



Traffic Impact Analysis 2nd Submittal

Arizona Farms

Southeast Corner of Attaway Rd & Arizona Farms Rd
Pinal County, Arizona

October 2022

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APPROVED BY:	
_____	_____
PINAL COUNTY ENGINEER PINAL COUNTY PUBLIC WORKS DEPARTMENT	DATE

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EXECUTIVE SUMMARY

INTRODUCTION

A traffic impact analysis is required during the development review process to assess the impacts of the proposed project on the surrounding transportation system. EPS Group has been retained to prepare the traffic impact analysis. A mixed-use development is proposed in the southwest corner of Felix Road and Arizona Farms Road in Pinal County. The site is bordered by Arizona Farms Road to the north, Felix Road to the east, Heritage Road to the south, and the Copper Basin Railway to the west. Access is proposed on Arizona Farms Road, Felix Road and Heritage Road. The development primarily consists of single family homes with a few commercial and multi-family parcels. The traffic impact analysis was prepared in accordance with the requirements of the *Pinal County Traffic Impact Assessment Guidelines & Procedures, Analysis*.

TRIP GENERATION

Full build-out of the proposed development is anticipated to generate 33,266 weekday daily trips (entering/exiting) with 2,119 trips (entering/exiting) during the AM peak hour and 3,213 trips (entering/exiting) during PM Peak Hour.

EXISTING LEVEL-OF-SERVICE

The existing study intersections operate at acceptable levels of service (LOS) with the exception of the Hunt Highway/Arizona Farms Road intersection, which experiences a LOS 'E' on the westbound approach. Signal warrant # 1B is satisfied with existing traffic volumes at the Hunt Highway/Arizona Farms Road intersection and seven of the required eight hours are met for Warrant # 1A.

FUTURE LEVEL-OF-SERVICE

Horizon Year 2025

The Hunt Highway/Arizona Farms Road will operate at acceptable levels of service with a traffic signal as warranted with existing conditions. The other study intersections will operate at acceptable levels of service with stop sign control in horizon year 2025 and phase 1 of the proposed development.

Horizon Year 2035

In horizon year 2035 with full build-out of the development, the following intersections will operate at a poor level-of-service as stop sign controlled:

- ❖ Hunt Highway & Arizona Farms Road (Southbound Left & Westbound Approach)
- ❖ Attaway Road & Judd Road (All approaches)
- ❖ Attaway Road & Arizona Farms Road (Southbound Approach)
- ❖ Felix Road & Arizona Farms Road (Northbound Approach)
- ❖ Felix Road & Hunt Highway (Southbound Left)
- ❖ Hunt Highway & Heritage Road (Southbound Left & Westbound Approach)
- ❖ Collector B & Arizona Farms Road (Northbound Approach)

Traffic signal warrants are expected to be satisfied at all of the above intersections. A traffic signal should not immediately be planned for the intersection of Felix Road and Hunt Highway. The intersection is further from the proposed development and may not experience the predicted traffic volumes until the surrounding area is built out. The intersection should be monitored for a future traffic signal as development occurs.

RECOMMENDATIONS

Hunt Highway

By year 2025, the daily traffic volume on Hunt Highway is projected to be 28,141 vpd north of Arizona Farms Road and 21,456 vpd south of Arizona Farms Road. By year 2035, the daily traffic volume on Hunt Highway is projected to be 54,012 vpd north of Arizona Farms Road and 38,580 vpd south of Arizona Farms Road. These volumes require a four-lane roadway in 2025 and would be approaching capacity as a four-lane roadway by year 2035. The construction of the North-South corridor will change traffic patterns in the area and ultimately help relieve traffic congestion on Hunt Highway. The north-south corridor is a 55-mile route between US 60 on the north and Interstate 10 on the south, as well as a connection to State Route (SR) 24 at Ironwood Drive. The preferred route in Pinal County borders the proposed Arizona Farms site. Interchange locations have not yet been determined. This analysis does not include a horizon year with the corridor.

Arizona Farms Road

By year 2025, the daily traffic volume on Arizona Farms Road is projected to be 8,381 vpd east of Hunt Highway and 6,839 vpd west of Attaway Road. By year 2035, the daily traffic volume on Arizona Farms Road is projected to be 17,974 vpd east of Hunt Highway and 17,426 vpd west of Attaway Road. Arizona Farms Road is recommended to be widened to a four-lane roadway between Hunt Highway and Felix Road by year 2035 to accommodate future growth in the area. The widening of Arizona Farms Road is not needed to accommodate traffic generated by the Arizona Farms development only. Arizona Farms will construct half-street improvements adjacent to its site.

Heritage Road

By year 2035, the daily traffic volume on Heritage Road is projected to be 7,843 vpd east of Hunt Highway. A study is underway to construct a two-lane roadway for Heritage Road from Felix Road to Hunt Highway. A four-lane roadway should be planned to accommodate future growth in the area in the long-term, although two-lanes would accommodate full build-out of the proposed site.

Felix Road

By year 2025, the daily traffic volume on Felix Road is projected to be 4,339 vpd south of Arizona Farms Road. By year 2035, the daily traffic volume on Felix Road is projected to be 12,989 vpd south of Arizona Farms Road. The proposed development should construct half-street improvements adjacent to its site for a future four-lane roadway to accommodate future growth in the area. Two lanes would accommodate full build-out of the proposed site.

