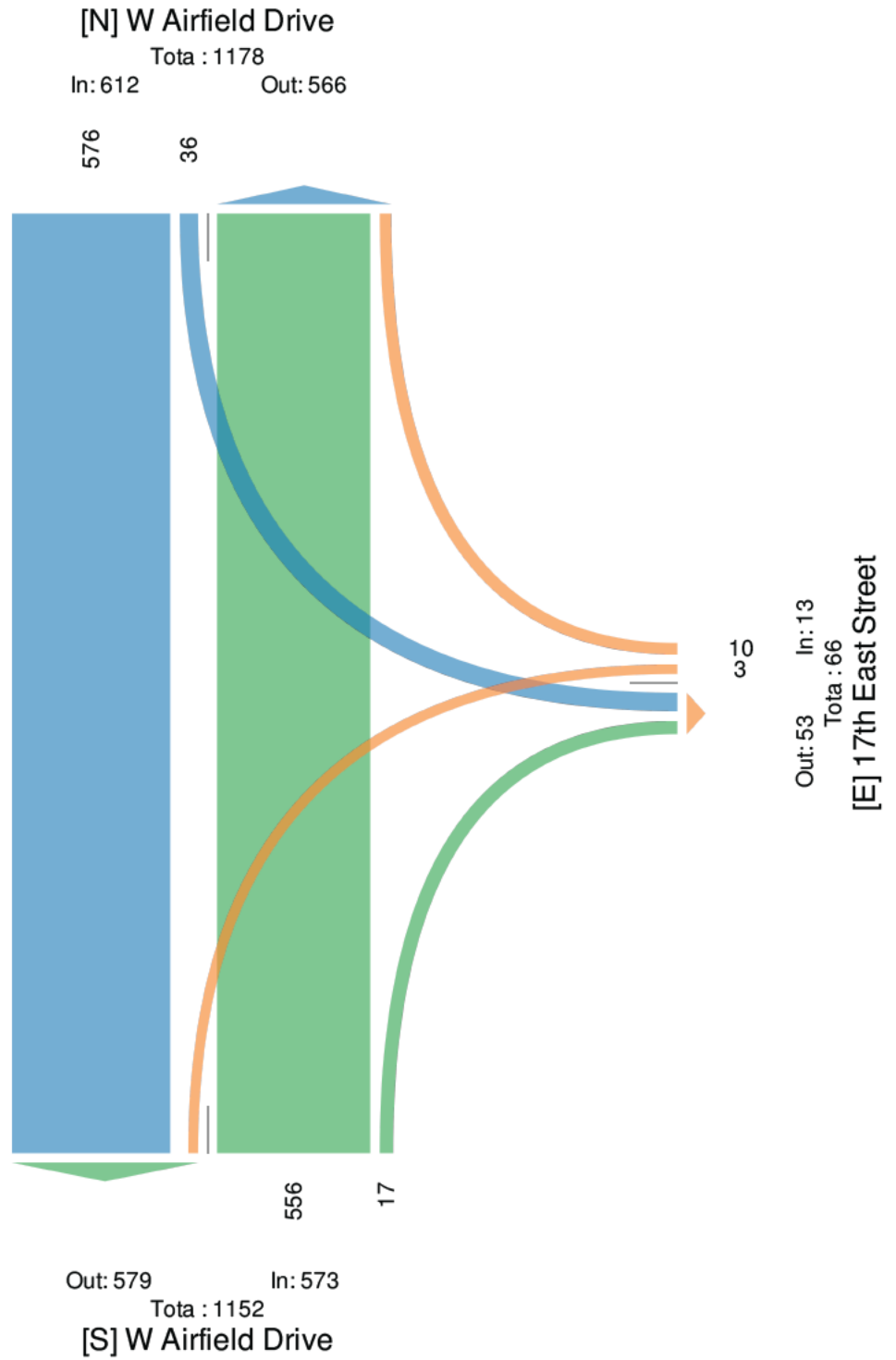
All Movements

ID: 645617, Location: 32.913557, -97.067624



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

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



6. 17th East Street at W Airfield Drive - TMC

Tue Apr 30, 2019

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

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

All Movements

ID: 645617, Location: 32.913557, -97.067624



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound					17th East Street Westbound					W Airfield Drive Northbound					Int
	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	
2019 04 30 5 00PM	217	3	0	220	0	11	6	0	17	0	1	188	0	189	0	426
5 15PM	219	6	0	225	0	11	3	0	14	0	3	151	0	154	0	393
5 30PM	186	8	0	194	0	10	4	0	14	0	3	158	0	161	0	369
5 45PM	200	15	0	215	0	9	7	0	16	0	6	134	0	140	0	371
Total	822	32	0	854	0	41	20	0	61	0	13	631	0	644	0	1559
% Approach	96.3%	3.7%	0%	-	-	67.2%	32.8%	0%	-	-	2.0%	98.0%	0%	-	-	
% Total	52.7%	2.1%	0%	54.8%		2.6%	1.3%	0%	3.9%		0.8%	40.5%	0%	41.3%		
PHF	0.938	0.533		0.949		0.932	0.714		0.897		0.542	0.839		0.852		0.915
Lights	757	11	0	768		21	8	0	29		9	576	0	585		1382
% Lights	92.1%	34.4%	0%	89.9%		51.2%	40.0%	0%	47.5%		69.2%	91.3%	0%	90.8%		88.6%
Articulated Trucks	29	9	0	38		7	2	0	9		3	21	0	24		71
% Articulated Trucks	3.5%	28.1%	0%	4.4%		17.1%	10.0%	0%	14.8%		23.1%	3.3%	0%	3.7%		4.6%
Buses and Single-Unit Trucks	36	12	0	48		13	10	0	23		1	34	0	35		106
% Buses and Single-Unit Trucks	4.4%	37.5%	0%	5.6%		31.7%	50.0%	0%	37.7%		7.7%	5.4%	0%	5.4%		6.8%
Pedestrians					0					0					0	
% Pedestrians																
Bicycles on Crosswalk					0					0					0	
% Bicycles on Crosswalk																

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

6. 17th East Street at W Airfield Drive - TMC

Tue Apr 30, 2019

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

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

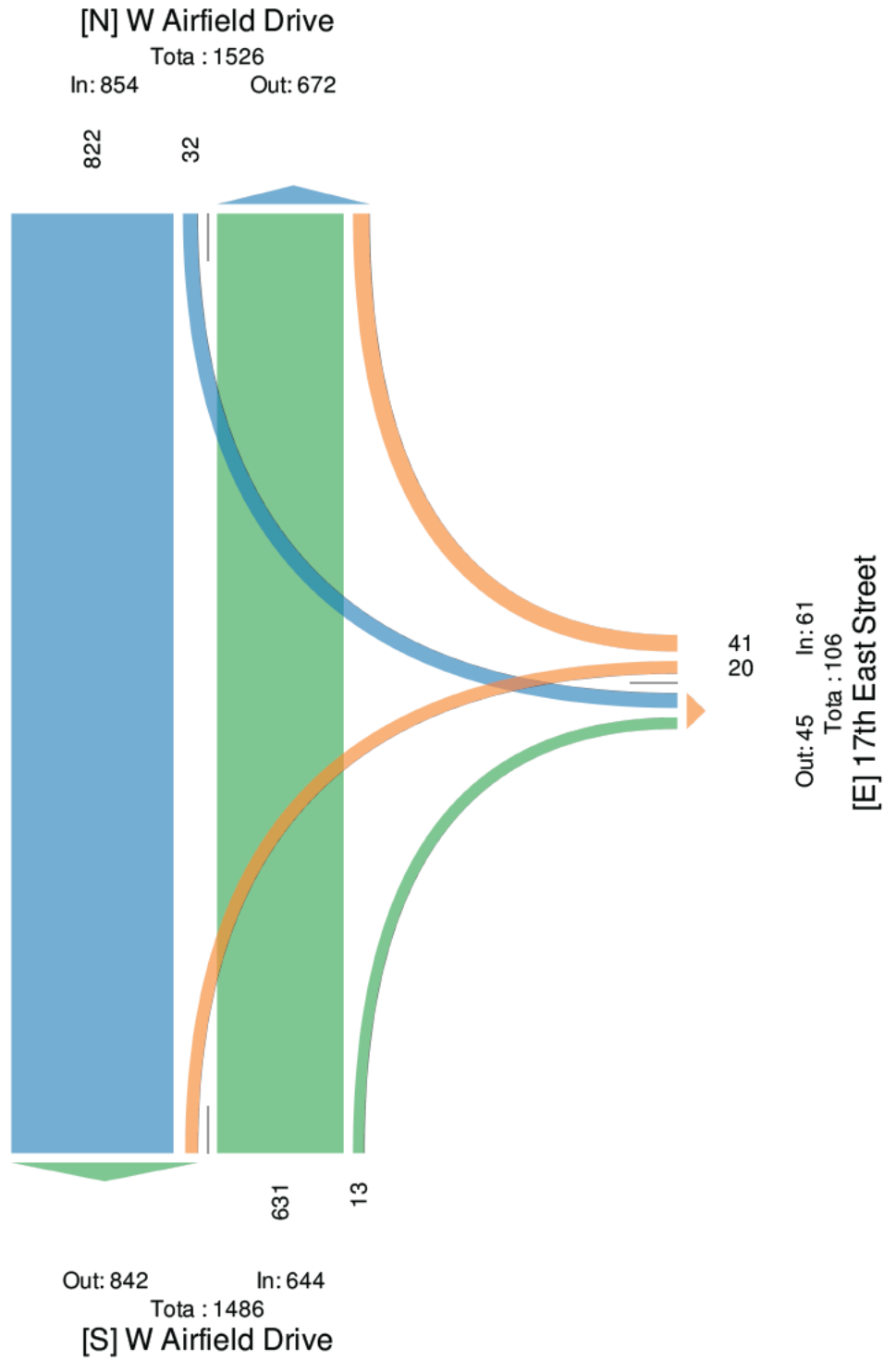
All Movements

ID: 645617, Location: 32.913557, -97.067624



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

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



6. 17th East Street at W Airfield Drive - TMC

Wed May 1, 2019

Full Length (7 AM-9 AM, 4:30 PM-6:30 PM)

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

All Movements

ID: 645631, Location: 32.913557, -97.067709



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound					17th East Street Westbound					W Airfield Drive Northbound					
Time	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	Int
2019 05 01 7 00AM	500	22	1	523	0	42	10	0	52	0	6	625	0	631	0	1206
8 00AM	486	39	0	525	0	8	3	0	11	0	15	431	0	446	0	982
4 00PM	369	5	0	374	0	20	4	0	24	0	2	269	0	271	0	669
5 00PM	746	37	0	783	0	41	23	0	64	0	9	577	0	586	0	1433
6 00PM	247	14	1	262	0	33	8	0	41	0	4	220	0	224	0	527
Total	2348	117	2	2467	0	144	48	0	192	0	36	2122	0	2158	0	4817
% Approach	95.2%	4.7%	0.1%	-		75.0%	25.0%	0%	-		1.7%	98.3%	0%	-		
% Total	48.7%	2.4%	0%	51.2%		3.0%	1.0%	0%	4.0%		0.7%	44.1%	0%	44.8%		
Lights	2175	68	2	2245		71	24	0	95		22	1990	0	2012		4352
% Lights	92.6%	58.1%	100%	91.0%		49.3%	50.0%	0%	49.5%		61.1%	93.8%	0%	93.2%		90.3%
Articulated Trucks	71	23	0	94		23	6	0	29		6	40	0	46		169
% Articulated Trucks	3.0%	19.7%	0%	3.8%		16.0%	12.5%	0%	15.1%		16.7%	1.9%	0%	2.1%		3.5%
Buses and Single-Unit Trucks	102	26	0	128		50	18	0	68		8	92	0	100		296
% Buses and Single-Unit Trucks	4.3%	22.2%	0%	5.2%		34.7%	37.5%	0%	35.4%		22.2%	4.3%	0%	4.6%		6.1%
Pedestrians					0					0					0	
% Pedestrians																
Bicycles on Crosswalk					0					0					0	
% Bicycles on Crosswalk																

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

6. 17th East Street at W Airfield Drive - TMC

Wed May 1, 2019

Full Length (7 AM-9 AM, 4:30 PM-6:30 PM)

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

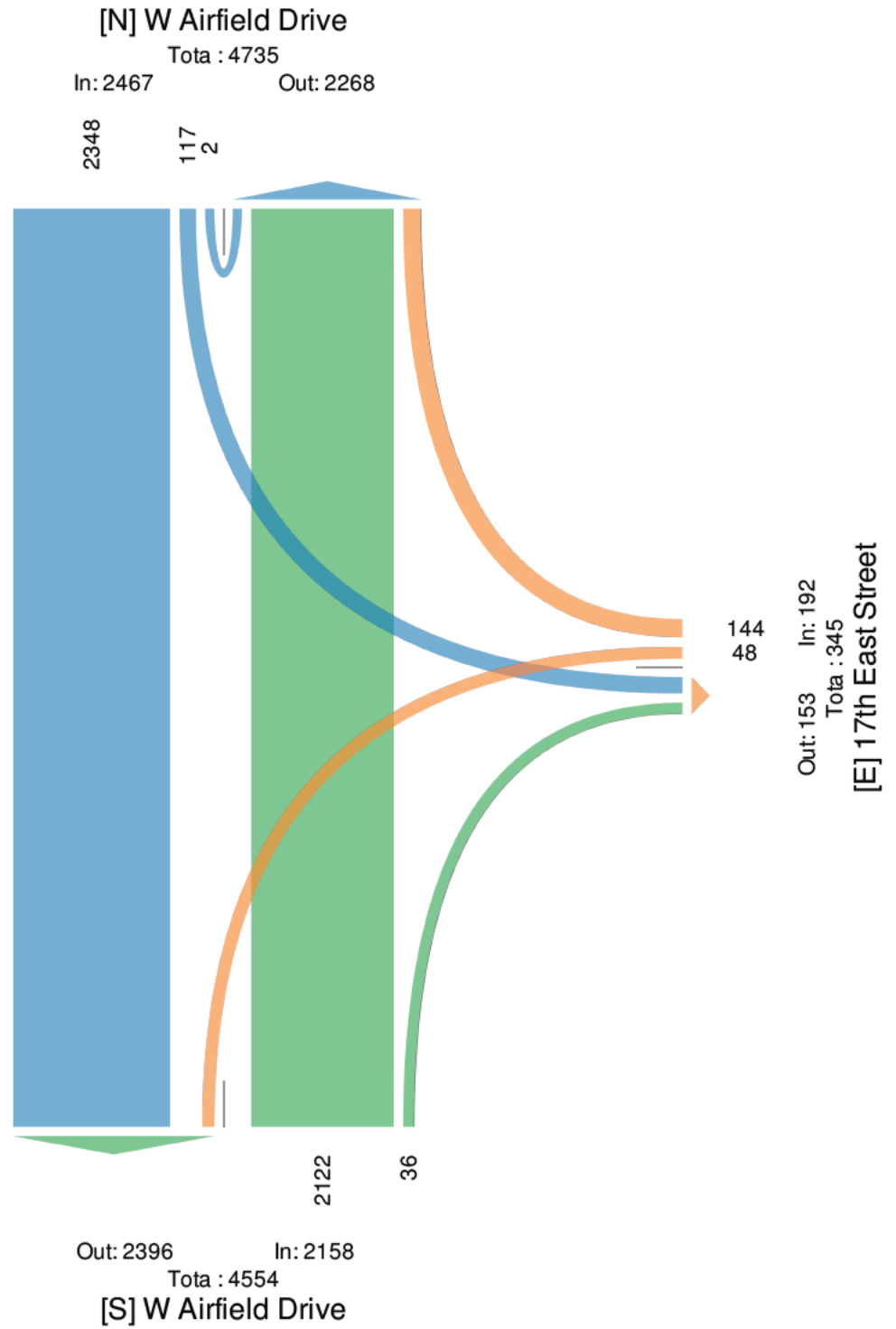
All Movements

ID: 645631, Location: 32.913557, -97.067709



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

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



6. 17th East Street at W Airfield Drive - TMC

Wed May 1, 2019

AM Peak (7 AM - 8 AM)

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

All Movements

ID: 645631, Location: 32.913557, -97.067709



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound					17th East Street Westbound					W Airfield Drive Northbound					
Time	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	Int
2019 05 01 7 00AM	103	7	0	110	0	13	5	0	18	0	1	169	0	170	0	298
7 15AM	101	3	1	105	0	22	3	0	25	0	1	140	0	141	0	271
7 30AM	133	8	0	141	0	6	1	0	7	0	1	154	0	155	0	303
7 45AM	163	4	0	167	0	1	1	0	2	0	3	162	0	165	0	334
Total	500	22	1	523	0	42	10	0	52	0	6	625	0	631	0	1206
% Approach	95.6%	4.2%	0.2%	-		80.8%	19.2%	0%	-		1.0%	99.0%	0%	-		
% Total	41.5%	1.8%	0.1%	43.4%		3.5%	0.8%	0%	4.3%		0.5%	51.8%	0%	52.3%		
PHF	0.767	0.688	0.250	0.783		0.477	0.500		0.520		0.500	0.925		0.928		0.903
Lights	473	19	1	493		12	6	0	18		4	607	0	611		1122
% Lights	94.6%	86.4%	100%	94.3%		28.6%	60.0%	0%	34.6%		66.7%	97.1%	0%	96.8%		93.0%
Articulated Trucks	10	2	0	12		3	1	0	4		1	3	0	4		20
% Articulated Trucks	2.0%	9.1%	0%	2.3%		7.1%	10.0%	0%	7.7%		16.7%	0.5%	0%	0.6%		1.7%
Buses and Single-Unit Trucks	17	1	0	18		27	3	0	30		1	15	0	16		64
% Buses and Single-Unit Trucks	3.4%	4.5%	0%	3.4%		64.3%	30.0%	0%	57.7%		16.7%	2.4%	0%	2.5%		5.3%
Pedestrians					0					0					0	
% Pedestrians																
Bicycles on Crosswalk					0					0					0	
% Bicycles on Crosswalk																

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

6. 17th East Street at W Airfield Drive - TMC

Wed May 1, 2019

AM Peak (7 AM - 8 AM)

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

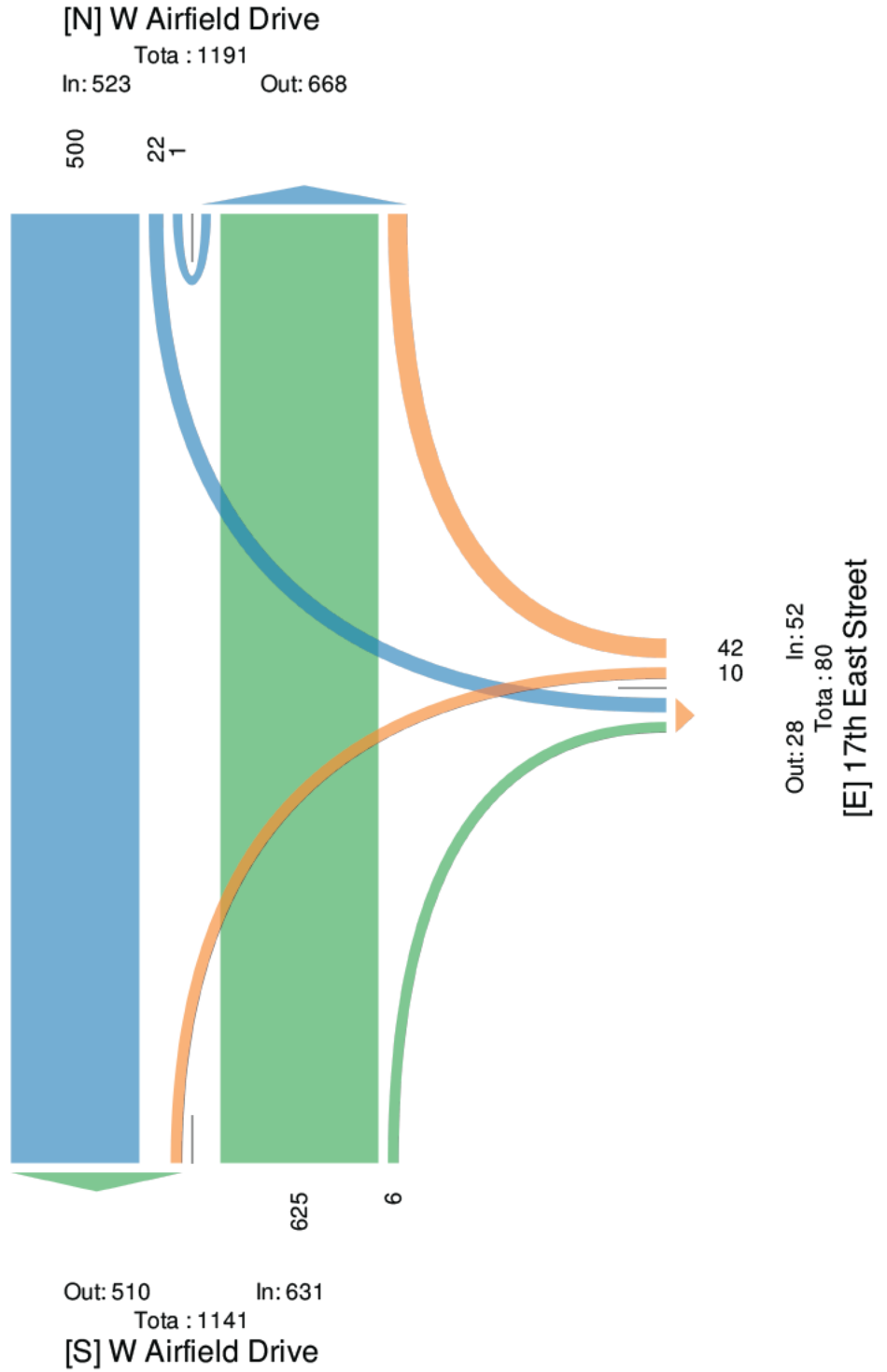
All Movements

ID: 645631, Location: 32.913557, -97.067709



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

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



6. 17th East Street at W Airfield Drive - TMC

Wed May 1, 2019

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

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

All Movements

ID: 645631, Location: 32.913557, -97.067709



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound					17th East Street Westbound					W Airfield Drive Northbound					Int
	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	
2019 05 01 4 45PM	189	2	0	191	0	9	2	0	11	0	1	117	0	118	0	320
5 00PM	175	8	0	183	0	10	5	0	15	0	2	165	0	167	0	365
5 15PM	215	5	0	220	0	10	3	0	13	0	2	150	0	152	0	385
5 30PM	190	13	0	203	0	8	4	0	12	0	2	159	0	161	0	376
Total	769	28	0	797	0	37	14	0	51	0	7	591	0	598	0	1446
% Approach	96.5%	3.5%	0%	-		72.5%	27.5%	0%	-		1.2%	98.8%	0%	-		
% Total	53.2%	1.9%	0%	55.1%		2.6%	1.0%	0%	3.5%		0.5%	40.9%	0%	41.4%		
PHF	0.894	0.538		0.906		0.925	0.700		0.850		0.875	0.895		0.895		0.939
Lights	709	13	0	722		29	6	0	35		4	553	0	557		1314
% Lights	92.2%	46.4%	0%	90.6%		78.4%	42.9%	0%	68.6%		57.1%	93.6%	0%	93.1%		90.9%
Articulated Trucks	24	7	0	31		5	2	0	7		2	13	0	15		53
% Articulated Trucks	3.1%	25.0%	0%	3.9%		13.5%	14.3%	0%	13.7%		28.6%	2.2%	0%	2.5%		3.7%
Buses and Single-Unit Trucks	36	8	0	44		3	6	0	9		1	25	0	26		79
% Buses and Single-Unit Trucks	4.7%	28.6%	0%	5.5%		8.1%	42.9%	0%	17.6%		14.3%	4.2%	0%	4.3%		5.5%
Pedestrians					0					0					0	
% Pedestrians																
Bicycles on Crosswalk					0					0					0	
% Bicycles on Crosswalk																

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

6. 17th East Street at W Airfield Drive - TMC

Wed May 1, 2019

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

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

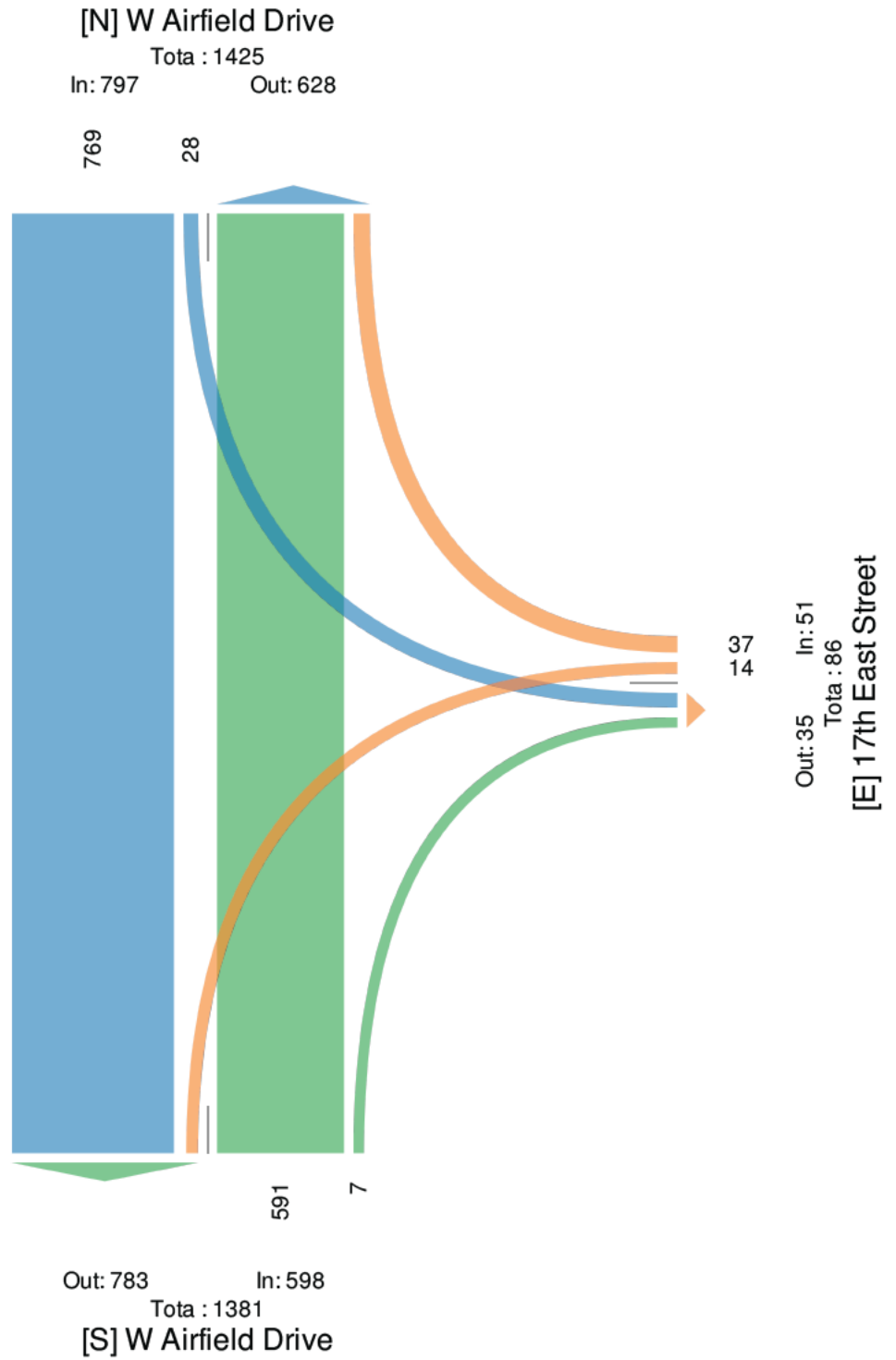
All Movements

ID: 645631, Location: 32.913557, -97.067709



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

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



7. 19th Street at W Airfield Drive - TMC

Tue Apr 30, 2019

Full Length (7 AM 9 AM, 4:30 PM 6:30 PM)

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

All Movements

ID: 645618, Location: 32.910977, 97.067687



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W A r f e d Dr ve Southbound						19th Street Westbound						W A r f e d Dr ve Northbound						Dr ve way Eastbound						Int
	R	L	U	App	ed*		R	L	U	App	ed*		R	L	U	App	ed*		R	L	U	App	ed*		
2019-04-30 7 00AM	30	475	35	0	540	0	46	0	52	0	98	0	16	600	22	0	638	0	3	0	1	0	4	0	1280
8 00AM	44	438	38	1	521	0	47	0	66	0	113	1	35	448	30	0	513	0	6	0	4	0	10	0	1157
4 00 M	2	352	43	0	397	0	18	0	33	0	51	0	64	248	2	0	314	0	4	0	14	0	18	0	780
5 00 M	3	821	99	0	923	0	33	0	50	0	83	0	124	594	6	0	724	0	51	0	40	0	91	0	1821
6 00 M	1	340	18	0	359	0	12	0	21	0	33	0	23	179	0	0	202	0	7	0	9	0	16	0	610
Total	80	2426	233	1	2740	0	156	0	222	0	378	1	262	2069	60	0	2391	0	71	0	68	0	139	0	5648
% Approach	2.9%	88.5%	8.5%	0%	-	-	41.3%	0%	58.7%	0%	-	-	11.0%	86.5%	2.5%	0%	-	-	51.1%	0%	48.9%	0%	-	-	-
% Total	1.4%	43.0%	4.1%	0%	48.5%	-	2.8%	0%	3.9%	0%	6.7%	-	4.6%	36.6%	1.1%	0%	42.3%	-	1.3%	0%	1.2%	0%	2.5%	-	-
Lights	80	2231	224	1	2536	-	143	0	206	0	349	-	248	1890	60	0	2198	-	71	0	68	0	139	-	5222
% Lights	100%	92.0%	96.1%	100%	92.6%	-	91.7%	0%	92.8%	0%	92.3%	-	94.7%	91.3%	100%	0%	91.9%	-	100%	0%	100%	0%	100%	-	92.5%
Articulated Trucks	0	68	4	0	72	-	4	0	3	0	7	-	3	66	0	0	69	-	0	0	0	0	0	-	148
% Articulated Trucks	0%	2.8%	1.7%	0%	2.6%	-	2.6%	0%	1.4%	0%	1.9%	-	1.1%	3.2%	0%	0%	2.9%	-	0%	0%	0%	0%	0%	-	2.6%
Buses and Single-Unit Trucks	0	127	5	0	132	-	9	0	13	0	22	-	11	113	0	0	124	-	0	0	0	0	0	-	278
% Buses and Single-Unit Trucks	0%	5.2%	2.1%	0%	4.8%	-	5.8%	0%	5.9%	0%	5.8%	-	4.2%	5.5%	0%	0%	5.2%	-	0%	0%	0%	0%	0%	-	4.9%
pedestrans	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% pedestrans	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	-	-
B cycles on Crosswa k	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-
% B cycles on Crosswa k	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	-

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

7. 19th Street at W Airfield Drive - TMC

Tue Apr 30, 2019

Full Length (7 AM-9 AM, 4:30 PM-6:30 PM)

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

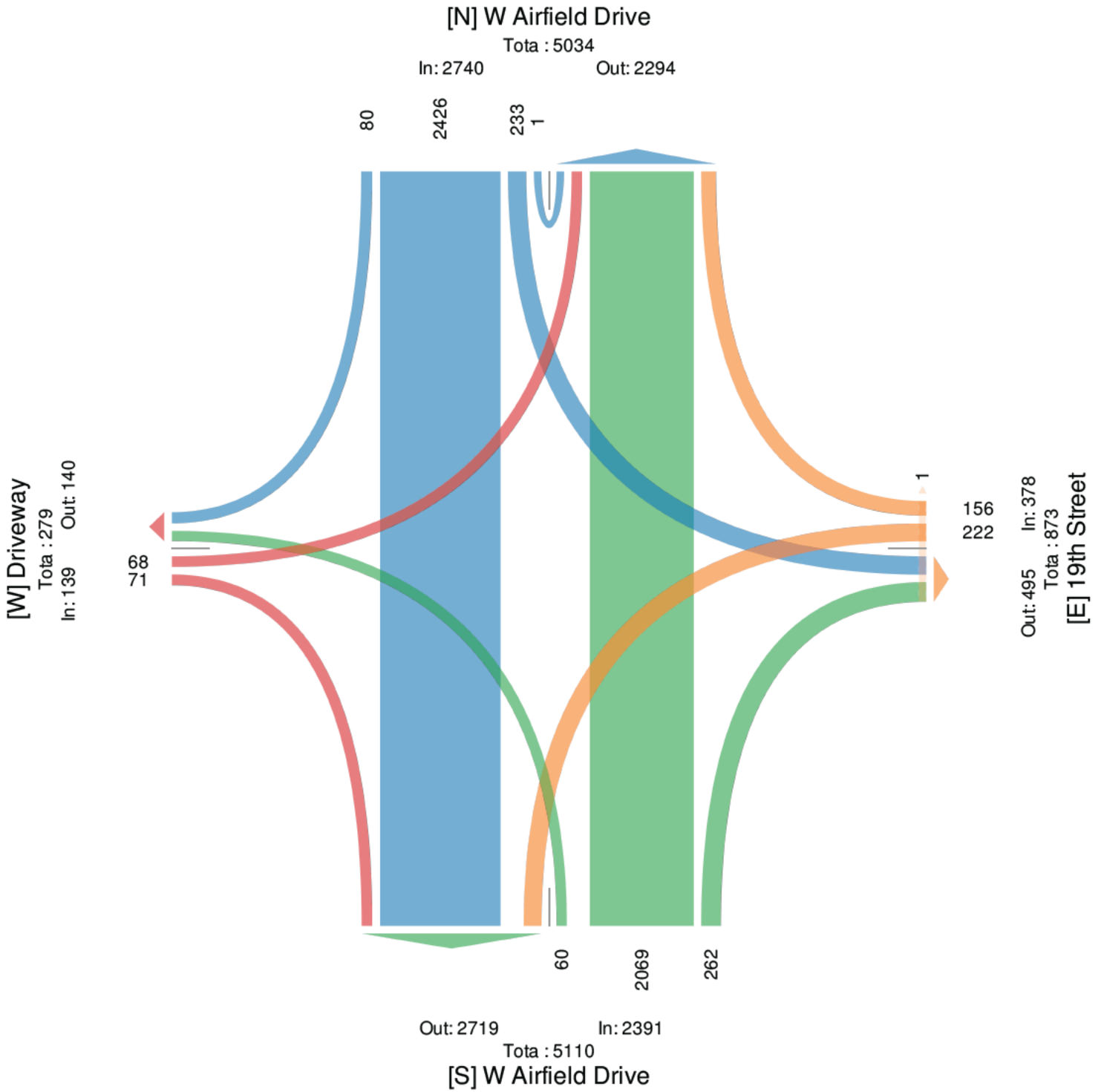
All Movements

ID: 645618, Location: 32.910977, -97.067687



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

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



7. 19th Street at W Airfield Drive - TMC

Tue Apr 30, 2019

AM Peak (7:30 AM - 8:30 AM)

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

All Movements

ID: 645618, Location: 32.910977, 97.067687



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound					19th Street Westbound					W Airfield Drive Northbound					Driveway Eastbound					Int			
	R	L	U	App	ed*	R	L	U	App	ed*	R	L	U	App	ed*	R	L	U	App	ed*				
2019-04-30 7:30AM	7	121	7	0	135	0	8	0	15	0	23	0	3	156	6	0	165	0	0	0	0	0	323	
7:45AM	15	169	10	0	194	0	15	0	14	0	29	0	7	160	13	0	180	0	2	0	1	0	406	
8:00AM	11	127	7	0	145	0	8	0	21	0	29	0	15	139	8	0	162	0	2	0	0	2	338	
8:15AM	16	99	8	1	124	0	12	0	17	0	29	0	7	111	13	0	131	0	4	0	2	0	290	
Total	49	516	32	1	598	0	43	0	67	0	110	0	32	566	40	0	638	0	8	0	3	0	1357	
% Approach	8.2%	86.3%	5.4%	0.2%	-	-	39.1%	0%	60.9%	0%	-	-	5.0%	88.7%	6.3%	0%	-	-	72.7%	0%	27.3%	0%	-	-
% Total	3.6%	38.0%	2.4%	0.1%	44.1%	-	3.2%	0%	4.9%	0%	8.1%	-	2.4%	41.7%	2.9%	0%	47.0%	-	0.6%	0%	0.2%	0%	0.8%	-
PHF	0.766	0.763	0.800	0.250	0.771	-	0.717	-	0.798	-	0.948	-	0.533	0.884	0.769	-	0.886	-	0.500	-	0.375	-	0.458	-
Lights	49	479	31	1	560	-	41	0	59	0	100	-	29	525	40	0	594	-	8	0	3	0	11	-
% Lights	100%	92.8%	96.9%	100%	93.6%	-	95.3%	0%	88.1%	0%	90.9%	-	90.6%	92.8%	100%	0%	93.1%	-	100%	0%	100%	0%	100%	-
Articulated Trucks	0	12	1	0	13	-	1	0	1	0	2	-	0	13	0	0	13	-	0	0	0	0	0	-
% Articulated Trucks	0%	2.3%	3.1%	0%	2.2%	-	2.3%	0%	1.5%	0%	1.8%	-	0%	2.3%	0%	0%	2.0%	-	0%	0%	0%	0%	0%	-
Buses and Single-Unit Trucks	0	25	0	0	25	-	1	0	7	0	8	-	3	28	0	0	31	-	0	0	0	0	0	-
% Buses and Single-Unit Trucks	0%	4.8%	0%	0%	4.2%	-	2.3%	0%	10.4%	0%	7.3%	-	9.4%	4.9%	0%	0%	4.9%	-	0%	0%	0%	0%	0%	-
% Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0

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

7. 19th Street at W Airfield Drive - TMC

Tue Apr 30, 2019

AM Peak (7:30 AM - 8:30 AM)

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

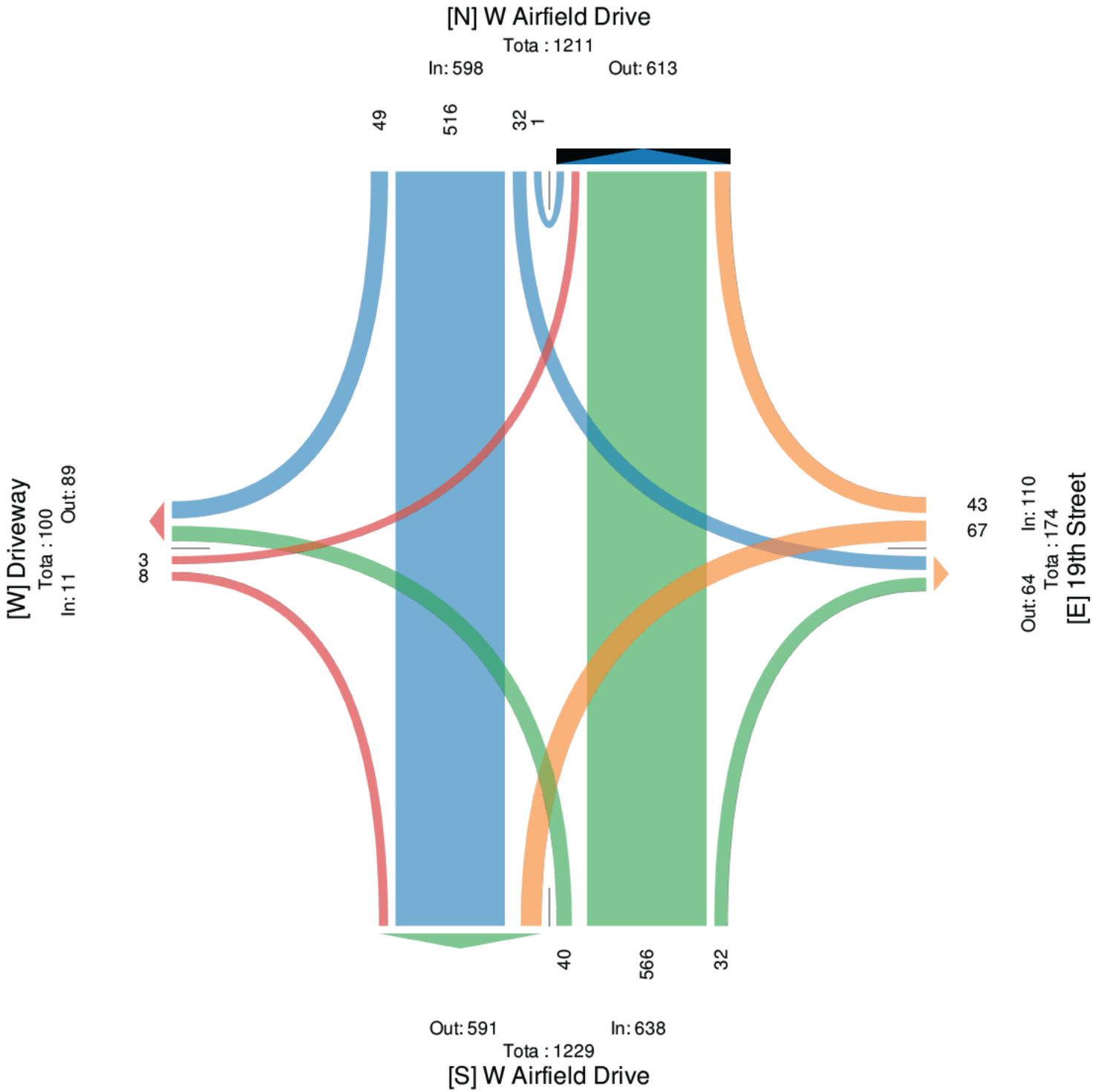
All Movements

ID: 645618, Location: 32.910977, -97.067687



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

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



7. 19th Street at W Airfield Drive - TMC

Tue Apr 30, 2019

PM Peak (4:45 PM - 5:45 PM) Overall Peak Hour

All Classes (Ligh s, Ar icula ed Trucks, Buses and Single Uni Trucks, Pedes rians, Bicycles on Crosswalk)

All Movemen s

ID: 645618, Loca ion: 32.910977, 97.067687



Provided by: C. J. Hensch & Associa es Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg D irection	W A irfield D rive Southbound				19th St eet Westbound				W A irfield D rive No rthbound				D rive way Eastbound				Int								
	R	L	U	App ed*	R	L	U	App ed*	R	L	U	App ed*	R	L	U	App ed*									
2019-04-30 4:45 M	1	194	25	0	220	0	8	0	15	0	23	0	37	115	0	0	152	0	3	0	7	0	10	0	405
5:00 M	1	235	21	0	257	0	5	0	19	0	24	0	36	177	2	0	215	0	32	0	14	0	46	0	542
5:15 M	0	215	32	0	247	0	9	0	12	0	21	0	36	144	1	0	181	0	9	0	9	0	18	0	467
5:30 M	1	182	17	0	200	0	12	0	10	0	22	0	32	148	2	0	182	0	5	0	10	0	15	0	419
Total	3	826	95	0	924	0	34	0	56	0	90	0	141	584	5	0	730	0	49	0	40	0	89	0	1833
% Approach	0.3%	89.4%	10.3%	0%	-	-	37.8%	0%	62.2%	0%	-	-	19.3%	80.0%	0.7%	0%	-	-	55.1%	0%	44.9%	0%	-	-	-
% Total	0.2%	45.1%	5.2%	0%	50.4%	-	1.9%	0%	3.1%	0%	4.9%	-	7.7%	31.9%	0.3%	0%	39.8%	-	2.7%	0%	2.2%	0%	4.9%	-	-
PHF	0.750	0.879	0.742	-	0.899	-	0.708	-	0.737	-	0.938	-	0.953	0.825	0.625	-	0.849	-	0.383	-	0.714	-	0.484	-	0.845
Lights	3	758	90	0	851	-	32	0	51	0	83	-	138	534	5	0	677	-	49	0	40	0	89	-	1700
% Lights	100%	91.8%	94.7%	0%	92.1%	-	94.1%	0%	91.1%	0%	92.2%	-	97.9%	91.4%	100%	0%	92.7%	-	100%	0%	100%	0%	100%	-	92.7%
Articulated Trucks	0	27	1	0	28	-	1	0	2	0	3	-	0	19	0	0	19	-	0	0	0	0	0	-	50
% Articulated Trucks	0%	3.3%	1.1%	0%	3.0%	-	2.9%	0%	3.6%	0%	3.3%	-	0%	3.3%	0%	0%	2.6%	-	0%	0%	0%	0%	0%	-	2.7%
Buses and Single-Unit Trucks	0	41	4	0	45	-	1	0	3	0	4	-	3	31	0	0	34	-	0	0	0	0	0	-	83
% Buses and Single-Unit Trucks	0%	5.0%	4.2%	0%	4.9%	-	2.9%	0%	5.4%	0%	4.4%	-	2.1%	5.3%	0%	0%	4.7%	-	0%	0%	0%	0%	0%	-	4.5%
pedest ans	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% pedest ans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B cycles on C osswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% B cycles on C osswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedes rians and Bicycles on Crosswalk. L: Lef , R: Righ , T: Thru , U: U Turn

7. 19th Street at W Airfield Drive - TMC

Tue Apr 30, 2019

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

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

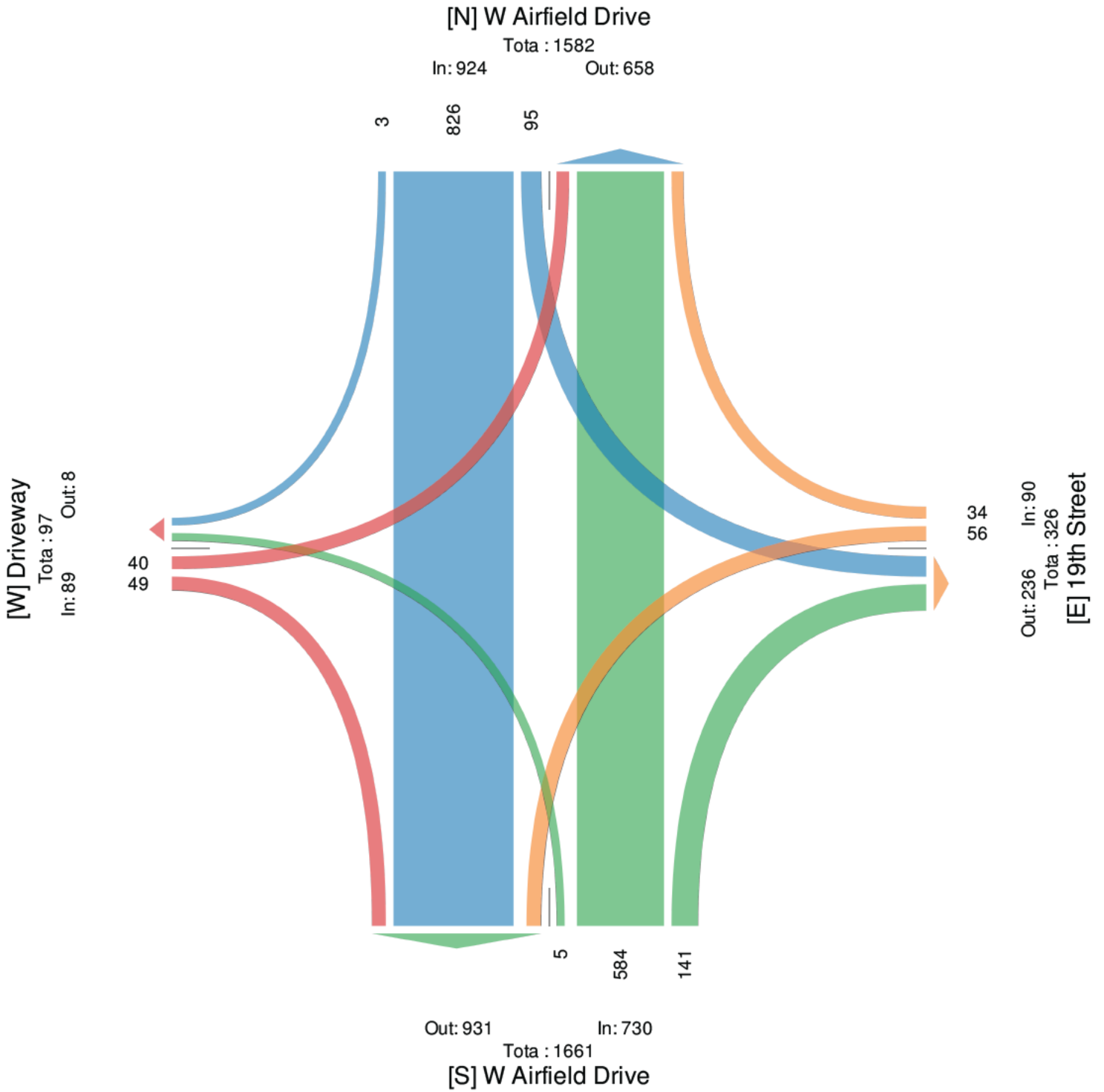
All Movements

ID: 645618, Location: 32.910977, -97.067687



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

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



7. 19th Street at W Airfield Drive - TMC

Wed May 1, 2019

Fu Length (7 AM 9 AM, 4:30 PM 6:30 PM)

A C asses (Lights, Articulated Trucks, Buses and Single Unit Trucks, Pedestrians, Bicycles on Crosswalk)

A Movements

ID: 645632, Location: 32.910855, 97.06762



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Segment Direction	W A r e d Dr ve Southbound						19th Street Westbound						W A r e d Dr ve Northbound						Dr ve way Eastbound						Int
	R	U	App	ed*			R	U	App	ed*			R	U	App	ed*			R	U	App	ed*			
2019-05-01 7:00AM	24	480	27	1	532	0	39	0	53	0	92	0	27	631	16	0	674	0	1	0	1	0	2	0	1300
8:00AM	49	438	40	0	527	0	51	0	63	0	114	0	38	419	41	0	498	0	2	0	2	0	4	0	1143
4:00 M	1	346	56	1	404	0	23	0	38	0	61	0	55	244	2	0	301	0	7	0	4	0	11	0	777
5:00 M	2	757	100	0	859	0	38	0	62	0	100	0	131	506	6	0	643	0	40	0	55	0	95	0	1697
6:00 M	3	248	29	0	280	0	17	0	23	0	40	0	20	206	1	0	227	0	8	0	9	0	17	0	564
Total	79	2269	252	2	2602	0	168	0	239	0	407	0	271	2006	66	0	2343	0	58	0	71	0	129	0	5481
% Approach	3.0%	87.2%	9.7%	0.1%	-	-	41.3%	0%	58.7%	0%	-	-	11.6%	85.6%	2.8%	0%	-	-	45.0%	0%	55.0%	0%	-	-	-
% Total	1.4%	41.4%	4.6%	0%	47.5%	-	3.1%	0%	4.4%	0%	7.4%	-	4.9%	36.6%	1.2%	0%	42.7%	-	1.1%	0%	1.3%	0%	2.4%	-	-
Lights	78	2069	235	2	2384	-	157	0	229	0	386	-	259	1845	66	0	2170	-	58	0	71	0	129	-	5069
% Lights	98.7%	91.2%	93.3%	100%	91.6%	-	93.5%	0%	95.8%	0%	94.8%	-	95.6%	92.0%	100%	0%	92.6%	-	100%	0%	100%	0%	100%	-	92.5%
Articulated Trucks	0	73	5	0	78	-	3	0	2	0	5	-	5	59	0	0	64	-	0	0	0	0	0	-	147
% Articulated Trucks	0%	3.2%	2.0%	0%	3.0%	-	1.8%	0%	0.8%	0%	1.2%	-	1.8%	2.9%	0%	0%	2.7%	-	0%	0%	0%	0%	0%	-	2.7%
Buses and Single-Unit Trucks	1	127	12	0	140	-	8	0	8	0	16	-	7	102	0	0	109	-	0	0	0	0	0	-	265
% Buses and Single-Unit Trucks	1.3%	5.6%	4.8%	0%	5.4%	-	4.8%	0%	3.3%	0%	3.9%	-	2.6%	5.1%	0%	0%	4.7%	-	0%	0%	0%	0%	0%	-	4.8%
% Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

7. 19th Street at W Airfield Drive - TMC

Wed May 1, 2019

Full Length (7 AM-9 AM, 4:30 PM-6:30 PM)

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

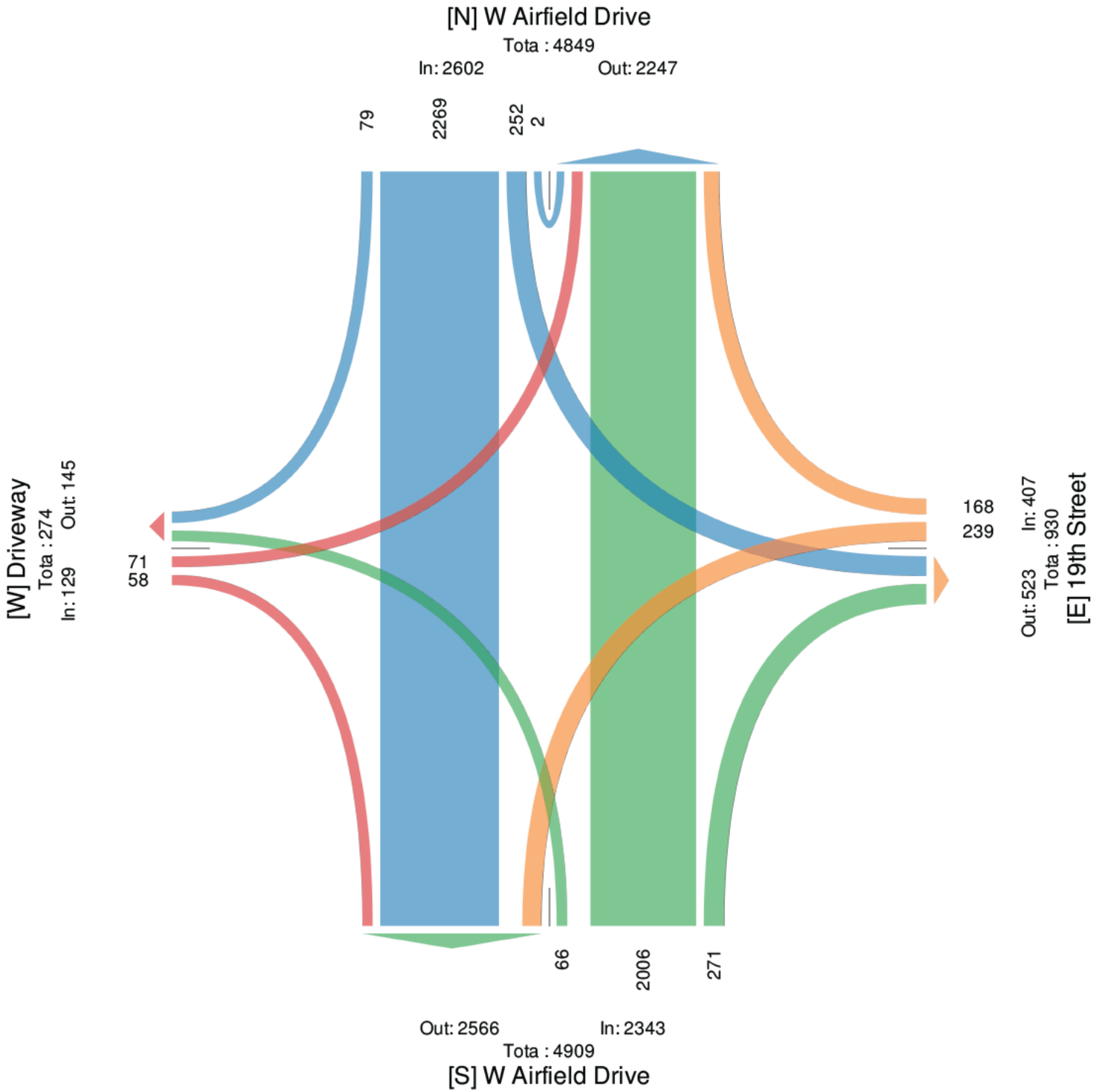
All Movements

ID: 645632, Location: 32.910855, -97.06762



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

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



7. 19th Street at W Airfield Drive - TMC

Wed May 1, 2019

AM Peak (7:30 AM - 8:30 AM)

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

All Movements

ID: 645632, Location: 32.910855, 97.06762



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound					19th Street Westbound					W Airfield Drive Northbound					Driveway Eastbound					Int				
	R	L	U	App	ed*	R	L	U	App	ed*	R	L	U	App	ed*	R	L	U	App	ed*					
2019-05-01 7:30AM	6	124	7	1	138	0	9	0	19	0	28	0	6	159	5	0	170	0	0	0	1	0	1	0	337
7:45AM	10	152	8	0	170	0	10	0	16	0	26	0	10	168	10	0	188	0	0	0	0	0	0	0	384
8:00AM	13	123	10	0	146	0	13	0	14	0	27	0	5	123	19	0	147	0	1	0	0	0	1	0	321
8:15AM	19	126	7	0	152	0	13	0	18	0	31	0	11	103	13	0	127	0	1	0	0	0	1	0	311
Total	48	525	32	1	606	0	45	0	67	0	112	0	32	553	47	0	632	0	2	0	1	0	3	0	1353
% Approach	7.9%	86.6%	5.3%	0.2%	-	-	40.2%	0%	59.8%	0%	-	-	5.1%	87.5%	7.4%	0%	-	-	66.7%	0%	33.3%	0%	-	-	-
% Total	3.5%	38.8%	2.4%	0.1%	44.8%	-	3.3%	0%	5.0%	0%	8.3%	-	2.4%	40.9%	3.5%	0%	46.7%	-	0.1%	0%	0.1%	0%	0.2%	-	-
PHF	0.632	0.863	0.800	0.250	0.891	-	0.865	-	0.882	-	0.903	-	0.727	0.823	0.618	-	0.840	-	0.500	-	0.250	-	0.750	-	0.881
Lights	48	485	30	1	564	-	41	0	66	0	107	-	31	504	47	0	582	-	2	0	1	0	3	-	1256
% Lights	100%	92.4%	93.8%	100%	93.1%	-	91.1%	0%	98.5%	0%	95.5%	-	96.9%	91.1%	100%	0%	92.1%	-	100%	0%	100%	0%	100%	-	92.8%
Articulated Trucks	0	7	0	0	7	-	0	0	0	0	0	-	1	16	0	0	17	-	0	0	0	0	0	-	24
% Articulated Trucks	0%	1.3%	0%	0%	1.2%	-	0%	0%	0%	0%	0%	-	3.1%	2.9%	0%	0%	2.7%	-	0%	0%	0%	0%	0%	-	1.8%
Buses and Single-Unit Trucks	0	33	2	0	35	-	4	0	1	0	5	-	0	33	0	0	33	-	0	0	0	0	0	-	73
% Buses and Single-Unit Trucks	0%	6.3%	6.3%	0%	5.8%	-	8.9%	0%	1.5%	0%	4.5%	-	0%	6.0%	0%	0%	5.2%	-	0%	0%	0%	0%	0%	-	5.4%
pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

7. 19th Street at W Airfield Drive - TMC

Wed May 1, 2019

AM Peak (7:30 AM - 8:30 AM)

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

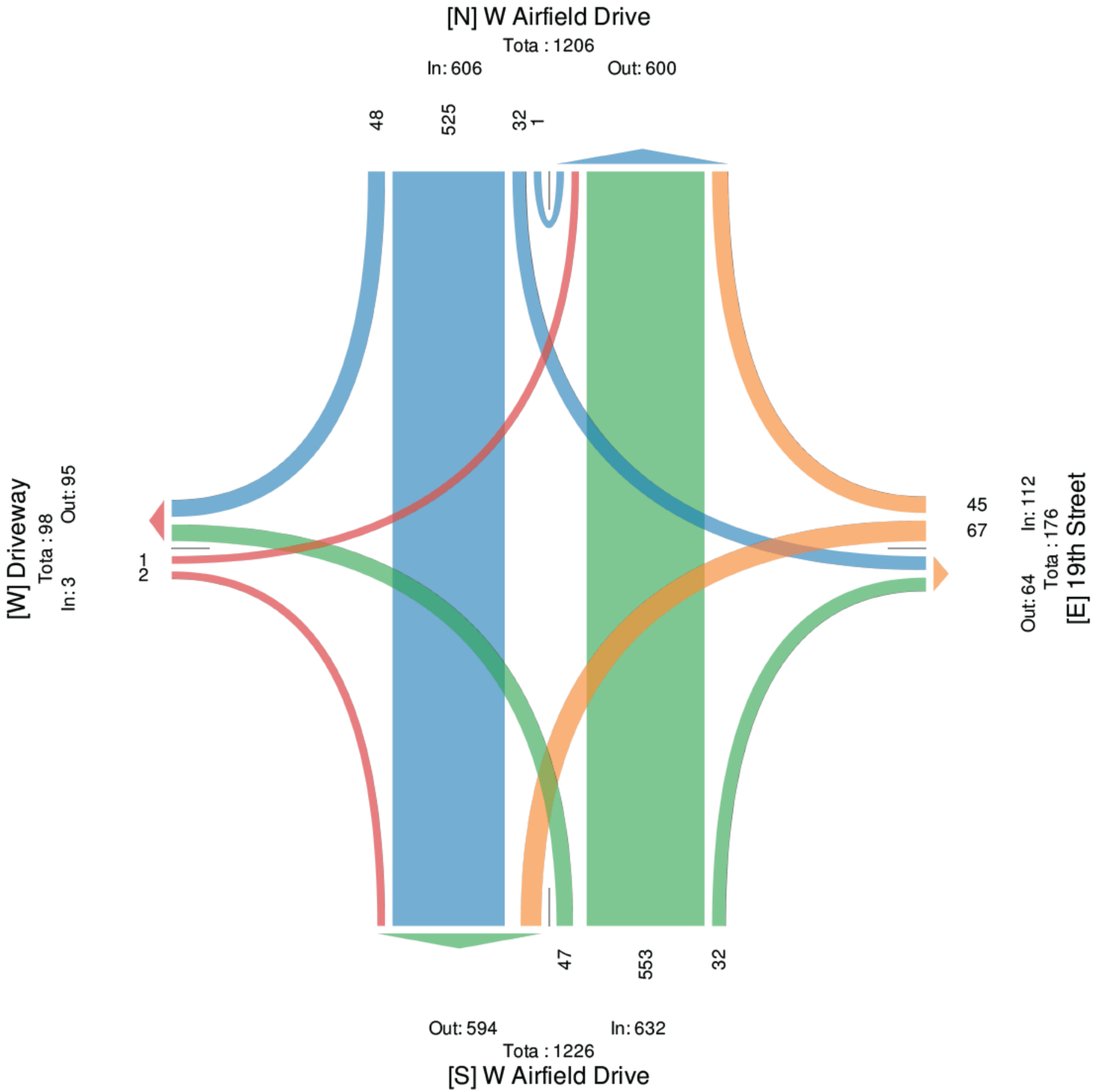
All Movements

ID: 645632, Location: 32.910855, -97.06762



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

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



7. 19th Street at W Airfield Drive - TMC

Wed May 1, 2019

PM Peak (4:45 PM - 5:45 PM) Overall Peak Hour

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

All Movements

ID: 645632, Location: 32.910855, 97.06762



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound				19th Street Westbound				W Airfield Drive Northbound				Diveyway Eastbound				Int								
	R	L	U	App ed*	R	L	U	App ed*	R	L	U	App ed*	R	L	U	App ed*									
2019-05-01 4:45 M	0	181	26	0	207	0	14	0	24	0	38	0	28	107	1	0	136	0	3	0	1	0	4	0	385
5:00 M	0	184	23	0	207	0	14	0	20	0	34	0	45	134	1	0	180	0	34	0	17	0	51	0	472
5:15 M	0	208	35	0	243	0	8	0	13	0	21	0	36	134	1	0	171	0	3	0	12	0	15	0	450
5:30 M	1	190	19	0	210	0	8	0	14	0	22	0	24	148	2	0	174	0	1	0	16	0	17	0	423
Total	1	763	103	0	867	0	44	0	71	0	115	0	133	523	5	0	661	0	41	0	46	0	87	0	1730
% Approach	0.1%	88.0%	11.9%	0%	-	-	38.3%	0%	61.7%	0%	-	-	20.1%	79.1%	0.8%	0%	-	-	47.1%	0%	52.9%	0%	-	-	-
% Total	0.1%	44.1%	6.0%	0%	50.1%	-	2.5%	0%	4.1%	0%	6.6%	-	7.7%	30.2%	0.3%	0%	38.2%	-	2.4%	0%	2.7%	0%	5.0%	-	-
PHF	0.250	0.917	0.736	-	0.892	-	0.786	-	0.740	-	0.757	-	0.739	0.883	0.625	-	0.918	-	0.301	-	0.676	-	0.426	-	0.916
Lights	1	694	94	0	789	-	41	0	66	0	107	-	132	480	5	0	617	-	41	0	46	0	87	-	1600
% Lights	100%	91.0%	91.3%	0%	91.0%	-	93.2%	0%	93.0%	0%	93.0%	-	99.2%	91.8%	100%	0%	93.3%	-	100%	0%	100%	0%	100%	-	92.5%
Articulated Trucks	0	29	2	0	31	-	0	0	1	0	1	-	0	17	0	0	17	-	0	0	0	0	0	-	49
% Articulated Trucks	0%	3.8%	1.9%	0%	3.6%	-	0%	0%	1.4%	0%	0.9%	-	0%	3.3%	0%	0%	2.6%	-	0%	0%	0%	0%	0%	-	2.8%
Buses and Single-Unit Trucks	0	40	7	0	47	-	3	0	4	0	7	-	1	26	0	0	27	-	0	0	0	0	0	-	81
% Buses and Single-Unit Trucks	0%	5.2%	6.8%	0%	5.4%	-	6.8%	0%	5.6%	0%	6.1%	-	0.8%	5.0%	0%	0%	4.1%	-	0%	0%	0%	0%	0%	-	4.7%
pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

7. 19th Street at W Airfield Drive - TMC

Wed May 1, 2019

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

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

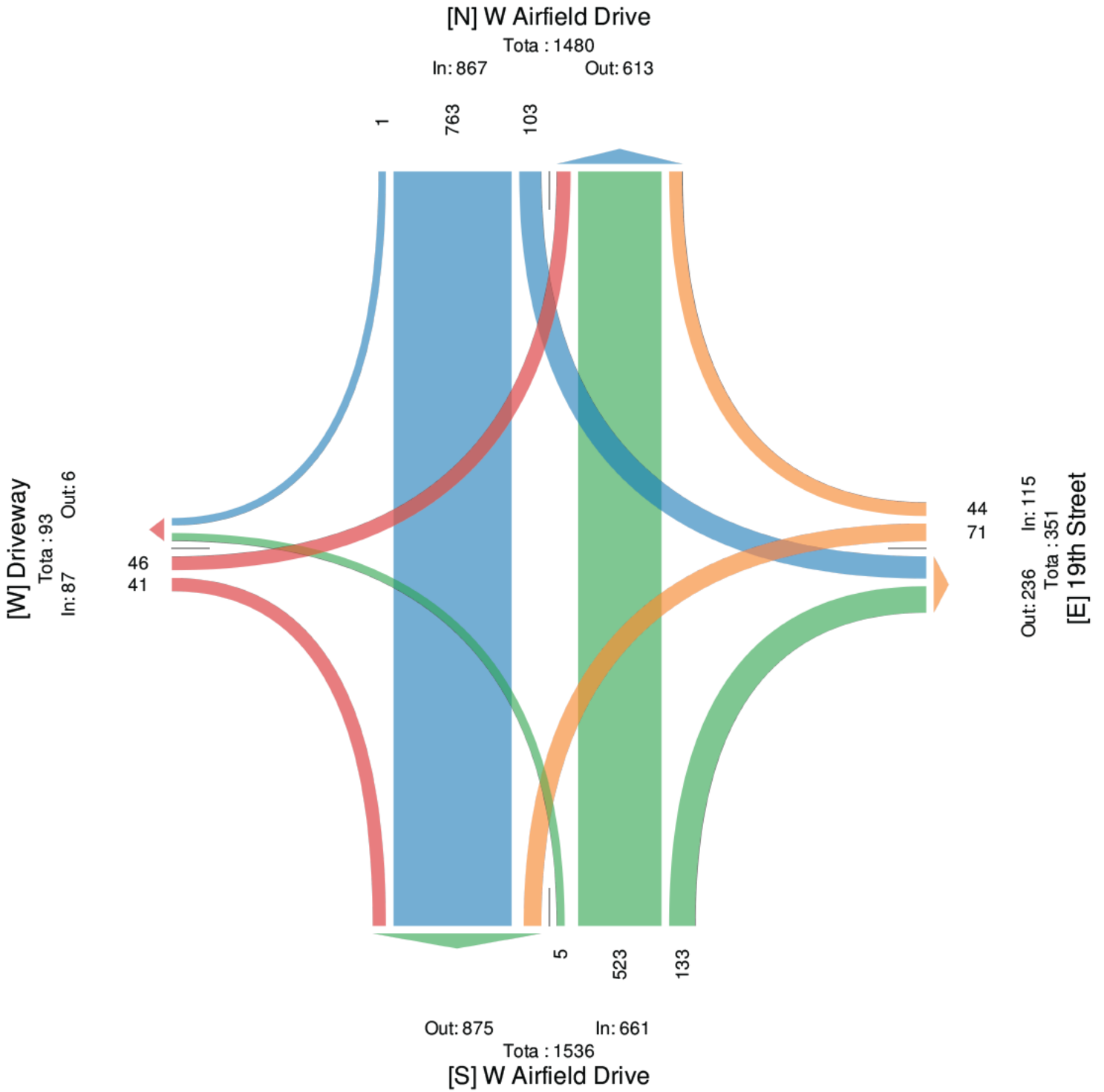
All Movements

ID: 645632, Location: 32.910855, -97.06762



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

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



8. 21st Street at W Airfield Drive - TMC

Tue Apr 30, 2019

Full Length (7 AM 9 AM, 4:30 PM 6:30 PM)

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

All Movements

ID: 645619, Location: 32 9054, 97 066524



Provided by: C J Hensch & Associates Inc
5215 Sycamore Ave , Pasadena, TX, 77503, US

eg D r e c t i o n	W A r e d D r e v e Southbound						21st Street Westbound						W A r e d D r e v e Northbound						21st Street Eastbound						I n t
	R	T	U	A p p	P e d *		R	T	U	A p p	P e d *		R	T	U	A p p	P e d *		R	T	U	A p p	P e d *		
2019-04-30 7:00AM	14	451	25	1	491	0	56	1	38	0	95	0	30	589	0	0	619	0	2	0	1	0	3	0	1208
8:00AM	12	456	27	1	496	0	50	0	28	1	79	1	29	473	2	0	504	0	0	0	4	0	4	0	1083
4:00PM	3	387	6	0	396	0	13	1	11	0	25	0	1	288	0	0	289	0	7	0	11	0	18	0	728
5:00PM	1	881	19	2	903	0	28	0	15	1	44	0	12	613	0	0	625	0	2	0	16	0	18	0	1590
6:00PM	1	362	5	0	368	0	7	0	8	0	15	0	2	174	0	0	176	0	1	0	3	0	4	0	563
Total	31	2537	82	4	2654	0	154	2	100	2	258	1	74	2137	2	0	2213	0	12	0	35	0	47	0	5172
% Approach	1.2%	95.6%	3.1%	0.2%	-	-	59.7%	0.8%	38.8%	0.8%	-	-	3.3%	96.6%	0.1%	0%	-	-	25.5%	0%	74.5%	0%	-	-	-
% Total	0.6%	49.1%	1.6%	0.1%	51.3%	-	3.0%	0%	1.9%	0%	5.0%	-	1.4%	41.3%	0%	0%	42.8%	-	0.2%	0%	0.7%	0%	0.9%	-	-
Lights	28	2339	78	3	2448	-	148	2	97	2	249	-	73	1958	2	0	2033	-	11	0	33	0	44	-	4774
% Lights	90.3%	92.2%	95.1%	75.0%	92.2%	-	96.1%	100%	97.0%	100%	96.5%	-	98.6%	91.6%	100%	0%	91.9%	-	91.7%	0%	94.3%	0%	93.6%	-	92.3%
Articulated Trucks	0	71	1	0	72	-	1	0	1	0	2	-	0	67	0	0	67	-	0	0	0	0	0	-	141
% Articulated Trucks	0%	2.8%	1.2%	0%	2.7%	-	0.6%	0%	1.0%	0%	0.8%	-	0%	3.1%	0%	0%	3.0%	-	0%	0%	0%	0%	0%	-	2.7%
Buses and Single-Unit Trucks	3	127	3	1	134	-	5	0	2	0	7	-	1	112	0	0	113	-	1	0	2	0	3	-	257
% Buses and Single-Unit Trucks	9.7%	5.0%	3.7%	25.0%	5.0%	-	3.2%	0%	2.0%	0%	2.7%	-	1.4%	5.2%	0%	0%	5.1%	-	8.3%	0%	5.7%	0%	6.4%	-	5.0%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-100%	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	-	-

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

8. 21st Street at W Airfield Drive - TMC

Tue Apr 30, 2019

Full Length (7 AM-9 AM, 4:30 PM-6:30 PM)

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

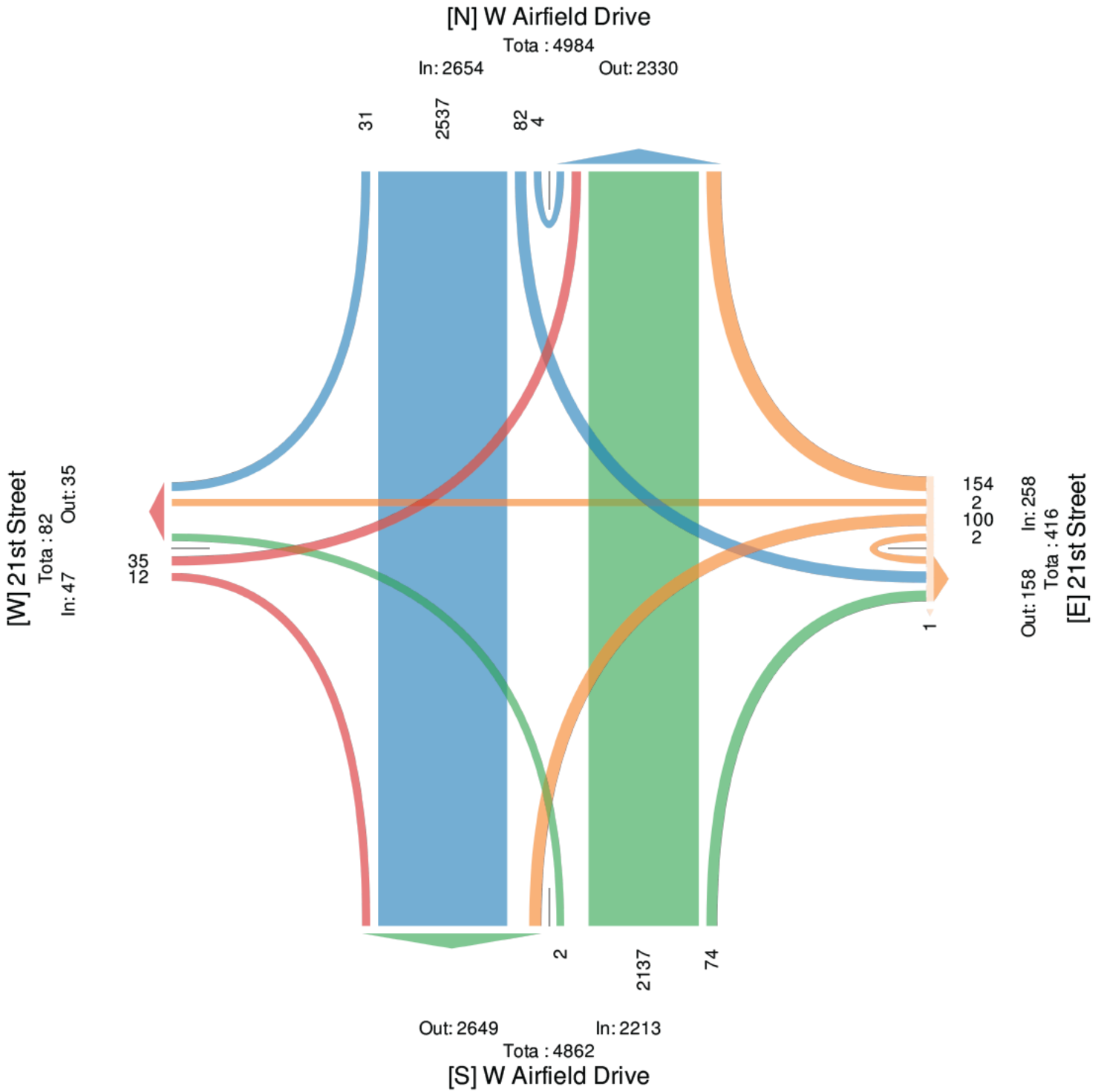
All Movements

ID: 645619, Location: 32.9054, -97.066524



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

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



8. 21st Street at W Airfield Drive - TMC

Tue Apr 30, 20 9

AM Peak (7:30 AM - 8:30 AM)

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

All Movements

ID: 64569, Location: 329054, 97066524



Provided by: C J Hensch & Associates Inc
525 Sycamore Ave, Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound					21st Street Westbound					W Airfield Drive Northbound					21st Street Eastbound					Int				
	R	T	U	App	Ped*	R	T	U	App	Ped*	R	T	U	App	Ped*	R	T	U	App	Ped*					
2019-04-30 7:30AM	7	118	3	1	129	0	4	0	4	0	8	0	6	167	0	0	173	0	1	0	1	0	2	0	312
7:45AM	5	158	13	0	176	0	5	1	3	0	9	0	12	173	0	0	185	0	0	0	0	0	0	0	370
8:00AM	8	124	7	0	139	0	8	0	1	0	9	1	8	157	1	0	166	0	0	0	0	0	0	0	314
8:15AM	1	116	10	0	127	0	9	0	3	0	12	0	10	123	1	0	134	0	0	0	3	0	3	0	276
Total	21	516	33	1	571	0	26	1	11	0	38	1	36	620	2	0	658	0	1	0	4	0	5	0	1272
% Approach	3.7%	90.4%	5.8%	0.2%	-	-	68.4%	2.6%	28.9%	0%	-	-	5.5%	94.2%	0.3%	0%	-	-	20.0%	0%	80.0%	0%	-	-	-
% Total	1.7%	40.6%	2.6%	0.1%	44.9%	-	2.0%	0.1%	0.9%	0%	3.0%	-	2.8%	48.7%	0.2%	0%	51.7%	-	0.1%	0%	0.3%	0%	0.4%	-	-
PHF	0.656	0.816	0.635	0.250	0.811	-	0.722	0.250	0.688	-	0.792	-	0.750	0.896	0.500	-	0.889	-	0.250	-	0.333	-	0.417	-	0.859
Lights	20	476	32	0	528	-	22	1	11	0	34	-	35	582	2	0	619	-	0	0	3	0	3	-	1184
% Lights	95.2%	92.2%	97.0%	0%	92.5%	-	84.6%	100%	100%	0%	89.5%	-	97.2%	93.9%	100%	0%	94.1%	-	0%	0%	75.0%	0%	60.0%	-	93.1%
Articulated Trucks	0	13	0	0	13	-	1	0	0	0	1	-	0	13	0	0	13	-	0	0	0	0	0	-	27
% Articulated Trucks	0%	2.5%	0%	0%	2.3%	-	3.8%	0%	0%	0%	2.6%	-	0%	2.1%	0%	0%	2.0%	-	0%	0%	0%	0%	0%	-	2.1%
Buses and Single-Unit Trucks	1	27	1	1	30	-	3	0	0	0	3	-	1	25	0	0	26	-	1	0	1	0	2	-	61
% Buses and Single-Unit Trucks	4.8%	5.2%	3.0%	100%	5.3%	-	11.5%	0%	0%	0%	7.9%	-	2.8%	4.0%	0%	0%	4.0%	-	100%	0%	25.0%	0%	40.0%	-	4.8%
Pedestrians	-	-	-	-	-	0	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

8. 21st Street at W Airfield Drive - TMC

Tue Apr 30, 2019

AM Peak (7:30 AM - 8:30 AM)

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

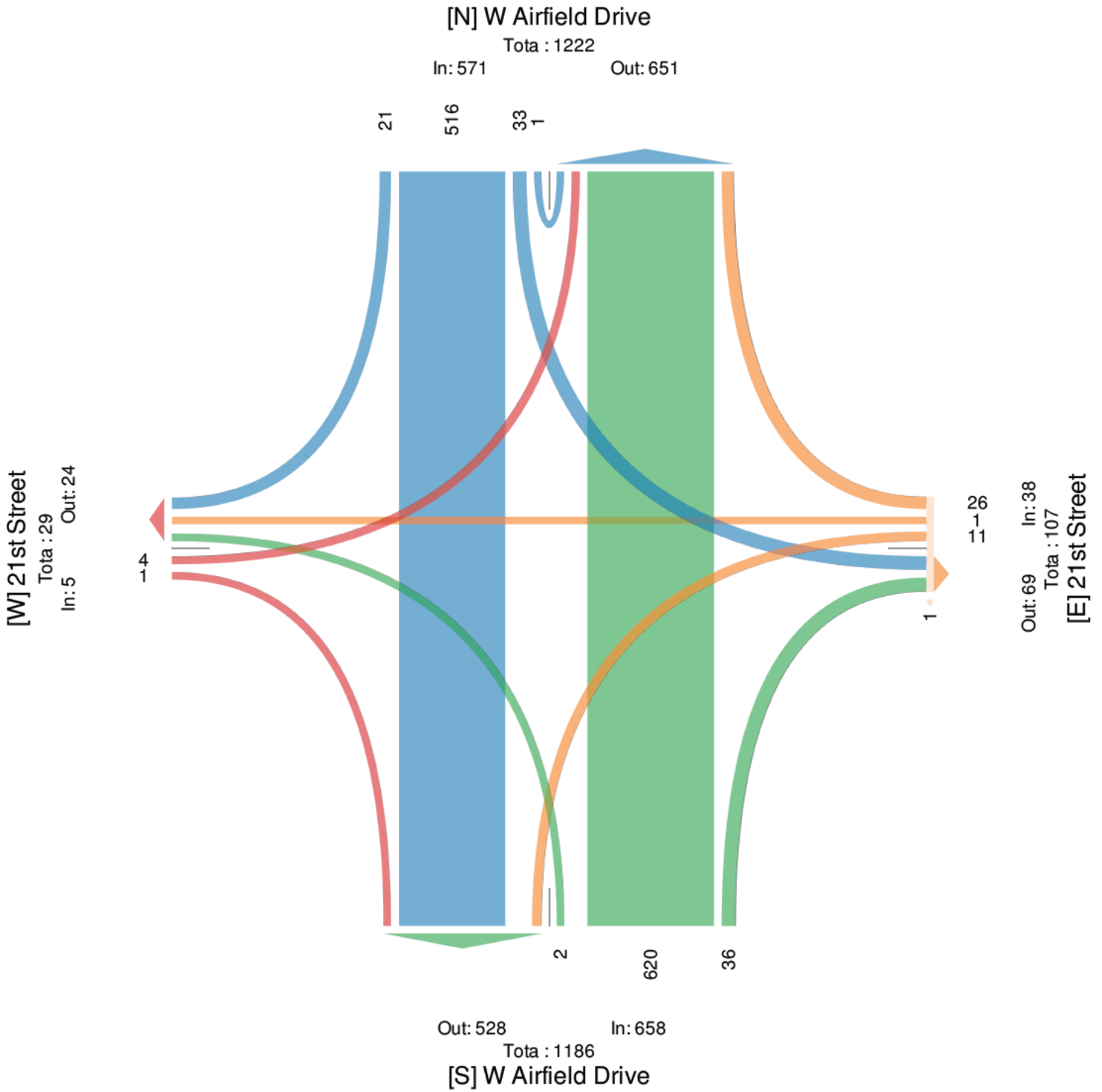
All Movements

ID: 645619, Location: 32.9054, -97.066524



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

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



8. 21st Street at W Airfield Drive - TMC

Tue Apr 30, 2019

PM Peak (4:45 PM - 5:45 PM) Overall Peak Hour

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

All Movements

ID: 645619, Location: 32 9054, 97.066524



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound				21st Street Westbound				W Airfield Drive Northbound				21st Street Eastbound				Int								
	R	L	U	App ed*	R	L	U	App ed*	R	L	U	App ed*	R	L	U	App ed*									
2019-04-30 4:45 M	1	212	2	0	215	0	5	0	3	0	8	0	1	144	0	0	145	0	4	0	8	0	12	0	380
5:00 M	1	281	6	1	289	0	5	0	8	1	14	0	0	178	0	0	178	0	2	0	8	0	10	0	491
5:15 M	0	216	4	1	221	0	12	0	1	0	13	0	1	157	0	0	158	0	0	0	1	0	1	0	393
5:30 M	0	187	5	0	192	0	5	0	3	0	8	0	4	156	0	0	160	0	0	0	4	0	4	0	364
Total	2	896	17	2	917	0	27	0	15	1	43	0	6	635	0	0	641	0	6	0	21	0	27	0	1628
% Approach	0.2%	97.7%	1.9%	0.2%	-	-	62.8%	0%	34.9%	2.3%	-	-	0.9%	99.1%	0%	0%	-	-	22.2%	0%	77.8%	0%	-	-	-
% Total	0.1%	55.0%	1.0%	0.1%	56.3%	-	1.7%	0%	0.9%	0.1%	2.6%	-	0.4%	39.0%	0%	0%	39.4%	-	0.4%	0%	1.3%	0%	1.7%	-	-
PHF	0.500	0.797	0.708	0.500	0.793	-	0.563	-	0.469	0.250	0.768	-	0.375	0.892	-	-	0.900	-	0.375	-	0.656	-	0.563	-	0.829
Lights	2	832	15	2	851	-	27	0	14	1	42	-	6	581	0	0	587	-	6	0	20	0	26	-	1506
% Lights	100%	92.9%	88.2%	100%	92.8%	-	100%	0%	93.3%	100%	97.7%	-	100%	91.5%	0%	0%	91.6%	-	100%	0%	95.2%	0%	96.3%	-	92.5%
Articulated Trucks	0	26	1	0	27	-	0	0	1	0	1	-	0	19	0	0	19	-	0	0	0	0	0	-	47
% Articulated Trucks	0%	2.9%	5.9%	0%	2.9%	-	0%	0%	6.7%	0%	2.3%	-	0%	3.0%	0%	0%	3.0%	-	0%	0%	0%	0%	0%	-	2.9%
Buses and Single-Unit Trucks	0	38	1	0	39	-	0	0	0	0	0	-	0	35	0	0	35	-	0	0	1	0	1	-	75
% Buses and Single-Unit Trucks	0%	4.2%	5.9%	0%	4.3%	-	0%	0%	0%	0%	0%	-	0%	5.5%	0%	0%	5.5%	-	0%	0%	4.8%	0%	3.7%	-	4.6%
pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

8. 21st Street at W Airfield Drive - TMC

Tue Apr 30, 2019

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

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

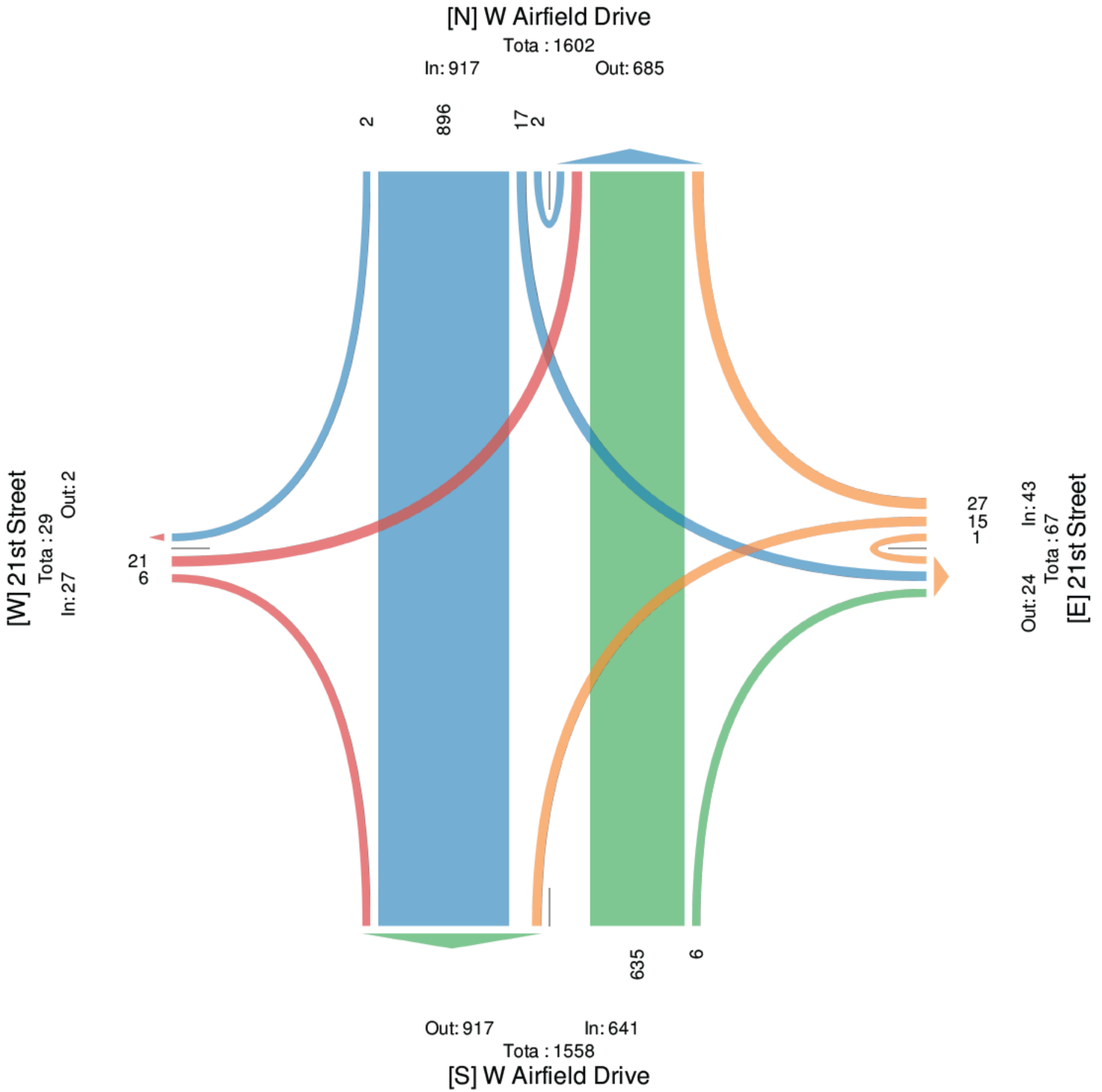
All Movements

ID: 645619, Location: 32.9054, -97.066524



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

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



8. 21st Street at W Airfield Drive - TMC

Wed May 1, 2019

Fu Length (7 AM 9 AM, 4:30 PM 6:30 PM)

A C asses (Lights, Articulated Trucks, Buses and Single Unit Trucks, Pedestrians, Bicycles on Crosswalk)

A Movements

ID: 645633, Location: 32.905427, 97.066489



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Segment Direction	W A r e d Dr ve Southbound						W 21st Street Westbound						W A r e d Dr ve Northbound						W 21st Street Eastbound						Int
	R	U	App	ed*			R	U	App	ed*			R	U	App	ed*			R	U	App	ed*			
2019-05-01 7:00AM	11	482	24	1	518	0	54	0	42	0	96	0	24	619	0	1	644	0	0	0	1	0	1	0	1259
8:00AM	8	450	28	1	487	0	47	0	30	0	77	0	20	459	0	0	479	0	0	0	3	0	3	0	1046
4:00 M	3	394	9	0	406	0	17	0	8	0	25	0	6	263	0	0	269	0	5	0	11	0	16	0	716
5:00 M	1	829	11	0	841	0	17	0	15	0	32	0	10	565	0	0	575	0	1	0	11	0	12	0	1460
6:00 M	1	259	8	0	268	0	17	0	12	0	29	0	7	193	0	0	200	0	2	0	1	0	3	0	500
Total	24	2414	80	2	2520	0	152	0	107	0	259	0	67	2099	0	1	2167	0	8	0	27	0	35	0	4981
% Approach	1.0%	95.8%	3.2%	0.1%	-	-	58.7%	0%	41.3%	0%	-	-	3.1%	96.9%	0%	0%	-	-	22.9%	0%	77.1%	0%	-	-	-
% Total	0.5%	48.5%	1.6%	0%	50.6%	-	3.1%	0%	2.1%	0%	5.2%	-	1.3%	42.1%	0%	0%	43.5%	-	0.2%	0%	0.5%	0%	0.7%	-	-
Lights	22	2213	75	1	2311	-	147	0	103	0	250	-	67	1938	0	1	2006	-	8	0	24	0	32	-	4599
% Lights	91.7%	91.7%	93.8%	50.0%	91.7%	-	96.7%	0%	96.3%	0%	96.5%	-	100%	92.3%	0%	100%	92.6%	-	100%	0%	88.9%	0%	91.4%	-	92.3%
Articulated Trucks	0	73	3	0	76	-	2	0	0	0	2	-	0	64	0	0	64	-	0	0	0	0	0	-	142
% Articulated Trucks	0%	3.0%	3.8%	0%	3.0%	-	1.3%	0%	0%	0%	0.8%	-	0%	3.0%	0%	0%	3.0%	-	0%	0%	0%	0%	0%	-	2.9%
Buses and Single-Unit Trucks	2	128	2	1	133	-	3	0	4	0	7	-	0	97	0	0	97	-	0	0	3	0	3	-	240
% Buses and Single-Unit Trucks	8.3%	5.3%	2.5%	50.0%	5.3%	-	2.0%	0%	3.7%	0%	2.7%	-	0%	4.6%	0%	0%	4.5%	-	0%	0%	11.1%	0%	8.6%	-	4.8%
pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

8. 21st Street at W Airfield Drive - TMC

Wed May 1, 2019

Full Length (7 AM-9 AM, 4:30 PM-6:30 PM)

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

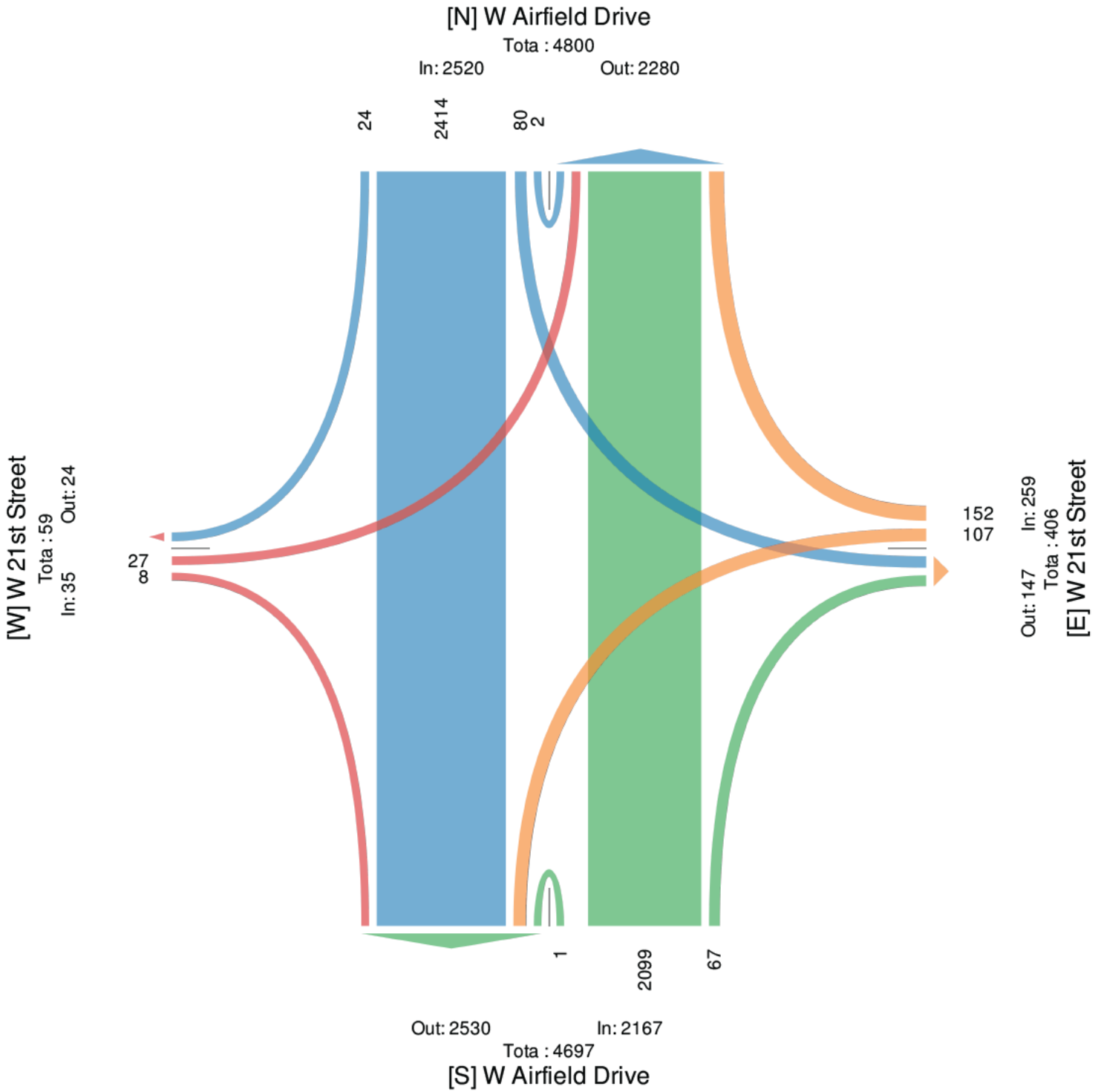
All Movements

ID: 645633, Location: 32.905427, -97.066489



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

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



8. 21st Street at W Airfield Drive - TMC

Wed May 1, 2019

AM Peak (7:30 AM - 8:30 AM)

All Classes (Light s, Articulated Trucks, Buses and Single Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movemen s

ID: 645633, Location: 32.905427, 97.066489



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound						W 21st Street Westbound						W Airfield Drive Northbound						W 21st Street Eastbound						Int
	R	L	U	App	ed*		R	L	U	App	ed*		R	L	U	App	ed*		R	L	U	App	ed*		
2019-05-01 7:30AM	4	134	5	1	144	0	1	0	7	0	8	0	5	165	0	0	170	0	0	0	0	0	0	0	322
7:45AM	2	146	14	0	162	0	4	0	1	0	5	0	8	192	0	1	201	0	0	0	0	0	0	0	368
8:00AM	4	115	12	0	131	0	4	0	3	0	7	0	7	147	0	0	154	0	0	0	0	0	0	0	292
8:15AM	2	131	11	0	144	0	6	0	4	0	10	0	6	125	0	0	131	0	0	0	0	0	0	0	285
Total	12	526	42	1	581	0	15	0	15	0	30	0	26	629	0	1	656	0	0	0	0	0	0	0	1267
% Approach	2.1%	90.5%	7.2%	0.2%	-	-	50.0%	0%	50.0%	0%	-	-	4.0%	95.9%	0%	0.2%	-	-	0%	0%	0%	0%	-	-	-
% Total	0.9%	41.5%	3.3%	0.1%	45.9%	-	1.2%	0%	1.2%	0%	2.4%	-	2.1%	49.6%	0%	0.1%	51.8%	-	0%	0%	0%	0%	0%	-	-
PHF	0.750	0.901	0.750	0.250	0.897	-	0.625	-	0.536	-	0.750	-	0.813	0.819	-	0.250	0.816	-	-	-	-	-	-	-	0.861
Lights	10	485	41	0	536	-	15	0	14	0	29	-	26	584	0	1	611	-	0	0	0	0	0	-	1176
% Lights	83.3%	92.2%	97.6%	0%	92.3%	-	100%	0%	93.3%	0%	96.7%	-	100%	92.8%	0%	100%	93.1%	-	0%	0%	0%	0%	-	-	92.8%
Articulated Trucks	0	9	0	0	9	-	0	0	0	0	0	-	0	18	0	0	18	-	0	0	0	0	0	-	27
% Articulated Trucks	0%	1.7%	0%	0%	1.5%	-	0%	0%	0%	0%	0%	-	0%	2.9%	0%	0%	2.7%	-	0%	0%	0%	0%	-	-	2.1%
Buses and Single-Unit Trucks	2	32	1	1	36	-	0	0	1	0	1	-	0	27	0	0	27	-	0	0	0	0	0	-	64
% Buses and Single-Unit Trucks	16.7%	6.1%	2.4%	100%	6.2%	-	0%	0%	6.7%	0%	3.3%	-	0%	4.3%	0%	0%	4.1%	-	0%	0%	0%	0%	-	-	5.1%
pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

8. 21st Street at W Airfield Drive - TMC

Wed May 1, 2019

AM Peak (7:30 AM - 8:30 AM)

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

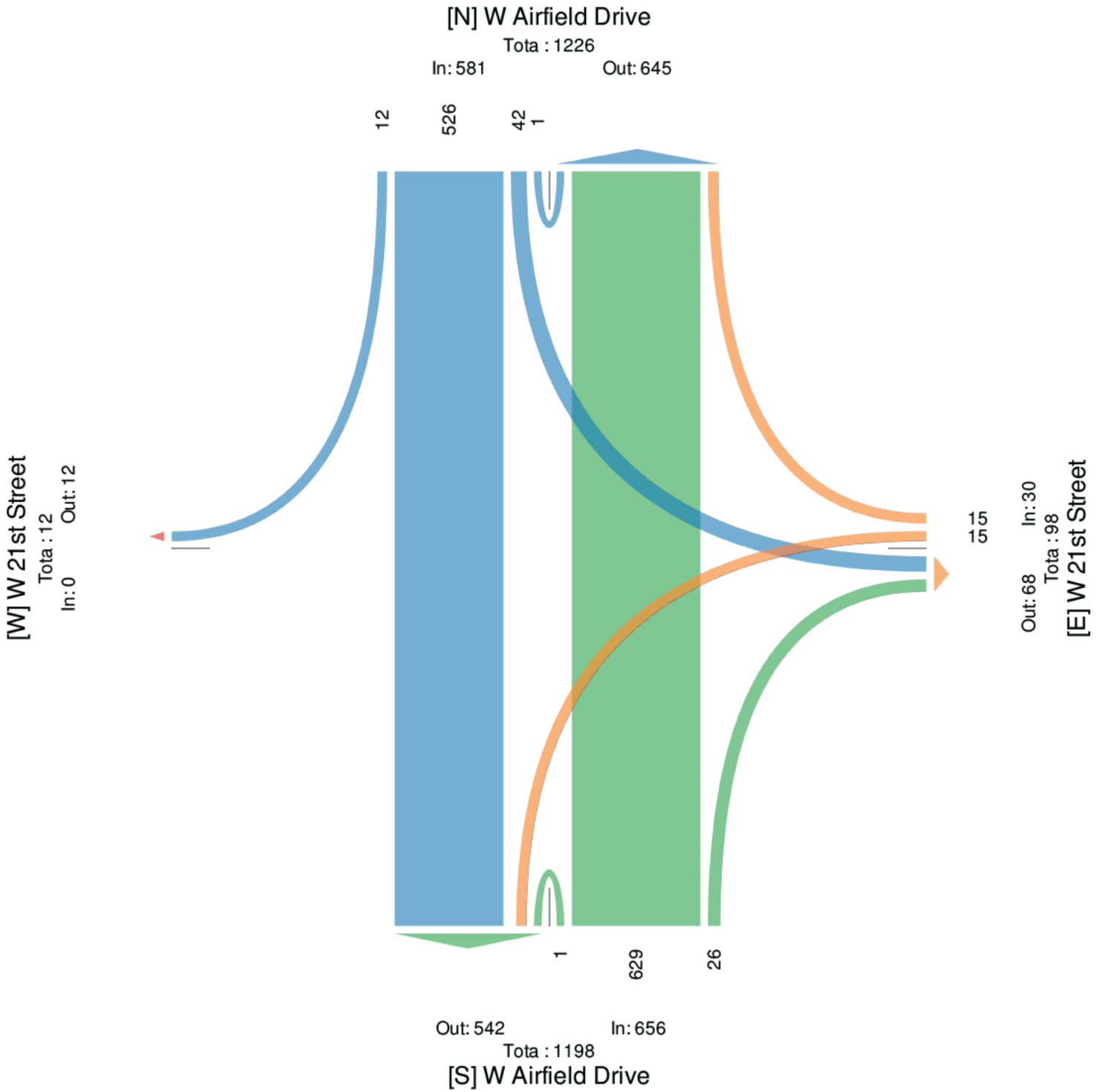
All Movements

ID: 645633, Location: 32.905427, -97.066489



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

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



8. 21st Street at W Airfield Drive - TMC

Wed May 1, 2019

PM Peak (4:45 PM - 5:45 PM) Overall Peak Hour

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

All Movements

ID: 645633, Location: 32.905427, 97.066489



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound				W 21st Street Westbound				W Airfield Drive Northbound				W 21st Street Eastbound				Int								
	R	L	U	App ed*	R	L	U	App ed*	R	L	U	App ed*	R	L	U	App ed*									
2019-05-01 4:45 M	2	203	5	0	210	0	6	0	2	0	8	0	3	122	0	0	125	0	4	0	10	0	14	0	357
5:00 M	0	222	3	0	225	0	1	0	1	0	2	0	0	162	0	0	162	0	0	0	7	0	7	0	396
5:15 M	0	232	1	0	233	0	7	0	6	0	13	0	2	151	0	0	153	0	0	0	3	0	3	0	402
5:30 M	1	194	4	0	199	0	6	0	5	0	11	0	5	150	0	0	155	0	1	0	1	0	2	0	367
Total	3	851	13	0	867	0	20	0	14	0	34	0	10	585	0	0	595	0	5	0	21	0	26	0	1522
% Approach	0.3%	98.2%	1.5%	0%	-	-	58.8%	0%	41.2%	0%	-	-	1.7%	98.3%	0%	0%	-	-	19.2%	0%	80.8%	0%	-	-	-
% Total	0.2%	55.9%	0.9%	0%	57.0%	-	1.3%	0%	0.9%	0%	2.2%	-	0.7%	38.4%	0%	0%	39.1%	-	0.3%	0%	1.4%	0%	1.7%	-	-
PHF	0.375	0.917	0.650	-	0.930	-	0.714	-	0.583	-	0.654	-	0.500	0.903	-	-	0.918	-	0.313	-	0.525	-	0.464	-	0.947
Lights	3	783	12	0	798	-	17	0	13	0	30	-	10	542	0	0	552	-	5	0	21	0	26	-	1406
% Lights	100%	92.0%	92.3%	0%	92.0%	-	85.0%	0%	92.9%	0%	88.2%	-	100%	92.6%	0%	0%	92.8%	-	100%	0%	100%	0%	100%	-	92.4%
Articulated Trucks	0	30	0	0	30	-	1	0	0	0	1	-	0	17	0	0	17	-	0	0	0	0	0	0	48
% Articulated Trucks	0%	3.5%	0%	0%	3.5%	-	5.0%	0%	0%	0%	2.9%	-	0%	2.9%	0%	0%	2.9%	-	0%	0%	0%	0%	0%	0%	3.2%
Buses and Single-Unit Trucks	0	38	1	0	39	-	2	0	1	0	3	-	0	26	0	0	26	-	0	0	0	0	0	0	68
% Buses and Single-Unit Trucks	0%	4.5%	7.7%	0%	4.5%	-	10.0%	0%	7.1%	0%	8.8%	-	0%	4.4%	0%	0%	4.4%	-	0%	0%	0%	0%	0%	0%	4.5%
pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

8. 21st Street at W Airfield Drive - TMC

Wed May 1, 2019

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

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

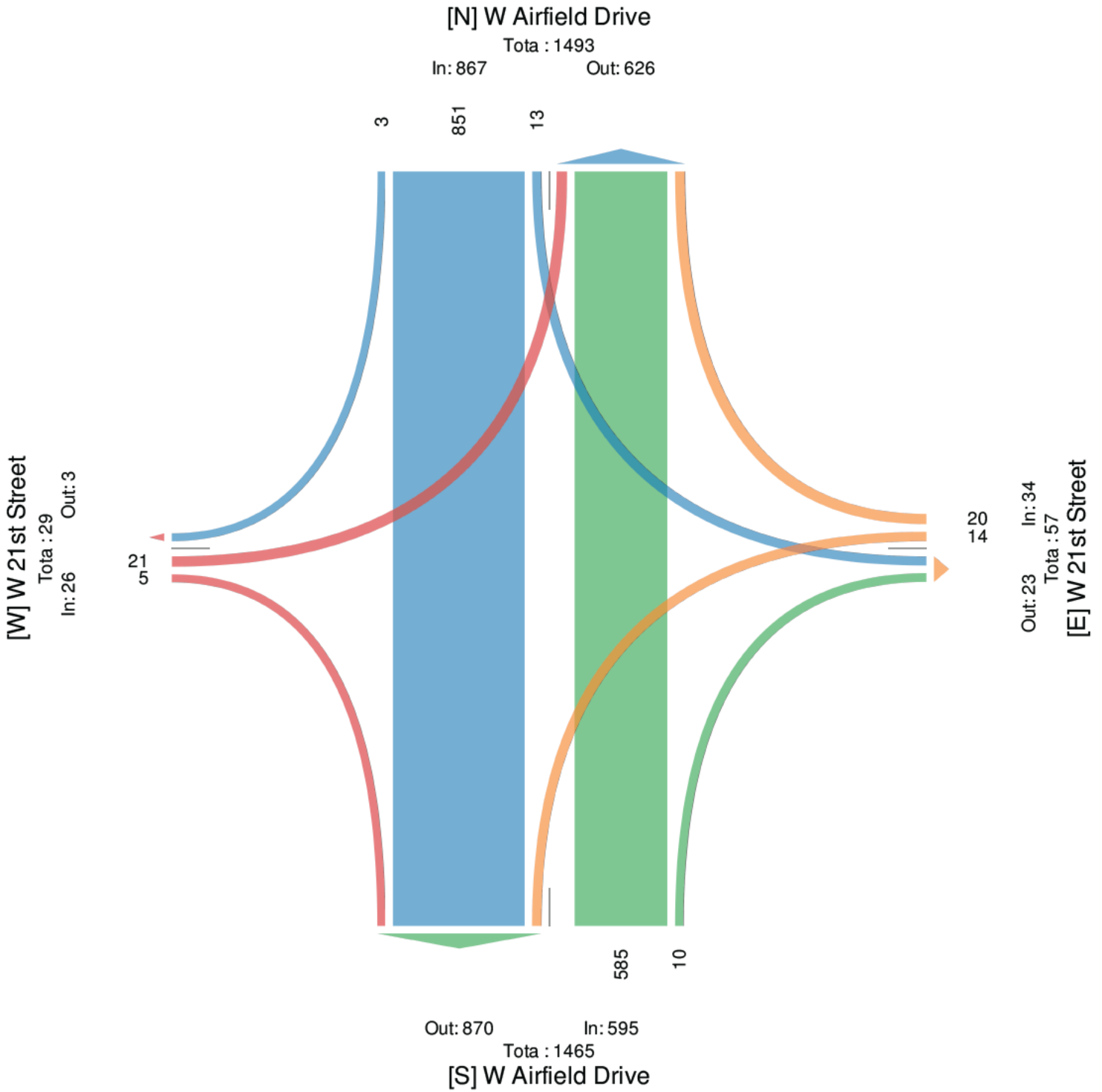
All Movements

ID: 645633, Location: 32.905427, -97.066489



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

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



9. 23rd Street at W Airfield Drive - TMC

Tue Apr 30, 2019

Full Length (7 AM-9 AM, 4:30 PM-6:30 PM)

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

All Movements

ID: 645620, Location: 32.899083, -97.064743



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound					W 23rd Street Westbound					W Airfield Drive Northbound					Int
	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	
2019 04 30 7 00AM	317	44	0	361	0	16	16	0	32	0	84	751	0	835	0	1228
8 00AM	305	69	0	374	0	22	20	0	42	1	67	590	0	657	0	1073
4 00PM	446	16	0	462	0	28	42	0	70	0	20	195	0	215	0	747
5 00PM	998	35	0	1033	0	64	60	0	124	0	28	422	0	450	0	1607
6 00PM	397	22	0	419	0	28	23	0	51	0	29	102	0	131	0	601
Total	2463	186	0	2649	0	158	161	0	319	1	228	2060	0	2288	0	5256
% Approach	93 0%	7 0%	0%	-		49 5%	50 5%	0%	-		10 0%	90 0%	0%	-		
% Total	46 9%	3 5%	0%	50.4%		3 0%	3 1%	0%	6.1%		4 3%	39 2%	0%	43.5%		
Lights	2325	123	0	2448		106	131	0	237		194	1933	0	2127		4812
% Lights	94 4%	66 1%	0%	92.4%		67 1%	81 4%	0%	74.3%		85 1%	93 8%	0%	93.0%		91 6%
Articulated Trucks	48	21	0	69		18	12	0	30		16	49	0	65		164
% Articulated Trucks	1 9%	11 3%	0%	2.6%		11 4%	7 5%	0%	9.4%		7 0%	2 4%	0%	2.8%		3 1%
Buses and Single-Unit Trucks	90	42	0	132		34	18	0	52		18	78	0	96		280
% Buses and Single-Unit Trucks	3 7%	22 6%	0%	5.0%		21 5%	11 2%	0%	16.3%		7 9%	3 8%	0%	4.2%		5 3%
Pedestrians					0					0					0	
% Pedestrians																
Bicycles on Crosswalk					0					1					0	
% Bicycles on Crosswalk																100%

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

9. 23rd Street at W Airfield Drive - TMC

Tue Apr 30, 2019

Full Length (7 AM-9 AM, 4:30 PM-6:30 PM)

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

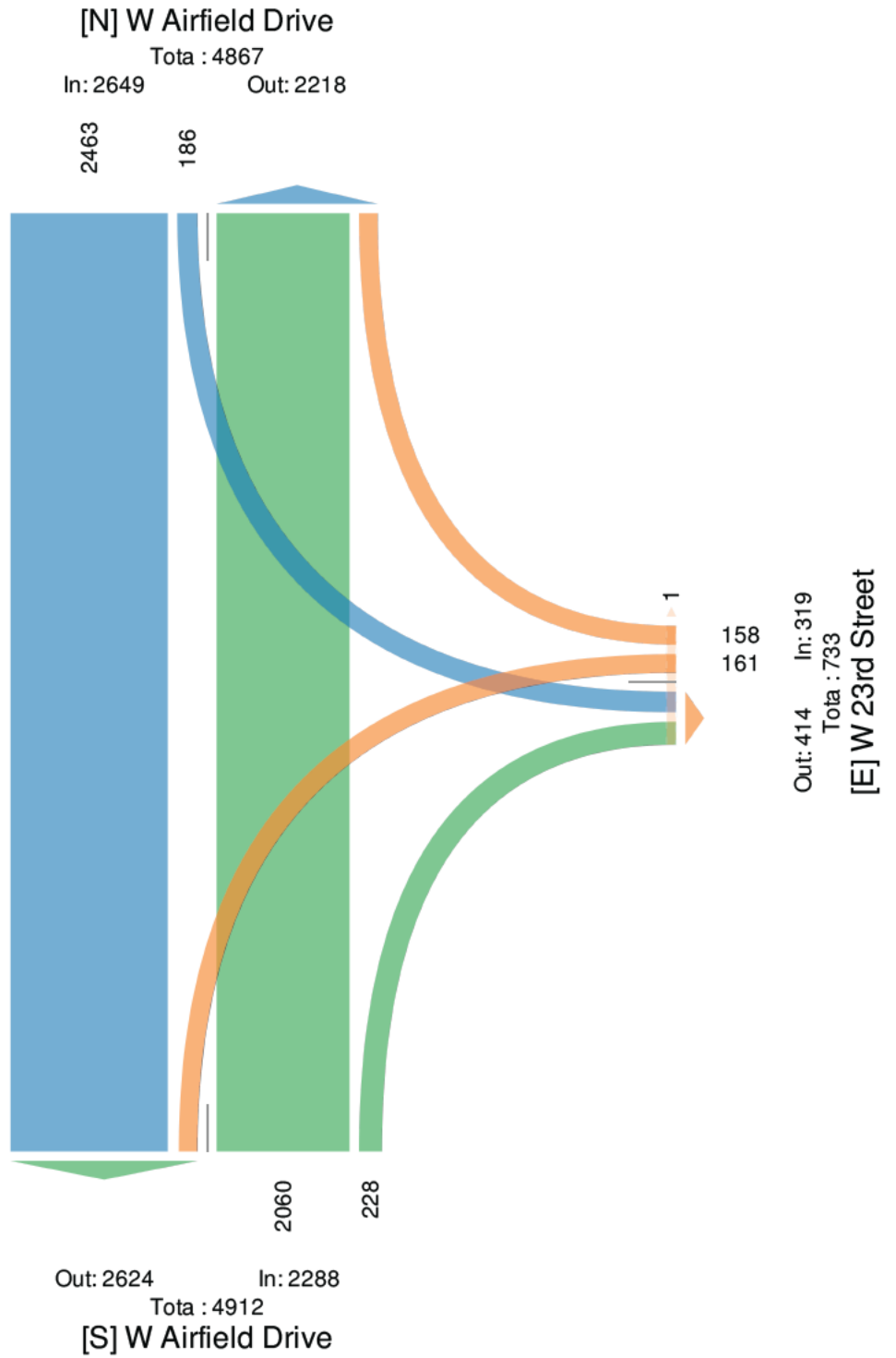
All Movements

ID: 645620, Location: 32.899083, -97.064743



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

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



9. 23rd Street at W Airfield Drive - TMC

Tue Apr 30, 2019

AM Peak (7:30 AM - 8:30 AM)

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

All Movements

ID: 645620, Location: 32.899083, -97.064743



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound					W 23rd Street Westbound					W Airfield Drive Northbound					Int
	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	
2019 04 30 7 30AM	75	6	0	81	0	1	3	0	4	0	16	201	0	217	0	302
7 45AM	97	21	0	118	0	4	5	0	9	0	38	231	0	269	0	396
8 00AM	77	19	0	96	0	6	3	0	9	0	24	184	0	208	0	313
8 15AM	76	22	0	98	0	7	3	0	10	0	15	163	0	178	0	286
Total	325	68	0	393	0	18	14	0	32	0	93	779	0	872	0	1297
% Approach	82.7%	17.3%	0%	-	-	56.3%	43.8%	0%	-	-	10.7%	89.3%	0%	-	-	-
% Total	25.1%	5.2%	0%	30.3%	-	1.4%	1.1%	0%	2.5%	-	7.2%	60.1%	0%	67.2%	-	-
PHF	0.838	0.773	0	0.833	0	0.643	0.700	0	0.800	0	0.612	0.843	0	0.810	0	0.819
Lights	297	57	0	354	0	12	10	0	22	0	85	746	0	831	0	1207
% Lights	91.4%	83.8%	0%	90.1%	0%	66.7%	71.4%	0%	68.8%	0%	91.4%	95.8%	0%	95.3%	0%	93.1%
Articulated Trucks	9	4	0	13	0	1	2	0	3	0	3	11	0	14	0	30
% Articulated Trucks	2.8%	5.9%	0%	3.3%	0%	5.6%	14.3%	0%	9.4%	0%	3.2%	1.4%	0%	1.6%	0%	2.3%
Buses and Single-Unit Trucks	19	7	0	26	0	5	2	0	7	0	5	22	0	27	0	60
% Buses and Single-Unit Trucks	5.8%	10.3%	0%	6.6%	0%	27.8%	14.3%	0%	21.9%	0%	5.4%	2.8%	0%	3.1%	0%	4.6%
Pedestrians					0					0					0	
% Pedestrians																
Bicycles on Crosswalk					0					0					0	
% Bicycles on Crosswalk																

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

9. 23rd Street at W Airfield Drive - TMC

Tue Apr 30, 2019

AM Peak (7:30 AM - 8:30 AM)

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

All Movements

ID: 645620, Location: 32.899083, -97.064743



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

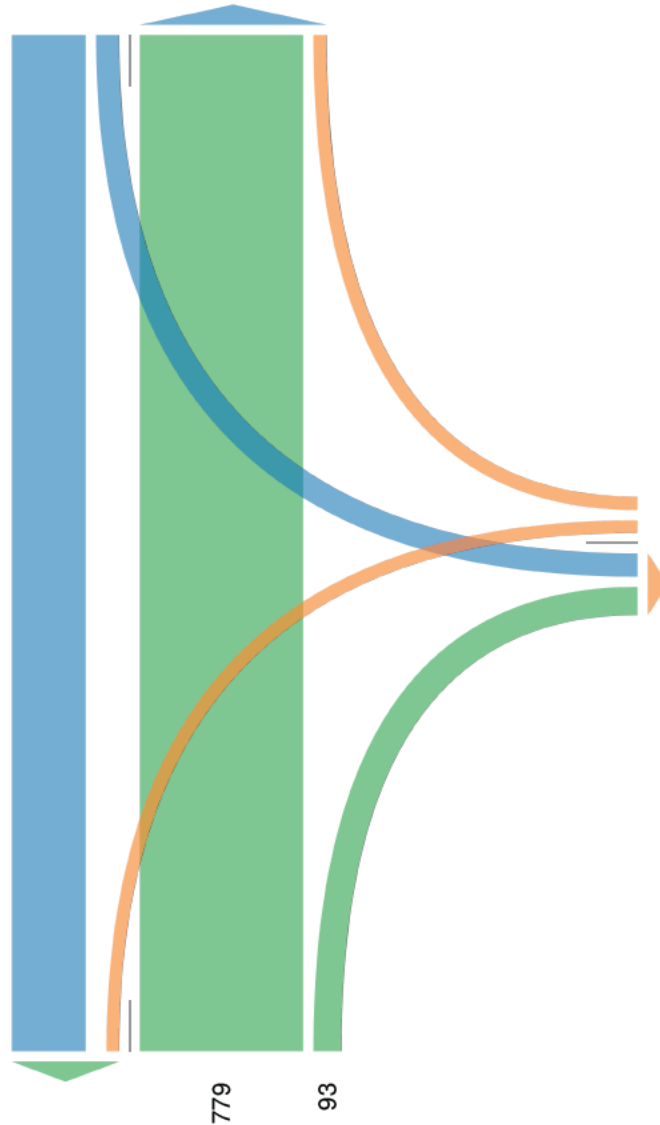
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

[N] W Airfield Drive

Tota : 1190
In: 393 Out: 797

325

68



18
14

Out: 161 In: 32
Tota : 193

[E] W 23rd Street

Out: 339 In: 872
Tota : 1211

[S] W Airfield Drive

9. 23rd Street at W Airfield Drive - TMC

Tue Apr 30, 2019

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

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

All Movements

ID: 645620, Location: 32.899083, -97.064743



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound					W 23rd Street Westbound					W Airfield Drive Northbound					Int
	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	
2019 04 30 4 30PM	217	8	0	225	0	16	30	0	46	0	13	93	0	106	0	377
4 45PM	229	8	0	237	0	12	12	0	24	0	7	102	0	109	0	370
5 00PM	322	11	0	333	0	17	20	0	37	0	6	110	0	116	0	486
5 15PM	252	6	0	258	0	10	14	0	24	0	8	109	0	117	0	399
Total	1020	33	0	1053	0	55	76	0	131	0	34	414	0	448	0	1632
% Approach	96.9%	3.1%	0%	-	-	42.0%	58.0%	0%	-	-	7.6%	92.4%	0%	-	-	
% Total	62.5%	2.0%	0%	64.5%		3.4%	4.7%	0%	8.0%		2.1%	25.4%	0%	27.5%		
PHF	0.792	0.750		0.791		0.809	0.633		0.712		0.654	0.941		0.957		0.840
Lights	967	12	0	979		39	65	0	104		25	379	0	404		1487
% Lights	94.8%	36.4%	0%	93.0%		70.9%	85.5%	0%	79.4%		73.5%	91.5%	0%	90.2%		91.1%
Articulated Trucks	20	8	0	28		10	5	0	15		3	16	0	19		62
% Articulated Trucks	2.0%	24.2%	0%	2.7%		18.2%	6.6%	0%	11.5%		8.8%	3.9%	0%	4.2%		3.8%
Buses and Single-Unit Trucks	33	13	0	46		6	6	0	12		6	19	0	25		83
% Buses and Single-Unit Trucks	3.2%	39.4%	0%	4.4%		10.9%	7.9%	0%	9.2%		17.6%	4.6%	0%	5.6%		5.1%
Pedestrians					0					0					0	
% Pedestrians																
Bicycles on Crosswalk					0					0					0	
% Bicycles on Crosswalk																

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

9. 23rd Street at W Airfield Drive - TMC

Tue Apr 30, 2019

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

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

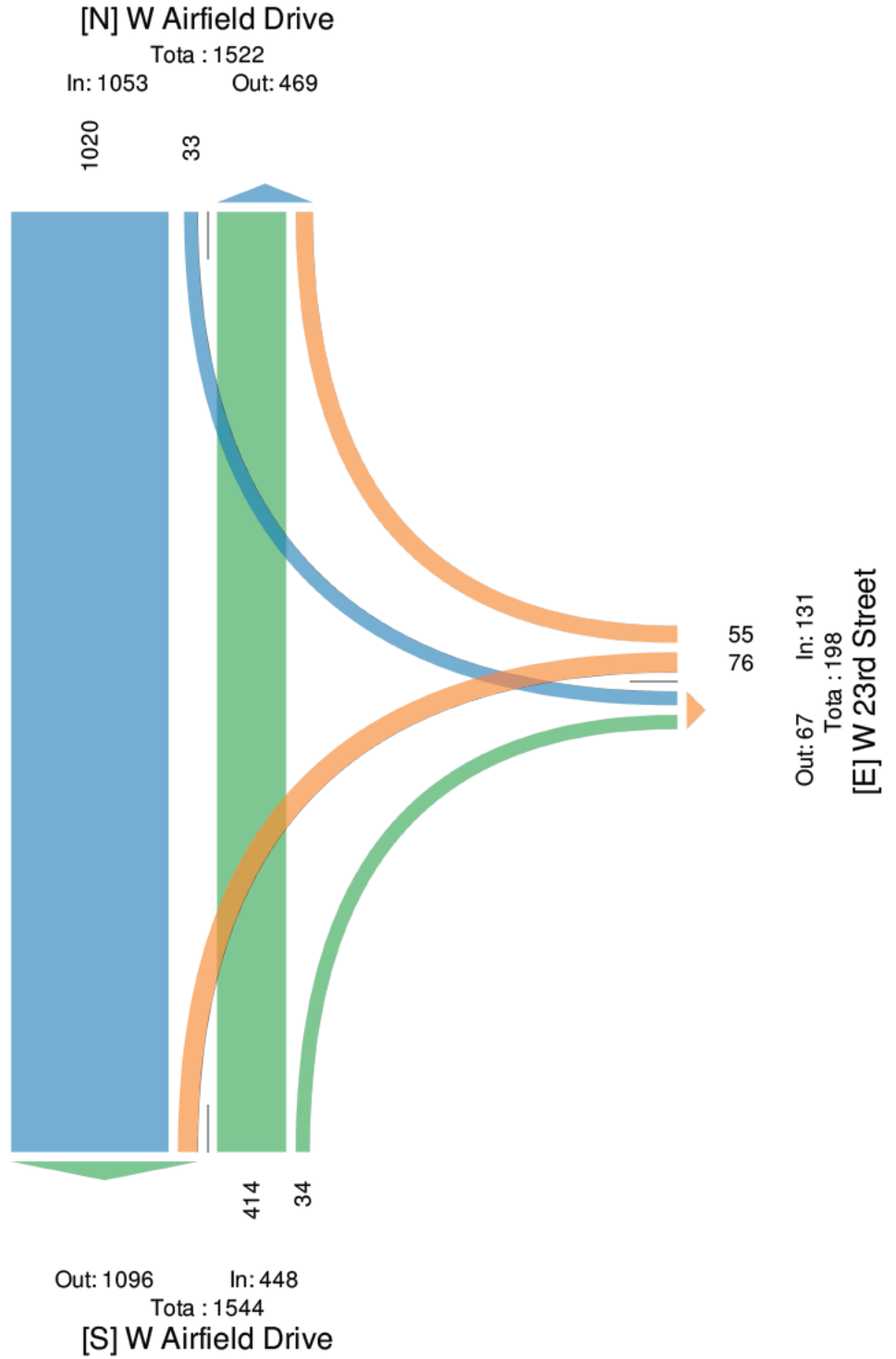
All Movements

ID: 645620, Location: 32.899083, -97.064743



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

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



9. 23rd Street at W Airfield Drive - TMC

Wed May 1, 2019

Full Length (7 AM-9 AM, 4:30 PM-6:30 PM)

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

All Movements

ID: 645634, Location: 32.899001, -97.064707



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound					W 23rd Street Westbound					W Airfield Drive Northbound					Int
	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	
2019 05 01 7 00AM	318	55	1	374	0	17	18	0	35	0	89	776	0	865	0	1274
8 00AM	288	57	0	345	0	23	21	0	44	0	70	572	0	642	0	1031
4 00PM	420	24	0	444	0	24	33	0	57	0	23	184	0	207	0	708
5 00PM	928	42	1	971	0	67	58	0	125	0	39	366	0	405	0	1501
6 00PM	307	26	2	335	0	35	24	0	59	0	19	115	1	135	0	529
Total	2261	204	4	2469	0	166	154	0	320	0	240	2013	1	2254	0	5043
% Approach	91.6%	8.3%	0.2%	-	-	51.9%	48.1%	0%	-	-	10.6%	89.3%	0%	-	-	
% Total	44.8%	4.0%	0.1%	49.0%		3.3%	3.1%	0%	6.3%		4.8%	39.9%	0%	44.7%		
Lights	2127	132	4	2263		120	133	0	253		211	1898	1	2110		4626
% Lights	94.1%	64.7%	100%	91.7%		72.3%	86.4%	0%	79.1%		87.9%	94.3%	100%	93.6%		91.7%
Articulated Trucks	42	32	0	74		15	13	0	28		14	50	0	64		166
% Articulated Trucks	1.9%	15.7%	0%	3.0%		9.0%	8.4%	0%	8.8%		5.8%	2.5%	0%	2.8%		3.3%
Buses and Single-Unit Trucks	92	40	0	132		31	8	0	39		15	65	0	80		251
% Buses and Single-Unit Trucks	4.1%	19.6%	0%	5.3%		18.7%	5.2%	0%	12.2%		6.3%	3.2%	0%	3.5%		5.0%
Pedestrians					0					0						0
% Pedestrians																
Bicycles on Crosswalk					0					0						0
% Bicycles on Crosswalk																

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

9. 23rd Street at W Airfield Drive - TMC

Wed May 1, 2019

Full Length (7 AM-9 AM, 4:30 PM-6:30 PM)

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

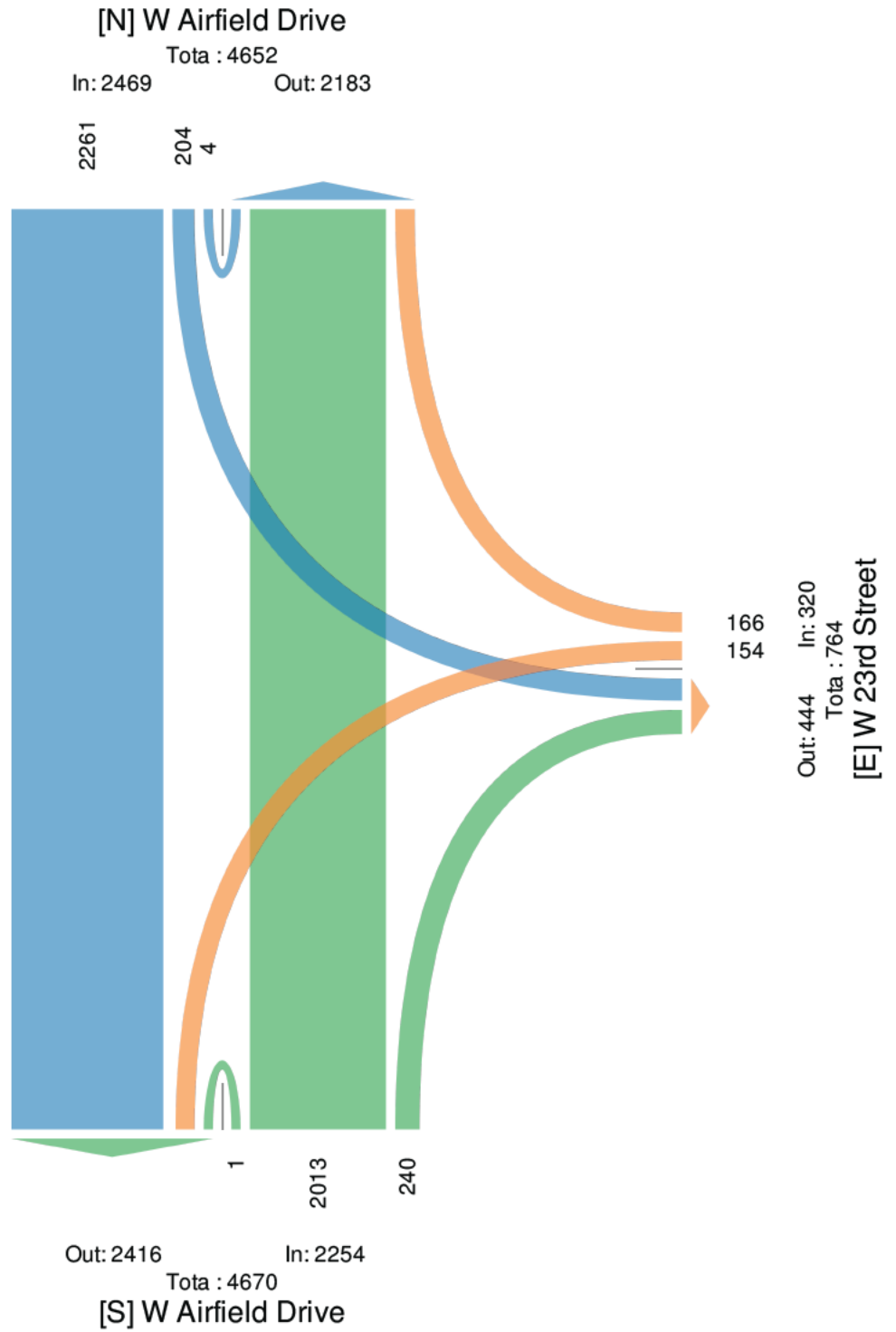
All Movements

ID: 645634, Location: 32.899001, -97.064707



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

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



9. 23rd Street at W Airfield Drive - TMC

Wed May 1, 2019

AM Peak (7:30 AM - 8:30 AM)

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

All Movements

ID: 645634, Location: 32.899001, -97.064707



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound					W 23rd Street Westbound					W Airfield Drive Northbound					Int
	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	
2019 05 01 7 30AM	90	9	0	99	0	4	6	0	10	0	21	217	0	238	0	347
7 45AM	76	27	0	103	0	6	1	0	7	0	39	251	0	290	0	400
8 00AM	75	15	0	90	0	4	3	0	7	0	23	179	0	202	0	299
8 15AM	77	19	0	96	0	6	7	0	13	0	19	161	0	180	0	289
Total	318	70	0	388	0	20	17	0	37	0	102	808	0	910	0	1335
% Approach	82 0%	18 0%	0%	-		54 1%	45 9%	0%	-		11 2%	88 8%	0%	-		
% Total	23 8%	5 2%	0%	29.1%		1 5%	1 3%	0%	2.8%		7 6%	60 5%	0%	68.2%		
PHF	0 883	0 648		0.942		0 833	0 607		0.712		0 654	0 805		0.784		0 834
Lights	294	55	0	349		16	13	0	29		97	769	0	866		1244
% Lights	92 5%	78 6%	0%	89.9%		80 0%	76 5%	0%	78.4%		95 1%	95 2%	0%	95.2%		93 2%
Articulate d Trucks	3	7	0	10		0	3	0	3		3	18	0	21		34
% Articulate d Trucks	0 9%	10 0%	0%	2.6%		0%	17 6%	0%	8.1%		2 9%	2 2%	0%	2.3%		2 5%
Buses and Single-Unit Trucks	21	8	0	29		4	1	0	5		2	21	0	23		57
% Buses and Single-Unit Trucks	6 6%	11 4%	0%	7.5%		20 0%	5 9%	0%	13.5%		2 0%	2 6%	0%	2.5%		4 3%
Pedestrians					0					0					0	
% Pedestrians																
Bicyc es on Crosswa k					0					0					0	
% Bicyc es on Crosswa k																

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

9. 23rd Street at W Airfield Drive - TMC

Wed May 1, 2019

AM Peak (7:30 AM - 8:30 AM)

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

All Movements

ID: 645634, Location: 32.899001, -97.064707



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

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

[N] W Airfield Drive

Tota : 1216
In: 388 Out: 828

318

70



20
17

Out: 172 In: 37
Tota : 209
[E] W 23rd Street

Out: 335 In: 910
Tota : 1245

[S] W Airfield Drive

9. 23rd Street at W Airfield Drive - TMC

Wed May 1, 2019

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

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

All Movements

ID: 645634, Location: 32.899001, -97.064707



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound					W 23rd Street Westbound					W Airfield Drive Northbound					Int
	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	
2019 05 01 4 45PM	205	13	0	218	0	9	11	0	20	0	8	94	0	102	0	340
5 00PM	256	7	0	263	0	16	19	0	35	0	4	88	0	92	0	390
5 15PM	244	12	0	256	0	17	12	0	29	0	11	98	0	109	0	394
5 30PM	238	12	1	251	0	21	19	0	40	0	10	107	0	117	0	408
Total	943	44	1	988	0	63	61	0	124	0	33	387	0	420	0	1532
% Approach	95.4%	4.5%	0.1%	-	-	50.8%	49.2%	0%	-	-	7.9%	92.1%	0%	-	-	
% Total	61.6%	2.9%	0.1%	64.5%		4.1%	4.0%	0%	8.1%		2.2%	25.3%	0%	27.4%		
PHF	0.921	0.846	0.250	0.939		0.750	0.803		0.775		0.750	0.904		0.897		0.939
Lights	896	20	1	917		41	58	0	99		23	364	0	387		1403
% Lights	95.0%	45.5%	100%	92.8%		65.1%	95.1%	0%	79.8%		69.7%	94.1%	0%	92.1%		91.6%
Articulated Trucks	16	11	0	27		10	1	0	11		5	7	0	12		50
% Articulated Trucks	1.7%	25.0%	0%	2.7%		15.9%	1.6%	0%	8.9%		15.2%	1.8%	0%	2.9%		3.3%
Buses and Single-Unit Trucks	31	13	0	44		12	2	0	14		5	16	0	21		79
% Buses and Single-Unit Trucks	3.3%	29.5%	0%	4.5%		19.0%	3.3%	0%	11.3%		15.2%	4.1%	0%	5.0%		5.2%
Pedestrians					0					0						0
% Pedestrians																
Bicycles on Crosswalk					0					0						0
% Bicycles on Crosswalk																

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

9. 23rd Street at W Airfield Drive - TMC

Wed May 1, 2019

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

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

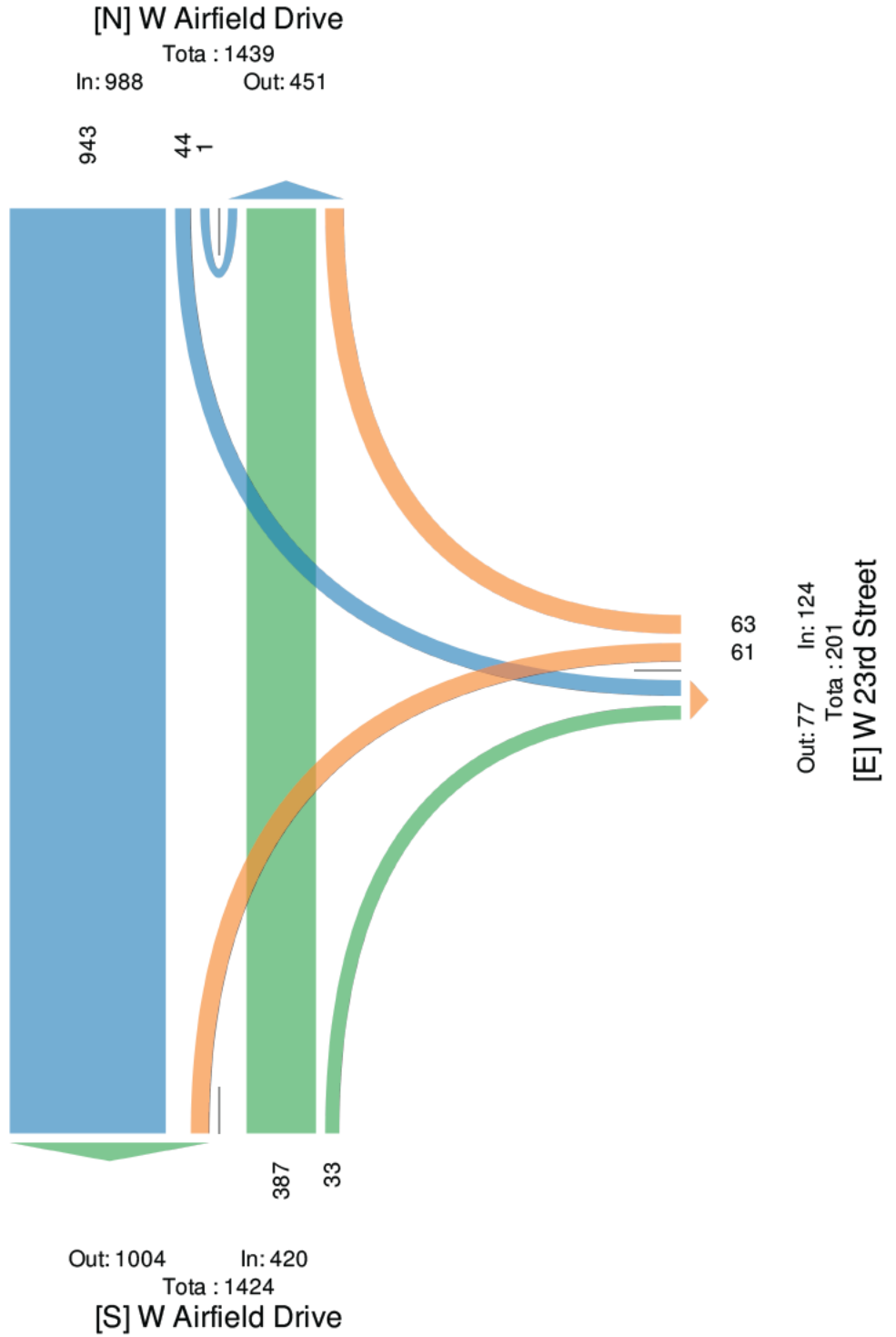
All Movements

ID: 645634, Location: 32.899001, -97.064707



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

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



10. E Glade Road at W Airfield Drive - TMC

Tue Apr 30, 2019

Full Length (7 AM-9 AM, 4:30 PM-6:30 PM)

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

All Movements

ID: 645621, Location: 32.881219, -97.059902



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound					W Airfield Drive Northbound					E Glade Road Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2019 04 30 7 00AM	89	199	2	290	0	607	37	0	644	0	215	249	0	464	0	1398
8 00AM	67	214	0	281	0	530	40	0	570	0	133	191	0	324	0	1175
4 00PM	143	340	0	483	0	138	56	0	194	0	21	46	0	67	0	744
5 00PM	340	807	1	1148	0	317	239	0	556	0	89	83	0	172	0	1876
6 00PM	102	335	2	439	0	88	45	0	133	0	30	18	0	48	0	620
Total	741	1895	5	2641	0	1680	417	0	2097	0	488	587	0	1075	0	5813
% Approach	28 1%	71 8%	0 2%	-		80 1%	19 9%	0%	-		45 4%	54 6%	0%	-		
% Total	12 7%	32 6%	0 1%	45.4%		28 9%	7 2%	0%	36.1%		8 4%	10 1%	0%	18.5%		
Lights	737	1758	5	2500		1548	413	0	1961		486	584	0	1070		5531
% Lights	99 5%	92 8%	100%	94.7%		92 1%	99 0%	0%	93.5%		99 6%	99 5%	0%	99.5%		95 1%
Articulated Trucks	0	51	0	51		38	1	0	39		1	0	0	1		91
% Articulated Trucks	0%	2 7%	0%	1.9%		2 3%	0 2%	0%	1.9%		0 2%	0%	0%	0.1%		1 6%
Buses and Single-Unit Trucks	4	86	0	90		94	3	0	97		1	3	0	4		191
% Buses and Single-Unit Trucks	0 5%	4 5%	0%	3.4%		5 6%	0 7%	0%	4.6%		0 2%	0 5%	0%	0.4%		3 3%
Pedestrians					0					0						0
% Pedestrians																
Bicycles on Crosswalk					0					0						0
% Bicycles on Crosswalk																

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

10. E Glade Road at W Airfield Drive - TMC

Tue Apr 30, 2019

Full Length (7 AM-9 AM, 4:30 PM-6:30 PM)

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

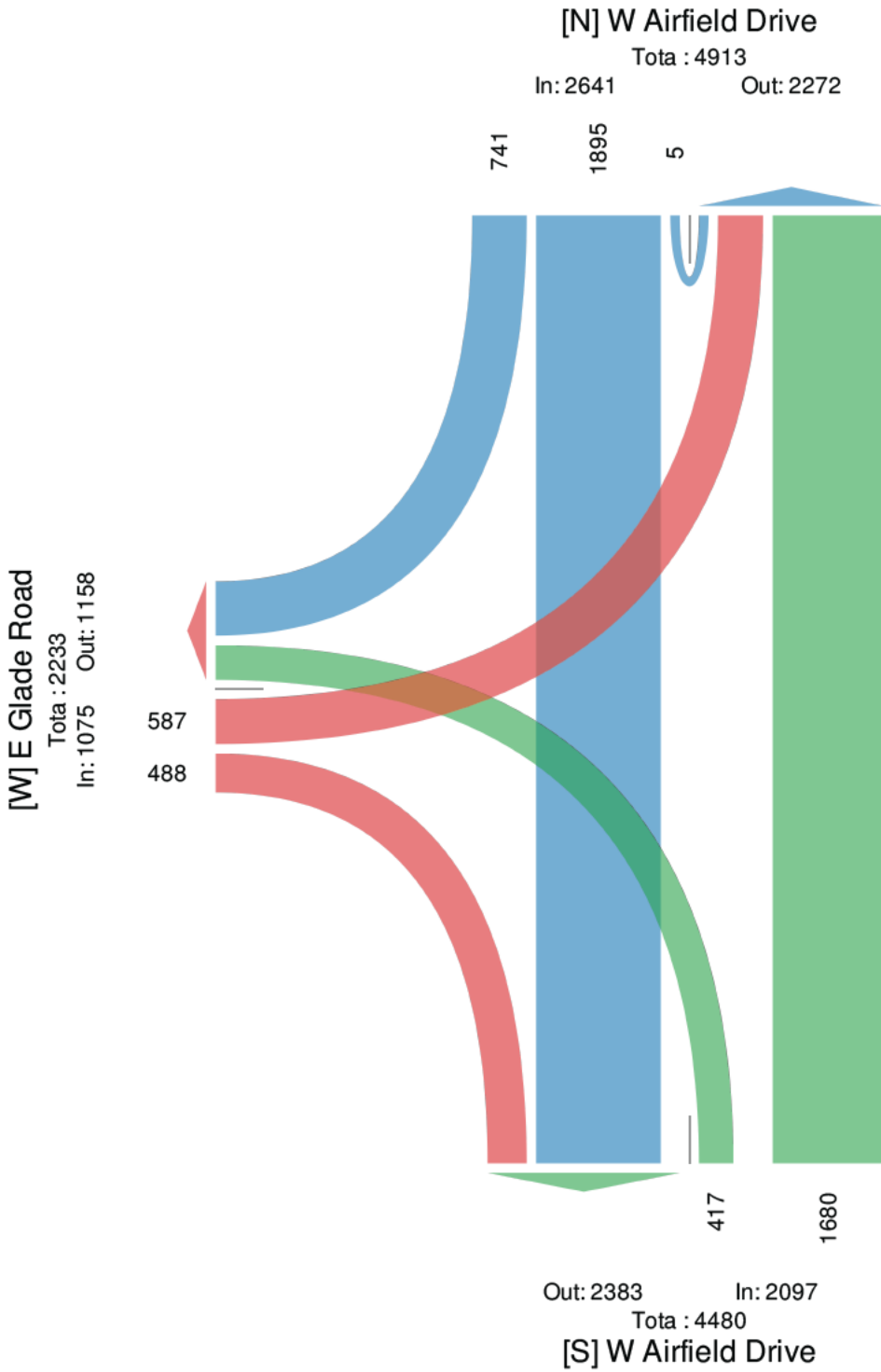
All Movements

ID: 645621, Location: 32.881219, -97.059902



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

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



10. E Glade Road at W Airfield Drive - TMC

Tue Apr 30, 2019

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

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

All Movements

ID: 645621, Location: 32.881219, -97.059902



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound					W Airfield Drive Northbound					E Glade Road Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2019 04 30 7 15AM	19	43	1	63	0	146	5	0	151	0	64	49	0	113	0	327
7 30AM	19	48	0	67	0	168	10	0	178	0	48	70	0	118	0	363
7 45AM	25	52	1	78	0	182	14	0	196	0	61	83	0	144	0	418
8 00AM	20	56	0	76	0	167	8	0	175	0	48	61	0	109	0	360
Total	83	199	2	284	0	663	37	0	700	0	221	263	0	484	0	1468
% Approach	29.2%	70.1%	0.7%	-	-	94.7%	5.3%	0%	-	-	45.7%	54.3%	0%	-	-	
% Total	5.7%	13.6%	0.1%	19.3%		45.2%	2.5%	0%	47.7%		15.1%	17.9%	0%	33.0%		
PHF	0.830	0.888	0.500	0.910		0.911	0.661		0.893		0.863	0.792		0.840		0.878
Lights	83	173	2	258		629	36	0	665		220	261	0	481		1404
% Lights	100%	86.9%	100%	90.8%		94.9%	97.3%	0%	95.0%		99.5%	99.2%	0%	99.4%		95.6%
Articulated Trucks	0	6	0	6		11	1	0	12		1	0	0	1		19
% Articulated Trucks	0%	3.0%	0%	2.1%		1.7%	2.7%	0%	1.7%		0.5%	0%	0%	0.2%		1.3%
Buses and Single-Unit Trucks	0	20	0	20		23	0	0	23		0	2	0	2		45
% Buses and Single-Unit Trucks	0%	10.1%	0%	7.0%		3.5%	0%	0%	3.3%		0%	0.8%	0%	0.4%		3.1%
Pedestrians					0					0					0	
% Pedestrians																
Bicycles on Crosswalk					0					0					0	
% Bicycles on Crosswalk																

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

10. E Glade Road at W Airfield Drive - TMC

Tue Apr 30, 2019

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

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

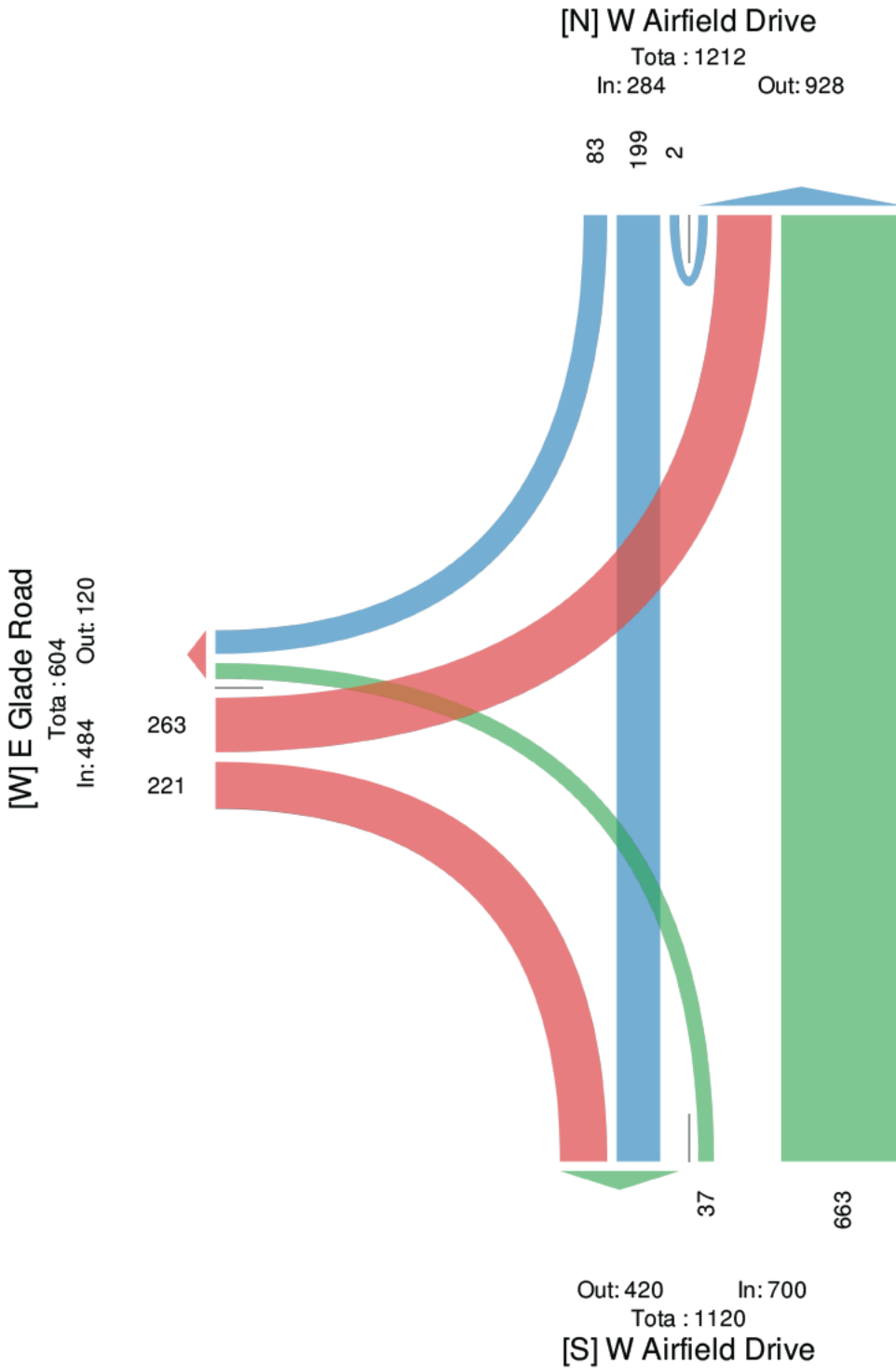
All Movements

ID: 645621, Location: 32.881219, -97.059902



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

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



10. E Glade Road at W Airfield Drive - TMC

Tue Apr 30, 2019

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

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

All Movements

ID: 645621, Location: 32.881219, -97.059902



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound					W Airfield Drive Northbound					E Glade Road Eastbound					Int
	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	
2019 04 30 5 00PM	116	247	1	364	0	80	38	0	118	0	24	22	0	46	0	528
5 15PM	89	226	0	315	0	83	76	0	159	0	28	26	0	54	0	528
5 30PM	66	157	0	223	0	77	61	0	138	0	21	21	0	42	0	403
5 45PM	69	177	0	246	0	77	64	0	141	0	16	14	0	30	0	417
Total	340	807	1	1148	0	317	239	0	556	0	89	83	0	172	0	1876
% Approach	29.6%	70.3%	0.1%	-	-	57.0%	43.0%	0%	-	-	51.7%	48.3%	0%	-	-	
% Total	18.1%	43.0%	0.1%	61.2%		16.9%	12.7%	0%	29.6%		4.7%	4.4%	0%	9.2%		
PHF	0.733	0.817	0.250	0.788		0.955	0.786		0.874		0.795	0.798		0.796		0.888
Lights	339	768	1	1108		287	238	0	525		89	83	0	172		1805
% Lights	99.7%	95.2%	100%	96.5%		90.5%	99.6%	0%	94.4%		100%	100%	0%	100%		96.2%
Articulated Trucks	0	16	0	16		10	0	0	10		0	0	0	0		26
% Articulated Trucks	0%	2.0%	0%	1.4%		3.2%	0%	0%	1.8%		0%	0%	0%	0%		1.4%
Buses and Single-Unit Trucks	1	23	0	24		20	1	0	21		0	0	0	0		45
% Buses and Single-Unit Trucks	0.3%	2.9%	0%	2.1%		6.3%	0.4%	0%	3.8%		0%	0%	0%	0%		2.4%
Pedestrians					0					0					0	
% Pedestrians																
Bicycles on Crosswalk					0					0					0	
% Bicycles on Crosswalk																

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

10. E Glade Road at W Airfield Drive - TMC

Tue Apr 30, 2019

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

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

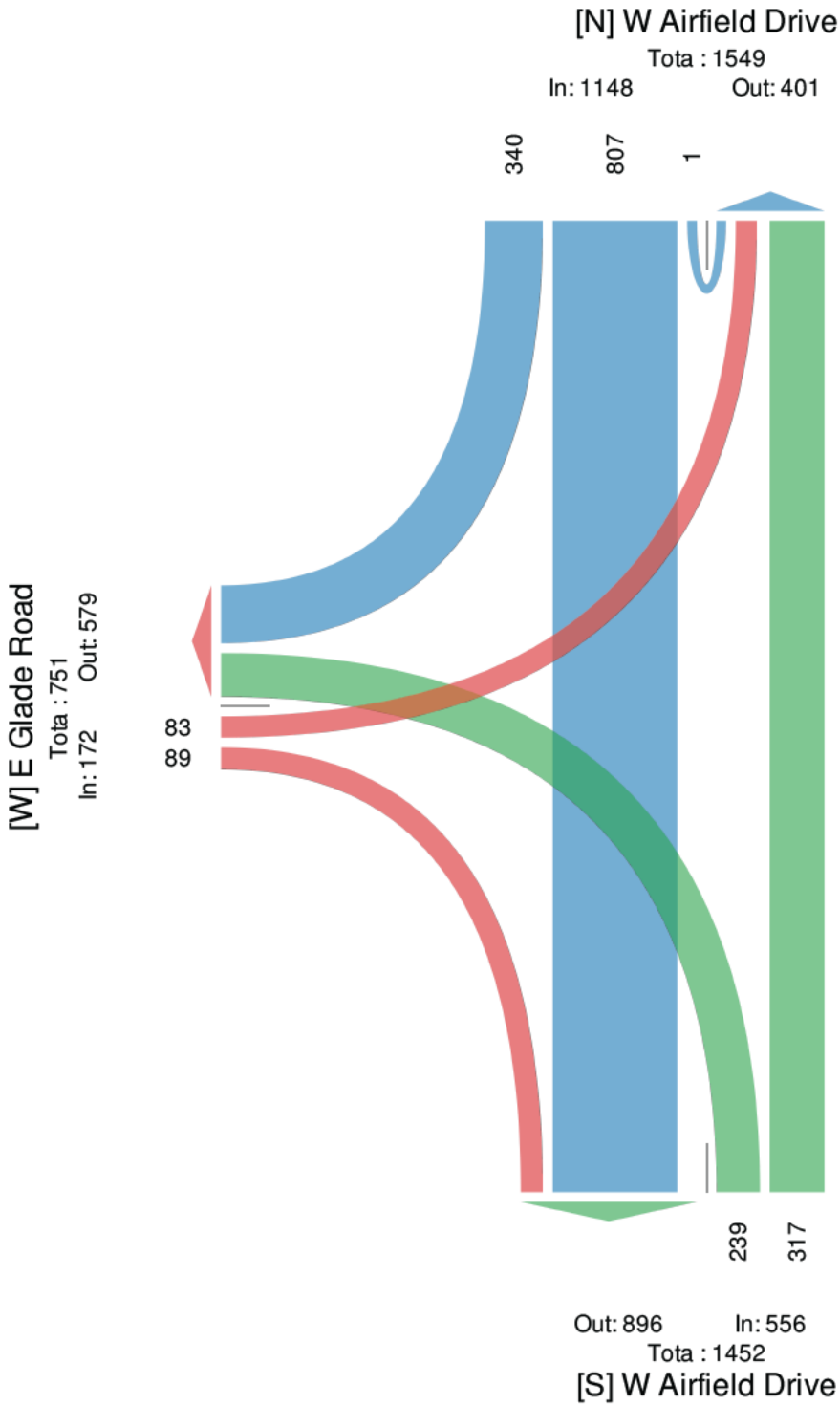
All Movements

ID: 645621, Location: 32.881219, -97.059902



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

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



10. E Glade Road at W Airfield Drive - TMC

Wed May 1, 2019

Full Length (7 AM-9 AM, 4:30 PM-6:30 PM)

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

All Movements

ID: 645636, Location: 32.881183, -97.059951



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound					W Airfield Drive Northbound					E Glade Road Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2019 05 01 7 00AM	86	227	0	313	0	617	39	0	656	0	213	276	0	489	0	1458
8 00AM	63	225	0	288	0	540	39	1	580	0	127	165	0	292	0	1160
4 00PM	147	361	1	509	0	146	47	0	193	0	34	37	0	71	0	773
5 00PM	296	744	0	1040	0	295	131	0	426	0	105	74	0	179	0	1645
6 00PM	80	268	0	348	0	102	47	1	150	0	33	29	0	62	0	560
Total	672	1825	1	2498	0	1700	303	2	2005	0	512	581	0	1093	0	5596
% Approach	26 9%	73 1%	0%	-		84 8%	15 1%	0 1%	-		46 8%	53 2%	0%	-		
% Total	12 0%	32 6%	0%	44.6%		30 4%	5 4%	0%	35.8%		9 1%	10 4%	0%	19.5%		
Lights	666	1704	1	2371		1570	302	2	1874		508	580	0	1088		5333
% Lights	99 1%	93 4%	100%	94.9%		92 4%	99 7%	100%	93.5%		99 2%	99 8%	0%	99.5%		95 3%
Articulated Trucks	0	43	0	43		51	0	0	51		0	0	0	0		94
% Articulated Trucks	0%	2 4%	0%	1.7%		3 0%	0%	0%	2.5%		0%	0%	0%	0%		1 7%
Buses and Single-Unit Trucks	6	78	0	84		79	1	0	80		4	1	0	5		169
% Buses and Single-Unit Trucks	0 9%	4 3%	0%	3.4%		4 6%	0 3%	0%	4.0%		0 8%	0 2%	0%	0.5%		3 0%
Pedestrians					0					0						0
% Pedestrians																
Bicycles on Crosswalk					0					0						0
% Bicycles on Crosswalk																

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

10. E Glade Road at W Airfield Drive - TMC

Wed May 1, 2019

Full Length (7 AM-9 AM, 4:30 PM-6:30 PM)

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

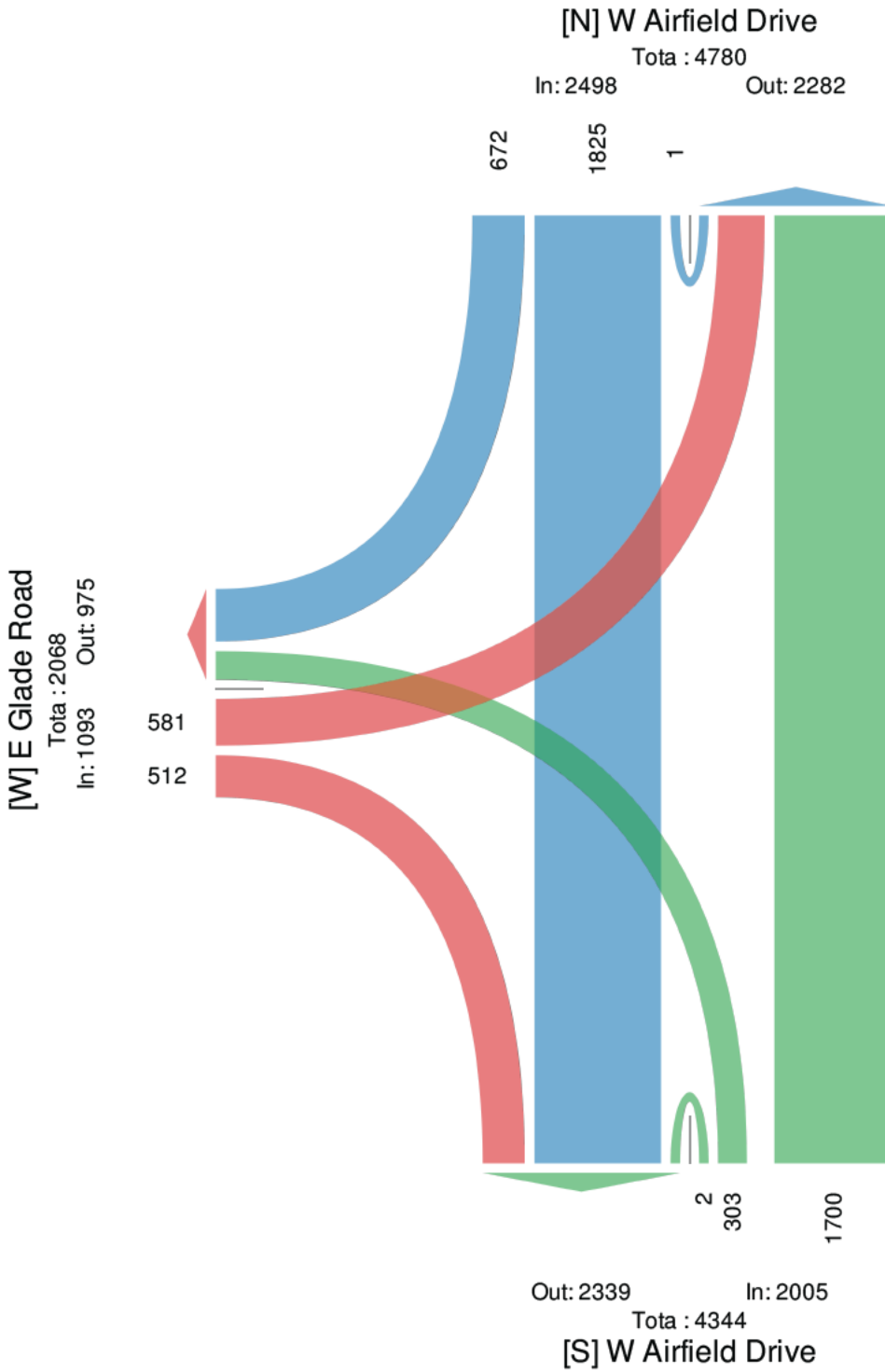
All Movements

ID: 645636, Location: 32.881183, -97.059951



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

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



10. E Glade Road at W Airfield Drive - TMC

Wed May 1, 2019

AM Peak (7:30 AM - 8:30 AM)

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

All Movements

ID: 645636, Location: 32.881183, -97.059951



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound					W Airfield Drive Northbound					E Glade Road Eastbound					Int
	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	
2019 05 01 7 30AM	30	60	0	90	0	171	11	0	182	0	66	92	0	158	0	430
7 45AM	16	56	0	72	0	203	15	0	218	0	53	86	0	139	0	429
8 00AM	12	51	0	63	0	171	6	0	177	0	45	57	0	102	0	342
8 15AM	15	69	0	84	0	151	13	0	164	0	33	34	0	67	0	315
Total	73	236	0	309	0	696	45	0	741	0	197	269	0	466	0	1516
% Approach	23.6%	76.4%	0%	-	-	93.9%	6.1%	0%	-	-	42.3%	57.7%	0%	-	-	
% Total	4.8%	15.6%	0%	20.4%		45.9%	3.0%	0%	48.9%		13.0%	17.7%	0%	30.7%		
PHF	0.608	0.855		0.858		0.857	0.750		0.850		0.746	0.731		0.737		0.881
Lights	72	204	0	276		645	45	0	690		196	268	0	464		1430
% Lights	98.6%	86.4%	0%	89.3%		92.7%	100%	0%	93.1%		99.5%	99.6%	0%	99.6%		94.3%
Articulated Trucks	0	5	0	5		24	0	0	24		0	0	0	0		29
% Articulated Trucks	0%	2.1%	0%	1.6%		3.4%	0%	0%	3.2%		0%	0%	0%	0%		1.9%
Buses and Single-Unit Trucks	1	27	0	28		27	0	0	27		1	1	0	2		57
% Buses and Single-Unit Trucks	1.4%	11.4%	0%	9.1%		3.9%	0%	0%	3.6%		0.5%	0.4%	0%	0.4%		3.8%
Pedestrians					0					0					0	
% Pedestrians																
Bicycles on Crosswalk					0					0					0	
% Bicycles on Crosswalk																

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

10. E Glade Road at W Airfield Drive - TMC

Wed May 1, 2019

AM Peak (7:30 AM - 8:30 AM)

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

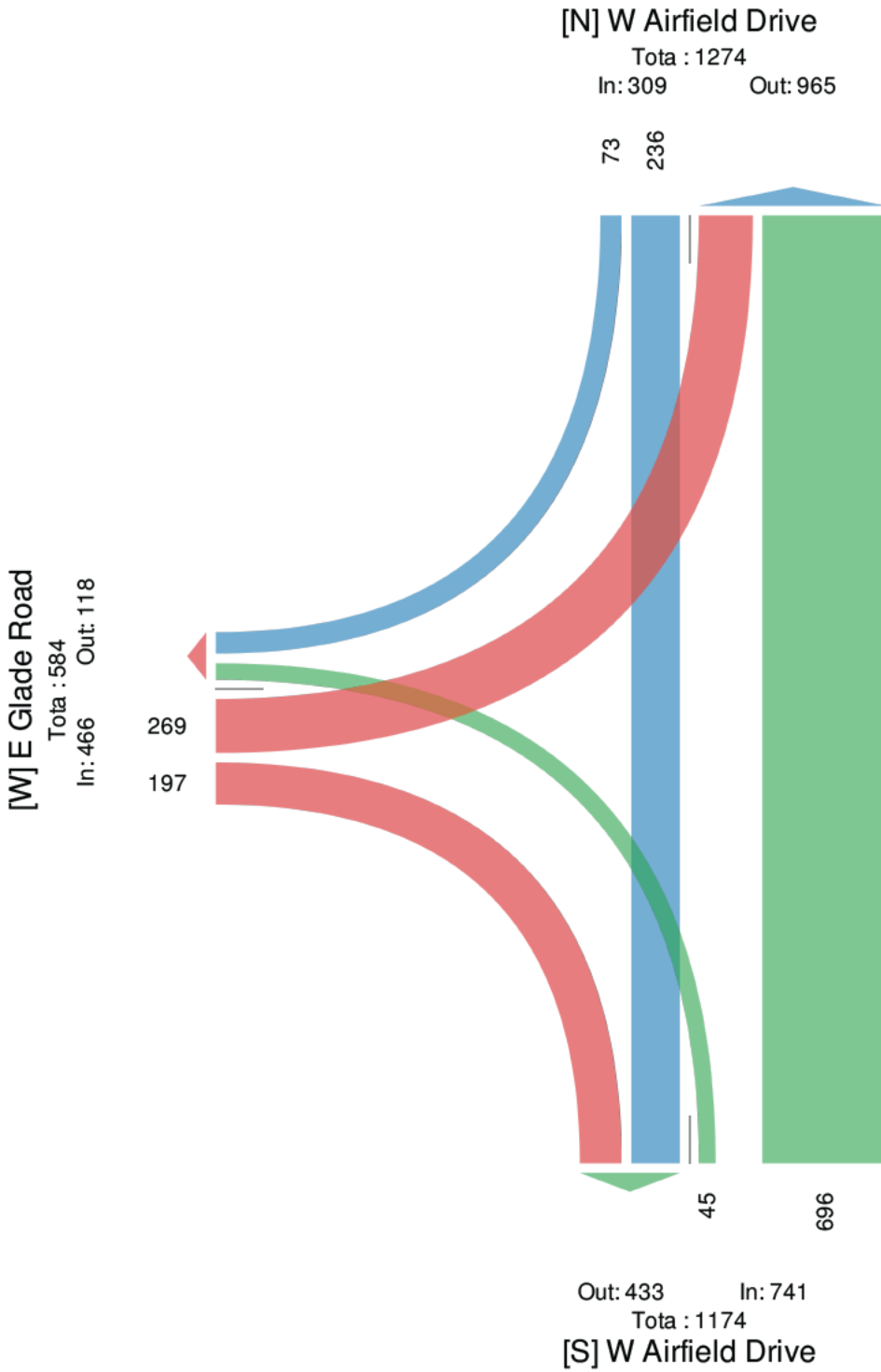
All Movements

ID: 645636, Location: 32.881183, -97.059951



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

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



10. E Glade Road at W Airfield Drive - TMC

Wed May 1, 2019

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

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

All Movements

ID: 645636, Location: 32.881183, -97.059951



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	W Airfield Drive Southbound					W Airfield Drive Northbound					E Glade Road Eastbound					Int
	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	
2019 05 01 4 45PM	71	172	1	244	0	73	28	0	101	0	17	13	0	30	0	375
5 00PM	77	208	0	285	0	70	26	0	96	0	14	19	0	33	0	414
5 15PM	79	195	0	274	0	83	45	0	128	0	31	17	0	48	0	450
5 30PM	85	186	0	271	0	79	33	0	112	0	36	19	0	55	0	438
Total	312	761	1	1074	0	305	132	0	437	0	98	68	0	166	0	1677
% Approach	29 1%	70 9%	0 1%	-	-	69 8%	30 2%	0%	-	-	59 0%	41 0%	0%	-	-	
% Total	18 6%	45 4%	0 1%	64.0%		18 2%	7 9%	0%	26.1%		5 8%	4 1%	0%	9.9%		
PHF	0 918	0 915	0 250	0.942		0 919	0 733		0.854		0 681	0 895		0.755		0 932
Lights	310	729	1	1040		278	131	0	409		97	68	0	165		1614
% Lights	99 4%	95 8%	100%	96.8%		91 1%	99 2%	0%	93.6%		99 0%	100%	0%	99.4%		96 2%
Articulated Trucks	0	12	0	12		8	0	0	8		0	0	0	0		20
% Articulated Trucks	0%	1 6%	0%	1.1%		2 6%	0%	0%	1.8%		0%	0%	0%	0%		1 2%
Buses and Single-Unit Trucks	2	20	0	22		19	1	0	20		1	0	0	1		43
% Buses and Single-Unit Trucks	0 6%	2 6%	0%	2.0%		6 2%	0 8%	0%	4.6%		1 0%	0%	0%	0.6%		2 6%
Pedestrians					0					0					0	
% Pedestrians																
Bicycles on Crosswalk					0					0					0	
% Bicycles on Crosswalk																

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

10. E Glade Road at W Airfield Drive - TMC

Wed May 1, 2019

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

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

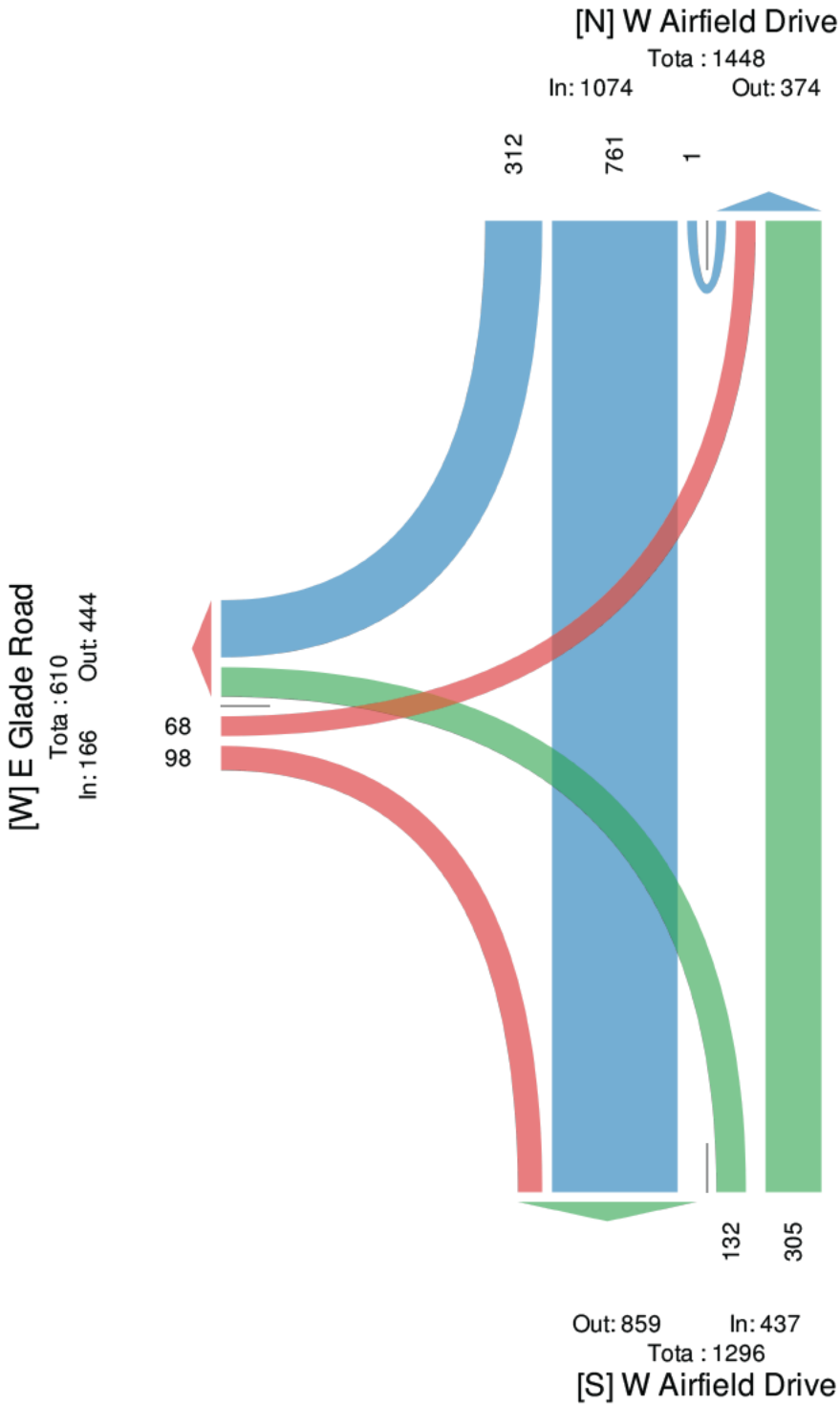
All Movements

ID: 645636, Location: 32.881183, -97.059951



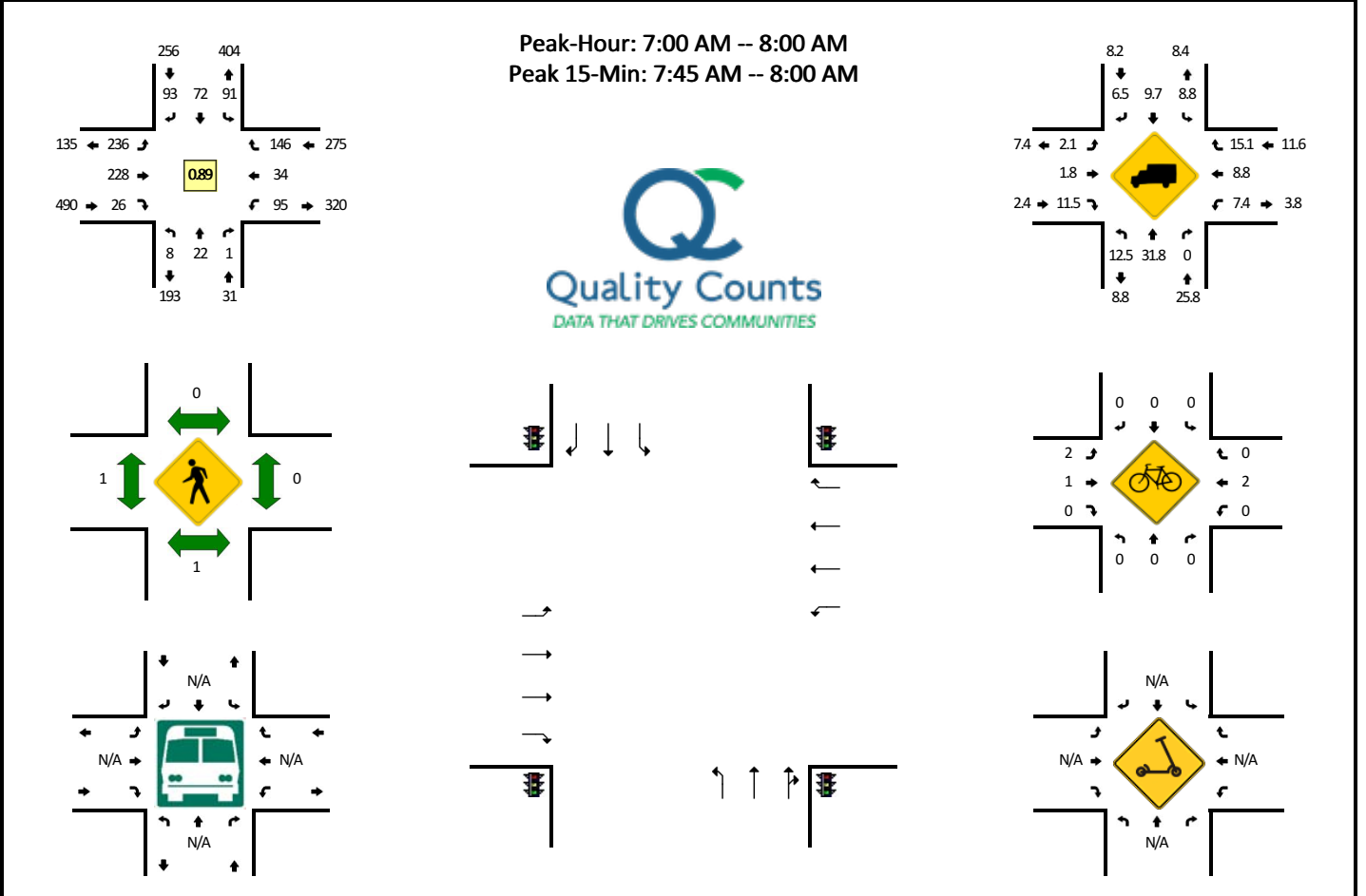
Provided by: C. J. Hensch & Associates Inc.

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



LOCATION: S Main St -- Mustang Dr
CITY/STATE: Grapevine, TX

QC JOB #: 15871601
DATE: Wed, Jul 6 2022

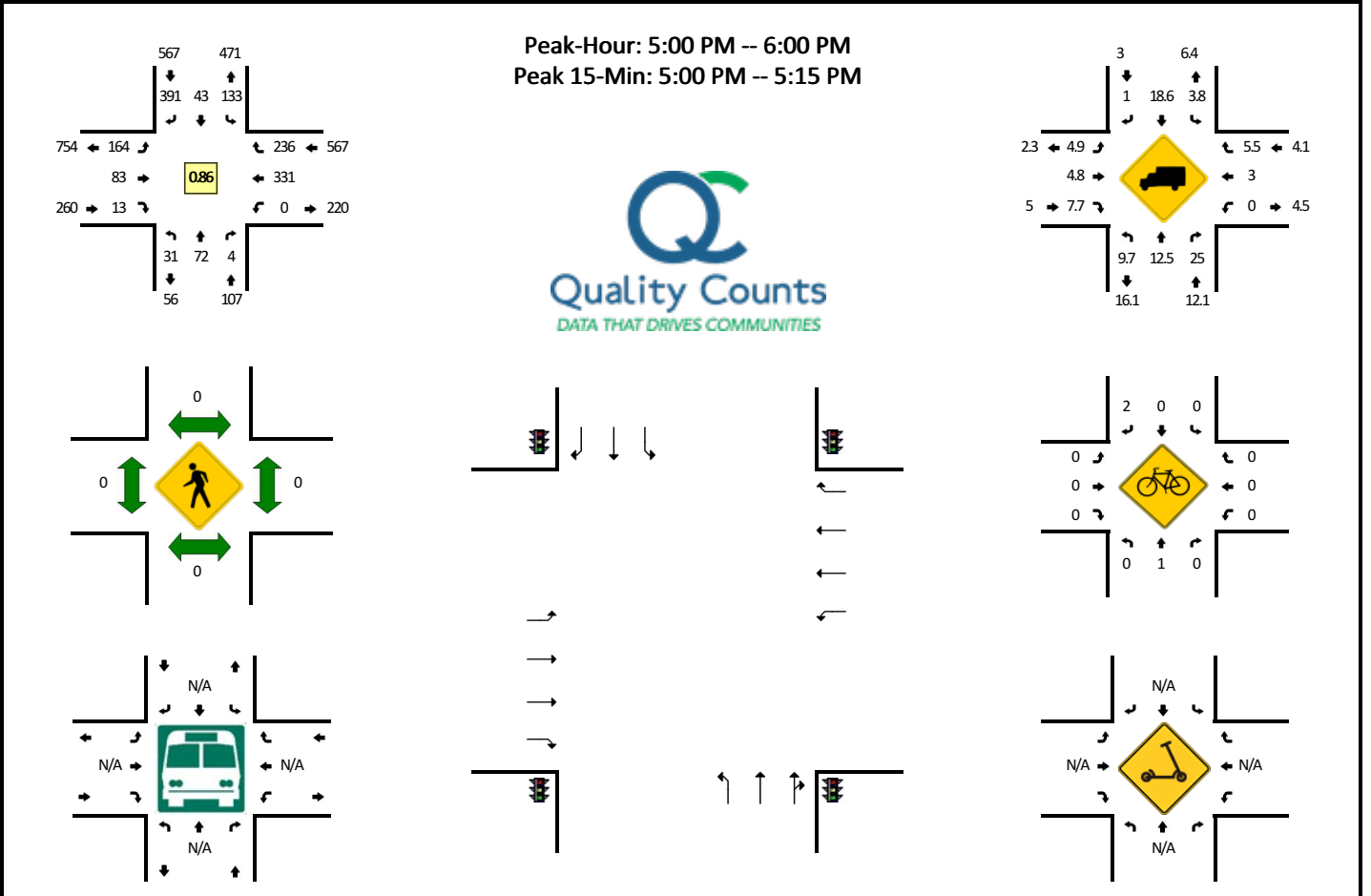


15-Min Count Period Beginning At	S Main St (Northbound)				S Main St (Southbound)				Mustang Dr (Eastbound)				Mustang Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	2	10	0	0	24	17	12	0	31	36	6	0	60	6	46	0	250	
7:15 AM	4	6	1	0	19	16	25	0	62	45	5	0	33	8	28	0	252	
7:30 AM	2	4	0	0	22	17	18	0	65	73	7	0	0	10	37	0	255	
7:45 AM	0	2	0	0	26	22	38	0	78	74	8	0	2	10	35	0	295	1052
8:00 AM	0	9	0	0	24	20	27	0	30	51	10	0	1	14	35	0	221	1023
8:15 AM	1	8	0	0	25	11	28	0	39	35	2	0	0	13	27	0	189	960
8:30 AM	2	10	0	0	29	14	18	0	26	29	4	0	1	13	31	0	177	882
8:45 AM	1	7	3	0	33	13	16	0	20	20	9	0	1	12	34	0	169	756
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	8	0	0	104	88	152	0	312	296	32	0	8	40	140	0	1180	
Heavy Trucks	0	8	0		8	4	8		4	8	4		4	4	12		64	
Buses																		
Pedestrians		4				0				4				0			8	
Bicycles	0	0	0		0	0	0		0	4	0		0	0	0		4	
Scooters																		

Comments:

LOCATION: S Main St -- Mustang Dr
CITY/STATE: Grapevine, TX

QC JOB #: 15871602
DATE: Wed, Jul 6 2022

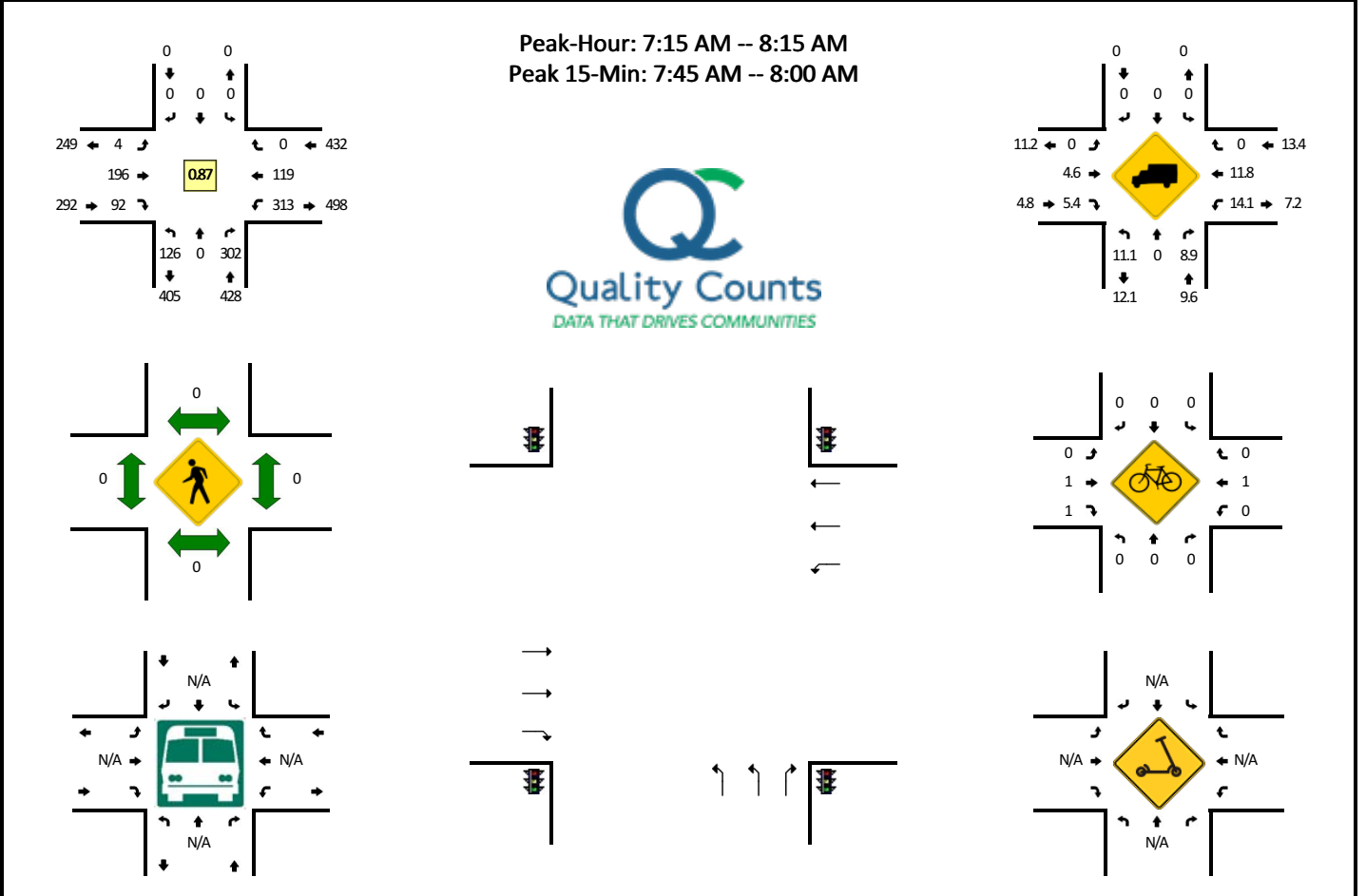


15-Min Count Period Beginning At	S Main St (Northbound)				S Main St (Southbound)				Mustang Dr (Eastbound)				Mustang Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	13	15	0	0	30	9	35	0	25	17	0	0	0	39	61	0	244	
4:15 PM	1	15	0	0	20	7	61	0	23	21	2	0	2	53	56	1	262	
4:30 PM	5	14	0	0	27	6	58	0	34	19	2	0	1	53	72	0	291	
4:45 PM	1	12	2	0	25	12	54	0	29	22	2	0	1	53	57	0	270	1067
5:00 PM	12	26	1	0	23	17	95	0	62	28	3	0	0	93	78	0	438	1261
5:15 PM	11	21	0	0	37	9	99	0	35	16	3	1	0	94	42	0	368	1367
5:30 PM	4	14	1	0	31	8	113	0	33	16	5	0	0	69	52	0	346	1422
5:45 PM	4	11	2	0	42	9	84	0	33	23	2	0	0	75	64	0	349	1501
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	48	104	4	0	92	68	380	0	248	112	12	0	0	372	312	0	1752	
Heavy Trucks	4	16	4		4	16	4		8	8	0		0	4	12		80	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																		

Comments:

LOCATION: W Airfield Dr -- Mustang Dr/N Airfield Dr
CITY/STATE: Grapevine, TX

QC JOB #: 15871603
DATE: Wed, Jul 6 2022

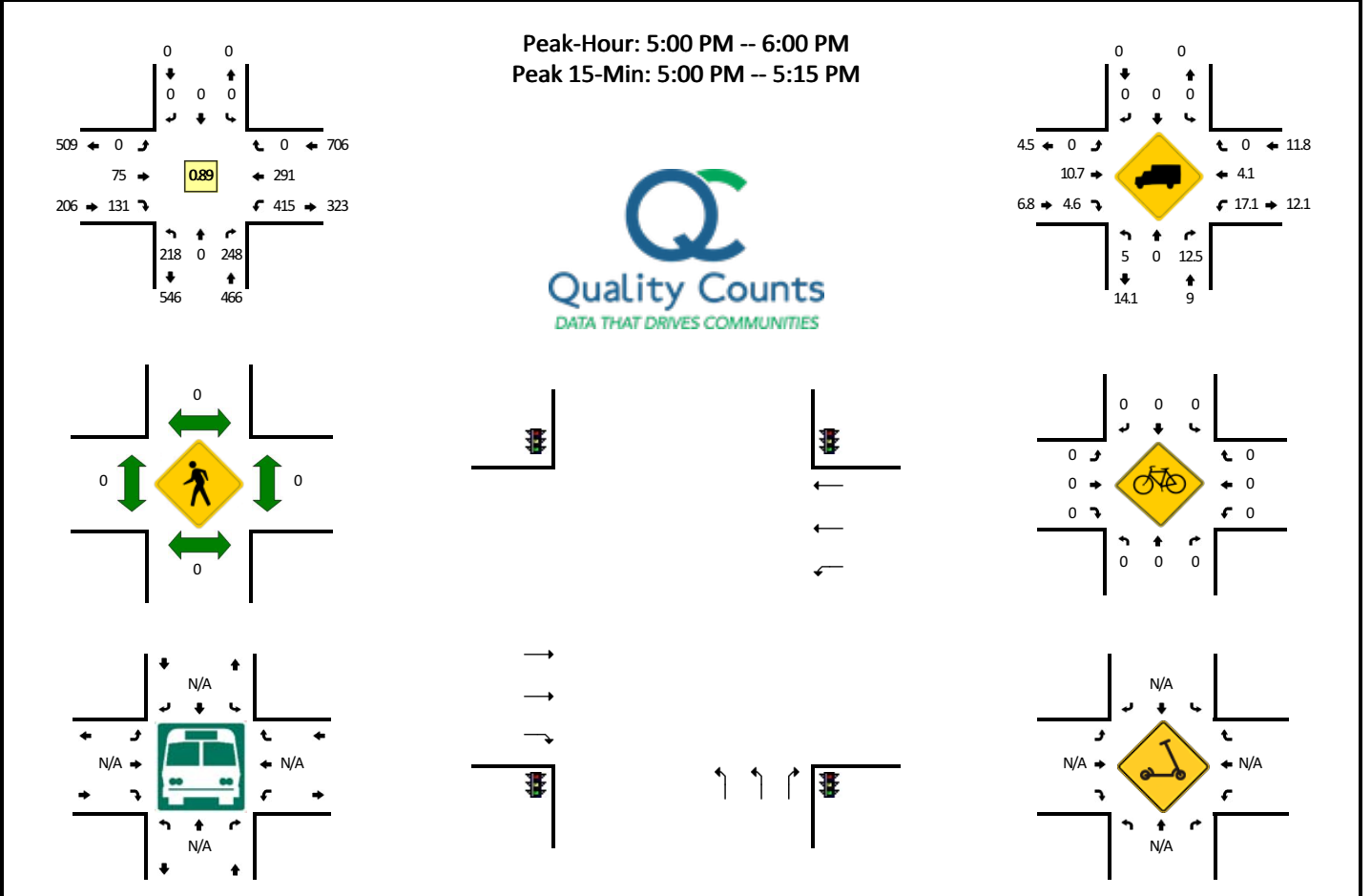


15-Min Count Period Beginning At	W Airfield Dr (Northbound)				W Airfield Dr (Southbound)				Mustang Dr/N Airfield Dr (Eastbound)				Mustang Dr/N Airfield Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	48	0	57	0	0	0	0	0	0	48	0	6	0	78	0	0	237	
7:15 AM	28	0	57	0	0	0	0	0	0	46	12	3	45	46	0	0	237	
7:30 AM	33	0	80	0	0	0	0	0	0	59	20	0	85	22	0	0	299	
7:45 AM	35	0	99	0	0	0	0	0	0	49	30	1	91	26	0	0	331	1104
8:00 AM	30	0	66	0	0	0	0	0	0	42	30	0	92	25	0	0	285	1152
8:15 AM	23	0	48	0	0	0	0	0	0	24	31	0	83	18	0	0	227	1142
8:30 AM	39	0	48	0	0	0	0	0	0	13	34	0	75	23	0	0	232	1075
8:45 AM	29	0	49	0	0	0	0	0	0	15	20	1	69	17	0	0	200	944
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	140	0	396	0	0	0	0	0	0	196	120	4	364	104	0	0	1324	
Heavy Trucks	4	0	36		0	0	0		0	8	4		56	16	0		124	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	4	0		0	4	0		8	
Scooters																		

Comments:

LOCATION: W Airfield Dr -- Mustang Dr/N Airfield Dr
CITY/STATE: Grapevine, TX

QC JOB #: 15871604
DATE: Wed, Jul 6 2022

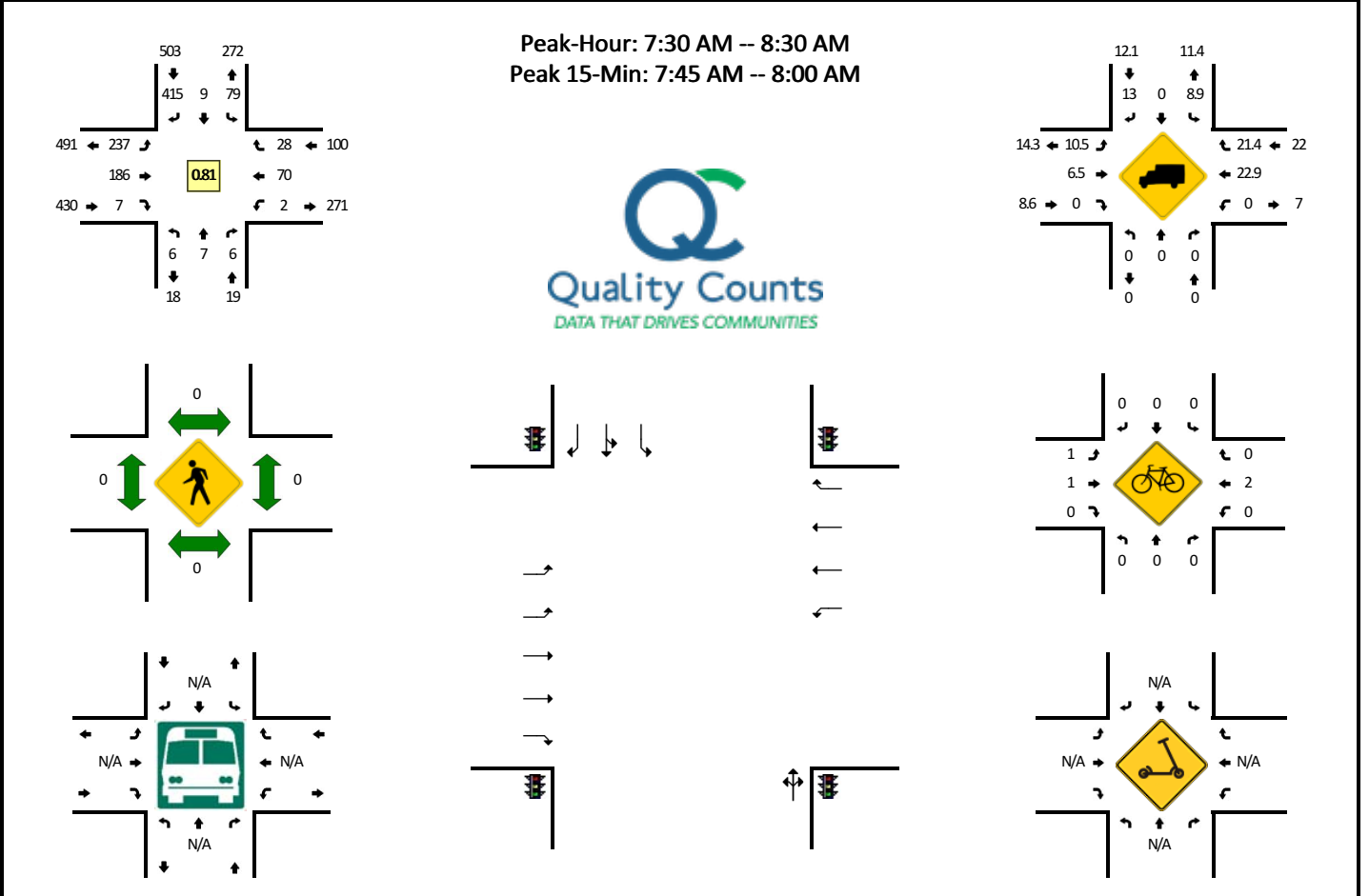


15-Min Count Period Beginning At	W Airfield Dr (Northbound)				W Airfield Dr (Southbound)				Mustang Dr/N Airfield Dr (Eastbound)				Mustang Dr/N Airfield Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	59	0	55	0	0	0	0	0	0	16	32	0	85	35	0	0	282	
4:15 PM	59	0	70	0	0	0	0	0	0	15	31	0	90	44	0	0	309	
4:30 PM	64	0	61	0	0	0	0	0	0	15	31	0	91	58	0	0	320	
4:45 PM	51	0	59	0	0	0	0	0	0	21	30	0	101	44	0	0	306	1217
5:00 PM	66	0	67	0	0	0	0	0	0	27	31	0	110	84	0	0	385	1320
5:15 PM	38	0	65	0	0	0	0	0	0	18	28	0	115	81	0	0	345	1356
5:30 PM	52	0	63	0	0	0	0	0	0	18	26	0	89	57	0	0	305	1341
5:45 PM	62	0	53	0	0	0	0	0	0	12	46	0	101	69	0	0	343	1378
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	264	0	268	0	0	0	0	0	0	108	124	0	440	336	0	0	1540	
Heavy Trucks	12	0	24		0	0	0		0	24	4		100	4	0		168	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																		

Comments:

LOCATION: Texan Trl/DFW Founders Plaza -- N Airfield Dr
CITY/STATE: Grapevine, TX

QC JOB #: 15871605
DATE: Wed, Jul 6 2022

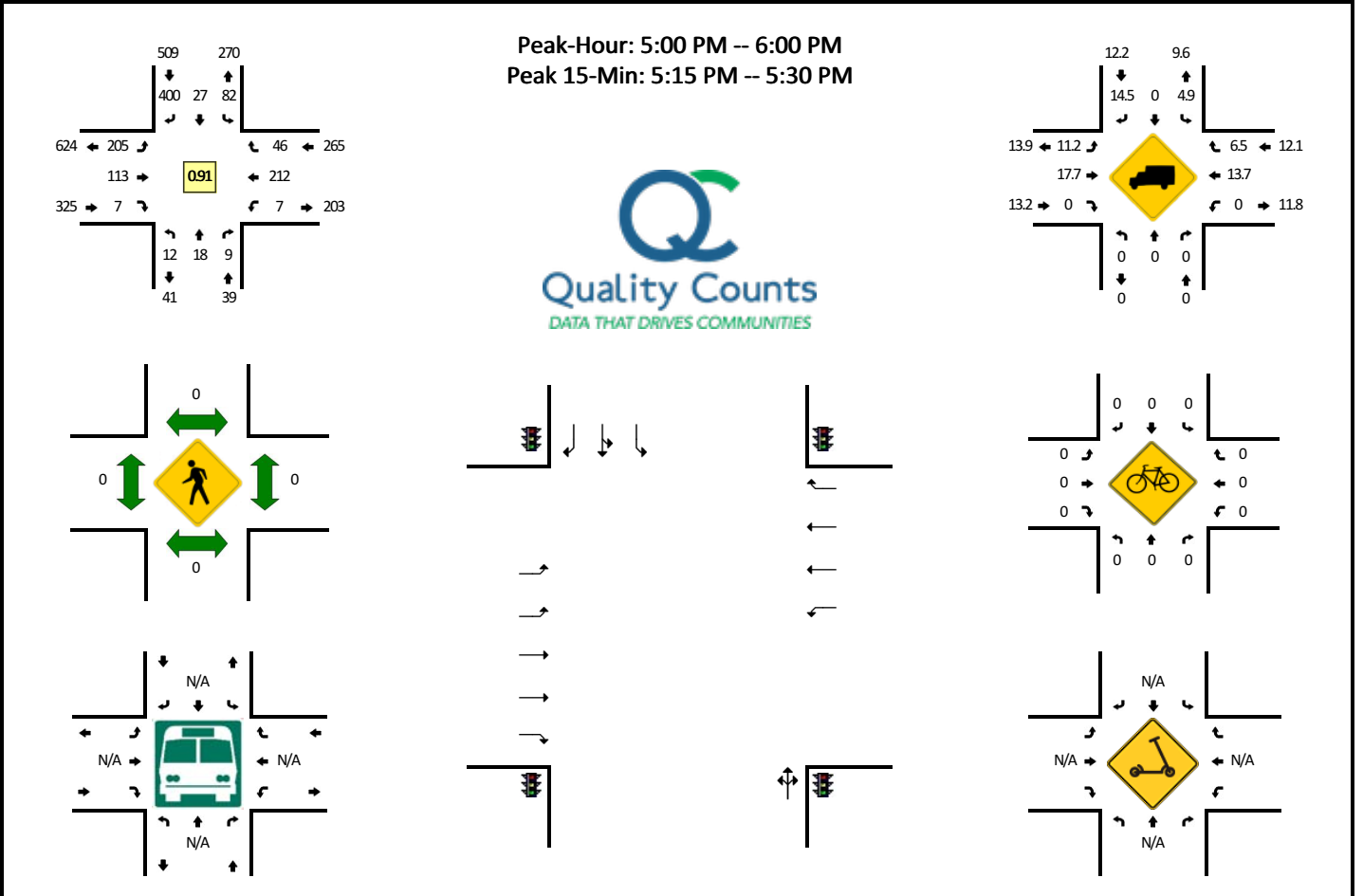


15-Min Count Period Beginning At	Texan Trl/DFW Founders Plaza (Northbound)				Texan Trl/DFW Founders Plaza (Southbound)				N Airfield Dr (Eastbound)				N Airfield Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	1	0	0	9	2	65	0	48	33	0	1	0	8	5	0	172	
7:15 AM	1	2	0	0	12	2	93	0	34	36	0	0	0	10	4	0	194	
7:30 AM	1	1	1	0	17	3	85	0	68	51	2	0	0	18	9	0	256	
7:45 AM	2	1	1	0	19	3	121	0	78	71	1	0	1	19	9	0	326	948
8:00 AM	2	0	1	0	18	3	109	0	53	35	1	0	1	18	4	0	245	1021
8:15 AM	1	5	3	0	25	0	100	0	38	29	3	0	0	15	6	0	225	1052
8:30 AM	0	0	1	0	16	3	93	0	28	33	1	0	0	10	5	0	190	986
8:45 AM	1	0	0	0	18	0	92	0	37	27	0	1	1	11	8	0	196	856
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	8	4	4	0	76	12	484	0	312	284	4	0	4	76	36	0	1304	
Heavy Trucks	0	0	0		4	0	56		40	16	0		0	20	4		140	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		4	0	0		0	4	0		8	
Scoters																		

Comments:

LOCATION: Texan Trl/DFW Founders Plaza -- N Airfield Dr
CITY/STATE: Grapevine, TX

QC JOB #: 15871606
DATE: Wed, Jul 6 2022

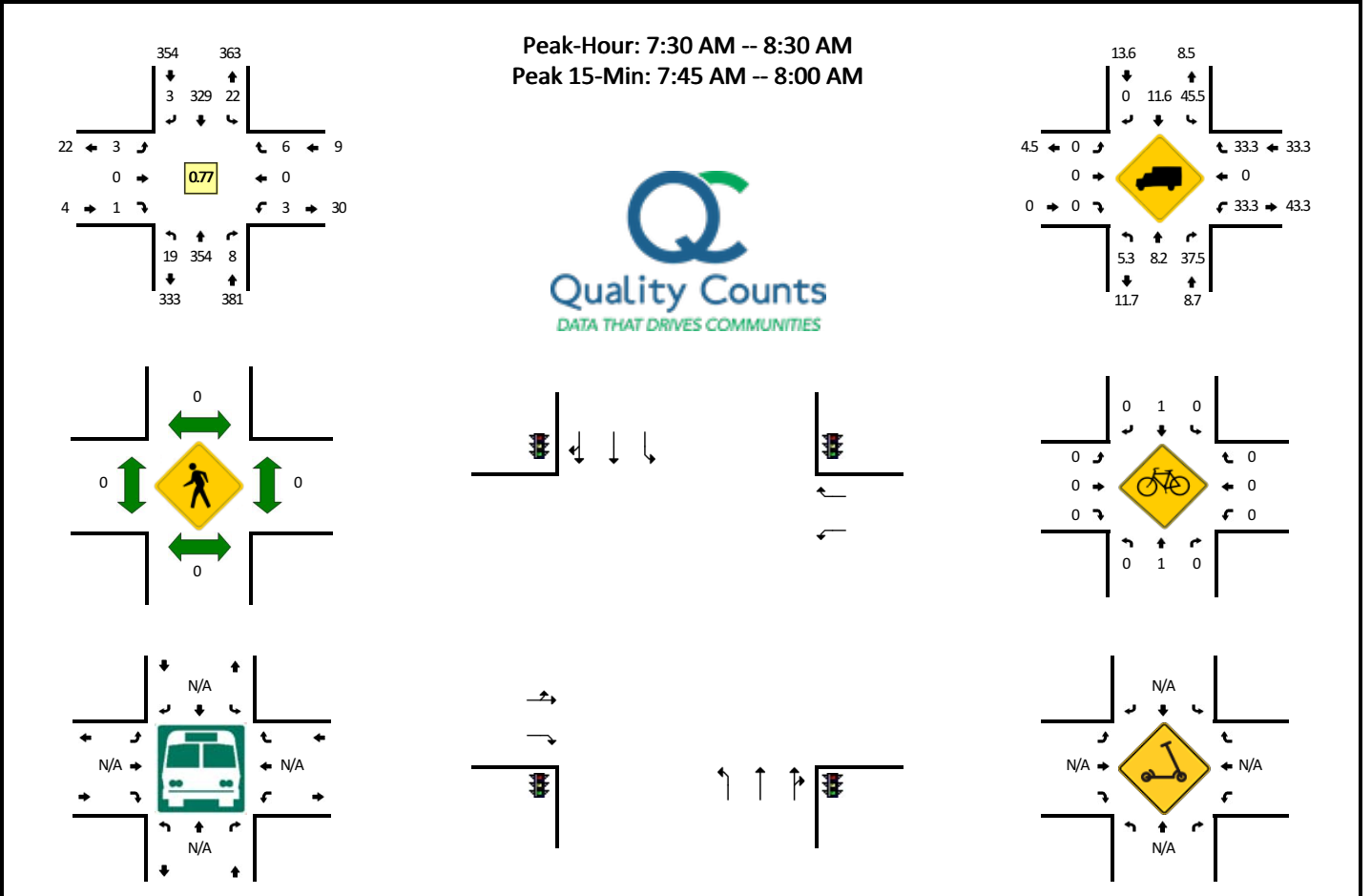


15-Min Count Period Beginning At	Texan Trl/DFW Founders Plaza (Northbound)				Texan Trl/DFW Founders Plaza (Southbound)				N Airfield Dr (Eastbound)				N Airfield Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	2	2	0	19	5	76	0	45	21	0	0	0	26	4	0	201	
4:15 PM	3	1	1	0	17	6	70	1	63	25	0	0	1	45	6	0	239	
4:30 PM	0	1	2	0	18	4	94	0	42	25	2	0	2	39	4	0	233	
4:45 PM	1	3	1	0	16	4	100	0	51	24	1	0	0	45	11	0	257	930
5:00 PM	1	3	3	0	19	7	100	0	63	32	2	0	1	55	12	0	298	1027
5:15 PM	2	4	2	0	21	6	106	0	48	33	4	0	3	71	11	0	311	1099
5:30 PM	2	2	2	0	22	9	83	1	57	25	0	0	1	52	12	0	268	1134
5:45 PM	7	9	2	0	19	5	111	0	37	23	1	0	2	34	11	0	261	1138
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	8	16	8	0	84	24	424	0	192	132	16	0	12	284	44	0	1244	
Heavy Trucks	0	0	0		0	0	48		16	20	0		0	56	0		140	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																		

Comments:

LOCATION: W Airfield Dr -- W 17th St (North)
CITY/STATE: Grapevine, TX

QC JOB #: 15871607
DATE: Wed, Jul 6 2022

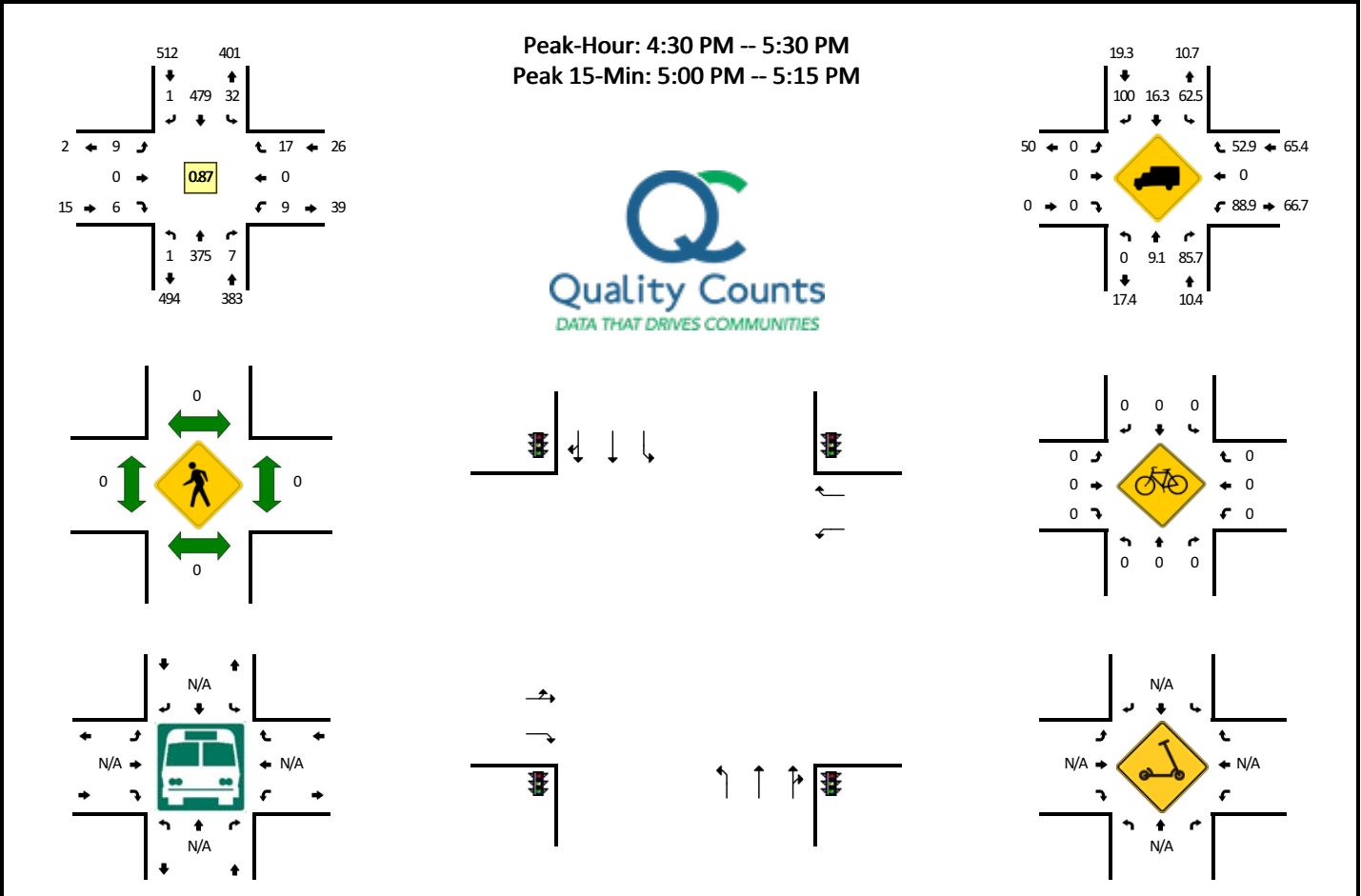


15-Min Count Period Beginning At	W Airfield Dr (Northbound)				W Airfield Dr (Southbound)				W 17th St (North) (Eastbound)				W 17th St (North) (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	26	87	2	0	0	1	0	0	11	0	1	0	1	0	13	0	142	
7:15 AM	22	64	2	1	2	47	0	0	0	0	0	0	2	0	16	0	156	
7:30 AM	10	89	1	0	3	75	0	0	0	0	0	0	2	0	1	0	181	
7:45 AM	4	136	2	0	10	87	1	0	1	0	0	0	1	0	1	0	243	722
8:00 AM	2	71	2	0	5	81	2	0	0	0	1	0	0	0	2	0	166	746
8:15 AM	3	58	3	0	4	86	0	0	2	0	0	0	0	0	2	0	158	748
8:30 AM	1	70	2	0	7	83	2	0	1	0	1	0	1	0	3	0	171	738
8:45 AM	1	63	3	0	3	70	0	0	0	0	0	0	0	0	1	0	141	636
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	16	544	8	0	40	348	4	0	4	0	0	0	4	0	4	0	972	
Heavy Trucks	0	44	4		20	32	0		0	0	0		0	0	0		100	
Buses																		
Pedestrians		0				0				0				0				0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0			0
Scooters																		

Comments:

LOCATION: W Airfield Dr -- W 17th St (North)
CITY/STATE: Grapevine, TX

QC JOB #: 15871608
DATE: Wed, Jul 6 2022

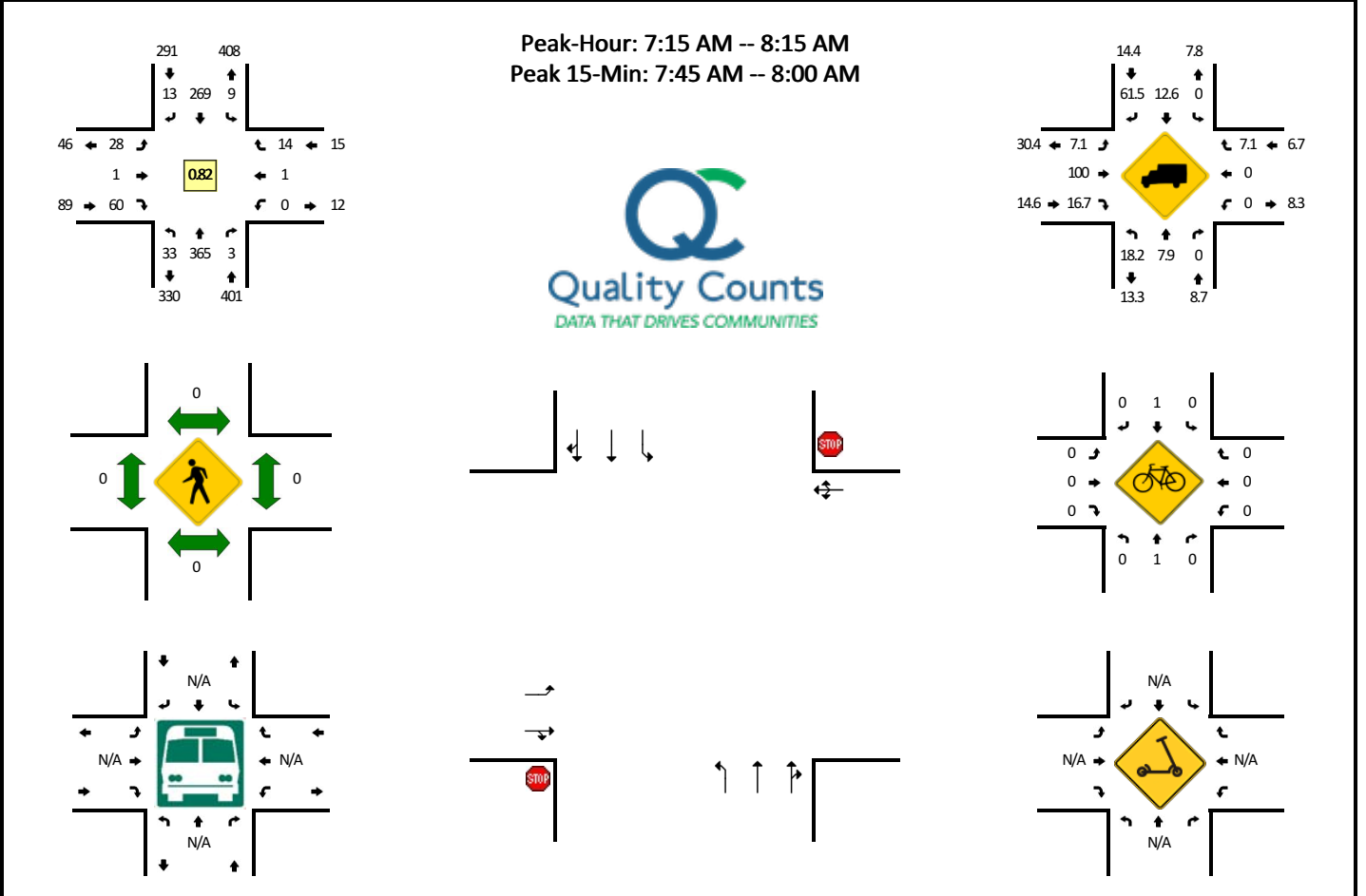


15-Min Count Period Beginning At	W Airfield Dr (Northbound)				W Airfield Dr (Southbound)				W 17th St (North) (Eastbound)				W 17th St (North) (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	86	2	0	5	97	0	0	3	0	0	1	0	0	9	0	204	
4:15 PM	0	90	0	0	7	98	0	0	1	0	0	0	1	0	6	0	203	
4:30 PM	1	104	2	0	4	105	0	0	3	0	3	0	0	0	7	0	229	
4:45 PM	0	90	3	0	7	120	0	0	1	0	1	0	2	0	3	0	227	863
5:00 PM	0	109	1	0	10	133	1	0	2	0	1	0	5	0	6	0	268	927
5:15 PM	0	72	1	0	11	121	0	0	3	0	1	0	2	0	1	0	212	936
5:30 PM	1	98	4	0	8	97	0	0	2	0	2	0	1	0	9	0	222	929
5:45 PM	0	73	6	0	14	114	0	0	2	0	1	0	4	0	12	0	226	928
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	436	4	0	40	532	4	0	8	0	4	0	20	0	24	0	1072	
Heavy Trucks	0	24	4		28	72	4		0	0	0		16	0	12		160	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																		

Comments:

LOCATION: W Airfield Dr -- W 17th St (South)
CITY/STATE: Grapevine, TX

QC JOB #: 15871609
DATE: Wed, Jul 6 2022

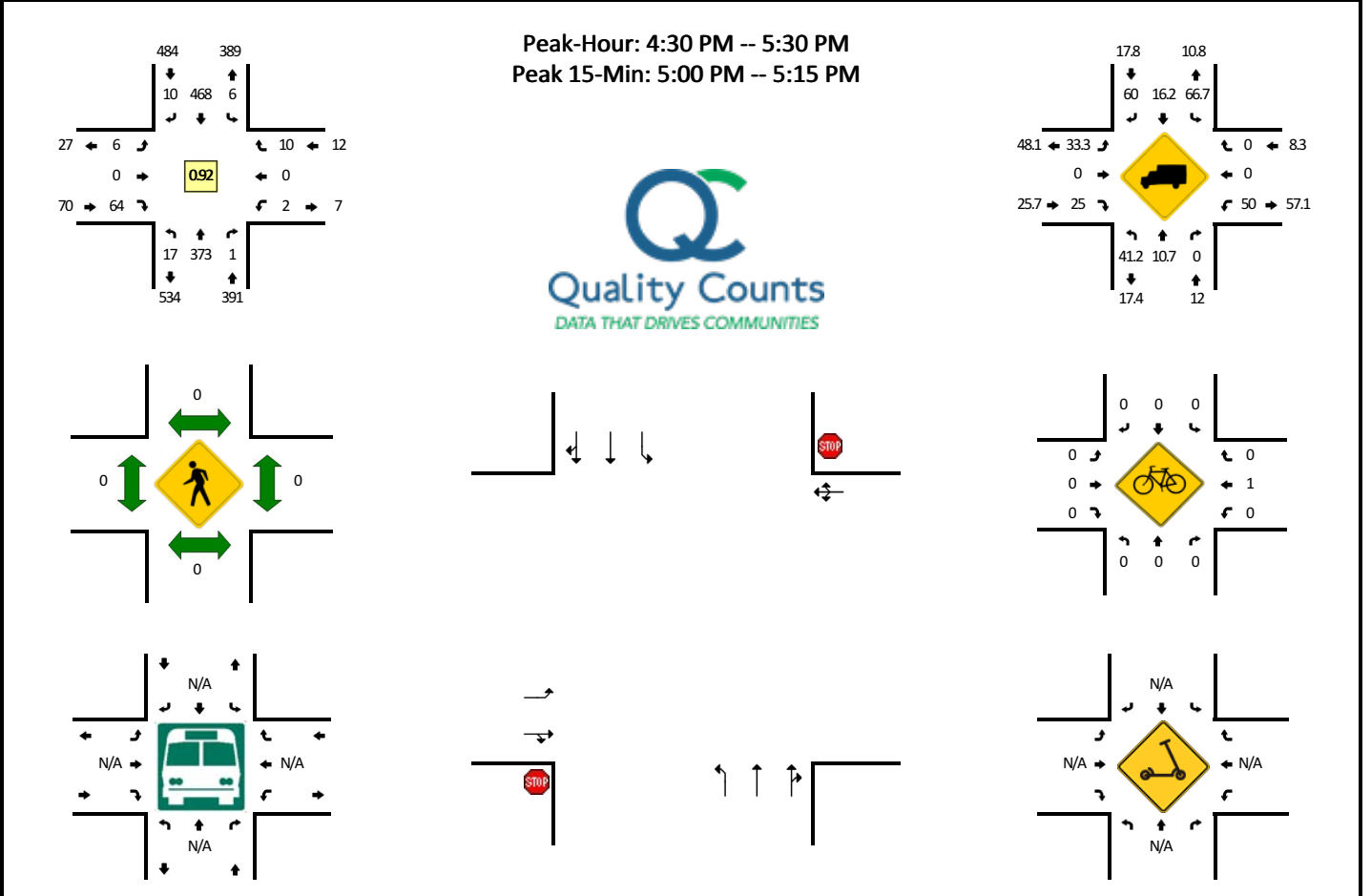


15-Min Count Period Beginning At	W Airfield Dr (Northbound)				W Airfield Dr (Southbound)				W 17th St (South) (Eastbound)				W 17th St (South) (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	8	84	0	0	0	4	2	0	28	5	40	0	0	0	0	0	171	
7:15 AM	14	68	1	0	1	43	3	0	22	1	34	0	0	0	0	0	187	
7:30 AM	4	102	0	0	0	69	3	0	3	0	7	0	0	0	0	0	188	
7:45 AM	8	121	1	1	4	87	3	0	1	0	5	0	0	1	12	0	244	790
8:00 AM	6	74	1	0	3	70	4	1	2	0	14	0	0	0	2	0	177	796
8:15 AM	5	58	0	0	0	92	2	0	2	0	9	0	0	0	2	0	170	779
8:30 AM	4	72	3	0	2	80	3	0	0	0	9	0	0	0	3	0	176	767
8:45 AM	3	69	1	0	0	57	2	0	2	0	6	0	0	0	0	0	140	663
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	32	484	4	4	16	348	12	0	4	0	20	0	0	4	48	0	976	
Heavy Trucks	12	36	0		0	36	4		4	0	4		0	0	4		100	
Buses																		
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																		

Comments:

LOCATION: W Airfield Dr -- W 17th St (South)
CITY/STATE: Grapevine, TX

QC JOB #: 15871610
DATE: Wed, Jul 6 2022

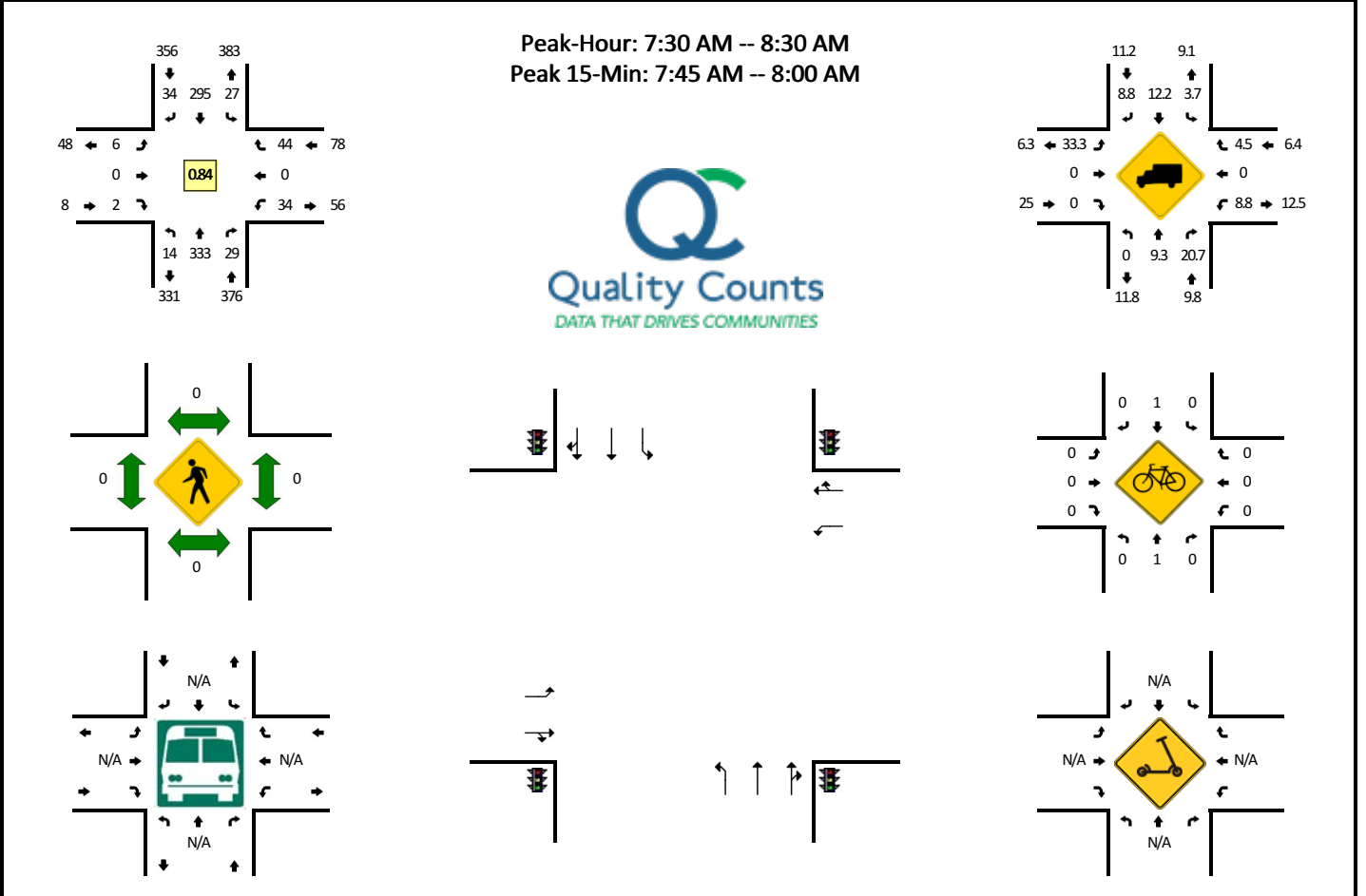


15-Min Count Period Beginning At	W Airfield Dr (Northbound)				W Airfield Dr (Southbound)				W 17th St (South) (Eastbound)				W 17th St (South) (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	5	84	0	0	3	92	2	0	1	0	4	0	0	0	1	0	192	
4:15 PM	1	83	1	0	0	99	1	0	4	0	10	0	0	0	3	0	202	
4:30 PM	5	103	0	0	2	100	2	0	2	0	11	0	0	0	3	0	228	
4:45 PM	2	93	0	0	1	117	4	0	0	0	18	0	0	0	3	0	238	860
5:00 PM	4	109	0	0	3	128	1	0	1	0	11	0	1	0	1	0	259	927
5:15 PM	6	68	1	0	0	123	3	0	3	0	24	0	1	0	3	0	232	957
5:30 PM	6	92	0	0	0	98	2	0	3	0	12	0	0	0	0	0	213	942
5:45 PM	8	83	0	0	0	125	2	0	2	0	8	0	0	0	3	0	231	935
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	16	436	0	0	12	512	4	0	4	0	44	0	4	0	4	0	1036	
Heavy Trucks	0	28	0	0	8	76	4	0	0	0	4	0	0	0	0	0	120	
Buses																	0	
Pedestrians		0				0					0			0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	4	0		4	
Scoters																		

Comments:

LOCATION: W Airfield Dr -- W 19th St
CITY/STATE: Grapevine, TX

QC JOB #: 15871611
DATE: Wed, Jul 6 2022

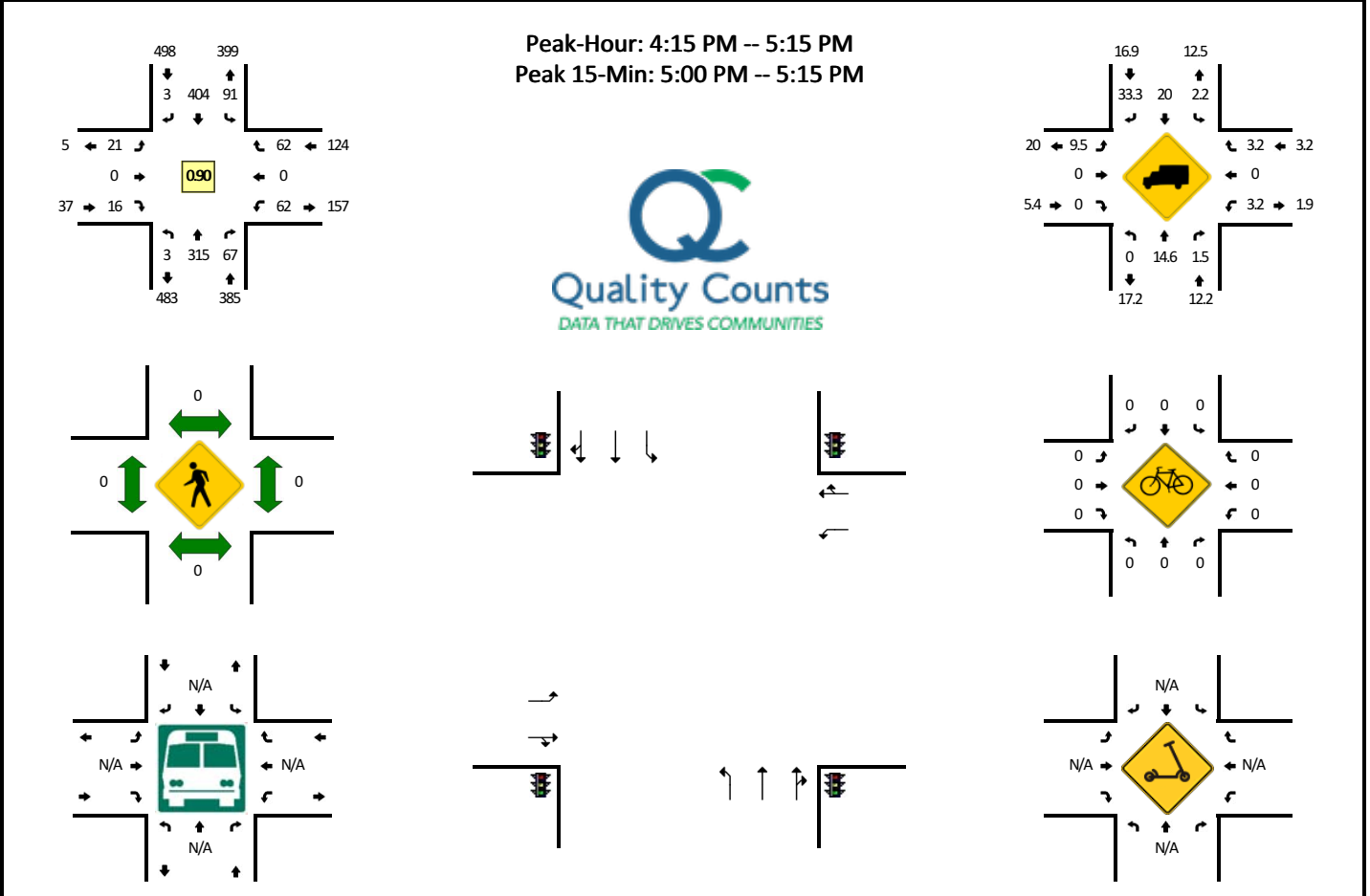


15-Min Count Period Beginning At	W Airfield Dr (Northbound)				W Airfield Dr (Southbound)				W 19th St (Eastbound)				W 19th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	93	12	0	10	32	2	0	1	0	0	0	3	0	3	0	156	
7:15 AM	2	67	7	0	8	66	2	0	0	0	0	0	5	0	13	0	170	
7:30 AM	1	95	7	0	5	65	7	0	1	0	0	0	11	0	8	0	200	
7:45 AM	6	115	5	0	9	77	6	0	2	0	1	0	8	0	15	0	244	770
8:00 AM	1	70	5	0	8	72	8	0	3	0	0	0	9	0	7	0	183	797
8:15 AM	6	53	12	0	5	81	13	0	0	0	1	0	6	0	14	0	191	818
8:30 AM	2	59	7	0	10	73	5	0	0	0	1	0	15	0	15	0	187	805
8:45 AM	3	60	14	0	8	42	14	0	1	0	0	0	9	0	12	0	163	724
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	24	460	20	0	36	308	24	0	8	0	4	0	32	0	60	0	976	
Heavy Trucks	0	44	0		0	44	0		8	0	0		4	0	4		104	
Buses																	0	
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																	0	

Comments:

LOCATION: W Airfield Dr -- W 19th St
CITY/STATE: Grapevine, TX

QC JOB #: 15871612
DATE: Wed, Jul 6 2022

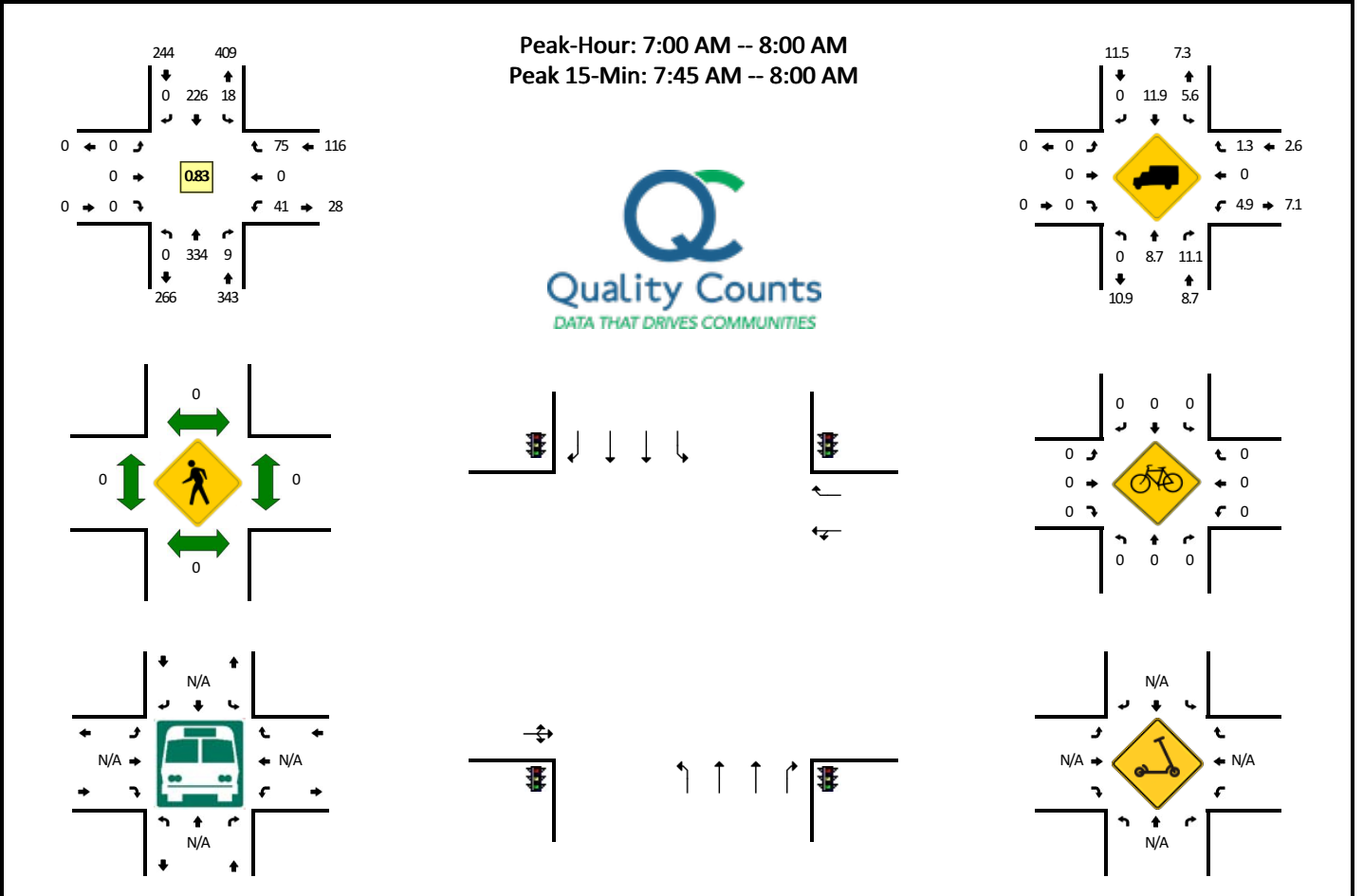


15-Min Count Period Beginning At	W Airfield Dr (Northbound)				W Airfield Dr (Southbound)				W 19th St (Eastbound)				W 19th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	70	21	0	18	79	1	0	2	0	3	0	11	0	14	0	219	
4:15 PM	0	54	28	1	23	85	0	1	1	0	0	0	23	0	29	0	245	
4:30 PM	2	86	19	0	25	88	1	0	5	0	1	0	15	0	17	0	259	
4:45 PM	0	86	13	0	19	115	2	0	3	0	0	0	8	0	5	0	251	974
5:00 PM	0	89	7	0	23	116	0	0	12	0	15	0	16	0	11	0	289	1044
5:15 PM	0	64	11	0	13	135	0	0	2	0	1	0	4	0	7	0	237	1036
5:30 PM	0	79	23	0	21	88	0	0	6	0	0	0	7	0	13	0	237	1014
5:45 PM	1	76	15	0	32	101	0	0	5	0	3	0	5	0	6	0	244	1007
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	356	28	0	92	464	0	0	48	0	60	0	64	0	44	0	1156	
Heavy Trucks	0	28	0		4	76	0		0	0	0		0	0	0		108	
Buses																		
Pedestrians	0	0			0	0			0	0			0	0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scooters																		

Comments:

LOCATION: W Airfield Dr/W Airfield-Braniff Dr -- Verizon Dwy/Air Control Dwy
CITY/STATE: Grapevine, TX

QC JOB #: 15871613
DATE: Wed, Jul 6 2022

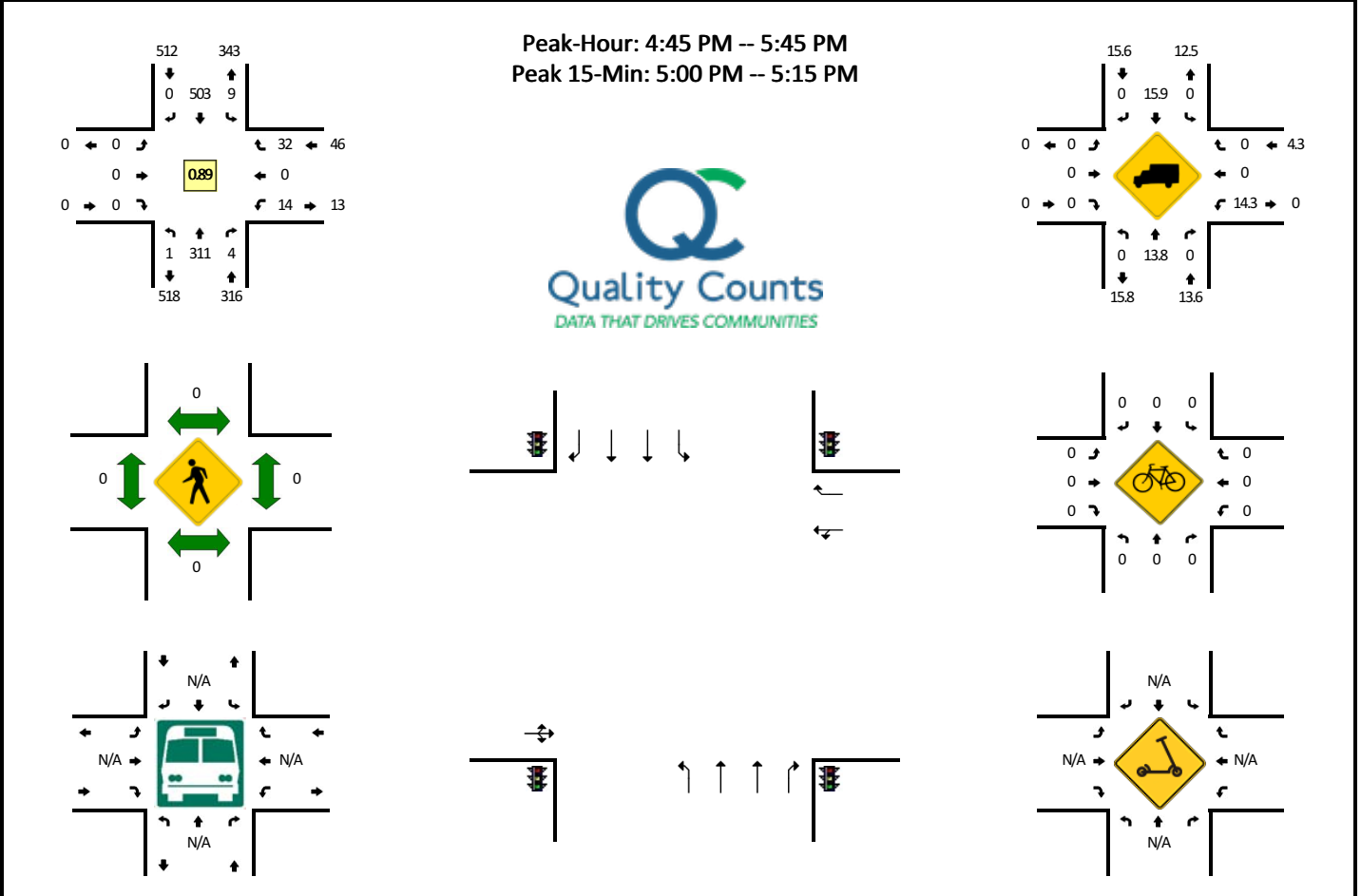


15-Min Count Period Beginning At	W Airfield Dr/W Airfield-Braniff Dr (Northbound)				W Airfield Dr/W Airfield-Braniff Dr (Southbound)				Verizon Dwy/Air Control Dwy (Eastbound)				Verizon Dwy/Air Control Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	55	2	0	4	34	0	0	0	0	0	0	28	0	48	0	171	
7:15 AM	0	66	1	0	2	55	0	0	0	0	0	0	4	0	8	0	136	
7:30 AM	0	96	1	0	6	63	0	0	0	0	0	0	6	0	10	1	183	
7:45 AM	0	117	5	0	6	74	0	0	0	0	0	0	2	0	9	0	213	703
8:00 AM	0	67	3	0	6	65	0	0	0	0	0	0	3	0	8	0	152	684
8:15 AM	0	65	1	0	10	72	0	0	0	0	0	0	1	0	2	0	151	699
8:30 AM	0	58	3	0	2	80	0	0	0	0	0	0	7	0	11	0	161	677
8:45 AM	0	72	3	0	3	50	0	0	0	0	0	0	3	0	3	0	134	598
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	468	20	0	24	296	0	0	0	0	0	0	8	0	36	0	852	
Heavy Trucks	0	40	4		4	32	0		0	0	0		8	0	0		88	
Buses																		
Pedestrians	0	0			0	0			0	0			0	0			0	
Bicycles	0	0			0	0			0	0			0	0			0	
Scoters																	0	

Comments:

LOCATION: W Airfield Dr/W Airfield-Braniff Dr -- Verizon Dwy/Air Control Dwy
CITY/STATE: Grapevine, TX

QC JOB #: 15871614
DATE: Wed, Jul 6 2022

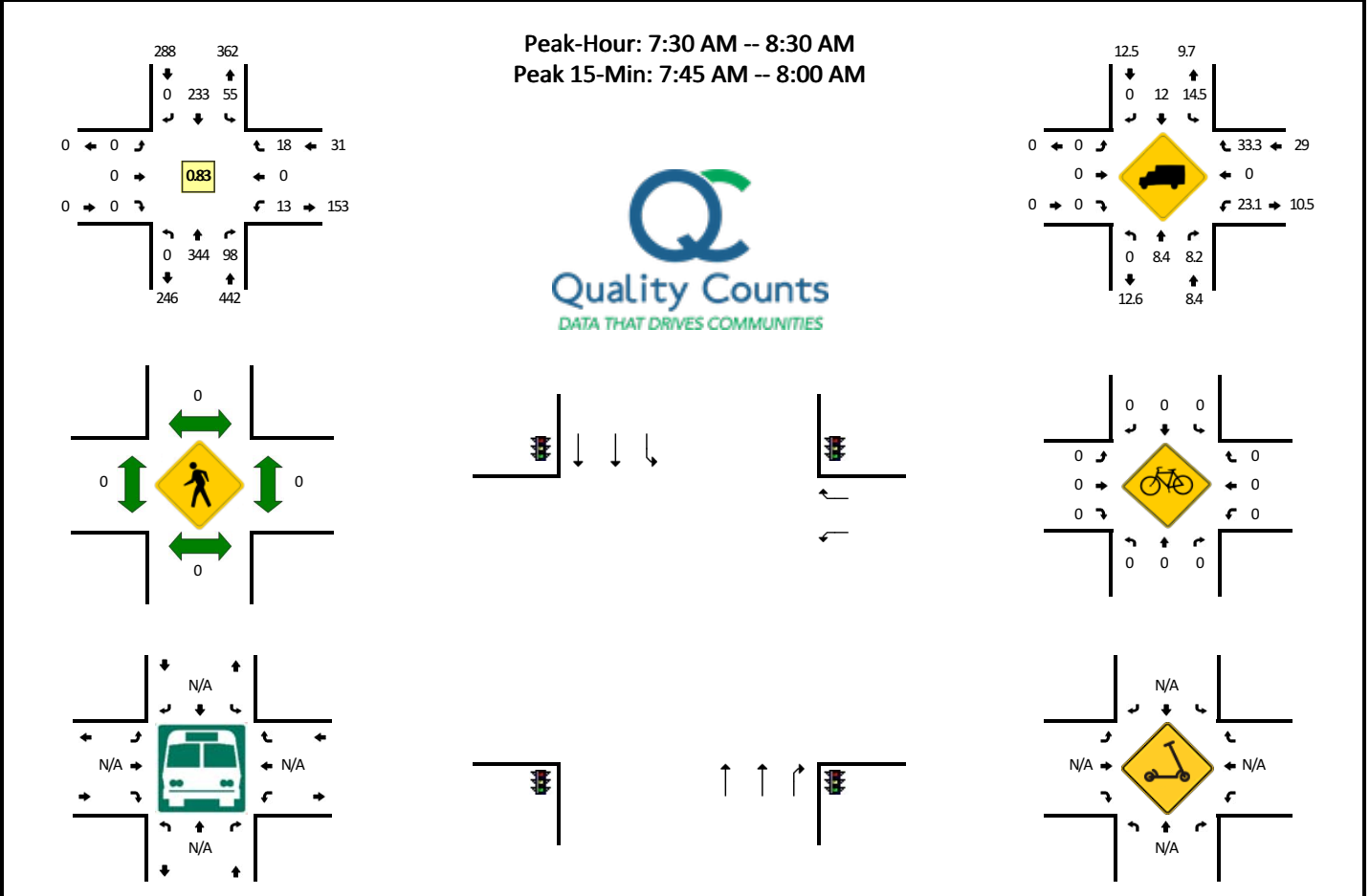


15-Min Count Period Beginning At	W Airfield Dr/W Airfield-Braniff Dr (Northbound)				W Airfield Dr/W Airfield-Braniff Dr (Southbound)				Verizon Dwy/Air Control Dwy (Eastbound)				Verizon Dwy/Air Control Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	71	0	1	1	82	0	0	0	0	0	0	17	0	20	0	192	
4:15 PM	0	80	2	0	3	113	0	0	0	0	0	0	6	0	6	0	210	
4:30 PM	0	89	1	0	2	105	0	0	0	0	0	0	5	0	9	0	211	
4:45 PM	0	77	0	0	5	112	0	0	0	0	0	0	4	0	5	0	203	816
5:00 PM	0	68	1	0	1	158	0	0	0	0	0	0	3	0	15	0	246	870
5:15 PM	0	70	2	0	2	131	0	0	0	0	0	0	3	0	4	0	212	872
5:30 PM	0	96	1	1	1	102	0	0	0	0	0	0	4	0	8	0	213	874
5:45 PM	0	75	4	0	3	101	0	0	0	0	0	0	3	0	3	0	189	860
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	272	4	0	4	632	0	0	0	0	0	0	12	0	60	0	984	
Heavy Trucks	0	28	0		0	64	0		0	0	0		0	0	0		92	
Buses																		
Pedestrians	0	0			0	0			0	0			0	0			0	
Bicycles	0	0			0	0			0	0			0	0			0	
Scooters																	0	

Comments:

LOCATION: W Airfield-Braniff Dr -- Air General
CITY/STATE: Grapevine, TX

QC JOB #: 15871615
DATE: Wed, Jul 6 2022

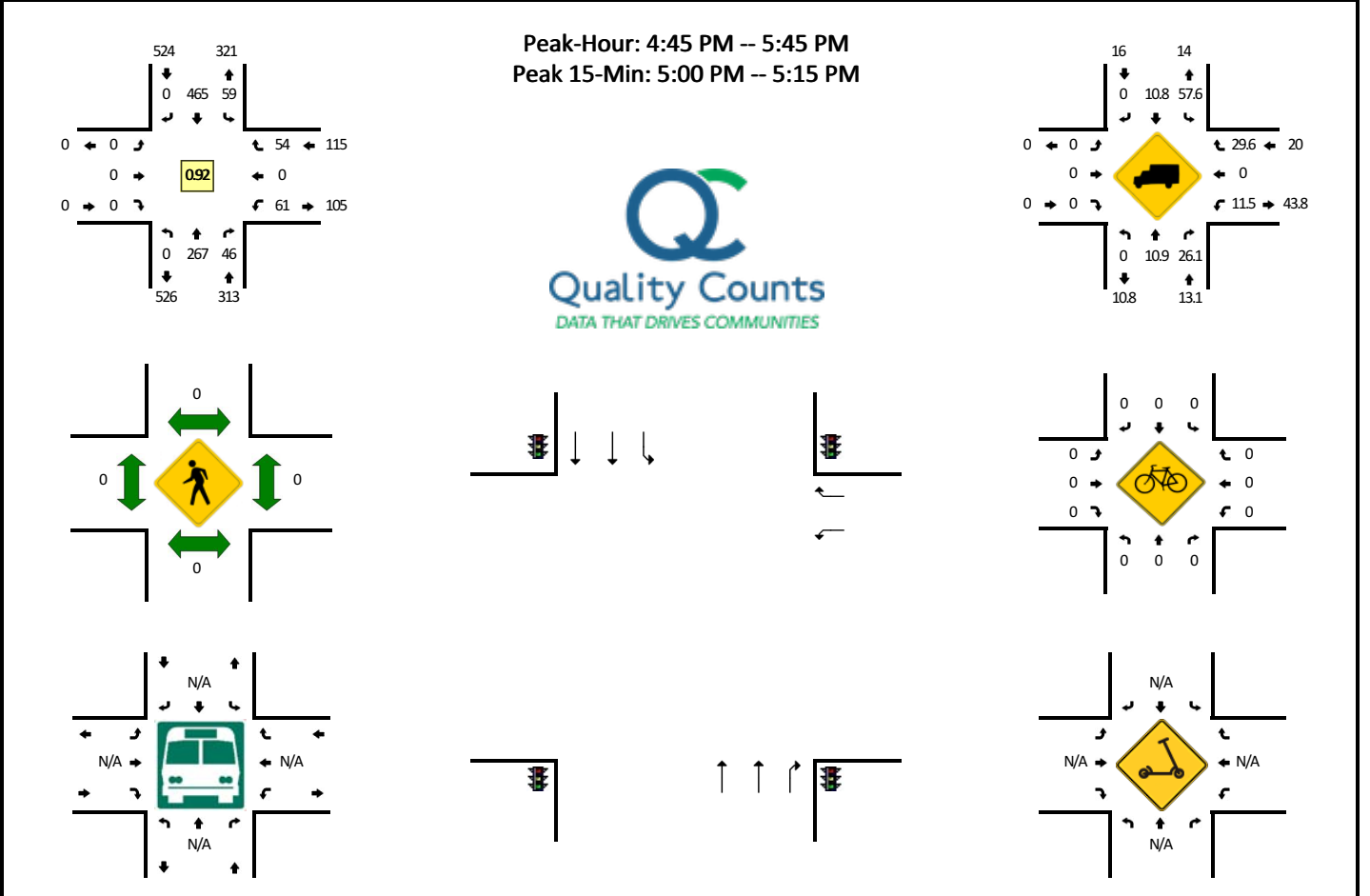


15-Min Count Period Beginning At	W Airfield-Braniff Dr (Northbound)				W Airfield-Braniff Dr (Southbound)				Air General (Eastbound)				Air General (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	53	15	0	3	61	0	0	0	0	0	0	3	0	3	0	138	
7:15 AM	0	66	13	0	13	43	0	0	0	0	0	0	4	0	5	0	144	
7:30 AM	0	94	17	0	10	56	0	0	0	0	0	0	4	0	4	0	185	
7:45 AM	0	116	29	0	18	59	0	0	0	0	0	0	4	0	4	0	230	697
8:00 AM	0	70	26	0	12	55	0	0	0	0	0	0	2	0	2	0	167	726
8:15 AM	0	64	26	0	15	63	0	0	0	0	0	0	3	0	8	0	179	761
8:30 AM	0	52	19	0	11	71	0	0	0	0	0	0	4	0	5	0	162	738
8:45 AM	0	72	19	0	16	42	0	0	0	0	0	0	5	0	7	0	161	669
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	464	116	0	72	236	0	0	0	0	0	0	16	0	16	0	920	
Heavy Trucks	0	32	8		16	40	0		0	0	0		4	0	4		104	
Buses																	0	
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scooters																	0	

Comments:

LOCATION: W Airfield-Braniff Dr -- Air General
CITY/STATE: Grapevine, TX

QC JOB #: 15871616
DATE: Wed, Jul 6 2022

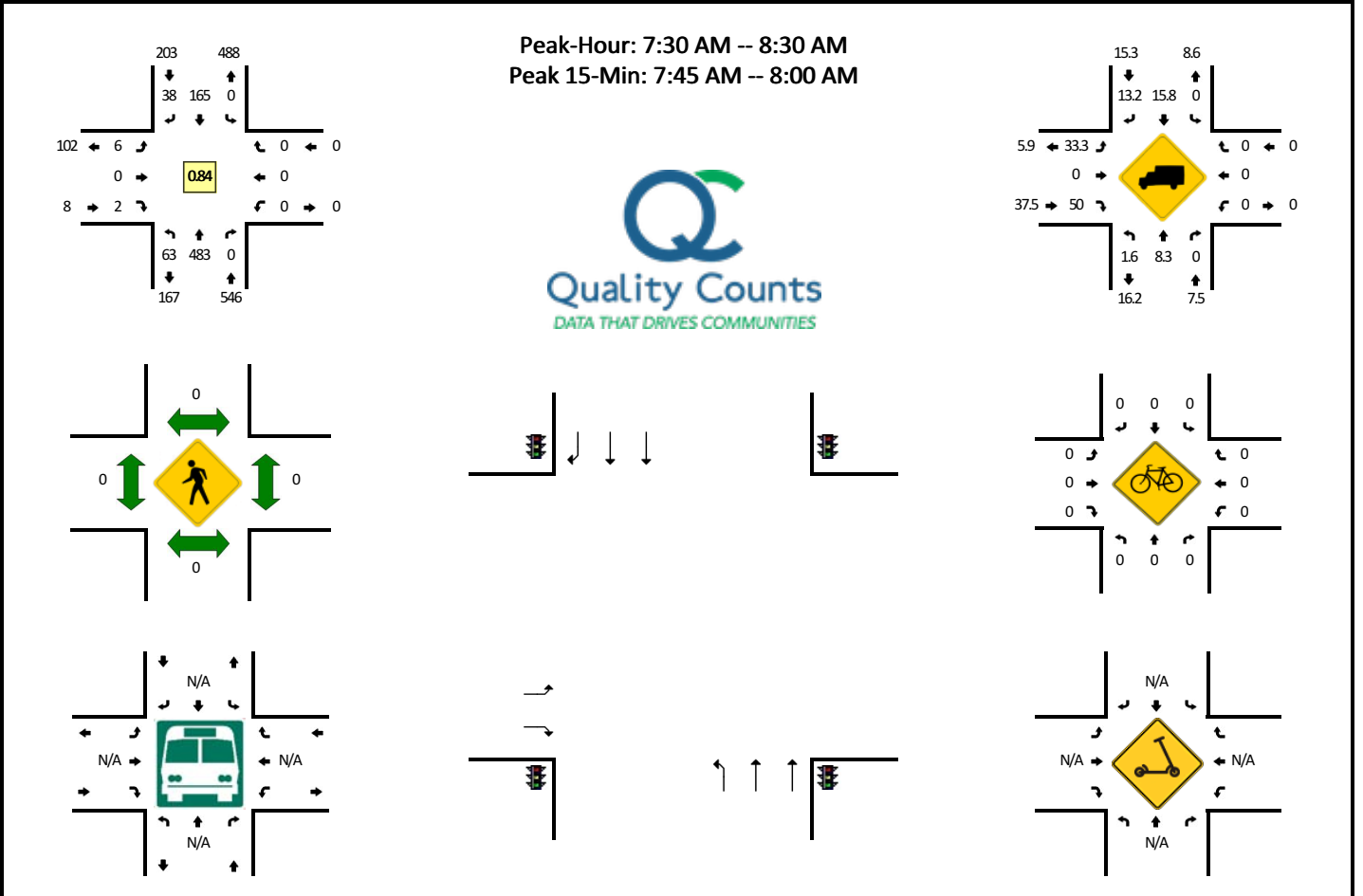


15-Min Count Period Beginning At	W Airfield-Braniff Dr (Northbound)				W Airfield-Braniff Dr (Southbound)				Air General (Eastbound)				Air General (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	56	14	0	13	86	0	0	0	0	0	0	14	0	17	0	200	
4:15 PM	0	78	11	0	9	115	0	0	0	0	0	0	12	0	9	0	234	
4:30 PM	0	60	7	0	13	93	0	1	0	0	0	0	27	0	24	0	225	
4:45 PM	0	67	12	0	23	100	0	0	0	0	0	0	17	0	9	0	228	887
5:00 PM	0	61	11	0	11	144	0	0	0	0	0	0	17	0	14	0	258	945
5:15 PM	0	55	9	0	17	114	0	0	0	0	0	0	13	0	12	0	220	931
5:30 PM	0	84	14	0	8	107	0	0	0	0	0	0	14	0	19	0	246	952
5:45 PM	0	56	12	0	8	93	0	0	0	0	0	0	17	0	16	0	202	926
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	244	44	0	44	576	0	0	0	0	0	0	68	0	56	0	1032	
Heavy Trucks	0	12	12		28	48	0		0	0	0		8	0	16		124	
Buses																	0	
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Scoters																	0	

Comments:

LOCATION: W Airfield-Braniff Dr/W Airfield Dr -- E Glade Rd
CITY/STATE: Euless, TX

QC JOB #: 15871617
DATE: Wed, Jul 6 2022

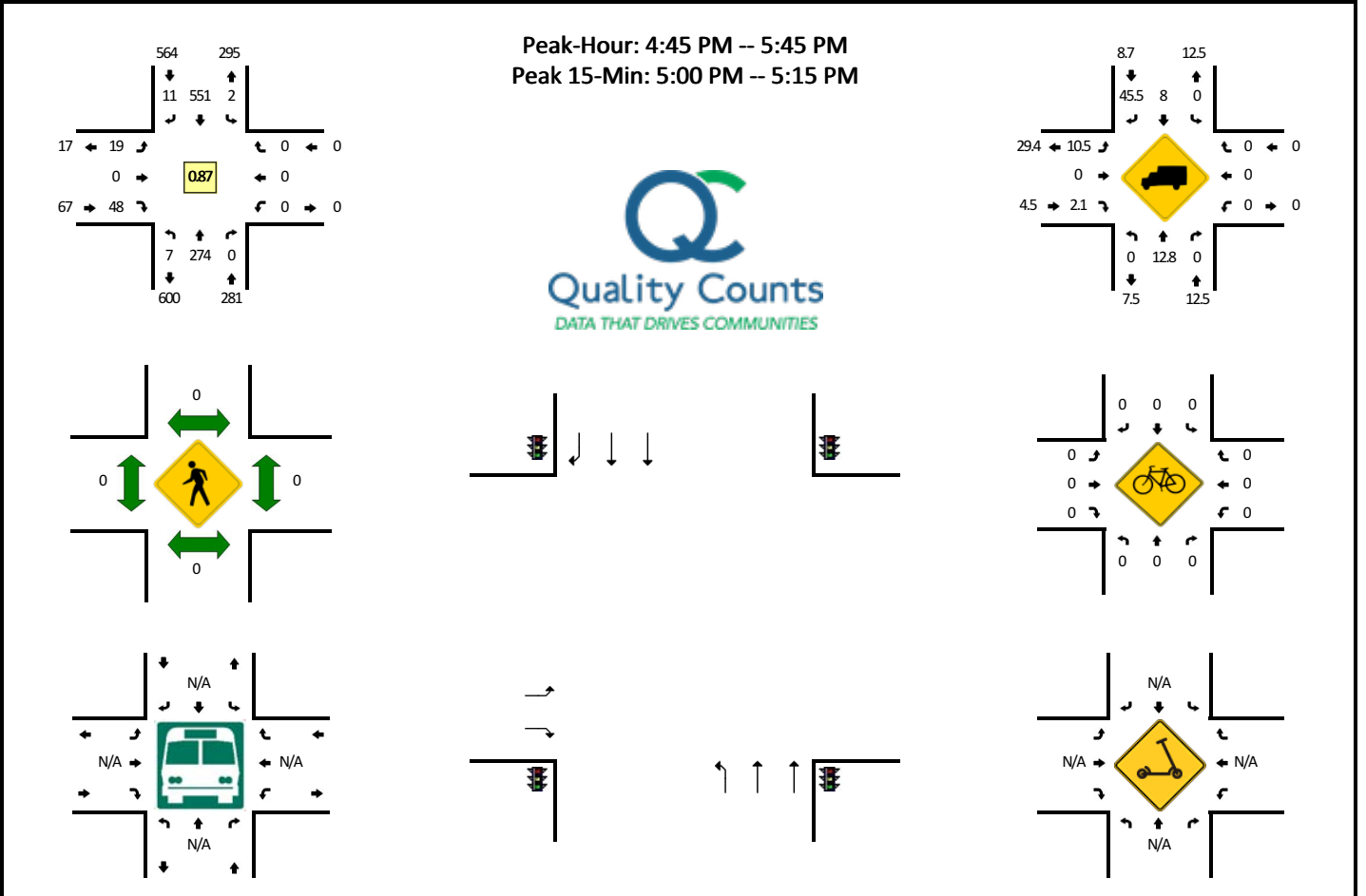


15-Min Count Period Beginning At	W Airfield-Braniff Dr/W Airfield Dr (Northbound)				W Airfield-Braniff Dr/W Airfield Dr (Southbound)				E Glade Rd (Eastbound)				E Glade Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	6	82	0	0	0	57	3	0	0	0	1	0	0	0	0	0	149	
7:15 AM	12	82	0	0	0	34	10	1	0	0	0	0	0	0	0	0	139	
7:30 AM	11	145	0	0	0	41	10	0	1	0	2	1	0	0	0	0	211	
7:45 AM	26	150	0	0	0	37	11	0	2	0	0	0	0	0	0	0	226	725
8:00 AM	11	88	0	0	0	43	9	0	1	0	0	0	0	0	0	0	152	728
8:15 AM	15	100	0	0	0	44	8	0	1	0	0	0	0	0	0	0	168	757
8:30 AM	12	79	0	0	0	55	7	0	1	0	1	0	0	0	0	0	155	701
8:45 AM	6	89	0	0	0	41	2	0	0	0	0	1	0	0	0	0	139	614
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	104	600	0	0	0	148	44	0	8	0	0	0	0	0	0	0	904	
Heavy Trucks	4	48	0	0	0	48	4	0	0	0	0	0	0	0	0	0	104	
Buses																		
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Scooters																		

Comments:

LOCATION: W Airfield-Braniff Dr/W Airfield Dr -- E Glade Rd
CITY/STATE: Euless, TX

QC JOB #: 15871618
DATE: Wed, Jul 6 2022



15-Min Count Period Beginning At	W Airfield-Braniff Dr/W Airfield Dr (Northbound)				W Airfield-Braniff Dr/W Airfield Dr (Southbound)				E Glade Rd (Eastbound)				E Glade Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	2	66	0	0	0	106	1	1	6	0	8	0	0	0	0	0	190	
4:15 PM	0	63	0	0	0	128	5	0	9	0	5	0	0	0	0	0	210	
4:30 PM	3	55	0	0	0	130	4	1	10	0	11	0	0	0	0	0	214	
4:45 PM	1	62	0	0	0	117	5	0	2	0	11	0	0	0	0	0	198	812
5:00 PM	2	49	0	0	0	173	1	1	13	0	22	0	0	0	0	0	261	883
5:15 PM	0	71	0	1	0	141	3	0	3	0	7	0	0	0	0	0	226	899
5:30 PM	3	92	0	0	0	120	2	1	1	0	8	0	0	0	0	0	227	912
5:45 PM	2	54	0	0	0	116	1	0	3	0	15	0	0	0	0	0	191	905
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	8	196	0	0	0	692	4	4	52	0	88	0	0	0	0	0	1044	
Heavy Trucks	0	24	0	0	0	44	4	0	4	0	4	0	0	0	0	0	80	
Buses																		
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Scooters																		

Comments:

Type of report: Tube Count - Volume Data

LOCATION: W Airfield Dr South of N Airfield Dr SPECIFIC LOCATION: CITY/STATE: Grapevine, TX							QC JOB #: 15871619 DIRECTION: NB DATE: Jul 6 2022 - Jul 7 2022			
Start Time	Mon	Tue	Wed 6 Jul 22	Thu 7 Jul 22	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 AM			31	24		28			28	
12:15 AM			28	23		26			26	
12:30 AM			30	31		31			31	
12:45 AM			7	18		13			13	
01:00 AM			43	34		39			39	
01:15 AM			44	38		41			41	
01:30 AM			49	44		47			47	
01:45 AM			45	40		43			43	
02:00 AM			50	59		55			55	
02:15 AM			35	43		39			39	
02:30 AM			30	31		31			31	
02:45 AM			44	40		42			42	
03:00 AM			38	24		31			31	
03:15 AM			20	34		27			27	
03:30 AM			36	31		34			34	
03:45 AM			26	28		27			27	
04:00 AM			42	46		44			44	
04:15 AM			27	30		29			29	
04:30 AM			32	34		33			33	
04:45 AM			27	39		33			33	
05:00 AM			41	33		37			37	
05:15 AM			43	23		33			33	
05:30 AM			52	57		55			55	
05:45 AM			40	48		44			44	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: W Airfield Dr South of N Airfield Dr							QC JOB #: 15871619			
SPECIFIC LOCATION:							DIRECTION: NB			
CITY/STATE: Grapevine, TX							DATE: Jul 6 2022 - Jul 7 2022			
Start Time	Mon	Tue	Wed 6 Jul 22	Thu 7 Jul 22	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM			62	52		57			57	
06:15 AM			73	67		70			70	
06:30 AM			82	126		104			104	
06:45 AM			100	90		95			95	
07:00 AM			110	109		110			110	
07:15 AM			95	76		86			86	
07:30 AM			106	100		103			103	
07:45 AM			144	113		129			129	
08:00 AM			88	87		88			88	
08:15 AM			76	69		73			73	
08:30 AM			95	112		104			104	
08:45 AM			80	84		82			82	
09:00 AM			76	88		82			82	
09:15 AM			74	92		83			83	
09:30 AM			73	103		88			88	
09:45 AM			109	83		96			96	
10:00 AM			100	112		106			106	
10:15 AM			100	74		87			87	
10:30 AM			82	106		94			94	
10:45 AM			113	104		109			109	
11:00 AM			102	94		98			98	
11:15 AM			90	108		99			99	
11:30 AM			91	76		84			84	
11:45 AM			96	100		98			98	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										

Comments:

LOCATION: W Airfield Dr South of N Airfield Dr QC JOB #: 15871619 SPECIFIC LOCATION: DIRECTION: NB CITY/STATE: Grapevine, TX DATE: Jul 6 2022 - Jul 7 2022										
Start Time	Mon	Tue	Wed 6 Jul 22	Thu 7 Jul 22	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM			107	90		99			99	
12:15 PM			87	87		87			87	
12:30 PM			98	73		86			86	
12:45 PM			94	76		85			85	
01:00 PM			116	80		98			98	
01:15 PM			73	119		96			96	
01:30 PM			90	90		90			90	
01:45 PM			100	110		105			105	
02:00 PM			86	112		99			99	
02:15 PM			108	100		104			104	
02:30 PM			166	164		165			165	
02:45 PM			104	111		108			108	
03:00 PM			152	155		154			154	
03:15 PM			127	108		118			118	
03:30 PM			150	132		141			141	
03:45 PM			110	132		121			121	
04:00 PM			138	130		134			134	
04:15 PM			128	142		135			135	
04:30 PM			132	114		123			123	
04:45 PM			112	140		126			126	
05:00 PM			140	172		156			156	
05:15 PM			100	125		113			113	
05:30 PM			132	136		134			134	
05:45 PM			114	119		117			117	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
<i>Comments:</i>										

LOCATION: W Airfield Dr South of N Airfield Dr							QC JOB #: 15871619			
SPECIFIC LOCATION:							DIRECTION: NB			
CITY/STATE: Grapevine, TX							DATE: Jul 6 2022 - Jul 7 2022			
Start Time	Mon	Tue	Wed 6 Jul 22	Thu 7 Jul 22	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 PM			120	139		130			130	
06:15 PM			106	80		93			93	
06:30 PM			94	86		90			90	
06:45 PM			88	80		84			84	
07:00 PM			102	114		108			108	
07:15 PM			90	74		82			82	
07:30 PM			73	65		69			69	
07:45 PM			42	37		40			40	
08:00 PM			66	68		67			67	
08:15 PM			50	62		56			56	
08:30 PM			54	49		52			52	
08:45 PM			51	66		59			59	
09:00 PM			42	61		52			52	
09:15 PM			66	64		65			65	
09:30 PM			75	66		71			71	
09:45 PM			98	93		96			96	
10:00 PM			90	80		85			85	
10:15 PM			65	64		65			65	
10:30 PM			120	117		119			119	
10:45 PM			43	48		46			46	
11:00 PM			74	74		74			74	
11:15 PM			36	28		32			32	
11:30 PM			22	28		25			25	
11:45 PM			20	22		21			21	
Day Total			7528	7559		7562			7562	
% Weekday Average			99.6%	100%						
% Week Average			99.6%	100%		100%				
AM Peak 15-min Vol			7:45 AM 144	6:30 AM 126		7:45 AM 129			7:45 AM 129	
PM Peak 15-min Vol			2:30 PM 166	5:00 PM 172		2:30 PM 165			2:30 PM 165	

Comments:

Type of report: Tube Count - Volume Data

LOCATION: W Airfield Dr South of N Airfield Dr SPECIFIC LOCATION: CITY/STATE: Grapevine, TX							QC JOB #: 15871619 DIRECTION: NB, SB DATE: Jul 6 2022 - Jul 7 2022			
Start Time	Mon	Tue	Wed 6 Jul 22	Thu 7 Jul 22	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 AM			56	43		50			50	
12:15 AM			52	43		48			48	
12:30 AM			53	47		50			50	
12:45 AM			27	30		29			29	
01:00 AM			63	54		59			59	
01:15 AM			56	54		55			55	
01:30 AM			65	60		63			63	
01:45 AM			65	65		65			65	
02:00 AM			68	79		74			74	
02:15 AM			51	53		52			52	
02:30 AM			46	53		50			50	
02:45 AM			62	60		61			61	
03:00 AM			72	60		66			66	
03:15 AM			50	57		54			54	
03:30 AM			70	64		67			67	
03:45 AM			60	58		59			59	
04:00 AM			84	82		83			83	
04:15 AM			65	71		68			68	
04:30 AM			70	60		65			65	
04:45 AM			67	79		73			73	
05:00 AM			95	78		87			87	
05:15 AM			97	83		90			90	
05:30 AM			144	157		151			151	
05:45 AM			166	145		156			156	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

Report generated on 7/19/2022 9:21 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

LOCATION: W Airfield Dr South of N Airfield Dr QC JOB #: 15871619 SPECIFIC LOCATION: DIRECTION: NB, SB CITY/STATE: Grapevine, TX DATE: Jul 6 2022 - Jul 7 2022										
Start Time	Mon	Tue	Wed 6 Jul 22	Thu 7 Jul 22	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM			148	131		140			140	
06:15 AM			157	153		155			155	
06:30 AM			192	226		209			209	
06:45 AM			103	192		148			148	
07:00 AM			110	213		162			162	
07:15 AM			161	173		167			167	
07:30 AM			224	226		225			225	
07:45 AM			275	213		244			244	
08:00 AM			216	201		209			209	
08:15 AM			194	197		196			196	
08:30 AM			213	226		220			220	
08:45 AM			180	188		184			184	
09:00 AM			184	182		183			183	
09:15 AM			152	176		164			164	
09:30 AM			157	204		181			181	
09:45 AM			191	171		181			181	
10:00 AM			182	195		189			189	
10:15 AM			184	144		164			164	
10:30 AM			200	204		202			202	
10:45 AM			238	206		222			222	
11:00 AM			208	212		210			210	
11:15 AM			176	214		195			195	
11:30 AM			191	163		177			177	
11:45 AM			205	189		197			197	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
<i>Comments:</i>										

LOCATION: W Airfield Dr South of N Airfield Dr SPECIFIC LOCATION: CITY/STATE: Grapevine, TX										QC JOB #: 15871619 DIRECTION: NB, SB DATE: Jul 6 2022 - Jul 7 2022
Start Time	Mon	Tue	Wed 6 Jul 22	Thu 7 Jul 22	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM			202	172		187			187	
12:15 PM			191	173		182			182	
12:30 PM			199	164		182			182	
12:45 PM			201	178		190			190	
01:00 PM			214	188		201			201	
01:15 PM			173	239		206			206	
01:30 PM			226	213		220			220	
01:45 PM			218	242		230			230	
02:00 PM			196	208		202			202	
02:15 PM			195	200		198			198	
02:30 PM			299	280		290			290	
02:45 PM			208	217		213			213	
03:00 PM			234	245		240			240	
03:15 PM			213	184		199			199	
03:30 PM			252	240		246			246	
03:45 PM			204	234		219			219	
04:00 PM			274	251		263			263	
04:15 PM			256	265		261			261	
04:30 PM			264	248		256			256	
04:45 PM			264	280		272			272	
05:00 PM			296	365		331			331	
05:15 PM			251	274		263			263	
05:30 PM			256	288		272			272	
05:45 PM			261	259		260			260	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
<i>Comments:</i>										

LOCATION: W Airfield Dr South of N Airfield Dr SPECIFIC LOCATION: CITY/STATE: Grapevine, TX										QC JOB #: 15871619 DIRECTION: NB, SB DATE: Jul 6 2022 - Jul 7 2022
Start Time	Mon	Tue	Wed 6 Jul 22	Thu 7 Jul 22	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 PM			238	243		241			241	
06:15 PM			227	175		201			201	
06:30 PM			186	150		168			168	
06:45 PM			177	164		171			171	
07:00 PM			192	196		194			194	
07:15 PM			150	148		149			149	
07:30 PM			129	133		131			131	
07:45 PM			116	103		110			110	
08:00 PM			132	151		142			142	
08:15 PM			118	130		124			124	
08:30 PM			119	115		117			117	
08:45 PM			142	140		141			141	
09:00 PM			102	126		114			114	
09:15 PM			163	142		153			153	
09:30 PM			168	145		157			157	
09:45 PM			194	185		190			190	
10:00 PM			186	152		169			169	
10:15 PM			155	164		160			160	
10:30 PM			191	191		191			191	
10:45 PM			90	86		88			88	
11:00 PM			110	103		107			107	
11:15 PM			70	58		64			64	
11:30 PM			55	52		54			54	
11:45 PM			43	67		55			55	
Day Total			15145	15160		15173			15173	
% Weekday Average			99.8%	99.9%						
% Week Average			99.8%	99.9%		100%				
AM Peak 15-min Vol			7:45 AM 275	6:30 AM 226		7:45 AM 244			7:45 AM 244	
PM Peak 15-min Vol			2:30 PM 299	5:00 PM 365		5:00 PM 331			5:00 PM 331	

Comments:

Type of report: Tube Count - Volume Data

LOCATION: W Airfield Dr South of N Airfield Dr SPECIFIC LOCATION: CITY/STATE: Grapevine, TX							QC JOB #: 15871619 DIRECTION: SB DATE: Jul 6 2022 - Jul 7 2022			
Start Time	Mon	Tue	Wed 6 Jul 22	Thu 7 Jul 22	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 AM			25	19		22			22	
12:15 AM			24	20		22			22	
12:30 AM			23	16		20			20	
12:45 AM			20	12		16			16	
01:00 AM			20	20		20			20	
01:15 AM			12	16		14			14	
01:30 AM			16	16		16			16	
01:45 AM			20	25		23			23	
02:00 AM			18	20		19			19	
02:15 AM			16	10		13			13	
02:30 AM			16	22		19			19	
02:45 AM			18	20		19			19	
03:00 AM			34	36		35			35	
03:15 AM			30	23		27			27	
03:30 AM			34	33		34			34	
03:45 AM			34	30		32			32	
04:00 AM			42	36		39			39	
04:15 AM			38	41		40			40	
04:30 AM			38	26		32			32	
04:45 AM			40	40		40			40	
05:00 AM			54	45		50			50	
05:15 AM			54	60		57			57	
05:30 AM			92	100		96			96	
05:45 AM			126	97		112			112	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

Report generated on 7/19/2022 9:21 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

LOCATION: W Airfield Dr South of N Airfield Dr							QC JOB #: 15871619			
SPECIFIC LOCATION:							DIRECTION: SB			
CITY/STATE: Grapevine, TX							DATE: Jul 6 2022 - Jul 7 2022			
Start Time	Mon	Tue	Wed 6 Jul 22	Thu 7 Jul 22	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM			86	79		83			83	
06:15 AM			84	86		85			85	
06:30 AM			110	100		105			105	
06:45 AM			3	102		53			53	
07:00 AM			0	104		52			52	
07:15 AM			66	97		82			82	
07:30 AM			118	126		122			122	
07:45 AM			131	100		116			116	
08:00 AM			128	114		121			121	
08:15 AM			118	128		123			123	
08:30 AM			118	114		116			116	
08:45 AM			100	104		102			102	
09:00 AM			108	94		101			101	
09:15 AM			78	84		81			81	
09:30 AM			84	101		93			93	
09:45 AM			82	88		85			85	
10:00 AM			82	83		83			83	
10:15 AM			84	70		77			77	
10:30 AM			118	98		108			108	
10:45 AM			125	102		114			114	
11:00 AM			106	118		112			112	
11:15 AM			86	106		96			96	
11:30 AM			100	87		94			94	
11:45 AM			109	89		99			99	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										

Comments:

LOCATION: W Airfield Dr South of N Airfield Dr							QC JOB #: 15871619			
SPECIFIC LOCATION:							DIRECTION: SB			
CITY/STATE: Grapevine, TX							DATE: Jul 6 2022 - Jul 7 2022			
Start Time	Mon	Tue	Wed 6 Jul 22	Thu 7 Jul 22	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM			95	82		89			89	
12:15 PM			104	86		95			95	
12:30 PM			101	91		96			96	
12:45 PM			107	102		105			105	
01:00 PM			98	108		103			103	
01:15 PM			100	120		110			110	
01:30 PM			136	123		130			130	
01:45 PM			118	132		125			125	
02:00 PM			110	96		103			103	
02:15 PM			87	100		94			94	
02:30 PM			133	116		125			125	
02:45 PM			104	106		105			105	
03:00 PM			82	90		86			86	
03:15 PM			86	76		81			81	
03:30 PM			102	108		105			105	
03:45 PM			94	102		98			98	
04:00 PM			136	121		129			129	
04:15 PM			128	123		126			126	
04:30 PM			132	134		133			133	
04:45 PM			152	140		146			146	
05:00 PM			156	193		175			175	
05:15 PM			151	149		150			150	
05:30 PM			124	152		138			138	
05:45 PM			147	140		144			144	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
<i>Comments:</i>										

LOCATION: W Airfield Dr South of N Airfield Dr							QC JOB #: 15871619			
SPECIFIC LOCATION:							DIRECTION: SB			
CITY/STATE: Grapevine, TX							DATE: Jul 6 2022 - Jul 7 2022			
Start Time	Mon	Tue	Wed 6 Jul 22	Thu 7 Jul 22	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 PM			118	104		111			111	
06:15 PM			121	95		108			108	
06:30 PM			92	64		78			78	
06:45 PM			89	84		87			87	
07:00 PM			90	82		86			86	
07:15 PM			60	74		67			67	
07:30 PM			56	68		62			62	
07:45 PM			74	66		70			70	
08:00 PM			66	83		75			75	
08:15 PM			68	68		68			68	
08:30 PM			65	66		66			66	
08:45 PM			91	74		83			83	
09:00 PM			60	65		63			63	
09:15 PM			97	78		88			88	
09:30 PM			93	79		86			86	
09:45 PM			96	92		94			94	
10:00 PM			96	72		84			84	
10:15 PM			90	100		95			95	
10:30 PM			71	74		73			73	
10:45 PM			47	38		43			43	
11:00 PM			36	29		33			33	
11:15 PM			34	30		32			32	
11:30 PM			33	24		29			29	
11:45 PM			23	45		34			34	
Day Total			7617	7601		7626			7626	
% Weekday Average			99.9%	99.7%						
% Week Average			99.9%	99.7%		100%				
AM Peak 15-min Vol			7:45 AM 131	8:15 AM 128		8:15 AM 123			8:15 AM 123	
PM Peak 15-min Vol			5:00 PM 156	5:00 PM 193		5:00 PM 175			5:00 PM 175	

Comments:

Type of report: Tube Count - Volume Data

LOCATION: W Airfield Dr North of W 21st St SPECIFIC LOCATION: CITY/STATE: Grapevine, TX							QC JOB #: 15871620 DIRECTION: NB DATE: Jul 6 2022 - Jul 7 2022			
Start Time	Mon	Tue	Wed 6 Jul 22	Thu 7 Jul 22	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 AM			18	19		19			19	
12:15 AM			10	14		12			12	
12:30 AM			20	26		23			23	
12:45 AM			12	10		11			11	
01:00 AM			28	29		29			29	
01:15 AM			17	9		13			13	
01:30 AM			14	12		13			13	
01:45 AM			10	14		12			12	
02:00 AM			14	10		12			12	
02:15 AM			16	10		13			13	
02:30 AM			9	19		14			14	
02:45 AM			20	16		18			18	
03:00 AM			22	19		21			21	
03:15 AM			26	34		30			30	
03:30 AM			38	24		31			31	
03:45 AM			24	37		31			31	
04:00 AM			27	30		29			29	
04:15 AM			36	44		40			40	
04:30 AM			16	20		18			18	
04:45 AM			31	26		29			29	
05:00 AM			17	26		22			22	
05:15 AM			30	25		28			28	
05:30 AM			58	54		56			56	
05:45 AM			68	73		71			71	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: W Airfield Dr North of W 21st St SPECIFIC LOCATION: CITY/STATE: Grapevine, TX							QC JOB #: 15871620 DIRECTION: NB DATE: Jul 6 2022 - Jul 7 2022			
Start Time	Mon	Tue	Wed 6 Jul 22	Thu 7 Jul 22	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM			50	36		43			43	
06:15 AM			62	53		58			58	
06:30 AM			78	86		82			82	
06:45 AM			84	80		82			82	
07:00 AM			103	100		102			102	
07:15 AM			80	58		69			69	
07:30 AM			107	104		106			106	
07:45 AM			130	118		124			124	
08:00 AM			74	66		70			70	
08:15 AM			74	62		68			68	
08:30 AM			75	92		84			84	
08:45 AM			86	74		80			80	
09:00 AM			62	72		67			67	
09:15 AM			50	50		50			50	
09:30 AM			75	95		85			85	
09:45 AM			96	71		84			84	
10:00 AM			71	84		78			78	
10:15 AM			82	68		75			75	
10:30 AM			84	92		88			88	
10:45 AM			112	100		106			106	
11:00 AM			54	82		68			68	
11:15 AM			58	86		72			72	
11:30 AM			51	58		55			55	
11:45 AM			76	68		72			72	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: W Airfield Dr North of W 21st St SPECIFIC LOCATION: CITY/STATE: Grapevine, TX							QC JOB #: 15871620 DIRECTION: NB DATE: Jul 6 2022 - Jul 7 2022			
Start Time	Mon	Tue	Wed 6 Jul 22	Thu 7 Jul 22	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM			70	58		64			64	
12:15 PM			64	58		61			61	
12:30 PM			62	48		55			55	
12:45 PM			76	63		70			70	
01:00 PM			82	49		66			66	
01:15 PM			58	75		67			67	
01:30 PM			74	71		73			73	
01:45 PM			87	78		83			83	
02:00 PM			61	72		67			67	
02:15 PM			80	68		74			74	
02:30 PM			127	115		121			121	
02:45 PM			80	94		87			87	
03:00 PM			114	120		117			117	
03:15 PM			82	65		74			74	
03:30 PM			101	88		95			95	
03:45 PM			86	100		93			93	
04:00 PM			104	98		101			101	
04:15 PM			87	114		101			101	
04:30 PM			102	93		98			98	
04:45 PM			86	96		91			91	
05:00 PM			86	118		102			102	
05:15 PM			79	92		86			86	
05:30 PM			108	98		103			103	
05:45 PM			86	94		90			90	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: W Airfield Dr North of W 21st St							QC JOB #: 15871620			
SPECIFIC LOCATION:							DIRECTION: NB			
CITY/STATE: Grapevine, TX							DATE: Jul 6 2022 - Jul 7 2022			
Start Time	Mon	Tue	Wed 6 Jul 22	Thu 7 Jul 22	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 PM			66	81		74			74	
06:15 PM			69	58		64			64	
06:30 PM			61	64		63			63	
06:45 PM			60	56		58			58	
07:00 PM			42	54		48			48	
07:15 PM			43	40		42			42	
07:30 PM			58	46		52			52	
07:45 PM			28	38		33			33	
08:00 PM			38	39		39			39	
08:15 PM			24	45		35			35	
08:30 PM			54	42		48			48	
08:45 PM			37	40		39			39	
09:00 PM			33	65		49			49	
09:15 PM			48	39		44			44	
09:30 PM			51	44		48			48	
09:45 PM			84	88		86			86	
10:00 PM			78	64		71			71	
10:15 PM			64	66		65			65	
10:30 PM			95	108		102			102	
10:45 PM			40	40		40			40	
11:00 PM			60	68		64			64	
11:15 PM			30	21		26			26	
11:30 PM			11	25		18			18	
11:45 PM			20	20		20			20	
Day Total			5691	5731		5730			5730	
% Weekday Average			99.3%	100%						
% Week Average			99.3%	100%		100%				
AM Peak 15-min Vol			7:45 AM 130	7:45 AM 118		7:45 AM 124			7:45 AM 124	
PM Peak 15-min Vol			2:30 PM 127	3:00 PM 120		2:30 PM 121			2:30 PM 121	

Comments:

Type of report: Tube Count - Volume Data

LOCATION: W Airfield Dr North of W 21st St SPECIFIC LOCATION: CITY/STATE: Grapevine, TX							QC JOB #: 15871620 DIRECTION: NB, SB DATE: Jul 6 2022 - Jul 7 2022			
Start Time	Mon	Tue	Wed 6 Jul 22	Thu 7 Jul 22	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 AM			30	27		29			29	
12:15 AM			25	26		26			26	
12:30 AM			39	40		40			40	
12:45 AM			29	17		23			23	
01:00 AM			45	38		42			42	
01:15 AM			44	34		39			39	
01:30 AM			49	64		57			57	
01:45 AM			42	48		45			45	
02:00 AM			54	48		51			51	
02:15 AM			44	44		44			44	
02:30 AM			33	43		38			38	
02:45 AM			36	28		32			32	
03:00 AM			42	37		40			40	
03:15 AM			51	57		54			54	
03:30 AM			60	49		55			55	
03:45 AM			46	65		56			56	
04:00 AM			51	58		55			55	
04:15 AM			54	57		56			56	
04:30 AM			34	36		35			35	
04:45 AM			54	55		55			55	
05:00 AM			41	46		44			44	
05:15 AM			74	53		64			64	
05:30 AM			117	118		118			118	
05:45 AM			128	133		131			131	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: W Airfield Dr North of W 21st St SPECIFIC LOCATION: CITY/STATE: Grapevine, TX							QC JOB #: 15871620 DIRECTION: NB, SB DATE: Jul 6 2022 - Jul 7 2022			
Start Time	Mon	Tue	Wed 6 Jul 22	Thu 7 Jul 22	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM			119	87		103			103	
06:15 AM			132	121		127			127	
06:30 AM			149	160		155			155	
06:45 AM			126	142		134			134	
07:00 AM			147	160		154			154	
07:15 AM			140	116		128			128	
07:30 AM			173	178		176			176	
07:45 AM			216	185		201			201	
08:00 AM			146	133		140			140	
08:15 AM			160	162		161			161	
08:30 AM			155	170		163			163	
08:45 AM			146	141		144			144	
09:00 AM			124	152		138			138	
09:15 AM			108	113		111			111	
09:30 AM			126	150		138			138	
09:45 AM			140	123		132			132	
10:00 AM			135	136		136			136	
10:15 AM			132	124		128			128	
10:30 AM			153	148		151			151	
10:45 AM			170	154		162			162	
11:00 AM			128	156		142			142	
11:15 AM			122	154		138			138	
11:30 AM			111	128		120			120	
11:45 AM			144	116		130			130	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
<i>Comments:</i>										

LOCATION: W Airfield Dr North of W 21st St SPECIFIC LOCATION: CITY/STATE: Grapevine, TX							QC JOB #: 15871620 DIRECTION: NB, SB DATE: Jul 6 2022 - Jul 7 2022			
Start Time	Mon	Tue	Wed 6 Jul 22	Thu 7 Jul 22	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM			126	116		121			121	
12:15 PM			134	108		121			121	
12:30 PM			138	111		125			125	
12:45 PM			149	139		144			144	
01:00 PM			156	127		142			142	
01:15 PM			128	161		145			145	
01:30 PM			174	161		168			168	
01:45 PM			179	160		170			170	
02:00 PM			153	154		154			154	
02:15 PM			160	145		153			153	
02:30 PM			237	223		230			230	
02:45 PM			160	185		173			173	
03:00 PM			200	204		202			202	
03:15 PM			162	142		152			152	
03:30 PM			198	196		197			197	
03:45 PM			164	198		181			181	
04:00 PM			190	213		202			202	
04:15 PM			205	222		214			214	
04:30 PM			208	199		204			204	
04:45 PM			211	200		206			206	
05:00 PM			236	278		257			257	
05:15 PM			213	225		219			219	
05:30 PM			217	216		217			217	
05:45 PM			190	194		192			192	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: W Airfield Dr North of W 21st St							QC JOB #: 15871620			
SPECIFIC LOCATION:							DIRECTION: NB, SB			
CITY/STATE: Grapevine, TX							DATE: Jul 6 2022 - Jul 7 2022			
Start Time	Mon	Tue	Wed 6 Jul 22	Thu 7 Jul 22	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 PM			158	149		154			154	
06:15 PM			165	154		160			160	
06:30 PM			143	114		129			129	
06:45 PM			128	124		126			126	
07:00 PM			110	126		118			118	
07:15 PM			82	99		91			91	
07:30 PM			106	110		108			108	
07:45 PM			70	81		76			76	
08:00 PM			88	92		90			90	
08:15 PM			73	94		84			84	
08:30 PM			92	86		89			89	
08:45 PM			101	90		96			96	
09:00 PM			81	113		97			97	
09:15 PM			114	91		103			103	
09:30 PM			139	112		126			126	
09:45 PM			162	174		168			168	
10:00 PM			151	125		138			138	
10:15 PM			115	128		122			122	
10:30 PM			157	164		161			161	
10:45 PM			88	82		85			85	
11:00 PM			88	90		89			89	
11:15 PM			48	38		43			43	
11:30 PM			34	37		36			36	
11:45 PM			32	38		35			35	
Day Total			11437	11418		11454			11454	
% Weekday Average			99.9%	99.7%						
% Week Average			99.9%	99.7%		100%				
AM Peak 15-min Vol			7:45 AM 216	7:45 AM 185		7:45 AM 201			7:45 AM 201	
PM Peak 15-min Vol			2:30 PM 237	5:00 PM 278		5:00 PM 257			5:00 PM 257	

Comments:

Type of report: Tube Count - Volume Data

LOCATION: W Airfield Dr North of W 21st St SPECIFIC LOCATION: CITY/STATE: Grapevine, TX							QC JOB #: 15871620 DIRECTION: SB DATE: Jul 6 2022 - Jul 7 2022			
Start Time	Mon	Tue	Wed 6 Jul 22	Thu 7 Jul 22	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 AM			12	8		10			10	
12:15 AM			15	12		14			14	
12:30 AM			19	14		17			17	
12:45 AM			17	7		12			12	
01:00 AM			17	9		13			13	
01:15 AM			27	25		26			26	
01:30 AM			35	52		44			44	
01:45 AM			32	34		33			33	
02:00 AM			40	38		39			39	
02:15 AM			28	34		31			31	
02:30 AM			24	24		24			24	
02:45 AM			16	12		14			14	
03:00 AM			20	18		19			19	
03:15 AM			25	23		24			24	
03:30 AM			22	25		24			24	
03:45 AM			22	28		25			25	
04:00 AM			24	28		26			26	
04:15 AM			18	13		16			16	
04:30 AM			18	16		17			17	
04:45 AM			23	29		26			26	
05:00 AM			24	20		22			22	
05:15 AM			44	28		36			36	
05:30 AM			59	64		62			62	
05:45 AM			60	60		60			60	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

Report generated on 7/19/2022 9:21 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

LOCATION: W Airfield Dr North of W 21st St SPECIFIC LOCATION: CITY/STATE: Grapevine, TX							QC JOB #: 15871620 DIRECTION: SB DATE: Jul 6 2022 - Jul 7 2022			
Start Time	Mon	Tue	Wed 6 Jul 22	Thu 7 Jul 22	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM			69	51		60			60	
06:15 AM			70	68		69			69	
06:30 AM			71	74		73			73	
06:45 AM			42	62		52			52	
07:00 AM			44	60		52			52	
07:15 AM			60	58		59			59	
07:30 AM			66	74		70			70	
07:45 AM			86	67		77			77	
08:00 AM			72	67		70			70	
08:15 AM			86	100		93			93	
08:30 AM			80	78		79			79	
08:45 AM			60	67		64			64	
09:00 AM			62	80		71			71	
09:15 AM			58	63		61			61	
09:30 AM			51	55		53			53	
09:45 AM			44	52		48			48	
10:00 AM			64	52		58			58	
10:15 AM			50	56		53			53	
10:30 AM			69	56		63			63	
10:45 AM			58	54		56			56	
11:00 AM			74	74		74			74	
11:15 AM			64	68		66			66	
11:30 AM			60	70		65			65	
11:45 AM			68	48		58			58	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
<i>Comments:</i>										

LOCATION: W Airfield Dr North of W 21st St							QC JOB #: 15871620			
SPECIFIC LOCATION:							DIRECTION: SB			
CITY/STATE: Grapevine, TX							DATE: Jul 6 2022 - Jul 7 2022			
Start Time	Mon	Tue	Wed 6 Jul 22	Thu 7 Jul 22	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM			56	58		57			57	
12:15 PM			70	50		60			60	
12:30 PM			76	63		70			70	
12:45 PM			73	76		75			75	
01:00 PM			74	78		76			76	
01:15 PM			70	86		78			78	
01:30 PM			100	90		95			95	
01:45 PM			92	82		87			87	
02:00 PM			92	82		87			87	
02:15 PM			80	77		79			79	
02:30 PM			110	108		109			109	
02:45 PM			80	91		86			86	
03:00 PM			86	84		85			85	
03:15 PM			80	77		79			79	
03:30 PM			97	108		103			103	
03:45 PM			78	98		88			88	
04:00 PM			86	115		101			101	
04:15 PM			118	108		113			113	
04:30 PM			106	106		106			106	
04:45 PM			125	104		115			115	
05:00 PM			150	160		155			155	
05:15 PM			134	133		134			134	
05:30 PM			109	118		114			114	
05:45 PM			104	100		102			102	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										
Comments:										

LOCATION: W Airfield Dr North of W 21st St							QC JOB #: 15871620			
SPECIFIC LOCATION:							DIRECTION: SB			
CITY/STATE: Grapevine, TX							DATE: Jul 6 2022 - Jul 7 2022			
Start Time	Mon	Tue	Wed 6 Jul 22	Thu 7 Jul 22	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 PM			92	68		80			80	
06:15 PM			96	96		96			96	
06:30 PM			82	50		66			66	
06:45 PM			68	68		68			68	
07:00 PM			68	72		70			70	
07:15 PM			39	59		49			49	
07:30 PM			48	64		56			56	
07:45 PM			42	43		43			43	
08:00 PM			50	53		52			52	
08:15 PM			49	49		49			49	
08:30 PM			38	44		41			41	
08:45 PM			64	50		57			57	
09:00 PM			48	48		48			48	
09:15 PM			66	52		59			59	
09:30 PM			88	68		78			78	
09:45 PM			78	86		82			82	
10:00 PM			73	61		67			67	
10:15 PM			51	62		57			57	
10:30 PM			62	56		59			59	
10:45 PM			48	42		45			45	
11:00 PM			28	22		25			25	
11:15 PM			18	17		18			18	
11:30 PM			23	12		18			18	
11:45 PM			12	18		15			15	
Day Total			5746	5687		5730			5730	
% Weekday Average			100.3%	99.2%						
% Week Average			100.3%	99.2%		100%				
AM Peak 15-min Vol			7:45 AM 86	8:15 AM 100		8:15 AM 93			8:15 AM 93	
PM Peak 15-min Vol			5:00 PM 150	5:00 PM 160		5:00 PM 155			5:00 PM 155	

Comments:

Appendix C: Signal Timing Plans

W Airfield Dr @ W 19th St

```

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* Solutions that Move the World *
* *
* CITY.... 0 INTERSECTION.. 0 *
* *
* SOFTWARE..... 12.65.00 *
* *
* *
* *
* CONFIG.....ACS-N3000 *
*****

```

SOFTWARE MODULES

NAME	PART NUMBER	VERSION
BOOT	N/A	N/A
APPLICATION	100-1082-265	12.65.00
CONFIGURATION	100-1049-001	L3000,19
HELP	100-1050-001	01.00.00
DEFINITIONS	100-1051-001	02.10.00
TEXT	100-1052-001	02.10.00
TELEMETRY	N/A	N/A

CONTROLLER SEQUENCE [1]

SEQUENCE COMMANDS	HW	ALT	SEQ	ENA.	NO										
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
BC-B	-	B	-	B	-	B	-	B	-	-	-	-	-	-	B
R1-	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.
R2-	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.
R3-	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
R4-	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

R1-R4=RING 1-4, DATA ENTRY, PHASES 1-16
BC=BARRIER CONTROL, VALUES: B,C
B=BARRIER MODE
C=COMPATIBILITY MODE

START/FLASH DATA

```

-----START UP-----
      1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
PHASE  . G . . . G . . . . . . . . . .
      A B C D E F G H I J K L M N O P
OVERLAP X X X X . . . . . . . . . .
FLASH>MON. NO FL TIME.. 0 ALL RED... 6
PWR START SEQ.. 1 MUTCD-> NO

```

-----AUTOMATIC FLASH-----

```

      PHASE 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
ENTRY   . X . . . X . . . . . . . . . .
EXIT    . X . . . X . . . . . . . . . .
OVERLAP A B C D E F G H I J K L M N O P
EXIT    X X X X . . . . . . . . . .
FLASH>MON. NO EXIT FL. W MIN FLASH. 8
MINIMUM RECALL. NO CYCLE THRU PHASE. NO

```

CONTROLLER OPTIONS

```

PED CLEAR PROTECT . UNIT RED REVERT 2.0
MUTCD 3 SECONDS DONT WALK ..... NO
      PHASE 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
FLASHING GRN PH. . . . . . . . . . . . . . . .
GUAR PASSAGE.... . . . . . . . . . . . . . . .
NON-ACT I..... . X . . . X . . . . . . . . . .
NON-ACT II..... . . . X . . . X . . . . . . . . . .
DUAL ENTRY..... . . . . . . . . . . . . . . .
COND SERVICE.... . . . . . . . . . . . . . . .
COND RESERVICE.. . . . . . . . . . . . . . . .
PED RESERVICE... . . . . . . . . . . . . . . .
REST IN WALK.... . . . . . . . . . . . . . . .
FLASHING WALK... . . . . . . . . . . . . . . .
PED CLR>YELLOW.. . . . . . . . . . . . . . . .
PED CLR>RED..... . . . . . . . . . . . . . . .
IGRN + VEH EXT.. . . . . . . . . . . . . . . .

```

PRE-TIMED MODE

```

ENABLE PRE-TIMED MODE..... NO
FREE INPUT DISABLES PRE-TIMED..... NO
      PHASE 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
PRETIMED . . . . . . . . . . . . . . . .

```

PHASE RECALL OPTIONS

```

TIMING PLAN NUMBER [ 1]
      PHASE 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
LOCK DET . . . . . . . . . . . . . . . .
VE RCALL . X . . . X . . . . . . . . . .
PD RCALL . . . . . . . . . . . . . . . .

```

MX RCALL
SF RCALL
NO REST
AI CALC

W Airfield Dr @ W 21st St

```

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* DFW AIRPORT*
* CITY.... 0 INTERSECTION.. 0 *
* *
* SOFTWARE..... 12.65.00 *
* *
* *
* *
* CONFIG.....ACS-N3000 *
*****

```

SOFTWARE MODULES

NAME	PART NUMBER	VERSION
BOOT	N/A	N/A
APPLICATION	100-1082-265	12.65.00
CONFIGURATION	100-1049-001	L3000,19
HELP	100-1050-001	01.00.00
DEFINITIONS	100-1051-001	02.10.00
TEXT	100-1052-001	02.10.00
TELEMETRY	N/A	N/A

CONTROLLER SEQUENCE [1]

SEQUENCE	COMMANDS	HW	ALT	SEQ	ENA.	NO	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	
BC-B	-	B	B	B	-	B	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	B
R1-	1	2	4	8	9	10	13	14	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
R2-	5	6	7	3	11	12	15	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
R3-	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
R4-	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

R1-R4=RING 1-4, DATA ENTRY, PHASES 1-16
 BC=BARRIER CONTROL, VALUES: B,C
 B=BARRIER MODE
 C=COMPATIBILITY MODE

TIMING PLAN [1] PHASE DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MIN GRN	10	15	0	7	7	15	0	10	0	0	0	0	0	0	0	0
BK MGRN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS MGRN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DLY GRN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WALK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WALK2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WLK MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PED CLR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PD CLR2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PC MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PED CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VEH EXT	1.5	2.0	0.0	1.0	1.5	2.0	0.0	1.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
VH EXT2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX1	20	45	0	20	20	45	0	20	35	35	35	35	35	35	35	35
MAX2	0	0	0	0	0	0	0	0	40	40	40	40	40	40	40	40
MAX3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM STP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOW	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
RED CLR	1.0	1.5	1.0	1.0	1.0	1.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
RED MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RED RVT	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
ACT B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEC/ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX INT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TIME B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CARS WT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDUC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTREDUC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MIN GAP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

GUARANTEED MINIMUM TIME DATA

PHASE	A01	B02	C03	D04	E05	F06	G07	H08
MIN GRN	5	5	5	5	5	5	5	5
WALK	0	0	0	0	0	0	0	0
PED CLR	7	7	7	7	7	7	7	7
YELLOW	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
RED CLR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVL GRN	5	5	5	5	5	5	5	5
PHASE	I09	J10	K11	L12	M13	N14	O15	P16
MIN GRN	5	5	5	5	5	5	5	5
WALK	0	0	0	0	0	0	0	0
PED CLR	7	7	7	7	7	7	7	7
YELLOW	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
RED CLR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVL GRN	5	5	5	5	5	5	5	5

START/FLASH DATA

AI CALC

W Airfield Dr @ W 23rd St

```

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* *
* CITY.... 0 INTERSECTION.. 0 *
* *
* SOFTWARE..... 12.65.00 *
* *
* *
* *
* CONFIG.....ACS-N3000 *
*****

```

SOFTWARE MODULES

NAME	PART NUMBER	VERSION
BOOT	N/A	N/A
APPLICATION	100-1082-265	12.65.00
CONFIGURATION	100-1049-001	L3000,19
HELP	100-1050-001	01.00.00
DEFINITIONS	100-1051-001	02.10.00
TEXT	100-1052-001	02.10.00
TELEMETRY	N/A	N/A

CONTROLLER SEQUENCE [1]

SEQUENCE COMMANDS	HW	ALT	SEQ	ENA.	NO										
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
BC-B	-	B	-	B	-	B	-	B	-	-	-	-	-	-	B
R1-	| 1	| 2	| 3	| 4	| 9	| 10	| 13	| 14	| .	| .	| .	| .	| .	| .	| .
R2-	| 5	| 6	| 7	| 8	| 11	| 12	| 15	| 16	| .	| .	| .	| .	| .	| .	| .
R3-	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .
R4-	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .

R1-R4=RING 1-4, DATA ENTRY, PHASES 1-16
 BC=BARRIER CONTROL, VALUES: B,C
 B=BARRIER MODE
 C=COMPATIBILITY MODE

TIMING PLAN [1] PHASE DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MIN GRN	7	15	5	7	7	15	5	7	5	5	5	5	5	5	5	5
BK MGRN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS MGRN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DLY GRN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WALK	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10
WALK2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WLK MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PED CLR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PD CLR2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PC MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PED CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VEH EXT	2.0	2.5	2.0	2.0	2.0	2.5	2.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
VH EXT2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX1	12	25	35	15	12	25	35	15	35	35	35	35	35	35	35	35
MAX2	10	60	40	15	10	60	40	15	40	40	40	40	40	40	40	40
MAX3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM STP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOW	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
RED CLR	1.0	1.5	1.0	1.0	1.0	1.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
RED MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RED RVT	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
ACT B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEC/ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX INT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TIME B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CARS WT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDUC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTREDUC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MIN GAP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

GUARANTEED MINIMUM TIME DATA

PHASE	A01	B02	C03	D04	E05	F06	G07	H08
MIN GRN	5	5	5	5	5	5	5	5
WALK	0	0	0	0	0	0	0	0
PED CLR	7	7	7	7	7	7	7	7
YELLOW	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
RED CLR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVL GRN	5	5	5	5	5	5	5	5
PHASE	I09	J10	K11	L12	M13	N14	O15	P16
MIN GRN	5	5	5	5	5	5	5	5
WALK	0	0	0	0	0	0	0	0
PED CLR	7	7	7	7	7	7	7	7
YELLOW	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
RED CLR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVL GRN	5	5	5	5	5	5	5	5

START/FLASH DATA

NO REST
AI CALC

W Airfield Dr @ E Glade Rd

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* *
* CITY.... 0 INTERSECTION.. 0 *
* *
* SOFTWARE..... 12.65.00 *
* *
* *
* *
* CONFIG.....ACS-N3000 *
*****

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SOFTWARE MODULES

NAME	PART NUMBER	VERSION
BOOT	N/A	N/A
APPLICATION	100-1082-265	12.65.00
CONFIGURATION	100-1049-001	L3000,19
HELP	100-1050-001	01.00.00
DEFINITIONS	100-1051-001	02.10.00
TEXT	100-1052-001	02.10.00
TELEMETRY	N/A	N/A

CONTROLLER SEQUENCE [1]

SEQUENCE COMMANDS	. HW	ALT	SEQ	ENA.	NO											
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
BC-B	-	B	-	B	-	B	-	B	-	-	-	-	-	-	-	B
R1-	2	1	3	4	9	10	13	14	.	.	.	.	.	.	.	.
R2-	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
R3-	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
R4-	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

R1-R4=RING 1-4, DATA ENTRY, PHASES 1-16
 BC=BARRIER CONTROL, VALUES: B,C
 B=BARRIER MODE
 C=COMPATIBILITY MODE

TIMING PLAN [1] PHASE DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MIN GRN	0	20	0	7	7	20	0	0	0	0	0	0	0	0	0	0
BK MGRN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS MGRN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DLY GRN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WALK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WALK2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WLK MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PED CLR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PD CLR2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PC MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PED CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VEH EXT	0.0	1.5	0.0	2.0	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
VH EXT2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX1	0	60	0	25	15	60	0	0	0	0	0	0	0	0	0	0
MAX2	0	40	0	30	30	40	0	0	0	0	0	0	0	0	0	0
MAX3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM STP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOW	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
RED CLR	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
RED MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RED RVT	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
ACT B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEC/ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX INT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TIME B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CARS WT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDUC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTREDUC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MIN GAP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

GUARANTEED MINIMUM TIME DATA

PHASE	A01	B02	C03	D04	E05	F06	G07	H08
MIN GRN	5	5	5	5	5	5	5	5
WALK	0	0	0	0	0	0	0	0
PED CLR	7	7	7	7	7	7	7	7
YELLOW	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
RED CLR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVL GRN	5	5	5	5	5	5	5	5
PHASE	I09	J10	K11	L12	M13	N14	O15	P16
MIN GRN	5	5	5	5	5	5	5	5
WALK	0	0	0	0	0	0	0	0
PED CLR	7	7	7	7	7	7	7	7
YELLOW	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
RED CLR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVL GRN	5	5	5	5	5	5	5	5

START/FLASH DATA

AI CALC

W Airfield Dr @ W 17th St

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* AIRFIELD @ 17TH*
* CITY.... 0 INTERSECTION.. 0 *
* *
* SOFTWARE..... 12.65.00 *
* *
* *
* *
* CONFIG.....ACS-N3000 *
*****

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SOFTWARE MODULES

NAME	PART NUMBER	VERSION
BOOT	N/A	N/A
APPLICATION	100-1082-265	12.65.00
CONFIGURATION	100-1049-001	L3000,19
HELP	100-1050-001	01.00.00
DEFINITIONS	100-1051-001	02.10.00
TEXT	100-1052-001	02.10.00
TELEMETRY	N/A	N/A

CONTROLLER SEQUENCE [1]

SEQUENCE COMMANDS	. HW	ALT	SEQ	ENA.	NO	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
BC-	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
R1-	1	2	4	8	9	10	13	14	.	.	.	.	.	.	.	.	.	.	.	.	.
R2-	5	6	7	3	11	12	15	16	.	.	.	.	.	.	.	.	.	.	.	.	.
R3-	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
R4-	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

R1-R4=RING 1-4, DATA ENTRY, PHASES 1-16
 BC=BARRIER CONTROL, VALUES: B,C
 B=BARRIER MODE
 C=COMPATIBILITY MODE

TIMING PLAN [1] PHASE DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MIN GRN	7	20	7	7	7	20	7	7	0	0	0	0	0	0	0	0
BK MGRN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS MGRN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DLY GRN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WALK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WALK2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WLK MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PED CLR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PD CLR2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PC MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PED CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VEH EXT	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
VH EXT2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX1	20	60	20	20	20	60	15	20	35	35	35	35	35	35	35	35
MAX2	0	0	0	0	0	0	0	0	0	40	40	40	40	40	40	40
MAX3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM STP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOW	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
RED CLR	1.0	1.5	1.0	1.0	1.0	1.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
RED MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RED RVT	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
ACT B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEC/ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX INT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TIME B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CARS WT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDUC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTREDUC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MIN GAP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

GUARANTEED MINIMUM TIME DATA

PHASE	A01	B02	C03	D04	E05	F06	G07	H08
MIN GRN	5	5	5	5	5	5	5	5
WALK	0	0	0	0	0	0	0	0
PED CLR	7	7	7	7	7	7	7	7
YELLOW	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
RED CLR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVL GRN	5	5	5	5	5	5	5	5
PHASE	I09	J10	K11	L12	M13	N14	O15	P16
MIN GRN	5	5	5	5	5	5	5	5
WALK	0	0	0	0	0	0	0	0
PED CLR	7	7	7	7	7	7	7	7
YELLOW	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
RED CLR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVL GRN	5	5	5	5	5	5	5	5

START/FLASH DATA

AI CALC

Texan Trail @ N Airfield Dr

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*                                       *
*   CITY....  0  INTERSECTION..  0    *
*                                       *
*   SOFTWARE..... 12.65.00             *
*                                       *
*                                       *
*                                       *
*   CONFIG.....ACS-L9020              *
*****

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SOFTWARE MODULES

NAME	PART NUMBER	VERSION
EB U-BOOT		
O/S		
APPLICATION	100-1082-265	12.65.00
CONFIGURATION	100-1049-001	L3000,19
EB CONTROLLER		
BGC CONTROLLER	140-1020-2xx	
BGC RESOURCE	140-1033-2xx	
PIO CONTROLLER	140-1021-2xx	
PS CONTROLLER	140-1022-2xx	
AGC U-BOOT		
AGC O/S		
AGC APPLICATION		
TELEMETRY	N/A	N/A

CONTROLLER SEQUENCE [1]

SEQUENCE COMMANDS	. HW	ALT	SEQ	ENA.	NO											
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
BC-B	-	B	B	B	-	B	-	B	-	-	-	-	-	-	-	B
R1-	| 1	| 2	| 4	| 8	| 9	| 10	| 13	| 14	| .	| .	| .	| .	| .	| .	| .	| .
R2-	| 6	| 5	| 7	| 3	| 11	| 12	| 15	| 16	| .	| .	| .	| .	| .	| .	| .	| .
R3-	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .
R4-	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .	| .

R1-R4=RING 1-4, DATA ENTRY, PHASES 1-16
 BC=BARRIER CONTROL, VALUES: B,C
 B=BARRIER MODE
 C=COMPATIBILITY MODE

TIMING PLAN [1] PHASE DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MIN GRN	5	5	7	5	0	7	10	5	0	0	0	0	0	0	0	0
BK MGRN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS MGRN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DLY GRN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WALK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WALK2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WLK MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PED CLR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PD CLR2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PC MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PED CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VEH EXT	1.0	1.0	2.0	1.0	1.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
VH EXT2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX1	20	25	0	25	20	25	0	10	0	0	0	0	0	0	0	0
MAX2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAX3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM STP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOW	4.0	4.5	0.0	4.0	4.0	4.0	0.0	4.0	4.5	3.0	5.5	3.0	3.0	3.0	5.5	3.0
RED CLR	1.0	1.5	1.5	1.0	1.0	1.5	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
RED MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RED RVT	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
ACT B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEC/ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX INT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TIME B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CARS WT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDUC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTREDUC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MIN GAP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

GUARANTEED MINIMUM TIME DATA

PHASE	A01	B02	C03	D04	E05	F06	G07	H08
MIN GRN	0	0	0	0	0	0	0	0
WALK	0	0	0	0	0	0	0	0
PED CLR	7	0	0	7	0	7	7	0
YELLOW	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
RED CLR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVL GRN	0	0	0	0	0	0	0	0
PHASE	I09	J10	K11	L12	M13	N14	O15	P16
MIN GRN	0	0	0	0	0	0	0	0
WALK	0	0	0	0	0	0	0	0
PED CLR	0	0	0	0	0	0	0	0
YELLOW	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
RED CLR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVL GRN	0	0	0	0	0	0	0	0

START/FLASH DATA

AI CALC

W Airfield Dr @ N Airfield Dr

```
*****
* ECONOLITE CONTROL PRODUCTS, INC. *
* *
* COBALT-1000 *
* Copyright (C) 2012-2016 *
* *
* TX 8 PH QUAD *
* *
* CITY.... 0 INTERSECTION.. 0 *
* *
* SOFTWARE..... 12.65.00 *
* *
* *
* *
* CONFIG.....ACS-L4600 *
*****
```

SOFTWARE MODULES

NAME	PART NUMBER	VERSION
EB U-BOOT		
O/S		
APPLICATION	100-1082-265	12.65.00
CONFIGURATION	100-1049-001	L3000,19
EB CONTROLLER		
BGC CONTROLLER	140-1020-2xx	
BGC RESOURCE	140-1033-2xx	
PIO CONTROLLER	140-1021-2xx	
PS CONTROLLER	140-1022-2xx	
AGC U-BOOT		
AGC O/S		
AGC APPLICATION		
TELEMETRY	N/A	N/A

CONTROLLER SEQUENCE [1]

SEQUENCE COMMANDS	. HW	ALT	SEQ	ENA.	NO														
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16			
BC-B	-	B	-	B	-	B	-	B	-	-	-	-	-	-	-	-	-	-	B
R1-	| 1	2	| 3	4	| 9	10	| 13	14	| .	.	.	.	.	.	.	.	.	.	|
R2-	| 5	6	| 7	8	| 11	12	| 15	16	| .	.	.	.	.	.	.	.	.	.	|
R3-	| .	.	| .	.	| .	.	| .	.	| .	.	.	.	.	.	.	.	.	.	|
R4-	| .	.	| .	.	| .	.	| .	.	| .	.	.	.	.	.	.	.	.	.	|

R1-R4=RING 1-4, DATA ENTRY, PHASES 1-16
BC=BARRIER CONTROL, VALUES: B,C
B=BARRIER MODE
C=COMPATIBILITY MODE

TIMING PLAN [1] PHASE DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MIN GRN	7	10	0	0	0	10	0	7	5	5	5	5	5	5	5	5
BK MGRN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS MGRN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DLY GRN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WALK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WALK2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WLK MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PED CLR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PD CLR2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PC MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PED CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VEH EXT	2.5	1.0	0.0	0.0	0.0	1.0	0.0	1.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
VH EXT2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX1	30	40	0	0	0	40	0	20	35	35	35	35	35	35	35	35
MAX2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
MAX3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM STP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOW	4.0	4.5	3.0	3.0	3.0	4.5	3.0	4.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
RED CLR	1.0	1.5	1.0	1.0	1.0	1.5	1.0	1.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
RED MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RED RVT	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
ACT B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEC/ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX INT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TIME B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CARS WT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDUC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTREDUC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MIN GAP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

GUARANTEED MINIMUM TIME DATA

PHASE	A01	B02	C03	D04	E05	F06	G07	H08
MIN GRN	5	5	5	5	5	5	5	5
WALK	0	0	0	0	0	0	0	0
PED CLR	7	7	7	7	7	7	7	7
YELLOW	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
RED CLR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVL GRN	5	5	5	5	5	5	5	5
PHASE	I09	J10	K11	L12	M13	N14	O15	P16
MIN GRN	5	5	5	5	5	5	5	5
WALK	0	0	0	0	0	0	0	0
PED CLR	7	7	7	7	7	7	7	7
YELLOW	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
RED CLR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVL GRN	5	5	5	5	5	5	5	5

START/FLASH DATA

AI CALC

Appendix D: Existing Conditions (2022) HCM 6th Ed. & Synchro Reports

Lanes, Volumes, Timings
1: S Main St & Mustang Dr

08/03/2022



Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	356	487	54	1	95	58	148	6	25	2	145	77
Future Volume (vph)	356	487	54	1	95	58	148	6	25	2	145	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		180		195		155	0		60	105	
Storage Lanes	1		1		1		1	1		2	1	
Taper Length (ft)	100				100			0			100	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00
Frt			0.850				0.850		0.990			
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	1770	3539	1583	0	1570	3139	1404	1114	2206	0	1703	1792
Flt Permitted	0.604				0.456						0.471	
Satd. Flow (perm)	1125	3539	1583	0	753	3139	1404	1173	2206	0	844	1792
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)			184				234		2			
Link Speed (mph)		45				45			30			35
Link Distance (ft)		931				1341			732			695
Travel Time (s)		14.1				20.3			16.6			13.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	15%	15%	15%	15%	62%	62%	62%	6%	6%
Adj. Flow (vph)	387	529	59	1	103	63	161	7	27	2	158	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	387	529	59	0	104	63	161	7	29	0	158	84
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)		15				16			28			18
Link Offset(ft)		0				0			0			0
Crosswalk Width(ft)		16				16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15		9	15		9	15	
Number of Detectors	1	2	1	1	1	2	1	1	2		1	2
Detector Template	Left	Thru	Right	Left	Left	Thru	Right	Left	Thru		Left	Thru
Leading Detector (ft)	20	100	20	20	20	100	20	20	100		20	100
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0		0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0		0	0
Detector 1 Size(ft)	20	6	20	20	20	6	20	20	6		20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)		94				94			94			94
Detector 2 Size(ft)		6				6			6			6
Detector 2 Type		Cl+Ex				Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0				0.0			0.0			0.0
Turn Type	pm+pt	NA	Perm	Prot	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA
Protected Phases	5	2		1	1	6		3	8		7	4

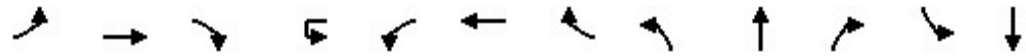
Lanes, Volumes, Timings
1: S Main St & Mustang Dr

08/03/2022

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	82
Future Volume (vph)	82
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1524
Flt Permitted	
Satd. Flow (perm)	1524
Right Turn on Red	Yes
Satd. Flow (RTOR)	184
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Heavy Vehicles (%)	6%
Adj. Flow (vph)	89
Shared Lane Traffic (%)	
Lane Group Flow (vph)	89
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	

Lanes, Volumes, Timings
1: S Main St & Mustang Dr

08/03/2022

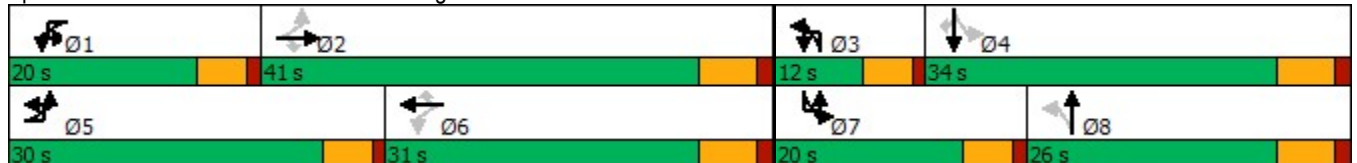


Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Permitted Phases	2		2		6		6	8			4	
Detector Phase	5	2	2	1	1	6	6	3	8		7	4
Switch Phase												
Minimum Initial (s)	7.0	10.0	10.0	7.0	7.0	10.0	10.0	5.0	10.0		7.0	10.0
Minimum Split (s)	12.0	16.0	16.0	12.0	12.0	16.0	16.0	10.0	16.0		12.0	16.0
Total Split (s)	30.0	41.0	41.0	20.0	20.0	31.0	31.0	12.0	26.0		20.0	34.0
Total Split (%)	28.0%	38.3%	38.3%	18.7%	18.7%	29.0%	29.0%	11.2%	24.3%		18.7%	31.8%
Maximum Green (s)	25.0	35.0	35.0	15.0	15.0	25.0	25.0	7.0	20.0		15.0	28.0
Yellow Time (s)	4.0	4.5	4.5	4.0	4.0	4.5	4.5	4.0	4.5		4.0	4.5
All-Red Time (s)	1.0	1.5	1.5	1.0	1.0	1.5	1.5	1.0	1.5		1.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0		5.0	6.0	6.0	5.0	6.0		5.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	2.5	1.0	1.0	2.5	2.5	1.0	1.0	2.5	1.0		2.5	1.0
Recall Mode	None	Max	Max	None	None	None	None	None	None		None	None
Walk Time (s)						7.0	7.0					
Flash Dont Walk (s)						11.0	11.0					
Pedestrian Calls (#/hr)						0	0					
Act Effct Green (s)	46.8	36.1	36.1		35.2	26.0	26.0	9.3	10.3		18.4	15.4
Actuated g/C Ratio	0.62	0.48	0.48		0.46	0.34	0.34	0.12	0.14		0.24	0.20
v/c Ratio	0.47	0.31	0.07		0.24	0.06	0.25	0.05	0.10		0.45	0.23
Control Delay	10.8	15.8	0.2		10.9	22.2	2.0	23.5	33.7		28.3	28.7
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	10.8	15.8	0.2		10.9	22.2	2.0	23.5	33.7		28.3	28.7
LOS	B	B	A		B	C	A	C	C		C	C
Approach Delay		12.9				8.7			31.7			21.0
Approach LOS		B				A			C			C

Intersection Summary

Area Type: Other
 Cycle Length: 107
 Actuated Cycle Length: 76
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.47
 Intersection Signal Delay: 14.1
 Intersection Capacity Utilization 58.9%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 1: S Main St & Mustang Dr



Lanes, Volumes, Timings
 1: S Main St & Mustang Dr

08/03/2022



Lane Group	SBR
Permitted Phases	4
Detector Phase	4
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	16.0
Total Split (s)	34.0
Total Split (%)	31.8%
Maximum Green (s)	28.0
Yellow Time (s)	4.5
All-Red Time (s)	1.5
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.0
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	1.0
Recall Mode	None
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	15.4
Actuated g/C Ratio	0.20
v/c Ratio	0.20
Control Delay	1.0
Queue Delay	0.0
Total Delay	1.0
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings
2: W Airfield Dr & Mustang Dr/N Airfield Dr

08/03/2022



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↔	↑↑	↔	↔
Traffic Volume (vph)	425	141	407	172	137	512
Future Volume (vph)	425	141	407	172	137	512
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	375		0	300
Storage Lanes		0	1		2	1
Taper Length (ft)			100		0	
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	1.00
Frt	0.963					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3408	0	1671	3343	3303	1524
Flt Permitted			0.346		0.950	
Satd. Flow (perm)	3408	0	609	3343	3303	1524
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	48					557
Link Speed (mph)	45			45	45	
Link Distance (ft)	1036			1355	845	
Travel Time (s)	15.7			20.5	12.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	8%	8%	6%	6%
Adj. Flow (vph)	462	153	442	187	149	557
Shared Lane Traffic (%)						
Lane Group Flow (vph)	615	0	442	187	149	557
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			24	60	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2		1	2	1	1
Detector Template	Thru		Left	Thru	Left	Right
Leading Detector (ft)	100		20	100	20	20
Trailing Detector (ft)	0		0	0	0	0
Detector 1 Position(ft)	0		0	0	0	0
Detector 1 Size(ft)	6		20	6	20	20
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA		pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	

Lanes, Volumes, Timings
 2: W Airfield Dr & Mustang Dr/N Airfield Dr

08/03/2022

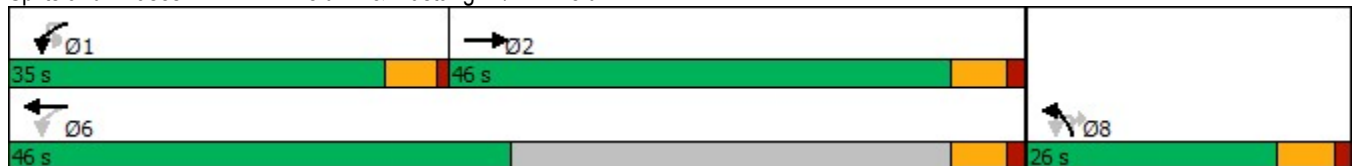


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases			6			8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	10.0		7.0	10.0	7.0	7.0
Minimum Split (s)	16.0		12.0	16.0	13.0	13.0
Total Split (s)	46.0		35.0	46.0	26.0	26.0
Total Split (%)	43.0%		32.7%	43.0%	24.3%	24.3%
Maximum Green (s)	40.0		30.0	40.0	20.0	20.0
Yellow Time (s)	4.5		4.0	4.5	4.5	4.5
All-Red Time (s)	1.5		1.0	1.5	1.5	1.5
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0		5.0	6.0	6.0	6.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?						
Vehicle Extension (s)	1.0		2.5	1.0	1.5	1.5
Recall Mode	Max		None	None	None	None
Act Effct Green (s)	40.6		60.5	59.5	9.9	9.9
Actuated g/C Ratio	0.50		0.74	0.73	0.12	0.12
v/c Ratio	0.36		0.70	0.08	0.37	0.83
Control Delay	13.9		10.7	3.7	36.2	14.8
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	13.9		10.7	3.7	36.2	14.8
LOS	B		B	A	D	B
Approach Delay	13.9			8.6	19.3	
Approach LOS	B			A	B	

Intersection Summary






















Area Type:	Other
Cycle Length:	107
Actuated Cycle Length:	81.6
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.83
Intersection Signal Delay:	14.2
Intersection LOS:	B
Intersection Capacity Utilization	84.7%
ICU Level of Service	E
Analysis Period (min)	15

Splits and Phases: 2: W Airfield Dr & Mustang Dr/N Airfield Dr



Lanes, Volumes, Timings
3: N Airfield Dr & Texan Trail

08/03/2022

												
Lane Group	SEU	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT
Lane Configurations												
Traffic Volume (vph)	1	170	7	506	3	2	5	379	460	5	1	77
Future Volume (vph)	1	170	7	506	3	2	5	379	460	5	1	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		215		0	0		0	295		295	280	
Storage Lanes		1		1	0		0	2		1	1	
Taper Length (ft)		100			0			100			65	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.97	0.95	1.00	1.00	0.95
Frt				0.850		0.932				0.850		
Flt Protected		0.950	0.956			0.985		0.950			0.950	
Satd. Flow (prot)	0	1618	1628	1524	0	1744	0	3367	3471	1553	1612	3223
Flt Permitted		0.950	0.956			0.985		0.950			0.950	
Satd. Flow (perm)	0	1618	1628	1524	0	1744	0	3367	3471	1553	1612	3223
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)				550		5				130		
Link Speed (mph)			45			25			45			45
Link Distance (ft)			611			324			1173			1060
Travel Time (s)			9.3			8.8			17.8			16.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	6%	6%	6%	0%	0%	0%	4%	4%	4%	12%	12%
Adj. Flow (vph)	1	185	8	550	3	2	5	412	500	5	1	84
Shared Lane Traffic (%)		48%										
Lane Group Flow (vph)	0	97	97	550	0	10	0	412	500	5	1	84
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)			38			24			58			38
Link Offset(ft)			0			0			0			0
Crosswalk Width(ft)			16			16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	15		9	15		9	15	
Number of Detectors	1	1	2	1	1	2		1	2	1	1	2
Detector Template	Left	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100		20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0		0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0		0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6		20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94			94			94
Detector 2 Size(ft)			6			6			6			6
Detector 2 Type			Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0			0.0			0.0
Turn Type	Split	Split	NA	Perm	Split	NA		Prot	NA	Perm	Prot	NA
Protected Phases	4	4	4		8	8		5	2		1	6

Lanes, Volumes, Timings
 3: N Airfield Dr & Texan Trail

08/03/2022



Lane Group	SWR
Lane Configurations	
Traffic Volume (vph)	28
Future Volume (vph)	28
Ideal Flow (vphpl)	1900
Storage Length (ft)	280
Storage Lanes	2
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1442
Flt Permitted	
Satd. Flow (perm)	1442
Right Turn on Red	Yes
Satd. Flow (RTOR)	140
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Heavy Vehicles (%)	12%
Adj. Flow (vph)	30
Shared Lane Traffic (%)	
Lane Group Flow (vph)	30
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	

Lanes, Volumes, Timings
3: N Airfield Dr & Texan Trail

08/03/2022

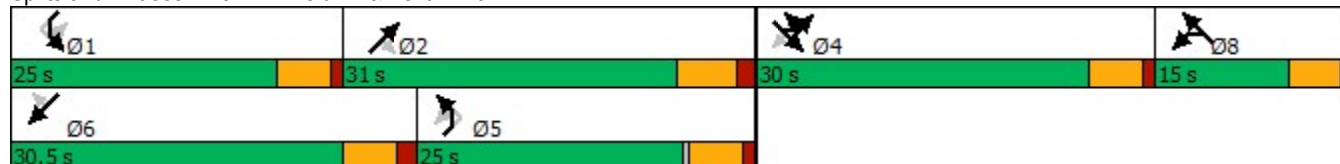


Lane Group	SEU	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT
Permitted Phases				4						2		
Detector Phase	4	4	4	4	8	8		5	2	2	1	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0		10.0	5.0	5.0	5.0	7.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0		15.0	11.0	11.0	10.0	12.5
Total Split (s)	30.0	30.0	30.0	30.0	15.0	15.0		25.0	31.0	31.0	25.0	30.5
Total Split (%)	29.7%	29.7%	29.7%	29.7%	14.9%	14.9%		24.8%	30.7%	30.7%	24.8%	30.2%
Maximum Green (s)	25.0	25.0	25.0	25.0	10.0	10.0		20.0	25.0	25.0	20.0	25.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.5	4.5	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.5	1.5	1.0	1.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0	5.0	5.0		5.0		5.0	6.0	6.0	5.0	5.5
Lead/Lag	Lead	Lead	Lead	Lead	Lag	Lag		Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	2.0
Recall Mode	None	None	None	None	None	None		None	Min	Min	None	Min
Act Effct Green (s)		7.6	7.6	7.6		5.2		11.2	22.0	22.0	5.2	7.5
Actuated g/C Ratio		0.17	0.17	0.17		0.12		0.26	0.50	0.50	0.12	0.17
v/c Ratio		0.35	0.35	0.77		0.05		0.48	0.29	0.01	0.01	0.15
Control Delay		20.3	20.2	10.3		18.8		17.4	10.0	0.0	23.0	19.5
Queue Delay		0.0	0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		20.3	20.2	10.3		18.8		17.4	10.0	0.0	23.0	19.5
LOS		C	C	B		B		B	A	A	C	B
Approach Delay			12.9			18.8			13.3			14.6
Approach LOS			B			B			B			B

Intersection Summary

Area Type:	Other
Cycle Length:	101
Actuated Cycle Length:	43.8
Natural Cycle:	50
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	13.2
Intersection LOS:	B
Intersection Capacity Utilization:	66.3%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 3: N Airfield Dr & Texan Trail





Lane Group	SWR
Permitted Phases	6
Detector Phase	6
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	12.5
Total Split (s)	30.5
Total Split (%)	30.2%
Maximum Green (s)	25.0
Yellow Time (s)	4.0
All-Red Time (s)	1.5
Lost Time Adjust (s)	0.0
Total Lost Time (s)	5.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.0
Recall Mode	Min
Act Effct Green (s)	7.5
Actuated g/C Ratio	0.17
v/c Ratio	0.08
Control Delay	0.5
Queue Delay	0.0
Total Delay	0.5
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings
4: W Airfield Dr & W 17th St (West)

08/03/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	54	2	86	0	1	12	1	32	641	5	10	516
Future Volume (vph)	54	2	86	0	1	12	1	32	641	5	10	516
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0		130		0	125	
Storage Lanes	1		0	0		0		1		0	1	
Taper Length (ft)	0			0				75			75	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95
Frt		0.853			0.875				0.999			0.998
Flt Protected	0.950							0.950			0.950	
Satd. Flow (prot)	1492	1339	0	0	1163	0	0	1671	3339	0	1703	3399
Flt Permitted	0.950							0.950			0.950	
Satd. Flow (perm)	1492	1339	0	0	1163	0	0	1671	3339	0	1703	3399
Link Speed (mph)		30			30				45			45
Link Distance (ft)		939			233				604			311
Travel Time (s)		21.3			5.3				9.2			4.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	21%	21%	21%	43%	43%	43%	8%	8%	8%	8%	6%	6%
Adj. Flow (vph)	59	2	93	0	1	13	1	35	697	5	11	561
Shared Lane Traffic (%)												
Lane Group Flow (vph)	59	95	0	0	14	0	0	36	702	0	11	568
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	Left	Left
Median Width(ft)		12			0				38			38
Link Offset(ft)		0			0				0			0
Crosswalk Width(ft)		16			16				16			16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	15	
Sign Control		Stop			Stop				Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	40.9%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings
 4: W Airfield Dr & W 17th St (West)

08/03/2022

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	6
Future Volume (vph)	6
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	0.95
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Heavy Vehicles (%)	6%
Adj. Flow (vph)	7
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Sign Control	
Intersection Summary	

Lanes, Volumes, Timings
5: W Airfield Dr & W 17th St (East)

08/03/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		↕	↗	↘		↗		↘	↕			↘
Traffic Volume (vph)	12	0	1	8	0	36	1	63	635	8	1	27
Future Volume (vph)	12	0	1	8	0	36	1	63	635	8	1	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		165		130		0		325
Storage Lanes	0		1	1		1		1		0		1
Taper Length (ft)	0			0				75				65
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	0.95	1.00
Frt			0.850			0.850			0.998			
Flt Protected		0.950		0.950				0.950				0.950
Satd. Flow (prot)	0	1805	1615	1253	0	1122	0	1719	3431	0	0	1703
Flt Permitted		0.950		0.950				0.424				0.383
Satd. Flow (perm)	0	1805	1615	1253	0	1122	0	767	3431	0	0	687
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			101			101			1			
Link Speed (mph)		30			30				45			
Link Distance (ft)		141			907				311			
Travel Time (s)		3.2			20.6				4.7			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	44%	44%	44%	5%	5%	5%	5%	6%	6%
Adj. Flow (vph)	13	0	1	9	0	39	1	68	690	9	1	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	1	9	0	39	0	69	699	0	0	30
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		18			12				38			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Number of Detectors	1	2	1	1		1	1	1	2		1	1
Detector Template	Left	Thru	Right	Left		Right	Left	Left	Thru		Left	Left
Leading Detector (ft)	20	100	20	20		20	20	20	100		20	20
Trailing Detector (ft)	0	0	0	0		0	0	0	0		0	0
Detector 1 Position(ft)	0	0	0	0		0	0	0	0		0	0
Detector 1 Size(ft)	20	6	20	20		20	20	20	6		20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)		94							94			
Detector 2 Size(ft)		6							6			
Detector 2 Type		Cl+Ex							Cl+Ex			
Detector 2 Channel												
Detector 2 Extend (s)		0.0							0.0			
Turn Type	Split	NA	Perm	Prot		Perm	custom	pm+pt	NA		custom	pm+pt
Protected Phases	4	4		8				5	2			1

Lanes, Volumes, Timings
5: W Airfield Dr & W 17th St (East)

08/03/2022



Lane Group	SBT	SBR
Lane Configurations	↑↑	
Traffic Volume (vph)	522	1
Future Volume (vph)	522	1
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	0.95	0.95
Frt		
Flt Protected		
Satd. Flow (prot)	3406	0
Flt Permitted		
Satd. Flow (perm)	3406	0
Right Turn on Red		Yes
Satd. Flow (RTOR)		
Link Speed (mph)	45	
Link Distance (ft)	666	
Travel Time (s)	10.1	
Peak Hour Factor	0.92	0.92
Heavy Vehicles (%)	6%	6%
Adj. Flow (vph)	567	1
Shared Lane Traffic (%)		
Lane Group Flow (vph)	568	0
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	38	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	
Detector Template	Thru	
Leading Detector (ft)	100	
Trailing Detector (ft)	0	
Detector 1 Position(ft)	0	
Detector 1 Size(ft)	6	
Detector 1 Type	Cl+Ex	
Detector 1 Channel		
Detector 1 Extend (s)	0.0	
Detector 1 Queue (s)	0.0	
Detector 1 Delay (s)	0.0	
Detector 2 Position(ft)	94	
Detector 2 Size(ft)	6	
Detector 2 Type	Cl+Ex	
Detector 2 Channel		
Detector 2 Extend (s)	0.0	
Turn Type	NA	
Protected Phases	6	

Lanes, Volumes, Timings
5: W Airfield Dr & W 17th St (East)

08/03/2022

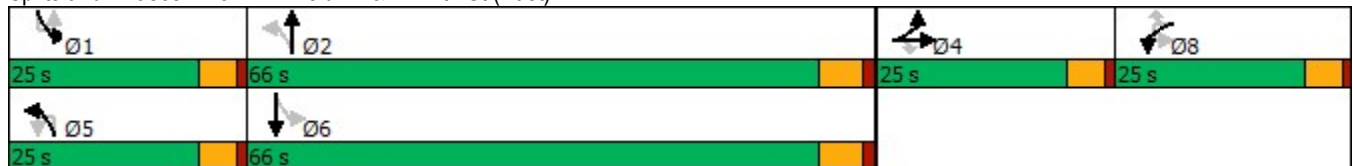


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Permitted Phases			4			8	5	2			1	6
Detector Phase	4	4	4	8		8	5	5	2		1	1
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0		7.0	7.0	7.0	20.0		7.0	7.0
Minimum Split (s)	12.0	12.0	12.0	12.0		12.0	12.0	12.0	26.0		12.0	12.0
Total Split (s)	25.0	25.0	25.0	25.0		25.0	25.0	25.0	66.0		25.0	25.0
Total Split (%)	17.7%	17.7%	17.7%	17.7%		17.7%	17.7%	17.7%	46.8%		17.7%	17.7%
Maximum Green (s)	20.0	20.0	20.0	20.0		20.0	20.0	20.0	60.0		20.0	20.0
Yellow Time (s)	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.5		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.5		1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0	0.0			0.0
Total Lost Time (s)		5.0	5.0	5.0		5.0		5.0	6.0			5.0
Lead/Lag	Lead	Lead	Lead	Lag		Lag	Lead	Lead	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	1.0	1.0	1.0	1.0		1.0	1.0	1.0	2.0		1.0	1.0
Recall Mode	None	None	None	None		None	None	None	Max		None	None
Act Effct Green (s)		7.1	7.1	7.1		7.1		71.8	69.6			70.6
Actuated g/C Ratio		0.08	0.08	0.08		0.08		0.79	0.77			0.78
v/c Ratio		0.09	0.00	0.09		0.22		0.10	0.27			0.05
Control Delay		45.2	0.0	46.0		2.7		3.8	7.1			3.8
Queue Delay		0.0	0.0	0.0		0.0		0.0	0.0			0.0
Total Delay		45.2	0.0	46.0		2.7		3.8	7.1			3.8
LOS		D	A	D		A		A	A			A
Approach Delay		42.0				10.8			6.8			
Approach LOS		D				B			A			

Intersection Summary

Area Type:	Other
Cycle Length:	141
Actuated Cycle Length:	90.6
Natural Cycle:	65
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.27
Intersection Signal Delay:	7.4
Intersection LOS:	A
Intersection Capacity Utilization:	52.8%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 5: W Airfield Dr & W 17th St (East)



Lanes, Volumes, Timings
 5: W Airfield Dr & W 17th St (East)























08/03/2022



Lane Group	SBT	SBR
Permitted Phases		
Detector Phase	6	
Switch Phase		
Minimum Initial (s)	20.0	
Minimum Split (s)	26.0	
Total Split (s)	66.0	
Total Split (%)	46.8%	
Maximum Green (s)	60.0	
Yellow Time (s)	4.5	
All-Red Time (s)	1.5	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	6.0	
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	2.0	
Recall Mode	Max	
Act Effct Green (s)	65.5	
Actuated g/C Ratio	0.72	
v/c Ratio	0.23	
Control Delay	7.2	
Queue Delay	0.0	
Total Delay	7.2	
LOS	A	
Approach Delay	7.1	
Approach LOS	A	
Intersection Summary		

Lanes, Volumes, Timings
6: W Airfield Dr & W 19th St

08/03/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	2	55	0	44	20	634	23	35	537	31
Future Volume (vph)	1	0	2	55	0	44	20	634	23	35	537	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		295	205		0	215		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	0			0			50			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.850			0.850			0.995			0.992	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1615	0	1687	1509	0	1687	3357	0	1687	3347	0
Flt Permitted							0.407			0.356		
Satd. Flow (perm)	1900	1615	0	1776	1509	0	723	3357	0	632	3347	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		447			453			5			8	
Link Speed (mph)		25			35			45			45	
Link Distance (ft)		172			3035			1215			604	
Travel Time (s)		4.7			59.1			18.4			9.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Adj. Flow (vph)	1	0	2	60	0	48	22	689	25	38	584	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	2	0	60	48	0	22	714	0	38	618	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			38			38	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	

Lanes, Volumes, Timings
6: W Airfield Dr & W 19th St

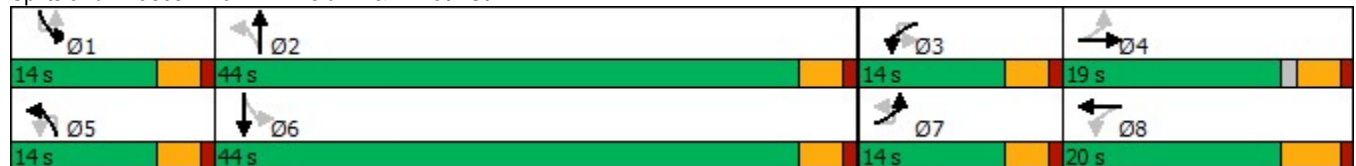
08/03/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	9.0	11.0		9.0	12.0		9.0	19.0		9.0	19.0	
Total Split (s)	14.0	19.0		14.0	20.0		14.0	44.0		14.0	44.0	
Total Split (%)	15.2%	20.7%		15.2%	21.7%		15.2%	47.8%		15.2%	47.8%	
Maximum Green (s)	10.0	15.0		10.0	15.0		10.0	40.0		10.0	40.0	
Yellow Time (s)	3.0	3.0		3.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		4.0	5.0		4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	6.4	7.8		7.4	7.8		23.4	25.8		23.4	25.8	
Actuated g/C Ratio	0.19	0.23		0.22	0.23		0.69	0.77		0.69	0.77	
v/c Ratio	0.00	0.00		0.16	0.07		0.03	0.28		0.06	0.24	
Control Delay	11.0	0.0		11.1	0.2		4.9	6.1		4.8	5.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	11.0	0.0		11.1	0.2		4.9	6.1		4.8	5.9	
LOS	B	A		B	A		A	A		A	A	
Approach Delay		3.7			6.2			6.0			5.8	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type:	Other
Cycle Length:	92
Actuated Cycle Length:	33.7
Natural Cycle:	50
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.28
Intersection Signal Delay:	5.9
Intersection LOS:	A
Intersection Capacity Utilization:	43.0%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 6: W Airfield Dr & W 19th St



Lanes, Volumes, Timings
7: W Airfield Dr & W 21st St

08/03/2022



Lane Group	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Lane Configurations												
Traffic Volume (vph)	1	26	481	13	1	0	622	28	1	0	1	41
Future Volume (vph)	1	26	481	13	1	0	622	28	1	0	1	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		190		275		175		125	0		0	0
Storage Lanes		1		1		1		1	0		0	0
Taper Length (ft)		100				50			0			0
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00
Frt				0.850				0.850		0.932		
Flt Protected		0.950				0.950				0.976		
Satd. Flow (prot)	0	1671	3343	1495	0	1703	3406	1524	0	1440	0	0
Flt Permitted		0.690										
Satd. Flow (perm)	0	1214	3343	1495	0	1792	3406	1524	0	1476	0	0
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				104				104		113		
Link Speed (mph)			45				45			25		
Link Distance (ft)			498				712			197		
Travel Time (s)			7.5				10.8			5.4		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	8%	8%	8%	6%	6%	6%	6%	20%	20%	20%	7%
Adj. Flow (vph)	1	28	523	14	1	0	676	30	1	0	1	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	29	523	14	0	1	676	30	0	2	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)			65				40			17		
Link Offset(ft)			0				0			0		
Crosswalk Width(ft)			16				16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Number of Detectors	1	1	2	1	0	1	2	1	1	2		1
Detector Template	Left	Left	Thru	Right		Left	Thru	Right	Left	Thru		Left
Leading Detector (ft)	20	20	100	20	0	20	100	20	20	100		20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0		0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0		0
Detector 1 Size(ft)	20	20	6	20	0	20	6	20	20	6		20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Detector 2 Position(ft)			94				94			94		
Detector 2 Size(ft)			6				6			6		
Detector 2 Type			Cl+Ex				Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0				0.0			0.0		
Turn Type	custom	Prot	NA	Perm	custom	Prot	NA	Perm	Perm	NA		Perm
Protected Phases		1	6			5	2			4		

Lanes, Volumes, Timings
7: W Airfield Dr & W 21st St

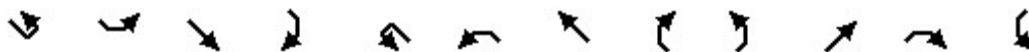
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Lane Group	SWT	SWR
Lane Configurations	↖ ↗	↖ ↗
Traffic Volume (vph)	1	75
Future Volume (vph)	1	75
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt		0.850
Flt Protected	0.953	
Satd. Flow (prot)	1692	1509
Flt Permitted	0.730	
Satd. Flow (perm)	1296	1509
Right Turn on Red		Yes
Satd. Flow (RTOR)		113
Link Speed (mph)	30	
Link Distance (ft)	674	
Travel Time (s)	15.3	
Peak Hour Factor	0.92	0.92
Heavy Vehicles (%)	7%	7%
Adj. Flow (vph)	1	82
Shared Lane Traffic (%)		
Lane Group Flow (vph)	46	82
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	32	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Detector 1 Position(ft)	0	0
Detector 1 Size(ft)	6	20
Detector 1 Type	Cl+Ex	Cl+Ex
Detector 1 Channel		
Detector 1 Extend (s)	0.0	0.0
Detector 1 Queue (s)	0.0	0.0
Detector 1 Delay (s)	0.0	0.0
Detector 2 Position(ft)	94	
Detector 2 Size(ft)	6	
Detector 2 Type	Cl+Ex	
Detector 2 Channel		
Detector 2 Extend (s)	0.0	
Turn Type	NA	Perm
Protected Phases	8	

Lanes, Volumes, Timings
7: W Airfield Dr & W 21st St

08/03/2022

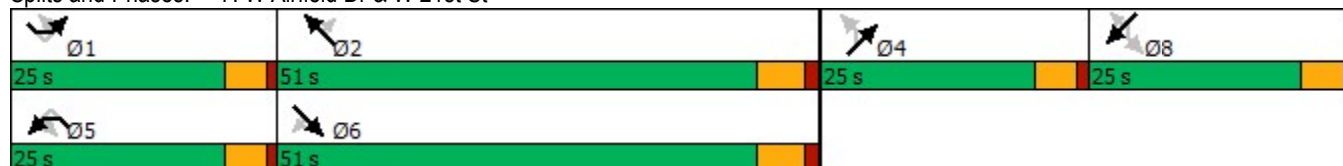


Lane Group	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Permitted Phases	1			6	5				2	4		8
Detector Phase	1	1	6	6	5	5	2	2	4	4		8
Switch Phase												
Minimum Initial (s)	10.0	10.0	15.0	15.0	7.0	7.0	15.0	15.0	7.0	7.0		10.0
Minimum Split (s)	15.0	15.0	21.0	21.0	12.0	12.0	21.0	21.0	12.0	12.0		15.0
Total Split (s)	25.0	25.0	51.0	51.0	25.0	25.0	51.0	51.0	25.0	25.0		25.0
Total Split (%)	19.8%	19.8%	40.5%	40.5%	19.8%	19.8%	40.5%	40.5%	19.8%	19.8%		19.8%
Maximum Green (s)	20.0	20.0	45.0	45.0	20.0	20.0	45.0	45.0	20.0	20.0		20.0
Yellow Time (s)	4.0	4.0	4.5	4.5	4.0	4.0	4.5	4.5	4.0	4.0		4.0
All-Red Time (s)	1.0	1.0	1.5	1.5	1.0	1.0	1.5	1.5	1.0	1.0		1.0
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0			0.0	
Total Lost Time (s)		5.0	6.0	6.0			5.0	6.0			5.0	
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	1.5	1.5	2.0	2.0	1.5	1.5	2.0	2.0	1.0	1.0		1.0
Recall Mode	None	None	Max	Max	None	None	Max	Max	None	None		None
Act Effct Green (s)		13.2	57.1	57.1			7.2	51.5			7.2	
Actuated g/C Ratio		0.17	0.74	0.74			0.09	0.66			0.09	
v/c Ratio		0.14	0.21	0.01			0.01	0.30			0.01	
Control Delay		32.5	5.8	0.0			41.0	10.7			0.0	
Queue Delay		0.0	0.0	0.0			0.0	0.0			0.0	
Total Delay		32.5	5.8	0.0			41.0	10.7			0.0	
LOS		C	A	A			D	B			A	
Approach Delay			7.0				10.3					
Approach LOS			A				B					

Intersection Summary

Area Type:	Other
Cycle Length:	126
Actuated Cycle Length:	77.6
Natural Cycle:	65
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.30
Intersection Signal Delay:	9.7
Intersection LOS:	A
Intersection Capacity Utilization:	49.9%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 7: W Airfield Dr & W 21st St



Lanes, Volumes, Timings
7: W Airfield Dr & W 21st St

08/03/2022



Lane Group	SWT	SWR
Permitted Phases		8
Detector Phase	8	8
Switch Phase		
Minimum Initial (s)	10.0	10.0
Minimum Split (s)	15.0	15.0
Total Split (s)	25.0	25.0
Total Split (%)	19.8%	19.8%
Maximum Green (s)	20.0	20.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	5.0	5.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	1.0	1.0
Recall Mode	None	None
Act Effct Green (s)	10.4	10.4
Actuated g/C Ratio	0.13	0.13
v/c Ratio	0.26	0.27
Control Delay	40.2	6.3
Queue Delay	0.0	0.0
Total Delay	40.2	6.3
LOS	D	A
Approach Delay	18.5	
Approach LOS	B	
Intersection Summary		

Lanes, Volumes, Timings
8: W Airfield Dr & W 23rd St

08/03/2022



Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	18	18	787	90	1	52	328
Future Volume (vph)	18	18	787	90	1	52	328
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0		150	
Storage Lanes	1	0		1		1	
Taper Length (ft)	0					50	
Lane Util. Factor	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt	0.932			0.850			
Flt Protected	0.976					0.950	
Satd. Flow (prot)	1372	0	3438	1538	0	1641	3282
Flt Permitted	0.976					0.275	
Satd. Flow (perm)	1372	0	3438	1538	0	475	3282
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)	20			98			
Link Speed (mph)	25		45				45
Link Distance (ft)	1307		627				530
Travel Time (s)	35.6		9.5				8.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	26%	26%	5%	5%	10%	10%	10%
Adj. Flow (vph)	20	20	855	98	1	57	357
Shared Lane Traffic (%)							
Lane Group Flow (vph)	40	0	855	98	0	58	357
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	R NA	Left	Left
Median Width(ft)	12		18				28
Link Offset(ft)	0		0				0
Crosswalk Width(ft)	16		16				16
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	9	15	
Number of Detectors	1		2	1	1	1	2
Detector Template	Left		Thru	Right	Left	Left	Thru
Leading Detector (ft)	20		100	20	20	20	100
Trailing Detector (ft)	0		0	0	0	0	0
Detector 1 Position(ft)	0		0	0	0	0	0
Detector 1 Size(ft)	20		6	20	20	20	6
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel							
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94				94
Detector 2 Size(ft)			6				6
Detector 2 Type			Cl+Ex				Cl+Ex
Detector 2 Channel							
Detector 2 Extend (s)			0.0				0.0
Turn Type	Prot		NA	Perm	custom	pm+pt	NA
Protected Phases	8		2			1	6

Lanes, Volumes, Timings
8: W Airfield Dr & W 23rd St

08/03/2022

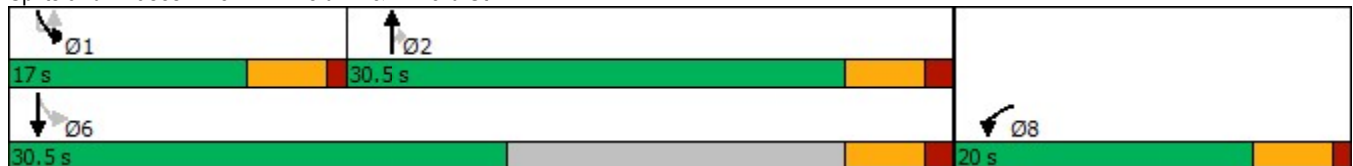


Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Permitted Phases				2	1	6	
Detector Phase	8		2	2	1	1	6
Switch Phase							
Minimum Initial (s)	7.0		15.0	15.0	7.0	7.0	15.0
Minimum Split (s)	12.0		20.5	20.5	12.0	12.0	20.5
Total Split (s)	20.0		30.5	30.5	17.0	17.0	30.5
Total Split (%)	29.6%		45.2%	45.2%	25.2%	25.2%	45.2%
Maximum Green (s)	15.0		25.0	25.0	12.0	12.0	25.0
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		1.5	1.5	1.0	1.0	1.5
Lost Time Adjust (s)	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0		5.5	5.5		5.0	5.5
Lead/Lag			Lag	Lag	Lead	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0		2.5	2.5	2.0	2.0	2.5
Recall Mode	None		Max	Max	None	None	Max
Act Effct Green (s)	7.4		36.2	36.2		36.8	40.2
Actuated g/C Ratio	0.16		0.78	0.78		0.80	0.87
v/c Ratio	0.17		0.32	0.08		0.10	0.13
Control Delay	15.3		6.3	2.7		2.6	2.0
Queue Delay	0.0		0.0	0.0		0.0	0.0
Total Delay	15.3		6.3	2.7		2.6	2.0
LOS	B		A	A		A	A
Approach Delay	15.3		5.9				2.1
Approach LOS	B		A				A

Intersection Summary

Area Type:	Other
Cycle Length:	67.5
Actuated Cycle Length:	46.2
Natural Cycle:	45
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.32
Intersection Signal Delay:	5.1
Intersection LOS:	A
Intersection Capacity Utilization:	46.3%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 8: W Airfield Dr & W 23rd St



Lanes, Volumes, Timings
9: W Airfield Dr & E Glade Rd

08/03/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	271	220	55	630	220	91
Future Volume (vph)	271	220	55	630	220	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	300	210			200
Storage Lanes	1	1	1			1
Taper Length (ft)	0		100			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1787	1599	1703	3406	3282	1468
Flt Permitted	0.950		0.557			
Satd. Flow (perm)	1787	1599	998	3406	3282	1468
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		239				99
Link Speed (mph)	35			45	45	
Link Distance (ft)	1218			1121	367	
Travel Time (s)	23.7			17.0	5.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	6%	6%	10%	10%
Adj. Flow (vph)	295	239	60	685	239	99
Shared Lane Traffic (%)						
Lane Group Flow (vph)	295	239	60	685	239	99
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			15	13	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (ft)	20	20	20	100	100	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	20	6	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)				94	94	
Detector 2 Size(ft)				6	6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	Prot	pm+pt	NA	NA	Perm
Protected Phases	4	4	5	2	6	

Lanes, Volumes, Timings
 9: W Airfield Dr & E Glade Rd

08/03/2022

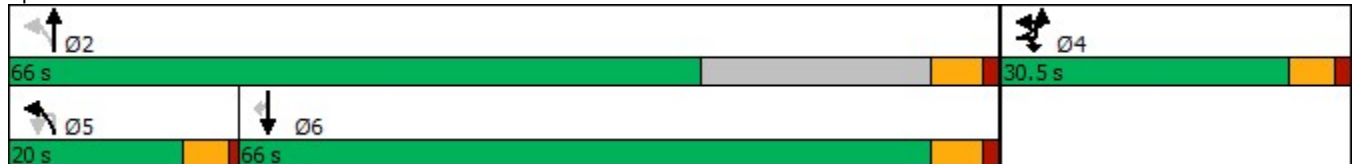


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Permitted Phases			2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	2.0	20.0	20.0
Minimum Split (s)	12.5	12.5	12.0	26.0	26.0	26.0
Total Split (s)	30.5	30.5	20.0	66.0	66.0	66.0
Total Split (%)	26.2%	26.2%	17.2%	56.7%	56.7%	56.7%
Maximum Green (s)	25.0	25.0	15.0	60.0	60.0	60.0
Yellow Time (s)	4.0	4.0	4.0	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.0	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	2.0	2.0	1.5	1.5	1.5	1.5
Recall Mode	None	None	None	Max	Max	Max
Act Effect Green (s)	20.5	20.5	70.9	69.9	60.6	60.6
Actuated g/C Ratio	0.20	0.20	0.70	0.69	0.59	0.59
v/c Ratio	0.82	0.47	0.08	0.29	0.12	0.11
Control Delay	58.4	7.8	5.9	7.1	10.7	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.4	7.8	5.9	7.1	10.7	2.7
LOS	E	A	A	A	B	A
Approach Delay	35.8			7.0	8.3	
Approach LOS	D			A	A	

Intersection Summary

Area Type:	Other
Cycle Length:	116.5
Actuated Cycle Length:	102
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	16.8
Intersection LOS:	B
Intersection Capacity Utilization	51.3%
ICU Level of Service	A
Analysis Period (min)	15

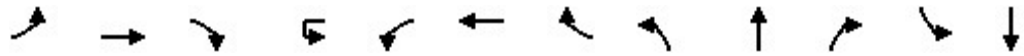
Splits and Phases: 9: W Airfield Dr & E Glade Rd



HCM 6th Signalized Intersection Summary

1: S Main St & Mustang Dr

08/02/2022



Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↔	↑↑	↗		↔	↑↑	↗	↔	↑↑		↔	↑
Traffic Volume (veh/h)	356	487	54	1	95	58	148	6	25	2	145	77
Future Volume (veh/h)	356	487	54	1	95	58	148	6	25	2	145	77
Initial Q (Qb), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870		1678	1678	1678	981	981	981	1811	1811
Adj Flow Rate, veh/h	387	529	0		103	63	0	7	27	2	158	84
Peak Hour Factor	0.92	0.92	0.92		0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2		15	15	15	62	62	62	6	6
Cap, veh/h	822	1526			471	1097		222	214	16	407	294
Arrive On Green	0.16	0.43	0.00		0.08	0.34	0.00	0.06	0.12	0.12	0.10	0.16
Sat Flow, veh/h	1781	3554	1585		1598	3188	1422	934	1761	129	1725	1811
Grp Volume(v), veh/h	387	529	0		103	63	0	7	14	15	158	84
Grp Sat Flow(s),veh/h/ln	1781	1777	1585		1598	1594	1422	934	932	958	1725	1811
Q Serve(g_s), s	10.6	8.1	0.0		3.2	1.1	0.0	0.5	1.1	1.1	6.4	3.3
Cycle Q Clear(g_c), s	10.6	8.1	0.0		3.2	1.1	0.0	0.5	1.1	1.1	6.4	3.3
Prop In Lane	1.00		1.00		1.00		1.00	1.00		0.13	1.00	
Lane Grp Cap(c), veh/h	822	1526			471	1097		222	113	117	407	294
V/C Ratio(X)	0.47	0.35			0.22	0.06		0.03	0.12	0.13	0.39	0.29
Avail Cap(c_a), veh/h	1078	1526			641	1097		246	229	235	550	622
HCM Platoon Ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00		1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.5	15.6	0.0		14.6	17.9	0.0	27.5	31.9	31.9	26.8	30.0
Incr Delay (d2), s/veh	0.3	0.6	0.0		0.2	0.0	0.0	0.0	0.2	0.2	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.4	5.5	0.0		1.9	0.7	0.0	0.2	0.4	0.5	4.6	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.8	16.2	0.0		14.8	17.9	0.0	27.5	32.1	32.1	27.3	30.2
LnGrp LOS	B	B			B	B		C	C	C	C	C
Approach Vol, veh/h		916				166			36			331
Approach Delay, s/veh		14.4				15.9			31.2			28.9
Approach LOS		B				B			C			C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.3	41.0	9.9	19.2	18.3	34.0	13.3	15.9				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green Setting (Gmax), s	15.0	35.0	7.0	28.0	25.0	25.0	15.0	20.0				
Max Q Clear Time (g_c+I1), s	5.2	10.1	2.5	6.2	12.6	3.1	8.4	3.1				
Green Ext Time (p_c), s	0.1	1.1	0.0	0.2	0.7	0.1	0.2	0.0				

Intersection Summary

HCM 6th Ctrl Delay	18.3
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

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

HCM 6th Signalized Intersection Summary
 1: S Main St & Mustang Dr

08/02/2022

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	82
Future Volume (veh/h)	82
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1811
Adj Flow Rate, veh/h	89
Peak Hour Factor	0.92
Percent Heavy Veh, %	6
Cap, veh/h	249
Arrive On Green	0.16
Sat Flow, veh/h	1535
Grp Volume(v), veh/h	89
Grp Sat Flow(s),veh/h/ln	1535
Q Serve(g_s), s	4.2
Cycle Q Clear(g_c), s	4.2
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	249
V/C Ratio(X)	0.36
Avail Cap(c_a), veh/h	527
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	30.3
Incr Delay (d2), s/veh	0.3
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	2.8
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	30.7
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

HCM 6th Signalized Intersection Summary

2: W Airfield Dr & Mustang Dr/N Airfield Dr

08/02/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	↵
Traffic Volume (veh/h)	425	141	407	172	137	512
Future Volume (veh/h)	425	141	407	172	137	512
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	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	1870	1870	1781	1781	1811	1811
Adj Flow Rate, veh/h	462	0	442	187	149	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	8	8	6	6
Cap, veh/h	1915		755	2533	301	
Arrive On Green	0.54	0.00	0.14	0.75	0.09	0.00
Sat Flow, veh/h	3741	0	1697	3474	3346	1535
Grp Volume(v), veh/h	462	0	442	187	149	0
Grp Sat Flow(s),veh/h/ln	1777	0	1697	1692	1673	1535
Q Serve(g_s), s	5.1	0.0	7.6	1.1	3.1	0.0
Cycle Q Clear(g_c), s	5.1	0.0	7.6	1.1	3.1	0.0
Prop In Lane		0.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1915		755	2533	301	
V/C Ratio(X)	0.24		0.59	0.07	0.50	
Avail Cap(c_a), veh/h	1915		1199	2533	902	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	9.1	0.0	5.0	2.5	32.2	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.5	0.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.0	0.0	2.8	0.3	2.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.4	0.0	5.5	2.5	32.6	0.0
LnGrp LOS	A		A	A	C	
Approach Vol, veh/h	462			629	149	
Approach Delay, s/veh	9.4			4.6	32.6	
Approach LOS	A			A	C	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	15.6	46.0			61.6	12.7
Change Period (Y+Rc), s	5.0	6.0			6.0	6.0
Max Green Setting (Gmax), s	30.0	40.0			40.0	20.0
Max Q Clear Time (g_c+I1), s	9.6	7.1			3.1	5.1
Green Ext Time (p_c), s	0.9	1.0			0.4	0.1

Intersection Summary

HCM 6th Ctrl Delay		9.7
HCM 6th LOS		A

Notes

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

HCM 6th Signalized Intersection Summary
 3: N Airfield Dr & Texan Trail

08/02/2022



Movement	SEU	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT
Lane Configurations		↔	↔	↔		↔		↔	↔	↔	↔	↔
Traffic Volume (veh/h)	1	170	7	506	3	2	5	379	460	5	1	77
Future Volume (veh/h)	1	170	7	506	3	2	5	379	460	5	1	77
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No			No			No			No
Adj Sat Flow, veh/h/ln		1811	1811	1811	1900	1900	1900	1841	1841	1841	1722	1722
Adj Flow Rate, veh/h		191	0	550	3	2	5	412	500	5	1	84
Peak Hour Factor		0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %		6	6	6	0	0	0	4	4	4	12	12
Cap, veh/h		1310	0	583	7	4	11	536	961	429	3	362
Arrive On Green		0.38	0.00	0.38	0.01	0.01	0.01	0.16	0.27	0.27	0.00	0.11
Sat Flow, veh/h		3450	0	1535	516	344	860	3401	3497	1560	1640	3272
Grp Volume(v), veh/h		191	0	550	10	0	0	412	500	5	1	84
Grp Sat Flow(s),veh/h/ln		1725	0	1535	1719	0	0	1700	1749	1560	1640	1636
Q Serve(g_s), s		2.3	0.0	21.9	0.4	0.0	0.0	7.4	7.7	0.1	0.0	1.5
Cycle Q Clear(g_c), s		2.3	0.0	21.9	0.4	0.0	0.0	7.4	7.7	0.1	0.0	1.5
Prop In Lane		1.00		1.00	0.30		0.50	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h		1310	0	583	22	0	0	536	961	429	3	362
V/C Ratio(X)		0.15	0.00	0.94	0.46	0.00	0.00	0.77	0.52	0.01	0.39	0.23
Avail Cap(c_a), veh/h		1361	0	606	271	0	0	1074	1380	616	518	1291
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)		1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		12.9	0.0	19.0	31.1	0.0	0.0	25.6	19.4	16.7	31.6	25.7
Incr Delay (d2), s/veh		0.0	0.0	22.7	5.4	0.0	0.0	0.9	0.2	0.0	31.4	0.1
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln		1.3	0.0	16.1	0.3	0.0	0.0	4.9	4.9	0.1	0.1	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		12.9	0.0	41.7	36.5	0.0	0.0	26.5	19.6	16.7	63.0	25.8
LnGrp LOS		B	A	D	D	A	A	C	B	B	E	C
Approach Vol, veh/h			741			10			917			85
Approach Delay, s/veh			34.3			36.5			22.7			26.3
Approach LOS			C			D			C			C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	23.4		29.1	16.0	12.5		5.8				
Change Period (Y+Rc), s	5.0	6.0		5.0	6.0	* 5.5		5.0				
Max Green Setting (Gmax), s	20.0	25.0		25.0	20.0	* 25		10.0				
Max Q Clear Time (g_c+I1), s	2.0	9.7		23.9	9.4	3.5		2.4				
Green Ext Time (p_c), s	0.0	1.0		0.1	0.2	0.2		0.0				

Intersection Summary

HCM 6th Ctrl Delay	27.8
HCM 6th LOS	C

Notes

- User approved volume balancing among the lanes for turning movement.
- 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
 3: N Airfield Dr & Texan Trail

08/02/2022



Movement	SWR
Lane Configurations	
Traffic Volume (veh/h)	28
Future Volume (veh/h)	28
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1722
Adj Flow Rate, veh/h	0
Peak Hour Factor	0.92
Percent Heavy Veh, %	12
Cap, veh/h	
Arrive On Green	0.00
Sat Flow, veh/h	1459
Grp Volume(v), veh/h	0
Grp Sat Flow(s),veh/h/ln	1459
Q Serve(g_s), s	0.0
Cycle Q Clear(g_c), s	0.0
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	
V/C Ratio(X)	
Avail Cap(c_a), veh/h	
HCM Platoon Ratio	1.00
Upstream Filter(l)	0.00
Uniform Delay (d), s/veh	0.0
Incr Delay (d2), s/veh	0.0
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	0.0
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	0.0
LnGrp LOS	
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	
Unsignalized Delay for [SWR] is excluded from calculations of the approach delay and intersection delay.	

HCM 6th Signalized Intersection Summary
5: W Airfield Dr & W 17th St (East)

08/02/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		↔	↔	↔		↔		↔	↔			↔
Traffic Volume (veh/h)	12	0	1	8	0	36	1	63	635	8	1	27
Future Volume (veh/h)	12	0	1	8	0	36	1	63	635	8	1	27
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	1900	1248	0	1248		1826	1826	1826		1811
Adj Flow Rate, veh/h	13	0	1	9	0	39		68	690	9		29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		0.92	0.92	0.92		0.92
Percent Heavy Veh, %	0	0	0	44	0	44		5	5	5		6
Cap, veh/h	42	0	37	0	0	0		750	2476	32		685
Arrive On Green	0.02	0.00	0.02	0.00	0.00	0.00		0.07	0.71	0.71		0.08
Sat Flow, veh/h	1810	0	1610		0			1739	3507	46		1725
Grp Volume(v), veh/h	13	0	1		0.0			68	341	358		29
Grp Sat Flow(s),veh/h/ln	1810	0	1610					1739	1735	1818		1725
Q Serve(g_s), s	0.6	0.0	0.1					0.8	6.1	6.1		0.3
Cycle Q Clear(g_c), s	0.6	0.0	0.1					0.8	6.1	6.1		0.3
Prop In Lane	1.00		1.00					1.00		0.03		1.00
Lane Grp Cap(c), veh/h	42	0	37					750	1225	1284		685
V/C Ratio(X)	0.31	0.00	0.03					0.09	0.28	0.28		0.04
Avail Cap(c_a), veh/h	426	0	379					1045	1225	1284		949
HCM Platoon Ratio	1.00	1.00	1.00					1.00	1.00	1.00		1.00
Upstream Filter(l)	1.00	0.00	1.00					1.00	1.00	1.00		1.00
Uniform Delay (d), s/veh	40.8	0.0	40.6					2.4	4.6	4.6		2.2
Incr Delay (d2), s/veh	1.5	0.0	0.1					0.0	0.6	0.5		0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0					0.0	0.0	0.0		0.0
%ile BackOfQ(95%),veh/ln	0.5	0.0	0.0					0.2	2.9	3.0		0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.4	0.0	40.7					2.4	5.1	5.1		2.2
LnGrp LOS	D	A	D					A	A	A		A
Approach Vol, veh/h		14							767			
Approach Delay, s/veh		42.2							4.9			
Approach LOS		D							A			
Timer - Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	12.0	66.0		7.0	10.6	67.4						
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0						
Max Green Setting (Gmax), s	20.0	60.0		20.0	20.0	60.0						
Max Q Clear Time (g_c+I1), s	2.3	8.1		2.6	2.8	6.5						
Green Ext Time (p_c), s	0.0	2.5		0.0	0.0	1.9						

Intersection Summary

HCM 6th Ctrl Delay		5.0	
HCM 6th LOS		A	

Notes

User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
 5: W Airfield Dr & W 17th St (East)

08/02/2022



Movement	SBT	SBR
Lane Configurations	↑↑	
Traffic Volume (veh/h)	522	1
Future Volume (veh/h)	522	1
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	1811	1811
Adj Flow Rate, veh/h	567	1
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	6	6
Cap, veh/h	2547	4
Arrive On Green	0.72	0.72
Sat Flow, veh/h	3524	6
Grp Volume(v), veh/h	277	291
Grp Sat Flow(s),veh/h/ln	1721	1810
Q Serve(g_s), s	4.5	4.5
Cycle Q Clear(g_c), s	4.5	4.5
Prop In Lane		0.00
Lane Grp Cap(c), veh/h	1243	1308
V/C Ratio(X)	0.22	0.22
Avail Cap(c_a), veh/h	1243	1308
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	1.00	1.00
Uniform Delay (d), s/veh	3.9	3.9
Incr Delay (d2), s/veh	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	2.1
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	4.3	4.3
LnGrp LOS	A	A
Approach Vol, veh/h	597	
Approach Delay, s/veh	4.2	
Approach LOS	A	
Timer - Assigned Phs		

HCM 6th Signalized Intersection Summary

6: W Airfield Dr & W 19th St

08/02/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔		↔	↔		↔	↕		↔	↕	
Traffic Volume (veh/h)	1	0	2	55	0	44	20	634	23	35	537	31
Future Volume (veh/h)	1	0	2	55	0	44	20	634	23	35	537	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1796	1796	1796	1796	1796	1796	1796	1796	1796
Adj Flow Rate, veh/h	1	0	2	60	0	48	22	689	25	38	584	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	7	7	7	7	7	7	7	7	7
Cap, veh/h	294	0	123	391	0	207	440	1290	47	418	1312	76
Arrive On Green	0.00	0.00	0.08	0.06	0.00	0.14	0.03	0.38	0.38	0.04	0.40	0.40
Sat Flow, veh/h	1810	0	1610	1711	0	1522	1711	3359	122	1711	3278	191
Grp Volume(v), veh/h	1	0	2	60	0	48	22	350	364	38	304	314
Grp Sat Flow(s),veh/h/ln	1810	0	1610	1711	0	1522	1711	1706	1774	1711	1706	1762
Q Serve(g_s), s	0.0	0.0	0.0	1.2	0.0	1.1	0.3	6.2	6.2	0.5	5.1	5.1
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.2	0.0	1.1	0.3	6.2	6.2	0.5	5.1	5.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07	1.00		0.11
Lane Grp Cap(c), veh/h	294	0	123	391	0	207	440	655	681	418	683	705
V/C Ratio(X)	0.00	0.00	0.02	0.15	0.00	0.23	0.05	0.53	0.53	0.09	0.44	0.45
Avail Cap(c_a), veh/h	753	0	618	724	0	585	831	1748	1817	782	1748	1805
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.6	0.0	16.7	14.8	0.0	15.1	7.1	9.3	9.3	7.1	8.5	8.6
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.3	0.2	0.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.0	0.7	0.0	0.6	0.1	2.5	2.6	0.2	2.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.6	0.0	16.7	14.8	0.0	15.3	7.1	9.6	9.6	7.1	8.7	8.7
LnGrp LOS	B	A	B	B	A	B	A	A	A	A	A	A
Approach Vol, veh/h		3			108			736			656	
Approach Delay, s/veh		16.7			15.0			9.5			8.6	
Approach LOS		B			B			A			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.7	19.0	6.4	8.0	5.1	19.6	4.1	10.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	* 5	4.0	4.0	4.0	5.0				
Max Green Setting (Gmax), s	10.0	40.0	10.0	* 15	10.0	40.0	10.0	15.0				
Max Q Clear Time (g_c+I1), s	2.5	8.2	3.2	2.0	2.3	7.1	2.0	3.1				
Green Ext Time (p_c), s	0.0	1.2	0.0	0.0	0.0	1.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	9.5
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

7: W Airfield Dr & W 21st St

08/02/2022



Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Lane Configurations		↔	↕	↕		↔	↕	↕		↔		
Traffic Volume (veh/h)	1	26	481	13	1	0	622	28	1	0	1	41
Future Volume (veh/h)	1	26	481	13	1	0	622	28	1	0	1	41
Initial Q (Qb), veh		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		1781	1781	1781		1811	1811	1811	1604	1604	1604	1796
Adj Flow Rate, veh/h		28	523	14		0	676	30	1	0	1	45
Peak Hour Factor		0.92	0.92	0.92		0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %		8	8	8		6	6	6	20	20	20	7
Cap, veh/h		100	2464	1099		2	2072	924	133	19	80	264
Arrive On Green		0.06	0.73	0.73		0.00	0.60	0.60	0.12	0.00	0.12	0.12
Sat Flow, veh/h		1697	3385	1510		1725	3441	1535	489	152	640	1349
Grp Volume(v), veh/h		28	523	14		0	676	30	2	0	0	46
Grp Sat Flow(s),veh/h/ln		1697	1692	1510		1725	1721	1535	1281	0	0	1388
Q Serve(g_s), s		1.2	3.7	0.2		0.0	7.3	0.6	0.0	0.0	0.0	1.6
Cycle Q Clear(g_c), s		1.2	3.7	0.2		0.0	7.3	0.6	0.1	0.0	0.0	2.1
Prop In Lane		1.00		1.00		1.00		1.00	0.50		0.50	0.98
Lane Grp Cap(c), veh/h		100	2464	1099		2	2072	924	232	0	0	268
V/C Ratio(X)		0.28	0.21	0.01		0.00	0.33	0.03	0.01	0.00	0.00	0.17
Avail Cap(c_a), veh/h		454	2464	1099		462	2072	924	408	0	0	464
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(l)		1.00	1.00	1.00		0.00	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh		33.6	3.3	2.8		0.0	7.4	6.0	28.7	0.0	0.0	29.5
Incr Delay (d2), s/veh		0.6	0.2	0.0		0.0	0.4	0.1	0.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln		0.8	1.3	0.1		0.0	3.8	0.3	0.1	0.0	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		34.2	3.5	2.8		0.0	7.8	6.1	28.7	0.0	0.0	29.6
LnGrp LOS		C	A	A		A	A	A	C	A	A	C
Approach Vol, veh/h			565				706			2		
Approach Delay, s/veh			5.0				7.7			28.7		
Approach LOS			A				A			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.4	51.0		14.3	0.0	60.4		14.3				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	3.2	9.3		2.1	0.0	5.7		5.7				
Green Ext Time (p_c), s	0.0	2.9		0.0	0.0	2.2		0.1				

Intersection Summary

HCM 6th Ctrl Delay	8.7
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary

7: W Airfield Dr & W 21st St

08/02/2022



Movement	SWT	SWR
Lane Configurations	↔	↔
Traffic Volume (veh/h)	1	75
Future Volume (veh/h)	1	75
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	1796	1796
Adj Flow Rate, veh/h	1	82
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	7	7
Cap, veh/h	5	190
Arrive On Green	0.12	0.12
Sat Flow, veh/h	39	1522
Grp Volume(v), veh/h	0	82
Grp Sat Flow(s),veh/h/ln	0	1522
Q Serve(g_s), s	0.0	3.7
Cycle Q Clear(g_c), s	0.0	3.7
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	0	190
V/C Ratio(X)	0.00	0.43
Avail Cap(c_a), veh/h	0	407
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	0.00	1.00
Uniform Delay (d), s/veh	0.0	30.3
Incr Delay (d2), s/veh	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	2.4
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	0.0	30.8
LnGrp LOS	A	C
Approach Vol, veh/h	128	
Approach Delay, s/veh	30.4	
Approach LOS	C	
Timer - Assigned Phs		

HCM 6th Signalized Intersection Summary

8: W Airfield Dr & W 23rd St

08/02/2022



Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	18	18	787	90	1	52	328
Future Volume (veh/h)	18	18	787	90	1	52	328
Initial Q (Qb), veh	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00		1.00	
Parking Bus, Adj	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	1515	1515	1826	1826		1752	1752
Adj Flow Rate, veh/h	20	0	855	98		57	357
Peak Hour Factor	0.92	0.92	0.92	0.92		0.92	0.92
Percent Heavy Veh, %	26	26	5	5		10	10
Cap, veh/h	49		1896	846		509	2445
Arrive On Green	0.04	0.00	0.55	0.55		0.08	0.73
Sat Flow, veh/h	1377	0	3561	1547		1668	3416
Grp Volume(v), veh/h	21	0	855	98		57	357
Grp Sat Flow(s),veh/h/ln	1446	0	1735	1547		1668	1664
Q Serve(g_s), s	0.7	0.0	6.8	1.4		0.5	1.5
Cycle Q Clear(g_c), s	0.7	0.0	6.8	1.4		0.5	1.5
Prop In Lane	0.95	0.00		1.00		1.00	
Lane Grp Cap(c), veh/h	52		1896	846		509	2445
V/C Ratio(X)	0.41		0.45	0.12		0.11	0.15
Avail Cap(c_a), veh/h	474		1896	846		815	2445
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	21.6	0.0	6.2	5.0		3.5	1.8
Incr Delay (d2), s/veh	1.9	0.0	0.8	0.3		0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(95%),veh/ln	0.4	0.0	2.6	0.5		0.1	0.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	23.5	0.0	7.0	5.3		3.6	1.9
LnGrp LOS	C		A	A		A	A
Approach Vol, veh/h	21		953				414
Approach Delay, s/veh	23.5		6.8				2.2
Approach LOS	C		A				A
Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	8.6	30.5				39.1	6.6
Change Period (Y+Rc), s	5.0	5.5				5.5	5.0
Max Green Setting (Gmax), s	12.0	25.0				25.0	15.0
Max Q Clear Time (g_c+I1), s	2.5	8.8				3.5	2.7
Green Ext Time (p_c), s	0.0	4.4				1.7	0.0

Intersection Summary

HCM 6th Ctrl Delay	5.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

User approved ignoring U-Turning movement.

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

HCM 6th Signalized Intersection Summary
 9: W Airfield Dr & E Glade Rd

08/02/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	271	220	55	630	220	91
Future Volume (veh/h)	271	220	55	630	220	91
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	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	1885	1885	1811	1811	1752	1752
Adj Flow Rate, veh/h	295	0	60	685	239	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	6	6	10	10
Cap, veh/h	329		794	2418	1985	
Arrive On Green	0.18	0.00	0.06	0.70	0.60	0.00
Sat Flow, veh/h	1795	1598	1725	3532	3416	1485
Grp Volume(v), veh/h	295	0	60	685	239	0
Grp Sat Flow(s),veh/h/ln	1795	1598	1725	1721	1664	1485
Q Serve(g_s), s	16.2	0.0	1.2	7.4	3.1	0.0
Cycle Q Clear(g_c), s	16.2	0.0	1.2	7.4	3.1	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	329		794	2418	1985	
V/C Ratio(X)	0.90		0.08	0.28	0.12	
Avail Cap(c_a), veh/h	446		953	2418	1985	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.2	0.0	5.7	5.6	8.8	0.0
Incr Delay (d2), s/veh	13.9	0.0	0.0	0.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.9	0.0	0.6	3.8	1.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	54.1	0.0	5.7	5.8	9.0	0.0
LnGrp LOS	D		A	A	A	
Approach Vol, veh/h	295			745	239	
Approach Delay, s/veh	54.1			5.8	9.0	
Approach LOS	D			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		76.7		23.9	10.7	66.0
Change Period (Y+Rc), s		6.0		5.5	5.0	6.0
Max Green Setting (Gmax), s		60.0		25.0	15.0	60.0
Max Q Clear Time (g_c+I1), s		9.4		18.2	3.2	5.1
Green Ext Time (p_c), s		2.2		0.3	0.0	0.7

Intersection Summary

HCM 6th Ctrl Delay	17.5
HCM 6th LOS	B

Notes

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

HCM 6th TWSC
4: W Airfield Dr & W 17th St (West)

08/02/2022

Intersection

Int Delay, s/veh 2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	54	2	86	0	1	12	1	32	641	5	10	516	6
Future Vol, veh/h	54	2	86	0	1	12	1	32	641	5	10	516	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	130	-	-	125	-	-
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, %	21	21	21	43	43	43	8	8	8	8	6	6	6
Mvmt Flow	59	2	93	0	1	13	1	35	697	5	11	561	7

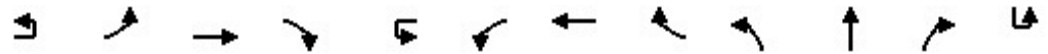
Major/Minor	Minor2		Minor1			Major1				Major2			
Conflicting Flow All	1008	1361	284	1076	1362	351	567	568	0	0	702	0	0
Stage 1	587	587	-	772	772	-	-	-	-	-	-	-	-
Stage 2	421	774	-	304	590	-	-	-	-	-	-	-	-
Critical Hdwy	7.92	6.92	7.32	8.36	7.36	7.76	6.56	4.26	-	-	4.22	-	-
Critical Hdwy Stg 1	6.92	5.92	-	7.36	6.36	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.92	5.92	-	7.36	6.36	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.71	4.21	3.51	3.93	4.43	3.73	2.58	2.28	-	-	2.26	-	-
Pot Cap-1 Maneuver	170	125	659	128	103	540	604	960	-	-	865	-	-
Stage 1	418	450	-	280	322	-	-	-	-	-	-	-	-
Stage 2	532	364	-	578	403	-	-	-	-	-	-	-	-
Platoon blocked, %									-	-		-	-
Mov Cap-1 Maneuver	158	119	659	104	98	540	936	936	-	-	865	-	-
Mov Cap-2 Maneuver	158	119	-	104	98	-	-	-	-	-	-	-	-
Stage 1	402	444	-	269	310	-	-	-	-	-	-	-	-
Stage 2	497	350	-	487	398	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	23	14.3	0.4	0.2
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	936	-	-	158	597	401	865	-	-
HCM Lane V/C Ratio	0.038	-	-	0.371	0.16	0.035	0.013	-	-
HCM Control Delay (s)	9	-	-	40.7	12.2	14.3	9.2	-	-
HCM Lane LOS	A	-	-	E	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1.6	0.6	0.1	0	-	-

Lanes, Volumes, Timings
1: S Main St & Mustang Dr

08/03/2022



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Lane Configurations		↔	↕	↗		↔	↕	↗	↔	↕		
Traffic Volume (vph)	1	184	130	16	2	5	600	337	44	65	4	1
Future Volume (vph)	1	184	130	16	2	5	600	337	44	65	4	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		135		180		195		155	0		60	
Storage Lanes		1		1		1		1	1		2	
Taper Length (ft)		100				100			0			
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	0.95	1.00
Frt				0.850				0.850		0.992		
Flt Protected		0.950				0.950			0.950			
Satd. Flow (prot)	0	1752	3505	1568	0	1770	3539	1583	1612	3197	0	0
Flt Permitted		0.260				0.663			0.702			
Satd. Flow (perm)	0	480	3505	1568	0	1235	3539	1583	1191	3197	0	0
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				184				337		4		
Link Speed (mph)			45				45			30		
Link Distance (ft)			931				1341			732		
Travel Time (s)			14.1				20.3			16.6		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	3%	3%	3%	2%	2%	2%	2%	12%	12%	12%	4%
Adj. Flow (vph)	1	200	141	17	2	5	652	366	48	71	4	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	201	141	17	0	7	652	366	48	75	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	R NA
Median Width(ft)			15				16			28		
Link Offset(ft)			0				0			0		
Crosswalk Width(ft)			16				16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	9	15		9	15		9	9
Number of Detectors	0	1	2	1	1	1	2	1	1	2		1
Detector Template		Left	Thru	Right	Left	Left	Thru	Right	Left	Thru		Left
Leading Detector (ft)	0	20	100	20	20	20	100	20	20	100		20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0		0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0		0
Detector 1 Size(ft)	0	20	6	20	20	20	6	20	20	6		20
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Detector 2 Position(ft)			94				94			94		
Detector 2 Size(ft)			6				6			6		
Detector 2 Type			Cl+Ex				Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0				0.0			0.0		
Turn Type	Prot	pm+pt	NA	Perm	Prot	pm+pt	NA	Perm	pm+pt	NA		Prot
Protected Phases	5	5	2		1	1	6		3	8		7

Lanes, Volumes, Timings
1: S Main St & Mustang Dr

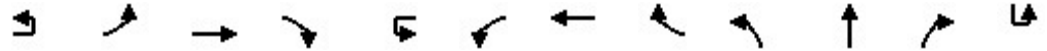
08/03/2022



Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	146	78	490
Future Volume (vph)	146	78	490
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	105		0
Storage Lanes	1		1
Taper Length (ft)	100		
Lane Util. Factor	1.00	1.00	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	1736	1827	1553
Flt Permitted	0.446		
Satd. Flow (perm)	815	1827	1553
Right Turn on Red			Yes
Satd. Flow (RTOR)			533
Link Speed (mph)		35	
Link Distance (ft)		695	
Travel Time (s)		13.5	
Peak Hour Factor	0.92	0.92	0.92
Heavy Vehicles (%)	4%	4%	4%
Adj. Flow (vph)	159	85	533
Shared Lane Traffic (%)			
Lane Group Flow (vph)	160	85	533
Enter Blocked Intersection	No	No	No
Lane Alignment	Left	Left	Right
Median Width(ft)		18	
Link Offset(ft)		0	
Crosswalk Width(ft)		16	
Two way Left Turn Lane			
Headway Factor	1.00	1.00	1.00
Turning Speed (mph)	15		9
Number of Detectors	1	2	1
Detector Template	Left	Thru	Right
Leading Detector (ft)	20	100	20
Trailing Detector (ft)	0	0	0
Detector 1 Position(ft)	0	0	0
Detector 1 Size(ft)	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel			
Detector 1 Extend (s)	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0
Detector 2 Position(ft)		94	
Detector 2 Size(ft)		6	
Detector 2 Type		Cl+Ex	
Detector 2 Channel			
Detector 2 Extend (s)		0.0	
Turn Type	pm+pt	NA	Perm
Protected Phases	7	4	

Lanes, Volumes, Timings
1: S Main St & Mustang Dr

08/03/2022

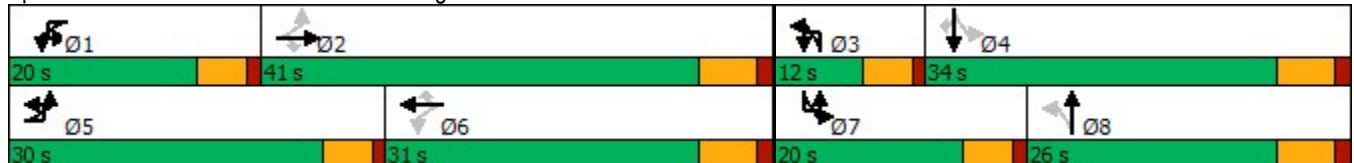


Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Permitted Phases		2		2		6		6	8			
Detector Phase	5	5	2	2	1	1	6	6	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	10.0	10.0	7.0	7.0	10.0	10.0	5.0	10.0		7.0
Minimum Split (s)	12.0	12.0	16.0	16.0	12.0	12.0	16.0	16.0	10.0	16.0		12.0
Total Split (s)	30.0	30.0	41.0	41.0	20.0	20.0	31.0	31.0	12.0	26.0		20.0
Total Split (%)	28.0%	28.0%	38.3%	38.3%	18.7%	18.7%	29.0%	29.0%	11.2%	24.3%		18.7%
Maximum Green (s)	25.0	25.0	35.0	35.0	15.0	15.0	25.0	25.0	7.0	20.0		15.0
Yellow Time (s)	4.0	4.0	4.5	4.5	4.0	4.0	4.5	4.5	4.0	4.5		4.0
All-Red Time (s)	1.0	1.0	1.5	1.5	1.0	1.0	1.5	1.5	1.0	1.5		1.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)		5.0	6.0	6.0		5.0	6.0	6.0	5.0	6.0		
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	2.5	2.5	1.0	1.0	2.5	2.5	1.0	1.0	2.5	1.0		2.5
Recall Mode	None	None	Max	Max	None	None	None	None	None	None		None
Walk Time (s)							7.0	7.0				
Flash Dont Walk (s)							11.0	11.0				
Pedestrian Calls (#/hr)							0	0				
Act Effct Green (s)		39.2	36.3	36.3		30.9	22.7	22.7	14.9	10.5		
Actuated g/C Ratio		0.53	0.49	0.49		0.42	0.31	0.31	0.20	0.14		
v/c Ratio		0.46	0.08	0.02		0.01	0.60	0.51	0.17	0.16		
Control Delay		14.2	12.9	0.1		10.7	26.1	6.8	19.5	31.0		
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total Delay		14.2	12.9	0.1		10.7	26.1	6.8	19.5	31.0		
LOS		B	B	A		B	C	A	B	C		
Approach Delay			13.0				19.1			26.5		
Approach LOS			B				B			C		

Intersection Summary

Area Type:	Other
Cycle Length:	107
Actuated Cycle Length:	73.7
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.70
Intersection Signal Delay:	16.6
Intersection LOS:	B
Intersection Capacity Utilization:	79.7%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 1: S Main St & Mustang Dr



Lanes, Volumes, Timings
1: S Main St & Mustang Dr

08/03/2022



Lane Group	SBL	SBT	SBR
Permitted Phases	4		4
Detector Phase	7	4	4
Switch Phase			
Minimum Initial (s)	7.0	10.0	10.0
Minimum Split (s)	12.0	16.0	16.0
Total Split (s)	20.0	34.0	34.0
Total Split (%)	18.7%	31.8%	31.8%
Maximum Green (s)	15.0	28.0	28.0
Yellow Time (s)	4.0	4.5	4.5
All-Red Time (s)	1.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	2.5	1.0	1.0
Recall Mode	None	None	None
Walk Time (s)			
Flash Dont Walk (s)			
Pedestrian Calls (#/hr)			
Act Effct Green (s)	24.0	16.6	16.6
Actuated g/C Ratio	0.33	0.23	0.23
v/c Ratio	0.39	0.21	0.70
Control Delay	21.2	27.4	8.6
Queue Delay	0.0	0.0	0.0
Total Delay	21.2	27.4	8.6
LOS	C	C	A
Approach Delay		13.2	
Approach LOS		B	
Intersection Summary			

Lanes, Volumes, Timings
 2: W Airfield Dr & Mustang Dr/N Airfield Dr

08/03/2022



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↔	↑↑	↔	↔
Traffic Volume (vph)	128	161	611	510	291	365
Future Volume (vph)	128	161	611	510	291	365
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	375		0	300
Storage Lanes		0	1		2	1
Taper Length (ft)			100		0	
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	1.00
Frt	0.916					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3120	0	1671	3343	3213	1482
Flt Permitted			0.499		0.950	
Satd. Flow (perm)	3120	0	878	3343	3213	1482
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	175					397
Link Speed (mph)	45			45	45	
Link Distance (ft)	1036			1355	845	
Travel Time (s)	15.7			20.5	12.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	6%	8%	8%	9%	9%
Adj. Flow (vph)	139	175	664	554	316	397
Shared Lane Traffic (%)						
Lane Group Flow (vph)	314	0	664	554	316	397
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			24	60	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2		1	2	1	1
Detector Template	Thru		Left	Thru	Left	Right
Leading Detector (ft)	100		20	100	20	20
Trailing Detector (ft)	0		0	0	0	0
Detector 1 Position(ft)	0		0	0	0	0
Detector 1 Size(ft)	6		20	6	20	20
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA		pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	

Lanes, Volumes, Timings
 2: W Airfield Dr & Mustang Dr/N Airfield Dr

08/03/2022

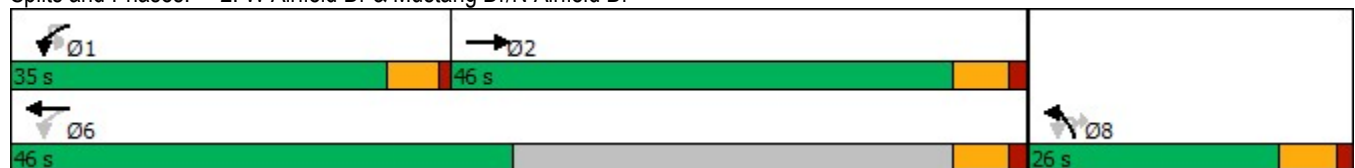


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases			6			8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	10.0		7.0	10.0	7.0	7.0
Minimum Split (s)	16.0		12.0	16.0	13.0	13.0
Total Split (s)	46.0		35.0	46.0	26.0	26.0
Total Split (%)	43.0%		32.7%	43.0%	24.3%	24.3%
Maximum Green (s)	40.0		30.0	40.0	20.0	20.0
Yellow Time (s)	4.5		4.0	4.5	4.5	4.5
All-Red Time (s)	1.5		1.0	1.5	1.5	1.5
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0		5.0	6.0	6.0	6.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?						
Vehicle Extension (s)	1.0		2.5	1.0	1.5	1.5
Recall Mode	Max		None	None	None	None
Act Effect Green (s)	40.4		68.0	67.0	13.2	13.2
Actuated g/C Ratio	0.44		0.74	0.73	0.14	0.14
v/c Ratio	0.21		0.80	0.23	0.69	0.72
Control Delay	8.7		13.9	4.7	46.6	12.2
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	8.7		13.9	4.7	46.6	12.2
LOS	A		B	A	D	B
Approach Delay	8.7			9.7	27.4	
Approach LOS	A			A	C	

Intersection Summary























Area Type:	Other
Cycle Length:	107
Actuated Cycle Length:	92.4
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	15.2
Intersection LOS:	B
Intersection Capacity Utilization	79.3%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 2: W Airfield Dr & Mustang Dr/N Airfield Dr



Lanes, Volumes, Timings
3: N Airfield Dr & Texan Trail

08/03/2022

													
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT	
Lane Configurations													
Traffic Volume (vph)	116	27	483	9	11	9	327	117	10	1	5	695	
Future Volume (vph)	116	27	483	9	11	9	327	117	10	1	5	695	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	215		0	0		0	295		295		280		
Storage Lanes	1		1	0		0	2		1		1		
Taper Length (ft)	100			0			100				65		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.97	0.95	1.00	0.95	1.00	0.95	
Frt			0.850		0.958				0.850				
Flt Protected	0.950	0.970			0.985		0.950				0.950		
Satd. Flow (prot)	1545	1577	1455	0	1775	0	3155	3252	1455	0	1719	3438	
Flt Permitted	0.950	0.970			0.985		0.950						
Satd. Flow (perm)	1545	1577	1455	0	1775	0	3155	3252	1455	0	1810	3438	
Right Turn on Red			Yes			Yes			Yes				
Satd. Flow (RTOR)			525		10				130				
Link Speed (mph)		45			25			45				45	
Link Distance (ft)		611			324			1173				1060	
Travel Time (s)		9.3			8.8			17.8				16.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	11%	11%	11%	1%	1%	1%	11%	11%	11%	5%	5%	5%	
Adj. Flow (vph)	126	29	525	10	12	10	355	127	11	1	5	755	
Shared Lane Traffic (%)	39%												
Lane Group Flow (vph)	77	78	525	0	32	0	355	127	11	0	6	755	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left	
Median Width(ft)		38			24			58				38	
Link Offset(ft)		0			0			0				0	
Crosswalk Width(ft)		16			16			16				16	
Two way Left Turn Lane													
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15		9	15		9	15		9	9	15		
Number of Detectors	1	2	1	1	2		1	2	1	0	1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100	20	0	20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0	0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6	20	0	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94				94	
Detector 2 Size(ft)		6			6			6				6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex	
Detector 2 Channel													
Detector 2 Extend (s)		0.0			0.0			0.0				0.0	
Turn Type	Split	NA	Perm	Split	NA		Prot	NA	Perm	custom	Prot	NA	
Protected Phases	4	4		8	8		5	2			1	6	

Lanes, Volumes, Timings
 3: N Airfield Dr & Texan Trail

08/03/2022



Lane Group	SWR
Lane Configurations	
Traffic Volume (vph)	121
Future Volume (vph)	121
Ideal Flow (vphpl)	1900
Storage Length (ft)	280
Storage Lanes	2
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1538
Flt Permitted	
Satd. Flow (perm)	1538
Right Turn on Red	Yes
Satd. Flow (RTOR)	140
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Heavy Vehicles (%)	5%
Adj. Flow (vph)	132
Shared Lane Traffic (%)	
Lane Group Flow (vph)	132
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	

Lanes, Volumes, Timings
3: N Airfield Dr & Texan Trail

08/03/2022

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT
Permitted Phases			4						2	1		
Detector Phase	4	4	4	8	8		5	2	2	1	1	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		10.0	5.0	5.0	5.0	5.0	7.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0		15.0	11.0	11.0	10.0	10.0	12.5
Total Split (s)	30.0	30.0	30.0	15.0	15.0		25.0	31.0	31.0	25.0	25.0	30.5
Total Split (%)	29.7%	29.7%	29.7%	14.9%	14.9%		24.8%	30.7%	30.7%	24.8%	24.8%	30.2%
Maximum Green (s)	25.0	25.0	25.0	10.0	10.0		20.0	25.0	25.0	20.0	20.0	25.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.5	4.5	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.5	1.5	1.0	1.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0		5.0	6.0	6.0		5.0	5.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag		Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	2.0
Recall Mode	None	None	None	None	None		None	Min	Min	None	None	Min
Act Effct Green (s)	8.8	8.8	8.8		5.7		12.7	35.4	35.4		6.3	19.8
Actuated g/C Ratio	0.14	0.14	0.14		0.09		0.21	0.58	0.58		0.10	0.32
v/c Ratio	0.35	0.35	0.80		0.18		0.55	0.07	0.01		0.03	0.68
Control Delay	31.4	31.2	13.3		29.7		28.5	10.4	0.0		33.2	23.7
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	31.4	31.2	13.3		29.7		28.5	10.4	0.0		33.2	23.7
LOS	C	C	B		C		C	B	A		C	C
Approach Delay		17.4			29.7			23.2				21.1
Approach LOS		B			C			C				C

Intersection Summary

Area Type:	Other
Cycle Length:	101
Actuated Cycle Length:	61.4
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	20.5
Intersection LOS:	C
Intersection Capacity Utilization:	79.7%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 3: N Airfield Dr & Texan Trail





Lane Group	SWR
Permitted Phases	6
Detector Phase	6
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	12.5
Total Split (s)	30.5
Total Split (%)	30.2%
Maximum Green (s)	25.0
Yellow Time (s)	4.0
All-Red Time (s)	1.5
Lost Time Adjust (s)	0.0
Total Lost Time (s)	5.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.0
Recall Mode	Min
Act Effct Green (s)	19.8
Actuated g/C Ratio	0.32
v/c Ratio	0.22
Control Delay	5.3
Queue Delay	0.0
Total Delay	5.3
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings
4: W Airfield Dr & W 17th St (West)

08/03/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	6	1	104	4	1	9	1	26	626	3	4	826
Future Volume (vph)	6	1	104	4	1	9	1	26	626	3	4	826
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0		130		0	125	
Storage Lanes	1		0	0		0		1		0	1	
Taper Length (ft)	0			0				75			75	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95
Frt		0.851			0.910				0.999			0.999
Flt Protected	0.950				0.987			0.950			0.950	
Satd. Flow (prot)	1570	1406	0	0	1422	0	0	1656	3309	0	1656	3309
Flt Permitted	0.950				0.987			0.950			0.950	
Satd. Flow (perm)	1570	1406	0	0	1422	0	0	1656	3309	0	1656	3309
Link Speed (mph)		30			30				45			45
Link Distance (ft)		939			233				604			311
Travel Time (s)		21.3			5.3				9.2			4.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	15%	15%	15%	20%	20%	20%	9%	9%	9%	9%	9%	9%
Adj. Flow (vph)	7	1	113	4	1	10	1	28	680	3	4	898
Shared Lane Traffic (%)												
Lane Group Flow (vph)	7	114	0	0	15	0	0	29	683	0	4	907
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	Left	Left
Median Width(ft)		12			0				38			38
Link Offset(ft)		0			0				0			0
Crosswalk Width(ft)		16			16				16			16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	15	
Sign Control		Stop			Stop				Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	36.2%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings
 4: W Airfield Dr & W 17th St (West)























08/03/2022



Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	8
Future Volume (vph)	8
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	0.95
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Heavy Vehicles (%)	9%
Adj. Flow (vph)	9
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Sign Control	
Intersection Summary	

Lanes, Volumes, Timings
5: W Airfield Dr & W 17th St (East)

08/03/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	0	5	23	0	42	1	629	11	36	810	1
Future Volume (vph)	9	0	5	23	0	42	1	629	11	36	810	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		165	130		0	325		0
Storage Lanes	0		1	1		1	1		0	1		0
Taper Length (ft)	0			0			75			65		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.997				
Flt Protected		0.950		0.950			0.950			0.950		
Satd. Flow (prot)	0	1805	1615	1271	0	1137	1671	3333	0	1641	3282	0
Flt Permitted		0.950		0.950			0.313			0.358		
Satd. Flow (perm)	0	1805	1615	1271	0	1137	551	3333	0	618	3282	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			101			101		2				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		141			907			311			666	
Travel Time (s)		3.2			20.6			4.7			10.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	42%	42%	42%	8%	8%	8%	10%	10%	10%
Adj. Flow (vph)	10	0	5	25	0	46	1	684	12	39	880	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	10	5	25	0	46	1	696	0	39	881	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		18			12			38			38	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1		1	1	2		1	2	
Detector Template	Left	Thru	Right	Left		Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20		20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0		0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0		0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20		20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Split	NA	Perm	Prot		Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8			5	2		1	6	

Lanes, Volumes, Timings
5: W Airfield Dr & W 17th St (East)

08/03/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8		8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0		7.0	7.0	20.0		7.0	20.0	
Minimum Split (s)	12.0	12.0	12.0	12.0		12.0	12.0	26.0		12.0	26.0	
Total Split (s)	25.0	25.0	25.0	25.0		25.0	25.0	66.0		25.0	66.0	
Total Split (%)	17.7%	17.7%	17.7%	17.7%		17.7%	17.7%	46.8%		17.7%	46.8%	
Maximum Green (s)	20.0	20.0	20.0	20.0		20.0	20.0	60.0		20.0	60.0	
Yellow Time (s)	4.0	4.0	4.0	4.0		4.0	4.0	4.5		4.0	4.5	
All-Red Time (s)	1.0	1.0	1.0	1.0		1.0	1.0	1.5		1.0	1.5	
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0	5.0		5.0	5.0	6.0		5.0	6.0	
Lead/Lag	Lead	Lead	Lead	Lag		Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0		2.0	1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None		None	None	Max		None	Max	
Act Effct Green (s)		7.1	7.1	7.5		7.5	69.1	65.6		71.0	70.1	
Actuated g/C Ratio		0.08	0.08	0.08		0.08	0.76	0.72		0.78	0.77	
v/c Ratio		0.07	0.02	0.24		0.25	0.00	0.29		0.07	0.35	
Control Delay		45.6	0.2	49.0		3.1	4.0	7.9		4.1	6.4	
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Total Delay		45.6	0.2	49.0		3.1	4.0	7.9		4.1	6.4	
LOS		D	A	D		A	A	A		A	A	
Approach Delay		30.4			19.3			7.9			6.3	
Approach LOS		C			B			A			A	

Intersection Summary

Area Type:	Other
Cycle Length:	141
Actuated Cycle Length:	91.1
Natural Cycle:	65
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.35
Intersection Signal Delay:	7.7
Intersection LOS:	A
Intersection Capacity Utilization:	52.7%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 5: W Airfield Dr & W 17th St (East)



Lanes, Volumes, Timings
6: W Airfield Dr & W 19th St

08/03/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	0	47	58	0	37	6	570	132	105	827	3
Future Volume (vph)	49	0	47	58	0	37	6	570	132	105	827	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		295	205		0	215		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	0			0			50			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.850			0.850			0.972				
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1615	0	1687	1509	0	1687	3279	0	1671	3343	0
Flt Permitted	0.769						0.303			0.257		
Satd. Flow (perm)	1461	1615	0	1776	1509	0	538	3279	0	452	3343	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		366			432			38				
Link Speed (mph)		25			35			45				45
Link Distance (ft)		172			3035			1215				604
Travel Time (s)		4.7			59.1			18.4				9.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	7%	7%	7%	7%	7%	7%	8%	8%	8%
Adj. Flow (vph)	53	0	51	63	0	40	7	620	143	114	899	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	51	0	63	40	0	7	763	0	114	902	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			38				38
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	

Lanes, Volumes, Timings
6: W Airfield Dr & W 19th St

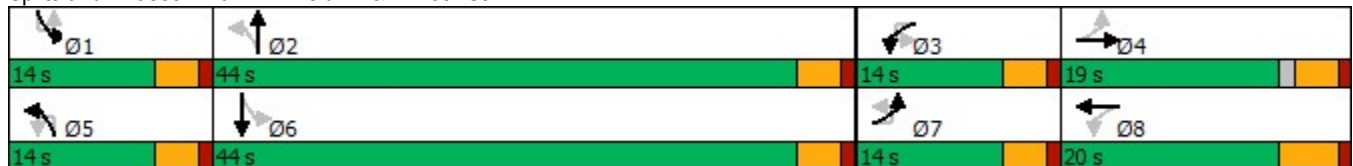
08/03/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	9.0	11.0		9.0	12.0		9.0	19.0		9.0	19.0	
Total Split (s)	14.0	19.0		14.0	20.0		14.0	44.0		14.0	44.0	
Total Split (%)	15.2%	20.7%		15.2%	21.7%		15.2%	47.8%		15.2%	47.8%	
Maximum Green (s)	10.0	15.0		10.0	15.0		10.0	40.0		10.0	40.0	
Yellow Time (s)	3.0	3.0		3.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		4.0	5.0		4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	10.3	7.9		8.3	7.6		25.6	22.5		29.1	30.4	
Actuated g/C Ratio	0.23	0.18		0.19	0.17		0.58	0.51		0.66	0.68	
v/c Ratio	0.13	0.09		0.20	0.07		0.02	0.45		0.25	0.39	
Control Delay	13.9	0.3		16.4	0.2		6.5	12.6		7.4	8.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	13.9	0.3		16.4	0.2		6.5	12.6		7.4	8.8	
LOS	B	A		B	A		A	B		A	A	
Approach Delay		7.2			10.1			12.5			8.6	
Approach LOS		A			B			B			A	

Intersection Summary

Area Type:	Other
Cycle Length:	92
Actuated Cycle Length:	44.4
Natural Cycle:	50
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.45
Intersection Signal Delay:	10.1
Intersection LOS:	B
Intersection Capacity Utilization:	47.8%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 6: W Airfield Dr & W 19th St



Lanes, Volumes, Timings
7: W Airfield Dr & W 21st St

08/03/2022



Lane Group	SEU	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT
Lane Configurations		↔	↕↕	↗	↔	↕↕	↗		↕↕			↗
Traffic Volume (vph)	1	15	881	1	0	607	11	14	0	2	16	0
Future Volume (vph)	1	15	881	1	0	607	11	14	0	2	16	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		190		275	175		125	0		0	0	
Storage Lanes		1		1	1		1	0		0	0	
Taper Length (ft)		100			50			0			0	
Lane Util. Factor	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850			0.850		0.984			
Flt Protected		0.950							0.958			0.950
Satd. Flow (prot)	0	1671	3343	1495	1759	3343	1495	0	1756	0	0	1687
Flt Permitted												0.746
Satd. Flow (perm)	0	1759	3343	1495	1759	3343	1495	0	1833	0	0	1325
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)				104			104		113			
Link Speed (mph)			45			45			25			30
Link Distance (ft)			498			712			197			674
Travel Time (s)			7.5			10.8			5.4			15.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	8%	8%	8%	8%	8%	8%	2%	2%	2%	7%	7%
Adj. Flow (vph)	1	16	958	1	0	660	12	15	0	2	17	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	17	958	1	0	660	12	0	17	0	0	17
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)			65			40			17			32
Link Offset(ft)			0			0			0			0
Crosswalk Width(ft)			16			16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	15		9	15		9	15	
Number of Detectors	1	1	2	1	1	2	1	1	2		1	2
Detector Template	Left	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru
Leading Detector (ft)	20	20	100	20	20	100	20	20	100		20	100
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0		0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0		0	0
Detector 1 Size(ft)	20	20	6	20	20	6	20	20	6		20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			94			94			94			94
Detector 2 Size(ft)			6			6			6			6
Detector 2 Type			Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0			0.0			0.0
Turn Type	custom	Prot	NA	Perm	Prot	NA	Perm	Perm	NA		Perm	NA
Protected Phases		1	6		5	2			4			8

Lanes, Volumes, Timings
7: W Airfield Dr & W 21st St

08/03/2022



Lane Group	SWR
Lane Configurations	
Traffic Volume (vph)	24
Future Volume (vph)	24
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1509
Flt Permitted	
Satd. Flow (perm)	1509
Right Turn on Red	Yes
Satd. Flow (RTOR)	113
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Heavy Vehicles (%)	7%
Adj. Flow (vph)	26
Shared Lane Traffic (%)	
Lane Group Flow (vph)	26
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	

Lanes, Volumes, Timings
7: W Airfield Dr & W 21st St

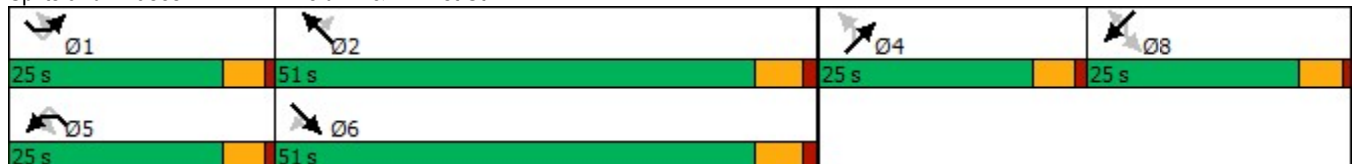
08/03/2022

Lane Group	SEU	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT
Permitted Phases	1			6				2	4		8	
Detector Phase	1	1	6	6	5	2	2	4	4		8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0	15.0	15.0	7.0	15.0	15.0	7.0	7.0		10.0	10.0
Minimum Split (s)	15.0	15.0	21.0	21.0	12.0	21.0	21.0	12.0	12.0		15.0	15.0
Total Split (s)	25.0	25.0	51.0	51.0	25.0	51.0	51.0	25.0	25.0		25.0	25.0
Total Split (%)	19.8%	19.8%	40.5%	40.5%	19.8%	40.5%	40.5%	19.8%	19.8%		19.8%	19.8%
Maximum Green (s)	20.0	20.0	45.0	45.0	20.0	45.0	45.0	20.0	20.0		20.0	20.0
Yellow Time (s)	4.0	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.5	1.5	1.0	1.5	1.5	1.0	1.0		1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0
Total Lost Time (s)		5.0	6.0	6.0	5.0	6.0	6.0		5.0			5.0
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead		Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	1.5	1.5	2.0	2.0	1.5	2.0	2.0	1.0	1.0		1.0	1.0
Recall Mode	None	None	Max	Max	None	Max	Max	None	None		None	None
Act Effct Green (s)		11.6	59.0	59.0		55.7	55.7		7.2			10.3
Actuated g/C Ratio		0.15	0.79	0.79		0.74	0.74		0.10			0.14
v/c Ratio		0.06	0.36	0.00		0.27	0.01		0.06			0.09
Control Delay		31.7	5.8	0.0		8.5	0.0		0.4			35.9
Queue Delay		0.0	0.0	0.0		0.0	0.0		0.0			0.0
Total Delay		31.7	5.8	0.0		8.5	0.0		0.4			35.9
LOS		C	A	A		A	A		A			D
Approach Delay			6.3			8.3			0.4			14.5
Approach LOS			A			A			A			B

Intersection Summary

Area Type:	Other
Cycle Length:	126
Actuated Cycle Length:	75.1
Natural Cycle:	65
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.36
Intersection Signal Delay:	7.2
Intersection LOS:	A
Intersection Capacity Utilization:	51.9%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 7: W Airfield Dr & W 21st St

















Lane Group	SWR
Permitted Phases	8
Detector Phase	8
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	15.0
Total Split (s)	25.0
Total Split (%)	19.8%
Maximum Green (s)	20.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	5.0
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	1.0
Recall Mode	None
Act Effct Green (s)	10.3
Actuated g/C Ratio	0.14
v/c Ratio	0.09
Control Delay	0.5
Queue Delay	0.0
Total Delay	0.5
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings
8: W Airfield Dr & W 23rd St

08/03/2022

							
Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	61	68	406	35	1	40	992
Future Volume (vph)	61	68	406	35	1	40	992
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0		150	
Storage Lanes	1	0		1		1	
Taper Length (ft)	0					50	
Lane Util. Factor	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt	0.929			0.850			
Flt Protected	0.977					0.950	
Satd. Flow (prot)	1437	0	3312	1482	0	1687	3374
Flt Permitted	0.977					0.423	
Satd. Flow (perm)	1437	0	3312	1482	0	751	3374
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)	74			38			
Link Speed (mph)	25		45				45
Link Distance (ft)	1307		627				530
Travel Time (s)	35.6		9.5				8.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	20%	20%	9%	9%	7%	7%	7%
Adj. Flow (vph)	66	74	441	38	1	43	1078
Shared Lane Traffic (%)							
Lane Group Flow (vph)	140	0	441	38	0	44	1078
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	R NA	Left	Left
Median Width(ft)	12		18				28
Link Offset(ft)	0		0				0
Crosswalk Width(ft)	16		16				16
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	9	15	
Number of Detectors	1		2	1	1	1	2
Detector Template	Left		Thru	Right	Left	Left	Thru
Leading Detector (ft)	20		100	20	20	20	100
Trailing Detector (ft)	0		0	0	0	0	0
Detector 1 Position(ft)	0		0	0	0	0	0
Detector 1 Size(ft)	20		6	20	20	20	6
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel							
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94				94
Detector 2 Size(ft)			6				6
Detector 2 Type			Cl+Ex				Cl+Ex
Detector 2 Channel							
Detector 2 Extend (s)			0.0				0.0
Turn Type	Prot		NA	Perm	custom	pm+pt	NA
Protected Phases	8		2			1	6

Lanes, Volumes, Timings
8: W Airfield Dr & W 23rd St

08/03/2022

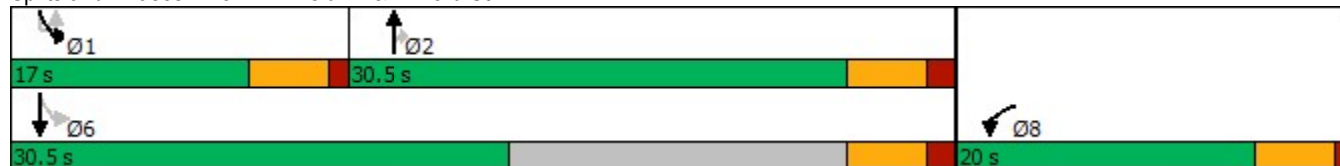


Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Permitted Phases				2	1	6	
Detector Phase	8		2	2	1	1	6
Switch Phase							
Minimum Initial (s)	7.0		15.0	15.0	7.0	7.0	15.0
Minimum Split (s)	12.0		20.5	20.5	12.0	12.0	20.5
Total Split (s)	20.0		30.5	30.5	17.0	17.0	30.5
Total Split (%)	29.6%		45.2%	45.2%	25.2%	25.2%	45.2%
Maximum Green (s)	15.0		25.0	25.0	12.0	12.0	25.0
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		1.5	1.5	1.0	1.0	1.5
Lost Time Adjust (s)	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0		5.5	5.5		5.0	5.5
Lead/Lag			Lag	Lag	Lead	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0		2.5	2.5	2.0	2.0	2.5
Recall Mode	None		Max	Max	None	None	Max
Act Effct Green (s)	8.3		30.0	30.0		33.4	34.1
Actuated g/C Ratio	0.17		0.61	0.61		0.68	0.69
v/c Ratio	0.46		0.22	0.04		0.07	0.46
Control Delay	16.4		8.0	4.3		4.0	5.7
Queue Delay	0.0		0.0	0.0		0.0	0.0
Total Delay	16.4		8.0	4.3		4.0	5.7
LOS	B		A	A		A	A
Approach Delay	16.4		7.7				5.6
Approach LOS	B		A				A

Intersection Summary

Area Type:	Other
Cycle Length:	67.5
Actuated Cycle Length:	49.3
Natural Cycle:	45
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.46
Intersection Signal Delay:	7.1
Intersection LOS:	A
Intersection Capacity Utilization:	43.7%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 8: W Airfield Dr & W 23rd St



Lanes, Volumes, Timings
9: W Airfield Dr & E Glade Rd

08/03/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	81	100	191	315	800	328
Future Volume (vph)	81	100	191	315	800	328
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	300	210			200
Storage Lanes	1	1	1			1
Taper Length (ft)	0		100			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1805	1615	1703	3406	3505	1568
Flt Permitted	0.950		0.271			
Satd. Flow (perm)	1805	1615	486	3406	3505	1568
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		109				357
Link Speed (mph)	35			45	45	
Link Distance (ft)	1218			1121	367	
Travel Time (s)	23.7			17.0	5.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	6%	6%	3%	3%
Adj. Flow (vph)	88	109	208	342	870	357
Shared Lane Traffic (%)						
Lane Group Flow (vph)	88	109	208	342	870	357
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			15	13	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (ft)	20	20	20	100	100	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	20	6	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)				94	94	
Detector 2 Size(ft)				6	6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	Prot	pm+pt	NA	NA	Perm
Protected Phases	4	4	5	2	6	

Lanes, Volumes, Timings
 9: W Airfield Dr & E Glade Rd

08/03/2022

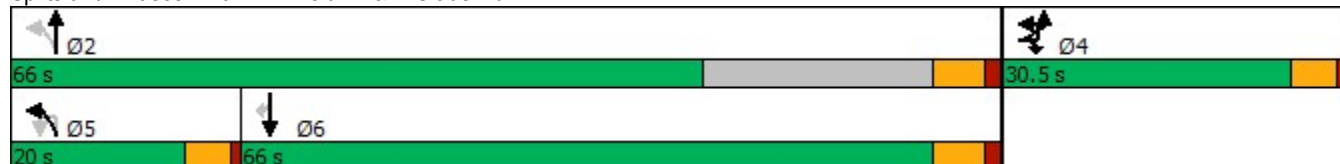


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Permitted Phases			2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	2.0	20.0	20.0
Minimum Split (s)	12.5	12.5	12.0	26.0	26.0	26.0
Total Split (s)	30.5	30.5	20.0	66.0	66.0	66.0
Total Split (%)	26.2%	26.2%	17.2%	56.7%	56.7%	56.7%
Maximum Green (s)	25.0	25.0	15.0	60.0	60.0	60.0
Yellow Time (s)	4.0	4.0	4.0	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.0	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	2.0	2.0	1.5	1.5	1.5	1.5
Recall Mode	None	None	None	Max	Max	Max
Act Effct Green (s)	9.3	9.3	75.3	74.3	60.1	60.1
Actuated g/C Ratio	0.10	0.10	0.79	0.78	0.63	0.63
v/c Ratio	0.50	0.43	0.42	0.13	0.39	0.32
Control Delay	51.2	13.6	5.1	2.8	9.7	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.2	13.6	5.1	2.8	9.7	1.8
LOS	D	B	A	A	A	A
Approach Delay	30.4			3.7	7.4	
Approach LOS	C			A	A	

Intersection Summary

Area Type: Other
 Cycle Length: 116.5
 Actuated Cycle Length: 95.1
 Natural Cycle: 55
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.50
 Intersection Signal Delay: 8.7
 Intersection LOS: A
 Intersection Capacity Utilization 52.6%
 ICU Level of Service A
 Analysis Period (min) 15

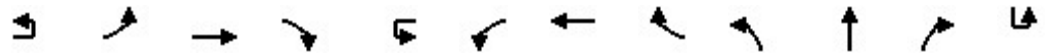
Splits and Phases: 9: W Airfield Dr & E Glade Rd



HCM 6th Signalized Intersection Summary

1: S Main St & Mustang Dr

08/02/2022



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Lane Configurations		↔	↕	↗		↔	↕	↗	↔	↕		
Traffic Volume (veh/h)	1	184	130	16	2	5	600	337	44	65	4	1
Future Volume (veh/h)	1	184	130	16	2	5	600	337	44	65	4	1
Initial Q (Qb), veh		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	
Parking Bus, Adj		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		1856	1856	1856		1870	1870	1870	1722	1722	1722	
Adj Flow Rate, veh/h		200	141	0		5	652	0	48	71	4	
Peak Hour Factor		0.92	0.92	0.92		0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %		3	3	3		2	2	2	12	12	12	
Cap, veh/h		361	1359			463	1046		373	874	49	
Arrive On Green		0.10	0.39	0.00		0.01	0.29	0.00	0.06	0.28	0.28	
Sat Flow, veh/h		1767	3526	1572		1781	3554	1585	1640	3150	176	
Grp Volume(v), veh/h		200	141	0		5	652	0	48	37	38	
Grp Sat Flow(s),veh/h/ln		1767	1763	1572		1781	1777	1585	1640	1636	1690	
Q Serve(g_s), s		6.8	2.3	0.0		0.2	14.4	0.0	1.8	1.5	1.5	
Cycle Q Clear(g_c), s		6.8	2.3	0.0		0.2	14.4	0.0	1.8	1.5	1.5	
Prop In Lane		1.00		1.00		1.00		1.00	1.00		0.10	
Lane Grp Cap(c), veh/h		361	1359			463	1046		373	454	469	
V/C Ratio(X)		0.55	0.10			0.01	0.62		0.13	0.08	0.08	
Avail Cap(c_a), veh/h		671	1359			741	1046		409	454	469	
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)		1.00	1.00	0.00		1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh		19.4	17.9	0.0		22.1	27.7	0.0	20.8	24.2	24.3	
Incr Delay (d2), s/veh		1.0	0.2	0.0		0.0	0.9	0.0	0.1	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	
%ile BackOfQ(95%),veh/ln		4.7	1.6	0.0		0.1	9.8	0.0	1.3	1.0	1.1	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		20.4	18.0	0.0		22.1	28.6	0.0	21.0	24.3	24.3	
LnGrp LOS		C	B			C	C		C	C	C	
Approach Vol, veh/h			341				657			123		
Approach Delay, s/veh			19.4				28.5			23.0		
Approach LOS			B				C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.8	41.0	10.0	34.0	14.1	32.7	12.8	31.2				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green Setting (Gmax), s	15.0	35.0	7.0	28.0	25.0	25.0	15.0	20.0				
Max Q Clear Time (g_c+I1), s	2.2	4.3	3.8	30.0	8.8	16.4	7.8	3.5				
Green Ext Time (p_c), s	0.0	0.3	0.0	0.0	0.3	1.1	0.2	0.1				

Intersection Summary

HCM 6th Ctrl Delay	47.2
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

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

HCM 6th Signalized Intersection Summary
 1: S Main St & Mustang Dr

08/02/2022



Movement	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (veh/h)	146	78	490
Future Volume (veh/h)	146	78	490
Initial Q (Qb), veh	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00
Work Zone On Approach		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841
Adj Flow Rate, veh/h	159	85	533
Peak Hour Factor	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4
Cap, veh/h	570	567	481
Arrive On Green	0.09	0.31	0.31
Sat Flow, veh/h	1753	1841	1560
Grp Volume(v), veh/h	159	85	533
Grp Sat Flow(s),veh/h/ln	1753	1841	1560
Q Serve(g_s), s	5.8	3.0	28.0
Cycle Q Clear(g_c), s	5.8	3.0	28.0
Prop In Lane	1.00		1.00
Lane Grp Cap(c), veh/h	570	567	481
V/C Ratio(X)	0.28	0.15	1.11
Avail Cap(c_a), veh/h	709	567	481
HCM Platoon Ratio	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.3	22.8	31.4
Incr Delay (d2), s/veh	0.2	0.0	74.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.1	2.3	29.1
Unsig. Movement Delay, s/veh			
LnGrp Delay(d),s/veh	20.5	22.8	105.4
LnGrp LOS	C	C	F
Approach Vol, veh/h		777	
Approach Delay, s/veh		79.0	
Approach LOS		E	
Timer - Assigned Phs			

HCM 6th Signalized Intersection Summary

2: W Airfield Dr & Mustang Dr/N Airfield Dr

08/02/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↔	↑↑	↔	↗
Traffic Volume (veh/h)	128	161	611	510	291	365
Future Volume (veh/h)	128	161	611	510	291	365
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	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	1811	1811	1781	1781	1767	1767
Adj Flow Rate, veh/h	139	0	664	554	316	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	6	6	8	8	9	9
Cap, veh/h	1577		985	2512	393	
Arrive On Green	0.46	0.00	0.23	0.74	0.12	0.00
Sat Flow, veh/h	3622	0	1697	3474	3264	1497
Grp Volume(v), veh/h	139	0	664	554	316	0
Grp Sat Flow(s),veh/h/ln	1721	0	1697	1692	1632	1497
Q Serve(g_s), s	2.0	0.0	16.4	4.4	8.2	0.0
Cycle Q Clear(g_c), s	2.0	0.0	16.4	4.4	8.2	0.0
Prop In Lane		0.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1577		985	2512	393	
V/C Ratio(X)	0.09		0.67	0.22	0.80	
Avail Cap(c_a), veh/h	1577		1184	2512	748	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.3	0.0	6.3	3.5	37.4	0.0
Incr Delay (d2), s/veh	0.1	0.0	1.0	0.0	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.3	0.0	7.4	1.6	5.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.4	0.0	7.3	3.5	38.9	0.0
LnGrp LOS	B		A	A	D	
Approach Vol, veh/h	139			1218	316	
Approach Delay, s/veh	13.4			5.6	38.9	
Approach LOS	B			A	D	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	24.8	46.0			70.8	16.5
Change Period (Y+Rc), s	5.0	6.0			6.0	6.0
Max Green Setting (Gmax), s	30.0	40.0			40.0	20.0
Max Q Clear Time (g_c+I1), s	18.4	4.0			6.4	10.2
Green Ext Time (p_c), s	1.4	0.3			1.2	0.3

Intersection Summary

HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

Notes

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

HCM 6th Signalized Intersection Summary
 3: N Airfield Dr & Texan Trail

08/02/2022



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT
Lane Configurations												
Traffic Volume (veh/h)	116	27	483	9	11	9	327	117	10	1	5	695
Future Volume (veh/h)	116	27	483	9	11	9	327	117	10	1	5	695
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1737	1737	1737	1885	1885	1885	1737	1737	1737		1826	1826
Adj Flow Rate, veh/h	147	0	525	10	12	10	355	127	11		5	755
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		0.92	0.92
Percent Heavy Veh, %	11	11	11	1	1	1	11	11	11		5	5
Cap, veh/h	1030	0	458	17	21	17	433	1284	573		11	883
Arrive On Green	0.31	0.00	0.31	0.03	0.03	0.03	0.13	0.39	0.39		0.01	0.25
Sat Flow, veh/h	3309	0	1472	550	660	550	3209	3300	1472		1739	3469
Grp Volume(v), veh/h	147	0	525	32	0	0	355	127	11		5	755
Grp Sat Flow(s),veh/h/ln	1654	0	1472	1759	0	0	1605	1650	1472		1739	1735
Q Serve(g_s), s	2.6	0.0	25.0	1.4	0.0	0.0	8.6	2.0	0.4		0.2	16.7
Cycle Q Clear(g_c), s	2.6	0.0	25.0	1.4	0.0	0.0	8.6	2.0	0.4		0.2	16.7
Prop In Lane	1.00		1.00	0.31		0.31	1.00		1.00		1.00	
Lane Grp Cap(c), veh/h	1030	0	458	56	0	0	433	1284	573		11	883
V/C Ratio(X)	0.14	0.00	1.15	0.57	0.00	0.00	0.82	0.10	0.02		0.44	0.85
Avail Cap(c_a), veh/h	1030	0	458	219	0	0	799	1284	573		433	1080
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	19.9	0.0	27.7	38.4	0.0	0.0	33.8	15.6	15.1		39.8	28.5
Incr Delay (d2), s/veh	0.0	0.0	88.6	3.4	0.0	0.0	1.5	0.0	0.0		9.5	5.0
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	0.0
%ile BackOfQ(95%),veh/ln	1.6	0.0	29.3	1.2	0.0	0.0	5.8	1.2	0.2		0.2	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.0	0.0	116.3	41.8	0.0	0.0	35.3	15.6	15.1		49.2	33.5
LnGrp LOS	B	A	F	D	A	A	D	B	B		D	C
Approach Vol, veh/h		672			32			493				760
Approach Delay, s/veh		95.2			41.8			29.8				33.6
Approach LOS		F			D			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	37.3		30.0	16.8	26.0		7.6				
Change Period (Y+Rc), s	5.0	6.0		5.0	6.0	* 5.5		5.0				
Max Green Setting (Gmax), s	20.0	25.0		25.0	20.0	* 25		10.0				
Max Q Clear Time (g_c+I1), s	2.2	4.0		27.0	10.6	18.7		3.4				
Green Ext Time (p_c), s	0.0	0.2		0.0	0.2	1.8		0.0				

Intersection Summary

HCM 6th Ctrl Delay	53.9
HCM 6th LOS	D

Notes

- User approved volume balancing among the lanes for turning movement.
- 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
 3: N Airfield Dr & Texan Trail

08/02/2022



Movement	SWR
Lane Configurations	
Traffic Volume (veh/h)	121
Future Volume (veh/h)	121
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1826
Adj Flow Rate, veh/h	0
Peak Hour Factor	0.92
Percent Heavy Veh, %	5
Cap, veh/h	
Arrive On Green	0.00
Sat Flow, veh/h	1547
Grp Volume(v), veh/h	0
Grp Sat Flow(s),veh/h/ln	1547
Q Serve(g_s), s	0.0
Cycle Q Clear(g_c), s	0.0
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	
V/C Ratio(X)	
Avail Cap(c_a), veh/h	
HCM Platoon Ratio	1.00
Upstream Filter(l)	0.00
Uniform Delay (d), s/veh	0.0
Incr Delay (d2), s/veh	0.0
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	0.0
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	0.0
LnGrp LOS	
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	
Unsignalized Delay for [SWR] is excluded from calculations of the approach delay and intersection delay.	

HCM 6th Signalized Intersection Summary
 5: W Airfield Dr & W 17th St (East)

08/02/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗	↘		↖	↘	↕		↘	↕	
Traffic Volume (veh/h)	9	0	5	23	0	42	1	629	11	36	810	1
Future Volume (veh/h)	9	0	5	23	0	42	1	629	11	36	810	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1278	0	1278	1781	1781	1781	1752	1752	1752
Adj Flow Rate, veh/h	10	0	5	25	0	46	1	684	12	39	880	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	42	0	42	8	8	8	10	10	10
Cap, veh/h	44	0	40	0	0	0	511	2400	42	664	2680	3
Arrive On Green	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.71	0.71	0.08	0.79	0.79
Sat Flow, veh/h	1810	0	1610		0		1697	3403	60	1668	3411	4
Grp Volume(v), veh/h	10	0	5		0.0		1	340	356	39	429	452
Grp Sat Flow(s),veh/h/ln	1810	0	1610				1697	1692	1771	1668	1664	1751
Q Serve(g_s), s	0.5	0.0	0.3				0.0	6.3	6.3	0.4	6.3	6.3
Cycle Q Clear(g_c), s	0.5	0.0	0.3				0.0	6.3	6.3	0.4	6.3	6.3
Prop In Lane	1.00		1.00				1.00		0.03	1.00		0.00
Lane Grp Cap(c), veh/h	44	0	40				511	1193	1249	664	1307	1375
V/C Ratio(X)	0.23	0.00	0.13				0.00	0.28	0.29	0.06	0.33	0.33
Avail Cap(c_a), veh/h	425	0	378				907	1193	1249	919	1307	1375
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.7	0.0	40.6				3.7	4.6	4.6	2.0	2.6	2.6
Incr Delay (d2), s/veh	0.9	0.0	0.5				0.0	0.6	0.6	0.0	0.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.4	0.0	0.2				0.0	3.0	3.1	0.1	2.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.6	0.0	41.1				3.7	5.2	5.2	2.0	3.3	3.3
LnGrp LOS	D	A	D				A	A	A	A	A	A
Approach Vol, veh/h		15						697			920	
Approach Delay, s/veh		41.5						5.2			3.2	
Approach LOS		D						A			A	
Timer - Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	12.0	66.0		7.1	5.2	72.8						
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0						
Max Green Setting (Gmax), s	20.0	60.0		20.0	20.0	60.0						
Max Q Clear Time (g_c+I1), s	2.4	8.3		2.5	2.0	8.3						
Green Ext Time (p_c), s	0.0	2.5		0.0	0.0	3.3						
Intersection Summary												
HCM 6th Ctrl Delay			4.4									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary

6: W Airfield Dr & W 19th St

08/02/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔		↔	↔		↔	↕		↔	↕	
Traffic Volume (veh/h)	49	0	47	58	0	37	6	570	132	105	827	3
Future Volume (veh/h)	49	0	47	58	0	37	6	570	132	105	827	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1796	1796	1796	1796	1796	1796	1781	1781	1781
Adj Flow Rate, veh/h	53	0	51	63	0	40	7	620	143	114	899	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	7	7	7	7	7	7	8	8	8
Cap, veh/h	420	0	211	400	0	210	303	933	215	405	1435	5
Arrive On Green	0.05	0.00	0.13	0.06	0.00	0.14	0.01	0.34	0.34	0.09	0.41	0.41
Sat Flow, veh/h	1810	0	1610	1711	0	1522	1711	2754	634	1697	3460	12
Grp Volume(v), veh/h	53	0	51	63	0	40	7	384	379	114	440	462
Grp Sat Flow(s),veh/h/ln	1810	0	1610	1711	0	1522	1711	1706	1682	1697	1692	1779
Q Serve(g_s), s	1.1	0.0	1.3	1.4	0.0	1.0	0.1	8.5	8.5	1.7	9.1	9.1
Cycle Q Clear(g_c), s	1.1	0.0	1.3	1.4	0.0	1.0	0.1	8.5	8.5	1.7	9.1	9.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.38	1.00		0.01
Lane Grp Cap(c), veh/h	420	0	211	400	0	210	303	578	570	405	702	738
V/C Ratio(X)	0.13	0.00	0.24	0.16	0.00	0.19	0.02	0.66	0.67	0.28	0.63	0.63
Avail Cap(c_a), veh/h	731	0	546	683	0	516	673	1542	1520	644	1529	1608
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.1	0.0	17.3	15.0	0.0	16.9	9.8	12.5	12.5	8.4	10.2	10.2
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.1	0.0	0.2	0.0	0.5	0.5	0.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.7	0.0	0.8	0.8	0.0	0.6	0.1	4.2	4.2	0.7	4.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.2	0.0	17.5	15.1	0.0	17.1	9.8	13.0	13.0	8.5	10.6	10.6
LnGrp LOS	B	A	B	B	A	B	A	B	B	A	B	B
Approach Vol, veh/h		104			103			770			1016	
Approach Delay, s/veh		16.3			15.9			13.0			10.4	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.8	19.0	6.7	10.8	4.4	22.4	6.4	11.1				
Change Period (Y+Rc), s	4.0	4.0	4.0	* 5	4.0	4.0	4.0	5.0				
Max Green Setting (Gmax), s	10.0	40.0	10.0	* 15	10.0	40.0	10.0	15.0				
Max Q Clear Time (g_c+I1), s	3.7	10.5	3.4	3.3	2.1	11.1	3.1	3.0				
Green Ext Time (p_c), s	0.0	1.4	0.0	0.1	0.0	1.6	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	12.0
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

7: W Airfield Dr & W 21st St

08/02/2022



Movement	SEU	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT
Lane Configurations		↔	↕	↗	↔	↕	↗		↕			↖
Traffic Volume (veh/h)	1	15	881	1	0	607	11	14	0	2	16	0
Future Volume (veh/h)	1	15	881	1	0	607	11	14	0	2	16	0
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No			No			No			No
Adj Sat Flow, veh/h/ln		1781	1781	1781	1781	1781	1781	1870	1870	1870	1796	1796
Adj Flow Rate, veh/h		16	958	1	0	660	12	15	0	2	17	0
Peak Hour Factor		0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %		8	8	8	8	8	8	2	2	2	7	7
Cap, veh/h		65	2526	1127	2	2157	962	206	6	16	240	0
Arrive On Green		0.04	0.75	0.75	0.00	0.64	0.64	0.10	0.00	0.10	0.10	0.00
Sat Flow, veh/h		1697	3385	1510	1697	3385	1510	1126	62	158	1414	0
Grp Volume(v), veh/h		16	958	1	0	660	12	17	0	0	17	0
Grp Sat Flow(s),veh/h/ln		1697	1692	1510	1697	1692	1510	1346	0	0	1414	0
Q Serve(g_s), s		0.6	7.1	0.0	0.0	6.2	0.2	0.4	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s		0.6	7.1	0.0	0.0	6.2	0.2	1.1	0.0	0.0	0.6	0.0
Prop In Lane		1.00		1.00	1.00		1.00	0.88		0.12	1.00	
Lane Grp Cap(c), veh/h		65	2526	1127	2	2157	962	228	0	0	240	0
V/C Ratio(X)		0.25	0.38	0.00	0.00	0.31	0.01	0.07	0.00	0.00	0.07	0.00
Avail Cap(c_a), veh/h		481	2526	1127	481	2157	962	488	0	0	492	0
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)		1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh		33.0	3.2	2.3	0.0	5.8	4.7	29.2	0.0	0.0	29.0	0.0
Incr Delay (d2), s/veh		0.7	0.4	0.0	0.0	0.4	0.0	0.1	0.0	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	0.0
%ile BackOfQ(95%),veh/ln		0.5	2.0	0.0	0.0	2.8	0.1	0.5	0.0	0.0	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		33.7	3.6	2.3	0.0	6.1	4.7	29.3	0.0	0.0	29.1	0.0
LnGrp LOS		C	A	A	A	A	A	C	A	A	C	A
Approach Vol, veh/h			975			672			17			43
Approach Delay, s/veh			4.1			6.1			29.3			29.3
Approach LOS			A			A			C			C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.7	51.0		11.9	0.0	58.7		11.9				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	20.0	45.0		20.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+I1), s	2.6	8.2		3.1	0.0	9.1		3.1				
Green Ext Time (p_c), s	0.0	2.8		0.0	0.0	4.5		0.0				

Intersection Summary

HCM 6th Ctrl Delay	5.8
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary

7: W Airfield Dr & W 21st St

08/02/2022



Movement	SWR
Lane Configurations	7
Traffic Volume (veh/h)	24
Future Volume (veh/h)	24
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1796
Adj Flow Rate, veh/h	26
Peak Hour Factor	0.92
Percent Heavy Veh, %	7
Cap, veh/h	149
Arrive On Green	0.10
Sat Flow, veh/h	1522
Grp Volume(v), veh/h	26
Grp Sat Flow(s),veh/h/ln	1522
Q Serve(g_s), s	1.1
Cycle Q Clear(g_c), s	1.1
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	149
V/C Ratio(X)	0.17
Avail Cap(c_a), veh/h	431
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	29.2
Incr Delay (d2), s/veh	0.2
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	0.7
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	29.4
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

HCM 6th Signalized Intersection Summary

8: W Airfield Dr & W 23rd St

08/02/2022



Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations	↵		↑↑	↱		↵	↑↑
Traffic Volume (veh/h)	61	68	406	35	1	40	992
Future Volume (veh/h)	61	68	406	35	1	40	992
Initial Q (Qb), veh	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00		1.00	
Parking Bus, Adj	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	1604	1604	1767	1767		1796	1796
Adj Flow Rate, veh/h	66	0	441	38		43	1078
Peak Hour Factor	0.92	0.92	0.92	0.92		0.92	0.92
Percent Heavy Veh, %	20	20	9	9		7	7
Cap, veh/h	130		1761	785		658	2366
Arrive On Green	0.09	0.00	0.52	0.52		0.06	0.69
Sat Flow, veh/h	1506	0	3445	1497		1711	3503
Grp Volume(v), veh/h	67	0	441	38		43	1078
Grp Sat Flow(s),veh/h/ln	1528	0	1678	1497		1711	1706
Q Serve(g_s), s	2.0	0.0	3.4	0.6		0.5	6.7
Cycle Q Clear(g_c), s	2.0	0.0	3.4	0.6		0.5	6.7
Prop In Lane	0.99	0.00		1.00		1.00	
Lane Grp Cap(c), veh/h	132		1761	785		658	2366
V/C Ratio(X)	0.51		0.25	0.05		0.07	0.46
Avail Cap(c_a), veh/h	481		1761	785		980	2366
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	20.8	0.0	6.2	5.5		3.7	3.3
Incr Delay (d2), s/veh	1.1	0.0	0.3	0.1		0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(95%),veh/ln	1.3	0.0	1.4	0.2		0.1	1.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	21.9	0.0	6.5	5.6		3.7	3.9
LnGrp LOS	C		A	A		A	A
Approach Vol, veh/h	67		479				1121
Approach Delay, s/veh	21.9		6.5				3.9
Approach LOS	C		A				A
Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	8.0	30.5				38.5	9.1
Change Period (Y+Rc), s	5.0	5.5				5.5	5.0
Max Green Setting (Gmax), s	12.0	25.0				25.0	15.0
Max Q Clear Time (g_c+I1), s	2.5	5.4				8.7	4.0
Green Ext Time (p_c), s	0.0	2.1				5.5	0.0

Intersection Summary

HCM 6th Ctrl Delay			5.4				
HCM 6th LOS			A				

Notes

User approved volume balancing among the lanes for turning movement.

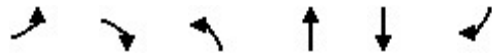
User approved ignoring U-Turning movement.

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

HCM 6th Signalized Intersection Summary

9: W Airfield Dr & E Glade Rd

08/02/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	81	100	191	315	800	328
Future Volume (veh/h)	81	100	191	315	800	328
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	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	1811	1811	1856	1856
Adj Flow Rate, veh/h	88	0	208	342	870	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	6	6	3	3
Cap, veh/h	125		560	2761	2359	
Arrive On Green	0.07	0.00	0.08	0.80	0.67	0.00
Sat Flow, veh/h	1810	1610	1725	3532	3618	1572
Grp Volume(v), veh/h	88	0	208	342	870	0
Grp Sat Flow(s),veh/h/ln	1810	1610	1725	1721	1763	1572
Q Serve(g_s), s	4.3	0.0	2.8	2.0	9.7	0.0
Cycle Q Clear(g_c), s	4.3	0.0	2.8	2.0	9.7	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	125		560	2761	2359	
V/C Ratio(X)	0.70		0.37	0.12	0.37	
Avail Cap(c_a), veh/h	504		714	2761	2359	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.8	0.0	3.9	1.9	6.5	0.0
Incr Delay (d2), s/veh	2.7	0.0	0.2	0.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.5	0.0	1.0	0.5	5.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.5	0.0	4.0	2.0	7.0	0.0
LnGrp LOS	D		A	A	A	
Approach Vol, veh/h	88			550	870	
Approach Delay, s/veh	43.5			2.8	7.0	
Approach LOS	D			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		78.0		11.7	12.0	66.0
Change Period (Y+Rc), s		6.0		5.5	5.0	6.0
Max Green Setting (Gmax), s		60.0		25.0	15.0	60.0
Max Q Clear Time (g_c+I1), s		4.0		6.3	4.8	11.7
Green Ext Time (p_c), s		1.0		0.1	0.1	2.9

Intersection Summary

HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

Notes

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

HCM 6th TWSC
4: W Airfield Dr & W 17th St (West)

08/02/2022

Intersection													
Int Delay, s/veh	1.5												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	6	1	104	4	1	9	1	26	626	3	4	826	8
Future Vol, veh/h	6	1	104	4	1	9	1	26	626	3	4	826	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	130	-	-	125	-	-
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, %	15	15	15	20	20	20	9	9	9	9	9	9	9
Mvmt Flow	7	1	113	4	1	10	1	28	680	3	4	898	9

Major/Minor	Minor2		Minor1			Major1				Major2			
Conflicting Flow All	1310	1652	454	1198	1655	342	907	907	0	0	683	0	0
Stage 1	911	911	-	740	740	-	-	-	-	-	-	-	-
Stage 2	399	741	-	458	915	-	-	-	-	-	-	-	-
Critical Hdwy	7.8	6.8	7.2	7.9	6.9	7.3	6.58	4.28	-	-	4.28	-	-
Critical Hdwy Stg 1	6.8	5.8	-	6.9	5.9	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.8	5.8	-	6.9	5.9	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.65	4.15	3.45	3.7	4.2	3.5	2.59	2.29	-	-	2.29	-	-
Pot Cap-1 Maneuver	104	86	519	122	81	604	361	704	-	-	860	-	-
Stage 1	270	323	-	336	381	-	-	-	-	-	-	-	-
Stage 2	564	391	-	507	311	-	-	-	-	-	-	-	-
Platoon blocked, %									-	-		-	-
Mov Cap-1 Maneuver	98	82	519	91	77	604	668	668	-	-	860	-	-
Mov Cap-2 Maneuver	98	82	-	91	77	-	-	-	-	-	-	-	-
Stage 1	258	321	-	322	365	-	-	-	-	-	-	-	-
Stage 2	529	374	-	393	309	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.1	25	0.4	0
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	668	-	-	98	494	195	860	-	-
HCM Lane V/C Ratio	0.044	-	-	0.067	0.231	0.078	0.005	-	-
HCM Control Delay (s)	10.6	-	-	44.3	14.5	25	9.2	-	-
HCM Lane LOS	B	-	-	E	B	D	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.9	0.3	0	-	-

Appendix E: High-Cube Warehouse Vehicle Trip Generation Analysis Report

HIGH-CUBE WAREHOUSE VEHICLE TRIP GENERATION ANALYSIS

PREPARED FOR
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
AND
NATIONAL ASSOCIATION OF INDUSTRIAL AND OFFICE PROPERTIES

PREPARED BY
INSTITUTE OF TRANSPORTATION ENGINEERS
WASHINGTON, DC

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ACKNOWLEDGEMENT AND DISCLAIMER

This report was prepared as a result of work sponsored, paid for, in whole or in part, by the South Coast Air Quality Management District (SCAQMD) and NAIOP (National Association of Industrial and Office Properties (NAIOP)). The report is the product of a collaborative process by which ITE, SCAQMD, and NAIOP embarked upon an effort to better understand vehicle trip generation rates at high-cube warehouse facilities.

The opinions, findings, conclusions, and recommendations are those of the author and do not necessarily represent the views of SCAQMD or NAIOP. SCAQMD, NAIOP, their officers, employees, contractors, and subcontractors make no warranty, expressed or implied, and assume no legal liability for the information in this report. SCAQMD and NAIOP have not approved or disapproved this report, nor has SCAQMD or NAIOP passed upon the accuracy or adequacy of the information contained herein.

The NAIOP Inland Empire and Southern California Chapters provided direct input for various items of the report, including a suggested high-cube warehouse classification system.

EXECUTIVE SUMMARY

Purpose – South Coast Air Quality Management District (SCAQMD) and NAIOP (National Association of Industrial and Office Properties) provided funding to the Institute of Transportation Engineers (ITE) to help in the establishment of national guidance for the estimation of vehicle trip generation at what are commonly called high-cube warehouse distribution centers (HCW).

Definition of High-Cube Warehouse – A high-cube warehouse is a building that typically has at least 200,000 gross square feet of floor area, has a ceiling height of 24 feet or more, and is used primarily for the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. A typical HCW has a high level of on-site automation and logistics management. The automation and logistics enable highly-efficient processing of goods through the HCW. For the purpose of this trip generation analysis, HCWs are grouped into five types: fulfillment center, parcel hub, cold storage facility, transload facility, and short-term storage facility.

Data Sources – The analysis contained herein is based on data from 15 separate data sources, including recent data collected under the sponsorship of SCAQMD and NAIOP. The database includes trip generation information from 107 individual sites.

Findings – The HCW market continues to evolve as individual tenants/owners implement different e-commerce business plans. For example, some deliver goods to the customer within two days and others deliver orders to the nearest store for customer pick-up. As business plans and technology continue to evolve, these should continue to be monitored. Although the tenant or its planned operations are often unknown at the time of site development review, for the purpose of estimating vehicle trip generation, it may be as important to know the tenant as much as other facility factors.

For transload, short-term storage, and cold storage HCWs, the proportionate mix of types of vehicles (i.e., cars versus trucks) accessing the site is very consistent, both daily and during the AM and PM peak hours.

For a cold storage HCW, the currently available data demonstrates a useable, direct correlation between building size and vehicle trip generation.

The single data points for fulfillment centers and parcel hubs indicate that they have significantly different vehicle trip generation characteristics compared to other HCWs. However, there are insufficient data from which to derive useable trip generation rates.

For transload and short-term storage HCW sites, additional data sites and additional information on past sites are needed in order to derive useable trip generation rates.

Recommendations (Action Plan) – A strategically-developed data collection program is needed that targets each type of HCW individually. The strategy should include a prioritized plan for collecting additional data at five classifications of HCWs that are representative of the types of facilities expected to be commonly developed in coming years. The data should be collected at mature facilities, each of which clearly fits within one HCW classification, during periods of typical levels of activity based on the types of facilities and businesses served.

All future data collection should seek to acquire an enhanced set of site descriptive information that will enable development of better predictive models than are currently available.

STUDY PURPOSE AND PROCESS

South Coast Air Quality Management District (SCAQMD) and NAIOP (National Association of Industrial and Office Properties) provided funding to the Institute of Transportation Engineers (ITE) to help in the establishment of consensus-based national guidance for the estimation of trip generation at what are commonly called high-cube warehouses (HCW). This report documents the results of that effort to develop a credible and defensible procedure for collecting and analyzing site trip generation data for use in transportation impact analyses (TIA) and air quality/vehicular emissions analyses (AQA¹) for HCW-type facilities.

ITE convened a meeting of practitioner-based experts at ITE Headquarters on April 1, 2015. The meeting participants are listed in Table 1. At the meeting's conclusion, several individuals were tasked with development of specific products, including the following:

- An overall work plan for this report and for subsequent data collection and analysis
- A clear and consistent definition of HCW for this report and for future studies and analysis
- A vehicle classification scheme that satisfies ultimate data requirements for TIA and AQA and complies with reasonable data collection capabilities and budgets

ITE staff assumed responsibility for compilation and analysis of existing HCW trip generation data.

The full expert panel provided comments and suggestions on each interim product that eventually became part of this complete report. Nevertheless, responsibility for content completeness and data analysis accuracy rests with ITE staff.

Table 1. Expert Panel for High-Cube Warehouse Trip Generation Study

Mr. Brian Bochner	Texas A&M Transportation Institute, College Station, Texas
Mr. Paul Basha	City of Scottsdale, Arizona
Mr. Milton Carrasco	Transoft Solutions, Inc., Richmond, British Columbia
Dr. Kelly Clifton	Portland State University, Portland, Oregon
Mr. Henry Hogo (for Mr. Barry Wallerstein)	South Coast Air Quality Management District, Diamond Bar, California
Mr. Kim Snyder	Prologis, Cerritos, California
Ms. Cecilia Ho	Federal Highway Administration, Washington, DC
Mr. Ian Macmillan	South Coast Air Quality Management District, Diamond Bar, California
Mr. Thomas Phelan	VHB, Newark, New Jersey
Mr. Jeremy Raw	Federal Highway Administration, Washington, DC
Mr. Erik Ruehr	VRPA Technologies, San Diego, California
Mr. Frank Sherkow	Southstar Engineering and Consulting, Inc., Yachats, Oregon
Mr. Joe Zietsman	Texas A&M Transportation Institute, College Station, Texas
Mr. Tom Brahms	Institute of Transportation Engineers, Washington, DC
Mr. Kevin Hooper	Institute of Transportation Engineers, Washington, DC
Ms. Lisa Tierney	Institute of Transportation Engineers, Washington, DC

¹ In California, when a new warehouse project is proposed, it undergoes environmental review pursuant to the California Environmental Quality Act (CEQA). Air quality analyses conducted pursuant to CEQA typically compare project emissions against local air district thresholds to determine the potential significance of the project's air quality impacts. These emission estimates rely on trip generation rates to determine the volume of cars and trucks that could visit the proposed project site.

HIGH-CUBE WAREHOUSE DEFINITION

A high-cube warehouse (HCW) is a building that typically has at least 200,000 gross square feet of floor area, has a ceiling height of 24 feet or more, and is used primarily for the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. A typical HCW has a high level of on-site automation and logistics management. The automation and logistics enable highly-efficient processing of goods through the HCW.²

A classification scheme for different types of HCWs is presented in Table 2 along with their distinctive characteristics. The characteristics of a typical standard warehouse are provided for comparative purposes. The five types of HCW are the following:

- Transload – usually pallet loads or larger handling products of manufacturers, wholesalers/distributors, or retailers with little or no storage durations
- Short-Term Storage – products held on-site for a short time
- Cold Storage – HCW with permanent cold storage in at least part of the building
- Fulfillment Center – storage and direct distribution of e-commerce product to end users
- Parcel Hub – transload function for a parcel delivery company

² High-cube warehouses are classified as Land Use Code 152 in ITE *Trip Generation Manual*, 9th Edition. The definition provided in *Trip Generation Manual* for HCW is as follows:

“High-cube warehouses/distribution centers are used for the storage of materials, goods and merchandise prior to their distribution to retail outlets, distribution centers or warehouses. These facilities are typically characterized by ceiling heights of at least 24 feet with small employment counts due to a high level of mechanization. High-cube warehouses/distribution centers generally consist of large steel or masonry shell buildings and may be occupied by or multiple tenants. A small ancillary office use component may be included and some limited assembly and repackaging may occur within these facilities.

“High-cube warehouses/distribution centers may be located in industrial parks or be free-standing. Intermodal truck terminal (Land Use 030), industrial park (Land Use 130), manufacturing (Land Use 140) and warehousing (Land Use 150) are related uses.”

When the 10th edition of *Trip Generation Manual* is developed, the findings and recommendations of this report will be reflected in an updated definition for high-cube warehouses.

Table 2. High-Cube Warehouse Classifications

	Standard Warehouse/ Storage	Transload Facility	Short-Term Storage	Cold Storage	Fulfillment Center	Parcel Hub
Description and Key Warehouse Functions						
Typical Functions	Products stored on-site typically for more than one month	Focus on consolidation and distribution of pallet loads (or larger) of manufacturers, wholesalers, or retailers; little storage duration; high throughput and high-efficiency	Focus on warehousing/ distribution with distribution space operated at high efficiency; often with custom/special features built into structure for movement of large volumes of freight	Temperature-controlled for frozen food or other perishable products stored in any type of HCW; building built with substantial insulation, including foundation, walls, and roof ³	Storage and direct distribution of e-commerce product to end users; smaller packages and quantities than for other types of HCW; often multiple mezzanine levels for product storage and picking	Regional and local freight-forwarder facility for time-sensitive shipments via air freight and ground (e.g., UPS, FedEx, USPS); site often includes truck maintenance, wash, or fueling facilities
Break-Bulk or Assembly	Can include break-bulk and assembly activities	Very limited pick-and-pack area within facility	May or may not include break-bulk, repack or assembly activities	Limited or no break-bulk, repack or assembly activities	Pick-and-pack area comprises majority of space	Limited or no break-bulk, repack or assembly activities
Place in Supply Chain		Usually for final distribution to retail stores but can be for manufacturer to wholesale distribution		Typically, late in the supply chain for final distribution to retail stores or local, smaller distribution centers	Typically, freight for final consumption (business-to-business and consumers)	Can be situated at multiple points in the supply chain (intermediate or final delivery)

³ Cold storage products (e.g., flowers and other perishables) that are not frozen must be shipped within hours or a few days. Cold storage products that are frozen may take a long time to ship. Products in these facilities may be treated more like typical HCW products.

	Standard Warehouse/ Storage	Transload Facility	Short-Term Storage	Cold Storage	Fulfillment Center	Parcel Hub
Location	Typically in an industrial area within urban area or urban periphery	Typically in an area with convenient freeway access; often in rural or urban periphery area	Typically in an area with convenient freeway access	Depends on supply and demand markets	Often near a parcel hub or USPS facility, due to time sensitivity of freight	Typically in close proximity to airport; often stand-alone
Overall Site Layout						
Employee Parking		Smaller employee parking ratio (per facility square foot) than fulfillment center or parcel hub	Smaller employee parking ratio (per facility square foot) than fulfillment center or parcel hub		Larger parking supply ratio than for all other HCW types	Larger employee parking ratios; truck drivers often based at facility (i.e., parking may be for both site employees and drivers)
Truck & Trailer Parking	Limited truck parking area; increases with distance to major distribution hub	Large, open trailer parking area surrounding facility; produces high land to building ratio	Ratio of truck parking spaces to docks can vary between 0.5:1 and 1.5:1, with 1:1 being very common	Can vary with whether products are frozen or perishable ⁴	Significantly higher truck parking ratios than for other HCWs	Very high truck parking ratios to dock positions, often 2:1 or more
Loading Dock Location	Either on one side or on two adjacent sides	Minimum of two sides (adjacent or opposite); can be on four sides	On either one or two sides			Usually on both long sides of building; can be on four sides
Building Dimensions						
Length vs. Depth		Typical length vs. depth ranges between 3:1 and 2:1; shallower than Standard	Typical length vs. depth is 2:1; shallower than Standard			Typical configuration is cross-dock; building typically more shallow (150-300 feet across) than other HCWs

⁴ Cold storage product handling must be done quickly. Any product stored in a trailer on the site requires either an idling truck or an external power supply to maintain the temperature within the required ranges.

	Standard Warehouse/ Storage	Transload Facility	Short-Term Storage	Cold Storage	Fulfillment Center	Parcel Hub
Ceiling Height	Typically between 28 and 40 feet	Typically, lower than for other HCW	Typically between 28 and 34 feet, with some facilities in excess of 40 feet	Typically higher (70-100 feet) to maximize efficiency of refrigeration; frozen food tends to have a higher ceiling than produce handling	Often as high as 40 feet in order to accommodate up to three levels of interior mezzanines	Typically not as tall as other HCW; commonly between 18 and 20 feet range; racking not usually provided (i.e. floor-stack only)
Number of Docks	Low number of dock positions to overall facility, 1:20,000 square feet or lower	Typical dock-high loading door ratio is 1:10,000 square feet; common range between 1:5,000 & 1:15,000 square feet	Typically, 1:10,000 square feet or lower			
Automation						
Material Handling Systems	Little or no automation; mechanization limited to pallet jacks and forklifts	Very highly-mechanized material handling systems	Very highly-mechanized material handling systems; high ratio of material handling equipment to overall floor area	Very high clear height requires sophisticated material handling equipment	High levels of automation in material handling equipment	High levels of automation in material handling equipment
Conveying Systems	Little or no automation	Usually automated mechanized conveying	Usually limited automated conveying	Very high clear height requires a sophisticated conveyance system	High levels of automation in conveying systems	High levels of automation in conveying systems
Warehouse Mgmt Systems (WMS)		Some facilities use ASRS (Automated Storage and Retrieval Systems)			High levels of automation; some use of ASRS	High levels of automation

Table 2. Additional Descriptive Features

Typical Floor Area Ratios range between 35 and 60 percent. Standard, Fulfillment Center, and Parcel Hub sites tend to have higher values than Transload and Short-Term Storage HCW.

Office/Employee Welfare⁵ Space is highly variable and is insignificant within overall building square footage. Common values are between 3,000 and 5,000 square feet for Cold Storage and between 5,000 and 10,000 square feet for Transload Facility, Fulfillment Center, and Parcel Hub.

Movement of Goods in Trucks – For a Transload site, typical truck movements are comprised of full load, large trailers, both inbound and outbound. For some “last mile” or local distribution centers, long-haul trucks or international containers can arrive loaded and depart empty, while local delivery trucks arrive empty and depart loaded. For national and regional distribution centers, trucks can come in loaded and re-load with different product mix and depart loaded.

Hours of Operation and Peak Periods – Peak truck movement activity is often outside the peak commuting period on the adjacent street system. HCW operations are often 24 hours per day, every day of the year. For a Standard site, there is a greater likelihood that the site peak period of traffic operations may coincide with or be near the street peak period.


































Truck Sizes – Truck size can vary significantly between similar sites. Sizes and types are a function of the origins and destinations of the goods processed at the facility (i.e., location in the supply chain). Local deliveries to business/residential customers are commonly made with smaller trucks (except warehouses that, for example, deliver bulky items to a home improvement store). Longer distance travel or deliveries at early stages in the supply chain are typically with larger trailers. For Cold Storage and Fulfillment Center, the outbound trucks are often smaller because of cargo weight and last-mile distribution needs. Intermediate hubs accommodate large trucks on both the inbound and outbound side (e.g., FedEx Ground). “Final delivery” hubs have small trucks on the outbound side (e.g., FedEx Overnight).

⁵ Employee welfare area includes restrooms, locker rooms, and break rooms.

VEHICLE CLASSIFICATION FOR WAREHOUSE TRIP GENERATION DATA

The preferred vehicle classification scheme should satisfy both the ultimate needs for TIA and AQA analysis and comply with reasonable data collection capabilities and budgets. FHWA maintains a 13-category classification system for motorized vehicles (presented in Figure 1 and maintained at the following website: http://www.fhwa.dot.gov/policyinformation/tmguidetmg_2013/vehicle-types.cfm).

Figure 1. FHWA Vehicle Classification Types

Class 1 Motorcycles		Class 7 Four or more axle, single unit	
Class 2 Passenger cars		Class 8 Four or less axle, single trailer	
			
			
			
Class 3 Four tire, single unit		Class 9 5-Axle tractor semitrailer	
			
			
Class 4 Buses		Class 10 Six or more axle, single trailer	
			
			Class 11 Five or less axle, multi trailer
Class 5 Two axle, six tire, single unit		Class 12 Six axle, multi-trailer	
			
		Class 13 Seven or more axle, multi-trailer	
Class 6 Three axle, single unit			
			
			

The vehicle types that enter and exit a HCW site can be separated to correspond to individual “markets:”

- Vehicles used for employee and facility service access (i.e., for goods and services consumed on site)
- Vehicles used for local delivery access (e.g., wholesale and retail delivery for consumption in the local metropolitan area)
- Vehicles used for high-volume transfer (e.g., long-distance freight, relay distribution to other distribution or warehouse facilities)

A simple and straightforward correlation between “markets” and the 13 FHWA classifications is as follows:

1. Facility Access: includes Classes 2 and 3 (passenger cars and light trucks), and Classes 1 and 4 (motorcycles and buses) if observed
2. Local Goods Movement: includes Classes 5 through 7 (two-, three-, and four-axle single-unit trucks)
3. Long Distance Goods Movement: includes Classes 8 through 13 (multi-unit trucks)

A significant limitation to this classification scheme is the growing disconnect between truck size and trip length over time. They do not correlate as well for many carriers as they did in the past. There is a wide range of practices in deliveries and many prominent retail chains currently use trucks in Classes 8 and 9, for example, for local deliveries. In other words, a Class 8-13 vehicle is not necessarily a long-distance truck trip.

The primary advantage of mapping these vehicle types to the FHWA classification scheme is that commercially available automated monitoring equipment is generally capable of reporting the FHWA vehicle classes without specialized data interpretation.

Encouraging agencies to develop local counts of these facilities will also be more successful if the agencies can use standard automated counters without specialized software, even at the expense of occasional misclassification relative to “ideal” categories for a warehouse trip generation study. Video detection could make more information available, but at greater expense for data processing.

It is also important to recognize that counting equipment manufacturers (and often representatives of a public agency) are able to reprogram automated counters to use an alternate classification scheme. For example, if there is a specific axle configuration commonly used for domestic container freight versus international container freight at a particular data collection site, it may be feasible to detect. Such schemes are relatively easy to share among agencies using the same types of equipment.

As noted above, the observed physical vehicle type based on a FHWA class may not provide sufficient information on its own to identify the “purpose” of the truck trip. The classification scheme may need to be adjusted to reflect the specific trip-making to and from a subject warehouse site. The following are examples of refinements that could be necessary given the particular characteristics of a warehouse site:

1. Even in a standard traffic monitoring application, the distinction between a passenger car (Class 2) and a light truck (Class 3: pickups, large SUVs, vans) has limited benefit and is difficult to establish decisively. For the warehouse trip generation application, the merging of these classes should improve overall accuracy.
2. Local goods movement may also include Class 3 vehicles (specifically two-axle vans). If separate driveways are used for goods movement and general facility access, the Class 3 vehicles in the goods movement driveway can be considered local goods movement vehicles.
3. It is sometimes difficult for automated equipment to distinguish between a Class 4 vehicle (bus) and a Class 5/6 truck. In the rare circumstance where a bus enters or exits a warehouse site driveway, a manual count or simple reference to a published transit service schedule may be necessary.
4. Class 5 vehicles include “dualie” pickups which may operate as personal vehicles for facility access or as larger panel trucks often used for local goods delivery. The presence of and use of separate driveways for goods movement and general facility access may be the only means to distinguish between the two types of uses.

DATA NEEDS FOR TIA AND AQA

Typical data requirements for TIA and AQA are listed in Table 3. Some measures are used to classify a building type. Some measures can be used as independent variables with a direct relationship to the quantity of vehicle trips generated by a site (by vehicle type).

Table 3. Data Needs for HCW Trip Generation Analysis

Vehicle Trip Data	TIA	AQA
<i>Vehicle Trips by Vehicle Classification</i>		
• 2 classifications – car, truck	√	
• 4 classifications – personal passenger vehicle, parcel delivery, single unit truck, tractor-trailer combination	*6	√
<i>Vehicle Trips by Time-of-Day</i> (by vehicle classification)		
• Directional 15-minute volumes on a weekday (typically Tuesday, Wednesday, or Thursday)		
○ AM peak hour for generator	√	
○ AM peak hour for adjacent street	√	
○ PM peak hour for generator	√	
○ PM peak hour for adjacent street	√	
• Non-directional 24-hour volume on a weekday		√
<i>Vehicle Trips by Driveway</i> (if employees and freight delivery use separate driveways)	√	√
<i>Vehicle Trips within Context of Seasonal Variations</i>		
• Daily Variations	√	√
• Monthly Variations		√
• Highest Day of Year		√
Independent Variable Data		
<i>Building Size</i>		
Building GSF ⁷ (total, office, retail, manufacturing/enhancements, storage/distribution)	√	√
Building Volume (cubic feet)	√	√
Building Shape (length-to-depth ratio)		√
Number of High-Loading docks	√	√
<i>Building Function</i>		
Cold Storage Provided	√	√
NAICS Industrial Code	√	√
Employees	√	√
Commodity type (retail, manufacturing, other)	√	√
Where in Supply Chain (parts, manufacturer/assembly, wholesale/distributor, retailer)		√
<i>Site Size</i>		
Site acres	√	√
Floor area ratio (FAR)	√	√
Parking spaces (employee/visitor, truck/trailer)	√	√
<i>Site Context</i>		
Area type (urban, suburban, rural)	√	√
Distance to port (seaport, intermodal center, regional air cargo)	√	√

⁶ Some TIA may require truck classification information.

⁷ GSF is gross square footage of the building.

ASSEMBLY AND CLASSIFICATION OF CURRENTLY AVAILABLE DATA

Data from the following studies were compiled and analyzed for possible use in the trip generation analysis for the High-Cube Warehouse study:

- Warehouse Truck Trip Study, Data Results and Usage, South Coast Air Quality Management District, Diamond Bar, CA 2014
- Trip Generation Analysis for High-Cube Warehouse Distribution Center, prepared for NAIOP by Kunzman Associates, Laguna Hills, CA 2011
- Trip Generation Characteristics of Discount/Home Improvement Superstores, Major Distribution Centers, and Small Box Stores, prepared for Florida Department of Transportation by Wilbur Smith Associates 2011
- Western Riverside County Warehouse/Distribution Center Trip Generation Study, prepared for NAIOP by Crain & Associates, Los Angeles, CA 2008
- Westside Industrial Park Warehouse Trip Generation, prepared for Premier Airport Park by King Engineering Associates, Jacksonville, FL 2008
- Trip Generation Study, Existing High-Cube Warehouse Facilities, Visalia CA, prepared for The Allen group by Peters Engineering Group, Clovis CA 2008
- Large-Scale Retail Distribution Centers, prepared for Walmart Stores, Inc. by Kimley-Horn and Associates, Tampa, FL 2007
- Trip Generation Study, High-Cube Warehouse Buildings, Fresno, California, prepared for Diversified Development Group by Peters Engineering Group, Clovis CA 2007
- Trip Generation Study, High Cube Warehouse, prepared by Schoor Depalma, Manalapan, NJ 2006
- San Bernardino/Riverside County Warehouse/Distribution Center Vehicle Trip Generation Study, prepared for NAIOP by Crain & Associates, Los Angeles, CA 2005
- Truck Trip Generation Study, prepared for City of Fontana (CA) by Transportation Engineering and Planning, Inc. 2003
- Trip Generation Analysis for High-Cube Warehouses, prepared for City of Livermore, CA by Fehr & Peers Associates, Lafayette, CA 1989

The data also includes site trip generation data provided by Texas A&M Transportation Institute (2008-2009), Randall Parker (2007), and Washington State Department of Transportation (2002).

The data were reviewed for their applicability and only acceptable sites with appropriate data are used in the analysis presented in the following section of this report. Some of the purported high-cube warehouses are instead standard storage warehouses or multi-building industrial parks. Some of the high-cube warehouse data for individual sites could not be used due to unexplained data characteristics (e.g., a significant imbalance in inbound and outbound daily vehicle trips).

The final current database of HCW sites contains 107 data records with varying degrees of vehicle classification data and of daily and peak hour traffic counts.

HIGH-CUBE WAREHOUSE TRIP GENERATION DATA ANALYSIS⁸

Classification of Individual Data Records

Each record in the database of HCW sites was classified as one of five building types, defined earlier in this report. The criteria used to classify the sites represent information that is likely to be available at the time of site development review.

The database includes one fulfillment center, one parcel hub, and nine HCWs with a significant cold storage component⁹. The remaining 95 HCWs were separated into transload and short-term storage HCW based on two building configuration criteria:

- A transload building is assumed to have a length-to-depth ratio of at least 2:1 and has loading docks on at least two sides (either opposite or adjacent); there are 56 transload data points
- The remaining HCW sites (i.e., those that are not considered transload, cold storage, fulfillment center, or parcel hub) are classified as short-term storage HCWs; they total 39 sites

Building configuration is known at the time of site development review but has the limitation of not necessarily being indicative of the function of the HCW activities. If additional characteristics can be identified that (1) are predictive of the HCW function and (2) are available at the time of site development review, the database can be reexamined and potentially reclassified and reanalyzed.

Key Findings – Cars vs. Total Vehicles

There is a significant correlation between the number of cars that enter and exit a HCW site and the total number of vehicles that enter and exit a HCW site.

Table 4 lists the weighted averages for cars as a percentage of the total site-generated traffic at the five types of HCW. At short-term storage, transload, and cold storage HCWs, nearly 68 percent of the total daily site-generated vehicle trips are cars. During the AM peak hour, the measured percentage of cars is markedly similar (69 percent) to the daily (68 percent). During the PM peak hour, the measured percentage of cars is significantly higher (78 percent) than the daily value. The higher car percentage (and therefore, the lower truck percentage) is likely due to truck operations avoiding the afternoon peak period.

The fulfillment center has a significantly higher percentage of cars during the AM and PM peak hours and daily (due largely to the significantly higher number of employees at a fulfillment center compared to the other types of HCWs). The parcel hub has a significantly lower percentage of cars (and therefore a higher percentage of trucks) during the AM and PM peak hours and daily.

Table 4. Weighted Averages for Percentage of Total Daily Vehicles that are Cars, by Type of HCW

Type of High-Cube Warehouse	Cars as Percentage of Total Vehicles		
	Daily	AM Peak Hour	PM Peak Hour
Short-Term Storage, Transload & Cold Storage (100)	67.8%	69.2%	78.3%
Fulfillment Center (1)	91.2	97.2	98.2
Parcel Hub (1)	62.3	50.3	70.7

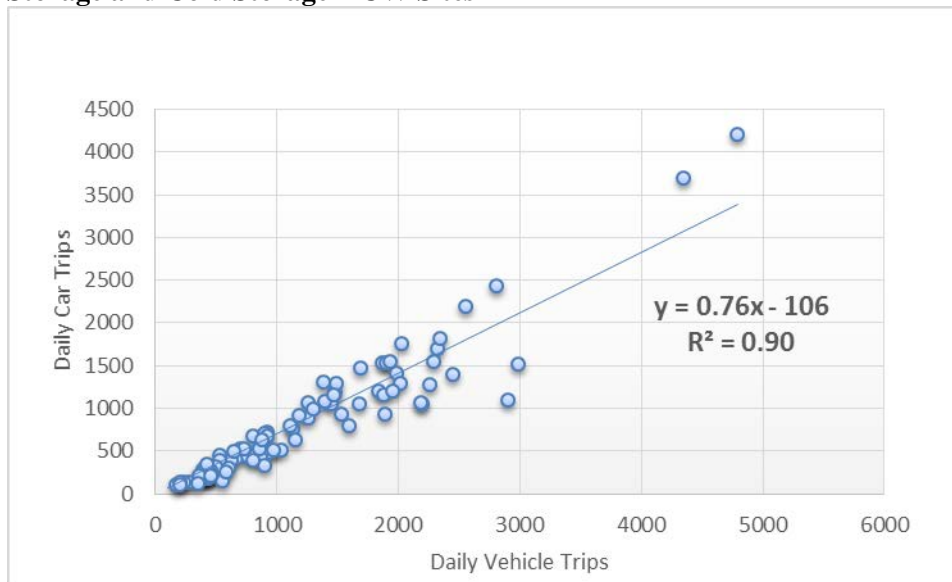
Note: The values in parentheses represent the number of data collection sites for HCW type.

⁸ This section presents key analysis findings. Appendix A presents additional analyses of the HCW data.

⁹ Sites were classified as cold storage either through self-categorization by data submitter (e.g., Walmart), by type of tenant (e.g., Ralpins, Publix), or by online site description (e.g., Americold, Millard Refrigeration Services).

Figure 2 is a plot of daily car trips versus daily vehicle trips generated at transload, short-term storage, and cold storage HCWs. The plot demonstrates strong correlation between the two trip-making characteristics of HCW sites. The data yields a linear fitted curve equation with an R^2 value of 0.90. The correlation between the daily truck trips and daily vehicle trips is not as strong and yields a linear fitted curve equation R^2 value that is less than the ITE acceptability threshold of 0.50.

Figure 2. Correlation between Daily Cars and Total Daily Traffic at Transload, Short-Term Storage and Cold Storage HCW Sites



Key Findings – Daily Trip Generation

Table 5 compares daily trip rates for the five different types of HCWs. The table includes weighted average rates for all vehicles, cars, trucks, and 5-or-more-axle trucks. The table also includes the weighted average rate for daily vehicle trips contained in ITE *Trip Generation Manual* 9th Edition, for high-cube warehouses (land use code 152). The single fulfillment center count was taken during a holiday shopping season when activity would be expected to be higher than an annual average.

Table 5. Weighted Average Rates for Daily Trips at High-Cube Warehouses

Type of High-Cube Warehouse	Weighted Average for Daily Trips per 1,000 GSF ¹⁰			
	All Vehicles	Cars	Trucks	5+ Axle Trucks
Transload & Short-Term Storage (91)	1.432	1.000	0.454	0.233
Cold Storage (9)	2.115	1.282	0.836	0.749
Fulfillment Center (1)	8.178	7.461	0.717	0.242
Parcel Hub (1)	10.638	6.631	4.007	0.982
ITE <i>Trip Generation Manual</i> – 9 th Edition	1.68	--	--	--

Note: The values in parentheses represent the number of data collection sites for HCW type.

¹⁰ The weighted average rates for cars and trucks may not sum to match the “all vehicle” rates because some data sources collected total vehicle trips and did not separate cars and trucks.

Fulfillment Center and Parcel Hub

Based on data from single data points, it is likely that vehicle trip generation rates for fulfillment centers and parcel hubs are significantly different from those at other HCW sites.

The single fulfillment center has a substantially higher vehicle trip generation rate than transload, short-term storage, and cold storage HCW sites. The higher rate is due both to a higher number of passenger cars (i.e., employees) entering and exiting the site and to the count being conducted in December during the holiday shopping season.

The single parcel hub HCW has a rate that is higher than even the fulfillment center for all vehicles. The rate for trucks (both total and 5+ axle) is substantially higher than for the other HCW types.

Cold Storage

For the relatively small number of data points in the HCW database that are classified as cold storage facilities, there is a strong correlation between vehicle trips and building gross square footage.

Figure 3 is a plot of daily total vehicle trips versus building gross square footage at all cold storage facilities in the database. The data yields a linear fitted curve equation with an R^2 value of 0.69. As recommended in *ITE Trip Generation Handbook 3rd Edition*, the fitted curve should be considered acceptable only within the building site size range in the dataset¹¹. The weighted average rate (shown above in Table 5) is 2.115 total vehicles per 1,000 GSF for a cold storage HCW site.

Figure 3. Correlation between Daily Total Vehicles and Cold Storage GSF (All Sites)

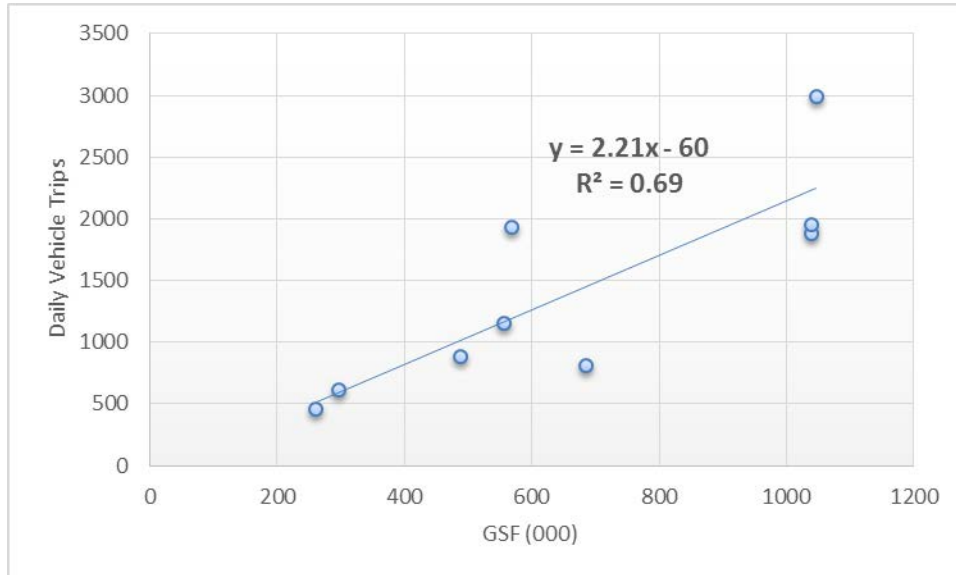
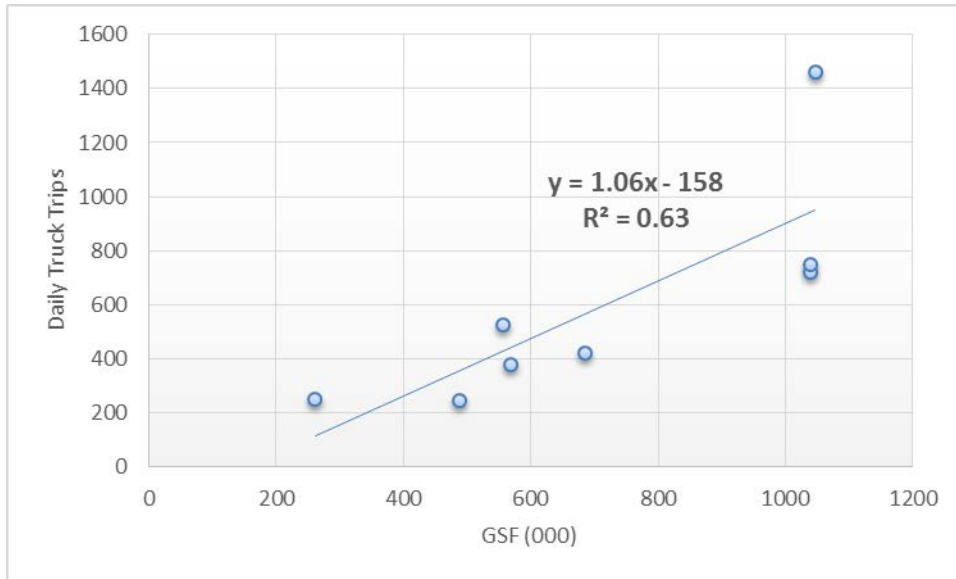


Figure 4 presents the data plot for daily trucks. The plot includes a fitted curve equation with an acceptable R^2 value. The weighted average rate for daily trucks at a cold storage HCW is 0.836 trucks per 1,000 GSF.

¹¹ The best correlation is found for sites with gross square footage of 500,000 or less, with greater data scatter for larger buildings. Nevertheless, there are several sites with gross square footage of more than 500,000 that have daily vehicle trip generation rates that mirror the small sites.

Figure 4. Correlation between Daily Trucks and Cold Storage GSF (SCAQMD & NAIOP Sites)



Transload and Short-Term Storage

It would be expected that a transload site could generate a different number of vehicle trips than a short-term storage HCW. But, as currently classified in this report, the sites that fall into the two categories show very little difference between the two. Therefore, the two types are analyzed together in this report. If an appropriate building characteristic can be identified at the time of site development review, the sites in the database can be re-examined and potentially reclassified and the trip-generating characteristics reanalyzed.

For this combination of HCW types, the relationship between building gross square footage and vehicle trips does not produce an acceptable level of correlation to develop a fitted curve equation. Figure 5 presents a plot of daily vehicle trips against building square footage.

The weighted average rate for transload and short-term storage HCW sites is 1.432 daily vehicle trips per 1,000 GSF (listed earlier in Table 5). As a point of comparison, this rate is lower than the weighted average rate of 1.68 provided in ITE *Trip Generation Manual* 9th Edition, for the High-Cube Warehouse land use.

The transload and short-term storage HCW dataset is much larger than the other HCW datasets. This larger dataset exhibits much greater scatter than the smaller datasets. This circumstance suggests that more data for the other HCW facility types are necessary to determine if the small dataset high correlations are accurate and justified.

Figure 5. Daily Vehicle Trips at Transload and Short-Term Storage HCW

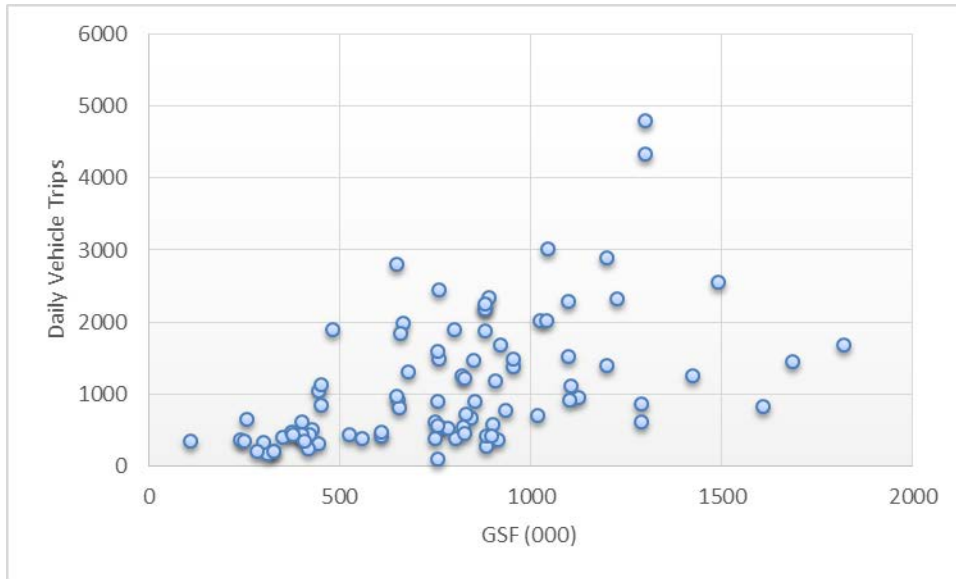
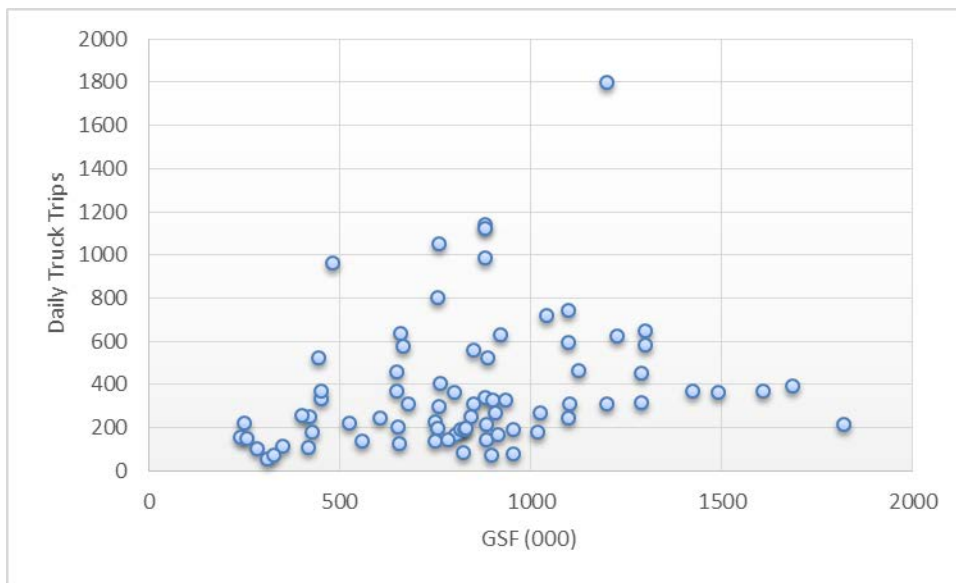


Figure 6 presents a plot of daily truck trips against building square footage at transload and short-term storage HCW. For trucks, the weighted average rate is 0.454 trucks per 1,000 GSF.

Figure 6. Daily Truck Trips at Transload and Short-Term Storage HCW



Key Findings – Peak Hour Trip Generation

Tables 6 and 7 list the weighted average rates for the AM and PM peak hours, respectively, for the five types of HCWs. The tables also include the weighted average rate for peak hour vehicle trips contained in ITE *Trip Generation Manual* 9th Edition, for high-cube warehouse (land use code 152).

Table 6. Weighted Average Rates for AM Peak Hour Trips at High-Cube Warehouses

Type of High-Cube Warehouse	Weighted Average for AM Peak Hour Trips per 1,000 GSF			
	All Vehicles	Cars	Trucks	5+ Axle Trucks
Transload & Short-Term Storage (94)	0.082	0.057	0.024	0.015
Cold Storage (9)	0.103	0.061	0.038	0.027
Fulfillment Center (1)	0.841	0.818	0.023	0.009
Parcel Hub (1)	0.851	0.428	0.423	0.041
ITE <i>Trip Generation Manual</i> – 9 th Edition	0.11	--	--	--

Note: The values in parentheses represent the number of data collection sites for HCW type.

Table 7. Weighted Average Rates for PM Peak Hour Trips at High-Cube Warehouses

Type of High-Cube Warehouse	Weighted Average for PM Peak Hour Trips per 1,000 GSF			
	All Vehicles	Cars	Trucks	5+ Axle Trucks
Transload & Short-Term Storage (95)	0.108	0.086	0.023	0.010
Cold Storage (9)	0.129	0.087	0.042	0.031
Fulfillment Center (1)	1.979	1.944	0.035	0.013
Parcel Hub (1)	0.803	0.568	0.235	0.009
ITE <i>Trip Generation Manual</i> – 9 th Edition	0.12	--	--	--

Note: The values in parentheses represent the number of data collection sites for HCW type.

Fulfillment Center

The single surveyed fulfillment center HCW has a significantly higher rate for passenger cars during both the AM and PM peak hours (as is the case for daily trips at the fulfillment center). The single fulfillment center count was taken during the December holiday shopping season.

The single surveyed parcel hub HCW has significantly higher rates for both cars and trucks during both the AM and PM peak hours (as is the case for daily trips at the fulfillment center).

Cold Storage

For cold storage HCW, fitted curve equations can be developed for estimating total vehicles during the AM and PM peak hours. The equations are:

- AM peak hour: $y = 0.17x - 40$ ($R^2 = 0.82$)
- PM peak hour: $y = 0.17x - 35$ ($R^2 = 0.83$)

The cold storage HCW weighted average rates during the AM and PM peak hours are, respectively, 0.103 and 0.129 total vehicle trips per 1,000 GSF. Both rates are close to the ITE *Trip Generation Manual* 9th Edition rate for all high-cube warehouses (land use code 152).

Transload and Short-Term Storage

Data plots for the AM and PM peak hours (not presented in this report) are comparable to the daily plot in terms of data scatter and little correlation. The weighted average rates for the AM and PM peak hours are:

- 0.082 total vehicles per 1,000 GSF during the AM peak hour
- 0.108 total vehicles per 1,000 GSF during the PM peak hour

As points of comparison, these rates are lower than the AM and PM weighted average rates of 0.11 and 0.12, respectively, provided in ITE *Trip Generation Manual* 9th Edition for the High-Cube Warehouse land use.

The weighted average rates for truck trips at transload and short-term storage HCWs during the AM and PM peak hours are:

- 0.024 trucks per 1,000 GSF during the AM peak hour
- 0.023 trucks per 1,000 GSF during the PM peak hour

RECOMMENDATIONS

The preceding analysis of available HCW trip generation data identified significant weaknesses in the ability to forecast vehicle trips with confidence. The following recommendations present a plan of action for quantifying necessary vehicle trip estimates to an acceptable level of precision for all types of HCWs.

Fulfillment Center HCW

The single available data point indicates that the trip generation characteristics (total vehicle trips and trips by vehicle type) for a fulfillment center HCW are significantly different from those for all other types of HCWs. A targeted data collection effort should be undertaken (as described below) to achieve a total of at least six sites. Included should be circulation of a Call for Data by ITE that specifically requests data for fulfillment centers. If future analysis reveals an unacceptable level of stability in the trip generation relationships, data should be collected at additional sites.

Parcel Hub HCW

The single available data point indicates that the trip generation characteristics (total vehicle trips and trips by vehicle type) for a parcel hub HCW are significantly different from those for all other types of HCWs. It is recommended that ITE circulate a Call for Data that specifically requests data for parcel hubs. A targeted data collection effort should be undertaken (as described below) to achieve a total of at least six sites. If future analysis reveals an unacceptable level of stability in the trip generation relationships, data should be collected at additional sites.

Cold Storage HCW

The limited data available for cold storage facilities produce acceptable levels of statistical precision for the estimation of vehicle trips. However, vehicle trip generation rates based on recently collected data are higher than those derived from data collected at least 10 years ago. It is recommended that (1) further investigation be made into the existing data and (2) additional data be collected.

The cold storage sites in the database are classified as such based on the interpretation of the data submitter. Confirmation of the applicability of the cold storage classification can be completed through determination of the proportion of the HCW building space devoted to cold storage. This information will also help in the development of a clear definition of cold storage facilities and their characteristics.

If some of the cold storage sites are reclassified, a targeted data collection effort should be undertaken (as described below) to achieve a total of at least six sites. Included should be circulation of a Call for Data by ITE that specifically requests data for cold storage facilities. If future analysis reveals an unacceptable level of stability in the trip generation relationships, data should be collected at additional sites.

Transload and Short-Term Storage HCW

The current database of sites for this subset of HCW types has been separated in accordance with building and dock configurations specified earlier in this report. To use a metaphor, it is possible that instead of separating the sites into apples and oranges, the sites have been separated into two sets that each contain both apples and oranges. The result is a pair of databases that (1) are not significantly different from each other in terms of trip generation and (2) do not yield satisfactory levels of correlation between building gross square footage and vehicle trips. It is possible that a more accurate allocation of the available data points between the two types of HCWs could produce better predictive relationships.

It is recommended that an analysis and evaluation of potential stratifications be undertaken and an appropriate set of data (along with a weighted average rate) be selected for use as interim rates until further study is complete (as described below).

Overall

It is recommended that a targeted data collection plan be undertaken in an attempt to further define and identify relationships between potential independent variables and vehicle trips generated at each type of HCW. A six-step process is presented below.

Step 1: Select 15 Sites¹² with Similar Characteristics for Data Collection and Further Analysis

- For each site, compile the data specified earlier in Table 3
- If the Table 3 data are available for the sites at which SCAQMD or NAIOP collected data, these sites and their data can be considered part of the initial 15
- Limit sites to one or two metropolitan regions. Preference should be given to a region with an existing freight model that disaggregates truck trips and commodity flow to the county or traffic analysis zone level, for cross-referencing purposes.

Step 2: Collect Data at the Initial 15 Sites

- Collect the vehicle volume data specified in Table 8

Step 3: Analyze Complete Data for Consistency and Correlation with One or More Independent Variables

- If consistency and correlations are found, skip to Step 5

Step 4: Identify 15 Additional Sites and Undertake Data Collection

- Summarize and analyze results, assessing consistency
- The results will set an approximate expectation for future data. They may be described statistically and/or in other clear terms.
- If variability is still considered significantly high by ITE standards, assess probable causes, further partition data into more subgroups, and reanalyze data. Use results to determine how to classify warehouse types for future data collection.

Step 5: Identify 15 Sites and Collect Data for Next Priority HCW Classification

- 15-30 sites (including usable existing data) in at least two metropolitan regions (may be selected to reflect funding sources)
- 3 year-long counts
- Compare year-long counts from second HCW type with those from first HCW type to determine if additional year-long counts are needed to show variability in different types of HCWs

¹² For a database with substantial uniformity in the characteristics that influence trip generation, a relatively small number of sites can produce predictive relationships with excellent statistical reliability (for example, perhaps the cold storage facilities). However, for sites with substantial variability, a database total of approximately 30 sites is typically recommended based on the central limit theorem. The theorem states that the sampling distribution of the means will approach that of a normal distribution with that quantity of data points even if the population being sampled is not normally distributed.

Step 6: Summarize and analyze data for each type of HCW, developing rates and equations where correlation is suitable. Identify patterns, trends, and other findings relevant to estimating HCW trip generation for use in TIAs and AQAs. Assess how many HCW types are needed/justified.

Table 8. Minimum Data Collection for Each HCW Type

<ul style="list-style-type: none"> • 15 sites including those for which there are usable existing data
<ul style="list-style-type: none"> • One or two metropolitan regions – preference should be for a region with an existing freight model that disaggregates truck trips and commodity flow to the county or TAZ level, for cross-referencing purposes
<ul style="list-style-type: none"> • Similar site characteristics (to minimize variability of results (desirably most common in metro region where data to be collected)
<ul style="list-style-type: none"> • 1-2 NAICS industrial codes – we may need to loosen this requirement in order to find 15 acceptable sites in a single metropolitan area; we may need to use data from sites in multiple metropolitan areas; should be used in site selection process, not as a prescriptive requirement
<ul style="list-style-type: none"> • Year-long count at 3 sites
<ul style="list-style-type: none"> • All counts by video; all files to be retained for possible future use; examine via simultaneous video and tube counts what the discrepancy rates might be for purpose classification based physical vehicle types and standard FHWA classes versus actually seeing the trucks on video
<ul style="list-style-type: none"> • All counts to follow ITE site trip generation count procedures with counts being made directionally by vehicle classification and recorded by driveway, by direction, and by 15 minute period so they can be checked (and reconstructed if necessary)

APPENDIX A. SUPPLEMENTAL DETAILED DATA ANALYSIS

Data Analysis Process

The database of 106 HCWs with vehicle trip generation data consists of one fulfillment center, one parcel hub, nine cold storage, 56 transload, and 39 short-term storage.

For each data record, a range of traffic count data is available.

- For many records, a daily count is provided. For many records, AM and PM peak hour traffic counts are provided.
- For some data records, the count data is reported simply as total vehicles. In some records, the vehicle counts are classified as cars or trucks. In some records, the vehicle counts are classified as cars and trucks, disaggregated by number of axles.

The data were disaggregated and aggregated in a variety of ways to help determine the effects of certain potential variables on vehicle trip generation.

- The entire database for each facility type
- Only the recent SCAQMD-sponsored data collection sites
- Only the recent NAIOP-sponsored data collection sites
- The combination of the recent SCAQMD- and NAIOP-sponsored data collection sites
- All data except for the recent SCAQMD- and NAIOP-sponsored data collection sites
- Sites with at least 500,000 gross square footage
- Sites with at least 800,000 gross square footage
- Sites with at least 1 million gross square footage
- Sites with data collected prior to 2007
- Sites with data collected after 2006
- Sites with data collected prior to 2010
- Sites with data collected after 2009
- Only California sites
- Only sites with close proximity to major port facilities

The vehicle count data were analyzed separately for the fulfillment center, parcel hub, cold storage, transload, and short-term storage HCWs.

- The results for fulfillment center, parcel hub, and cold storage are distinctly different from each other and are addressed separately below
- The results for transload and short-term storage HCWs are not substantially different from each other and are treated in combination below

The database enabled the compilation of over 1,500 subsets of HCW trip generation data that reflect:

- 7 different combinations of building types,
- 6 different sets for individual vehicle classifications or combinations,
- 13 different subsets of the database, and
- 3 different time periods (daily, AM, PM)

Weighted averages of vehicles per 1,000 gross square feet in the building were computed for each subset. Data plots with best fit linear curves were prepared for each subset. Examination of the data yields very few definitive relationships between site characteristics and vehicle trip generation. Key findings from these analyses are presented below.

Cars vs. Total Vehicles

Table A1 presents the weighted averages for cars, trucks, and 5+ axle trucks as a percentage of total daily vehicles measured at HCW sites. Separate calculations are presented for the entire database and for 13 different subsets. When the complete set is included, the overall average is approximately 68 percent cars and 32 percent trucks of the total daily vehicles. There is minimal variation between the most recent data sources (SCAQMD and NAIOP) or between different building sizes. However, the more recent average data (post-2006 and post-2009) has a higher proportion of cars than does the older data collection sites.

Table A1. Weighted Averages for Percentage of Total Daily Vehicles for Cars and Trucks

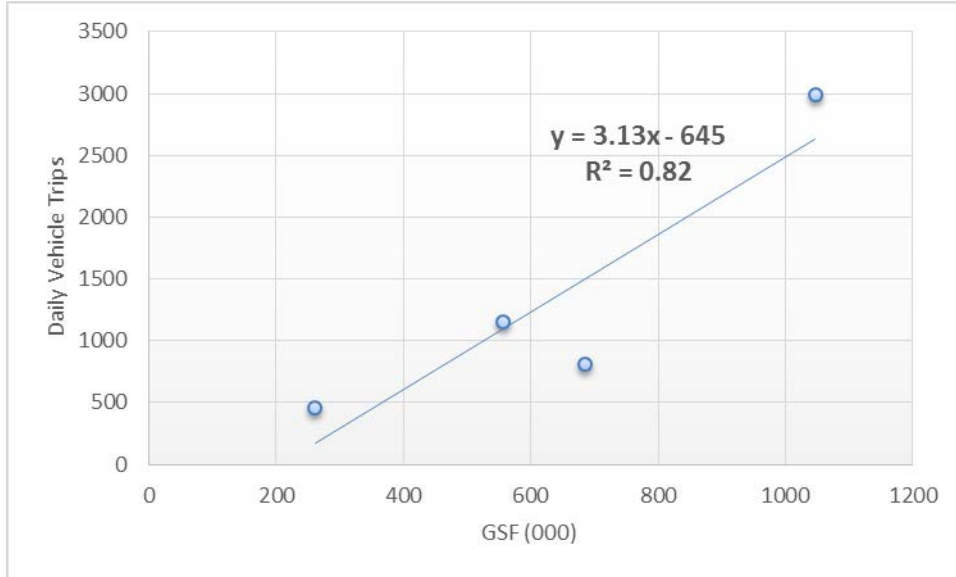
Data Site Subset	Percentage of Total Daily Vehicles		
	Cars	Trucks	5+ Axle Trucks
All	67.8%	32.2%	19.4%
SCAQMD	69.0	31.0	17.7
NAIOP	68.6	31.4	21.8
SCAQMD & NAIOP	68.8	31.2	19.0
Non-SCAQMD or NAIOP	66.6	33.4	---
More than 500,000 GSF	68.7	31.3	19.2
More than 800,000 GSF	69.4	30.6	18.5
More than 1,000,000 GSF	70.3	29.7	21.2
Pre-2007	62.1	37.9	---
Post-2006	70.1	29.9	19.5
Pre-2010	60.9	39.1	28.2
Post-2009	70.7	29.3	19.0
California Only	67.6	32.4	18.9

Cold Storage HCW

If the cold storage HCW data are restricted to only include data collected under sponsorship of SCAQMD and NAIOP within the past eight years, the correlation between daily total vehicles and site gross square footage can be improved beyond the full dataset correlation. Figure A1 presents the data plot and associated fitted curve¹³. As recommended in *ITE Trip Generation Handbook 3rd Edition*, the fitted curve should be considered acceptable only within the building site size range in the dataset.

¹³ Granted, the improved correlation in Figure A3 is due in part to requiring correlation to only four data points.

Figure A1. Correlation between Daily Total Vehicles and Cold Storage GSF (SCAQMD & NAIOP Sites)



Correlation is also exhibited for cars, trucks, and 5+ axle trucks for daily traffic generated at cold storage facilities. Figures A2, A3, and A4 present the data plots for cars, trucks, and 5+ axle trucks, respectively. As recommended in *ITE Trip Generation Handbook 3rd Edition*, the fitted curves should be considered acceptable only within the building site size range in the dataset.

Figure A2. Correlation between Daily Cars and Cold Storage GSF (SCAQMD & NAIOP Sites)

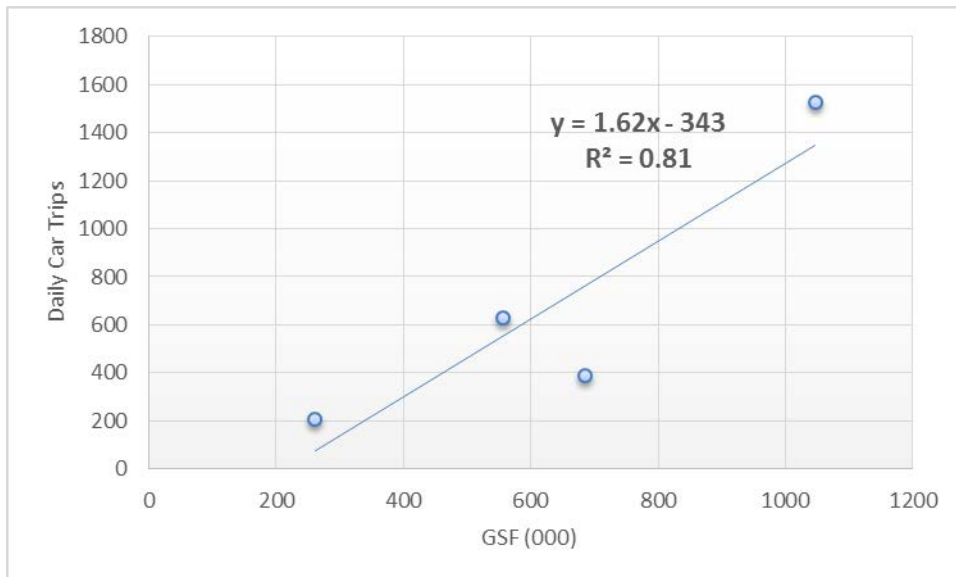


Figure A3. Correlation between Daily Trucks and Cold Storage GSF (SCAQMD & NAIOP Sites)

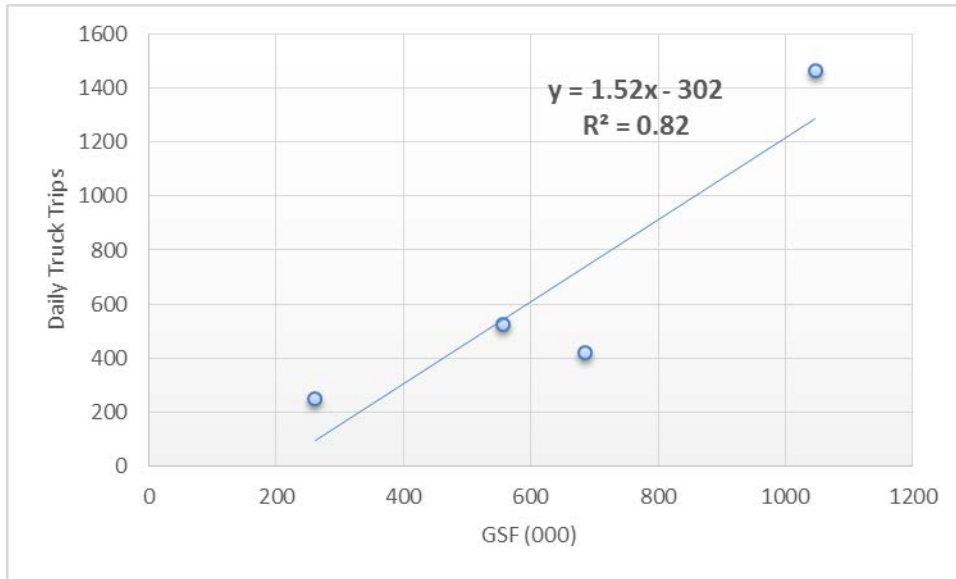


Figure A4. Correlation between Daily 5+ Axle Trucks and Cold Storage GSF (SCAQMD & NAIOP Sites)

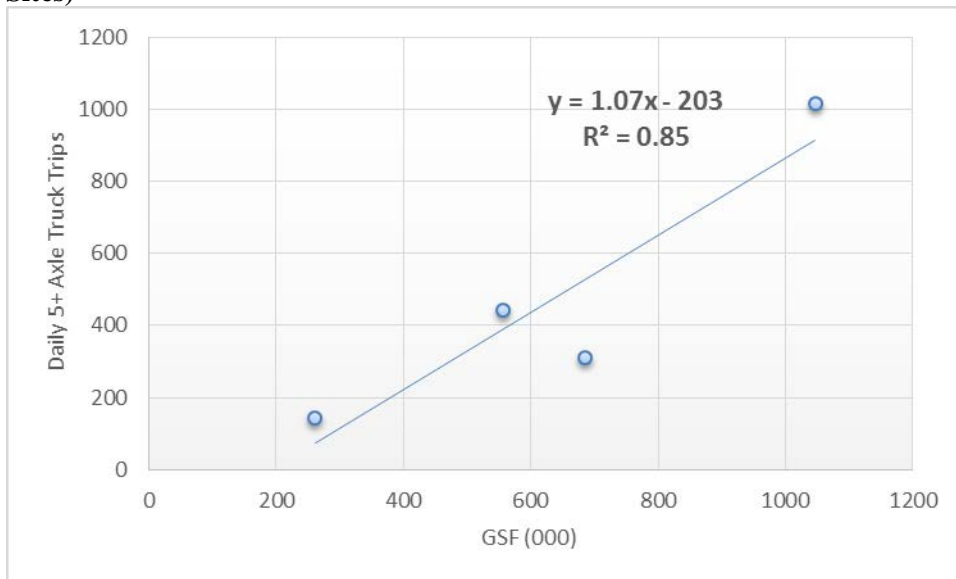


Table A2 presents the weighted average rates for all vehicles, cars, trucks, and 5+ axle trucks per 1,000 GSF at cold storage sites. Separate calculations are presented for the complete database plus 13 different subsets. When the complete set is included, the overall weighted average rate for all vehicles is 2.12. The rate is nearly identical whether calculated with only the SCAQMD and NAIOP data or with the other data points in the complete dataset.

Another observation from the table is that newer data (post-2006 and post-2009) have higher rates than do the older data, sometimes substantially higher. The newer and older datasets are comprised of relatively small numbers of data points, 6 and 3, respectively. Additional data points would be helpful to derive a more reliable estimate of cold storage HCW trip generation.

Table A2. Weighted Average Rates for Daily Trips at Cold Storage Facilities

Data Site Subset (Cold Storage)	Weighted Average for Daily Trips per 1,000 GSF			
	All Vehicles	Cars	Trucks	5+ Axle Trucks
All (9)	2.115	1.282	0.836	0.749 (4)
SCAQMD (3)	2.466	1.265	1.201	0.858
NAIOP (1)	1.179	0.564	0.615	0.455
SCAQMD & NAIOP (4)	2.120	1.077	1.043	0.749
Non-SCAQMD or NAIOP (5)	2.111	1.449	0.667	---
More than 500,000 GSF (5)	2.009	1.121	0.888	0.772
More than 800,000 GSF (3)	2.179	1.242	0.938	0.968
More than 1,000,000 GSF (3)	2.179	1.242	0.938	0.968
Pre-2007 (3)	1.868	1.134	0.706	---
Post-2006 (6)	2.278	1.368	0.910	0.749
Pre-2010 (3)	1.868	1.134	0.706	---
Post-2009 (6)	2.278	1.368	0.910	0.749
California Only (5)	2.114	1.077	1.043	0.749
Port Only (5)	2.114	1.077	1.043	0.749

Note: The values in parentheses represent the number of data collection sites for that particular subset of cold storage sites.

Tables A3 and A4 repeat the information presented in Table A2, but for the AM and PM peak hours, respectively.

Table A3. Weighted Average Rates for AM Peak Hour Trips at Cold Storage Facilities

Data Site Subset (Cold Storage)	Weighted Average for AM Peak Hour Trips per 1,000 GSF			
	All Vehicles	Cars	Trucks	5+ Axle Trucks
All (9)	0.103	0.061	0.038	0.027
SCAQMD (3)	0.124	0.070	0.054	0.026
NAIOP (1)	0.071	0.039	0.032	0.029
SCAQMD & NAIOP (4)	0.110	0.062	0.048	0.027
Non-SCAQMD or NAIOP (5)	0.098	0.061	0.030	---
More than 500,000 GSF (5)	0.092	0.054	0.038	0.028
More than 800,000 GSF (3)	0.099	0.058	0.041	0.030
More than 1,000,000 GSF (3)	0.099	0.058	0.041	0.030
Pre-2007 (3)	0.084	0.046	0.025	---
Post-2006 (6)	0.115	0.070	0.045	0.027
Pre-2010 (3)	0.084	0.046	0.025	---
Post-2009 (6)	0.115	0.070	0.045	0.027
California Only (5)	0.116	0.062	0.048	0.027
Port Only (5)	0.116	0.062	0.048	0.027

Note: The values in parentheses represent the number of data collection sites for that particular subset of cold storage sites.

Table A4. Weighted Average Rates for PM Peak Hour Trips at Cold Storage Facilities

Data Site Subset (Cold Storage)	Weighted Average for PM Peak Hour Trips per 1,000 GSF			
	All Vehicles	Cars	Trucks	5+ Axle Trucks
All (9)	0.117	0.080	0.037	0.029
SCAQMD (3)	0.129	0.087	0.042	0.031
NAIOP (1)	0.089	0.050	0.039	0.026
SCAQMD & NAIOP (4)	0.118	0.077	0.041	0.029
Non-SCAQMD or NAIOP (5)	0.117	0.083	0.034	---
More than 500,000 GSF (5)	0.106	0.069	0.037	0.029
More than 800,000 GSF (3)	0.116	0.079	0.037	0.029
More than 1,000,000 GSF (3)	0.116	0.079	0.037	0.029
Pre-2007 (3)	0.097	0.058	0.037	---
Post-2006 (6)	0.131	0.093	0.038	0.029
Pre-2010 (3)	0.097	0.058	0.037	---
Post-2009 (6)	0.131	0.093	0.038	0.029
California Only (5)	0.117	0.077	0.041	0.029
Port Only (5)	0.117	0.077	0.041	0.029

Note: Values in parentheses represent the number of data collection sites for that particular subset.

Transload and Short-Term Storage HCW

Weighted average rates for daily trips at transload and short-term storage HCWs are listed in Table A5 for four vehicle classifications (all vehicles, car, truck, and 5+ axle truck) and for the complete database plus 13 subsets. One observation about the data is that the more recent data sites have, on average, lower daily trip generation rates (for all vehicle types) than the older sites¹⁴. This relationship is also found for the AM and PM peak hours presented in Tables A6 and A7.

Table A5. Weighted Average Rates for Daily Trips at Transload and Short-Term Storage HCW

Data Site Subset (Transload & Short-Term Storage)	Weighted Average for Daily Trips per 1,000 GSF			
	All Vehicles	Cars	Trucks	5+ Axle Trucks
All	1.432	1.000	0.454	0.233
SCAQMD	1.412	1.006	0.406	0.217
NAIOP	1.069	0.749	0.339	0.276
SCAQMD & NAIOP	1.275	0.901	0.374	0.221
Non-SCAQMD or NAIOP	1.701	1.183	0.603	---
More than 500,000 GSF	1.433	1.008	0.431	0.223
More than 800,000 GSF	1.417	0.978	0.405	0.200
More than 1,000,000 GSF	1.493	1.044	0.392	0.257
Pre-2007	1.653	1.203	0.732	---
Post-2006	1.397	0.994	0.402	0.233
Pre-2010	1.621	1.097	0.708	0.614
Post-2009	1.347	0.970	0.377	0.221
California Only	1.226	0.871	0.388	0.221
Port Only	1.258	0.871	0.388	0.221
ITE Trip Generation Manual – 9 th Edition	1.68	--	--	--

¹⁴ A decline in HCW auto traffic is likely because of a reduction in employee density as HCWs have become more automated. The reduction in truck trips does not have a clear explanation. Continued data collection is recommended to enable the development of current trip generation rates that do not need to rely on older data.

Tables A6 and A7 list the weighted average rates for the AM and PM peak hours, respectively.

Table A6. Weighted Average Rates for AM Peak Hour Trips at Transload and Short-Term Storage HCW

Data Site Subset (Transload & Short-Term Storage)	Weighted Average for AM Peak Hour Trips per 1,000 GSF			
	All Vehicles	Cars	Trucks	5+ Axle Trucks
All	0.082	0.057	0.024	0.015
SCAQMD	0.073	0.049	0.024	0.013
NAIOP	0.060	0.040	0.019	0.016
SCAQMD & NAIOP	0.068	0.046	0.022	0.014
Non-SCAQMD or NAIOP	0.100	0.075	0.028	0.022
More than 500,000 GSF	0.078	0.055	0.023	0.014
More than 800,000 GSF	0.074	0.050	0.022	0.014
More than 1,000,000 GSF	0.078	0.049	0.025	0.022
Pre-2007	0.110	0.087	0.032	0.016
Post-2006	0.079	0.057	0.022	0.015
Pre-2010	0.101	0.073	0.032	0.022
Post-2009	0.072	0.051	0.021	0.014
California Only	0.067	0.045	0.023	0.014
Port Only	0.071	0.046	0.023	0.014
ITE <i>Trip Generation Manual</i> – 9 th Edition	0.11			

Table A7. Weighted Average Rates for PM Peak Hour Trips at Transload and Short-Term Storage HCW

Data Site Subset (Transload & Short-Term Storage)	Weighted Average for PM Peak Hour Trips per 1,000 GSF			
	All Vehicles	Cars	Trucks	5+ Axle Trucks
All	0.108	0.086	0.023	0.010
SCAQMD	0.081	0.060	0.021	0.010
NAIOP	0.091	0.075	0.016	0.010
SCAQMD & NAIOP	0.085	0.066	0.019	0.010
Non-SCAQMD or NAIOP	0.135	0.117	0.028	0.015
More than 500,000 GSF	0.108	0.087	0.022	0.010
More than 800,000 GSF	0.110	0.087	0.022	0.009
More than 1,000,000 GSF	0.120	0.097	0.019	0.010
Pre-2007	0.145	0.133	0.031	0.012
Post-2006	0.107	0.086	0.020	0.010
Pre-2010	0.141	0.122	0.031	0.015
Post-2009	0.091	0.072	0.019	0.010
California Only	0.082	0.063	0.019	0.010
Port Only	0.086	0.065	0.019	0.010
ITE <i>Trip Generation Manual</i> – 9 th Edition	0.12			

Tables A5, A6, and A7 also include the ITE *Trip Generation Manual* 9th Edition, weighted average rate for high-cube warehouses (land use code 152). The data analyzed in this report generally produce lower rates than contained in *Trip Generation Manual*.

Appendix F: Trip Generation & Distribution Documentation

High-Cube Parcel Hub Warehouse (156)

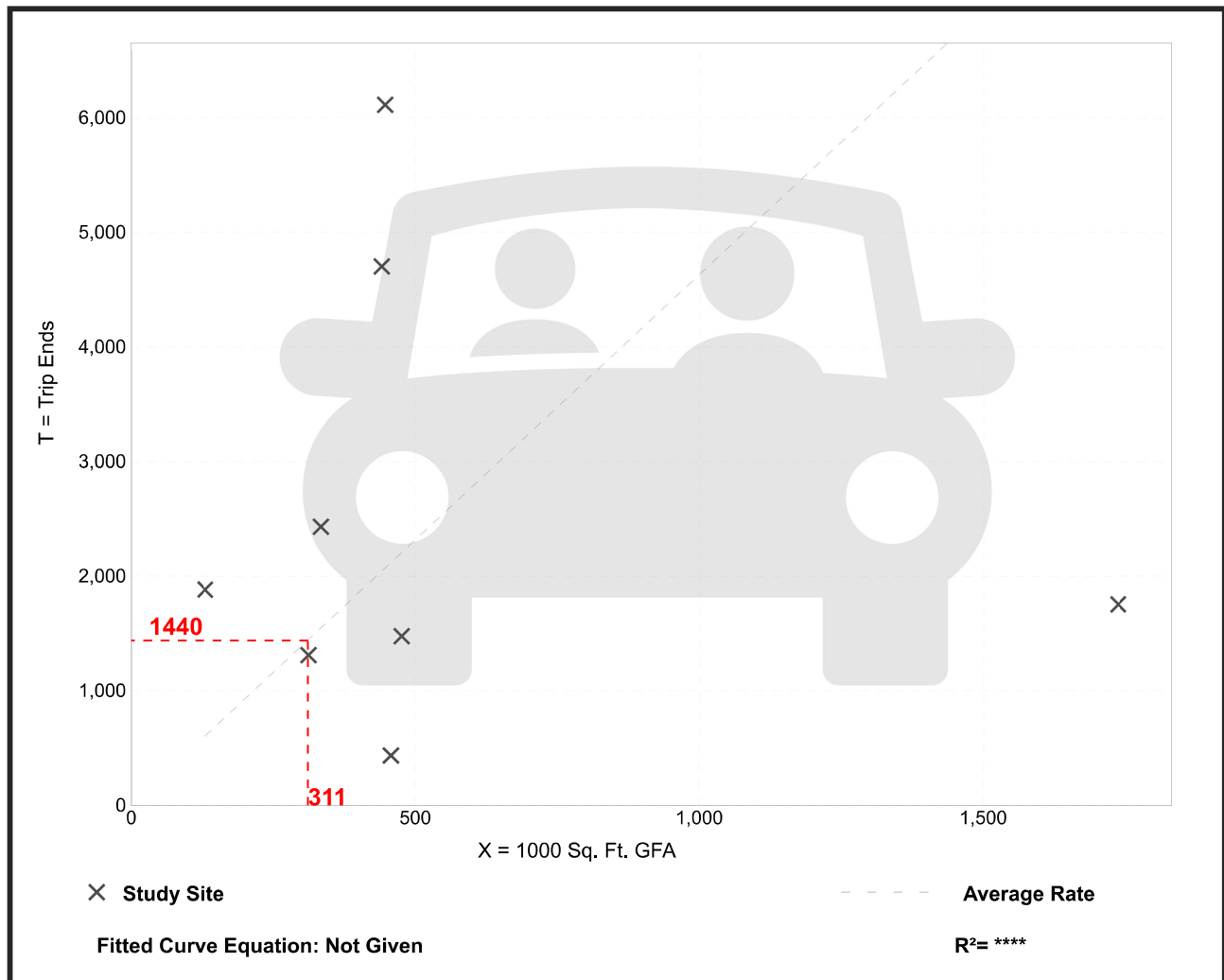
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 8
Avg. 1000 Sq. Ft. GFA: 543
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
4.63	0.95 - 14.38	5.06

Data Plot and Equation



High-Cube Parcel Hub Warehouse (156)

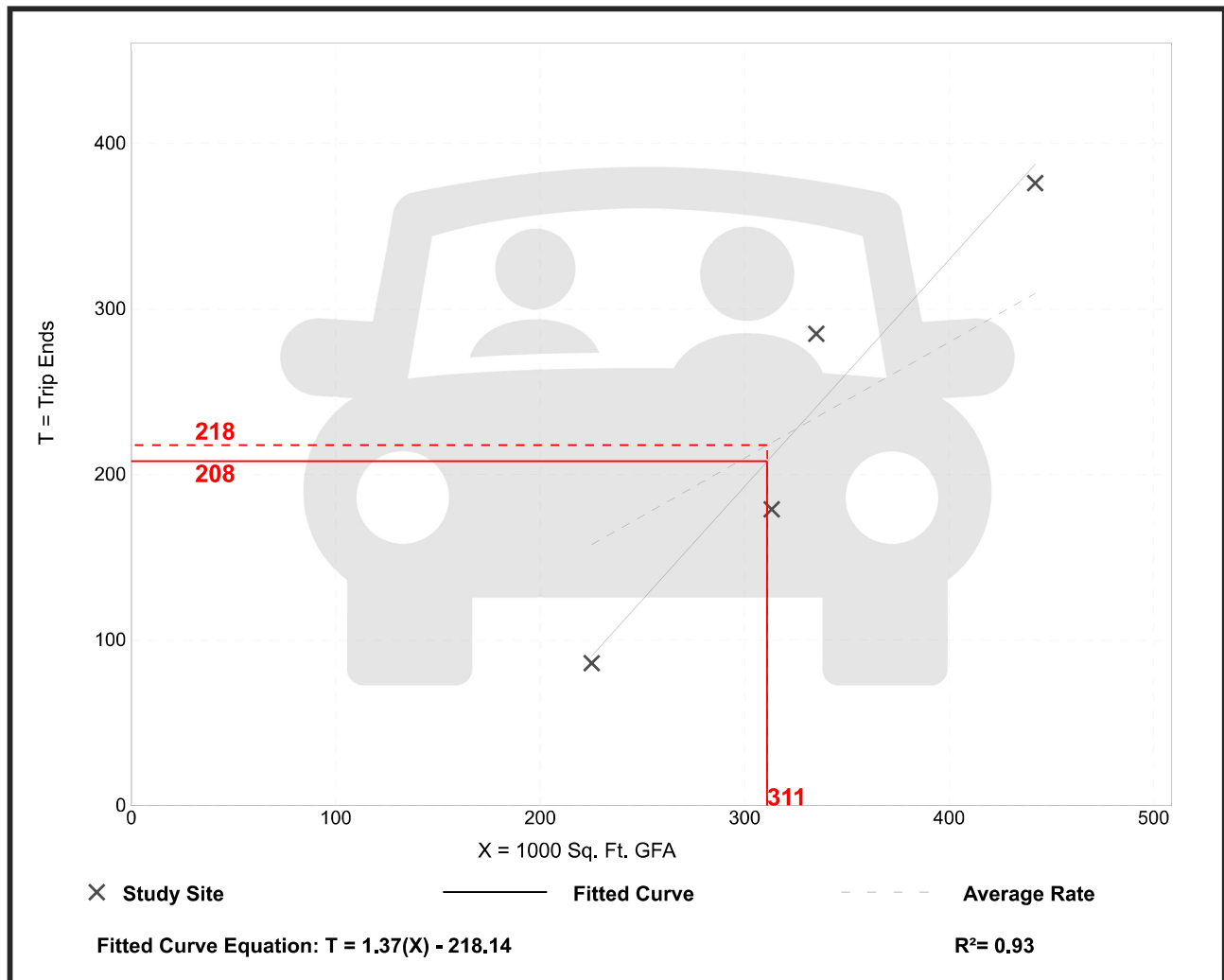
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 4
 Avg. 1000 Sq. Ft. GFA: 329
 Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.70	0.38 - 0.85	0.21

Data Plot and Equation

Caution – Small Sample Size



High-Cube Parcel Hub Warehouse (156)

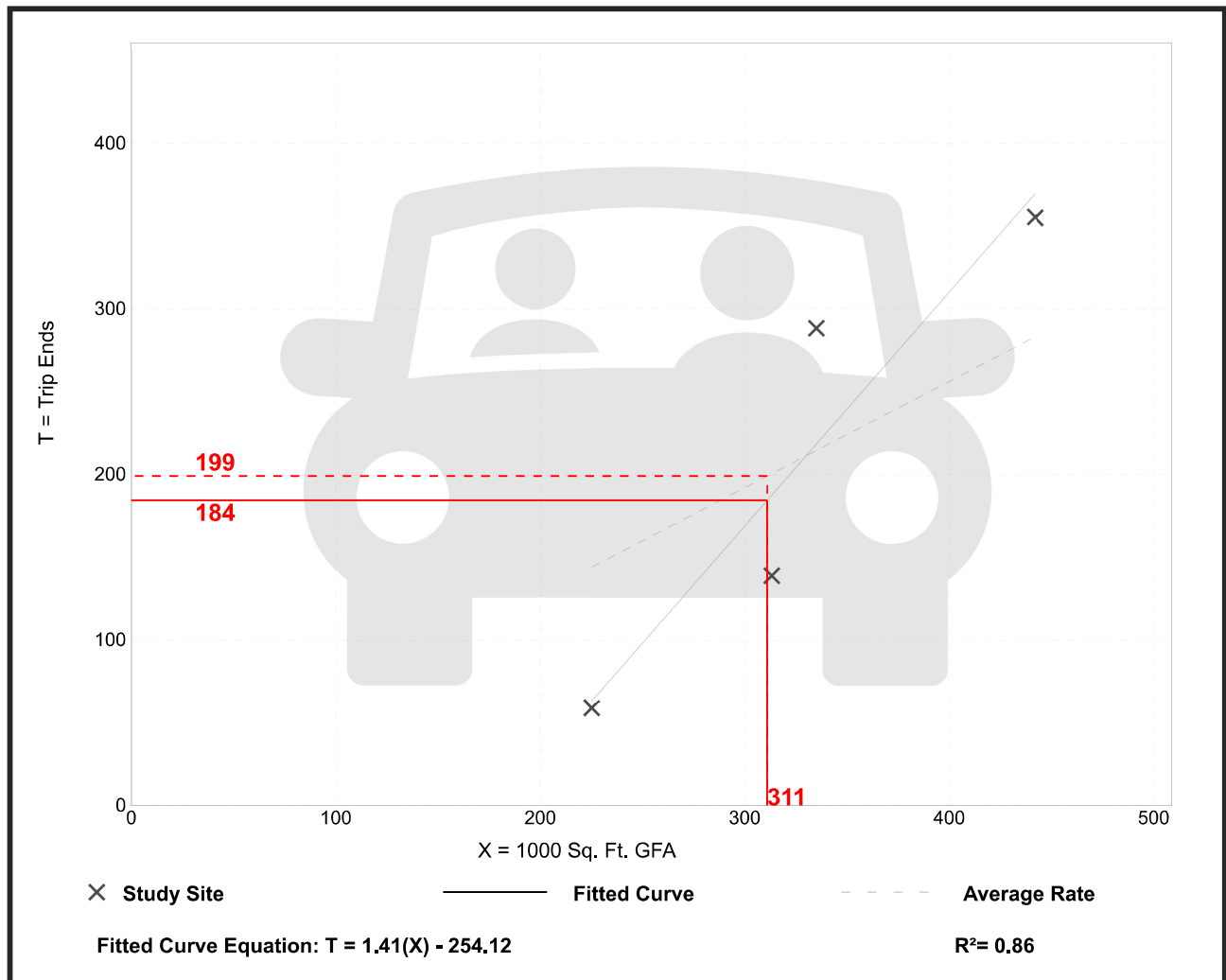
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 4
 Avg. 1000 Sq. Ft. GFA: 329
 Directional Distribution: 68% entering, 32% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

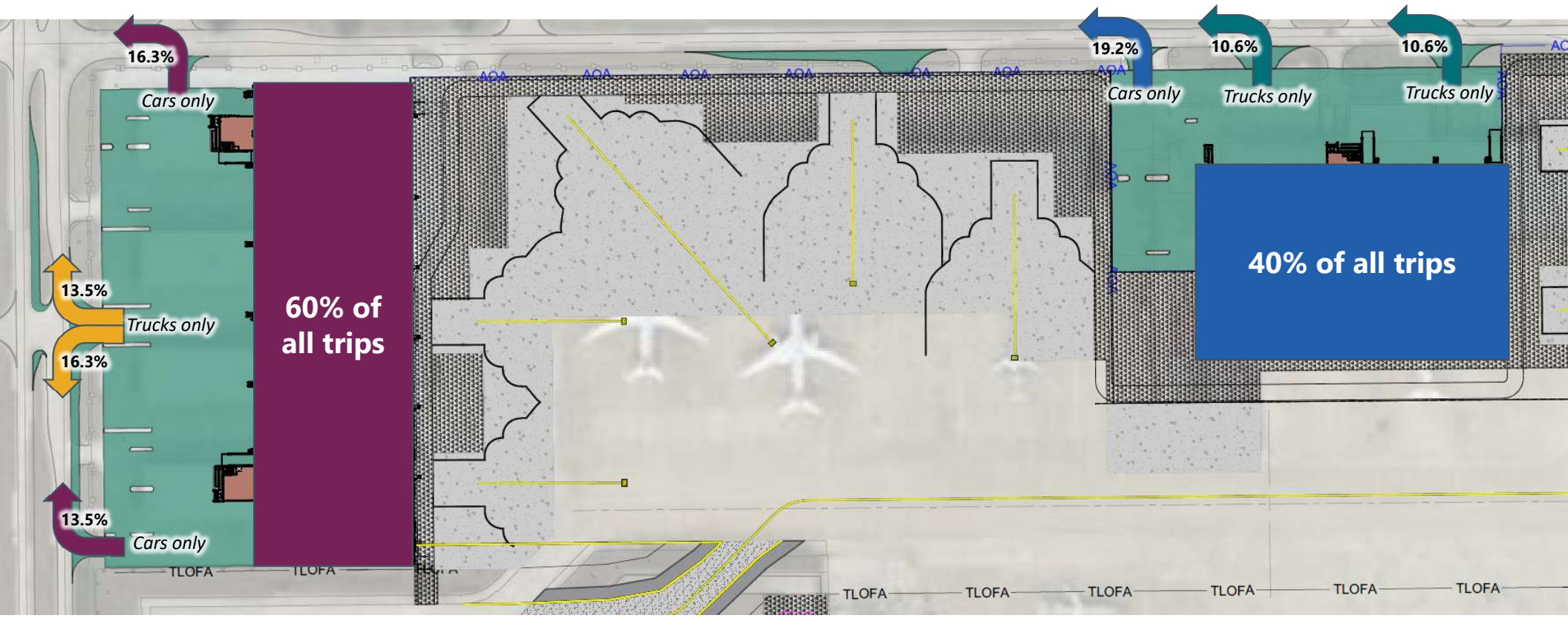
Average Rate	Range of Rates	Standard Deviation
0.64	0.26 - 0.86	0.27

Data Plot and Equation

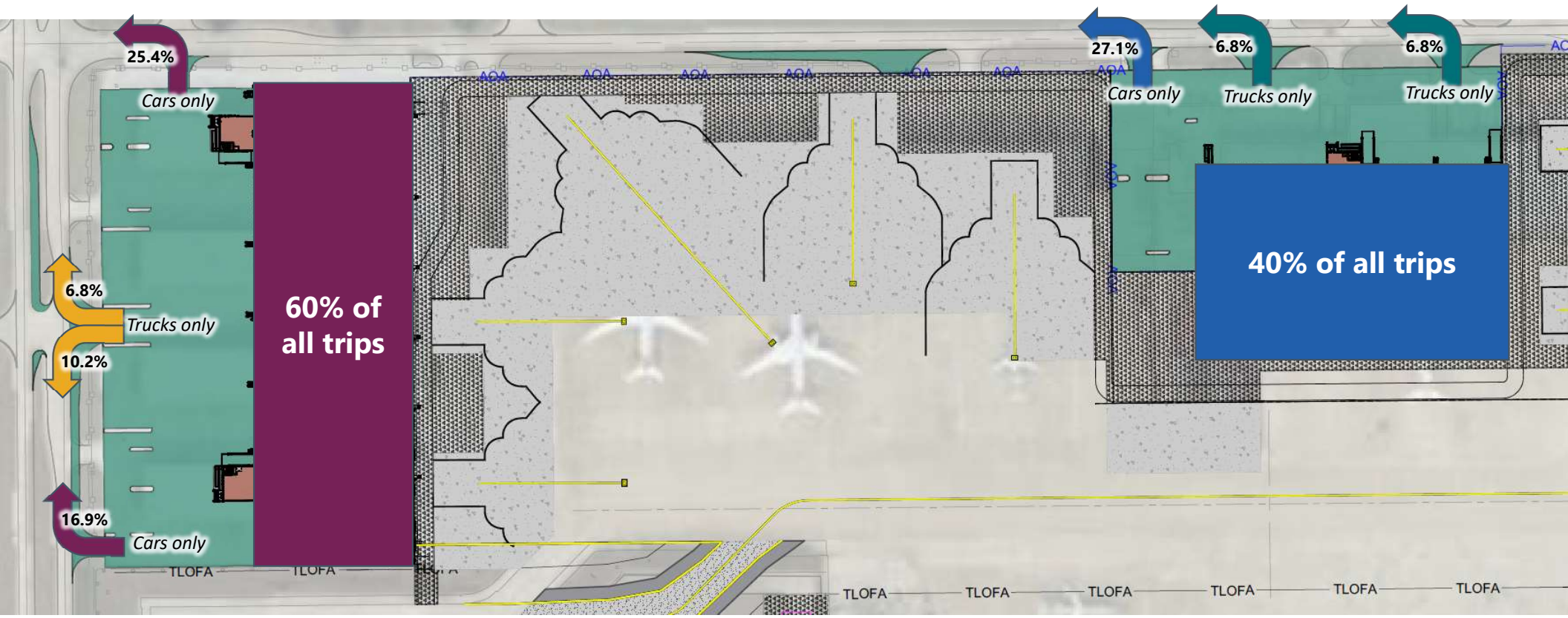
Caution – Small Sample Size



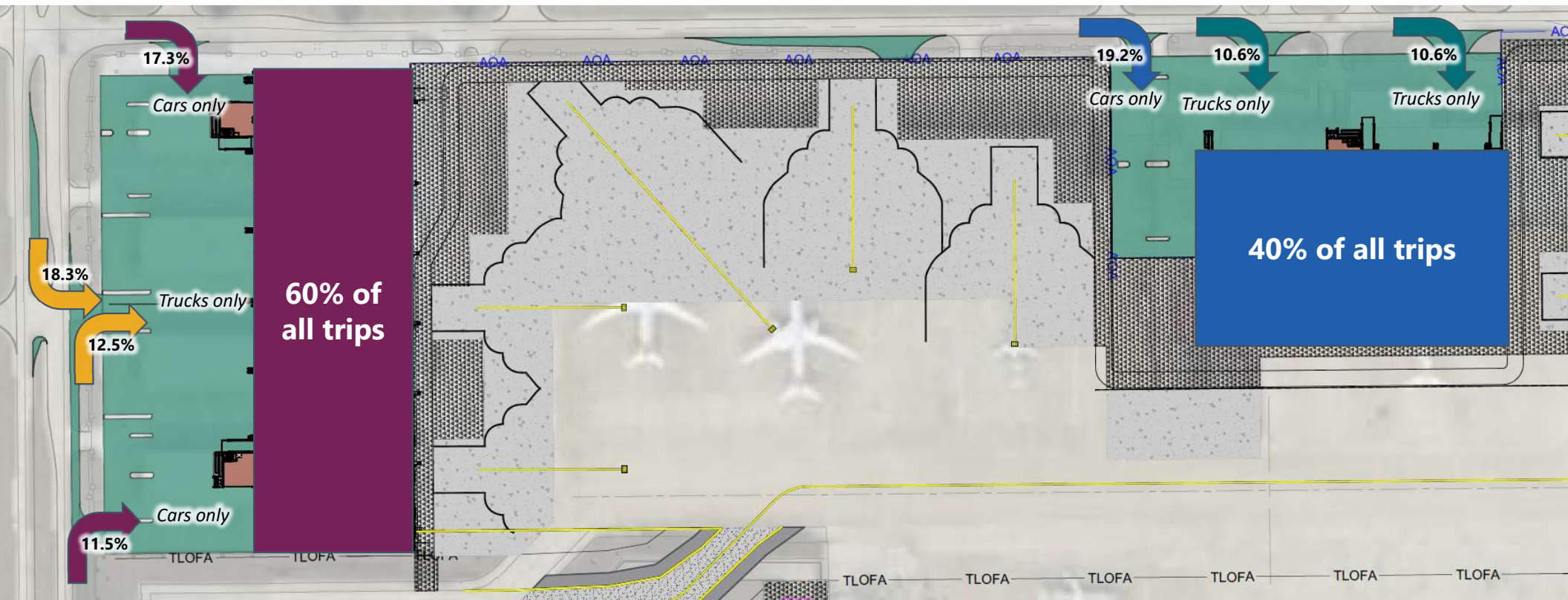
Project Driveways AM Outbound



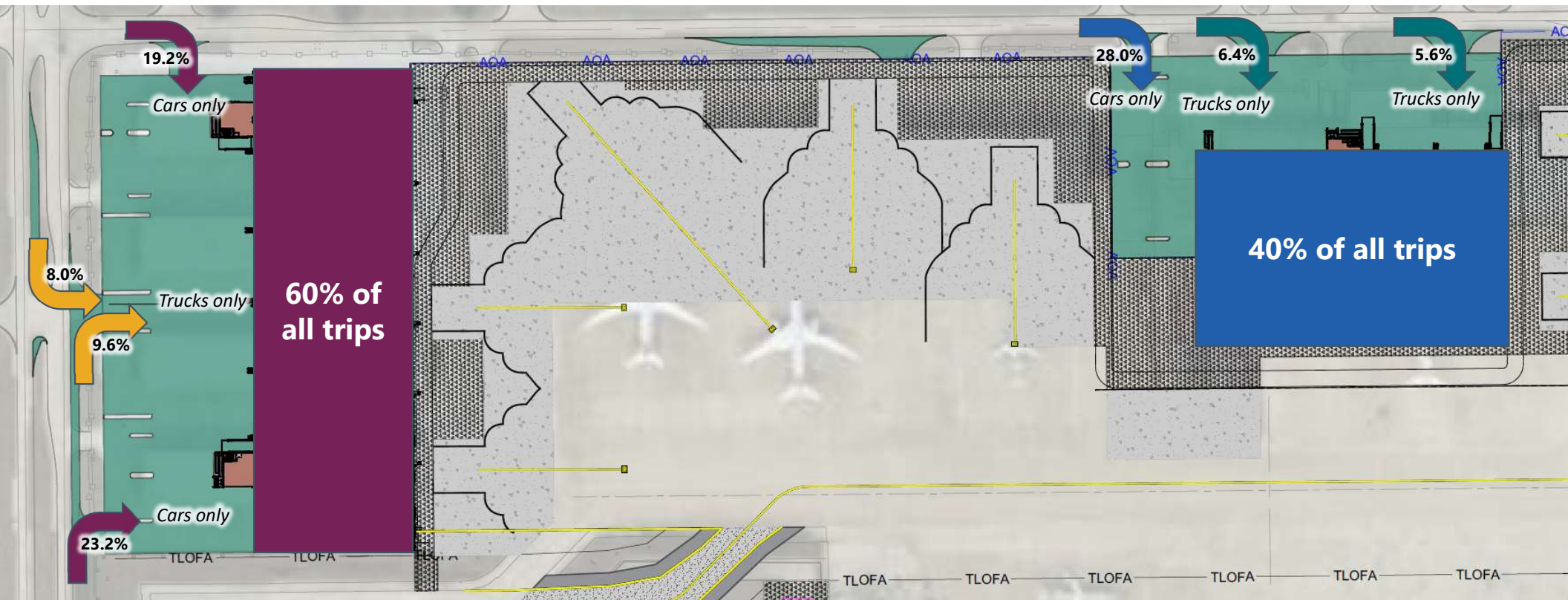
Project Driveways PM Outbound



Project Driveways AM Inbound



Project Driveways PM Inbound



Appendix G: Future (2025) Background HCM 6th Ed. & Synchro Reports

Lanes, Volumes, Timings
1: S Main St & Mustang Dr

08/03/2022



Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	367	502	56	1	98	60	152	6	26	2	149	79
Future Volume (vph)	367	502	56	1	98	60	152	6	26	2	149	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		180		195		155	0		60	105	
Storage Lanes	1		1		1		1	1		2	1	
Taper Length (ft)	100				100			0			100	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00
Frt			0.850				0.850		0.990			
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	1770	3539	1583	0	1570	3139	1404	1114	2206	0	1703	1792
Flt Permitted	0.621				0.448			0.701			0.422	
Satd. Flow (perm)	1157	3539	1583	0	740	3139	1404	822	2206	0	756	1792
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)			184				234		2			
Link Speed (mph)		45				45			30			35
Link Distance (ft)		931				1341			732			695
Travel Time (s)		14.1				20.3			16.6			13.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	15%	15%	15%	15%	62%	62%	62%	6%	6%
Adj. Flow (vph)	399	546	61	1	107	65	165	7	28	2	162	86
Shared Lane Traffic (%)												
Lane Group Flow (vph)	399	546	61	0	108	65	165	7	30	0	162	86
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)		15				16			28			18
Link Offset(ft)		0				0			0			0
Crosswalk Width(ft)		16				16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15		9	15		9	15	
Number of Detectors	1	2	1	1	1	2	1	1	2		1	2
Detector Template	Left	Thru	Right	Left	Left	Thru	Right	Left	Thru		Left	Thru
Leading Detector (ft)	20	100	20	20	20	100	20	20	100		20	100
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0		0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0		0	0
Detector 1 Size(ft)	20	6	20	20	20	6	20	20	6		20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)		94				94			94			94
Detector 2 Size(ft)		6				6			6			6
Detector 2 Type		Cl+Ex				Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0				0.0			0.0			0.0
Turn Type	pm+pt	NA	Perm	Prot	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA
Protected Phases	5	2		1	1	6		3	8		7	4

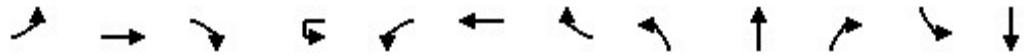
Lanes, Volumes, Timings
 1: S Main St & Mustang Dr

08/03/2022

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	84
Future Volume (vph)	84
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1524
Flt Permitted	
Satd. Flow (perm)	1524
Right Turn on Red	Yes
Satd. Flow (RTOR)	184
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Heavy Vehicles (%)	6%
Adj. Flow (vph)	91
Shared Lane Traffic (%)	
Lane Group Flow (vph)	91
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	

Lanes, Volumes, Timings
1: S Main St & Mustang Dr

08/03/2022

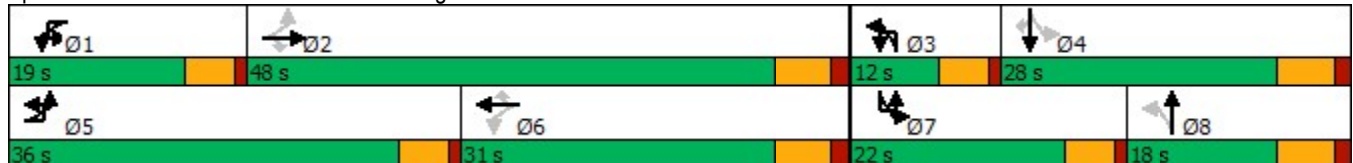


Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Permitted Phases	2		2		6		6	8			4	
Detector Phase	5	2	2	1	1	6	6	3	8		7	4
Switch Phase												
Minimum Initial (s)	7.0	10.0	10.0	7.0	7.0	10.0	10.0	5.0	10.0		7.0	10.0
Minimum Split (s)	12.0	16.0	16.0	12.0	12.0	16.0	16.0	10.0	16.0		12.0	16.0
Total Split (s)	36.0	48.0	48.0	19.0	19.0	31.0	31.0	12.0	18.0		22.0	28.0
Total Split (%)	33.6%	44.9%	44.9%	17.8%	17.8%	29.0%	29.0%	11.2%	16.8%		20.6%	26.2%
Maximum Green (s)	31.0	42.0	42.0	14.0	14.0	25.0	25.0	7.0	12.0		17.0	22.0
Yellow Time (s)	4.0	4.5	4.5	4.0	4.0	4.5	4.5	4.0	4.5		4.0	4.5
All-Red Time (s)	1.0	1.5	1.5	1.0	1.0	1.5	1.5	1.0	1.5		1.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0		5.0	6.0	6.0	5.0	6.0		5.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	2.5	1.0	1.0	2.5	2.5	1.0	1.0	2.5	1.0		2.5	1.0
Recall Mode	None	Max	Max	None	None	None	None	None	None		None	None
Walk Time (s)						7.0	7.0					
Flash Dont Walk (s)						11.0	11.0					
Pedestrian Calls (#/hr)						0	0					
Act Effct Green (s)	54.2	43.4	43.4		42.1	32.8	32.8	11.5	10.3		22.3	19.3
Actuated g/C Ratio	0.62	0.50	0.50		0.48	0.38	0.38	0.13	0.12		0.26	0.22
v/c Ratio	0.48	0.31	0.07		0.25	0.06	0.25	0.06	0.11		0.47	0.22
Control Delay	11.9	16.7	0.2		11.7	23.0	1.9	25.3	39.5		31.1	30.8
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	11.9	16.7	0.2		11.7	23.0	1.9	25.3	39.5		31.1	30.8
LOS	B	B	A		B	C	A	C	D		C	C
Approach Delay		13.8				9.1			36.8			22.9
Approach LOS		B				A			D			C

Intersection Summary


Area Type: Other
 Cycle Length: 107
 Actuated Cycle Length: 87.3
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.48
 Intersection Signal Delay: 15.1
 Intersection Capacity Utilization 59.5%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 1: S Main St & Mustang Dr



Lanes, Volumes, Timings
1: S Main St & Mustang Dr

08/03/2022



Lane Group	SBR
Permitted Phases	4
Detector Phase	4
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	16.0
Total Split (s)	28.0
Total Split (%)	26.2%
Maximum Green (s)	22.0
Yellow Time (s)	4.5
All-Red Time (s)	1.5
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.0
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	1.0
Recall Mode	None
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	19.3
Actuated g/C Ratio	0.22
v/c Ratio	0.19
Control Delay	0.9
Queue Delay	0.0
Total Delay	0.9
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings
2: W Airfield Dr & Mustang Dr/N Airfield Dr

08/03/2022



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↔	↑↑	↔	↔
Traffic Volume (vph)	438	145	419	177	141	527
Future Volume (vph)	438	145	419	177	141	527
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	375		0	300
Storage Lanes		0	1		2	1
Taper Length (ft)			100		0	
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	1.00
Frt	0.963					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3408	0	1671	3343	3303	1524
Flt Permitted			0.294		0.950	
Satd. Flow (perm)	3408	0	517	3343	3303	1524
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	40					573
Link Speed (mph)	45			45	45	
Link Distance (ft)	1036			1355	845	
Travel Time (s)	15.7			20.5	12.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	8%	8%	6%	6%
Adj. Flow (vph)	476	158	455	192	153	573
Shared Lane Traffic (%)						
Lane Group Flow (vph)	634	0	455	192	153	573
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			24	60	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2		1	2	1	1
Detector Template	Thru		Left	Thru	Left	Right
Leading Detector (ft)	100		20	100	20	20
Trailing Detector (ft)	0		0	0	0	0
Detector 1 Position(ft)	0		0	0	0	0
Detector 1 Size(ft)	6		20	6	20	20
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA		pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	

Lanes, Volumes, Timings
 2: W Airfield Dr & Mustang Dr/N Airfield Dr

08/03/2022

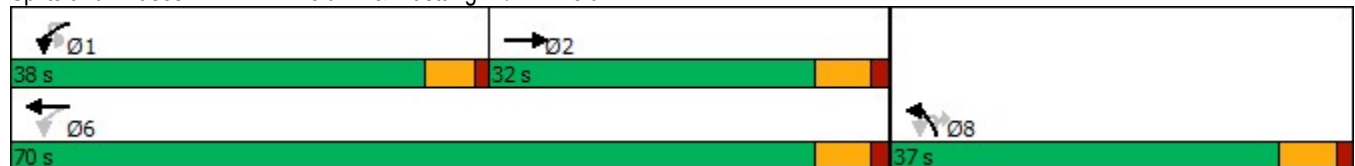


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases			6			8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	10.0		7.0	10.0	7.0	7.0
Minimum Split (s)	16.0		12.0	16.0	13.0	13.0
Total Split (s)	32.0		38.0	70.0	37.0	37.0
Total Split (%)	29.9%		35.5%	65.4%	34.6%	34.6%
Maximum Green (s)	26.0		33.0	64.0	31.0	31.0
Yellow Time (s)	4.5		4.0	4.5	4.5	4.5
All-Red Time (s)	1.5		1.0	1.5	1.5	1.5
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0		5.0	6.0	6.0	6.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?						
Vehicle Extension (s)	1.0		2.5	1.0	1.5	1.5
Recall Mode	Max		None	None	None	None
Act Effct Green (s)	26.9		50.5	49.5	10.1	10.1
Actuated g/C Ratio	0.37		0.70	0.69	0.14	0.14
v/c Ratio	0.49		0.71	0.08	0.33	0.81
Control Delay	20.4		12.9	4.4	30.9	13.2
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	20.4		12.9	4.4	30.9	13.2
LOS	C		B	A	C	B
Approach Delay	20.4			10.4	16.9	
Approach LOS	C			B	B	

Intersection Summary

Area Type:	Other
Cycle Length:	107
Actuated Cycle Length:	72
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.81
Intersection Signal Delay:	15.9
Intersection LOS:	B
Intersection Capacity Utilization	86.8%
ICU Level of Service	E
Analysis Period (min)	15

Splits and Phases: 2: W Airfield Dr & Mustang Dr/N Airfield Dr



Lanes, Volumes, Timings
3: N Airfield Dr & Texan Trail

08/03/2022



Lane Group	SEU	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT
Lane Configurations												
Traffic Volume (vph)	1	175	7	521	3	2	5	390	474	5	1	79
Future Volume (vph)	1	175	7	521	3	2	5	390	474	5	1	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		215		0	0		0	295		295	280	
Storage Lanes		1		1	0		0	2		1	1	
Taper Length (ft)		100			0			100			65	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.97	0.95	1.00	1.00	0.95
Frt				0.850		0.932				0.850		
Flt Protected		0.950	0.956			0.985		0.950			0.950	
Satd. Flow (prot)	0	1618	1628	1524	0	1744	0	3367	3471	1553	1612	3223
Flt Permitted		0.950	0.956			0.985		0.950			0.950	
Satd. Flow (perm)	0	1618	1628	1524	0	1744	0	3367	3471	1553	1612	3223
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)				566		5				130		
Link Speed (mph)			45			25			45			45
Link Distance (ft)			611			324			1173			1060
Travel Time (s)			9.3			8.8			17.8			16.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	6%	6%	6%	0%	0%	0%	4%	4%	4%	12%	12%
Adj. Flow (vph)	1	190	8	566	3	2	5	424	515	5	1	86
Shared Lane Traffic (%)		48%										
Lane Group Flow (vph)	0	100	99	566	0	10	0	424	515	5	1	86
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)			38			24			58			38
Link Offset(ft)			0			0			0			0
Crosswalk Width(ft)			16			16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	15		9	15		9	15	
Number of Detectors	1	1	2	1	1	2		1	2	1	1	2
Detector Template	Left	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100		20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0		0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0		0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6		20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94			94			94
Detector 2 Size(ft)			6			6			6			6
Detector 2 Type			Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0			0.0			0.0
Turn Type	Split	Split	NA	Perm	Split	NA		Prot	NA	Perm	Prot	NA
Protected Phases	4	4	4		8	8		5	2		1	6

Lanes, Volumes, Timings
 3: N Airfield Dr & Texan Trail

08/03/2022



Lane Group	SWR
Lane Configurations	
Traffic Volume (vph)	29
Future Volume (vph)	29
Ideal Flow (vphpl)	1900
Storage Length (ft)	280
Storage Lanes	2
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1442
Flt Permitted	
Satd. Flow (perm)	1442
Right Turn on Red	Yes
Satd. Flow (RTOR)	140
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Heavy Vehicles (%)	12%
Adj. Flow (vph)	32
Shared Lane Traffic (%)	
Lane Group Flow (vph)	32
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	

Lanes, Volumes, Timings
3: N Airfield Dr & Texan Trail

08/03/2022

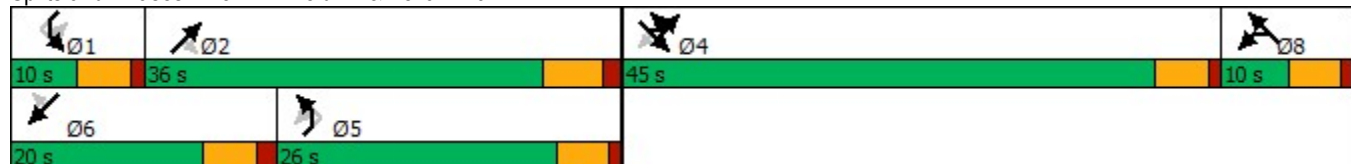


Lane Group	SEU	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT
Permitted Phases				4						2		
Detector Phase	4	4	4	4	8	8		5	2	2	1	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0		10.0	5.0	5.0	5.0	7.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0		15.0	11.0	11.0	10.0	12.5
Total Split (s)	45.0	45.0	45.0	45.0	10.0	10.0		26.0	36.0	36.0	10.0	20.0
Total Split (%)	44.6%	44.6%	44.6%	44.6%	9.9%	9.9%		25.7%	35.6%	35.6%	9.9%	19.8%
Maximum Green (s)	40.0	40.0	40.0	40.0	5.0	5.0		21.0	30.0	30.0	5.0	14.5
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.5	4.5	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.5	1.5	1.0	1.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0	5.0	5.0		5.0		5.0	6.0	6.0	5.0	5.5
Lead/Lag	Lead	Lead	Lead	Lead	Lag	Lag		Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	2.0
Recall Mode	None	None	None	None	None	None		None	Min	Min	None	Min
Act Effct Green (s)		7.8	7.8	7.8		5.2		11.2	22.0	22.0	5.2	7.5
Actuated g/C Ratio		0.18	0.18	0.18		0.12		0.25	0.50	0.50	0.12	0.17
v/c Ratio		0.35	0.34	0.77		0.05		0.50	0.30	0.01	0.01	0.16
Control Delay		20.1	20.0	10.2		19.0		17.8	10.2	0.0	23.0	19.7
Queue Delay		0.0	0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		20.1	20.0	10.2		19.0		17.8	10.2	0.0	23.0	19.7
LOS		C	B	B		B		B	B	A	C	B
Approach Delay			12.7			19.0			13.6			14.6
Approach LOS			B			B			B			B

Intersection Summary

Area Type:	Other
Cycle Length:	101
Actuated Cycle Length:	44
Natural Cycle:	50
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	13.3
Intersection LOS:	B
Intersection Capacity Utilization:	67.6%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 3: N Airfield Dr & Texan Trail





Lane Group	SWR
Permitted Phases	6
Detector Phase	6
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	12.5
Total Split (s)	20.0
Total Split (%)	19.8%
Maximum Green (s)	14.5
Yellow Time (s)	4.0
All-Red Time (s)	1.5
Lost Time Adjust (s)	0.0
Total Lost Time (s)	5.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.0
Recall Mode	Min
Act Effct Green (s)	7.5
Actuated g/C Ratio	0.17
v/c Ratio	0.09
Control Delay	0.5
Queue Delay	0.0
Total Delay	0.5
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings
4: W Airfield Dr & W 17th St (West)

08/03/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	56	2	89	0	1	12	1	33	660	5	10	532
Future Volume (vph)	56	2	89	0	1	12	1	33	660	5	10	532
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0		130		0	125	
Storage Lanes	1		0	0		0		1		0	1	
Taper Length (ft)	0			0				75			75	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95
Frt		0.853			0.875				0.999			0.998
Flt Protected	0.950							0.950			0.950	
Satd. Flow (prot)	1492	1339	0	0	1163	0	0	1671	3339	0	1703	3399
Flt Permitted	0.950							0.950			0.950	
Satd. Flow (perm)	1492	1339	0	0	1163	0	0	1671	3339	0	1703	3399
Link Speed (mph)		30			30				45			45
Link Distance (ft)		939			233				604			311
Travel Time (s)		21.3			5.3				9.2			4.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	21%	21%	21%	43%	43%	43%	8%	8%	8%	8%	6%	6%
Adj. Flow (vph)	61	2	97	0	1	13	1	36	717	5	11	578
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	99	0	0	14	0	0	37	722	0	11	585
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	Left	Left
Median Width(ft)		12			0				38			38
Link Offset(ft)		0			0				0			0
Crosswalk Width(ft)		16			16				16			16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	15	
Sign Control		Stop			Stop				Free			Free
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	41.5%					ICU Level of Service A						
Analysis Period (min)	15											

Lanes, Volumes, Timings
 4: W Airfield Dr & W 17th St (West)

08/03/2022

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	6
Future Volume (vph)	6
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	0.95
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Heavy Vehicles (%)	6%
Adj. Flow (vph)	7
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Sign Control	
Intersection Summary	

Lanes, Volumes, Timings
5: W Airfield Dr & W 17th St (East)

08/03/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	12	0	1	8	0	37	1	65	654	8	1	28
Future Volume (vph)	12	0	1	8	0	37	1	65	654	8	1	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		165		130		0		325
Storage Lanes	0		1	1		1		1		0		1
Taper Length (ft)	0			0				75				65
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	0.95	1.00
Frt			0.850			0.850			0.998			
Flt Protected		0.950		0.950				0.950				0.950
Satd. Flow (prot)	0	1805	1615	1253	0	1122	0	1719	3431	0	0	1703
Flt Permitted		0.950		0.950				0.418				0.375
Satd. Flow (perm)	0	1805	1615	1253	0	1122	0	756	3431	0	0	672
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			101			101			1			
Link Speed (mph)		30			30				45			
Link Distance (ft)		141			907				311			
Travel Time (s)		3.2			20.6				4.7			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	44%	44%	44%	5%	5%	5%	5%	6%	6%
Adj. Flow (vph)	13	0	1	9	0	40	1	71	711	9	1	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	1	9	0	40	0	72	720	0	0	31
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		18			12				38			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Number of Detectors	1	2	1	1		1	1	1	2		1	1
Detector Template	Left	Thru	Right	Left		Right	Left	Left	Thru		Left	Left
Leading Detector (ft)	20	100	20	20		20	20	20	100		20	20
Trailing Detector (ft)	0	0	0	0		0	0	0	0		0	0
Detector 1 Position(ft)	0	0	0	0		0	0	0	0		0	0
Detector 1 Size(ft)	20	6	20	20		20	20	20	6		20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)		94							94			
Detector 2 Size(ft)		6							6			
Detector 2 Type		Cl+Ex							Cl+Ex			
Detector 2 Channel												
Detector 2 Extend (s)		0.0							0.0			
Turn Type	Split	NA	Perm	Prot		Perm	custom	pm+pt	NA		custom	pm+pt
Protected Phases	4	4		8				5	2			1

Lanes, Volumes, Timings
5: W Airfield Dr & W 17th St (East)

08/03/2022



Lane Group	SBT	SBR
Lane Configurations	↑↑	
Traffic Volume (vph)	538	1
Future Volume (vph)	538	1
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	0.95	0.95
Frt		
Flt Protected		
Satd. Flow (prot)	3406	0
Flt Permitted		
Satd. Flow (perm)	3406	0
Right Turn on Red		Yes
Satd. Flow (RTOR)		
Link Speed (mph)	45	
Link Distance (ft)	666	
Travel Time (s)	10.1	
Peak Hour Factor	0.92	0.92
Heavy Vehicles (%)	6%	6%
Adj. Flow (vph)	585	1
Shared Lane Traffic (%)		
Lane Group Flow (vph)	586	0
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	38	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	
Detector Template	Thru	
Leading Detector (ft)	100	
Trailing Detector (ft)	0	
Detector 1 Position(ft)	0	
Detector 1 Size(ft)	6	
Detector 1 Type	Cl+Ex	
Detector 1 Channel		
Detector 1 Extend (s)	0.0	
Detector 1 Queue (s)	0.0	
Detector 1 Delay (s)	0.0	
Detector 2 Position(ft)	94	
Detector 2 Size(ft)	6	
Detector 2 Type	Cl+Ex	
Detector 2 Channel		
Detector 2 Extend (s)	0.0	
Turn Type	NA	
Protected Phases	6	

Lanes, Volumes, Timings
5: W Airfield Dr & W 17th St (East)

08/03/2022

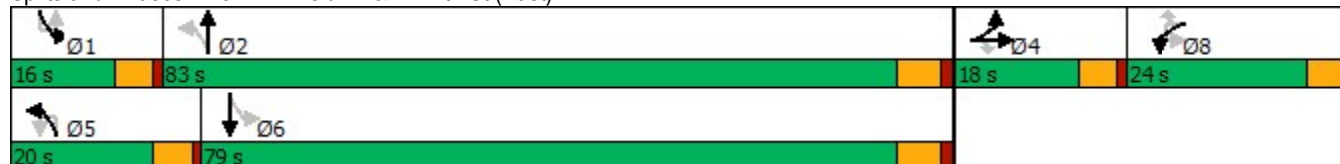


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Permitted Phases			4			8	5	2			1	6
Detector Phase	4	4	4	8		8	5	5	2		1	1
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0		7.0	7.0	7.0	20.0		7.0	7.0
Minimum Split (s)	12.0	12.0	12.0	12.0		12.0	12.0	12.0	26.0		12.0	12.0
Total Split (s)	18.0	18.0	18.0	24.0		24.0	20.0	20.0	83.0		16.0	16.0
Total Split (%)	12.8%	12.8%	12.8%	17.0%		17.0%	14.2%	14.2%	58.9%		11.3%	11.3%
Maximum Green (s)	13.0	13.0	13.0	19.0		19.0	15.0	15.0	77.0		11.0	11.0
Yellow Time (s)	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.5		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.5		1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0	0.0			0.0
Total Lost Time (s)		5.0	5.0	5.0		5.0		5.0	6.0			5.0
Lead/Lag	Lead	Lead	Lead	Lag		Lag	Lead	Lead	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0		2.0	1.0	1.0	2.0		1.0	1.0
Recall Mode	None	None	None	None		None	None	None	Max		None	None
Act Effct Green (s)		7.1	7.1	7.1		7.1		87.9	85.7			86.8
Actuated g/C Ratio		0.07	0.07	0.07		0.07		0.82	0.80			0.81
v/c Ratio		0.11	0.00	0.11		0.24		0.10	0.26			0.05
Control Delay		54.2	0.0	55.4		3.3		3.2	6.0			3.2
Queue Delay		0.0	0.0	0.0		0.0		0.0	0.0			0.0
Total Delay		54.2	0.0	55.4		3.3		3.2	6.0			3.2
LOS		D	A	E		A		A	A			A
Approach Delay		50.3				12.9			5.8			
Approach LOS		D				B			A			

Intersection Summary

Area Type:	Other
Cycle Length:	141
Actuated Cycle Length:	106.8
Natural Cycle:	65
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.26
Intersection Signal Delay:	6.5
Intersection LOS:	A
Intersection Capacity Utilization:	53.3%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 5: W Airfield Dr & W 17th St (East)



Lanes, Volumes, Timings
 5: W Airfield Dr & W 17th St (East)

08/03/2022



Lane Group	SBT	SBR
Permitted Phases		
Detector Phase	6	
Switch Phase		
Minimum Initial (s)	20.0	
Minimum Split (s)	26.0	
Total Split (s)	79.0	
Total Split (%)	56.0%	
Maximum Green (s)	73.0	
Yellow Time (s)	4.5	
All-Red Time (s)	1.5	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	6.0	
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	2.0	
Recall Mode	Max	
Act Effct Green (s)	81.5	
Actuated g/C Ratio	0.76	
v/c Ratio	0.23	
Control Delay	6.2	
Queue Delay	0.0	
Total Delay	6.2	
LOS	A	
Approach Delay	6.0	
Approach LOS	A	
Intersection Summary		

Lanes, Volumes, Timings
6: W Airfield Dr & W 19th St

08/03/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	2	57	0	45	21	653	24	36	554	32
Future Volume (vph)	1	0	2	57	0	45	21	653	24	36	554	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		295	205		0	215		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	0			0			50			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.850			0.850			0.995			0.992	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1615	0	1687	1509	0	1687	3357	0	1687	3347	0
Flt Permitted							0.397			0.345		
Satd. Flow (perm)	1900	1615	0	1776	1509	0	705	3357	0	613	3347	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		407			392			6			10	
Link Speed (mph)		25			35			45			45	
Link Distance (ft)		172			3035			1215			604	
Travel Time (s)		4.7			59.1			18.4			9.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Adj. Flow (vph)	1	0	2	62	0	49	23	710	26	39	602	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	2	0	62	49	0	23	736	0	39	637	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			38			38	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	

Lanes, Volumes, Timings
6: W Airfield Dr & W 19th St

08/03/2022

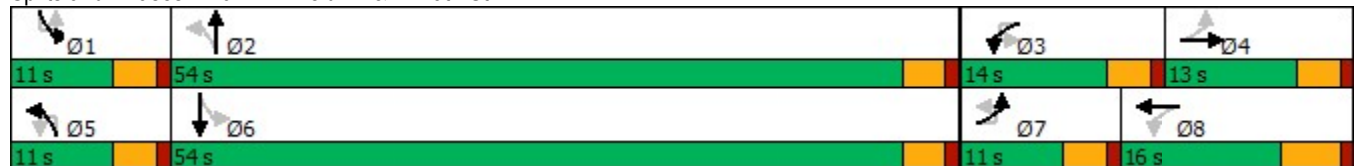


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	9.0	11.0		9.0	12.0		9.0	19.0		9.0	19.0	
Total Split (s)	11.0	13.0		14.0	16.0		11.0	54.0		11.0	54.0	
Total Split (%)	12.0%	14.1%		15.2%	17.4%		12.0%	58.7%		12.0%	58.7%	
Maximum Green (s)	7.0	9.0		10.0	11.0		7.0	50.0		7.0	50.0	
Yellow Time (s)	3.0	3.0		3.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		4.0	5.0		4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	6.4	7.8		7.4	7.8		23.3	25.7		23.3	25.7	
Actuated g/C Ratio	0.19	0.23		0.22	0.23		0.69	0.76		0.69	0.76	
v/c Ratio	0.00	0.00		0.16	0.08		0.04	0.29		0.06	0.25	
Control Delay	11.0	0.0		11.1	0.2		4.9	6.1		4.8	5.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	11.0	0.0		11.1	0.2		4.9	6.1		4.8	5.9	
LOS	B	A		B	A		A	A		A	A	
Approach Delay		3.7			6.3			6.1			5.8	
Approach LOS		A			A			A			A	

Intersection Summary




















Area Type:	Other
Cycle Length:	92
Actuated Cycle Length:	33.6
Natural Cycle:	50
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.29
Intersection Signal Delay:	6.0
Intersection LOS:	A
Intersection Capacity Utilization	43.6%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 6: W Airfield Dr & W 19th St



Lanes, Volumes, Timings
7: W Airfield Dr & W 21st St

08/03/2022

												
Lane Group	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Lane Configurations												
Traffic Volume (vph)	1	27	495	13	1	0	641	29	1	0	1	42
Future Volume (vph)	1	27	495	13	1	0	641	29	1	0	1	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		190		275		175		125	0		0	0
Storage Lanes		1		1		1		1	0		0	0
Taper Length (ft)		100				50			0			0
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00
Frt				0.850				0.850		0.932		
Flt Protected		0.950				0.950				0.976		
Satd. Flow (prot)	0	1671	3343	1495	0	1703	3406	1524	0	1440	0	0
Flt Permitted		0.167										
Satd. Flow (perm)	0	294	3343	1495	0	1792	3406	1524	0	1476	0	0
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				104				147		156		
Link Speed (mph)			45				45			25		
Link Distance (ft)			498				712			197		
Travel Time (s)			7.5				10.8			5.4		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	8%	8%	8%	6%	6%	6%	6%	20%	20%	20%	7%
Adj. Flow (vph)	1	29	538	14	1	0	697	32	1	0	1	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	30	538	14	0	1	697	32	0	2	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)			65				40			17		
Link Offset(ft)			0				0			0		
Crosswalk Width(ft)			16				16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Number of Detectors	1	1	2	1	0	1	2	1	1	2		1
Detector Template	Left	Left	Thru	Right		Left	Thru	Right	Left	Thru		Left
Leading Detector (ft)	20	20	100	20	0	20	100	20	20	100		20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0		0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0		0
Detector 1 Size(ft)	20	20	6	20	0	20	6	20	20	6		20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Detector 2 Position(ft)			94				94			94		
Detector 2 Size(ft)			6				6			6		
Detector 2 Type			Cl+Ex				Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0				0.0			0.0		
Turn Type	custom	Prot	NA	Perm	custom	Prot	NA	Perm	Perm	NA		Perm
Protected Phases		1	6			5	2			4		

Lanes, Volumes, Timings
7: W Airfield Dr & W 21st St

08/03/2022



Lane Group	SWT	SWR
Lane Configurations	↖	↗
Traffic Volume (vph)	1	77
Future Volume (vph)	1	77
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt		0.850
Flt Protected	0.953	
Satd. Flow (prot)	1692	1509
Flt Permitted	0.730	
Satd. Flow (perm)	1296	1509
Right Turn on Red		Yes
Satd. Flow (RTOR)		156
Link Speed (mph)	30	
Link Distance (ft)	674	
Travel Time (s)	15.3	
Peak Hour Factor	0.92	0.92
Heavy Vehicles (%)	7%	7%
Adj. Flow (vph)	1	84
Shared Lane Traffic (%)		
Lane Group Flow (vph)	47	84
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	32	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Detector 1 Position(ft)	0	0
Detector 1 Size(ft)	6	20
Detector 1 Type	Cl+Ex	Cl+Ex
Detector 1 Channel		
Detector 1 Extend (s)	0.0	0.0
Detector 1 Queue (s)	0.0	0.0
Detector 1 Delay (s)	0.0	0.0
Detector 2 Position(ft)	94	
Detector 2 Size(ft)	6	
Detector 2 Type	Cl+Ex	
Detector 2 Channel		
Detector 2 Extend (s)	0.0	
Turn Type	NA	Perm
Protected Phases	8	

Lanes, Volumes, Timings
7: W Airfield Dr & W 21st St

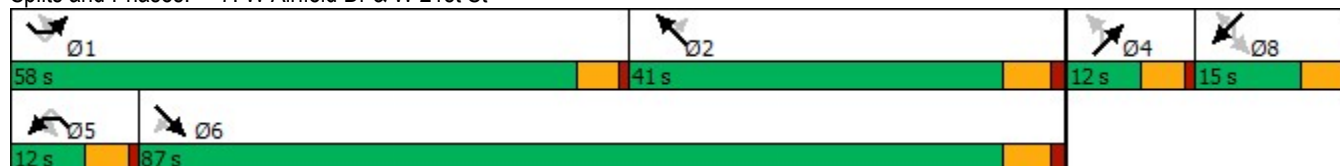
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Lane Group	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Permitted Phases	1			6	5			2	4			8
Detector Phase	1	1	6	6	5	5	2	2	4	4		8
Switch Phase												
Minimum Initial (s)	10.0	10.0	15.0	15.0	7.0	7.0	15.0	15.0	7.0	7.0		10.0
Minimum Split (s)	15.0	15.0	21.0	21.0	12.0	12.0	21.0	21.0	12.0	12.0		15.0
Total Split (s)	58.0	58.0	87.0	87.0	12.0	12.0	41.0	41.0	12.0	12.0		15.0
Total Split (%)	46.0%	46.0%	69.0%	69.0%	9.5%	9.5%	32.5%	32.5%	9.5%	9.5%		11.9%
Maximum Green (s)	53.0	53.0	81.0	81.0	7.0	7.0	35.0	35.0	7.0	7.0		10.0
Yellow Time (s)	4.0	4.0	4.5	4.5	4.0	4.0	4.5	4.5	4.0	4.0		4.0
All-Red Time (s)	1.0	1.0	1.5	1.5	1.0	1.0	1.5	1.5	1.0	1.0		1.0
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0			0.0	
Total Lost Time (s)		5.0	6.0	6.0			5.0	6.0			5.0	
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	1.5	1.5	2.0	2.0	1.5	1.5	2.0	2.0	1.0	1.0		1.0
Recall Mode	None	None	Max	Max	None	None	Max	Max	None	None		None
Act Effct Green (s)		29.9	86.1	86.1		7.0	61.3	61.3		7.0		
Actuated g/C Ratio		0.28	0.81	0.81		0.07	0.57	0.57		0.07		
v/c Ratio		0.37	0.20	0.01		0.01	0.36	0.03		0.01		
Control Delay		38.9	4.4	0.0		52.0	22.5	0.1		0.0		
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0		0.0		
Total Delay		38.9	4.4	0.0		52.0	22.5	0.1		0.0		
LOS		D	A	A		D	C	A		A		
Approach Delay			6.0				21.6					
Approach LOS			A				C					

Intersection Summary

Area Type:	Other
Cycle Length:	126
Actuated Cycle Length:	106.9
Natural Cycle:	65
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.39
Intersection Signal Delay:	15.4
Intersection LOS:	B
Intersection Capacity Utilization:	50.8%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 7: W Airfield Dr & W 21st St





Lane Group	SWT	SWR
Permitted Phases		8
Detector Phase	8	8
Switch Phase		
Minimum Initial (s)	10.0	10.0
Minimum Split (s)	15.0	15.0
Total Split (s)	15.0	15.0
Total Split (%)	11.9%	11.9%
Maximum Green (s)	10.0	10.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	5.0	5.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	1.0	1.0
Recall Mode	None	None
Act Effct Green (s)	10.1	10.1
Actuated g/C Ratio	0.09	0.09
v/c Ratio	0.39	0.30
Control Delay	58.0	2.7
Queue Delay	0.0	0.0
Total Delay	58.0	2.7
LOS	E	A
Approach Delay	22.5	
Approach LOS	C	
Intersection Summary		

Lanes, Volumes, Timings
8: W Airfield Dr & W 23rd St

08/03/2022



Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	19	19	811	93	1	54	338
Future Volume (vph)	19	19	811	93	1	54	338
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0		150	
Storage Lanes	1	0		1		1	
Taper Length (ft)	0					50	
Lane Util. Factor	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt	0.932			0.850			
Flt Protected	0.976					0.950	
Satd. Flow (prot)	1372	0	3438	1538	0	1641	3282
Flt Permitted	0.976					0.274	
Satd. Flow (perm)	1372	0	3438	1538	0	473	3282
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)	21			101			
Link Speed (mph)	25		45				45
Link Distance (ft)	1307		627				530
Travel Time (s)	35.6		9.5				8.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	26%	26%	5%	5%	10%	10%	10%
Adj. Flow (vph)	21	21	882	101	1	59	367
Shared Lane Traffic (%)							
Lane Group Flow (vph)	42	0	882	101	0	60	367
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	R NA	Left	Left
Median Width(ft)	12		18				28
Link Offset(ft)	0		0				0
Crosswalk Width(ft)	16		16				16
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	9	15	
Number of Detectors	1		2	1	1	1	2
Detector Template	Left		Thru	Right	Left	Left	Thru
Leading Detector (ft)	20		100	20	20	20	100
Trailing Detector (ft)	0		0	0	0	0	0
Detector 1 Position(ft)	0		0	0	0	0	0
Detector 1 Size(ft)	20		6	20	20	20	6
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel							
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94				94
Detector 2 Size(ft)			6				6
Detector 2 Type			Cl+Ex				Cl+Ex
Detector 2 Channel							
Detector 2 Extend (s)			0.0				0.0
Turn Type	Prot		NA	Perm	custom	pm+pt	NA
Protected Phases	8		2			1	6

Lanes, Volumes, Timings
8: W Airfield Dr & W 23rd St

08/03/2022

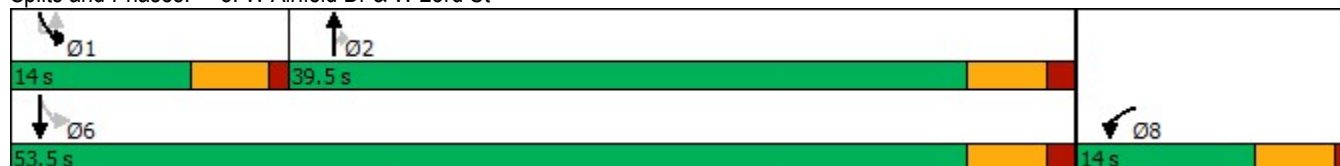


Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Permitted Phases				2	1	6	
Detector Phase	8		2	2	1	1	6
Switch Phase							
Minimum Initial (s)	7.0		15.0	15.0	7.0	7.0	15.0
Minimum Split (s)	12.0		20.5	20.5	12.0	12.0	20.5
Total Split (s)	14.0		39.5	39.5	14.0	14.0	53.5
Total Split (%)	20.7%		58.5%	58.5%	20.7%	20.7%	79.3%
Maximum Green (s)	9.0		34.0	34.0	9.0	9.0	48.0
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		1.5	1.5	1.0	1.0	1.5
Lost Time Adjust (s)	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0		5.5	5.5		5.0	5.5
Lead/Lag			Lag	Lag	Lead	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0		2.5	2.5	2.0	2.0	2.5
Recall Mode	None		Max	Max	None	None	Max
Act Effct Green (s)	7.3		47.0	47.0		52.7	55.6
Actuated g/C Ratio	0.12		0.75	0.75		0.84	0.89
v/c Ratio	0.23		0.34	0.09		0.11	0.13
Control Delay	20.3		6.1	2.1		2.3	1.7
Queue Delay	0.0		0.0	0.0		0.0	0.0
Total Delay	20.3		6.1	2.1		2.3	1.7
LOS	C		A	A		A	A
Approach Delay	20.3		5.7				1.8
Approach LOS	C		A				A

Intersection Summary

Area Type:	Other
Cycle Length:	67.5
Actuated Cycle Length:	62.5
Natural Cycle:	45
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.34
Intersection Signal Delay:	5.0
Intersection LOS:	A
Intersection Capacity Utilization:	47.0%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 8: W Airfield Dr & W 23rd St



Lanes, Volumes, Timings
9: W Airfield Dr & E Glade Rd

08/03/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	279	227	57	649	227	94
Future Volume (vph)	279	227	57	649	227	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	300	210			200
Storage Lanes	1	1	1			1
Taper Length (ft)	0		100			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1787	1599	1703	3406	3282	1468
Flt Permitted	0.950		0.539			
Satd. Flow (perm)	1787	1599	966	3406	3282	1468
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		247				102
Link Speed (mph)	35			45	45	
Link Distance (ft)	1218			1121	367	
Travel Time (s)	23.7			17.0	5.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	6%	6%	10%	10%
Adj. Flow (vph)	303	247	62	705	247	102
Shared Lane Traffic (%)						
Lane Group Flow (vph)	303	247	62	705	247	102
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			15	13	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (ft)	20	20	20	100	100	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	20	6	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)				94	94	
Detector 2 Size(ft)				6	6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	Prot	pm+pt	NA	NA	Perm
Protected Phases	4	4	5	2	6	

Lanes, Volumes, Timings
 9: W Airfield Dr & E Glade Rd

08/03/2022

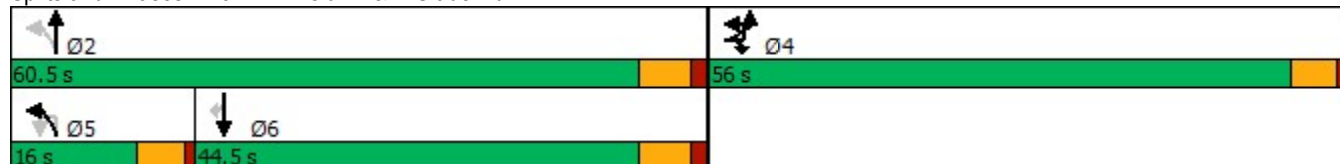


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Permitted Phases			2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	2.0	20.0	20.0
Minimum Split (s)	12.5	12.5	12.0	26.0	26.0	26.0
Total Split (s)	56.0	56.0	16.0	60.5	44.5	44.5
Total Split (%)	48.1%	48.1%	13.7%	51.9%	38.2%	38.2%
Maximum Green (s)	50.5	50.5	11.0	54.5	38.5	38.5
Yellow Time (s)	4.0	4.0	4.0	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.0	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	2.0	2.0	1.5	1.5	1.5	1.5
Recall Mode	None	None	None	Max	Max	Max
Act Effct Green (s)	18.5	18.5	55.7	54.7	45.2	45.2
Actuated g/C Ratio	0.22	0.22	0.66	0.65	0.53	0.53
v/c Ratio	0.78	0.46	0.09	0.32	0.14	0.12
Control Delay	45.2	6.6	6.6	7.8	12.0	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.2	6.6	6.6	7.8	12.0	3.4
LOS	D	A	A	A	B	A
Approach Delay	27.9			7.7	9.5	
Approach LOS	C			A	A	

Intersection Summary

Area Type:	Other
Cycle Length:	116.5
Actuated Cycle Length:	84.7
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	14.7
Intersection LOS:	B
Intersection Capacity Utilization:	51.7%
ICU Level of Service:	A
Analysis Period (min):	15

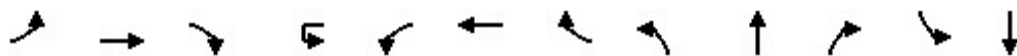
Splits and Phases: 9: W Airfield Dr & E Glade Rd



HCM 6th Signalized Intersection Summary

1: S Main St & Mustang Dr

08/02/2022



Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↔	↑↑	↗		↔	↑↑	↗	↔	↑↑		↔	↑
Traffic Volume (veh/h)	367	502	56	1	98	60	152	6	26	2	149	79
Future Volume (veh/h)	367	502	56	1	98	60	152	6	26	2	149	79
Initial Q (Qb), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870		1678	1678	1678	981	981	981	1811	1811
Adj Flow Rate, veh/h	399	546	0		107	65	0	7	28	2	162	86
Peak Hour Factor	0.92	0.92	0.92		0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2		15	15	15	62	62	62	6	6
Cap, veh/h	856	1665			484	1224		202	196	14	386	286
Arrive On Green	0.16	0.47	0.00		0.07	0.38	0.00	0.06	0.11	0.11	0.10	0.16
Sat Flow, veh/h	1781	3554	1585		1598	3188	1422	934	1766	125	1725	1811
Grp Volume(v), veh/h	399	546	0		107	65	0	7	15	15	162	86
Grp Sat Flow(s),veh/h/ln	1781	1777	1585		1598	1594	1422	934	932	959	1725	1811
Q Serve(g_s), s	11.3	8.7	0.0		3.5	1.1	0.0	0.6	1.3	1.3	7.2	3.8
Cycle Q Clear(g_c), s	11.3	8.7	0.0		3.5	1.1	0.0	0.6	1.3	1.3	7.2	3.8
Prop In Lane	1.00		1.00		1.00		1.00	1.00		0.13	1.00	
Lane Grp Cap(c), veh/h	856	1665			484	1224		202	103	106	386	286
V/C Ratio(X)	0.47	0.33			0.22	0.05		0.03	0.14	0.14	0.42	0.30
Avail Cap(c_a), veh/h	1192	1665			617	1224		224	125	128	536	444
HCM Platoon Ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00		1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.1	15.0	0.0		14.2	17.4	0.0	31.4	36.0	36.0	29.6	33.4
Incr Delay (d2), s/veh	0.3	0.5	0.0		0.2	0.0	0.0	0.1	0.2	0.2	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.8	5.8	0.0		2.1	0.7	0.0	0.2	0.5	0.6	5.3	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.4	15.5	0.0		14.4	17.4	0.0	31.4	36.2	36.2	30.1	33.6
LnGrp LOS	B	B			B	B		C	D	D	C	C
Approach Vol, veh/h		945				172			37			339
Approach Delay, s/veh		13.8				15.5			35.3			32.1
Approach LOS		B				B			D			C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.5	48.0	10.0	20.2	19.1	40.4	14.2	16.0				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green Setting (Gmax), s	14.0	42.0	7.0	22.0	31.0	25.0	17.0	12.0				
Max Q Clear Time (g_c+I1), s	5.5	10.7	2.6	6.8	13.3	3.1	9.2	3.3				
Green Ext Time (p_c), s	0.1	1.2	0.0	0.2	0.8	0.1	0.2	0.0				

Intersection Summary

HCM 6th Ctrl Delay	18.7
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

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

HCM 6th Signalized Intersection Summary
 1: S Main St & Mustang Dr

08/02/2022

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	84
Future Volume (veh/h)	84
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1811
Adj Flow Rate, veh/h	91
Peak Hour Factor	0.92
Percent Heavy Veh, %	6
Cap, veh/h	243
Arrive On Green	0.16
Sat Flow, veh/h	1535
Grp Volume(v), veh/h	91
Grp Sat Flow(s),veh/h/ln	1535
Q Serve(g_s), s	4.8
Cycle Q Clear(g_c), s	4.8
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	243
V/C Ratio(X)	0.37
Avail Cap(c_a), veh/h	377
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	33.8
Incr Delay (d2), s/veh	0.4
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	3.2
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	34.1
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

HCM 6th Signalized Intersection Summary

2: W Airfield Dr & Mustang Dr/N Airfield Dr

08/02/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↔	↑↑	↔	↔
Traffic Volume (veh/h)	438	145	419	177	141	527
Future Volume (veh/h)	438	145	419	177	141	527
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	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	1870	1870	1781	1781	1811	1811
Adj Flow Rate, veh/h	476	0	455	192	153	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	8	8	6	6
Cap, veh/h	1532		724	2348	359	
Arrive On Green	0.43	0.00	0.18	0.69	0.11	0.00
Sat Flow, veh/h	3741	0	1697	3474	3346	1535
Grp Volume(v), veh/h	476	0	455	192	153	0
Grp Sat Flow(s),veh/h/ln	1777	0	1697	1692	1673	1535
Q Serve(g_s), s	5.3	0.0	7.9	1.1	2.6	0.0
Cycle Q Clear(g_c), s	5.3	0.0	7.9	1.1	2.6	0.0
Prop In Lane		0.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1532		724	2348	359	
V/C Ratio(X)	0.31		0.63	0.08	0.43	
Avail Cap(c_a), veh/h	1532		1348	3593	1720	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.3	0.0	6.1	3.0	25.2	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.7	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.2	0.0	2.9	0.3	1.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.8	0.0	6.8	3.0	25.5	0.0
LnGrp LOS	B		A	A	C	
Approach Vol, veh/h	476			647	153	
Approach Delay, s/veh	11.8			5.7	25.5	
Approach LOS	B			A	C	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	15.8	32.0			47.8	12.5
Change Period (Y+Rc), s	5.0	6.0			6.0	6.0
Max Green Setting (Gmax), s	33.0	26.0			64.0	31.0
Max Q Clear Time (g_c+I1), s	9.9	7.3			3.1	4.6
Green Ext Time (p_c), s	1.0	0.9			0.4	0.2

Intersection Summary

HCM 6th Ctrl Delay	10.3
HCM 6th LOS	B

Notes

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

HCM 6th Signalized Intersection Summary

3: N Airfield Dr & Texan Trail

08/02/2022



Movement	SEU	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT
Lane Configurations		↔	↔	↔		↔		↔	↔	↔	↔	↔
Traffic Volume (veh/h)	1	175	7	521	3	2	5	390	474	5	1	79
Future Volume (veh/h)	1	175	7	521	3	2	5	390	474	5	1	79
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No			No			No			No
Adj Sat Flow, veh/h/ln		1811	1811	1811	1900	1900	1900	1841	1841	1841	1722	1722
Adj Flow Rate, veh/h		196	0	566	3	2	5	424	515	5	1	86
Peak Hour Factor		0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %		6	6	6	0	0	0	4	4	4	12	12
Cap, veh/h		1354	0	602	7	4	11	527	942	420	3	354
Arrive On Green		0.39	0.00	0.39	0.01	0.01	0.01	0.15	0.27	0.27	0.00	0.11
Sat Flow, veh/h		3450	0	1535	516	344	860	3401	3497	1560	1640	3272
Grp Volume(v), veh/h		196	0	566	10	0	0	424	515	5	1	86
Grp Sat Flow(s),veh/h/ln		1725	0	1535	1719	0	0	1700	1749	1560	1640	1636
Q Serve(g_s), s		2.4	0.0	23.0	0.4	0.0	0.0	7.8	8.2	0.2	0.0	1.6
Cycle Q Clear(g_c), s		2.4	0.0	23.0	0.4	0.0	0.0	7.8	8.2	0.2	0.0	1.6
Prop In Lane		1.00		1.00	0.30		0.50	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h		1354	0	602	22	0	0	527	942	420	3	354
V/C Ratio(X)		0.14	0.00	0.94	0.46	0.00	0.00	0.80	0.55	0.01	0.39	0.24
Avail Cap(c_a), veh/h		2130	0	948	133	0	0	1102	1620	722	127	732
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)		1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		12.7	0.0	18.9	31.8	0.0	0.0	26.4	20.3	17.4	32.3	26.5
Incr Delay (d2), s/veh		0.0	0.0	9.0	5.4	0.0	0.0	1.1	0.2	0.0	33.1	0.1
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln		1.4	0.0	13.8	0.3	0.0	0.0	5.2	5.3	0.1	0.1	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		12.7	0.0	28.0	37.2	0.0	0.0	27.5	20.5	17.4	65.4	26.6
LnGrp LOS		B	A	C	D	A	A	C	C	B	E	C
Approach Vol, veh/h			762			10			944			87
Approach Delay, s/veh			24.0			37.2			23.6			27.0
Approach LOS			C			D			C			C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	23.4		30.4	16.0	12.5		5.8				
Change Period (Y+Rc), s	5.0	6.0		5.0	6.0	* 5.5		5.0				
Max Green Setting (Gmax), s	5.0	30.0		40.0	21.0	* 15		5.0				
Max Q Clear Time (g_c+I1), s	2.0	10.2		25.0	9.8	3.6		2.4				
Green Ext Time (p_c), s	0.0	1.1		0.4	0.2	0.2		0.0				

Intersection Summary

HCM 6th Ctrl Delay	24.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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

3: N Airfield Dr & Texan Trail

08/02/2022



Movement	SWR
Lane Configurations	
Traffic Volume (veh/h)	29
Future Volume (veh/h)	29
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1722
Adj Flow Rate, veh/h	0
Peak Hour Factor	0.92
Percent Heavy Veh, %	12
Cap, veh/h	
Arrive On Green	0.00
Sat Flow, veh/h	1459
Grp Volume(v), veh/h	0
Grp Sat Flow(s),veh/h/ln	1459
Q Serve(g_s), s	0.0
Cycle Q Clear(g_c), s	0.0
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	
V/C Ratio(X)	
Avail Cap(c_a), veh/h	
HCM Platoon Ratio	1.00
Upstream Filter(l)	0.00
Uniform Delay (d), s/veh	0.0
Incr Delay (d2), s/veh	0.0
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	0.0
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	0.0
LnGrp LOS	
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	
Unsignalized Delay for [SWR] is excluded from calculations of the approach delay and intersection delay.	

HCM 6th Signalized Intersection Summary
 5: W Airfield Dr & W 17th St (East)

08/02/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		↔	↔	↔		↔		↔	↔			↔
Traffic Volume (veh/h)	12	0	1	8	0	37	1	65	654	8	1	28
Future Volume (veh/h)	12	0	1	8	0	37	1	65	654	8	1	28
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	1900	1248	0	1248		1826	1826	1826		1811
Adj Flow Rate, veh/h	13	0	1	9	0	40		71	711	9		30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		0.92	0.92	0.92		0.92
Percent Heavy Veh, %	0	0	0	44	0	44		5	5	5		6
Cap, veh/h	41	0	36	0	0	0		752	2641	33		678
Arrive On Green	0.02	0.00	0.02	0.00	0.00	0.00		0.06	0.75	0.75		0.07
Sat Flow, veh/h	1810	0	1610		0			1739	3508	44		1725
Grp Volume(v), veh/h	13	0	1		0.0			71	352	368		30
Grp Sat Flow(s),veh/h/ln	1810	0	1610					1739	1735	1818		1725
Q Serve(g_s), s	0.7	0.0	0.1					0.8	6.4	6.4		0.3
Cycle Q Clear(g_c), s	0.7	0.0	0.1					0.8	6.4	6.4		0.3
Prop In Lane	1.00		1.00					1.00		0.02		1.00
Lane Grp Cap(c), veh/h	41	0	36					752	1306	1368		678
V/C Ratio(X)	0.32	0.00	0.03					0.09	0.27	0.27		0.04
Avail Cap(c_a), veh/h	230	0	205					904	1306	1368		745
HCM Platoon Ratio	1.00	1.00	1.00					1.00	1.00	1.00		1.00
Upstream Filter(l)	1.00	0.00	1.00					1.00	1.00	1.00		1.00
Uniform Delay (d), s/veh	49.2	0.0	48.9					2.0	3.9	3.9		1.9
Incr Delay (d2), s/veh	1.7	0.0	0.1					0.0	0.5	0.5		0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0					0.0	0.0	0.0		0.0
%ile BackOfQ(95%),veh/ln	0.6	0.0	0.0					0.2	3.1	3.2		0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.9	0.0	49.0					2.0	4.4	4.4		1.9
LnGrp LOS	D	A	D					A	A	A		A
Approach Vol, veh/h		14							791			
Approach Delay, s/veh		50.8							4.2			
Approach LOS		D							A			
Timer - Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	12.0	83.0		7.3	11.1	83.9						
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0						
Max Green Setting (Gmax), s	11.0	77.0		13.0	15.0	73.0						
Max Q Clear Time (g_c+I1), s	2.3	8.4		2.7	2.8	6.8						
Green Ext Time (p_c), s	0.0	2.5		0.0	0.0	2.0						

Intersection Summary

HCM 6th Ctrl Delay	4.5
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
 5: W Airfield Dr & W 17th St (East)

08/02/2022



Movement	SBT	SBR
Lane Configurations	↑↑	
Traffic Volume (veh/h)	538	1
Future Volume (veh/h)	538	1
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	1811	1811
Adj Flow Rate, veh/h	585	1
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	6	6
Cap, veh/h	2685	5
Arrive On Green	0.76	0.76
Sat Flow, veh/h	3524	6
Grp Volume(v), veh/h	286	300
Grp Sat Flow(s),veh/h/ln	1721	1810
Q Serve(g_s), s	4.8	4.8
Cycle Q Clear(g_c), s	4.8	4.8
Prop In Lane		0.00
Lane Grp Cap(c), veh/h	1311	1379
V/C Ratio(X)	0.22	0.22
Avail Cap(c_a), veh/h	1311	1379
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	1.00	1.00
Uniform Delay (d), s/veh	3.5	3.5
Incr Delay (d2), s/veh	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.2	2.3
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	3.9	3.8
LnGrp LOS	A	A
Approach Vol, veh/h	616	
Approach Delay, s/veh	3.8	
Approach LOS	A	
Timer - Assigned Phs		

HCM 6th Signalized Intersection Summary

6: W Airfield Dr & W 19th St

08/02/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	EB	EB		EB	EB		EB	EB		EB	EB	EB
Traffic Volume (veh/h)	1	0	2	57	0	45	21	653	24	36	554	32
Future Volume (veh/h)	1	0	2	57	0	45	21	653	24	36	554	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1796	1796	1796	1796	1796	1796	1796	1796	1796
Adj Flow Rate, veh/h	1	0	2	62	0	49	23	710	26	39	602	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	7	7	7	7	7	7	7	7	7
Cap, veh/h	295	0	124	394	0	211	432	1284	47	409	1306	76
Arrive On Green	0.00	0.00	0.08	0.06	0.00	0.14	0.03	0.38	0.38	0.04	0.40	0.40
Sat Flow, veh/h	1810	0	1610	1711	0	1522	1711	3358	123	1711	3278	190
Grp Volume(v), veh/h	1	0	2	62	0	49	23	361	375	39	313	324
Grp Sat Flow(s),veh/h/ln	1810	0	1610	1711	0	1522	1711	1706	1774	1711	1706	1762
Q Serve(g_s), s	0.0	0.0	0.0	1.3	0.0	1.1	0.3	6.5	6.5	0.5	5.3	5.3
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.3	0.0	1.1	0.3	6.5	6.5	0.5	5.3	5.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07	1.00		0.11
Lane Grp Cap(c), veh/h	295	0	124	394	0	211	432	653	679	409	680	702
V/C Ratio(X)	0.00	0.00	0.02	0.16	0.00	0.23	0.05	0.55	0.55	0.10	0.46	0.46
Avail Cap(c_a), veh/h	613	0	370	723	0	427	689	2176	2262	639	2176	2247
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.6	0.0	16.7	14.7	0.0	15.0	7.2	9.5	9.5	7.2	8.7	8.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.3	0.3	0.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.0	0.7	0.0	0.6	0.1	2.7	2.8	0.2	2.1	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.6	0.0	16.7	14.8	0.0	15.2	7.2	9.8	9.7	7.2	8.9	8.9
LnGrp LOS	B	A	B	B	A	B	A	A	A	A	A	A
Approach Vol, veh/h		3			111			759			676	
Approach Delay, s/veh		16.7			15.0			9.7			8.8	
Approach LOS		B			B			A			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.7	19.0	6.5	8.0	5.1	19.6	4.1	10.4				
Change Period (Y+Rc), s	4.0	4.0	4.0	* 5	4.0	4.0	4.0	5.0				
Max Green Setting (Gmax), s	7.0	50.0	10.0	* 9	7.0	50.0	7.0	11.0				
Max Q Clear Time (g_c+I1), s	2.5	8.5	3.3	2.0	2.3	7.3	2.0	3.1				
Green Ext Time (p_c), s	0.0	1.2	0.0	0.0	0.0	1.1	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	9.7
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

7: W Airfield Dr & W 21st St

08/02/2022



Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Lane Configurations		↔	↕	↗		↔	↕	↗		↔		
Traffic Volume (veh/h)	1	27	495	13	1	0	641	29	1	0	1	42
Future Volume (veh/h)	1	27	495	13	1	0	641	29	1	0	1	42
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		1781	1781	1781		1811	1811	1811	1604	1604	1604	1796
Adj Flow Rate, veh/h		29	538	14		0	697	32	1	0	1	46
Peak Hour Factor		0.92	0.92	0.92		0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %		8	8	8		6	6	6	20	20	20	7
Cap, veh/h		93	2694	1202		2	2381	1062	96	14	57	206
Arrive On Green		0.05	0.80	0.80		0.00	0.69	0.69	0.10	0.00	0.10	0.10
Sat Flow, veh/h		1697	3385	1510		1725	3441	1535	452	146	598	1420
Grp Volume(v), veh/h		29	538	14		0	697	32	2	0	0	47
Grp Sat Flow(s),veh/h/ln		1697	1692	1510		1725	1721	1535	1195	0	0	1459
Q Serve(g_s), s		1.7	3.9	0.2		0.0	8.0	0.7	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s		1.7	3.9	0.2		0.0	8.0	0.7	2.6	0.0	0.0	2.6
Prop In Lane		1.00		1.00		1.00		1.00	0.50		0.50	0.98
Lane Grp Cap(c), veh/h		93	2694	1202		2	2381	1062	168	0	0	210
V/C Ratio(X)		0.31	0.20	0.01		0.00	0.29	0.03	0.01	0.00	0.00	0.22
Avail Cap(c_a), veh/h		884	2694	1202		119	2381	1062	168	0	0	213
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(l)		1.00	1.00	1.00		0.00	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh		46.2	2.5	2.1		0.0	6.1	4.9	41.6	0.0	0.0	42.8
Incr Delay (d2), s/veh		0.7	0.2	0.0		0.0	0.3	0.1	0.0	0.0	0.0	0.2
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln		1.3	1.4	0.1		0.0	4.2	0.3	0.1	0.0	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		46.9	2.7	2.2		0.0	6.4	5.0	41.7	0.0	0.0	43.0
LnGrp LOS		D	A	A		A	A	A	D	A	A	D
Approach Vol, veh/h			581				729			2		
Approach Delay, s/veh			4.9				6.3			41.7		
Approach LOS			A				A			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.6	76.4		14.8	0.0	87.0		14.8				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	53.0	35.0		7.0	7.0	81.0		10.0				
Max Q Clear Time (g_c+I1), s	3.7	10.0		4.6	0.0	5.9		7.4				
Green Ext Time (p_c), s	0.0	2.9		0.0	0.0	2.2		0.0				

Intersection Summary

HCM 6th Ctrl Delay	9.4
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary

7: W Airfield Dr & W 21st St

08/02/2022



Movement	SWT	SWR
Lane Configurations	↔	↔
Traffic Volume (veh/h)	1	77
Future Volume (veh/h)	1	77
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	1796	1796
Adj Flow Rate, veh/h	1	84
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	7	7
Cap, veh/h	4	146
Arrive On Green	0.10	0.10
Sat Flow, veh/h	39	1522
Grp Volume(v), veh/h	0	84
Grp Sat Flow(s),veh/h/ln	0	1522
Q Serve(g_s), s	0.0	5.4
Cycle Q Clear(g_c), s	0.0	5.4
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	0	146
V/C Ratio(X)	0.00	0.57
Avail Cap(c_a), veh/h	0	150
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	0.00	1.00
Uniform Delay (d), s/veh	0.0	44.0
Incr Delay (d2), s/veh	0.0	3.2
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	3.9
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	0.0	47.2
LnGrp LOS	A	D
Approach Vol, veh/h	131	
Approach Delay, s/veh	45.7	
Approach LOS	D	
Timer - Assigned Phs		

HCM 6th Signalized Intersection Summary

8: W Airfield Dr & W 23rd St

08/02/2022



Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	19	19	811	93	1	54	338
Future Volume (veh/h)	19	19	811	93	1	54	338
Initial Q (Qb), veh	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00		1.00	
Parking Bus, Adj	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	1515	1515	1826	1826		1752	1752
Adj Flow Rate, veh/h	21	0	882	101		59	367
Peak Hour Factor	0.92	0.92	0.92	0.92		0.92	0.92
Percent Heavy Veh, %	26	26	5	5		10	10
Cap, veh/h	49		2207	984		514	2633
Arrive On Green	0.04	0.00	0.64	0.64		0.07	0.79
Sat Flow, veh/h	1380	0	3561	1547		1668	3416
Grp Volume(v), veh/h	22	0	882	101		59	367
Grp Sat Flow(s),veh/h/ln	1446	0	1735	1547		1668	1664
Q Serve(g_s), s	0.9	0.0	7.5	1.5		0.6	1.6
Cycle Q Clear(g_c), s	0.9	0.0	7.5	1.5		0.6	1.6
Prop In Lane	0.95	0.00		1.00		1.00	
Lane Grp Cap(c), veh/h	52		2207	984		514	2633
V/C Ratio(X)	0.43		0.40	0.10		0.11	0.14
Avail Cap(c_a), veh/h	214		2207	984		641	2633
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	28.6	0.0	5.4	4.3		2.9	1.5
Incr Delay (d2), s/veh	2.1	0.0	0.5	0.2		0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(95%),veh/ln	0.6	0.0	3.0	0.6		0.1	0.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	30.7	0.0	5.9	4.5		3.0	1.6
LnGrp LOS	C		A	A		A	A
Approach Vol, veh/h	22		983				426
Approach Delay, s/veh	30.7		5.8				1.8
Approach LOS	C		A				A
Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	9.4	44.1				53.5	7.2
Change Period (Y+Rc), s	5.0	5.5				5.5	5.0
Max Green Setting (Gmax), s	9.0	34.0				48.0	9.0
Max Q Clear Time (g_c+I1), s	2.6	9.5				3.6	2.9
Green Ext Time (p_c), s	0.0	5.1				1.9	0.0

Intersection Summary

HCM 6th Ctrl Delay			5.0				
HCM 6th LOS			A				

Notes

User approved volume balancing among the lanes for turning movement.

User approved ignoring U-Turning movement.

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

HCM 6th Signalized Intersection Summary

9: W Airfield Dr & E Glade Rd

08/02/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	279	227	57	649	227	94
Future Volume (veh/h)	279	227	57	649	227	94
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	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	1885	1885	1811	1811	1752	1752
Adj Flow Rate, veh/h	303	0	62	705	247	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	6	6	10	10
Cap, veh/h	347		752	2292	1799	
Arrive On Green	0.19	0.00	0.06	0.67	0.54	0.00
Sat Flow, veh/h	1795	1598	1725	3532	3416	1485
Grp Volume(v), veh/h	303	0	62	705	247	0
Grp Sat Flow(s),veh/h/ln	1795	1598	1725	1721	1664	1485
Q Serve(g_s), s	13.4	0.0	1.1	7.0	3.0	0.0
Cycle Q Clear(g_c), s	13.4	0.0	1.1	7.0	3.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	347		752	2292	1799	
V/C Ratio(X)	0.87		0.08	0.31	0.14	
Avail Cap(c_a), veh/h	1108		872	2292	1799	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.0	0.0	6.0	5.7	9.3	0.0
Incr Delay (d2), s/veh	2.7	0.0	0.0	0.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.8	0.0	0.6	3.4	1.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.8	0.0	6.0	6.1	9.5	0.0
LnGrp LOS	C		A	A	A	
Approach Vol, veh/h	303			767	247	
Approach Delay, s/veh	34.8			6.1	9.5	
Approach LOS	C			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.5		21.3	10.3	50.2
Change Period (Y+Rc), s		6.0		5.5	5.0	6.0
Max Green Setting (Gmax), s		54.5		50.5	11.0	38.5
Max Q Clear Time (g_c+I1), s		9.0		15.4	3.1	5.0
Green Ext Time (p_c), s		2.2		0.4	0.0	0.7

Intersection Summary

HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

Notes

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

HCM 6th TWSC
4: W Airfield Dr & W 17th St (West)

08/02/2022

Intersection

Int Delay, s/veh 3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	56	2	89	0	1	12	1	33	660	5	10	532	6
Future Vol, veh/h	56	2	89	0	1	12	1	33	660	5	10	532	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	130	-	-	125	-	-
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, %	21	21	21	43	43	43	8	8	8	8	6	6	6
Mvmt Flow	61	2	97	0	1	13	1	36	717	5	11	578	7

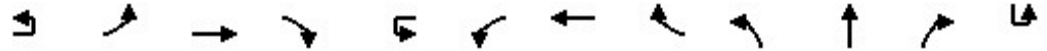
Major/Minor	Minor2		Minor1			Major1				Major2			
Conflicting Flow All	1037	1400	293	1106	1401	361	585	585	0	0	722	0	0
Stage 1	604	604	-	794	794	-	-	-	-	-	-	-	-
Stage 2	433	796	-	312	607	-	-	-	-	-	-	-	-
Critical Hdwy	7.92	6.92	7.32	8.36	7.36	7.76	6.56	4.26	-	-	4.22	-	-
Critical Hdwy Stg 1	6.92	5.92	-	7.36	6.36	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.92	5.92	-	7.36	6.36	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.71	4.21	3.51	3.93	4.43	3.73	2.58	2.28	-	-	2.26	-	-
Pot Cap-1 Maneuver	161	118	650	121	97	531	588	946	-	-	850	-	-
Stage 1	408	442	-	270	313	-	-	-	-	-	-	-	-
Stage 2	523	355	-	571	395	-	-	-	-	-	-	-	-
Platoon blocked, %									-	-		-	-
Mov Cap-1 Maneuver	149	112	650	97	92	531	923	923	-	-	850	-	-
Mov Cap-2 Maneuver	149	112	-	97	92	-	-	-	-	-	-	-	-
Stage 1	392	436	-	259	300	-	-	-	-	-	-	-	-
Stage 2	488	341	-	477	390	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	24.8	14.6	0.4	0.2
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	923	-	-	149	588	388	850	-	-
HCM Lane V/C Ratio	0.04	-	-	0.409	0.168	0.036	0.013	-	-
HCM Control Delay (s)	9.1	-	-	44.9	12.4	14.6	9.3	-	-
HCM Lane LOS	A	-	-	E	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1.8	0.6	0.1	0	-	-

Lanes, Volumes, Timings
1: S Main St & Mustang Dr

08/03/2022



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Lane Configurations		↔	↕	↗		↔	↕	↗	↔	↕		
Traffic Volume (vph)	1	190	134	16	2	5	618	347	45	67	4	1
Future Volume (vph)	1	190	134	16	2	5	618	347	45	67	4	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		135		180		195		155	0		60	
Storage Lanes		1		1		1		1	1		2	
Taper Length (ft)		100				100			0			
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	0.95	1.00
Fr _t				0.850				0.850		0.992		
Fl _t Protected		0.950				0.950			0.950			
Satd. Flow (prot)	0	1752	3505	1568	0	1770	3539	1583	1612	3197	0	0
Fl _t Permitted		0.247				0.659			0.701			
Satd. Flow (perm)	0	456	3505	1568	0	1228	3539	1583	1189	3197	0	0
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				133				354		4		
Link Speed (mph)			45				45			30		
Link Distance (ft)			931				1341			732		
Travel Time (s)			14.1				20.3			16.6		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	3%	3%	3%	2%	2%	2%	2%	12%	12%	12%	4%
Adj. Flow (vph)	1	207	146	17	2	5	672	377	49	73	4	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	208	146	17	0	7	672	377	49	77	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	R NA
Median Width(ft)			15				16			28		
Link Offset(ft)			0				0			0		
Crosswalk Width(ft)			16				16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	9	15		9	15		9	9
Number of Detectors	0	1	2	1	1	1	2	1	1	2		1
Detector Template		Left	Thru	Right	Left	Left	Thru	Right	Left	Thru		Left
Leading Detector (ft)	0	20	100	20	20	20	100	20	20	100		20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0		0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0		0
Detector 1 Size(ft)	0	20	6	20	20	20	6	20	20	6		20
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Detector 2 Position(ft)			94				94			94		
Detector 2 Size(ft)			6				6			6		
Detector 2 Type			Cl+Ex				Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0				0.0			0.0		
Turn Type	Prot	pm+pt	NA	Perm	Prot	pm+pt	NA	Perm	pm+pt	NA		Prot
Protected Phases	5	5	2		1	1	6		3	8		7

Lanes, Volumes, Timings
1: S Main St & Mustang Dr

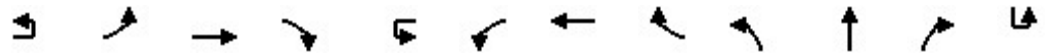
08/03/2022



Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	150	80	505
Future Volume (vph)	150	80	505
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	105		0
Storage Lanes	1		1
Taper Length (ft)	100		
Lane Util. Factor	1.00	1.00	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	1736	1827	1553
Flt Permitted	0.529		
Satd. Flow (perm)	966	1827	1553
Right Turn on Red			Yes
Satd. Flow (RTOR)			356
Link Speed (mph)		35	
Link Distance (ft)		695	
Travel Time (s)		13.5	
Peak Hour Factor	0.92	0.92	0.92
Heavy Vehicles (%)	4%	4%	4%
Adj. Flow (vph)	163	87	549
Shared Lane Traffic (%)			
Lane Group Flow (vph)	164	87	549
Enter Blocked Intersection	No	No	No
Lane Alignment	Left	Left	Right
Median Width(ft)		18	
Link Offset(ft)		0	
Crosswalk Width(ft)		16	
Two way Left Turn Lane			
Headway Factor	1.00	1.00	1.00
Turning Speed (mph)	15		9
Number of Detectors	1	2	1
Detector Template	Left	Thru	Right
Leading Detector (ft)	20	100	20
Trailing Detector (ft)	0	0	0
Detector 1 Position(ft)	0	0	0
Detector 1 Size(ft)	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel			
Detector 1 Extend (s)	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0
Detector 2 Position(ft)		94	
Detector 2 Size(ft)		6	
Detector 2 Type		Cl+Ex	
Detector 2 Channel			
Detector 2 Extend (s)		0.0	
Turn Type	pm+pt	NA	Perm
Protected Phases	7	4	

Lanes, Volumes, Timings
1: S Main St & Mustang Dr

08/03/2022

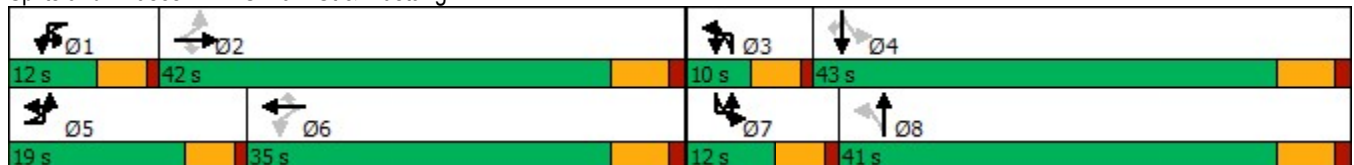


Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Permitted Phases		2		2		6		6	8			
Detector Phase	5	5	2	2	1	1	6	6	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	10.0	10.0	7.0	7.0	10.0	10.0	5.0	10.0		7.0
Minimum Split (s)	12.0	12.0	16.0	16.0	12.0	12.0	16.0	16.0	10.0	16.0		12.0
Total Split (s)	19.0	19.0	42.0	42.0	12.0	12.0	35.0	35.0	10.0	41.0		12.0
Total Split (%)	17.8%	17.8%	39.3%	39.3%	11.2%	11.2%	32.7%	32.7%	9.3%	38.3%		11.2%
Maximum Green (s)	14.0	14.0	36.0	36.0	7.0	7.0	29.0	29.0	5.0	35.0		7.0
Yellow Time (s)	4.0	4.0	4.5	4.5	4.0	4.0	4.5	4.5	4.0	4.5		4.0
All-Red Time (s)	1.0	1.0	1.5	1.5	1.0	1.0	1.5	1.5	1.0	1.5		1.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)		5.0	6.0	6.0		5.0	6.0	6.0	5.0	6.0		
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	2.5	2.5	1.0	1.0	2.5	2.5	1.0	1.0	2.5	1.0		2.5
Recall Mode	None	None	Max	Max	None	None	None	None	None	None		None
Walk Time (s)							7.0	7.0				
Flash Dont Walk (s)							11.0	11.0				
Pedestrian Calls (#/hr)							0	0				
Act Effct Green (s)		41.4	38.6	38.6		32.7	24.4	24.4	20.2	17.0		
Actuated g/C Ratio		0.52	0.49	0.49		0.41	0.31	0.31	0.26	0.21		
v/c Ratio		0.50	0.09	0.02		0.01	0.62	0.51	0.15	0.11		
Control Delay		17.4	15.5	0.1		14.2	29.1	7.1	17.9	24.7		
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total Delay		17.4	15.5	0.1		14.2	29.1	7.1	17.9	24.7		
LOS		B	B	A		B	C	A	B	C		
Approach Delay			15.9				21.2			22.0		
Approach LOS			B				C			C		

Intersection Summary

Area Type: Other
 Cycle Length: 107
 Actuated Cycle Length: 79.1
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 20.5
 Intersection LOS: C
 Intersection Capacity Utilization 81.4%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 1: S Main St & Mustang Dr



Lanes, Volumes, Timings
1: S Main St & Mustang Dr

08/03/2022



Lane Group	SBL	SBT	SBR
Permitted Phases	4		4
Detector Phase	7	4	4
Switch Phase			
Minimum Initial (s)	7.0	10.0	10.0
Minimum Split (s)	12.0	16.0	16.0
Total Split (s)	12.0	43.0	43.0
Total Split (%)	11.2%	40.2%	40.2%
Maximum Green (s)	7.0	37.0	37.0
Yellow Time (s)	4.0	4.5	4.5
All-Red Time (s)	1.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	2.5	1.0	1.0
Recall Mode	None	None	None
Walk Time (s)			
Flash Dont Walk (s)			
Pedestrian Calls (#/hr)			
Act Effct Green (s)	25.6	20.8	20.8
Actuated g/C Ratio	0.32	0.26	0.26
v/c Ratio	0.42	0.18	0.82
Control Delay	21.6	24.6	21.1
Queue Delay	0.0	0.0	0.0
Total Delay	21.6	24.6	21.1
LOS	C	C	C
Approach Delay		21.6	
Approach LOS		C	
Intersection Summary			

Lanes, Volumes, Timings
2: W Airfield Dr & Mustang Dr/N Airfield Dr

08/03/2022



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↔	↑↑	↔	↔
Traffic Volume (vph)	132	166	629	525	300	376
Future Volume (vph)	132	166	629	525	300	376
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	375		0	300
Storage Lanes		0	1		2	1
Taper Length (ft)			100		0	
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	1.00
Frt	0.916					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3120	0	1671	3343	3213	1482
Flt Permitted			0.423		0.950	
Satd. Flow (perm)	3120	0	744	3343	3213	1482
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	180					409
Link Speed (mph)	45			45	45	
Link Distance (ft)	1036			1355	845	
Travel Time (s)	15.7			20.5	12.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	6%	8%	8%	9%	9%
Adj. Flow (vph)	143	180	684	571	326	409
Shared Lane Traffic (%)						
Lane Group Flow (vph)	323	0	684	571	326	409
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			24	60	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2		1	2	1	1
Detector Template	Thru		Left	Thru	Left	Right
Leading Detector (ft)	100		20	100	20	20
Trailing Detector (ft)	0		0	0	0	0
Detector 1 Position(ft)	0		0	0	0	0
Detector 1 Size(ft)	6		20	6	20	20
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA		pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	

Lanes, Volumes, Timings
 2: W Airfield Dr & Mustang Dr/N Airfield Dr

08/03/2022



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases			6			8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	10.0		7.0	10.0	7.0	7.0
Minimum Split (s)	16.0		12.0	16.0	13.0	13.0
Total Split (s)	21.0		55.0	76.0	31.0	31.0
Total Split (%)	19.6%		51.4%	71.0%	29.0%	29.0%
Maximum Green (s)	15.0		50.0	70.0	25.0	25.0
Yellow Time (s)	4.5		4.0	4.5	4.5	4.5
All-Red Time (s)	1.5		1.0	1.5	1.5	1.5
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0		5.0	6.0	6.0	6.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?						
Vehicle Extension (s)	1.0		2.5	1.0	1.5	1.5
Recall Mode	Max		None	None	None	None
Act Effect Green (s)	15.7		48.0	46.9	11.9	11.9
Actuated g/C Ratio	0.22		0.67	0.66	0.17	0.17
v/c Ratio	0.39		0.82	0.26	0.61	0.70
Control Delay	14.8		16.5	5.4	34.6	10.7
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	14.8		16.5	5.4	34.6	10.7
LOS	B		B	A	C	B
Approach Delay	14.8			11.5	21.3	
Approach LOS	B			B	C	

Intersection Summary
























Area Type:	Other
Cycle Length:	107
Actuated Cycle Length:	71.4
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	15.1
Intersection LOS:	B
Intersection Capacity Utilization	81.3%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 2: W Airfield Dr & Mustang Dr/N Airfield Dr



Lanes, Volumes, Timings
3: N Airfield Dr & Texan Trail

08/03/2022

													
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT	
Lane Configurations													
Traffic Volume (vph)	119	28	497	9	11	9	337	121	10	1	5	716	
Future Volume (vph)	119	28	497	9	11	9	337	121	10	1	5	716	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	215		0	0		0	295		295		280		
Storage Lanes	1		1	0		0	2		1		1		
Taper Length (ft)	100			0			100				65		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.97	0.95	1.00	0.95	1.00	0.95	
Frt			0.850		0.958				0.850				
Flt Protected	0.950	0.970			0.985		0.950				0.950		
Satd. Flow (prot)	1545	1577	1455	0	1775	0	3155	3252	1455	0	1719	3438	
Flt Permitted	0.950	0.970			0.985		0.950						
Satd. Flow (perm)	1545	1577	1455	0	1775	0	3155	3252	1455	0	1810	3438	
Right Turn on Red			Yes			Yes			Yes				
Satd. Flow (RTOR)			464		10				130				
Link Speed (mph)		45			25			45				45	
Link Distance (ft)		611			324			1173				1060	
Travel Time (s)		9.3			8.8			17.8				16.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	11%	11%	11%	1%	1%	1%	11%	11%	11%	5%	5%	5%	
Adj. Flow (vph)	129	30	540	10	12	10	366	132	11	1	5	778	
Shared Lane Traffic (%)	39%												
Lane Group Flow (vph)	79	80	540	0	32	0	366	132	11	0	6	778	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left	
Median Width(ft)		38			24			58				38	
Link Offset(ft)		0			0			0				0	
Crosswalk Width(ft)		16			16			16				16	
Two way Left Turn Lane													
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15		9	15		9	15		9	9	15		
Number of Detectors	1	2	1	1	2		1	2	1	0	1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100	20	0	20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0	0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6	20	0	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94				94	
Detector 2 Size(ft)		6			6			6				6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex	
Detector 2 Channel													
Detector 2 Extend (s)		0.0			0.0			0.0				0.0	
Turn Type	Split	NA	Perm	Split	NA		Prot	NA	Perm	custom	Prot	NA	
Protected Phases	4	4		8	8		5	2			1	6	

Lanes, Volumes, Timings
 3: N Airfield Dr & Texan Trail

08/03/2022



Lane Group	SWR
Lane Configurations	
Traffic Volume (vph)	125
Future Volume (vph)	125
Ideal Flow (vphpl)	1900
Storage Length (ft)	280
Storage Lanes	2
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1538
Flt Permitted	
Satd. Flow (perm)	1538
Right Turn on Red	Yes
Satd. Flow (RTOR)	140
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Heavy Vehicles (%)	5%
Adj. Flow (vph)	136
Shared Lane Traffic (%)	
Lane Group Flow (vph)	136
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	

Lanes, Volumes, Timings
3: N Airfield Dr & Texan Trail

08/03/2022

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT
Permitted Phases			4						2	1		
Detector Phase	4	4	4	8	8		5	2	2	1	1	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		10.0	5.0	5.0	5.0	5.0	7.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0		15.0	11.0	11.0	10.0	10.0	12.5
Total Split (s)	33.0	33.0	33.0	10.0	10.0		21.0	48.0	48.0	10.0	10.0	37.0
Total Split (%)	32.7%	32.7%	32.7%	9.9%	9.9%		20.8%	47.5%	47.5%	9.9%	9.9%	36.6%
Maximum Green (s)	28.0	28.0	28.0	5.0	5.0		16.0	42.0	42.0	5.0	5.0	31.5
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.5	4.5	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.5	1.5	1.0	1.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0		5.0		5.0	6.0	6.0		5.0	5.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag		Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	2.0
Recall Mode	None	None	None	None	None		None	Min	Min	None	None	Min
Act Effct Green (s)	11.5	11.5	11.5		5.6		13.3	38.0	38.0		5.6	20.9
Actuated g/C Ratio	0.17	0.17	0.17		0.08		0.20	0.58	0.58		0.08	0.32
v/c Ratio	0.29	0.29	0.85		0.20		0.58	0.07	0.01		0.04	0.72
Control Delay	29.2	29.1	19.4		34.4		32.5	10.5	0.0		41.2	26.0
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	29.2	29.1	19.4		34.4		32.5	10.5	0.0		41.2	26.0
LOS	C	C	B		C		C	B	A		D	C
Approach Delay		21.6			34.4			26.1				23.1
Approach LOS		C			C			C				C

Intersection Summary

Area Type:	Other
Cycle Length:	101
Actuated Cycle Length:	66
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.85
Intersection Signal Delay:	23.5
Intersection LOS:	C
Intersection Capacity Utilization	81.4%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 3: N Airfield Dr & Texan Trail





Lane Group	SWR
Permitted Phases	6
Detector Phase	6
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	12.5
Total Split (s)	37.0
Total Split (%)	36.6%
Maximum Green (s)	31.5
Yellow Time (s)	4.0
All-Red Time (s)	1.5
Lost Time Adjust (s)	0.0
Total Lost Time (s)	5.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.0
Recall Mode	Min
Act Effct Green (s)	20.9
Actuated g/C Ratio	0.32
v/c Ratio	0.23
Control Delay	5.6
Queue Delay	0.0
Total Delay	5.6
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings
4: W Airfield Dr & W 17th St (West)

08/03/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	6	1	107	4	1	9	1	27	645	3	4	851
Future Volume (vph)	6	1	107	4	1	9	1	27	645	3	4	851
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0		130		0	125	
Storage Lanes	1		0	0		0		1		0	1	
Taper Length (ft)	0			0				75			75	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95
Frt		0.851			0.910				0.999			0.999
Flt Protected	0.950				0.987			0.950			0.950	
Satd. Flow (prot)	1570	1406	0	0	1422	0	0	1656	3309	0	1656	3309
Flt Permitted	0.950				0.987			0.950			0.950	
Satd. Flow (perm)	1570	1406	0	0	1422	0	0	1656	3309	0	1656	3309
Link Speed (mph)		30			30				45			45
Link Distance (ft)		939			233				604			311
Travel Time (s)		21.3			5.3				9.2			4.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	15%	15%	15%	20%	20%	20%	9%	9%	9%	9%	9%	9%
Adj. Flow (vph)	7	1	116	4	1	10	1	29	701	3	4	925
Shared Lane Traffic (%)												
Lane Group Flow (vph)	7	117	0	0	15	0	0	30	704	0	4	934
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	Left	Left
Median Width(ft)		12			0				38			38
Link Offset(ft)		0			0				0			0
Crosswalk Width(ft)		16			16				16			16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	15	
Sign Control		Stop			Stop				Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	37.1%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings
 4: W Airfield Dr & W 17th St (West)

08/03/2022

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	8
Future Volume (vph)	8
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	0.95
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Heavy Vehicles (%)	9%
Adj. Flow (vph)	9
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Sign Control	
Intersection Summary	

Lanes, Volumes, Timings
5: W Airfield Dr & W 17th St (East)

08/03/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗	↘		↗	↘	↖↗		↘	↖↗	
Traffic Volume (vph)	9	0	5	24	0	43	1	648	11	37	834	1
Future Volume (vph)	9	0	5	24	0	43	1	648	11	37	834	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		165	130		0	325		0
Storage Lanes	0		1	1		1	1		0	1		0
Taper Length (ft)	0			0			75			65		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.997				
Flt Protected		0.950		0.950			0.950			0.950		
Satd. Flow (prot)	0	1805	1615	1271	0	1137	1671	3333	0	1641	3282	0
Flt Permitted		0.950		0.950			0.305			0.356		
Satd. Flow (perm)	0	1805	1615	1271	0	1137	537	3333	0	615	3282	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			101			101		2				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		141			907			311			666	
Travel Time (s)		3.2			20.6			4.7			10.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	42%	42%	42%	8%	8%	8%	10%	10%	10%
Adj. Flow (vph)	10	0	5	26	0	47	1	704	12	40	907	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	10	5	26	0	47	1	716	0	40	908	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		18			12			38			38	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1		1	1	2		1	2	
Detector Template	Left	Thru	Right	Left		Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20		20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0		0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0		0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20		20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Split	NA	Perm	Prot		Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8			5	2		1	6	

Lanes, Volumes, Timings
5: W Airfield Dr & W 17th St (East)

08/03/2022

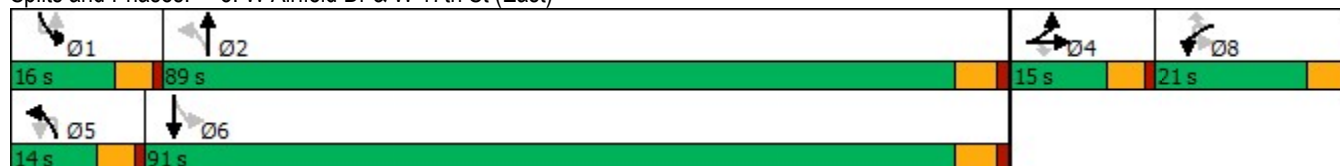


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8		8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0		7.0	7.0	20.0		7.0	20.0	
Minimum Split (s)	12.0	12.0	12.0	12.0		12.0	12.0	26.0		12.0	26.0	
Total Split (s)	15.0	15.0	15.0	21.0		21.0	14.0	89.0		16.0	91.0	
Total Split (%)	10.6%	10.6%	10.6%	14.9%		14.9%	9.9%	63.1%		11.3%	64.5%	
Maximum Green (s)	10.0	10.0	10.0	16.0		16.0	9.0	83.0		11.0	85.0	
Yellow Time (s)	4.0	4.0	4.0	4.0		4.0	4.0	4.5		4.0	4.5	
All-Red Time (s)	1.0	1.0	1.0	1.0		1.0	1.0	1.5		1.0	1.5	
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0	5.0		5.0	5.0	6.0		5.0	6.0	
Lead/Lag	Lead	Lead	Lead	Lag		Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0		2.0	1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None		None	None	Max		None	Max	
Act Effct Green (s)		7.1	7.1	7.9		7.9	93.2	89.6		95.2	94.2	
Actuated g/C Ratio		0.06	0.06	0.07		0.07	0.80	0.77		0.82	0.81	
v/c Ratio		0.09	0.03	0.30		0.27	0.00	0.28		0.07	0.34	
Control Delay		58.7	0.2	64.0		3.9	4.0	6.5		3.5	5.3	
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Total Delay		58.7	0.2	64.0		3.9	4.0	6.5		3.5	5.3	
LOS		E	A	E		A	A	A		A	A	
Approach Delay		39.2			25.3			6.5			5.2	
Approach LOS		D			C			A			A	

Intersection Summary

Area Type:	Other
Cycle Length:	141
Actuated Cycle Length:	115.8
Natural Cycle:	65
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.34
Intersection Signal Delay:	6.9
Intersection LOS:	A
Intersection Capacity Utilization:	53.3%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 5: W Airfield Dr & W 17th St (East)



Lanes, Volumes, Timings
6: W Airfield Dr & W 19th St

08/03/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	0	48	60	0	38	6	588	136	108	852	3
Future Volume (vph)	50	0	48	60	0	38	6	588	136	108	852	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		295	205		0	215		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	0			0			50			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.850			0.850			0.972				
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1615	0	1687	1509	0	1687	3279	0	1671	3343	0
Flt Permitted							0.302			0.253		
Satd. Flow (perm)	1900	1615	0	1776	1509	0	536	3279	0	445	3343	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		304			374			45			1	
Link Speed (mph)		25			35			45			45	
Link Distance (ft)		172			3035			1215			604	
Travel Time (s)		4.7			59.1			18.4			9.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	7%	7%	7%	7%	7%	7%	8%	8%	8%
Adj. Flow (vph)	54	0	52	65	0	41	7	639	148	117	926	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	52	0	65	41	0	7	787	0	117	929	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			38			38	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	

Lanes, Volumes, Timings
6: W Airfield Dr & W 19th St

08/03/2022

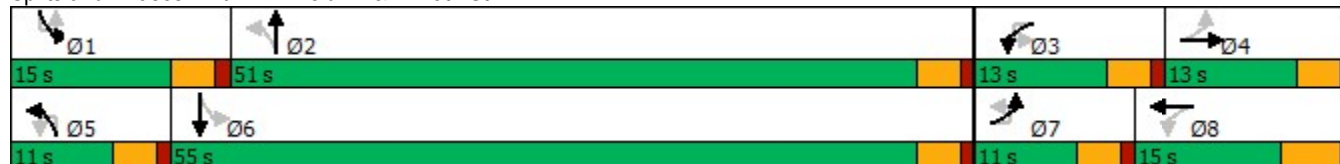


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	9.0	11.0		9.0	12.0		9.0	19.0		9.0	19.0	
Total Split (s)	11.0	13.0		13.0	15.0		11.0	51.0		15.0	55.0	
Total Split (%)	12.0%	14.1%		14.1%	16.3%		12.0%	55.4%		16.3%	59.8%	
Maximum Green (s)	7.0	9.0		9.0	10.0		7.0	47.0		11.0	51.0	
Yellow Time (s)	3.0	3.0		3.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		4.0	5.0		4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	8.0	7.8		8.2	7.6		25.5	22.3		29.1	30.3	
Actuated g/C Ratio	0.19	0.18		0.19	0.18		0.60	0.53		0.69	0.72	
v/c Ratio	0.16	0.10		0.20	0.07		0.01	0.45		0.25	0.39	
Control Delay	15.1	0.4		15.5	0.2		6.0	11.2		6.4	7.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.1	0.4		15.5	0.2		6.0	11.2		6.4	7.6	
LOS	B	A		B	A		A	B		A	A	
Approach Delay		7.8			9.6			11.2			7.5	
Approach LOS		A			A			B			A	

Intersection Summary

Area Type:	Other
Cycle Length:	92
Actuated Cycle Length:	42.3
Natural Cycle:	50
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.45
Intersection Signal Delay:	9.1
Intersection LOS:	A
Intersection Capacity Utilization:	48.6%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 6: W Airfield Dr & W 19th St



Lanes, Volumes, Timings
7: W Airfield Dr & W 21st St

08/03/2022



Lane Group	SEU	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT
Lane Configurations		↔	↕	↗	↔	↕	↗		↕			↗
Traffic Volume (vph)	1	15	907	1	0	625	11	14	0	2	16	0
Future Volume (vph)	1	15	907	1	0	625	11	14	0	2	16	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		190		275	175		125	0		0	0	
Storage Lanes		1		1	1		1	0		0	0	
Taper Length (ft)		100			50			0			0	
Lane Util. Factor	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850			0.850		0.984			
Flt Protected		0.950							0.958			0.950
Satd. Flow (prot)	0	1671	3343	1495	1759	3343	1495	0	1756	0	0	1687
Flt Permitted		0.336										0.746
Satd. Flow (perm)	0	591	3343	1495	1759	3343	1495	0	1833	0	0	1325
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)				104			147		156			
Link Speed (mph)			45			45			25			30
Link Distance (ft)			498			712			197			674
Travel Time (s)			7.5			10.8			5.4			15.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	8%	8%	8%	8%	8%	8%	2%	2%	2%	7%	7%
Adj. Flow (vph)	1	16	986	1	0	679	12	15	0	2	17	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	17	986	1	0	679	12	0	17	0	0	17
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)			65			40			17			32
Link Offset(ft)			0			0			0			0
Crosswalk Width(ft)			16			16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	15		9	15		9	15	
Number of Detectors	1	1	2	1	1	2	1	1	2		1	2
Detector Template	Left	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru
Leading Detector (ft)	20	20	100	20	20	100	20	20	100		20	100
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0		0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0		0	0
Detector 1 Size(ft)	20	20	6	20	20	6	20	20	6		20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			94			94			94			94
Detector 2 Size(ft)			6			6			6			6
Detector 2 Type			Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0			0.0			0.0
Turn Type	custom	Prot	NA	Perm	Prot	NA	Perm	Perm	NA		Perm	NA
Protected Phases		1	6		5	2			4			8

Lanes, Volumes, Timings
7: W Airfield Dr & W 21st St

08/03/2022



Lane Group	SWR
Lane Configurations	7
Traffic Volume (vph)	25
Future Volume (vph)	25
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1509
Flt Permitted	
Satd. Flow (perm)	1509
Right Turn on Red	Yes
Satd. Flow (RTOR)	156
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Heavy Vehicles (%)	7%
Adj. Flow (vph)	27
Shared Lane Traffic (%)	
Lane Group Flow (vph)	27
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	

Lanes, Volumes, Timings
7: W Airfield Dr & W 21st St

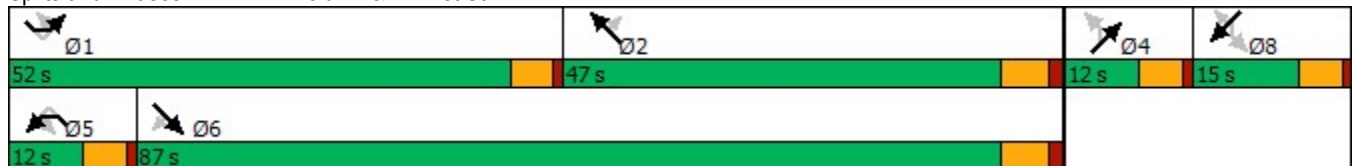
08/03/2022

Lane Group	SEU	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT
Permitted Phases	1			6			2	4			8	
Detector Phase	1	1	6	6	5	2	2	4	4		8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0	15.0	15.0	7.0	15.0	15.0	7.0	7.0		10.0	10.0
Minimum Split (s)	15.0	15.0	21.0	21.0	12.0	21.0	21.0	12.0	12.0		15.0	15.0
Total Split (s)	52.0	52.0	87.0	87.0	12.0	47.0	47.0	12.0	12.0		15.0	15.0
Total Split (%)	41.3%	41.3%	69.0%	69.0%	9.5%	37.3%	37.3%	9.5%	9.5%		11.9%	11.9%
Maximum Green (s)	47.0	47.0	81.0	81.0	7.0	41.0	41.0	7.0	7.0		10.0	10.0
Yellow Time (s)	4.0	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.5	1.5	1.0	1.5	1.5	1.0	1.0		1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0
Total Lost Time (s)		5.0	6.0	6.0	5.0	6.0	6.0		5.0			5.0
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead		Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	1.5	1.5	2.0	2.0	1.5	2.0	2.0	1.0	1.0		1.0	1.0
Recall Mode	None	None	Max	Max	None	Max	Max	None	None		None	None
Act Effct Green (s)		19.5	90.0	90.0		76.2	76.2		7.0			10.1
Actuated g/C Ratio		0.18	0.85	0.85		0.72	0.72		0.07			0.09
v/c Ratio		0.16	0.35	0.00		0.28	0.01		0.06			0.14
Control Delay		35.9	4.3	0.0		14.7	0.0		0.4			50.4
Queue Delay		0.0	0.0	0.0		0.0	0.0		0.0			0.0
Total Delay		35.9	4.3	0.0		14.7	0.0		0.4			50.4
LOS		D	A	A		B	A		A			D
Approach Delay			4.8			14.5			0.4			19.9
Approach LOS			A			B			A			B

Intersection Summary

Area Type:	Other
Cycle Length:	126
Actuated Cycle Length:	106.5
Natural Cycle:	65
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.35
Intersection Signal Delay:	9.0
Intersection LOS:	A
Intersection Capacity Utilization:	52.6%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 7: W Airfield Dr & W 21st St





Lane Group	SWR
Permitted Phases	8
Detector Phase	8
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	15.0
Total Split (s)	15.0
Total Split (%)	11.9%
Maximum Green (s)	10.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	5.0
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	1.0
Recall Mode	None
Act Effct Green (s)	10.1
Actuated g/C Ratio	0.09
v/c Ratio	0.10
Control Delay	0.7
Queue Delay	0.0
Total Delay	0.7
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings
8: W Airfield Dr & W 23rd St

08/03/2022



Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	63	70	418	36	1	41	1022
Future Volume (vph)	63	70	418	36	1	41	1022
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0		150	
Storage Lanes	1	0		1		1	
Taper Length (ft)	0					50	
Lane Util. Factor	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt	0.929			0.850			
Flt Protected	0.977					0.950	
Satd. Flow (prot)	1437	0	3312	1482	0	1687	3374
Flt Permitted	0.977					0.436	
Satd. Flow (perm)	1437	0	3312	1482	0	774	3374
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)	76			39			
Link Speed (mph)	25		45				45
Link Distance (ft)	1307		627				530
Travel Time (s)	35.6		9.5				8.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	20%	20%	9%	9%	7%	7%	7%
Adj. Flow (vph)	68	76	454	39	1	45	1111
Shared Lane Traffic (%)							
Lane Group Flow (vph)	144	0	454	39	0	46	1111
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	R NA	Left	Left
Median Width(ft)	12		18				28
Link Offset(ft)	0		0				0
Crosswalk Width(ft)	16		16				16
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	9	15	
Number of Detectors	1		2	1	1	1	2
Detector Template	Left		Thru	Right	Left	Left	Thru
Leading Detector (ft)	20		100	20	20	20	100
Trailing Detector (ft)	0		0	0	0	0	0
Detector 1 Position(ft)	0		0	0	0	0	0
Detector 1 Size(ft)	20		6	20	20	20	6
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel							
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94				94
Detector 2 Size(ft)			6				6
Detector 2 Type			Cl+Ex				Cl+Ex
Detector 2 Channel							
Detector 2 Extend (s)			0.0				0.0
Turn Type	Prot		NA	Perm	custom	pm+pt	NA
Protected Phases	8		2			1	6

Lanes, Volumes, Timings
8: W Airfield Dr & W 23rd St

08/03/2022

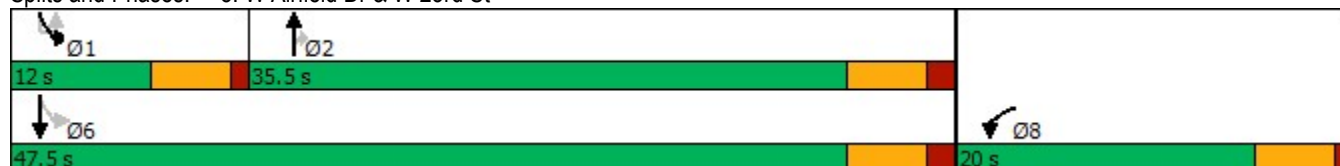


Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Permitted Phases				2	1	6	
Detector Phase	8		2	2	1	1	6
Switch Phase							
Minimum Initial (s)	7.0		15.0	15.0	7.0	7.0	15.0
Minimum Split (s)	12.0		20.5	20.5	12.0	12.0	20.5
Total Split (s)	20.0		35.5	35.5	12.0	12.0	47.5
Total Split (%)	29.6%		52.6%	52.6%	17.8%	17.8%	70.4%
Maximum Green (s)	15.0		30.0	30.0	7.0	7.0	42.0
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		1.5	1.5	1.0	1.0	1.5
Lost Time Adjust (s)	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0		5.5	5.5		5.0	5.5
Lead/Lag			Lag	Lag	Lead	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0		2.5	2.5	2.0	2.0	2.5
Recall Mode	None		Max	Max	None	None	Max
Act Effct Green (s)	8.7		41.4	41.4		45.5	46.1
Actuated g/C Ratio	0.14		0.67	0.67		0.74	0.75
v/c Ratio	0.54		0.20	0.04		0.07	0.44
Control Delay	20.7		7.1	3.8		3.7	5.0
Queue Delay	0.0		0.0	0.0		0.0	0.0
Total Delay	20.7		7.1	3.8		3.7	5.0
LOS	C		A	A		A	A
Approach Delay	20.7		6.8				4.9
Approach LOS	C		A				A

Intersection Summary

Area Type:	Other
Cycle Length:	67.5
Actuated Cycle Length:	61.8
Natural Cycle:	45
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.54
Intersection Signal Delay:	6.7
Intersection LOS:	A
Intersection Capacity Utilization:	44.8%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 8: W Airfield Dr & W 23rd St



Lanes, Volumes, Timings
 9: W Airfield Dr & E Glade Rd

08/03/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	83	103	197	324	824	338
Future Volume (vph)	83	103	197	324	824	338
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	300	210			200
Storage Lanes	1	1	1			1
Taper Length (ft)	0		100			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1805	1615	1703	3406	3505	1568
Flt Permitted	0.950		0.272			
Satd. Flow (perm)	1805	1615	488	3406	3505	1568
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		112				367
Link Speed (mph)	35			45	45	
Link Distance (ft)	1218			1121	367	
Travel Time (s)	23.7			17.0	5.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	6%	6%	3%	3%
Adj. Flow (vph)	90	112	214	352	896	367
Shared Lane Traffic (%)						
Lane Group Flow (vph)	90	112	214	352	896	367
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			15	13	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (ft)	20	20	20	100	100	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	20	6	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)				94	94	
Detector 2 Size(ft)				6	6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	Prot	pm+pt	NA	NA	Perm
Protected Phases	4	4	5	2	6	

Lanes, Volumes, Timings
 9: W Airfield Dr & E Glade Rd

08/03/2022

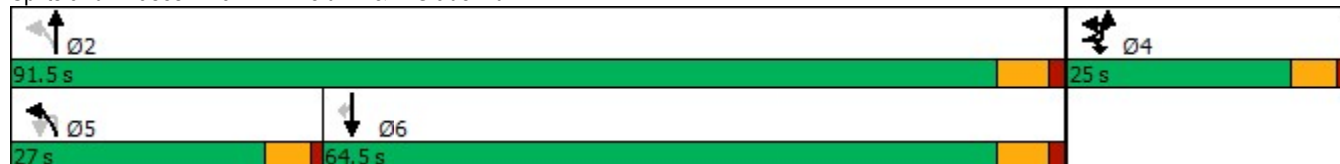


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Permitted Phases			2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	2.0	20.0	20.0
Minimum Split (s)	12.5	12.5	12.0	26.0	26.0	26.0
Total Split (s)	25.0	25.0	27.0	91.5	64.5	64.5
Total Split (%)	21.5%	21.5%	23.2%	78.5%	55.4%	55.4%
Maximum Green (s)	19.5	19.5	22.0	85.5	58.5	58.5
Yellow Time (s)	4.0	4.0	4.0	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.0	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	2.0	2.0	1.5	1.5	1.5	1.5
Recall Mode	None	None	None	Max	Max	Max
Act Effect Green (s)	10.0	10.0	86.5	85.5	72.9	72.9
Actuated g/C Ratio	0.09	0.09	0.81	0.80	0.68	0.68
v/c Ratio	0.54	0.44	0.44	0.13	0.38	0.31
Control Delay	58.2	14.3	5.5	2.7	8.2	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.2	14.3	5.5	2.7	8.2	1.5
LOS	E	B	A	A	A	A
Approach Delay	33.9			3.7	6.3	
Approach LOS	C			A	A	

Intersection Summary

Area Type:	Other
Cycle Length:	116.5
Actuated Cycle Length:	107
Natural Cycle:	55
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.54
Intersection Signal Delay:	8.3
Intersection LOS:	A
Intersection Capacity Utilization:	53.8%
ICU Level of Service:	A
Analysis Period (min):	15

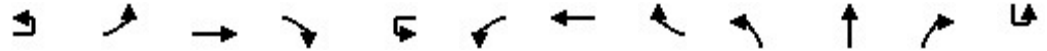
Splits and Phases: 9: W Airfield Dr & E Glade Rd



HCM 6th Signalized Intersection Summary

1: S Main St & Mustang Dr

08/02/2022



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Lane Configurations		↔	↕	↗		↔	↕	↗	↔	↕		
Traffic Volume (veh/h)	1	190	134	16	2	5	618	347	45	67	4	1
Future Volume (veh/h)	1	190	134	16	2	5	618	347	45	67	4	1
Initial Q (Qb), veh		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	
Parking Bus, Adj		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		1856	1856	1856		1870	1870	1870	1722	1722	1722	
Adj Flow Rate, veh/h		207	146	0		5	672	0	49	73	4	
Peak Hour Factor		0.92	0.92	0.92		0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %		3	3	3		2	2	2	12	12	12	
Cap, veh/h		323	1261			416	938		396	1089	59	
Arrive On Green		0.10	0.36	0.00		0.01	0.26	0.00	0.05	0.35	0.35	
Sat Flow, veh/h		1767	3526	1572		1781	3554	1585	1640	3156	172	
Grp Volume(v), veh/h		207	146	0		5	672	0	49	38	39	
Grp Sat Flow(s),veh/h/ln		1767	1763	1572		1781	1777	1585	1640	1636	1691	
Q Serve(g_s), s		8.2	2.8	0.0		0.2	17.3	0.0	1.9	1.5	1.6	
Cycle Q Clear(g_c), s		8.2	2.8	0.0		0.2	17.3	0.0	1.9	1.5	1.6	
Prop In Lane		1.00		1.00		1.00		1.00	1.00		0.10	
Lane Grp Cap(c), veh/h		323	1261			416	938		396	565	584	
V/C Ratio(X)		0.64	0.12			0.01	0.72		0.12	0.07	0.07	
Avail Cap(c_a), veh/h		388	1261			523	1024		396	569	588	
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)		1.00	1.00	0.00		1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh		24.0	21.7	0.0		26.7	33.6	0.0	19.0	22.1	22.1	
Incr Delay (d2), s/veh		2.1	0.2	0.0		0.0	1.8	0.0	0.1	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	
%ile BackOfQ(95%),veh/ln		6.1	2.0	0.0		0.2	11.7	0.0	1.3	1.1	1.1	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		26.1	21.8	0.0		26.7	35.4	0.0	19.1	22.1	22.1	
LnGrp LOS		C	C			C	D		B	C	C	
Approach Vol, veh/h			353				677			126		
Approach Delay, s/veh			24.3				35.3			20.9		
Approach LOS			C				D			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.9	42.0	10.0	42.7	15.3	32.6	12.0	40.7				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green Setting (Gmax), s	7.0	36.0	5.0	37.0	14.0	29.0	7.0	35.0				
Max Q Clear Time (g_c+I1), s	2.2	4.8	3.9	36.7	10.2	19.3	8.0	3.6				
Green Ext Time (p_c), s	0.0	0.3	0.0	0.0	0.1	1.2	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	37.3
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

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

HCM 6th Signalized Intersection Summary
 1: S Main St & Mustang Dr

08/02/2022



Movement	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (veh/h)	150	80	505
Future Volume (veh/h)	150	80	505
Initial Q (Qb), veh	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00
Work Zone On Approach		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841
Adj Flow Rate, veh/h	163	87	549
Peak Hour Factor	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4
Cap, veh/h	622	672	569
Arrive On Green	0.07	0.37	0.37
Sat Flow, veh/h	1753	1841	1560
Grp Volume(v), veh/h	163	87	549
Grp Sat Flow(s),veh/h/ln	1753	1841	1560
Q Serve(g_s), s	6.0	3.2	34.7
Cycle Q Clear(g_c), s	6.0	3.2	34.7
Prop In Lane	1.00		1.00
Lane Grp Cap(c), veh/h	622	672	569
V/C Ratio(X)	0.26	0.13	0.96
Avail Cap(c_a), veh/h	622	677	573
HCM Platoon Ratio	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	21.3	31.3
Incr Delay (d2), s/veh	0.2	0.0	28.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.3	2.4	23.8
Unsig. Movement Delay, s/veh			
LnGrp Delay(d),s/veh	19.2	21.3	59.7
LnGrp LOS	B	C	E
Approach Vol, veh/h		799	
Approach Delay, s/veh		47.3	
Approach LOS		D	
Timer - Assigned Phs			

HCM 6th Signalized Intersection Summary

2: W Airfield Dr & Mustang Dr/N Airfield Dr

08/02/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	↵
Traffic Volume (veh/h)	132	166	629	525	300	376
Future Volume (veh/h)	132	166	629	525	300	376
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	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	1811	1811	1781	1781	1767	1767
Adj Flow Rate, veh/h	143	0	684	571	326	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	6	6	8	8	9	9
Cap, veh/h	872		934	2241	441	
Arrive On Green	0.25	0.00	0.32	0.66	0.13	0.00
Sat Flow, veh/h	3622	0	1697	3474	3264	1497
Grp Volume(v), veh/h	143	0	684	571	326	0
Grp Sat Flow(s),veh/h/ln	1721	0	1697	1692	1632	1497
Q Serve(g_s), s	1.9	0.0	15.5	4.1	5.7	0.0
Cycle Q Clear(g_c), s	1.9	0.0	15.5	4.1	5.7	0.0
Prop In Lane		0.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	872		934	2241	441	
V/C Ratio(X)	0.16		0.73	0.25	0.74	
Avail Cap(c_a), veh/h	872		1817	4004	1379	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.2	0.0	7.8	4.1	24.6	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.8	0.0	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.3	0.0	6.2	1.2	3.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.6	0.0	8.6	4.1	25.5	0.0
LnGrp LOS	B		A	A	C	
Approach Vol, veh/h	143			1255	326	
Approach Delay, s/veh	17.6			6.6	25.5	
Approach LOS	B			A	C	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	24.2	21.0			45.2	14.0
Change Period (Y+Rc), s	5.0	6.0			6.0	6.0
Max Green Setting (Gmax), s	50.0	15.0			70.0	25.0
Max Q Clear Time (g_c+I1), s	17.5	3.9			6.1	7.7
Green Ext Time (p_c), s	1.7	0.2			1.2	0.3

Intersection Summary

HCM 6th Ctrl Delay	11.1
HCM 6th LOS	B

Notes

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

HCM 6th Signalized Intersection Summary

3: N Airfield Dr & Texan Trail

08/02/2022



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT
Lane Configurations												
Traffic Volume (veh/h)	119	28	497	9	11	9	337	121	10	1	5	716
Future Volume (veh/h)	119	28	497	9	11	9	337	121	10	1	5	716
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1737	1737	1737	1885	1885	1885	1737	1737	1737		1826	1826
Adj Flow Rate, veh/h	80	99	540	10	12	10	366	132	11		5	778
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		0.92	0.92
Percent Heavy Veh, %	11	11	11	1	1	1	11	11	11		5	5
Cap, veh/h	532	559	473	17	20	17	436	1319	588		11	918
Arrive On Green	0.32	0.32	0.32	0.03	0.03	0.03	0.14	0.40	0.40		0.01	0.26
Sat Flow, veh/h	1654	1737	1472	550	660	550	3209	3300	1472		1739	3469
Grp Volume(v), veh/h	80	99	540	32	0	0	366	132	11		5	778
Grp Sat Flow(s),veh/h/ln	1654	1737	1472	1759	0	0	1605	1650	1472		1739	1735
Q Serve(g_s), s	3.0	3.6	28.0	1.6	0.0	0.0	9.7	2.2	0.4		0.2	18.5
Cycle Q Clear(g_c), s	3.0	3.6	28.0	1.6	0.0	0.0	9.7	2.2	0.4		0.2	18.5
Prop In Lane	1.00		1.00	0.31		0.31	1.00		1.00		1.00	
Lane Grp Cap(c), veh/h	532	559	473	54	0	0	436	1319	588		11	918
V/C Ratio(X)	0.15	0.18	1.14	0.59	0.00	0.00	0.84	0.10	0.02		0.44	0.85
Avail Cap(c_a), veh/h	532	559	473	101	0	0	590	1592	710		100	1255
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	21.1	21.2	29.5	41.6	0.0	0.0	36.7	16.3	15.8		43.1	30.3
Incr Delay (d2), s/veh	0.0	0.1	86.0	3.7	0.0	0.0	6.0	0.0	0.0		9.6	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	2.4	30.8	1.3	0.0	0.0	7.1	1.4	0.2		0.2	12.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.1	21.3	115.5	45.3	0.0	0.0	42.7	16.4	15.8		52.7	33.5
LnGrp LOS	C	C	F	D	A	A	D	B	B		D	C
Approach Vol, veh/h		719			32			509				783
Approach Delay, s/veh		92.0			45.3			35.3				33.6
Approach LOS		F			D			D				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	40.8		33.0	17.8	28.5		7.7				
Change Period (Y+Rc), s	5.0	6.0		5.0	6.0	* 5.5		5.0				
Max Green Setting (Gmax), s	5.0	42.0		28.0	16.0	* 32		5.0				
Max Q Clear Time (g_c+I1), s	2.2	4.2		30.0	11.7	20.5		3.6				
Green Ext Time (p_c), s	0.0	0.3		0.0	0.1	2.5		0.0				

Intersection Summary

HCM 6th Ctrl Delay 54.8

HCM 6th LOS D

Notes

User approved volume balancing among the lanes for turning movement.

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

3: N Airfield Dr & Texan Trail























08/02/2022



Movement	SWR
Lane Configurations	
Traffic Volume (veh/h)	125
Future Volume (veh/h)	125
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1826
Adj Flow Rate, veh/h	0
Peak Hour Factor	0.92
Percent Heavy Veh, %	5
Cap, veh/h	
Arrive On Green	0.00
Sat Flow, veh/h	1547
Grp Volume(v), veh/h	0
Grp Sat Flow(s),veh/h/ln	1547
Q Serve(g_s), s	0.0
Cycle Q Clear(g_c), s	0.0
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	
V/C Ratio(X)	
Avail Cap(c_a), veh/h	
HCM Platoon Ratio	1.00
Upstream Filter(l)	0.00
Uniform Delay (d), s/veh	0.0
Incr Delay (d2), s/veh	0.0
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	0.0
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	0.0
LnGrp LOS	
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	
Unsignalized Delay for [SWR] is excluded from calculations of the approach delay and intersection delay.	

HCM 6th Signalized Intersection Summary
 5: W Airfield Dr & W 17th St (East)

08/02/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	0	5	24	0	43	1	648	11	37	834	1
Future Volume (veh/h)	9	0	5	24	0	43	1	648	11	37	834	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1278	0	1278	1781	1781	1781	1752	1752	1752
Adj Flow Rate, veh/h	10	0	5	26	0	47	1	704	12	40	907	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	42	0	42	8	8	8	10	10	10
Cap, veh/h	42	0	38	0	0	0	517	2604	44	658	2822	3
Arrive On Green	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.76	0.76	0.06	0.83	0.83
Sat Flow, veh/h	1810	0	1610		0		1697	3405	58	1668	3412	4
Grp Volume(v), veh/h	10	0	5		0.0		1	350	366	40	442	466
Grp Sat Flow(s),veh/h/ln	1810	0	1610				1697	1692	1771	1668	1664	1751
Q Serve(g_s), s	0.6	0.0	0.3				0.0	6.7	6.7	0.4	6.8	6.8
Cycle Q Clear(g_c), s	0.6	0.0	0.3				0.0	6.7	6.7	0.4	6.8	6.8
Prop In Lane	1.00		1.00				1.00		0.03	1.00		0.00
Lane Grp Cap(c), veh/h	42	0	38				517	1294	1354	658	1377	1449
V/C Ratio(X)	0.24	0.00	0.13				0.00	0.27	0.27	0.06	0.32	0.32
Avail Cap(c_a), veh/h	167	0	148				654	1294	1354	720	1377	1449
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.0	0.0	51.9				3.0	3.8	3.8	1.7	2.2	2.2
Incr Delay (d2), s/veh	1.0	0.0	0.6				0.0	0.5	0.5	0.0	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.5	0.0	0.3				0.0	3.1	3.3	0.1	2.2	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.1	0.0	52.5				3.0	4.3	4.3	1.7	2.8	2.8
LnGrp LOS	D	A	D				A	A	A	A	A	A
Approach Vol, veh/h		15						717			948	
Approach Delay, s/veh		52.9						4.3			2.8	
Approach LOS		D						A			A	
Timer - Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	12.0	89.0		7.5	5.2	95.8						
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0						
Max Green Setting (Gmax), s	11.0	83.0		10.0	9.0	85.0						
Max Q Clear Time (g_c+I1), s	2.4	8.7		2.6	2.0	8.8						
Green Ext Time (p_c), s	0.0	2.6		0.0	0.0	3.4						
Intersection Summary												
HCM 6th Ctrl Delay			3.9									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary

6: W Airfield Dr & W 19th St

08/02/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	0	48	60	0	38	6	588	136	108	852	3
Future Volume (veh/h)	50	0	48	60	0	38	6	588	136	108	852	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1796	1796	1796	1796	1796	1796	1781	1781	1781
Adj Flow Rate, veh/h	54	0	52	65	0	41	7	639	148	117	926	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	7	7	7	7	7	7	8	8	8
Cap, veh/h	421	0	212	402	0	212	294	929	215	398	1433	5
Arrive On Green	0.05	0.00	0.13	0.06	0.00	0.14	0.01	0.34	0.34	0.09	0.41	0.41
Sat Flow, veh/h	1810	0	1610	1711	0	1522	1711	2752	636	1697	3461	11
Grp Volume(v), veh/h	54	0	52	65	0	41	7	396	391	117	453	476
Grp Sat Flow(s),veh/h/ln	1810	0	1610	1711	0	1522	1711	1706	1682	1697	1692	1779
Q Serve(g_s), s	1.1	0.0	1.3	1.4	0.0	1.1	0.1	8.9	8.9	1.8	9.5	9.5
Cycle Q Clear(g_c), s	1.1	0.0	1.3	1.4	0.0	1.1	0.1	8.9	8.9	1.8	9.5	9.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.38	1.00		0.01
Lane Grp Cap(c), veh/h	421	0	212	402	0	212	294	576	568	398	701	737
V/C Ratio(X)	0.13	0.00	0.24	0.16	0.00	0.19	0.02	0.69	0.69	0.29	0.65	0.65
Avail Cap(c_a), veh/h	607	0	326	642	0	343	547	1805	1779	672	1942	2042
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.2	0.0	17.3	15.0	0.0	16.9	9.9	12.7	12.7	8.5	10.4	10.4
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.1	0.0	0.2	0.0	0.5	0.6	0.2	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.7	0.0	0.8	0.8	0.0	0.6	0.1	4.4	4.4	0.7	4.2	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.2	0.0	17.5	15.1	0.0	17.1	10.0	13.2	13.3	8.7	10.8	10.8
LnGrp LOS	B	A	B	B	A	B	A	B	B	A	B	B
Approach Vol, veh/h		106			106			794			1046	
Approach Delay, s/veh		16.3			15.9			13.2			10.5	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.8	19.0	6.8	10.9	4.4	22.4	6.4	11.2				
Change Period (Y+Rc), s	4.0	4.0	4.0	* 5	4.0	4.0	4.0	5.0				
Max Green Setting (Gmax), s	11.0	47.0	9.0	* 9	7.0	51.0	7.0	10.0				
Max Q Clear Time (g_c+I1), s	3.8	10.9	3.4	3.3	2.1	11.5	3.1	3.1				
Green Ext Time (p_c), s	0.0	1.4	0.0	0.0	0.0	1.6	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	12.2
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

7: W Airfield Dr & W 21st St

08/02/2022



Movement	SEU	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT
Lane Configurations		↔	↕	↕	↔	↕	↕		↕			↕
Traffic Volume (veh/h)	1	15	907	1	0	625	11	14	0	2	16	0
Future Volume (veh/h)	1	15	907	1	0	625	11	14	0	2	16	0
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No			No			No			No
Adj Sat Flow, veh/h/ln		1781	1781	1781	1781	1781	1781	1870	1870	1870	1796	1796
Adj Flow Rate, veh/h		16	986	1	0	679	12	15	0	2	17	0
Peak Hour Factor		0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %		8	8	8	8	8	8	2	2	2	7	7
Cap, veh/h		61	2737	1221	2	2447	1091	157	4	13	189	0
Arrive On Green		0.04	0.81	0.81	0.00	0.72	0.72	0.08	0.00	0.08	0.08	0.00
Sat Flow, veh/h		1697	3385	1510	1697	3385	1510	1099	53	154	1433	0
Grp Volume(v), veh/h		16	986	1	0	679	12	17	0	0	17	0
Grp Sat Flow(s),veh/h/ln		1697	1692	1510	1697	1692	1510	1305	0	0	1433	0
Q Serve(g_s), s		0.9	7.9	0.0	0.0	7.0	0.2	0.8	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s		0.9	7.9	0.0	0.0	7.0	0.2	1.7	0.0	0.0	0.9	0.0
Prop In Lane		1.00		1.00	1.00		1.00	0.88		0.12	1.00	
Lane Grp Cap(c), veh/h		61	2737	1221	2	2447	1091	174	0	0	189	0
V/C Ratio(X)		0.26	0.36	0.00	0.00	0.28	0.01	0.10	0.00	0.00	0.09	0.00
Avail Cap(c_a), veh/h		796	2737	1221	119	2447	1091	174	0	0	214	0
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)		1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh		47.0	2.6	1.8	0.0	4.8	3.9	43.1	0.0	0.0	42.7	0.0
Incr Delay (d2), s/veh		0.8	0.4	0.0	0.0	0.3	0.0	0.1	0.0	0.0	0.1	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	0.0
%ile BackOfQ(95%),veh/ln		0.7	2.5	0.0	0.0	3.3	0.1	0.7	0.0	0.0	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		47.8	3.0	1.8	0.0	5.1	3.9	43.2	0.0	0.0	42.7	0.0
LnGrp LOS		D	A	A	A	A	A	D	A	A	D	A
Approach Vol, veh/h			1003			691			17			44
Approach Delay, s/veh			3.7			5.1			43.2			43.1
Approach LOS			A			A			D			D
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.6	78.4		13.2	0.0	87.0		13.2				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	47.0	41.0		7.0	7.0	81.0		10.0				
Max Q Clear Time (g_c+I1), s	2.9	9.0		3.7	0.0	9.9		3.7				
Green Ext Time (p_c), s	0.0	2.9		0.0	0.0	4.7		0.0				

Intersection Summary

HCM 6th Ctrl Delay	5.6
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary

7: W Airfield Dr & W 21st St

08/02/2022



Movement	SWR
Lane Configurations	7
Traffic Volume (veh/h)	25
Future Volume (veh/h)	25
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1796
Adj Flow Rate, veh/h	27
Peak Hour Factor	0.92
Percent Heavy Veh, %	7
Cap, veh/h	124
Arrive On Green	0.08
Sat Flow, veh/h	1522
Grp Volume(v), veh/h	27
Grp Sat Flow(s),veh/h/ln	1522
Q Serve(g_s), s	1.7
Cycle Q Clear(g_c), s	1.7
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	124
V/C Ratio(X)	0.22
Avail Cap(c_a), veh/h	152
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	43.0
Incr Delay (d2), s/veh	0.3
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	1.1
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	43.3
LnGrp LOS	D
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

HCM 6th Signalized Intersection Summary
 8: W Airfield Dr & W 23rd St

08/02/2022



Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	63	70	418	36	1	41	1022
Future Volume (veh/h)	63	70	418	36	1	41	1022
Initial Q (Qb), veh	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00		1.00	
Parking Bus, Adj	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	1604	1604	1767	1767		1796	1796
Adj Flow Rate, veh/h	68	0	454	39		45	1111
Peak Hour Factor	0.92	0.92	0.92	0.92		0.92	0.92
Percent Heavy Veh, %	20	20	9	9		7	7
Cap, veh/h	123		1963	876		684	2508
Arrive On Green	0.08	0.00	0.58	0.58		0.06	0.73
Sat Flow, veh/h	1506	0	3445	1497		1711	3503
Grp Volume(v), veh/h	69	0	454	39		45	1111
Grp Sat Flow(s),veh/h/ln	1528	0	1678	1497		1711	1706
Q Serve(g_s), s	2.5	0.0	3.7	0.6		0.5	7.3
Cycle Q Clear(g_c), s	2.5	0.0	3.7	0.6		0.5	7.3
Prop In Lane	0.99	0.00		1.00		1.00	
Lane Grp Cap(c), veh/h	125		1963	876		684	2508
V/C Ratio(X)	0.55		0.23	0.04		0.07	0.44
Avail Cap(c_a), veh/h	401		1963	876		787	2508
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	25.3	0.0	5.7	5.1		3.3	3.0
Incr Delay (d2), s/veh	1.4	0.0	0.3	0.1		0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	0.0	1.6	0.3		0.1	1.3
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	26.7	0.0	6.0	5.2		3.3	3.6
LnGrp LOS	C		A	A		A	A
Approach Vol, veh/h	69		493				1156
Approach Delay, s/veh	26.7		5.9				3.5
Approach LOS	C		A				A
Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	8.6	38.9				47.5	9.7
Change Period (Y+Rc), s	5.0	5.5				5.5	5.0
Max Green Setting (Gmax), s	7.0	30.0				42.0	15.0
Max Q Clear Time (g_c+I1), s	2.5	5.7				9.3	4.5
Green Ext Time (p_c), s	0.0	2.3				7.0	0.0

Intersection Summary

HCM 6th Ctrl Delay			5.1				
HCM 6th LOS			A				

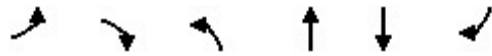
Notes

- User approved volume balancing among the lanes for turning movement.
- User approved ignoring U-Turning movement.
- Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

9: W Airfield Dr & E Glade Rd

08/02/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	83	103	197	324	824	338
Future Volume (veh/h)	83	103	197	324	824	338
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	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	1811	1811	1856	1856
Adj Flow Rate, veh/h	90	0	214	352	896	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	6	6	3	3
Cap, veh/h	115		553	2840	2501	
Arrive On Green	0.06	0.00	0.07	0.83	0.71	0.00
Sat Flow, veh/h	1810	1610	1725	3532	3618	1572
Grp Volume(v), veh/h	90	0	214	352	896	0
Grp Sat Flow(s),veh/h/ln	1810	1610	1725	1721	1763	1572
Q Serve(g_s), s	5.1	0.0	3.0	2.1	10.3	0.0
Cycle Q Clear(g_c), s	5.1	0.0	3.0	2.1	10.3	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	115		553	2840	2501	
V/C Ratio(X)	0.78		0.39	0.12	0.36	
Avail Cap(c_a), veh/h	341		803	2840	2501	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	47.8	0.0	3.6	1.8	5.9	0.0
Incr Delay (d2), s/veh	4.2	0.0	0.2	0.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.3	0.0	1.0	0.6	5.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	52.0	0.0	3.7	1.9	6.3	0.0
LnGrp LOS	D		A	A	A	
Approach Vol, veh/h	90			566	896	
Approach Delay, s/veh	52.0			2.6	6.3	
Approach LOS	D			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		91.5		12.1	12.0	79.5
Change Period (Y+Rc), s		6.0		5.5	5.0	6.0
Max Green Setting (Gmax), s		85.5		19.5	22.0	58.5
Max Q Clear Time (g_c+I1), s		4.1		7.1	5.0	12.3
Green Ext Time (p_c), s		1.0		0.1	0.1	3.0

Intersection Summary

HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

Notes

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

HCM 6th TWSC
4: W Airfield Dr & W 17th St (West)

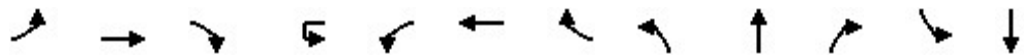
08/02/2022

Intersection													
Int Delay, s/veh	1.5												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	6	1	107	4	1	9	1	27	645	3	4	851	8
Future Vol, veh/h	6	1	107	4	1	9	1	27	645	3	4	851	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	130	-	-	125	-	-
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, %	15	15	15	20	20	20	9	9	9	9	9	9	9
Mvmt Flow	7	1	116	4	1	10	1	29	701	3	4	925	9
Major/Minor	Minor2		Minor1			Major1				Major2			
Conflicting Flow All	1349	1702	467	1234	1705	352	934	934	0	0	704	0	0
Stage 1	938	938	-	763	763	-	-	-	-	-	-	-	-
Stage 2	411	764	-	471	942	-	-	-	-	-	-	-	-
Critical Hdwy	7.8	6.8	7.2	7.9	6.9	7.3	6.58	4.28	-	-	4.28	-	-
Critical Hdwy Stg 1	6.8	5.8	-	6.9	5.9	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.8	5.8	-	6.9	5.9	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.65	4.15	3.45	3.7	4.2	3.5	2.59	2.29	-	-	2.29	-	-
Pot Cap-1 Maneuver	97	80	509	114	75	595	346	687	-	-	844	-	-
Stage 1	260	313	-	325	371	-	-	-	-	-	-	-	-
Stage 2	555	381	-	498	302	-	-	-	-	-	-	-	-
Platoon blocked, %									-	-		-	-
Mov Cap-1 Maneuver	91	76	509	84	71	595	652	652	-	-	844	-	-
Mov Cap-2 Maneuver	91	76	-	84	71	-	-	-	-	-	-	-	-
Stage 1	248	311	-	310	354	-	-	-	-	-	-	-	-
Stage 2	519	363	-	381	300	-	-	-	-	-	-	-	-
Approach	EB		WB			NB				SB			
HCM Control Delay, s	16.5		26.6			0.4				0			
HCM LOS	C		D										
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	652	-	-	91	483	182	844	-	-				
HCM Lane V/C Ratio	0.047	-	-	0.072	0.243	0.084	0.005	-	-				
HCM Control Delay (s)	10.8	-	-	47.6	14.8	26.6	9.3	-	-				
HCM Lane LOS	B	-	-	E	B	D	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.9	0.3	0	-	-				

Appendix H: Build Condition (2025) HCM 6th Ed. & Synchro Reports

Lanes, Volumes, Timings
1: S Main St & Mustang Dr

08/08/2022



Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	367	512	56	1	98	65	157	6	26	2	154	79
Future Volume (vph)	367	512	56	1	98	65	157	6	26	2	154	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		180		195		155	0		60	105	
Storage Lanes	1		1		1		1	1		2	1	
Taper Length (ft)	100				100			0			100	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00
Frt			0.850				0.850		0.990			
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	1770	3539	1583	0	1570	3139	1404	1114	2206	0	1703	1792
Flt Permitted	0.618				0.443			0.701			0.419	
Satd. Flow (perm)	1151	3539	1583	0	732	3139	1404	822	2206	0	751	1792
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)			184				234		2			
Link Speed (mph)		45				45			30			35
Link Distance (ft)		931				1341			732			695
Travel Time (s)		14.1				20.3			16.6			13.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	15%	15%	15%	15%	62%	62%	62%	6%	6%
Adj. Flow (vph)	399	557	61	1	107	71	171	7	28	2	167	86
Shared Lane Traffic (%)												
Lane Group Flow (vph)	399	557	61	0	108	71	171	7	30	0	167	86
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)		15				16			28			18
Link Offset(ft)		0				0			0			0
Crosswalk Width(ft)		16				16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15		9	15		9	15	
Number of Detectors	1	2	1	1	1	2	1	1	2		1	2
Detector Template	Left	Thru	Right	Left	Left	Thru	Right	Left	Thru		Left	Thru
Leading Detector (ft)	20	100	20	20	20	100	20	20	100		20	100
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0		0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0		0	0
Detector 1 Size(ft)	20	6	20	20	20	6	20	20	6		20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)		94				94			94			94
Detector 2 Size(ft)		6				6			6			6
Detector 2 Type		Cl+Ex				Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0				0.0			0.0			0.0
Turn Type	pm+pt	NA	Perm	Prot	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA
Protected Phases	5	2		1	1	6		3	8		7	4

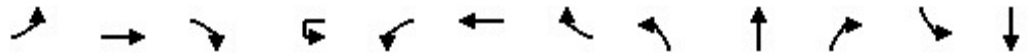
Lanes, Volumes, Timings
 1: S Main St & Mustang Dr

08/08/2022

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	84
Future Volume (vph)	84
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1524
Flt Permitted	
Satd. Flow (perm)	1524
Right Turn on Red	Yes
Satd. Flow (RTOR)	184
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Heavy Vehicles (%)	6%
Adj. Flow (vph)	91
Shared Lane Traffic (%)	
Lane Group Flow (vph)	91
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	

Lanes, Volumes, Timings
1: S Main St & Mustang Dr

08/08/2022

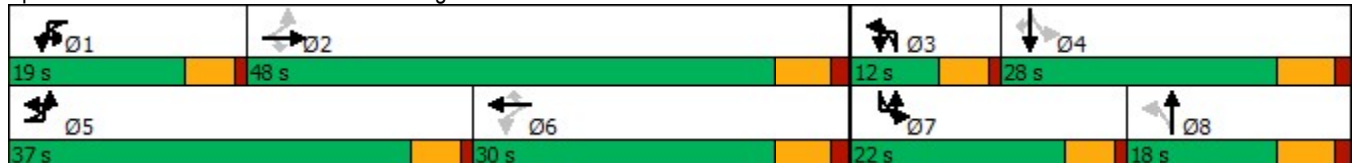


Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Permitted Phases	2		2		6		6	8			4	
Detector Phase	5	2	2	1	1	6	6	3	8		7	4
Switch Phase												
Minimum Initial (s)	7.0	10.0	10.0	7.0	7.0	10.0	10.0	5.0	10.0		7.0	10.0
Minimum Split (s)	12.0	16.0	16.0	12.0	12.0	16.0	16.0	10.0	16.0		12.0	16.0
Total Split (s)	37.0	48.0	48.0	19.0	19.0	30.0	30.0	12.0	18.0		22.0	28.0
Total Split (%)	34.6%	44.9%	44.9%	17.8%	17.8%	28.0%	28.0%	11.2%	16.8%		20.6%	26.2%
Maximum Green (s)	32.0	42.0	42.0	14.0	14.0	24.0	24.0	7.0	12.0		17.0	22.0
Yellow Time (s)	4.0	4.5	4.5	4.0	4.0	4.5	4.5	4.0	4.5		4.0	4.5
All-Red Time (s)	1.0	1.5	1.5	1.0	1.0	1.5	1.5	1.0	1.5		1.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0		5.0	6.0	6.0	5.0	6.0		5.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	2.5	1.0	1.0	2.5	2.5	1.0	1.0	2.5	1.0		2.5	1.0
Recall Mode	None	Max	Max	None	None	None	None	None	None		None	None
Walk Time (s)						7.0	7.0					
Flash Dont Walk (s)						11.0	11.0					
Pedestrian Calls (#/hr)						0	0					
Act Effct Green (s)	54.2	43.4	43.4		42.2	32.8	32.8	11.5	10.3		22.4	19.4
Actuated g/C Ratio	0.62	0.50	0.50		0.48	0.38	0.38	0.13	0.12		0.26	0.22
v/c Ratio	0.48	0.32	0.07		0.25	0.06	0.25	0.06	0.11		0.49	0.22
Control Delay	11.9	16.8	0.2		11.8	23.0	2.1	25.3	39.6		31.4	30.7
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	11.9	16.8	0.2		11.8	23.0	2.1	25.3	39.6		31.4	30.7
LOS	B	B	A		B	C	A	C	D		C	C
Approach Delay		13.9				9.4			36.9			23.2
Approach LOS		B				A			D			C

Intersection Summary


Area Type: Other
 Cycle Length: 107
 Actuated Cycle Length: 87.4
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.49
 Intersection Signal Delay: 15.3
 Intersection LOS: B
 Intersection Capacity Utilization 59.5%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 1: S Main St & Mustang Dr



Lanes, Volumes, Timings
1: S Main St & Mustang Dr

08/08/2022



Lane Group	SBR
Permitted Phases	4
Detector Phase	4
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	16.0
Total Split (s)	28.0
Total Split (%)	26.2%
Maximum Green (s)	22.0
Yellow Time (s)	4.5
All-Red Time (s)	1.5
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.0
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	1.0
Recall Mode	None
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	19.4
Actuated g/C Ratio	0.22
v/c Ratio	0.19
Control Delay	0.9
Queue Delay	0.0
Total Delay	0.9
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings
2: W Airfield Dr & Mustang Dr/N Airfield Dr

08/08/2022



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↔	↑↑	↔	↔
Traffic Volume (vph)	438	160	466	177	151	564
Future Volume (vph)	438	160	466	177	151	564
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	375		0	300
Storage Lanes		0	1		2	1
Taper Length (ft)			100		0	
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	1.00
Frt	0.960					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3398	0	1671	3343	3303	1524
Flt Permitted			0.272		0.950	
Satd. Flow (perm)	3398	0	479	3343	3303	1524
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	46					613
Link Speed (mph)	45			45	45	
Link Distance (ft)	1036			1355	845	
Travel Time (s)	15.7			20.5	12.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	8%	8%	6%	6%
Adj. Flow (vph)	476	174	507	192	164	613
Shared Lane Traffic (%)						
Lane Group Flow (vph)	650	0	507	192	164	613
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			24	60	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2		1	2	1	1
Detector Template	Thru		Left	Thru	Left	Right
Leading Detector (ft)	100		20	100	20	20
Trailing Detector (ft)	0		0	0	0	0
Detector 1 Position(ft)	0		0	0	0	0
Detector 1 Size(ft)	6		20	6	20	20
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA		pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	

Lanes, Volumes, Timings

2: W Airfield Dr & Mustang Dr/N Airfield Dr

08/08/2022

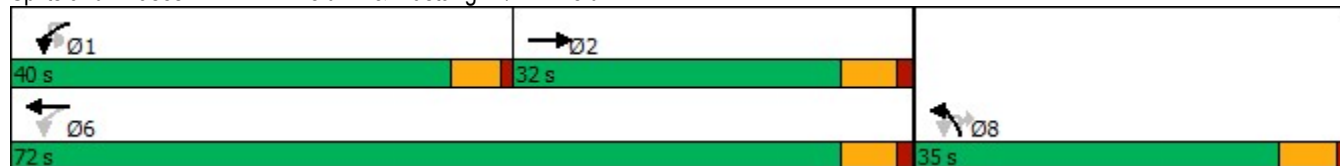


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases			6			8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	10.0		7.0	10.0	7.0	7.0
Minimum Split (s)	16.0		12.0	16.0	13.0	13.0
Total Split (s)	32.0		40.0	72.0	35.0	35.0
Total Split (%)	29.9%		37.4%	67.3%	32.7%	32.7%
Maximum Green (s)	26.0		35.0	66.0	29.0	29.0
Yellow Time (s)	4.5		4.0	4.5	4.5	4.5
All-Red Time (s)	1.5		1.0	1.5	1.5	1.5
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0		5.0	6.0	6.0	6.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?						
Vehicle Extension (s)	1.0		2.5	1.0	1.5	1.5
Recall Mode	Max		None	None	None	None
Act Effct Green (s)	26.8		54.2	53.1	10.8	10.8
Actuated g/C Ratio	0.35		0.71	0.70	0.14	0.14
v/c Ratio	0.53		0.76	0.08	0.35	0.83
Control Delay	22.9		16.5	4.5	32.6	13.6
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	22.9		16.5	4.5	32.6	13.6
LOS	C		B	A	C	B
Approach Delay	22.9			13.2	17.6	
Approach LOS	C			B	B	

Intersection Summary






















Area Type: Other
 Cycle Length: 107
 Actuated Cycle Length: 76.3
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 17.8
 Intersection LOS: B
 Intersection Capacity Utilization 92.1%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 2: W Airfield Dr & Mustang Dr/N Airfield Dr



Lanes, Volumes, Timings
3: N Airfield Dr & Texan Trail

08/08/2022

												
Lane Group	SEU	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT
Lane Configurations												
Traffic Volume (vph)	1	175	7	563	3	2	5	406	495	5	1	84
Future Volume (vph)	1	175	7	563	3	2	5	406	495	5	1	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		215		0	0		0	295		295	280	
Storage Lanes		1		1	0		0	2		1	2	
Taper Length (ft)		100			0			100			65	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.97	0.95	1.00	0.97	0.95
Frt				0.850		0.932				0.850		
Flt Protected		0.950	0.956			0.985		0.950			0.950	
Satd. Flow (prot)	0	1618	1628	1524	0	1744	0	3367	3471	1553	3127	3223
Flt Permitted		0.950	0.956			0.985		0.950			0.950	
Satd. Flow (perm)	0	1618	1628	1524	0	1744	0	3367	3471	1553	3127	3223
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)				612		5				130		
Link Speed (mph)			45			25			45			45
Link Distance (ft)			611			324			1173			1060
Travel Time (s)			9.3			8.8			17.8			16.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	6%	6%	6%	0%	0%	0%	4%	4%	4%	12%	12%
Adj. Flow (vph)	1	190	8	612	3	2	5	441	538	5	1	91
Shared Lane Traffic (%)		48%										
Lane Group Flow (vph)	0	100	99	612	0	10	0	441	538	5	1	91
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)			38			24			58			38
Link Offset(ft)			0			0			0			0
Crosswalk Width(ft)			16			16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	15		9	15		9	15	
Number of Detectors	1	1	2	1	1	2		1	2	1	1	2
Detector Template	Left	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100		20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0		0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0		0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6		20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94			94			94
Detector 2 Size(ft)			6			6			6			6
Detector 2 Type			Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0			0.0			0.0
Turn Type	Split	Split	NA	Perm	Split	NA		Prot	NA	Perm	Prot	NA
Protected Phases	4	4	4		8	8		5	2		1	6

Lanes, Volumes, Timings
 3: N Airfield Dr & Texan Trail

08/08/2022



Lane Group	SWR
Lane Configurations	
Traffic Volume (vph)	29
Future Volume (vph)	29
Ideal Flow (vphpl)	1900
Storage Length (ft)	280
Storage Lanes	2
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1442
Flt Permitted	
Satd. Flow (perm)	1442
Right Turn on Red	Yes
Satd. Flow (RTOR)	140
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Heavy Vehicles (%)	12%
Adj. Flow (vph)	32
Shared Lane Traffic (%)	
Lane Group Flow (vph)	32
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	

Lanes, Volumes, Timings
3: N Airfield Dr & Texan Trail

08/08/2022

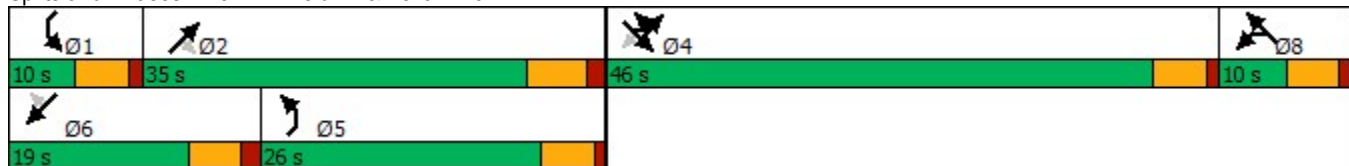


Lane Group	SEU	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT
Permitted Phases				4						2		
Detector Phase	4	4	4	4	8	8		5	2	2	1	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0		10.0	5.0	5.0	5.0	7.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0		15.0	11.0	11.0	10.0	12.5
Total Split (s)	46.0	46.0	46.0	46.0	10.0	10.0		26.0	35.0	35.0	10.0	19.0
Total Split (%)	45.5%	45.5%	45.5%	45.5%	9.9%	9.9%		25.7%	34.7%	34.7%	9.9%	18.8%
Maximum Green (s)	41.0	41.0	41.0	41.0	5.0	5.0		21.0	29.0	29.0	5.0	13.5
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.5	4.5	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.5	1.5	1.0	1.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0	5.0	5.0		5.0		5.0	6.0	6.0	5.0	5.5
Lead/Lag	Lead	Lead	Lead	Lead	Lag	Lag		Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	2.0
Recall Mode	None	None	None	None	None	None		None	Min	Min	None	Min
Act Effct Green (s)		8.1	8.1	8.1		5.3		11.4	22.4	22.4	5.3	7.6
Actuated g/C Ratio		0.18	0.18	0.18		0.12		0.26	0.50	0.50	0.12	0.17
v/c Ratio		0.34	0.34	0.79		0.05		0.52	0.31	0.01	0.00	0.17
Control Delay		19.9	19.8	10.4		19.6		18.3	10.5	0.0	24.0	20.3
Queue Delay		0.0	0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		19.9	19.8	10.4		19.6		18.3	10.5	0.0	24.0	20.3
LOS		B	B	B		B		B	B	A	C	C
Approach Delay			12.7			19.6		13.9				15.2
Approach LOS			B			B		B				B

Intersection Summary

Area Type:	Other
Cycle Length:	101
Actuated Cycle Length:	44.7
Natural Cycle:	50
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	13.5
Intersection LOS:	B
Intersection Capacity Utilization:	57.8%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 3: N Airfield Dr & Texan Trail
























Lane Group	SWR
Permitted Phases	6
Detector Phase	6
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	12.5
Total Split (s)	19.0
Total Split (%)	18.8%
Maximum Green (s)	13.5
Yellow Time (s)	4.0
All-Red Time (s)	1.5
Lost Time Adjust (s)	0.0
Total Lost Time (s)	5.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.0
Recall Mode	Min
Act Effct Green (s)	7.6
Actuated g/C Ratio	0.17
v/c Ratio	0.09
Control Delay	0.5
Queue Delay	0.0
Total Delay	0.5
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings
4: W Airfield Dr & W 17th St (West)

08/08/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	56	2	89	0	1	12	1	33	707	5	10	594
Future Volume (vph)	56	2	89	0	1	12	1	33	707	5	10	594
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0		130		0	125	
Storage Lanes	1		0	0		0		1		0	1	
Taper Length (ft)	0			0				75			75	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95
Frt		0.853			0.875				0.999			0.998
Flt Protected	0.950							0.950			0.950	
Satd. Flow (prot)	1492	1339	0	0	1163	0	0	1671	3339	0	1703	3399
Flt Permitted	0.950							0.950			0.950	
Satd. Flow (perm)	1492	1339	0	0	1163	0	0	1671	3339	0	1703	3399
Link Speed (mph)		30			30				45			45
Link Distance (ft)		939			233				604			311
Travel Time (s)		21.3			5.3				9.2			4.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	21%	21%	21%	43%	43%	43%	8%	8%	8%	8%	6%	6%
Adj. Flow (vph)	61	2	97	0	1	13	1	36	768	5	11	646
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	99	0	0	14	0	0	37	773	0	11	653
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	Left	Left
Median Width(ft)		12			0				38			38
Link Offset(ft)		0			0				0			0
Crosswalk Width(ft)		16			16				16			16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	15	
Sign Control		Stop			Stop				Free			Free
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	42.8%						ICU Level of Service A					
Analysis Period (min)	15											

Lanes, Volumes, Timings
 4: W Airfield Dr & W 17th St (West)

08/08/2022



Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	6
Future Volume (vph)	6
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	0.95
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Heavy Vehicles (%)	6%
Adj. Flow (vph)	7
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Sign Control	
Intersection Summary	

Lanes, Volumes, Timings
5: W Airfield Dr & W 17th St (East)

08/08/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		↕	↗	↘		↗		↘	↕			↘
Traffic Volume (vph)	12	0	1	8	0	37	1	65	701	8	1	28
Future Volume (vph)	12	0	1	8	0	37	1	65	701	8	1	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		165		130		0		325
Storage Lanes	0		1	1		1		1		0		1
Taper Length (ft)	0			0				75				65
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	0.95	1.00
Frt			0.850			0.850			0.998			
Flt Protected		0.950		0.950				0.950				0.950
Satd. Flow (prot)	0	1805	1615	1253	0	1122	0	1719	3431	0	0	1703
Flt Permitted		0.950		0.950				0.388				0.353
Satd. Flow (perm)	0	1805	1615	1253	0	1122	0	702	3431	0	0	633
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			101			101			1			
Link Speed (mph)		30			30				45			
Link Distance (ft)		141			907				311			
Travel Time (s)		3.2			20.6				4.7			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	44%	44%	44%	5%	5%	5%	5%	6%	6%
Adj. Flow (vph)	13	0	1	9	0	40	1	71	762	9	1	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	1	9	0	40	0	72	771	0	0	31
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		18			12				38			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Number of Detectors	1	2	1	1		1	1	1	2		1	1
Detector Template	Left	Thru	Right	Left		Right	Left	Left	Thru		Left	Left
Leading Detector (ft)	20	100	20	20		20	20	20	100		20	20
Trailing Detector (ft)	0	0	0	0		0	0	0	0		0	0
Detector 1 Position(ft)	0	0	0	0		0	0	0	0		0	0
Detector 1 Size(ft)	20	6	20	20		20	20	20	6		20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)		94							94			
Detector 2 Size(ft)		6							6			
Detector 2 Type		Cl+Ex							Cl+Ex			
Detector 2 Channel												
Detector 2 Extend (s)		0.0							0.0			
Turn Type	Split	NA	Perm	Prot		Perm	custom	pm+pt	NA		custom	pm+pt
Protected Phases	4	4		8				5	2			1

Lanes, Volumes, Timings
 5: W Airfield Dr & W 17th St (East)

08/08/2022



Lane Group	SBT	SBR
Lane Configurations	↑↑	
Traffic Volume (vph)	600	1
Future Volume (vph)	600	1
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	0.95	0.95
Frt		
Flt Protected		
Satd. Flow (prot)	3406	0
Flt Permitted		
Satd. Flow (perm)	3406	0
Right Turn on Red		Yes
Satd. Flow (RTOR)		
Link Speed (mph)	45	
Link Distance (ft)	666	
Travel Time (s)	10.1	
Peak Hour Factor	0.92	0.92
Heavy Vehicles (%)	6%	6%
Adj. Flow (vph)	652	1
Shared Lane Traffic (%)		
Lane Group Flow (vph)	653	0
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	38	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	
Detector Template	Thru	
Leading Detector (ft)	100	
Trailing Detector (ft)	0	
Detector 1 Position(ft)	0	
Detector 1 Size(ft)	6	
Detector 1 Type	Cl+Ex	
Detector 1 Channel		
Detector 1 Extend (s)	0.0	
Detector 1 Queue (s)	0.0	
Detector 1 Delay (s)	0.0	
Detector 2 Position(ft)	94	
Detector 2 Size(ft)	6	
Detector 2 Type	Cl+Ex	
Detector 2 Channel		
Detector 2 Extend (s)	0.0	
Turn Type	NA	
Protected Phases	6	

Lanes, Volumes, Timings
5: W Airfield Dr & W 17th St (East)

08/08/2022

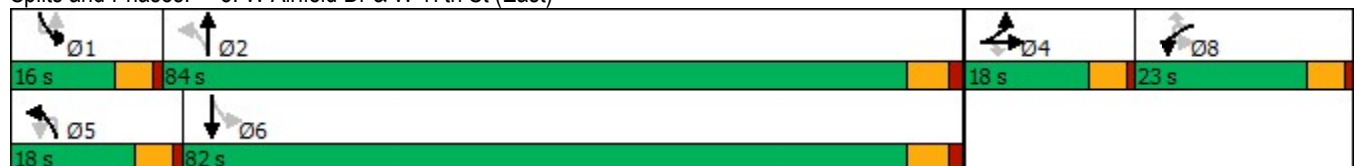


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Permitted Phases			4			8	5	2			1	6
Detector Phase	4	4	4	8		8	5	5	2		1	1
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0		7.0	7.0	7.0	20.0		7.0	7.0
Minimum Split (s)	12.0	12.0	12.0	12.0		12.0	12.0	12.0	26.0		12.0	12.0
Total Split (s)	18.0	18.0	18.0	23.0		23.0	18.0	18.0	84.0		16.0	16.0
Total Split (%)	12.8%	12.8%	12.8%	16.3%		16.3%	12.8%	12.8%	59.6%		11.3%	11.3%
Maximum Green (s)	13.0	13.0	13.0	18.0		18.0	13.0	13.0	78.0		11.0	11.0
Yellow Time (s)	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.5		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.5		1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0	0.0			0.0
Total Lost Time (s)		5.0	5.0	5.0		5.0		5.0	6.0			5.0
Lead/Lag	Lead	Lead	Lead	Lag		Lag	Lead	Lead	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0		2.0	1.0	1.0	2.0		1.0	1.0
Recall Mode	None	None	None	None		None	None	None	Max		None	None
Act Effct Green (s)		7.1	7.1	7.1		7.1		89.3	87.0			88.1
Actuated g/C Ratio		0.07	0.07	0.07		0.07		0.83	0.80			0.81
v/c Ratio		0.11	0.01	0.11		0.24		0.11	0.28			0.05
Control Delay		54.8	0.0	55.9		3.3		3.2	6.1			3.2
Queue Delay		0.0	0.0	0.0		0.0		0.0	0.0			0.0
Total Delay		54.8	0.0	55.9		3.3		3.2	6.1			3.2
LOS		D	A	E		A		A	A			A
Approach Delay		50.8				13.0			5.8			
Approach LOS		D				B			A			

Intersection Summary

Area Type:	Other
Cycle Length:	141
Actuated Cycle Length:	108.2
Natural Cycle:	65
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.28
Intersection Signal Delay:	6.6
Intersection LOS:	A
Intersection Capacity Utilization:	54.6%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 5: W Airfield Dr & W 17th St (East)



Lanes, Volumes, Timings
 5: W Airfield Dr & W 17th St (East)

08/08/2022



Lane Group	SBT	SBR
Permitted Phases		
Detector Phase	6	
Switch Phase		
Minimum Initial (s)	20.0	
Minimum Split (s)	26.0	
Total Split (s)	82.0	
Total Split (%)	58.2%	
Maximum Green (s)	76.0	
Yellow Time (s)	4.5	
All-Red Time (s)	1.5	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	6.0	
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	2.0	
Recall Mode	Max	
Act Effct Green (s)	82.9	
Actuated g/C Ratio	0.77	
v/c Ratio	0.25	
Control Delay	6.2	
Queue Delay	0.0	
Total Delay	6.2	
LOS	A	
Approach Delay	6.1	
Approach LOS	A	
Intersection Summary		

Lanes, Volumes, Timings
6: W Airfield Dr & W 19th St

08/08/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	2	97	0	64	21	681	41	79	573	32
Future Volume (vph)	1	0	2	97	0	64	21	681	41	79	573	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	205		0	215		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	0			0			50			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.850			0.850			0.991			0.992	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1615	0	1687	1509	0	1687	3343	0	1687	3347	0
Flt Permitted							0.402			0.278		
Satd. Flow (perm)	1900	1615	0	1776	1509	0	714	3343	0	494	3347	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		393			370			9			9	
Link Speed (mph)		25			35			45			45	
Link Distance (ft)		172			213			437			604	
Travel Time (s)		4.7			4.1			6.6			9.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Adj. Flow (vph)	1	0	2	105	0	70	23	740	45	86	623	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	2	0	105	70	0	23	785	0	86	658	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			38			38	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	

Lanes, Volumes, Timings
6: W Airfield Dr & W 19th St

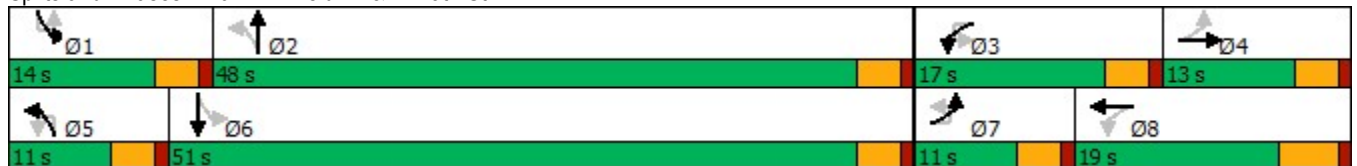
08/08/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	9.0	11.0		9.0	12.0		9.0	19.0		9.0	19.0	
Total Split (s)	11.0	13.0		17.0	19.0		11.0	48.0		14.0	51.0	
Total Split (%)	12.0%	14.1%		18.5%	20.7%		12.0%	52.2%		15.2%	55.4%	
Maximum Green (s)	7.0	9.0		13.0	14.0		7.0	44.0		10.0	47.0	
Yellow Time (s)	3.0	3.0		3.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		4.0	5.0		4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	6.6	8.0		8.7	8.4		24.1	24.1		26.0	27.7	
Actuated g/C Ratio	0.17	0.21		0.23	0.22		0.62	0.62		0.67	0.72	
v/c Ratio	0.00	0.00		0.27	0.11		0.04	0.38		0.17	0.27	
Control Delay	15.0	0.0		15.4	0.4		5.3	9.9		5.3	6.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.0	0.0		15.4	0.4		5.3	9.9		5.3	6.3	
LOS	B	A		B	A		A	A		A	A	
Approach Delay		5.0			9.4			9.7			6.2	
Approach LOS		A			A			A			A	

Intersection Summary




















Area Type:	Other
Cycle Length:	92
Actuated Cycle Length:	38.6
Natural Cycle:	50
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.38
Intersection Signal Delay:	8.2
Intersection LOS:	A
Intersection Capacity Utilization:	47.4%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 6: W Airfield Dr & W 19th St



Lanes, Volumes, Timings
7: W Airfield Dr & W 21st St

08/08/2022

												
Lane Group	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Lane Configurations												
Traffic Volume (vph)	1	27	552	13	1	0	683	29	1	0	1	42
Future Volume (vph)	1	27	552	13	1	0	683	29	1	0	1	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		190		275		175		125	0		0	0
Storage Lanes		1		1		1		1	0		0	0
Taper Length (ft)		100				50			0			0
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00
Frt				0.850				0.850		0.932		
Flt Protected		0.950				0.950				0.976		
Satd. Flow (prot)	0	1671	3343	1495	0	1703	3406	1524	0	1440	0	0
Flt Permitted		0.171										
Satd. Flow (perm)	0	301	3343	1495	0	1792	3406	1524	0	1476	0	0
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				104				147		156		
Link Speed (mph)			45				45			25		
Link Distance (ft)			498				712			197		
Travel Time (s)			7.5				10.8			5.4		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	8%	8%	8%	6%	6%	6%	6%	20%	20%	20%	7%
Adj. Flow (vph)	1	29	600	14	1	0	742	32	1	0	1	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	30	600	14	0	1	742	32	0	2	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)			65				40			17		
Link Offset(ft)			0				0			0		
Crosswalk Width(ft)			16				16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Number of Detectors	1	1	2	1	0	1	2	1	1	2		1
Detector Template	Left	Left	Thru	Right		Left	Thru	Right	Left	Thru		Left
Leading Detector (ft)	20	20	100	20	0	20	100	20	20	100		20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0		0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0		0
Detector 1 Size(ft)	20	20	6	20	0	20	6	20	20	6		20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Detector 2 Position(ft)			94				94			94		
Detector 2 Size(ft)			6				6			6		
Detector 2 Type			Cl+Ex				Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0				0.0			0.0		
Turn Type	custom	Prot	NA	Perm	custom	Prot	NA	Perm	Perm	NA		Perm
Protected Phases		1	6			5	2			4		

Lanes, Volumes, Timings
7: W Airfield Dr & W 21st St

08/08/2022



Lane Group	SWT	SWR
Lane Configurations	↖	↗
Traffic Volume (vph)	1	77
Future Volume (vph)	1	77
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt		0.850
Flt Protected	0.953	
Satd. Flow (prot)	1692	1509
Flt Permitted	0.730	
Satd. Flow (perm)	1296	1509
Right Turn on Red		Yes
Satd. Flow (RTOR)		156
Link Speed (mph)	30	
Link Distance (ft)	674	
Travel Time (s)	15.3	
Peak Hour Factor	0.92	0.92
Heavy Vehicles (%)	7%	7%
Adj. Flow (vph)	1	84
Shared Lane Traffic (%)		
Lane Group Flow (vph)	47	84
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	32	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Detector 1 Position(ft)	0	0
Detector 1 Size(ft)	6	20
Detector 1 Type	Cl+Ex	Cl+Ex
Detector 1 Channel		
Detector 1 Extend (s)	0.0	0.0
Detector 1 Queue (s)	0.0	0.0
Detector 1 Delay (s)	0.0	0.0
Detector 2 Position(ft)	94	
Detector 2 Size(ft)	6	
Detector 2 Type	Cl+Ex	
Detector 2 Channel		
Detector 2 Extend (s)	0.0	
Turn Type	NA	Perm
Protected Phases	8	

Lanes, Volumes, Timings
7: W Airfield Dr & W 21st St

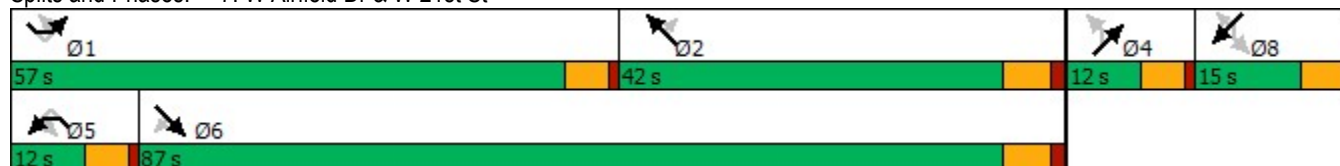
08/08/2022

Lane Group	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Permitted Phases	1			6	5			2	4			8
Detector Phase	1	1	6	6	5	5	2	2	4	4		8
Switch Phase												
Minimum Initial (s)	10.0	10.0	15.0	15.0	7.0	7.0	15.0	15.0	7.0	7.0		10.0
Minimum Split (s)	15.0	15.0	21.0	21.0	12.0	12.0	21.0	21.0	12.0	12.0		15.0
Total Split (s)	57.0	57.0	87.0	87.0	12.0	12.0	42.0	42.0	12.0	12.0		15.0
Total Split (%)	45.2%	45.2%	69.0%	69.0%	9.5%	9.5%	33.3%	33.3%	9.5%	9.5%		11.9%
Maximum Green (s)	52.0	52.0	81.0	81.0	7.0	7.0	36.0	36.0	7.0	7.0		10.0
Yellow Time (s)	4.0	4.0	4.5	4.5	4.0	4.0	4.5	4.5	4.0	4.0		4.0
All-Red Time (s)	1.0	1.0	1.5	1.5	1.0	1.0	1.5	1.5	1.0	1.0		1.0
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0			0.0	
Total Lost Time (s)		5.0	6.0	6.0			5.0	6.0			5.0	
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	1.5	1.5	2.0	2.0	1.5	1.5	2.0	2.0	1.0	1.0		1.0
Recall Mode	None	None	Max	Max	None	None	Max	Max	None	None		None
Act Effct Green (s)		29.4	86.2	86.2		7.1	61.8	61.8		7.1		
Actuated g/C Ratio		0.27	0.81	0.81		0.07	0.58	0.58		0.07		
v/c Ratio		0.37	0.22	0.01		0.01	0.38	0.03		0.01		
Control Delay		39.1	4.5	0.0		52.0	22.4	0.1		0.0		
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0		0.0		
Total Delay		39.1	4.5	0.0		52.0	22.4	0.1		0.0		
LOS		D	A	A		D	C	A		A		
Approach Delay			6.0				21.5					
Approach LOS			A				C					

Intersection Summary

Area Type:	Other
Cycle Length:	126
Actuated Cycle Length:	107
Natural Cycle:	65
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.39
Intersection Signal Delay:	15.1
Intersection LOS:	B
Intersection Capacity Utilization:	50.8%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 7: W Airfield Dr & W 21st St





Lane Group	SWT	SWR
Permitted Phases		8
Detector Phase	8	8
Switch Phase		
Minimum Initial (s)	10.0	10.0
Minimum Split (s)	15.0	15.0
Total Split (s)	15.0	15.0
Total Split (%)	11.9%	11.9%
Maximum Green (s)	10.0	10.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	5.0	5.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	1.0	1.0
Recall Mode	None	None
Act Effct Green (s)	10.1	10.1
Actuated g/C Ratio	0.09	0.09
v/c Ratio	0.39	0.30
Control Delay	58.1	2.7
Queue Delay	0.0	0.0
Total Delay	58.1	2.7
LOS	E	A
Approach Delay	22.5	
Approach LOS	C	
Intersection Summary		

Lanes, Volumes, Timings
8: W Airfield Dr & W 23rd St

08/08/2022



Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	19	19	853	93	1	54	395
Future Volume (vph)	19	19	853	93	1	54	395
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0		150	
Storage Lanes	1	0		1		1	
Taper Length (ft)	0					50	
Lane Util. Factor	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt	0.932			0.850			
Flt Protected	0.976					0.950	
Satd. Flow (prot)	1372	0	3438	1538	0	1641	3282
Flt Permitted	0.976					0.257	
Satd. Flow (perm)	1372	0	3438	1538	0	444	3282
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)	21			101			
Link Speed (mph)	25		45				45
Link Distance (ft)	1307		627				530
Travel Time (s)	35.6		9.5				8.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	26%	26%	5%	5%	10%	10%	10%
Adj. Flow (vph)	21	21	927	101	1	59	429
Shared Lane Traffic (%)							
Lane Group Flow (vph)	42	0	927	101	0	60	429
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	R NA	Left	Left
Median Width(ft)	12		18				28
Link Offset(ft)	0		0				0
Crosswalk Width(ft)	16		16				16
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	9	15	
Number of Detectors	1		2	1	1	1	2
Detector Template	Left		Thru	Right	Left	Left	Thru
Leading Detector (ft)	20		100	20	20	20	100
Trailing Detector (ft)	0		0	0	0	0	0
Detector 1 Position(ft)	0		0	0	0	0	0
Detector 1 Size(ft)	20		6	20	20	20	6
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel							
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94				94
Detector 2 Size(ft)			6				6
Detector 2 Type			Cl+Ex				Cl+Ex
Detector 2 Channel							
Detector 2 Extend (s)			0.0				0.0
Turn Type	Prot		NA	Perm	custom	pm+pt	NA
Protected Phases	8		2			1	6

Lanes, Volumes, Timings
8: W Airfield Dr & W 23rd St

08/08/2022

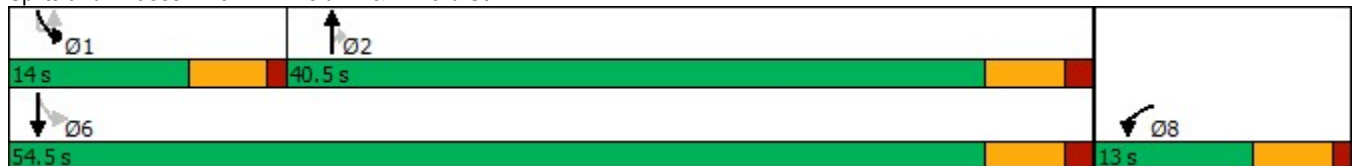


Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Permitted Phases				2	1	6	
Detector Phase	8		2	2	1	1	6
Switch Phase							
Minimum Initial (s)	7.0		15.0	15.0	7.0	7.0	15.0
Minimum Split (s)	12.0		20.5	20.5	12.0	12.0	20.5
Total Split (s)	13.0		40.5	40.5	14.0	14.0	54.5
Total Split (%)	19.3%		60.0%	60.0%	20.7%	20.7%	80.7%
Maximum Green (s)	8.0		35.0	35.0	9.0	9.0	49.0
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		1.5	1.5	1.0	1.0	1.5
Lost Time Adjust (s)	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0		5.5	5.5		5.0	5.5
Lead/Lag			Lag	Lag	Lead	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0		2.5	2.5	2.0	2.0	2.5
Recall Mode	None		Max	Max	None	None	Max
Act Effct Green (s)	7.2		48.0	48.0		53.3	55.1
Actuated g/C Ratio	0.11		0.73	0.73		0.81	0.84
v/c Ratio	0.25		0.37	0.09		0.12	0.16
Control Delay	21.6		7.1	2.0		2.7	2.2
Queue Delay	0.0		0.0	0.0		0.0	0.0
Total Delay	21.6		7.1	2.0		2.7	2.2
LOS	C		A	A		A	A
Approach Delay	21.6		6.6				2.3
Approach LOS	C		A				A

Intersection Summary

Area Type:	Other
Cycle Length:	67.5
Actuated Cycle Length:	65.6
Natural Cycle:	45
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.37
Intersection Signal Delay:	5.7
Intersection LOS:	A
Intersection Capacity Utilization:	48.2%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 8: W Airfield Dr & W 23rd St



Lanes, Volumes, Timings
9: W Airfield Dr & E Glade Rd

08/08/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	289	227	57	681	269	109
Future Volume (vph)	289	227	57	681	269	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	300	210			200
Storage Lanes	1	1	1			1
Taper Length (ft)	0		100			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1787	1599	1703	3406	3282	1468
Flt Permitted	0.950		0.516			
Satd. Flow (perm)	1787	1599	925	3406	3282	1468
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		247				118
Link Speed (mph)	35			45	45	
Link Distance (ft)	1218			1121	367	
Travel Time (s)	23.7			17.0	5.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	6%	6%	10%	10%
Adj. Flow (vph)	314	247	62	740	292	118
Shared Lane Traffic (%)						
Lane Group Flow (vph)	314	247	62	740	292	118
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			15	13	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (ft)	20	20	20	100	100	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	20	6	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)				94	94	
Detector 2 Size(ft)				6	6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	Prot	pm+pt	NA	NA	Perm
Protected Phases	4	4	5	2	6	

Lanes, Volumes, Timings
 9: W Airfield Dr & E Glade Rd

08/08/2022

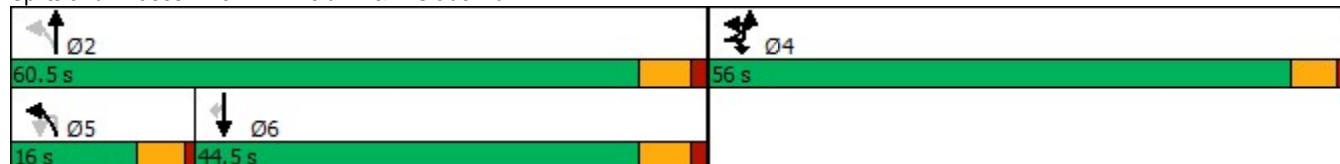


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Permitted Phases			2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	2.0	20.0	20.0
Minimum Split (s)	12.5	12.5	12.0	26.0	26.0	26.0
Total Split (s)	56.0	56.0	16.0	60.5	44.5	44.5
Total Split (%)	48.1%	48.1%	13.7%	51.9%	38.2%	38.2%
Maximum Green (s)	50.5	50.5	11.0	54.5	38.5	38.5
Yellow Time (s)	4.0	4.0	4.0	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.0	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	2.0	2.0	1.5	1.5	1.5	1.5
Recall Mode	None	None	None	Max	Max	Max
Act Effct Green (s)	19.1	19.1	55.7	54.7	45.2	45.2
Actuated g/C Ratio	0.22	0.22	0.65	0.64	0.53	0.53
v/c Ratio	0.79	0.45	0.09	0.34	0.17	0.14
Control Delay	45.4	6.4	6.9	8.2	12.4	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.4	6.4	6.9	8.2	12.4	3.3
LOS	D	A	A	A	B	A
Approach Delay	28.2			8.1	9.8	
Approach LOS	C			A	A	

Intersection Summary

Area Type:	Other
Cycle Length:	116.5
Actuated Cycle Length:	85.3
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	14.9
Intersection LOS:	B
Intersection Capacity Utilization:	52.3%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 9: W Airfield Dr & E Glade Rd



Lanes, Volumes, Timings
10: W Airfield Dr & Bldg 1 Drwy 1

08/08/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕↗			↕↖
Traffic Volume (vph)	0	14	728	12	0	670
Future Volume (vph)	0	14	728	12	0	670
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.865	0.998			
Flt Protected						
Satd. Flow (prot)	0	1644	3371	0	0	3374
Flt Permitted						
Satd. Flow (perm)	0	1644	3371	0	0	3374
Link Speed (mph)	30		45			45
Link Distance (ft)	330		438			340
Travel Time (s)	7.5		6.6			5.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	7%	0%	0%	7%
Adj. Flow (vph)	0	15	791	13	0	728
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	15	804	0	0	728
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		26			26
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	30.5%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
 11: W Airfield Dr & Bldg 1 Drwy 2

08/08/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	17	14	729	13	19	653
Future Volume (vph)	17	14	729	13	19	653
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	240	
Storage Lanes	1	1		0	1	
Taper Length (ft)	100				50	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.997			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	902	808	3314	0	902	3374
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	902	808	3314	0	902	3374
Link Speed (mph)	30		45			45
Link Distance (ft)	303		340			437
Travel Time (s)	6.9		5.2			6.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	100%	100%	7%	100%	100%	7%
Adj. Flow (vph)	18	15	792	14	21	710
Shared Lane Traffic (%)						
Lane Group Flow (vph)	18	15	806	0	21	710
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		26			38
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	30.6%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
12: Bldg 1 Drwy 3 & W 19th St

08/08/2022



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	102	18	0	144	17	0
Future Volume (vph)	102	18	0	144	17	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			50		100	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt	0.979					
Flt Protected					0.950	
Satd. Flow (prot)	1756	0	0	3374	1805	0
Flt Permitted					0.950	
Satd. Flow (perm)	1756	0	0	3374	1805	0
Link Speed (mph)	35			35	30	
Link Distance (ft)	213			1110	223	
Travel Time (s)	4.1			21.6	5.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	0%	0%	7%	0%	0%
Adj. Flow (vph)	111	20	0	157	18	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	131	0	0	157	18	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	16.5%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings
 13: Bldg 2 Drwy 4 & W 19th St

08/08/2022



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	22	20	0	22	20	0
Future Volume (vph)	22	20	0	22	20	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr't	0.935					
Flt Protected					0.950	
Satd. Flow (prot)	1714	0	0	1776	1805	0
Flt Permitted					0.950	
Satd. Flow (perm)	1714	0	0	1776	1805	0
Link Speed (mph)	35			35	30	
Link Distance (ft)	350			160	312	
Travel Time (s)	6.8			3.1	7.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	0%	0%	7%	0%	0%
Adj. Flow (vph)	24	22	0	24	22	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	46	0	0	24	22	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	13.3%
	ICU Level of Service A
Analysis Period (min)	15

Lanes, Volumes, Timings
 14: Bldg 2 Drwy 5 & W 19th St

08/08/2022



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	11	11	0	11	11	0
Future Volume (vph)	11	11	0	11	11	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.932					
Fl _t Protected					0.950	
Satd. Flow (prot)	1154	0	0	1776	902	0
Fl _t Permitted					0.950	
Satd. Flow (perm)	1154	0	0	1776	902	0
Link Speed (mph)	35			35	30	
Link Distance (ft)	160			360	307	
Travel Time (s)	3.1			7.0	7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	100%	100%	7%	100%	100%
Adj. Flow (vph)	12	12	0	12	12	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	24	0	0	12	12	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	13.3%
	ICU Level of Service A
Analysis Period (min)	15

Lanes, Volumes, Timings
15: Bldg 2 Drwy 6 & W 19th St

08/08/2022



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	11	0	0	11	0
Future Volume (vph)	0	11	0	0	11	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.865					
Fl _t Protected					0.950	
Satd. Flow (prot)	822	0	0	1776	902	0
Fl _t Permitted					0.950	
Satd. Flow (perm)	822	0	0	1776	902	0
Link Speed (mph)	35			35	30	
Link Distance (ft)	360			842	307	
Travel Time (s)	7.0			16.4	7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	100%	100%	7%	100%	100%
Adj. Flow (vph)	0	12	0	0	12	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	12	0	0	0	12	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

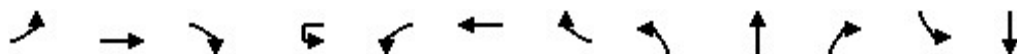
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	13.3%
Analysis Period (min)	15
	ICU Level of Service A

HCM 6th Signalized Intersection Summary

1: S Main St & Mustang Dr

08/08/2022



Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↔	↑↑	↗		↔	↑↑	↗	↔	↑↑		↔	↑
Traffic Volume (veh/h)	367	512	56	1	98	65	157	6	26	2	154	79
Future Volume (veh/h)	367	512	56	1	98	65	157	6	26	2	154	79
Initial Q (Qb), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1870	1870	1870		1678	1678	1678	981	981	981	1811	1811
Adj Flow Rate, veh/h	399	557	0		107	71	0	7	28	2	167	86
Peak Hour Factor	0.92	0.92	0.92		0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2		15	15	15	62	62	62	6	6
Cap, veh/h	850	1660			477	1218		202	195	14	390	290
Arrive On Green	0.16	0.47	0.00		0.07	0.38	0.00	0.06	0.11	0.11	0.10	0.16
Sat Flow, veh/h	1781	3554	1585		1598	3188	1422	934	1766	125	1725	1811
Grp Volume(v), veh/h	399	557	0		107	71	0	7	15	15	167	86
Grp Sat Flow(s),veh/h/ln	1781	1777	1585		1598	1594	1422	934	932	959	1725	1811
Q Serve(g_s), s	11.4	8.9	0.0		3.5	1.3	0.0	0.6	1.3	1.3	7.4	3.8
Cycle Q Clear(g_c), s	11.4	8.9	0.0		3.5	1.3	0.0	0.6	1.3	1.3	7.4	3.8
Prop In Lane	1.00		1.00		1.00		1.00	1.00		0.13	1.00	
Lane Grp Cap(c), veh/h	850	1660			477	1218		202	103	106	390	290
V/C Ratio(X)	0.47	0.34			0.22	0.06		0.03	0.14	0.14	0.43	0.30
Avail Cap(c_a), veh/h	1203	1660			610	1218		223	124	128	535	443
HCM Platoon Ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00		1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.2	15.1	0.0		14.3	17.6	0.0	31.5	36.1	36.1	29.4	33.3
Incr Delay (d2), s/veh	0.3	0.5	0.0		0.2	0.0	0.0	0.1	0.2	0.2	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.9	6.0	0.0		2.1	0.8	0.0	0.2	0.5	0.6	5.4	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.5	15.7	0.0		14.5	17.6	0.0	31.6	36.3	36.4	30.0	33.5
LnGrp LOS	B	B			B	B		C	D	D	C	C
Approach Vol, veh/h		956				178			37			344
Approach Delay, s/veh		13.9				15.7			35.4			31.9
Approach LOS		B				B			D			C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.5	48.0	10.0	20.4	19.2	40.4	14.4	16.0				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green Setting (Gmax), s	14.0	42.0	7.0	22.0	32.0	24.0	17.0	12.0				
Max Q Clear Time (g_c+I1), s	5.5	10.9	2.6	6.8	13.4	3.3	9.4	3.3				
Green Ext Time (p_c), s	0.1	1.2	0.0	0.2	0.8	0.1	0.2	0.0				

Intersection Summary

HCM 6th Ctrl Delay	18.8
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

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

HCM 6th Signalized Intersection Summary
 1: S Main St & Mustang Dr

08/08/2022

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	84
Future Volume (veh/h)	84
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1811
Adj Flow Rate, veh/h	91
Peak Hour Factor	0.92
Percent Heavy Veh, %	6
Cap, veh/h	246
Arrive On Green	0.16
Sat Flow, veh/h	1535
Grp Volume(v), veh/h	91
Grp Sat Flow(s),veh/h/ln	1535
Q Serve(g_s), s	4.8
Cycle Q Clear(g_c), s	4.8
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	246
V/C Ratio(X)	0.37
Avail Cap(c_a), veh/h	376
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	33.7
Incr Delay (d2), s/veh	0.3
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	3.2
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	34.0
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

HCM 6th Signalized Intersection Summary

2: W Airfield Dr & Mustang Dr/N Airfield Dr

08/08/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↔	↑↑	↔	↔
Traffic Volume (veh/h)	438	160	466	177	151	564
Future Volume (veh/h)	438	160	466	177	151	564
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	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	1870	1870	1781	1781	1811	1811
Adj Flow Rate, veh/h	476	0	507	192	164	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	8	8	6	6
Cap, veh/h	1493		743	2368	356	
Arrive On Green	0.42	0.00	0.20	0.70	0.11	0.00
Sat Flow, veh/h	3741	0	1697	3474	3346	1535
Grp Volume(v), veh/h	476	0	507	192	164	0
Grp Sat Flow(s),veh/h/ln	1777	0	1697	1692	1673	1535
Q Serve(g_s), s	5.6	0.0	9.2	1.1	2.9	0.0
Cycle Q Clear(g_c), s	5.6	0.0	9.2	1.1	2.9	0.0
Prop In Lane		0.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1493		743	2368	356	
V/C Ratio(X)	0.32		0.68	0.08	0.46	
Avail Cap(c_a), veh/h	1493		1365	3610	1568	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.0	0.0	6.5	3.0	26.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.8	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.4	0.0	3.5	0.3	1.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.6	0.0	7.3	3.0	26.3	0.0
LnGrp LOS	B		A	A	C	
Approach Vol, veh/h	476			699	164	
Approach Delay, s/veh	12.6			6.1	26.3	
Approach LOS	B			A	C	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	17.3	32.0			49.3	12.6
Change Period (Y+Rc), s	5.0	6.0			6.0	6.0
Max Green Setting (Gmax), s	35.0	26.0			66.0	29.0
Max Q Clear Time (g_c+I1), s	11.2	7.6			3.1	4.9
Green Ext Time (p_c), s	1.1	0.9			0.4	0.2

Intersection Summary

HCM 6th Ctrl Delay		10.9
HCM 6th LOS		B

Notes

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

HCM 6th Signalized Intersection Summary

3: N Airfield Dr & Texan Trail

08/08/2022



Movement	SEU	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT
Lane Configurations		↘	↙	↗		↕		↖	↗	↘	↖	↗
Traffic Volume (veh/h)	1	175	7	563	3	2	5	406	495	5	1	84
Future Volume (veh/h)	1	175	7	563	3	2	5	406	495	5	1	84
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No		No			No			No	
Adj Sat Flow, veh/h/ln		1811	1811	1811	1900	1900	1900	1841	1841	1841	1722	1722
Adj Flow Rate, veh/h		196	0	612	3	2	5	441	538	5	1	91
Peak Hour Factor		0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %		6	6	6	0	0	0	4	4	4	12	12
Cap, veh/h		1449	0	645	7	4	11	536	924	412	5	329
Arrive On Green		0.42	0.00	0.42	0.01	0.01	0.01	0.16	0.26	0.26	0.00	0.10
Sat Flow, veh/h		3450	0	1535	516	344	860	3401	3497	1560	3182	3272
Grp Volume(v), veh/h		196	0	612	10	0	0	441	538	5	1	91
Grp Sat Flow(s),veh/h/ln		1725	0	1535	1719	0	0	1700	1749	1560	1591	1636
Q Serve(g_s), s		2.4	0.0	26.8	0.4	0.0	0.0	8.7	9.3	0.2	0.0	1.8
Cycle Q Clear(g_c), s		2.4	0.0	26.8	0.4	0.0	0.0	8.7	9.3	0.2	0.0	1.8
Prop In Lane		1.00		1.00	0.30		0.50	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h		1449	0	645	22	0	0	536	924	412	5	329
V/C Ratio(X)		0.14	0.00	0.95	0.46	0.00	0.00	0.82	0.58	0.01	0.22	0.28
Avail Cap(c_a), veh/h		2033	0	904	124	0	0	1027	1458	650	229	635
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)		1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		12.4	0.0	19.5	34.1	0.0	0.0	28.4	22.3	18.9	34.7	28.9
Incr Delay (d2), s/veh		0.0	0.0	13.4	5.5	0.0	0.0	1.2	0.2	0.0	8.6	0.2
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln		1.4	0.0	16.5	0.4	0.0	0.0	6.0	6.1	0.1	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		12.4	0.0	32.8	39.6	0.0	0.0	29.6	22.5	18.9	43.3	29.1
LnGrp LOS		B	A	C	D	A	A	C	C	B	D	C
Approach Vol, veh/h			808			10			984			92
Approach Delay, s/veh			27.9			39.6			25.6			29.3
Approach LOS			C			D			C			C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	24.4		34.2	17.0	12.5		5.9				
Change Period (Y+Rc), s	5.0	6.0		5.0	6.0	* 5.5		5.0				
Max Green Setting (Gmax), s	5.0	29.0		41.0	21.0	* 14		5.0				
Max Q Clear Time (g_c+I1), s	2.0	11.3		28.8	10.7	3.8		2.4				
Green Ext Time (p_c), s	0.0	1.1		0.5	0.2	0.2		0.0				

Intersection Summary

HCM 6th Ctrl Delay	26.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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

3: N Airfield Dr & Texan Trail

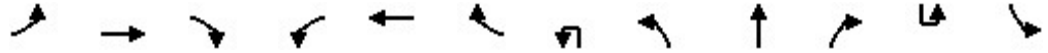
08/08/2022



Movement	SWR
Lane Configurations	
Traffic Volume (veh/h)	29
Future Volume (veh/h)	29
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1722
Adj Flow Rate, veh/h	0
Peak Hour Factor	0.92
Percent Heavy Veh, %	12
Cap, veh/h	
Arrive On Green	0.00
Sat Flow, veh/h	1459
Grp Volume(v), veh/h	0
Grp Sat Flow(s),veh/h/ln	1459
Q Serve(g_s), s	0.0
Cycle Q Clear(g_c), s	0.0
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	
V/C Ratio(X)	
Avail Cap(c_a), veh/h	
HCM Platoon Ratio	1.00
Upstream Filter(l)	0.00
Uniform Delay (d), s/veh	0.0
Incr Delay (d2), s/veh	0.0
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	0.0
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	0.0
LnGrp LOS	
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	
Unsignalized Delay for [SWR] is excluded from calculations of the approach delay and intersection delay.	

HCM 6th Signalized Intersection Summary
 5: W Airfield Dr & W 17th St (East)

08/08/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		↖	↗	↘		↗		↘	↑	↗		↘
Traffic Volume (veh/h)	12	0	1	8	0	37	1	65	701	8	1	28
Future Volume (veh/h)	12	0	1	8	0	37	1	65	701	8	1	28
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	1900	1248	0	1248		1826	1826	1826		1811
Adj Flow Rate, veh/h	13	0	1	9	0	40		71	762	9		30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		0.92	0.92	0.92		0.92
Percent Heavy Veh, %	0	0	0	44	0	44		5	5	5		6
Cap, veh/h	41	0	36	0	0	0		713	2651	31		651
Arrive On Green	0.02	0.00	0.02	0.00	0.00	0.00		0.06	0.75	0.75		0.07
Sat Flow, veh/h	1810	0	1610		0			1739	3512	41		1725
Grp Volume(v), veh/h	13	0	1		0.0			71	376	395		30
Grp Sat Flow(s),veh/h/ln	1810	0	1610					1739	1735	1818		1725
Q Serve(g_s), s	0.7	0.0	0.1					0.8	7.0	7.0		0.3
Cycle Q Clear(g_c), s	0.7	0.0	0.1					0.8	7.0	7.0		0.3
Prop In Lane	1.00		1.00					1.00		0.02		1.00
Lane Grp Cap(c), veh/h	41	0	36					713	1310	1373		651
V/C Ratio(X)	0.32	0.00	0.03					0.10	0.29	0.29		0.05
Avail Cap(c_a), veh/h	228	0	203					829	1310	1373		718
HCM Platoon Ratio	1.00	1.00	1.00					1.00	1.00	1.00		1.00
Upstream Filter(l)	1.00	0.00	1.00					1.00	1.00	1.00		1.00
Uniform Delay (d), s/veh	49.7	0.0	49.4					2.0	4.0	4.0		1.9
Incr Delay (d2), s/veh	1.7	0.0	0.1					0.0	0.6	0.5		0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0					0.0	0.0	0.0		0.0
%ile BackOfQ(95%),veh/ln	0.6	0.0	0.0					0.2	3.4	3.5		0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.4	0.0	49.5					2.0	4.5	4.5		1.9
LnGrp LOS	D	A	D					A	A	A		A
Approach Vol, veh/h		14							842			
Approach Delay, s/veh		51.3							4.3			
Approach LOS		D							A			
Timer - Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	12.0	84.0		7.3	11.1	84.9						
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0						
Max Green Setting (Gmax), s	11.0	78.0		13.0	13.0	76.0						
Max Q Clear Time (g_c+I1), s	2.3	9.0		2.7	2.8	7.5						
Green Ext Time (p_c), s	0.0	2.8		0.0	0.0	2.3						

Intersection Summary

HCM 6th Ctrl Delay	4.5
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
 5: W Airfield Dr & W 17th St (East)

08/08/2022



Movement	SBT	SBR
Lane Configurations	↑↑	
Traffic Volume (veh/h)	600	1
Future Volume (veh/h)	600	1
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	1811	1811
Adj Flow Rate, veh/h	652	1
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	6	6
Cap, veh/h	2693	4
Arrive On Green	0.76	0.76
Sat Flow, veh/h	3525	5
Grp Volume(v), veh/h	318	335
Grp Sat Flow(s),veh/h/ln	1721	1810
Q Serve(g_s), s	5.5	5.5
Cycle Q Clear(g_c), s	5.5	5.5
Prop In Lane		0.00
Lane Grp Cap(c), veh/h	1314	1383
V/C Ratio(X)	0.24	0.24
Avail Cap(c_a), veh/h	1314	1383
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	1.00	1.00
Uniform Delay (d), s/veh	3.5	3.5
Incr Delay (d2), s/veh	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.5	2.7
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	4.0	4.0
LnGrp LOS	A	A
Approach Vol, veh/h	683	
Approach Delay, s/veh	3.9	
Approach LOS	A	
Timer - Assigned Phs		

HCM 6th Signalized Intersection Summary
6: W Airfield Dr & W 19th St

08/08/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔		↔	↔		↔	↕		↔	↕	
Traffic Volume (veh/h)	1	0	2	97	0	64	21	681	41	79	573	32
Future Volume (veh/h)	1	0	2	97	0	64	21	681	41	79	573	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1796	1796	1796	1796	1796	1796	1796	1796	1796
Adj Flow Rate, veh/h	1	0	2	105	0	70	23	740	45	86	623	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	7	7	7	7	7	7	7	7	7
Cap, veh/h	301	0	153	438	0	269	406	1145	70	402	1304	73
Arrive On Green	0.00	0.00	0.09	0.08	0.00	0.18	0.03	0.35	0.35	0.07	0.40	0.40
Sat Flow, veh/h	1810	0	1610	1711	0	1522	1711	3268	199	1711	3285	184
Grp Volume(v), veh/h	1	0	2	105	0	70	23	386	399	86	323	335
Grp Sat Flow(s),veh/h/ln	1810	0	1610	1711	0	1522	1711	1706	1760	1711	1706	1763
Q Serve(g_s), s	0.0	0.0	0.0	2.2	0.0	1.7	0.4	8.1	8.2	1.3	6.0	6.1
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.2	0.0	1.7	0.4	8.1	8.2	1.3	6.0	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.10
Lane Grp Cap(c), veh/h	301	0	153	438	0	269	406	598	617	402	678	700
V/C Ratio(X)	0.00	0.00	0.01	0.24	0.00	0.26	0.06	0.65	0.65	0.21	0.48	0.48
Avail Cap(c_a), veh/h	592	0	338	815	0	498	638	1753	1808	673	1872	1935
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.5	0.0	17.6	14.2	0.0	15.2	8.6	11.7	11.7	8.3	9.6	9.6
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.4	0.4	0.1	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.0	1.3	0.0	0.9	0.2	3.9	4.0	0.5	2.7	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.5	0.0	17.6	14.3	0.0	15.4	8.6	12.1	12.1	8.4	9.8	9.8
LnGrp LOS	B	A	B	B	A	B	A	B	B	A	A	A
Approach Vol, veh/h		3			175			808			744	
Approach Delay, s/veh		17.5			14.7			12.0			9.6	
Approach LOS		B			B			B			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.2	19.0	7.6	9.1	5.2	21.0	4.1	12.6				
Change Period (Y+Rc), s	4.0	4.0	4.0	* 5	4.0	4.0	4.0	5.0				
Max Green Setting (Gmax), s	10.0	44.0	13.0	* 9	7.0	47.0	7.0	14.0				
Max Q Clear Time (g_c+I1), s	3.3	10.2	4.2	2.0	2.4	8.1	2.0	3.7				
Green Ext Time (p_c), s	0.0	1.3	0.0	0.0	0.0	1.1	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	11.3
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

7: W Airfield Dr & W 21st St

08/08/2022



Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Lane Configurations		↔	↕	↗		↔	↕	↗		↔		
Traffic Volume (veh/h)	1	27	552	13	1	0	683	29	1	0	1	42
Future Volume (veh/h)	1	27	552	13	1	0	683	29	1	0	1	42
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		1781	1781	1781		1811	1811	1811	1604	1604	1604	1796
Adj Flow Rate, veh/h		29	600	14		0	742	32	1	0	1	46
Peak Hour Factor		0.92	0.92	0.92		0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %		8	8	8		6	6	6	20	20	20	7
Cap, veh/h		93	2694	1202		2	2381	1062	96	14	57	206
Arrive On Green		0.05	0.80	0.80		0.00	0.69	0.69	0.10	0.00	0.10	0.10
Sat Flow, veh/h		1697	3385	1510		1725	3441	1535	452	146	598	1420
Grp Volume(v), veh/h		29	600	14		0	742	32	2	0	0	47
Grp Sat Flow(s),veh/h/ln		1697	1692	1510		1725	1721	1535	1195	0	0	1459
Q Serve(g_s), s		1.7	4.5	0.2		0.0	8.6	0.7	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s		1.7	4.5	0.2		0.0	8.6	0.7	2.6	0.0	0.0	2.6
Prop In Lane		1.00		1.00		1.00		1.00	0.50		0.50	0.98
Lane Grp Cap(c), veh/h		93	2694	1202		2	2381	1062	168	0	0	210
V/C Ratio(X)		0.31	0.22	0.01		0.00	0.31	0.03	0.01	0.00	0.00	0.22
Avail Cap(c_a), veh/h		867	2694	1202		119	2381	1062	168	0	0	213
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(l)		1.00	1.00	1.00		0.00	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh		46.2	2.6	2.1		0.0	6.2	4.9	41.6	0.0	0.0	42.8
Incr Delay (d2), s/veh		0.7	0.2	0.0		0.0	0.3	0.1	0.0	0.0	0.0	0.2
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln		1.3	1.6	0.1		0.0	4.6	0.3	0.1	0.0	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		46.9	2.8	2.2		0.0	6.5	5.0	41.7	0.0	0.0	43.0
LnGrp LOS		D	A	A		A	A	A	D	A	A	D
Approach Vol, veh/h			643				774			2		
Approach Delay, s/veh			4.7				6.4			41.7		
Approach LOS			A				A			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.6	76.4		14.8	0.0	87.0		14.8				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	52.0	36.0		7.0	7.0	81.0		10.0				
Max Q Clear Time (g_c+I1), s	3.7	10.6		4.6	0.0	6.5		7.4				
Green Ext Time (p_c), s	0.0	3.2		0.0	0.0	2.5		0.0				

Intersection Summary

HCM 6th Ctrl Delay	9.1
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary

7: W Airfield Dr & W 21st St

08/08/2022



Movement	SWT	SWR
Lane Configurations	↔	↔
Traffic Volume (veh/h)	1	77
Future Volume (veh/h)	1	77
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	1796	1796
Adj Flow Rate, veh/h	1	84
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	7	7
Cap, veh/h	4	146
Arrive On Green	0.10	0.10
Sat Flow, veh/h	39	1522
Grp Volume(v), veh/h	0	84
Grp Sat Flow(s),veh/h/ln	0	1522
Q Serve(g_s), s	0.0	5.4
Cycle Q Clear(g_c), s	0.0	5.4
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	0	146
V/C Ratio(X)	0.00	0.57
Avail Cap(c_a), veh/h	0	150
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	0.00	1.00
Uniform Delay (d), s/veh	0.0	44.0
Incr Delay (d2), s/veh	0.0	3.2
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	3.9
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	0.0	47.2
LnGrp LOS	A	D
Approach Vol, veh/h	131	
Approach Delay, s/veh	45.7	
Approach LOS	D	
Timer - Assigned Phs		

HCM 6th Signalized Intersection Summary

8: W Airfield Dr & W 23rd St

08/08/2022



Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations	W		↑↑	↑		↓	↑↑
Traffic Volume (veh/h)	19	19	853	93	1	54	395
Future Volume (veh/h)	19	19	853	93	1	54	395
Initial Q (Qb), veh	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00		1.00	
Parking Bus, Adj	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	1515	1515	1826	1826		1752	1752
Adj Flow Rate, veh/h	21	0	927	101		59	429
Peak Hour Factor	0.92	0.92	0.92	0.92		0.92	0.92
Percent Heavy Veh, %	26	26	5	5		10	10
Cap, veh/h	49		2224	992		499	2643
Arrive On Green	0.04	0.00	0.64	0.64		0.07	0.79
Sat Flow, veh/h	1380	0	3561	1547		1668	3416
Grp Volume(v), veh/h	22	0	927	101		59	429
Grp Sat Flow(s),veh/h/ln	1446	0	1735	1547		1668	1664
Q Serve(g_s), s	0.9	0.0	8.1	1.5		0.6	1.9
Cycle Q Clear(g_c), s	0.9	0.0	8.1	1.5		0.6	1.9
Prop In Lane	0.95	0.00		1.00		1.00	
Lane Grp Cap(c), veh/h	52		2224	992		499	2643
V/C Ratio(X)	0.43		0.42	0.10		0.12	0.16
Avail Cap(c_a), veh/h	187		2224	992		622	2643
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	29.1	0.0	5.4	4.3		3.0	1.5
Incr Delay (d2), s/veh	2.1	0.0	0.6	0.2		0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(95%),veh/ln	0.6	0.0	3.3	0.6		0.1	0.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	31.2	0.0	6.0	4.5		3.0	1.6
LnGrp LOS	C		A	A		A	A
Approach Vol, veh/h			1028				488
Approach Delay, s/veh	31.2		5.9				1.8
Approach LOS	C		A				A
Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	9.5	45.0				54.5	7.2
Change Period (Y+Rc), s	5.0	5.5				5.5	5.0
Max Green Setting (Gmax), s	9.0	35.0				49.0	8.0
Max Q Clear Time (g_c+I1), s	2.6	10.1				3.9	2.9
Green Ext Time (p_c), s	0.0	5.5				2.2	0.0

Intersection Summary

HCM 6th Ctrl Delay			4.9				
HCM 6th LOS			A				

Notes

User approved volume balancing among the lanes for turning movement.

User approved ignoring U-Turning movement.

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

HCM 6th Signalized Intersection Summary

9: W Airfield Dr & E Glade Rd

08/08/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	289	227	57	681	269	109
Future Volume (veh/h)	289	227	57	681	269	109
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	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	1885	1885	1811	1811	1752	1752
Adj Flow Rate, veh/h	314	0	62	740	292	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	6	6	10	10
Cap, veh/h	358		716	2276	1785	
Arrive On Green	0.20	0.00	0.06	0.66	0.54	0.00
Sat Flow, veh/h	1795	1598	1725	3532	3416	1485
Grp Volume(v), veh/h	314	0	62	740	292	0
Grp Sat Flow(s),veh/h/ln	1795	1598	1725	1721	1664	1485
Q Serve(g_s), s	14.0	0.0	1.2	7.6	3.7	0.0
Cycle Q Clear(g_c), s	14.0	0.0	1.2	7.6	3.7	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	358		716	2276	1785	
V/C Ratio(X)	0.88		0.09	0.33	0.16	
Avail Cap(c_a), veh/h	1100		835	2276	1785	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.0	0.0	6.2	6.0	9.7	0.0
Incr Delay (d2), s/veh	2.8	0.0	0.0	0.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	10.1	0.0	0.6	3.8	2.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.8	0.0	6.2	6.4	9.9	0.0
LnGrp LOS	C		A	A	A	
Approach Vol, veh/h	314			802	292	
Approach Delay, s/veh	34.8			6.4	9.9	
Approach LOS	C			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.5		21.9	10.3	50.2
Change Period (Y+Rc), s		6.0		5.5	5.0	6.0
Max Green Setting (Gmax), s		54.5		50.5	11.0	38.5
Max Q Clear Time (g_c+I1), s		9.6		16.0	3.2	5.7
Green Ext Time (p_c), s		2.4		0.4	0.0	0.8

Intersection Summary

HCM 6th Ctrl Delay	13.5
HCM 6th LOS	B

Notes

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

HCM 6th TWSC
4: W Airfield Dr & W 17th St (West)

08/08/2022

Intersection													
Int Delay, s/veh	3.3												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	56	2	89	0	1	12	1	33	707	5	10	594	6
Future Vol, veh/h	56	2	89	0	1	12	1	33	707	5	10	594	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	130	-	-	125	-	-
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, %	21	21	21	43	43	43	8	8	8	8	6	6	6
Mvmt Flow	61	2	97	0	1	13	1	36	768	5	11	646	7
Major/Minor	Minor2		Minor1			Major1				Major2			
Conflicting Flow All	1131	1519	327	1191	1520	387	652	653	0	0	773	0	0
Stage 1	672	672	-	845	845	-	-	-	-	-	-	-	-
Stage 2	459	847	-	346	675	-	-	-	-	-	-	-	-
Critical Hdwy	7.92	6.92	7.32	8.36	7.36	7.76	6.56	4.26	-	-	4.22	-	-
Critical Hdwy Stg 1	6.92	5.92	-	7.36	6.36	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.92	5.92	-	7.36	6.36	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.71	4.21	3.51	3.93	4.43	3.73	2.58	2.28	-	-	2.26	-	-
Pot Cap-1 Maneuver	136	99	616	103	80	509	532	890	-	-	812	-	-
Stage 1	370	409	-	249	294	-	-	-	-	-	-	-	-
Stage 2	504	335	-	542	363	-	-	-	-	-	-	-	-
Platoon blocked, %									-	-		-	-
Mov Cap-1 Maneuver	126	93	616	82	76	509	866	866	-	-	812	-	-
Mov Cap-2 Maneuver	126	93	-	82	76	-	-	-	-	-	-	-	-
Stage 1	354	403	-	238	281	-	-	-	-	-	-	-	-
Stage 2	468	321	-	448	358	-	-	-	-	-	-	-	-
Approach	EB		WB			NB				SB			
HCM Control Delay, s	30.1		15.6			0.4				0.2			
HCM LOS	D		C										
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	866	-	-	126	548	354	812	-	-				
HCM Lane V/C Ratio	0.043	-	-	0.483	0.18	0.04	0.013	-	-				
HCM Control Delay (s)	9.3	-	-	57.8	13	15.6	9.5	-	-				
HCM Lane LOS	A	-	-	F	B	C	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	2.2	0.7	0.1	0	-	-				

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	14	728	12	0	670
Future Vol, veh/h	0	14	728	12	0	670
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	7	0	0	7
Mvmt Flow	0	15	791	13	0	728

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	402	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-
Pot Cap-1 Maneuver	0	604	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	604	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	604
HCM Lane V/C Ratio	-	-	0.025
HCM Control Delay (s)	-	-	11.1
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.1

Intersection

Int Delay, s/veh 1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↗	↑↓		↙	↑↑
Traffic Vol, veh/h	17	14	729	13	19	653
Future Vol, veh/h	17	14	729	13	19	653
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	240	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	100	100	7	100	100	7
Mvmt Flow	18	15	792	14	21	710

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1196	403	0	0	806
Stage 1	799	-	-	-	-
Stage 2	397	-	-	-	-
Critical Hdwy	8.8	8.9	-	-	6.1
Critical Hdwy Stg 1	7.8	-	-	-	-
Critical Hdwy Stg 2	7.8	-	-	-	-
Follow-up Hdwy	4.5	4.3	-	-	3.2
Pot Cap-1 Maneuver	83	389	-	-	402
Stage 1	224	-	-	-	-
Stage 2	429	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	79	389	-	-	402
Mov Cap-2 Maneuver	79	-	-	-	-
Stage 1	224	-	-	-	-
Stage 2	407	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	41.7	0	0.4
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	79	389	402	-
HCM Lane V/C Ratio	-	-	0.234	0.039	0.051	-
HCM Control Delay (s)	-	-	64	14.6	14.4	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	0.8	0.1	0.2	-

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↕↕		↕↕	
Traffic Vol, veh/h	102	18	0	144	17	0
Future Vol, veh/h	102	18	0	144	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	0	0	7	0	0
Mvmt Flow	111	20	0	157	18	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	131	0	200
Stage 1	-	-	-	-	121
Stage 2	-	-	-	-	79
Critical Hdwy	-	-	4.1	-	6.6
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.8
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1467	-	784
Stage 1	-	-	-	-	909
Stage 2	-	-	-	-	941
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1467	-	784
Mov Cap-2 Maneuver	-	-	-	-	784
Stage 1	-	-	-	-	909
Stage 2	-	-	-	-	941

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	784	-	-	1467	-
HCM Lane V/C Ratio	0.024	-	-	-	-
HCM Control Delay (s)	9.7	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	2.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	22	20	0	22	20	0
Future Vol, veh/h	22	20	0	22	20	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	0	0	7	0	0
Mvmt Flow	24	22	0	24	22	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	46	0	59
Stage 1	-	-	-	-	35
Stage 2	-	-	-	-	24
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1575	-	953
Stage 1	-	-	-	-	993
Stage 2	-	-	-	-	1004
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1575	-	953
Mov Cap-2 Maneuver	-	-	-	-	953
Stage 1	-	-	-	-	993
Stage 2	-	-	-	-	1004

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	953	-	-	1575	-
HCM Lane V/C Ratio	0.023	-	-	-	-
HCM Control Delay (s)	8.9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	2.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	11	11	0	11	11	0
Future Vol, veh/h	11	11	0	11	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	100	100	7	100	100
Mvmt Flow	12	12	0	12	12	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	24	0	30
Stage 1	-	-	-	-	18
Stage 2	-	-	-	-	12
Critical Hdwy	-	-	5.1	-	7.4
Critical Hdwy Stg 1	-	-	-	-	6.4
Critical Hdwy Stg 2	-	-	-	-	6.4
Follow-up Hdwy	-	-	3.1	-	4.4
Pot Cap-1 Maneuver	-	-	1134	-	783
Stage 1	-	-	-	-	801
Stage 2	-	-	-	-	807
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1134	-	783
Mov Cap-2 Maneuver	-	-	-	-	783
Stage 1	-	-	-	-	801
Stage 2	-	-	-	-	807

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	783	-	-	1134	-
HCM Lane V/C Ratio	0.015	-	-	-	-
HCM Control Delay (s)	9.7	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	4.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	11	0	0	11	0
Future Vol, veh/h	0	11	0	0	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	100	100	7	100	100
Mvmt Flow	0	12	0	0	12	0

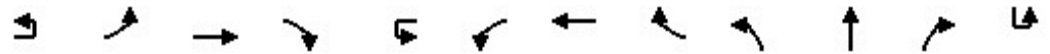
Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	12	0	7
Stage 1	-	-	-	-	6
Stage 2	-	-	-	-	1
Critical Hdwy	-	-	5.1	-	7.4
Critical Hdwy Stg 1	-	-	-	-	6.4
Critical Hdwy Stg 2	-	-	-	-	6.4
Follow-up Hdwy	-	-	3.1	-	4.4
Pot Cap-1 Maneuver	-	-	1148	-	810
Stage 1	-	-	-	-	812
Stage 2	-	-	-	-	817
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1148	-	810
Mov Cap-2 Maneuver	-	-	-	-	810
Stage 1	-	-	-	-	812
Stage 2	-	-	-	-	817

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	810	-	-	1148	-
HCM Lane V/C Ratio	0.015	-	-	-	-
HCM Control Delay (s)	9.5	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Lanes, Volumes, Timings
1: S Main St & Mustang Dr

08/08/2022



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Lane Configurations		↔	↕	↗		↔	↕	↗	↔	↕		
Traffic Volume (vph)	1	190	140	16	2	5	624	350	45	67	4	1
Future Volume (vph)	1	190	140	16	2	5	624	350	45	67	4	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		135		180		195		155	0		60	
Storage Lanes		1		1		1		1	1		2	
Taper Length (ft)		100				100			0			
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	0.95	1.00
Frt				0.850				0.850		0.992		
Flt Protected		0.950				0.950			0.950			
Satd. Flow (prot)	0	1752	3505	1568	0	1770	3539	1583	1612	3197	0	0
Flt Permitted		0.243				0.656			0.701			
Satd. Flow (perm)	0	448	3505	1568	0	1222	3539	1583	1189	3197	0	0
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				133				354		4		
Link Speed (mph)			45				45			30		
Link Distance (ft)			931				1341			732		
Travel Time (s)			14.1				20.3			16.6		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	3%	3%	3%	2%	2%	2%	2%	12%	12%	12%	4%
Adj. Flow (vph)	1	207	152	17	2	5	678	380	49	73	4	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	208	152	17	0	7	678	380	49	77	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	R NA
Median Width(ft)			15				16			28		
Link Offset(ft)			0				0			0		
Crosswalk Width(ft)			16				16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	9	15		9	15		9	9
Number of Detectors	0	1	2	1	1	1	2	1	1	2		1
Detector Template		Left	Thru	Right	Left	Left	Thru	Right	Left	Thru		Left
Leading Detector (ft)	0	20	100	20	20	20	100	20	20	100		20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0		0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0		0
Detector 1 Size(ft)	0	20	6	20	20	20	6	20	20	6		20
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Detector 2 Position(ft)			94				94			94		
Detector 2 Size(ft)			6				6			6		
Detector 2 Type			Cl+Ex				Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0				0.0			0.0		
Turn Type	Prot	pm+pt	NA	Perm	Prot	pm+pt	NA	Perm	pm+pt	NA		Prot
Protected Phases	5	5	2		1	1	6		3	8		7

Lanes, Volumes, Timings
1: S Main St & Mustang Dr

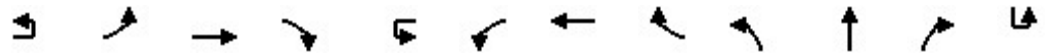
08/08/2022



Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	156	80	505
Future Volume (vph)	156	80	505
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	105		0
Storage Lanes	1		1
Taper Length (ft)	100		
Lane Util. Factor	1.00	1.00	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	1736	1827	1553
Flt Permitted	0.529		
Satd. Flow (perm)	966	1827	1553
Right Turn on Red			Yes
Satd. Flow (RTOR)			355
Link Speed (mph)		35	
Link Distance (ft)		695	
Travel Time (s)		13.5	
Peak Hour Factor	0.92	0.92	0.92
Heavy Vehicles (%)	4%	4%	4%
Adj. Flow (vph)	170	87	549
Shared Lane Traffic (%)			
Lane Group Flow (vph)	171	87	549
Enter Blocked Intersection	No	No	No
Lane Alignment	Left	Left	Right
Median Width(ft)		18	
Link Offset(ft)		0	
Crosswalk Width(ft)		16	
Two way Left Turn Lane			
Headway Factor	1.00	1.00	1.00
Turning Speed (mph)	15		9
Number of Detectors	1	2	1
Detector Template	Left	Thru	Right
Leading Detector (ft)	20	100	20
Trailing Detector (ft)	0	0	0
Detector 1 Position(ft)	0	0	0
Detector 1 Size(ft)	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel			
Detector 1 Extend (s)	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0
Detector 2 Position(ft)		94	
Detector 2 Size(ft)		6	
Detector 2 Type		Cl+Ex	
Detector 2 Channel			
Detector 2 Extend (s)		0.0	
Turn Type	pm+pt	NA	Perm
Protected Phases	7	4	

Lanes, Volumes, Timings
1: S Main St & Mustang Dr

08/08/2022

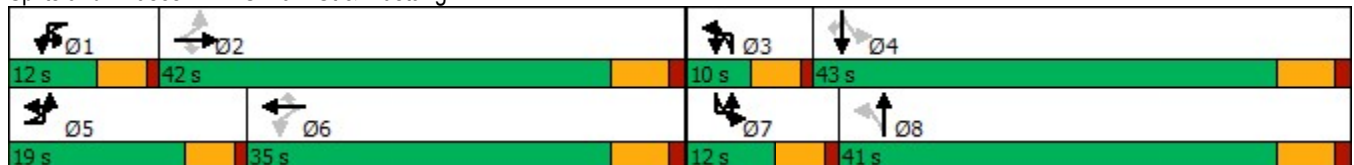


Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Permitted Phases		2		2		6		6	8			
Detector Phase	5	5	2	2	1	1	6	6	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	10.0	10.0	7.0	7.0	10.0	10.0	5.0	10.0		7.0
Minimum Split (s)	12.0	12.0	16.0	16.0	12.0	12.0	16.0	16.0	10.0	16.0		12.0
Total Split (s)	19.0	19.0	42.0	42.0	12.0	12.0	35.0	35.0	10.0	41.0		12.0
Total Split (%)	17.8%	17.8%	39.3%	39.3%	11.2%	11.2%	32.7%	32.7%	9.3%	38.3%		11.2%
Maximum Green (s)	14.0	14.0	36.0	36.0	7.0	7.0	29.0	29.0	5.0	35.0		7.0
Yellow Time (s)	4.0	4.0	4.5	4.5	4.0	4.0	4.5	4.5	4.0	4.5		4.0
All-Red Time (s)	1.0	1.0	1.5	1.5	1.0	1.0	1.5	1.5	1.0	1.5		1.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)		5.0	6.0	6.0		5.0	6.0	6.0	5.0	6.0		
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	2.5	2.5	1.0	1.0	2.5	2.5	1.0	1.0	2.5	1.0		2.5
Recall Mode	None	None	Max	Max	None	None	None	None	None	None		None
Walk Time (s)							7.0	7.0				
Flash Dont Walk (s)							11.0	11.0				
Pedestrian Calls (#/hr)							0	0				
Act Effct Green (s)		41.4	38.6	38.6		32.8	24.4	24.4	20.3	17.0		
Actuated g/C Ratio		0.52	0.49	0.49		0.41	0.31	0.31	0.26	0.21		
v/c Ratio		0.51	0.09	0.02		0.01	0.62	0.52	0.15	0.11		
Control Delay		17.6	15.5	0.1		14.2	29.3	7.2	17.9	24.6		
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total Delay		17.6	15.5	0.1		14.2	29.3	7.2	17.9	24.6		
LOS		B	B	A		B	C	A	B	C		
Approach Delay			15.9				21.3			22.0		
Approach LOS			B				C			C		

Intersection Summary

Area Type: Other
 Cycle Length: 107
 Actuated Cycle Length: 79.2
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 20.6
 Intersection LOS: C
 Intersection Capacity Utilization 81.6%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 1: S Main St & Mustang Dr



Lanes, Volumes, Timings
 1: S Main St & Mustang Dr

08/08/2022



Lane Group	SBL	SBT	SBR
Permitted Phases	4		4
Detector Phase	7	4	4
Switch Phase			
Minimum Initial (s)	7.0	10.0	10.0
Minimum Split (s)	12.0	16.0	16.0
Total Split (s)	12.0	43.0	43.0
Total Split (%)	11.2%	40.2%	40.2%
Maximum Green (s)	7.0	37.0	37.0
Yellow Time (s)	4.0	4.5	4.5
All-Red Time (s)	1.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	2.5	1.0	1.0
Recall Mode	None	None	None
Walk Time (s)			
Flash Dont Walk (s)			
Pedestrian Calls (#/hr)			
Act Effct Green (s)	25.7	20.8	20.8
Actuated g/C Ratio	0.32	0.26	0.26
v/c Ratio	0.43	0.18	0.82
Control Delay	22.0	24.6	21.1
Queue Delay	0.0	0.0	0.0
Total Delay	22.0	24.6	21.1
LOS	C	C	C
Approach Delay		21.7	
Approach LOS		C	
Intersection Summary			

Lanes, Volumes, Timings
 2: W Airfield Dr & Mustang Dr/N Airfield Dr

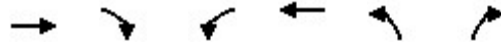
08/08/2022



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↔	↑↑	↔	↔
Traffic Volume (vph)	132	178	673	525	309	391
Future Volume (vph)	132	178	673	525	309	391
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	375		0	300
Storage Lanes		0	1		2	1
Taper Length (ft)			100		0	
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	1.00
Frt	0.914					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3113	0	1671	3343	3213	1482
Flt Permitted			0.387		0.950	
Satd. Flow (perm)	3113	0	681	3343	3213	1482
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	193					425
Link Speed (mph)	45			45	45	
Link Distance (ft)	1036			1355	845	
Travel Time (s)	15.7			20.5	12.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	6%	8%	8%	9%	9%
Adj. Flow (vph)	143	193	732	571	336	425
Shared Lane Traffic (%)						
Lane Group Flow (vph)	336	0	732	571	336	425
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			24	60	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2		1	2	1	1
Detector Template	Thru		Left	Thru	Left	Right
Leading Detector (ft)	100		20	100	20	20
Trailing Detector (ft)	0		0	0	0	0
Detector 1 Position(ft)	0		0	0	0	0
Detector 1 Size(ft)	6		20	6	20	20
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA		pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	

Lanes, Volumes, Timings
 2: W Airfield Dr & Mustang Dr/N Airfield Dr

08/08/2022



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases			6			8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	10.0		7.0	10.0	7.0	7.0
Minimum Split (s)	16.0		12.0	16.0	13.0	13.0
Total Split (s)	19.0		59.0	78.0	29.0	29.0
Total Split (%)	17.8%		55.1%	72.9%	27.1%	27.1%
Maximum Green (s)	13.0		54.0	72.0	23.0	23.0
Yellow Time (s)	4.5		4.0	4.5	4.5	4.5
All-Red Time (s)	1.5		1.0	1.5	1.5	1.5
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0		5.0	6.0	6.0	6.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?						
Vehicle Extension (s)	1.0		2.5	1.0	1.5	1.5
Recall Mode	Max		None	None	None	None
Act Effct Green (s)	13.7		51.4	50.3	12.4	12.4
Actuated g/C Ratio	0.18		0.68	0.67	0.16	0.16
v/c Ratio	0.47		0.84	0.26	0.63	0.71
Control Delay	17.0		18.3	5.4	37.3	11.1
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	17.0		18.3	5.4	37.3	11.1
LOS	B		B	A	D	B
Approach Delay	17.0			12.7	22.7	
Approach LOS	B			B	C	

Intersection Summary
























Area Type:	Other
Cycle Length:	107
Actuated Cycle Length:	75.4
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	16.4
Intersection LOS:	B
Intersection Capacity Utilization:	85.0%
ICU Level of Service:	E
Analysis Period (min):	15

Splits and Phases: 2: W Airfield Dr & Mustang Dr/N Airfield Dr



Lanes, Volumes, Timings
3: N Airfield Dr & Texan Trail

08/08/2022

													
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT	
Lane Configurations													
Traffic Volume (vph)	119	28	516	9	11	9	346	127	10	1	5	741	
Future Volume (vph)	119	28	516	9	11	9	346	127	10	1	5	741	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	215		0	0		0	295		295		280		
Storage Lanes	1		1	0		0	2		1		2		
Taper Length (ft)	100			0			100				65		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.97	0.95	1.00	0.95	0.97	0.95	
Frt			0.850		0.958				0.850				
Flt Protected	0.950	0.970			0.985		0.950				0.950		
Satd. Flow (prot)	1545	1577	1455	0	1775	0	3155	3252	1455	0	3335	3438	
Flt Permitted	0.950	0.970			0.985		0.950						
Satd. Flow (perm)	1545	1577	1455	0	1775	0	3155	3252	1455	0	3510	3438	
Right Turn on Red			Yes			Yes			Yes				
Satd. Flow (RTOR)			459		10				130				
Link Speed (mph)		45			25			45				45	
Link Distance (ft)		611			324			1173				1060	
Travel Time (s)		9.3			8.8			17.8				16.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	11%	11%	11%	1%	1%	1%	11%	11%	11%	5%	5%	5%	
Adj. Flow (vph)	129	30	561	10	12	10	376	138	11	1	5	805	
Shared Lane Traffic (%)	39%												
Lane Group Flow (vph)	79	80	561	0	32	0	376	138	11	0	6	805	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left	
Median Width(ft)		38			24			58				38	
Link Offset(ft)		0			0			0				0	
Crosswalk Width(ft)		16			16			16				16	
Two way Left Turn Lane													
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15		9	15		9	15		9	9	15		
Number of Detectors	1	2	1	1	2		1	2	1	0	1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100	20	0	20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0	0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6	20	0	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94				94	
Detector 2 Size(ft)		6			6			6				6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex	
Detector 2 Channel													
Detector 2 Extend (s)		0.0			0.0			0.0				0.0	
Turn Type	Split	NA	Perm	Split	NA		Prot	NA	Perm	custom	Prot	NA	
Protected Phases	4	4		8	8		5	2			1	6	

Lanes, Volumes, Timings
 3: N Airfield Dr & Texan Trail














08/08/2022



Lane Group	SWR
Lane Configurations	
Traffic Volume (vph)	125
Future Volume (vph)	125
Ideal Flow (vphpl)	1900
Storage Length (ft)	280
Storage Lanes	2
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1538
Flt Permitted	
Satd. Flow (perm)	1538
Right Turn on Red	Yes
Satd. Flow (RTOR)	140
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Heavy Vehicles (%)	5%
Adj. Flow (vph)	136
Shared Lane Traffic (%)	
Lane Group Flow (vph)	136
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	

Lanes, Volumes, Timings
3: N Airfield Dr & Texan Trail

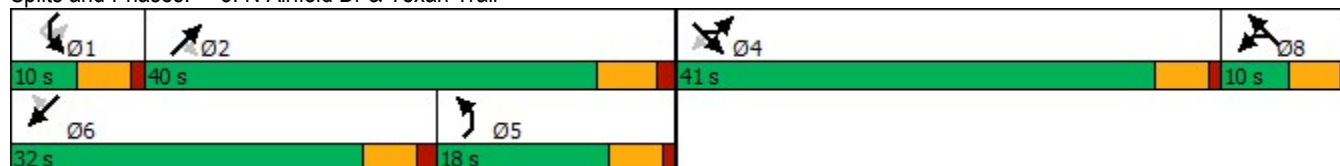
08/08/2022

													
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT	
Permitted Phases			4						2	1			
Detector Phase	4	4	4	8	8		5	2	2	1	1	6	
Switch Phase													
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		10.0	5.0	5.0	5.0	5.0	7.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0		15.0	11.0	11.0	10.0	10.0	12.5	
Total Split (s)	41.0	41.0	41.0	10.0	10.0		18.0	40.0	40.0	10.0	10.0	32.0	
Total Split (%)	40.6%	40.6%	40.6%	9.9%	9.9%		17.8%	39.6%	39.6%	9.9%	9.9%	31.7%	
Maximum Green (s)	36.0	36.0	36.0	5.0	5.0		13.0	34.0	34.0	5.0	5.0	26.5	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.5	4.5	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.5	1.5	1.0	1.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0		5.0		5.0	6.0	6.0		5.0	5.5	
Lead/Lag	Lead	Lead	Lead	Lag	Lag		Lag	Lag	Lag	Lead	Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	2.0	
Recall Mode	None	None	None	None	None		None	Min	Min	None	None	Min	
Act Effct Green (s)	12.6	12.6	12.6		5.5		12.8	37.7	37.7		5.5	21.4	
Actuated g/C Ratio	0.19	0.19	0.19		0.08		0.19	0.57	0.57		0.08	0.32	
v/c Ratio	0.27	0.27	0.87		0.21		0.62	0.08	0.01		0.02	0.73	
Control Delay	26.5	26.5	20.9		33.9		35.0	11.9	0.0		39.3	27.3	
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0	0.0		0.0	0.0	
Total Delay	26.5	26.5	20.9		33.9		35.0	11.9	0.0		39.3	27.3	
LOS	C	C	C		C		D	B	A		D	C	
Approach Delay		22.2			33.9			28.2				24.3	
Approach LOS		C			C			C				C	

Intersection Summary

Area Type:	Other
Cycle Length:	101
Actuated Cycle Length:	66.7
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.87
Intersection Signal Delay:	24.7
Intersection LOS:	C
Intersection Capacity Utilization:	69.5%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 3: N Airfield Dr & Texan Trail
























Lane Group	SWR
Permitted Phases	6
Detector Phase	6
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	12.5
Total Split (s)	32.0
Total Split (%)	31.7%
Maximum Green (s)	26.5
Yellow Time (s)	4.0
All-Red Time (s)	1.5
Lost Time Adjust (s)	0.0
Total Lost Time (s)	5.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.0
Recall Mode	Min
Act Effct Green (s)	21.4
Actuated g/C Ratio	0.32
v/c Ratio	0.23
Control Delay	5.8
Queue Delay	0.0
Total Delay	5.8
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings
4: W Airfield Dr & W 17th St (West)

08/08/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	6	1	107	4	1	9	1	27	669	3	4	907
Future Volume (vph)	6	1	107	4	1	9	1	27	669	3	4	907
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0		130		0	125	
Storage Lanes	1		0	0		0		1		0	1	
Taper Length (ft)	0			0				75			75	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95
Frt		0.851			0.910				0.999			0.999
Flt Protected	0.950				0.987			0.950			0.950	
Satd. Flow (prot)	1570	1406	0	0	1422	0	0	1656	3309	0	1656	3309
Flt Permitted	0.950				0.987			0.950			0.950	
Satd. Flow (perm)	1570	1406	0	0	1422	0	0	1656	3309	0	1656	3309
Link Speed (mph)		30			30				45			45
Link Distance (ft)		939			233				604			311
Travel Time (s)		21.3			5.3				9.2			4.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	15%	15%	15%	20%	20%	20%	9%	9%	9%	9%	9%	9%
Adj. Flow (vph)	7	1	116	4	1	10	1	29	727	3	4	986
Shared Lane Traffic (%)												
Lane Group Flow (vph)	7	117	0	0	15	0	0	30	730	0	4	995
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	Left	Left
Median Width(ft)		12			0				38			38
Link Offset(ft)		0			0				0			0
Crosswalk Width(ft)		16			16				16			16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	15	
Sign Control		Stop			Stop				Free			Free
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	38.7%						ICU Level of Service A					
Analysis Period (min)	15											

Lanes, Volumes, Timings
 4: W Airfield Dr & W 17th St (West)























08/08/2022



Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	8
Future Volume (vph)	8
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	0.95
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Heavy Vehicles (%)	9%
Adj. Flow (vph)	9
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Sign Control	
Intersection Summary	

Lanes, Volumes, Timings
5: W Airfield Dr & W 17th St (East)

08/08/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	0	5	24	0	43	1	672	11	37	890	1
Future Volume (vph)	9	0	5	24	0	43	1	672	11	37	890	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		165	130		0	325		0
Storage Lanes	0		1	1		1	1		0	1		0
Taper Length (ft)	0			0			75			65		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.998				
Flt Protected		0.950		0.950			0.950			0.950		
Satd. Flow (prot)	0	1805	1615	1271	0	1137	1671	3336	0	1641	3282	0
Flt Permitted		0.950		0.950			0.289			0.340		
Satd. Flow (perm)	0	1805	1615	1271	0	1137	508	3336	0	587	3282	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			101			101		2				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		141			907			311			666	
Travel Time (s)		3.2			20.6			4.7			10.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	42%	42%	42%	8%	8%	8%	10%	10%	10%
Adj. Flow (vph)	10	0	5	26	0	47	1	730	12	40	967	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	10	5	26	0	47	1	742	0	40	968	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		18			12			38			38	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1		1	1	2		1	2	
Detector Template	Left	Thru	Right	Left		Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20		20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0		0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0		0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20		20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Split	NA	Perm	Prot		Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8			5	2		1	6	

Lanes, Volumes, Timings
5: W Airfield Dr & W 17th St (East)

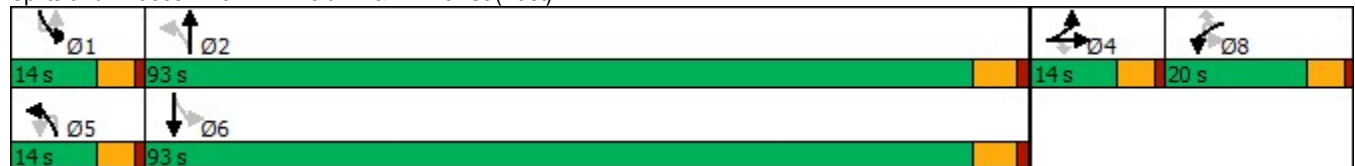
08/08/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8		8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0		7.0	7.0	20.0		7.0	20.0	
Minimum Split (s)	12.0	12.0	12.0	12.0		12.0	12.0	26.0		12.0	26.0	
Total Split (s)	14.0	14.0	14.0	20.0		20.0	14.0	93.0		14.0	93.0	
Total Split (%)	9.9%	9.9%	9.9%	14.2%		14.2%	9.9%	66.0%		9.9%	66.0%	
Maximum Green (s)	9.0	9.0	9.0	15.0		15.0	9.0	87.0		9.0	87.0	
Yellow Time (s)	4.0	4.0	4.0	4.0		4.0	4.0	4.5		4.0	4.5	
All-Red Time (s)	1.0	1.0	1.0	1.0		1.0	1.0	1.5		1.0	1.5	
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0	5.0		5.0	5.0	6.0		5.0	6.0	
Lead/Lag	Lead	Lead	Lead	Lag		Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0		2.0	1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None		None	None	Max		None	Max	
Act Effct Green (s)		7.0	7.0	8.0		8.0	97.3	92.2		100.3	99.4	
Actuated g/C Ratio		0.06	0.06	0.07		0.07	0.80	0.76		0.83	0.82	
v/c Ratio		0.10	0.03	0.31		0.28	0.00	0.29		0.07	0.36	
Control Delay		60.3	0.2	66.7		4.1	4.0	7.0		3.5	5.3	
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Total Delay		60.3	0.2	66.7		4.1	4.0	7.0		3.5	5.3	
LOS		E	A	E		A	A	A		A	A	
Approach Delay		40.3			26.4			7.0			5.2	
Approach LOS		D			C			A			A	

Intersection Summary

Area Type:	Other
Cycle Length:	141
Actuated Cycle Length:	121
Natural Cycle:	65
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.36
Intersection Signal Delay:	7.1
Intersection LOS:	A
Intersection Capacity Utilization:	53.9%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 5: W Airfield Dr & W 17th St (East)



Lanes, Volumes, Timings
6: W Airfield Dr & W 19th St

08/08/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	0	48	89	0	48	6	602	164	154	862	3
Future Volume (vph)	50	0	48	89	0	48	6	602	164	154	862	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	205		0	215		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	0			0			50			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.850			0.850			0.968				
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1615	0	1687	1509	0	1687	3266	0	1671	3343	0
Flt Permitted							0.298			0.233		
Satd. Flow (perm)	1900	1615	0	1776	1509	0	529	3266	0	410	3343	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		264			395			51			1	
Link Speed (mph)		25			35			45			45	
Link Distance (ft)		172			213			437			604	
Travel Time (s)		4.7			4.1			6.6			9.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	7%	7%	7%	7%	7%	7%	8%	8%	8%
Adj. Flow (vph)	54	0	52	97	0	52	7	654	178	167	937	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	52	0	97	52	0	7	832	0	167	940	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			38			38	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	

Lanes, Volumes, Timings
6: W Airfield Dr & W 19th St

08/08/2022

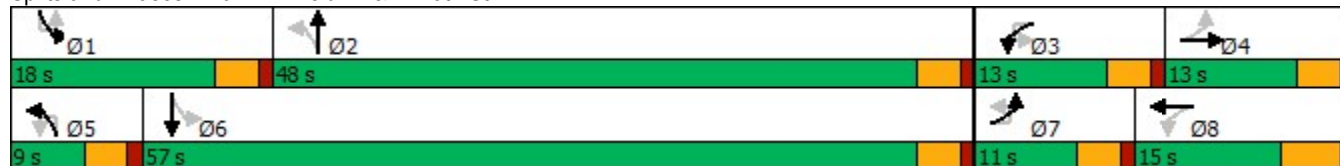


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	9.0	11.0		9.0	12.0		9.0	19.0		9.0	19.0	
Total Split (s)	11.0	13.0		13.0	15.0		9.0	48.0		18.0	57.0	
Total Split (%)	12.0%	14.1%		14.1%	16.3%		9.8%	52.2%		19.6%	62.0%	
Maximum Green (s)	7.0	9.0		9.0	10.0		5.0	44.0		14.0	53.0	
Yellow Time (s)	3.0	3.0		3.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		4.0	5.0		4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	9.4	7.8		10.6	7.9		26.9	23.9		31.4	32.5	
Actuated g/C Ratio	0.20	0.17		0.23	0.17		0.58	0.51		0.67	0.70	
v/c Ratio	0.15	0.11		0.25	0.09		0.02	0.49		0.37	0.40	
Control Delay	15.5	0.4		16.3	0.3		6.5	13.4		8.3	8.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.5	0.4		16.3	0.3		6.5	13.4		8.3	8.7	
LOS	B	A		B	A		A	B		A	A	
Approach Delay		8.1			10.7			13.3			8.6	
Approach LOS		A			B			B			A	

Intersection Summary

Area Type:	Other
Cycle Length:	92
Actuated Cycle Length:	46.7
Natural Cycle:	55
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.49
Intersection Signal Delay:	10.5
Intersection LOS:	B
Intersection Capacity Utilization:	52.8%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 6: W Airfield Dr & W 19th St



Lanes, Volumes, Timings
7: W Airfield Dr & W 21st St

08/08/2022



Lane Group	SEU	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT
Lane Configurations		↔	↕↕	↗	↔	↕↕	↗		↕↕			↗
Traffic Volume (vph)	1	15	942	1	0	694	11	14	0	2	16	0
Future Volume (vph)	1	15	942	1	0	694	11	14	0	2	16	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		190		275	175		125	0		0	0	
Storage Lanes		1		1	1		1	0		0	0	
Taper Length (ft)		100			50			0			0	
Lane Util. Factor	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850			0.850		0.984			
Flt Protected		0.950							0.958			0.950
Satd. Flow (prot)	0	1671	3343	1495	1759	3343	1495	0	1756	0	0	1687
Flt Permitted		0.323										0.746
Satd. Flow (perm)	0	568	3343	1495	1759	3343	1495	0	1833	0	0	1325
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)				104			147		156			
Link Speed (mph)			45			45			25			30
Link Distance (ft)			498			712			197			674
Travel Time (s)			7.5			10.8			5.4			15.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	8%	8%	8%	8%	8%	8%	2%	2%	2%	7%	7%
Adj. Flow (vph)	1	16	1024	1	0	754	12	15	0	2	17	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	17	1024	1	0	754	12	0	17	0	0	17
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)			65			40			17			32
Link Offset(ft)			0			0			0			0
Crosswalk Width(ft)			16			16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	15		9	15		9	15	
Number of Detectors	1	1	2	1	1	2	1	1	2		1	2
Detector Template	Left	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru
Leading Detector (ft)	20	20	100	20	20	100	20	20	100		20	100
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0		0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0		0	0
Detector 1 Size(ft)	20	20	6	20	20	6	20	20	6		20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			94			94			94			94
Detector 2 Size(ft)			6			6			6			6
Detector 2 Type			Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0			0.0			0.0
Turn Type	custom	Prot	NA	Perm	Prot	NA	Perm	Perm	NA		Perm	NA
Protected Phases		1	6		5	2			4			8

Lanes, Volumes, Timings
7: W Airfield Dr & W 21st St

08/08/2022



Lane Group	SWR
Lane Configurations	7
Traffic Volume (vph)	25
Future Volume (vph)	25
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1509
Flt Permitted	
Satd. Flow (perm)	1509
Right Turn on Red	Yes
Satd. Flow (RTOR)	156
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Heavy Vehicles (%)	7%
Adj. Flow (vph)	27
Shared Lane Traffic (%)	
Lane Group Flow (vph)	27
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	

Lanes, Volumes, Timings
7: W Airfield Dr & W 21st St

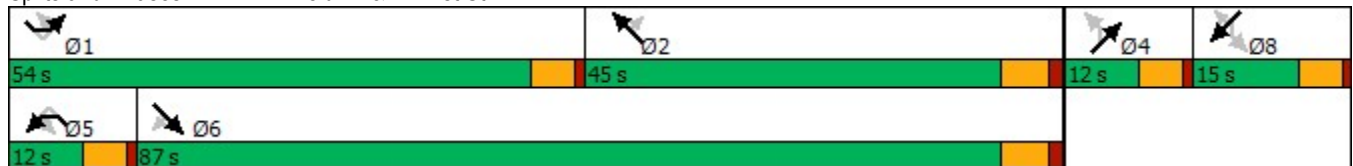
08/08/2022

Lane Group	SEU	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT
Permitted Phases	1			6			2	4			8	
Detector Phase	1	1	6	6	5	2	2	4	4		8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0	15.0	15.0	7.0	15.0	15.0	7.0	7.0		10.0	10.0
Minimum Split (s)	15.0	15.0	21.0	21.0	12.0	21.0	21.0	12.0	12.0		15.0	15.0
Total Split (s)	54.0	54.0	87.0	87.0	12.0	45.0	45.0	12.0	12.0		15.0	15.0
Total Split (%)	42.9%	42.9%	69.0%	69.0%	9.5%	35.7%	35.7%	9.5%	9.5%		11.9%	11.9%
Maximum Green (s)	49.0	49.0	81.0	81.0	7.0	39.0	39.0	7.0	7.0		10.0	10.0
Yellow Time (s)	4.0	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.5	1.5	1.0	1.5	1.5	1.0	1.0		1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0
Total Lost Time (s)		5.0	6.0	6.0	5.0	6.0	6.0		5.0			5.0
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead		Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	1.5	1.5	2.0	2.0	1.5	2.0	2.0	1.0	1.0		1.0	1.0
Recall Mode	None	None	Max	Max	None	Max	Max	None	None		None	None
Act Effct Green (s)		20.0	89.9	89.9		75.6	75.6		7.0			10.1
Actuated g/C Ratio		0.19	0.84	0.84		0.71	0.71		0.07			0.09
v/c Ratio		0.16	0.36	0.00		0.32	0.01		0.06			0.14
Control Delay		35.1	4.4	0.0		15.7	0.0		0.4			50.2
Queue Delay		0.0	0.0	0.0		0.0	0.0		0.0			0.0
Total Delay		35.1	4.4	0.0		15.7	0.0		0.4			50.2
LOS		D	A	A		B	A		A			D
Approach Delay			4.9			15.4			0.4			19.8
Approach LOS			A			B			A			B

Intersection Summary

Area Type:	Other
Cycle Length:	126
Actuated Cycle Length:	106.4
Natural Cycle:	65
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.36
Intersection Signal Delay:	9.5
Intersection LOS:	A
Intersection Capacity Utilization:	53.5%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 7: W Airfield Dr & W 21st St





Lane Group	SWR
Permitted Phases	8
Detector Phase	8
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	15.0
Total Split (s)	15.0
Total Split (%)	11.9%
Maximum Green (s)	10.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	5.0
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	1.0
Recall Mode	None
Act Effct Green (s)	10.1
Actuated g/C Ratio	0.09
v/c Ratio	0.10
Control Delay	0.7
Queue Delay	0.0
Total Delay	0.7
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings
8: W Airfield Dr & W 23rd St

08/08/2022



Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	63	70	487	36	1	41	1057
Future Volume (vph)	63	70	487	36	1	41	1057
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0		150	
Storage Lanes	1	0		1		1	
Taper Length (ft)	0					50	
Lane Util. Factor	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt	0.929			0.850			
Flt Protected	0.977					0.950	
Satd. Flow (prot)	1437	0	3312	1482	0	1687	3374
Flt Permitted	0.977					0.405	
Satd. Flow (perm)	1437	0	3312	1482	0	719	3374
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)	76			39			
Link Speed (mph)	25		45				45
Link Distance (ft)	1307		627				530
Travel Time (s)	35.6		9.5				8.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	20%	20%	9%	9%	7%	7%	7%
Adj. Flow (vph)	68	76	529	39	1	45	1149
Shared Lane Traffic (%)							
Lane Group Flow (vph)	144	0	529	39	0	46	1149
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	R NA	Left	Left
Median Width(ft)	12		18				28
Link Offset(ft)	0		0				0
Crosswalk Width(ft)	16		16				16
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	9	15	
Number of Detectors	1		2	1	1	1	2
Detector Template	Left		Thru	Right	Left	Left	Thru
Leading Detector (ft)	20		100	20	20	20	100
Trailing Detector (ft)	0		0	0	0	0	0
Detector 1 Position(ft)	0		0	0	0	0	0
Detector 1 Size(ft)	20		6	20	20	20	6
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel							
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94				94
Detector 2 Size(ft)			6				6
Detector 2 Type			Cl+Ex				Cl+Ex
Detector 2 Channel							
Detector 2 Extend (s)			0.0				0.0
Turn Type	Prot		NA	Perm	custom	pm+pt	NA
Protected Phases	8		2			1	6

Lanes, Volumes, Timings
8: W Airfield Dr & W 23rd St

08/08/2022

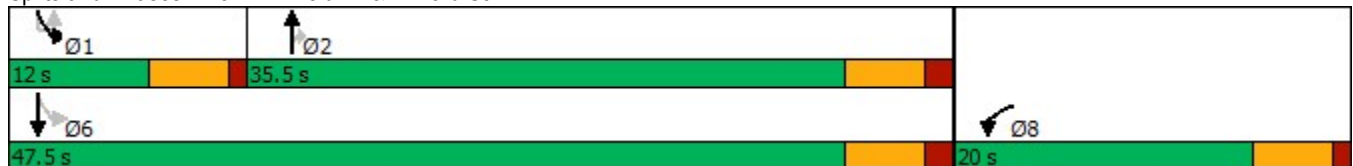


Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Permitted Phases				2	1	6	
Detector Phase	8		2	2	1	1	6
Switch Phase							
Minimum Initial (s)	7.0		15.0	15.0	7.0	7.0	15.0
Minimum Split (s)	12.0		20.5	20.5	12.0	12.0	20.5
Total Split (s)	20.0		35.5	35.5	12.0	12.0	47.5
Total Split (%)	29.6%		52.6%	52.6%	17.8%	17.8%	70.4%
Maximum Green (s)	15.0		30.0	30.0	7.0	7.0	42.0
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		1.5	1.5	1.0	1.0	1.5
Lost Time Adjust (s)	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0		5.5	5.5		5.0	5.5
Lead/Lag			Lag	Lag	Lead	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0		2.5	2.5	2.0	2.0	2.5
Recall Mode	None		Max	Max	None	None	Max
Act Effct Green (s)	8.7		41.4	41.4		45.5	46.1
Actuated g/C Ratio	0.14		0.67	0.67		0.74	0.75
v/c Ratio	0.54		0.24	0.04		0.07	0.46
Control Delay	20.7		7.2	3.8		3.7	5.1
Queue Delay	0.0		0.0	0.0		0.0	0.0
Total Delay	20.7		7.2	3.8		3.7	5.1
LOS	C		A	A		A	A
Approach Delay	20.7		7.0				5.1
Approach LOS	C		A				A

Intersection Summary

Area Type:	Other
Cycle Length:	67.5
Actuated Cycle Length:	61.8
Natural Cycle:	45
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.54
Intersection Signal Delay:	6.8
Intersection LOS:	A
Intersection Capacity Utilization:	45.8%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 8: W Airfield Dr & W 23rd St



Lanes, Volumes, Timings
9: W Airfield Dr & E Glade Rd

08/08/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	96	103	197	380	848	349
Future Volume (vph)	96	103	197	380	848	349
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	300	210			200
Storage Lanes	1	1	1			1
Taper Length (ft)	0		100			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1805	1615	1703	3406	3505	1568
Flt Permitted	0.950		0.262			
Satd. Flow (perm)	1805	1615	470	3406	3505	1568
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		112				379
Link Speed (mph)	35			45	45	
Link Distance (ft)	1218			1121	367	
Travel Time (s)	23.7			17.0	5.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	6%	6%	3%	3%
Adj. Flow (vph)	104	112	214	413	922	379
Shared Lane Traffic (%)						
Lane Group Flow (vph)	104	112	214	413	922	379
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			15	13	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (ft)	20	20	20	100	100	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	20	6	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)				94	94	
Detector 2 Size(ft)				6	6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	Prot	pm+pt	NA	NA	Perm
Protected Phases	4	4	5	2	6	

Lanes, Volumes, Timings
 9: W Airfield Dr & E Glade Rd

08/08/2022

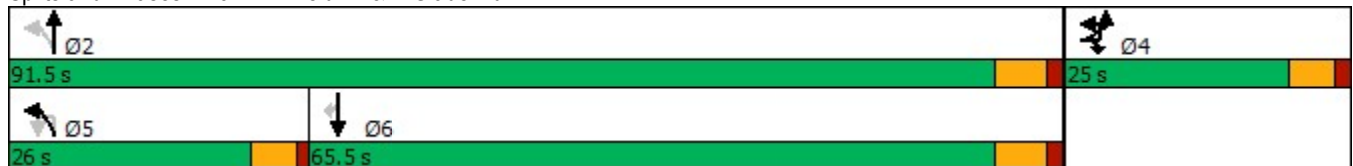


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Permitted Phases			2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	2.0	20.0	20.0
Minimum Split (s)	12.5	12.5	12.0	26.0	26.0	26.0
Total Split (s)	25.0	25.0	26.0	91.5	65.5	65.5
Total Split (%)	21.5%	21.5%	22.3%	78.5%	56.2%	56.2%
Maximum Green (s)	19.5	19.5	21.0	85.5	59.5	59.5
Yellow Time (s)	4.0	4.0	4.0	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.0	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	2.0	2.0	1.5	1.5	1.5	1.5
Recall Mode	None	None	None	Max	Max	Max
Act Effct Green (s)	10.7	10.7	86.6	85.6	72.8	72.8
Actuated g/C Ratio	0.10	0.10	0.80	0.79	0.68	0.68
v/c Ratio	0.58	0.43	0.46	0.15	0.39	0.32
Control Delay	59.5	13.7	6.0	3.0	8.7	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.5	13.7	6.0	3.0	8.7	1.6
LOS	E	B	A	A	A	A
Approach Delay	35.8			4.0	6.6	
Approach LOS	D			A	A	

Intersection Summary

Area Type:	Other
Cycle Length:	116.5
Actuated Cycle Length:	107.8
Natural Cycle:	55
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.58
Intersection Signal Delay:	8.8
Intersection LOS:	A
Intersection Capacity Utilization:	54.5%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 9: W Airfield Dr & E Glade Rd



Lanes, Volumes, Timings
 10: W Airfield Dr & Bldg 1 Drwy 1

08/08/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕↗			↕↕
Traffic Volume (vph)	0	10	770	29	0	995
Future Volume (vph)	0	10	770	29	0	995
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.865	0.994			
Flt Protected						
Satd. Flow (prot)	0	1644	3362	0	0	3374
Flt Permitted						
Satd. Flow (perm)	0	1644	3362	0	0	3374
Link Speed (mph)	30		30			30
Link Distance (ft)	330		438			340
Travel Time (s)	7.5		10.0			7.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	7%	0%	7%	7%
Adj. Flow (vph)	0	11	837	32	0	1082
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	11	869	0	0	1082
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		26			26
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60		60	60	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	32.2%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings
 11: W Airfield Dr & Bldg 1 Drwy 2

08/08/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	4	768	12	10	989
Future Volume (vph)	6	4	768	12	10	989
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	240	
Storage Lanes	1	1		0	1	
Taper Length (ft)	100				50	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.998			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	902	808	3323	0	902	3374
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	902	808	3323	0	902	3374
Link Speed (mph)	30		30			30
Link Distance (ft)	303		340			437
Travel Time (s)	6.9		7.7			9.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	100%	100%	7%	100%	100%	7%
Adj. Flow (vph)	7	4	835	13	11	1075
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	4	848	0	11	1075
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		26			38
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60		60	60	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	37.3%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
 12: Bldg 1 Drwy 3 & W 19th St

08/08/2022



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	294	24	0	122	15	0
Future Volume (vph)	294	24	0	122	15	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			50		100	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt	0.990					
Flt Protected					0.950	
Satd. Flow (prot)	1767	0	0	3374	1805	0
Flt Permitted					0.950	
Satd. Flow (perm)	1767	0	0	3374	1805	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	213			1110	223	
Travel Time (s)	4.8			25.2	5.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	0%	0%	7%	0%	0%
Adj. Flow (vph)	320	26	0	133	16	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	346	0	0	133	16	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	26.9%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings
 13: Bldg 2 Drwy 4 & W 19th St

08/08/2022



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	15	35	0	8	16	0
Future Volume (vph)	15	35	0	8	16	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr t	0.905					
Flt Protected					0.950	
Satd. Flow (prot)	1685	0	0	1776	1805	0
Flt Permitted					0.950	
Satd. Flow (perm)	1685	0	0	1776	1805	0
Link Speed (mph)	30			30		
Link Distance (ft)	350			160 312		
Travel Time (s)	8.0			3.6 7.1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	0%	0%	7%	0%	0%
Adj. Flow (vph)	16	38	0	9	17	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	54	0	0	9	17	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0 12		
Link Offset(ft)	0			0 0		
Crosswalk Width(ft)	16			16 16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		60		60 60	
Sign Control	Free			Free Stop		

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	13.3% ICU Level of Service A
Analysis Period (min)	15

Lanes, Volumes, Timings
 14: Bldg 2 Drwy 5 & W 19th St

08/08/2022



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	7	8	0	4	4	0
Future Volume (vph)	7	8	0	4	4	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.929					
Fl _t Protected					0.950	
Satd. Flow (prot)	1130	0	0	1776	902	0
Fl _t Permitted					0.950	
Satd. Flow (perm)	1130	0	0	1776	902	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	160			360	307	
Travel Time (s)	3.6			8.2	7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	100%	100%	7%	100%	100%
Adj. Flow (vph)	8	9	0	4	4	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	17	0	0	4	4	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		60	60		60
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	13.3%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
 15: Bldg 2 Drwy 6 & W 19th St

08/08/2022



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	7	0	0	4	0
Future Volume (vph)	0	7	0	0	4	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.865					
Fl _t Protected					0.950	
Satd. Flow (prot)	822	0	0	1776	902	0
Fl _t Permitted					0.950	
Satd. Flow (perm)	822	0	0	1776	902	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	360			842	307	
Travel Time (s)	8.2			19.1	7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	100%	100%	7%	100%	100%
Adj. Flow (vph)	0	8	0	0	4	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	8	0	0	0	4	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		60	60		60
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	13.3%
Analysis Period (min)	15
	ICU Level of Service A

HCM 6th Signalized Intersection Summary

1: S Main St & Mustang Dr

08/08/2022



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Lane Configurations		↔	↕	↗		↔	↕	↗	↔	↕		
Traffic Volume (veh/h)	1	190	140	16	2	5	624	350	45	67	4	1
Future Volume (veh/h)	1	190	140	16	2	5	624	350	45	67	4	1
Initial Q (Qb), veh		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	
Parking Bus, Adj		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		1856	1856	1856		1870	1870	1870	1722	1722	1722	
Adj Flow Rate, veh/h		207	152	0		5	678	0	49	73	4	
Peak Hour Factor		0.92	0.92	0.92		0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %		3	3	3		2	2	2	12	12	12	
Cap, veh/h		321	1261			414	938		396	1089	59	
Arrive On Green		0.10	0.36	0.00		0.01	0.26	0.00	0.05	0.35	0.35	
Sat Flow, veh/h		1767	3526	1572		1781	3554	1585	1640	3156	172	
Grp Volume(v), veh/h		207	152	0		5	678	0	49	38	39	
Grp Sat Flow(s),veh/h/ln		1767	1763	1572		1781	1777	1585	1640	1636	1691	
Q Serve(g_s), s		8.2	2.9	0.0		0.2	17.5	0.0	1.9	1.5	1.6	
Cycle Q Clear(g_c), s		8.2	2.9	0.0		0.2	17.5	0.0	1.9	1.5	1.6	
Prop In Lane		1.00		1.00		1.00		1.00	1.00		0.10	
Lane Grp Cap(c), veh/h		321	1261			414	938		396	565	584	
V/C Ratio(X)		0.64	0.12			0.01	0.72		0.12	0.07	0.07	
Avail Cap(c_a), veh/h		386	1261			522	1024		396	569	588	
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)		1.00	1.00	0.00		1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh		24.0	21.7	0.0		26.7	33.7	0.0	19.0	22.1	22.1	
Incr Delay (d2), s/veh		2.2	0.2	0.0		0.0	1.9	0.0	0.1	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	
%ile BackOfQ(95%),veh/ln		6.1	2.1	0.0		0.2	11.8	0.0	1.3	1.1	1.1	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		26.3	21.9	0.0		26.7	35.5	0.0	19.1	22.1	22.1	
LnGrp LOS		C	C			C	D		B	C	C	
Approach Vol, veh/h			359				683			126		
Approach Delay, s/veh			24.4				35.5			20.9		
Approach LOS			C				D			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.9	42.0	10.0	42.7	15.3	32.6	12.0	40.7				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green Setting (Gmax), s	7.0	36.0	5.0	37.0	14.0	29.0	7.0	35.0				
Max Q Clear Time (g_c+I1), s	2.2	4.9	3.9	36.7	10.2	19.5	8.3	3.6				
Green Ext Time (p_c), s	0.0	0.3	0.0	0.0	0.1	1.2	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	37.3
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

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

HCM 6th Signalized Intersection Summary

1: S Main St & Mustang Dr

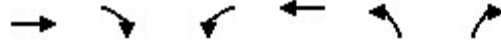
08/08/2022



Movement	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (veh/h)	156	80	505
Future Volume (veh/h)	156	80	505
Initial Q (Qb), veh	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00
Work Zone On Approach		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841
Adj Flow Rate, veh/h	170	87	549
Peak Hour Factor	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4
Cap, veh/h	622	672	569
Arrive On Green	0.07	0.37	0.37
Sat Flow, veh/h	1753	1841	1560
Grp Volume(v), veh/h	170	87	549
Grp Sat Flow(s),veh/h/ln	1753	1841	1560
Q Serve(g_s), s	6.3	3.2	34.7
Cycle Q Clear(g_c), s	6.3	3.2	34.7
Prop In Lane	1.00		1.00
Lane Grp Cap(c), veh/h	622	672	569
V/C Ratio(X)	0.27	0.13	0.96
Avail Cap(c_a), veh/h	622	677	573
HCM Platoon Ratio	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.1	21.3	31.3
Incr Delay (d2), s/veh	0.2	0.0	28.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.5	2.4	23.8
Unsig. Movement Delay, s/veh			
LnGrp Delay(d),s/veh	19.3	21.3	59.7
LnGrp LOS	B	C	E
Approach Vol, veh/h		806	
Approach Delay, s/veh		47.0	
Approach LOS		D	
Timer - Assigned Phs			

HCM 6th Signalized Intersection Summary
 2: W Airfield Dr & Mustang Dr/N Airfield Dr

08/08/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵↵	↵
Traffic Volume (veh/h)	132	178	673	525	309	391
Future Volume (veh/h)	132	178	673	525	309	391
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	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	1811	1811	1781	1781	1767	1767
Adj Flow Rate, veh/h	143	0	732	571	336	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	6	6	8	8	9	9
Cap, veh/h	750		949	2238	450	
Arrive On Green	0.22	0.00	0.36	0.66	0.14	0.00
Sat Flow, veh/h	3622	0	1697	3474	3264	1497
Grp Volume(v), veh/h	143	0	732	571	336	0
Grp Sat Flow(s),veh/h/ln	1721	0	1697	1692	1632	1497
Q Serve(g_s), s	2.0	0.0	17.6	4.1	5.9	0.0
Cycle Q Clear(g_c), s	2.0	0.0	17.6	4.1	5.9	0.0
Prop In Lane		0.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	750		949	2238	450	
V/C Ratio(X)	0.19		0.77	0.26	0.75	
Avail Cap(c_a), veh/h	750		1874	4084	1258	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.0	0.0	8.3	4.1	24.7	0.0
Incr Delay (d2), s/veh	0.6	0.0	1.0	0.0	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.4	0.0	7.1	1.3	3.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.6	0.0	9.3	4.1	25.7	0.0
LnGrp LOS	B		A	A	C	
Approach Vol, veh/h	143			1303	336	
Approach Delay, s/veh	19.6			7.1	25.7	
Approach LOS	B			A	C	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	26.5	19.0			45.5	14.2
Change Period (Y+Rc), s	5.0	6.0			6.0	6.0
Max Green Setting (Gmax), s	54.0	13.0			72.0	23.0
Max Q Clear Time (g_c+I1), s	19.6	4.0			6.1	7.9
Green Ext Time (p_c), s	1.8	0.2			1.2	0.3

Intersection Summary

HCM 6th Ctrl Delay	11.6
HCM 6th LOS	B






















Notes

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

HCM 6th Signalized Intersection Summary

3: N Airfield Dr & Texan Trail

08/08/2022

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT
Lane Configurations												
Traffic Volume (veh/h)	119	28	516	9	11	9	346	127	10	1	5	741
Future Volume (veh/h)	119	28	516	9	11	9	346	127	10	1	5	741
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1737	1737	1737	1885	1885	1885	1737	1737	1737		1826	1826
Adj Flow Rate, veh/h	80	99	561	10	12	10	376	138	11		5	805
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		0.92	0.92
Percent Heavy Veh, %	11	11	11	1	1	1	11	11	11		5	5
Cap, veh/h	605	635	538	16	20	16	424	1271	567		22	883
Arrive On Green	0.37	0.37	0.37	0.03	0.03	0.03	0.13	0.39	0.39		0.01	0.25
Sat Flow, veh/h	1654	1737	1472	550	660	550	3209	3300	1472		3374	3469
Grp Volume(v), veh/h	80	99	561	32	0	0	376	138	11		5	805
Grp Sat Flow(s),veh/h/ln	1654	1737	1472	1759	0	0	1605	1650	1472		1687	1735
Q Serve(g_s), s	3.2	3.8	36.0	1.8	0.0	0.0	11.3	2.6	0.5		0.1	22.2
Cycle Q Clear(g_c), s	3.2	3.8	36.0	1.8	0.0	0.0	11.3	2.6	0.5		0.1	22.2
Prop In Lane	1.00		1.00	0.31		0.31	1.00		1.00		1.00	
Lane Grp Cap(c), veh/h	605	635	538	52	0	0	424	1271	567		22	883
V/C Ratio(X)	0.13	0.16	1.04	0.61	0.00	0.00	0.89	0.11	0.02		0.23	0.91
Avail Cap(c_a), veh/h	605	635	538	89	0	0	424	1271	567		171	934
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	20.8	21.0	31.2	47.2	0.0	0.0	42.0	19.4	18.8		48.7	35.6
Incr Delay (d2), s/veh	0.0	0.0	50.3	4.3	0.0	0.0	19.3	0.0	0.0		1.9	12.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	2.6	28.1	1.5	0.0	0.0	9.3	1.7	0.3		0.1	15.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.9	21.1	81.6	51.5	0.0	0.0	61.3	19.4	18.8		50.6	47.7
LnGrp LOS	C	C	F	D	A	A	E	B	B		D	D
Approach Vol, veh/h		740			32			525				810
Approach Delay, s/veh		66.9			51.5			49.4				47.7
Approach LOS		E			D			D				D
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	43.9		41.0	19.0	30.6		7.9				
Change Period (Y+Rc), s	5.0	6.0		5.0	6.0	* 5.5		5.0				
Max Green Setting (Gmax), s	5.0	34.0		36.0	13.0	* 27		5.0				
Max Q Clear Time (g_c+I1), s	2.1	4.6		38.0	13.3	24.2		3.8				
Green Ext Time (p_c), s	0.0	0.3		0.0	0.0	0.9		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			54.9									
HCM 6th LOS			D									
Notes												
User approved volume balancing among the lanes for turning movement.												
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
 3: N Airfield Dr & Texan Trail

08/08/2022



Movement	SWR
Lane Configurations	
Traffic Volume (veh/h)	125
Future Volume (veh/h)	125
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1826
Adj Flow Rate, veh/h	0
Peak Hour Factor	0.92
Percent Heavy Veh, %	5
Cap, veh/h	
Arrive On Green	0.00
Sat Flow, veh/h	1547
Grp Volume(v), veh/h	0
Grp Sat Flow(s),veh/h/ln	1547
Q Serve(g_s), s	0.0
Cycle Q Clear(g_c), s	0.0
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	
V/C Ratio(X)	
Avail Cap(c_a), veh/h	
HCM Platoon Ratio	1.00
Upstream Filter(l)	0.00
Uniform Delay (d), s/veh	0.0
Incr Delay (d2), s/veh	0.0
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	0.0
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	0.0
LnGrp LOS	
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	
Unsignalized Delay for [SWR] is excluded from calculations of the approach delay and intersection delay.	

HCM 6th Signalized Intersection Summary
 5: W Airfield Dr & W 17th St (East)

08/08/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗	↘		↖	↘	↕		↘	↕	
Traffic Volume (veh/h)	9	0	5	24	0	43	1	672	11	37	890	1
Future Volume (veh/h)	9	0	5	24	0	43	1	672	11	37	890	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1278	0	1278	1781	1781	1781	1752	1752	1752
Adj Flow Rate, veh/h	10	0	5	26	0	47	1	730	12	40	967	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	42	0	42	8	8	8	10	10	10
Cap, veh/h	42	0	37	0	0	0	491	2632	43	645	2841	3
Arrive On Green	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.77	0.77	0.06	0.83	0.83
Sat Flow, veh/h	1810	0	1610		0		1697	3408	56	1668	3412	4
Grp Volume(v), veh/h	10	0	5		0.0		1	362	380	40	472	496
Grp Sat Flow(s),veh/h/ln	1810	0	1610				1697	1692	1771	1668	1664	1751
Q Serve(g_s), s	0.6	0.0	0.3				0.0	7.0	7.0	0.4	7.5	7.5
Cycle Q Clear(g_c), s	0.6	0.0	0.3				0.0	7.0	7.0	0.4	7.5	7.5
Prop In Lane	1.00		1.00				1.00		0.03	1.00		0.00
Lane Grp Cap(c), veh/h	42	0	37				491	1307	1368	645	1386	1458
V/C Ratio(X)	0.24	0.00	0.13				0.00	0.28	0.28	0.06	0.34	0.34
Avail Cap(c_a), veh/h	145	0	129				623	1307	1368	675	1386	1458
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.0	0.0	53.9				2.9	3.7	3.7	1.6	2.2	2.2
Incr Delay (d2), s/veh	1.1	0.0	0.6				0.0	0.5	0.5	0.0	0.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.5	0.0	0.3				0.0	3.3	3.4	0.1	2.4	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.1	0.0	54.5				2.9	4.2	4.2	1.7	2.9	2.8
LnGrp LOS	E	A	D				A	A	A	A	A	A
Approach Vol, veh/h		15						743			1008	
Approach Delay, s/veh		54.9						4.2			2.8	
Approach LOS		D						A			A	
Timer - Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	12.0	93.0		7.6	5.2	99.8						
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0						
Max Green Setting (Gmax), s	9.0	87.0		9.0	9.0	87.0						
Max Q Clear Time (g_c+I1), s	2.4	9.0		2.6	2.0	9.5						
Green Ext Time (p_c), s	0.0	2.7		0.0	0.0	3.8						
Intersection Summary												
HCM 6th Ctrl Delay			3.8									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
 6: W Airfield Dr & W 19th St

08/08/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔		↔	↔		↔	↕		↔	↕	
Traffic Volume (veh/h)	50	0	48	89	0	48	6	602	164	154	862	3
Future Volume (veh/h)	50	0	48	89	0	48	6	602	164	154	862	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1796	1796	1796	1796	1796	1796	1781	1781	1781
Adj Flow Rate, veh/h	54	0	52	97	0	52	7	654	178	167	937	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	7	7	7	7	7	7	8	8	8
Cap, veh/h	426	0	212	422	0	236	283	864	235	385	1427	5
Arrive On Green	0.05	0.00	0.13	0.08	0.00	0.15	0.01	0.33	0.33	0.10	0.41	0.41
Sat Flow, veh/h	1810	0	1610	1711	0	1522	1711	2652	721	1697	3461	11
Grp Volume(v), veh/h	54	0	52	97	0	52	7	421	411	167	458	482
Grp Sat Flow(s),veh/h/ln	1810	0	1610	1711	0	1522	1711	1706	1666	1697	1692	1779
Q Serve(g_s), s	1.2	0.0	1.3	2.2	0.0	1.4	0.1	10.2	10.2	2.7	10.0	10.0
Cycle Q Clear(g_c), s	1.2	0.0	1.3	2.2	0.0	1.4	0.1	10.2	10.2	2.7	10.0	10.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.43	1.00		0.01
Lane Grp Cap(c), veh/h	426	0	212	422	0	236	283	556	543	385	698	734
V/C Ratio(X)	0.13	0.00	0.24	0.23	0.00	0.22	0.02	0.76	0.76	0.43	0.66	0.66
Avail Cap(c_a), veh/h	603	0	315	625	0	331	453	1631	1593	738	1948	2049
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.7	0.0	17.9	15.3	0.0	17.0	10.6	13.9	13.9	9.5	10.9	10.9
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.1	0.0	0.2	0.0	0.8	0.8	0.3	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.8	0.0	0.8	1.3	0.0	0.8	0.1	5.3	5.2	1.1	4.6	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.8	0.0	18.1	15.4	0.0	17.2	10.6	14.7	14.7	9.8	11.3	11.3
LnGrp LOS	B	A	B	B	A	B	B	B	B	A	B	B
Approach Vol, veh/h		106			149			839			1107	
Approach Delay, s/veh		16.9			16.0			14.7			11.1	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	19.0	7.6	11.1	4.4	23.0	6.5	12.1				
Change Period (Y+Rc), s	4.0	4.0	4.0	* 5	4.0	4.0	4.0	5.0				
Max Green Setting (Gmax), s	14.0	44.0	9.0	* 9	5.0	53.0	7.0	10.0				
Max Q Clear Time (g_c+I1), s	4.7	12.2	4.2	3.3	2.1	12.0	3.2	3.4				
Green Ext Time (p_c), s	0.0	1.5	0.0	0.0	0.0	1.7	0.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay				13.1								
HCM 6th LOS				B								

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

7: W Airfield Dr & W 21st St

08/08/2022



Movement	SEU	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT
Lane Configurations		↔	↕	↗	↔	↕	↗		↕			↖
Traffic Volume (veh/h)	1	15	942	1	0	694	11	14	0	2	16	0
Future Volume (veh/h)	1	15	942	1	0	694	11	14	0	2	16	0
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No			No			No			No
Adj Sat Flow, veh/h/ln		1781	1781	1781	1781	1781	1781	1870	1870	1870	1796	1796
Adj Flow Rate, veh/h		16	1024	1	0	754	12	15	0	2	17	0
Peak Hour Factor		0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %		8	8	8	8	8	8	2	2	2	7	7
Cap, veh/h		61	2737	1221	2	2447	1091	157	4	13	189	0
Arrive On Green		0.04	0.81	0.81	0.00	0.72	0.72	0.08	0.00	0.08	0.08	0.00
Sat Flow, veh/h		1697	3385	1510	1697	3385	1510	1099	53	154	1433	0
Grp Volume(v), veh/h		16	1024	1	0	754	12	17	0	0	17	0
Grp Sat Flow(s),veh/h/ln		1697	1692	1510	1697	1692	1510	1305	0	0	1433	0
Q Serve(g_s), s		0.9	8.3	0.0	0.0	8.0	0.2	0.8	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s		0.9	8.3	0.0	0.0	8.0	0.2	1.7	0.0	0.0	0.9	0.0
Prop In Lane		1.00		1.00	1.00		1.00	0.88		0.12	1.00	
Lane Grp Cap(c), veh/h		61	2737	1221	2	2447	1091	174	0	0	189	0
V/C Ratio(X)		0.26	0.37	0.00	0.00	0.31	0.01	0.10	0.00	0.00	0.09	0.00
Avail Cap(c_a), veh/h		830	2737	1221	119	2447	1091	174	0	0	214	0
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)		1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh		47.0	2.6	1.8	0.0	4.9	3.9	43.1	0.0	0.0	42.7	0.0
Incr Delay (d2), s/veh		0.8	0.4	0.0	0.0	0.3	0.0	0.1	0.0	0.0	0.1	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	0.0
%ile BackOfQ(95%),veh/ln		0.7	2.6	0.0	0.0	3.8	0.1	0.7	0.0	0.0	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh		47.8	3.0	1.8	0.0	5.3	3.9	43.2	0.0	0.0	42.7	0.0
LnGrp LOS		D	A	A	A	A	A	D	A	A	D	A
Approach Vol, veh/h			1041			766			17			44
Approach Delay, s/veh			3.7			5.3			43.2			43.1
Approach LOS			A			A			D			D
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.6	78.4		13.2	0.0	87.0		13.2				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	49.0	39.0		7.0	7.0	81.0		10.0				
Max Q Clear Time (g_c+I1), s	2.9	10.0		3.7	0.0	10.3		3.7				
Green Ext Time (p_c), s	0.0	3.2		0.0	0.0	5.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	5.6
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary

7: W Airfield Dr & W 21st St

08/08/2022



Movement	SWR
Lane Configurations	7
Traffic Volume (veh/h)	25
Future Volume (veh/h)	25
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1796
Adj Flow Rate, veh/h	27
Peak Hour Factor	0.92
Percent Heavy Veh, %	7
Cap, veh/h	124
Arrive On Green	0.08
Sat Flow, veh/h	1522
Grp Volume(v), veh/h	27
Grp Sat Flow(s),veh/h/ln	1522
Q Serve(g_s), s	1.7
Cycle Q Clear(g_c), s	1.7
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	124
V/C Ratio(X)	0.22
Avail Cap(c_a), veh/h	152
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	43.0
Incr Delay (d2), s/veh	0.3
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	1.1
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	43.3
LnGrp LOS	D
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

HCM 6th Signalized Intersection Summary

8: W Airfield Dr & W 23rd St

08/08/2022



Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations	W		↑↑	↑		↓	↑↑
Traffic Volume (veh/h)	63	70	487	36	1	41	1057
Future Volume (veh/h)	63	70	487	36	1	41	1057
Initial Q (Qb), veh	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00		1.00	
Parking Bus, Adj	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	1604	1604	1767	1767		1796	1796
Adj Flow Rate, veh/h	68	0	529	39		45	1149
Peak Hour Factor	0.92	0.92	0.92	0.92		0.92	0.92
Percent Heavy Veh, %	20	20	9	9		7	7
Cap, veh/h	123		1963	876		644	2508
Arrive On Green	0.08	0.00	0.58	0.58		0.06	0.73
Sat Flow, veh/h	1506	0	3445	1497		1711	3503
Grp Volume(v), veh/h	69	0	529	39		45	1149
Grp Sat Flow(s),veh/h/ln	1528	0	1678	1497		1711	1706
Q Serve(g_s), s	2.5	0.0	4.4	0.6		0.5	7.7
Cycle Q Clear(g_c), s	2.5	0.0	4.4	0.6		0.5	7.7
Prop In Lane	0.99	0.00		1.00		1.00	
Lane Grp Cap(c), veh/h	125		1963	876		644	2508
V/C Ratio(X)	0.55		0.27	0.04		0.07	0.46
Avail Cap(c_a), veh/h	401		1963	876		746	2508
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	25.3	0.0	5.8	5.1		3.3	3.0
Incr Delay (d2), s/veh	1.4	0.0	0.3	0.1		0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	0.0	1.9	0.3		0.1	1.4
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	26.7	0.0	6.2	5.2		3.4	3.6
LnGrp LOS	C		A	A		A	A
Approach Vol, veh/h	69		568				1194
Approach Delay, s/veh	26.7		6.1				3.6
Approach LOS	C		A				A
Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	8.6	38.9				47.5	9.7
Change Period (Y+Rc), s	5.0	5.5				5.5	5.0
Max Green Setting (Gmax), s	7.0	30.0				42.0	15.0
Max Q Clear Time (g_c+I1), s	2.5	6.4				9.7	4.5
Green Ext Time (p_c), s	0.0	2.7				7.4	0.0

Intersection Summary

HCM 6th Ctrl Delay	5.3
HCM 6th LOS	A

Notes

- User approved volume balancing among the lanes for turning movement.
- User approved ignoring U-Turning movement.
- Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

9: W Airfield Dr & E Glade Rd

08/08/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	96	103	197	380	848	349
Future Volume (veh/h)	96	103	197	380	848	349
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	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	1811	1811	1856	1856
Adj Flow Rate, veh/h	104	0	214	413	922	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	6	6	3	3
Cap, veh/h	132		535	2812	2478	
Arrive On Green	0.07	0.00	0.07	0.82	0.70	0.00
Sat Flow, veh/h	1810	1610	1725	3532	3618	1572
Grp Volume(v), veh/h	104	0	214	413	922	0
Grp Sat Flow(s),veh/h/ln	1810	1610	1725	1721	1763	1572
Q Serve(g_s), s	5.9	0.0	3.1	2.6	11.0	0.0
Cycle Q Clear(g_c), s	5.9	0.0	3.1	2.6	11.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	132		535	2812	2478	
V/C Ratio(X)	0.79		0.40	0.15	0.37	
Avail Cap(c_a), veh/h	337		766	2812	2478	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	47.7	0.0	3.9	2.0	6.3	0.0
Incr Delay (d2), s/veh	4.0	0.0	0.2	0.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.0	0.0	1.2	0.8	5.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	51.7	0.0	4.1	2.1	6.7	0.0
LnGrp LOS	D		A	A	A	
Approach Vol, veh/h	104			627	922	
Approach Delay, s/veh	51.7			2.8	6.7	
Approach LOS	D			A	A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		91.5		13.1	12.0	79.5
Change Period (Y+Rc), s		6.0		5.5	5.0	6.0
Max Green Setting (Gmax), s		85.5		19.5	21.0	59.5
Max Q Clear Time (g_c+I1), s		4.6		7.9	5.1	13.0
Green Ext Time (p_c), s		1.2		0.1	0.1	3.1

Intersection Summary

HCM 6th Ctrl Delay	8.0
HCM 6th LOS	A

Notes

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

HCM 6th TWSC
4: W Airfield Dr & W 17th St (West)

08/08/2022

Intersection

Int Delay, s/veh 1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	6	1	107	4	1	9	1	27	669	3	4	907	8
Future Vol, veh/h	6	1	107	4	1	9	1	27	669	3	4	907	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	130	-	-	125	-	-
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, %	15	15	15	20	20	20	9	9	9	9	9	9	9
Mvmt Flow	7	1	116	4	1	10	1	29	727	3	4	986	9

Major/Minor	Minor2		Minor1			Major1				Major2			
Conflicting Flow All	1423	1789	498	1291	1792	365	995	995	0	0	730	0	0
Stage 1	999	999	-	789	789	-	-	-	-	-	-	-	-
Stage 2	424	790	-	502	1003	-	-	-	-	-	-	-	-
Critical Hdwy	7.8	6.8	7.2	7.9	6.9	7.3	6.58	4.28	-	-	4.28	-	-
Critical Hdwy Stg 1	6.8	5.8	-	6.9	5.9	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.8	5.8	-	6.9	5.9	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.65	4.15	3.45	3.7	4.2	3.5	2.59	2.29	-	-	2.29	-	-
Pot Cap-1 Maneuver	85	70	485	103	66	583	316	650	-	-	825	-	-
Stage 1	238	292	-	313	360	-	-	-	-	-	-	-	-
Stage 2	545	370	-	476	281	-	-	-	-	-	-	-	-
Platoon blocked, %									-	-		-	-
Mov Cap-1 Maneuver	79	66	485	74	62	583	614	614	-	-	825	-	-
Mov Cap-2 Maneuver	79	66	-	74	62	-	-	-	-	-	-	-	-
Stage 1	226	291	-	298	342	-	-	-	-	-	-	-	-
Stage 2	508	352	-	359	280	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.6	29.2	0.4	0
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	614	-	-	79	458	164	825	-	-
HCM Lane V/C Ratio	0.05	-	-	0.083	0.256	0.093	0.005	-	-
HCM Control Delay (s)	11.2	-	-	54.6	15.5	29.2	9.4	-	-
HCM Lane LOS	B	-	-	F	C	D	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.3	1	0.3	0	-	-

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	10	770	29	0	995
Future Vol, veh/h	0	10	770	29	0	995
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	7	0	7	7
Mvmt Flow	0	11	837	32	0	1082

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	435	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-
Pot Cap-1 Maneuver	0	575	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	575	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	575
HCM Lane V/C Ratio	-	-	0.019
HCM Control Delay (s)	-	-	11.4
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.1

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↵	↶	↶↷		↵	↶↷
Traffic Vol, veh/h	6	4	768	12	10	989
Future Vol, veh/h	6	4	768	12	10	989
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	240	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	100	100	7	100	100	7
Mvmt Flow	7	4	835	13	11	1075

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1402	424	0	0	848
Stage 1	842	-	-	-	-
Stage 2	560	-	-	-	-
Critical Hdwy	8.8	8.9	-	-	6.1
Critical Hdwy Stg 1	7.8	-	-	-	-
Critical Hdwy Stg 2	7.8	-	-	-	-
Follow-up Hdwy	4.5	4.3	-	-	3.2
Pot Cap-1 Maneuver	55	374	-	-	381
Stage 1	209	-	-	-	-
Stage 2	331	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	53	374	-	-	381
Mov Cap-2 Maneuver	53	-	-	-	-
Stage 1	209	-	-	-	-
Stage 2	321	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	55.2	0	0.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	53	374	381	-
HCM Lane V/C Ratio	-	-	0.123	0.012	0.029	-
HCM Control Delay (s)	-	-	82.2	14.7	14.7	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	0.4	0	0.1	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↕↕		↕↕	
Traffic Vol, veh/h	294	24	0	122	15	0
Future Vol, veh/h	294	24	0	122	15	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	0	0	7	0	0
Mvmt Flow	320	26	0	133	16	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	346	0	400
Stage 1	-	-	-	-	333
Stage 2	-	-	-	-	67
Critical Hdwy	-	-	4.1	-	6.6
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.8
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1224	-	596
Stage 1	-	-	-	-	731
Stage 2	-	-	-	-	954
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1224	-	596
Mov Cap-2 Maneuver	-	-	-	-	596
Stage 1	-	-	-	-	731
Stage 2	-	-	-	-	954

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	596	-	-	1224	-
HCM Lane V/C Ratio	0.027	-	-	-	-
HCM Control Delay (s)	11.2	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	1.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	15	35	0	8	16	0
Future Vol, veh/h	15	35	0	8	16	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	0	0	7	0	0
Mvmt Flow	16	38	0	9	17	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	54	0	44
Stage 1	-	-	-	-	35
Stage 2	-	-	-	-	9
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1564	-	972
Stage 1	-	-	-	-	993
Stage 2	-	-	-	-	1019
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1564	-	972
Mov Cap-2 Maneuver	-	-	-	-	972
Stage 1	-	-	-	-	993
Stage 2	-	-	-	-	1019

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	972	-	-	1564	-
HCM Lane V/C Ratio	0.018	-	-	-	-
HCM Control Delay (s)	8.8	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	1.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	7	8	0	4	4	0
Future Vol, veh/h	7	8	0	4	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	100	100	7	100	100
Mvmt Flow	8	9	0	4	4	0
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	17	0	17	13
Stage 1	-	-	-	-	13	-
Stage 2	-	-	-	-	4	-
Critical Hdwy	-	-	5.1	-	7.4	7.2
Critical Hdwy Stg 1	-	-	-	-	6.4	-
Critical Hdwy Stg 2	-	-	-	-	6.4	-
Follow-up Hdwy	-	-	3.1	-	4.4	4.2
Pot Cap-1 Maneuver	-	-	1142	-	798	841
Stage 1	-	-	-	-	806	-
Stage 2	-	-	-	-	814	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1142	-	798	841
Mov Cap-2 Maneuver	-	-	-	-	798	-
Stage 1	-	-	-	-	806	-
Stage 2	-	-	-	-	814	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	0	9.5			
HCM LOS						A
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	798	-	-	1142	-	
HCM Lane V/C Ratio	0.005	-	-	-	-	
HCM Control Delay (s)	9.5	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

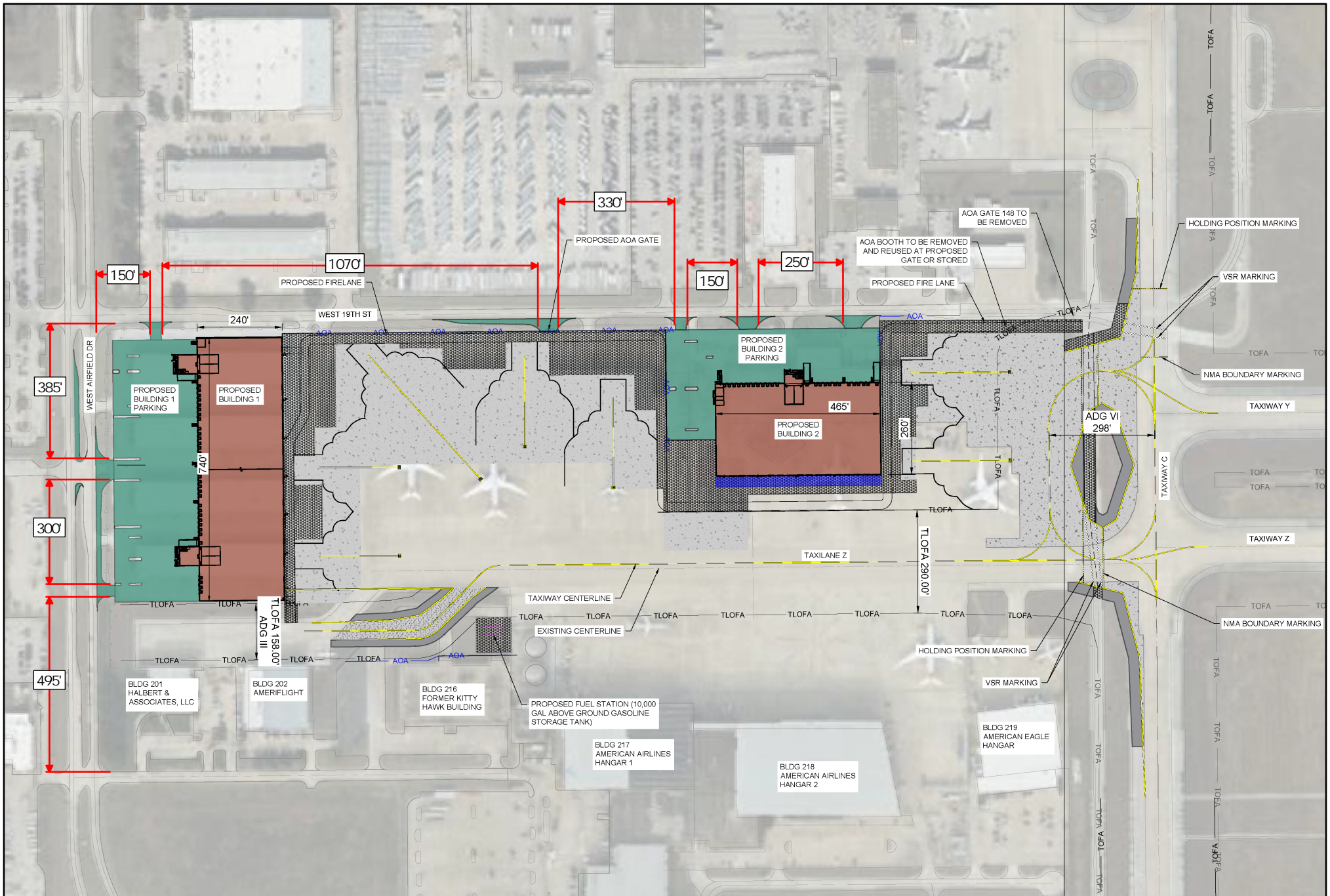
Intersection						
Int Delay, s/veh	3.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	7	0	0	4	0
Future Vol, veh/h	0	7	0	0	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	100	100	7	100	100
Mvmt Flow	0	8	0	0	4	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	8	0	5
Stage 1	-	-	-	-	4
Stage 2	-	-	-	-	1
Critical Hdwy	-	-	5.1	-	7.4
Critical Hdwy Stg 1	-	-	-	-	6.4
Critical Hdwy Stg 2	-	-	-	-	6.4
Follow-up Hdwy	-	-	3.1	-	4.4
Pot Cap-1 Maneuver	-	-	1152	-	812
Stage 1	-	-	-	-	814
Stage 2	-	-	-	-	817
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1152	-	812
Mov Cap-2 Maneuver	-	-	-	-	812
Stage 1	-	-	-	-	814
Stage 2	-	-	-	-	817

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	812	-	-	1152	-
HCM Lane V/C Ratio	0.005	-	-	-	-
HCM Control Delay (s)	9.5	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

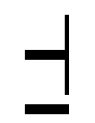
Appendix I: Site Access Review Documentation

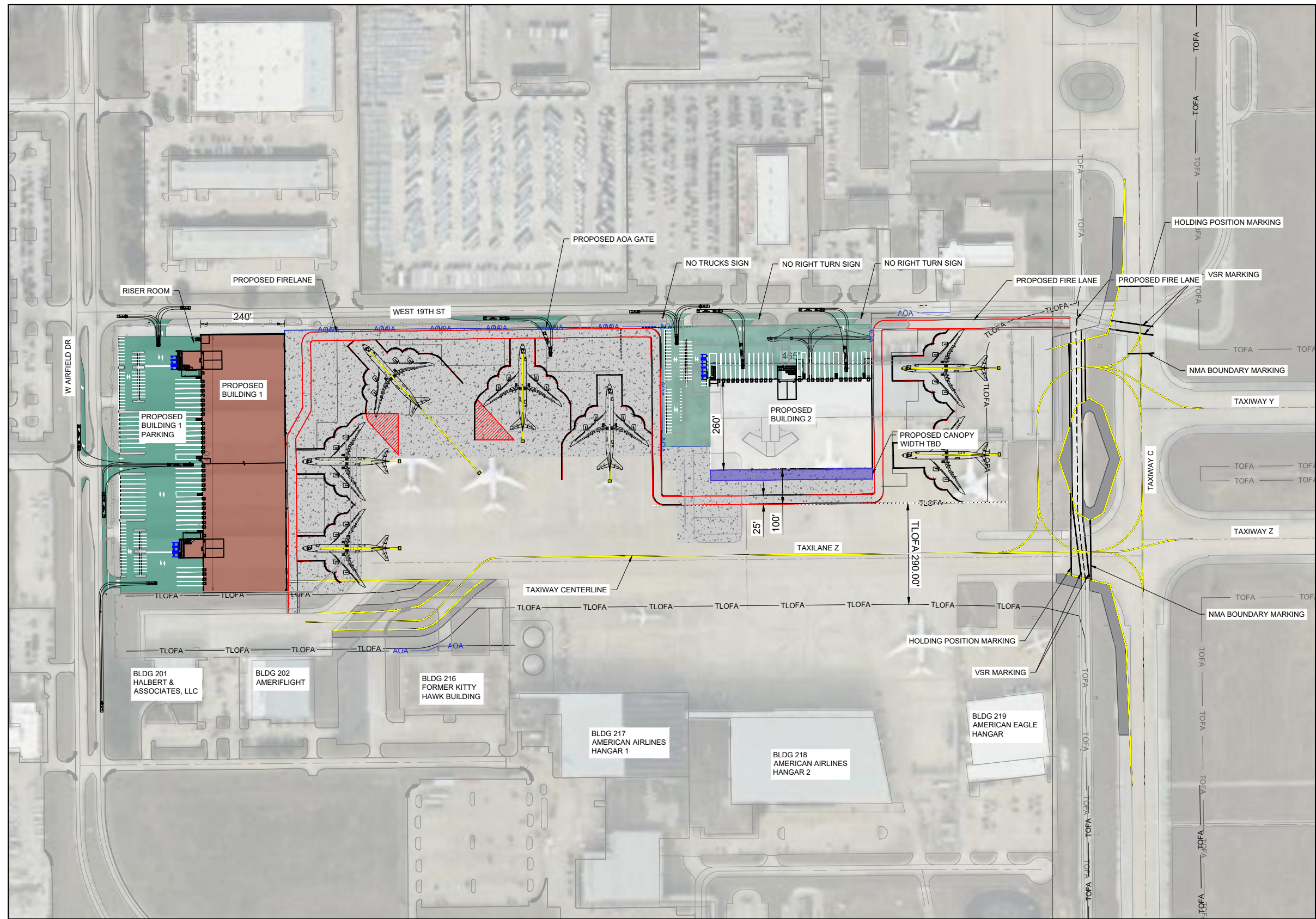


Driveway Spacing

DFW 19th Street Cargo Redevelopment

LEGEND			
	SHOULDER PAVEMENT		PROPOSED BUILDING
	FAA ITEM P-501 REINFORCED CONCRETE PAVEMENT		LANDSIDE PAVEMENT
	NON-AIRCRAFT RATED ARFF/GSE		BUILDING 2 CANOPY
	SE APRON TAXILANE PAVEMENT		PROPOSED PAVEMENT MARKING
			AOA
			PROPOSED FUEL TANK
			PROPOSED AOA FENCE

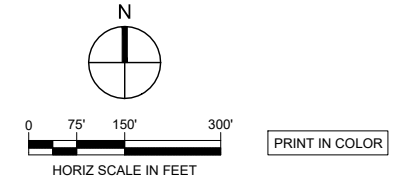




LEGEND

	FAA ITEM P-401 ASPHALT MIX PAVEMENT
	FAA ITEM P-501 REINFORCED CONCRETE PAVEMENT
	PROPOSED BUILDING
	LANDSIDE PAVEMENT
	PROPOSED PAVEMENT MARKING
	PROPOSED AOA FENCE

**AutoTurn Entrances for
WB-67 & SU at 10 MPH**



FILE NAME: AUTOTURN_WB67 Entrance_Building 2 Options.dwg
 AUTOTURN_WB67 Entrance_Building 2 Options.dwg
 PROJECT DATE: 9/13/2022 11:53:07 AM Jupiler, Devin

DALLAS FORT WORTH INTERNATIONAL AIRPORT
AIRPORT DESIGN, CODE & CONSTRUCTION DEPARTMENT (DCC)
3003 SOUTH SERVICE ROAD
DFW AIRPORT, TX 75261

CONCEPTUAL
 THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF REGISTERED ENGINEER
 BRANDON BEVILLE, PE
 TBPE LICENSE NO. 121604
 ON SEPTEMBER 2, 2022.
 IT IS NOT INTENDED FOR PERMITTING OR CONSTRUCTION PURPOSES.

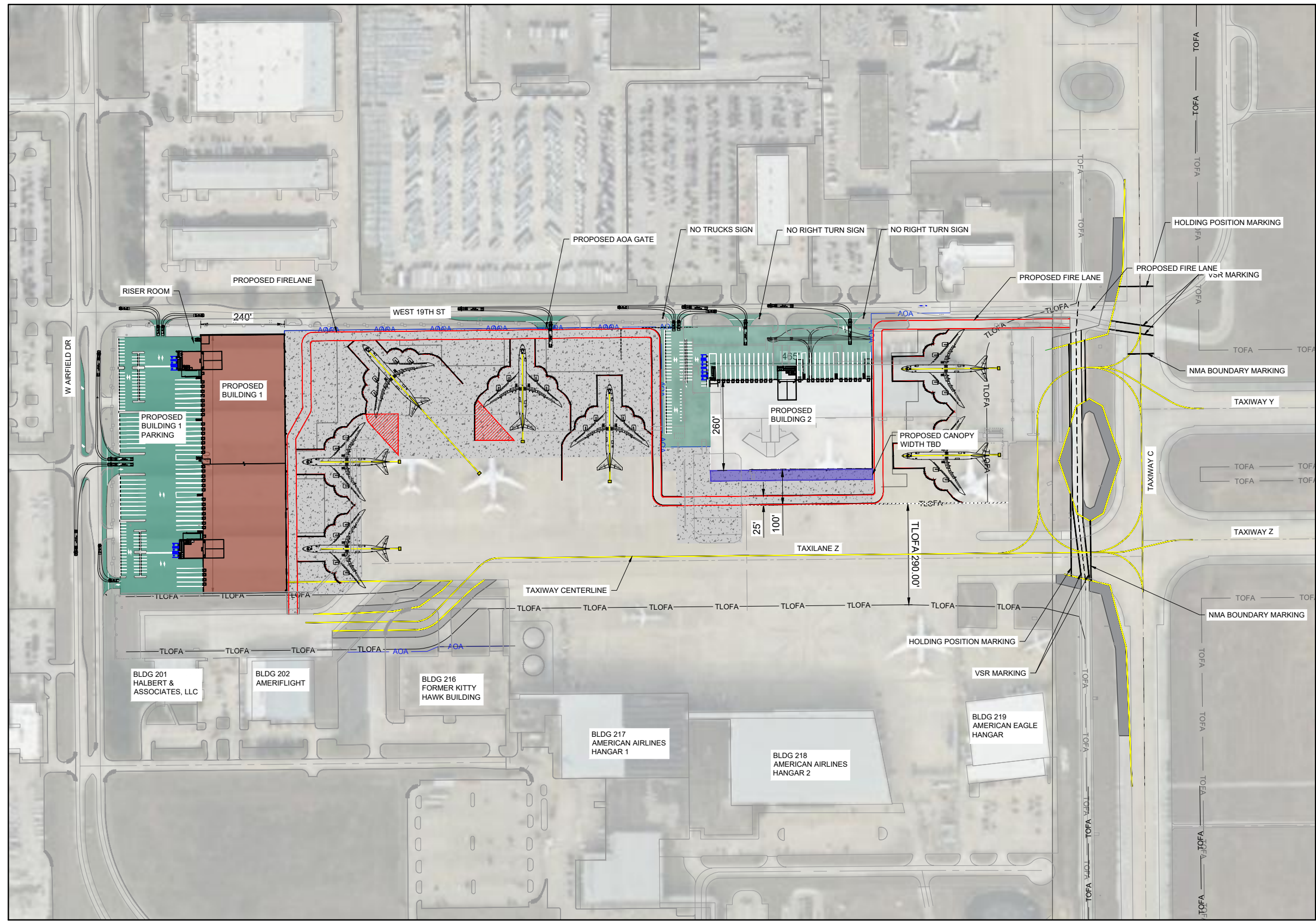
4835 LYNDON B. JOHNSON FWY
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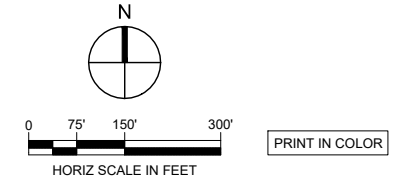
19TH STREET CARGO REDEVELOPMENT
OVERALL SITE LAYOUT PLAN
 CONTRACT NUMBER: 9500791 PERMIT NUMBERS: A22-068B

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- LEGEND**
- FAA ITEM P-401 ASPHALT MIX PAVEMENT
 - FAA ITEM P-501 REINFORCED CONCRETE PAVEMENT
 - PROPOSED BUILDING
 - LANDSIDE PAVEMENT
 - PROPOSED PAVEMENT MARKING
 - PROPOSED AOA FENCE

**AutoTurn Exits for
WB-67 & SU at 5 MPH**



FILE NAME: AUTOTURN_WB67_Exc_Building 2 Options.dwg



AIRPORT DESIGN, CODE & CONSTRUCTION DEPARTMENT (DCC)
3003 SOUTH SERVICE ROAD
DFW AIRPORT, TX 75261

CONCEPTUAL
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF REGISTERED ENGINEER
BRANDON BEVILLE, PE
TSPE LICENSE NO. 121604
ON SEPTEMBER 2, 2022.
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