Intersections

Based on the projected traffic volumes, dedicated left-turn and right-turn lanes are recommended at the proposed site accesses (Collectors A & B on Arizona Farms Road, Local C & Collector D on Felix Road, and Collector E on Heritage Road). Future traffic signals are recommended at Collector A and Collector B on Arizona Farms Road. Minor street stop sign control is recommended for Local C and Collector D on Felix Road and Collector E on Heritage Road

Dedicated left-turn lanes are also recommended at the study intersections with traffic signal installation. Dual left-turn lanes are recommended at the signalized intersections with left-turn hourly volumes exceeding 300 vph and with two lanes available to receive traffic. Dedicated right-turn lanes are recommended at arterial intersections to improve level-of-service and accommodate traffic volumes. The recommended lanes are depicted in **Figure 18** for 2035 background traffic with full build-out of the site.

Westbound dual right-turn lanes or a channelized right-turn lane should be constructed at the Hunt Highway/Arizona Farms Road and Hunt Highway/Heritage Road intersections to facilitate the high westbound right-turn movement.

The auxiliary lanes adjacent to the development will be designed and constructed by the proposed development. The intersection improvements not adjacent to the site will be constructed by future developments adjacent to those intersections. A proportional amount for intersection improvements not adjacent to the site may be calculated by Pinal County based on existing traffic and future developments in the area.

Traffic signals are recommended at the following intersections:

- ❖ Hunt Highway & Arizona Farms Road (Existing Conditions)
- ❖ Collector B & Arizona Farms Road (2035)
- ❖ Attaway Road & Arizona Farms Road (2035)
- ❖ Felix Road & Arizona Farms Road (2035)
- ❖ Collector A & Arizona Farms Road (2035)
- ❖ Attaway Road & Judd Road (2035)
- ❖ Hunt Highway & Heritage Road (2035)

A traffic signal should not immediately be planned for the intersection of Felix Road and Hunt Highway. The intersection is further from the proposed development and may not experience the predicted traffic volumes until the surrounding area is built out. The intersection should be monitored for a future traffic signal as development occurs.

The Arizona Farms development is responsible for the traffic signals at the entry to the site: Access A, Access B, and Access E. Preparations will be made at these intersections for future traffic signals, which will be installed when warranted. The development should contribute to the traffic signals at Attaway Road/Arizona Farms Road, Felix Road/Arizona Farms Road, and Felix Road/Heritage Road based on a proportional amount determined by Pinal County considering existing traffic and future developments in the area. The traffic signal at the Hunt Highway/Arizona Farms Road intersection meets signal warrants with existing conditions, and the traffic signal at the Hunt Highway/Heritage Road intersection will be warranted in 2035 by future development on Heritage Road and should be included in the Heritage Road project.

Traffic signal warrants are expected to be satisfied at the Collector D/Heritage Road and Felix Road/Heritage Road intersections with full build-out of the site. These intersections are projected to operate at acceptable levels of service with stop sign control. Due to the volumes, preparations should be implemented for future traffic signals and the intersections monitored as the local area develops.

Traffic signal warrant studies shall be prepared by the developer to determine when new signals are warranted.

INTRODUCTION

A traffic impact analysis is required during the development review process to assess the impacts of the proposed project on the surrounding transportation system. EPS Group has been retained to prepare the traffic impact analysis.

A mixed-use development is proposed in the southwest corner of the Felix Road and Arizona Farms Road in Pinal County. The site is bordered by Arizona Farms Road to the north, Felix Road to the east, Heritage Road to the south, and the Copper Basin Railway to the west. Access is proposed on Arizona Farms Road, Felix Road and Heritage Road. The development primarily consists of single family homes with a few commercial and multi-family parcels. **Figure 1** provides a location map and **Figure 2** depicts an aerial map. The site plan is included in **Figure 3** and **Appendix A**.

SCOPE OF STUDY

The traffic impact analysis was prepared in accordance with the requirements of the *Pinal County Traffic Impact Assessment Guidelines & Procedures*. The project qualifies for a category II c analysis. The analysis study years include existing, horizon year 2025, and horizon year 2035. The study area was confirmed with Pinal County. The objectives of the study are the following:

- ❖ Document and evaluate existing traffic conditions.
- ❖ Estimate and evaluate future non-site 2025 and 2035 traffic conditions.
- ❖ Estimate new traffic generated by the proposed development and assign new trips to street system.
- ❖ Evaluate operation of adjacent streets and intersections with the proposed development.
- ❖ Determine the need for modified traffic control and auxiliary lanes at the study intersections.
- ❖ Review driveway design, spacing, and on-site circulation.

STUDY INTERSECTIONS

The following intersections are included in the study area:

- ❖ Hunt Highway & Arizona Farms Road
- ❖ Attaway Road & Judd Road
- ❖ Attaway Road & Arizona Farms Road
- ❖ Felix Road & Arizona Farms Road
- ❖ Felix Road & Heritage Road
- ❖ Felix Road & Merrill Ranch Parkway
- ❖ Felix Road & Hunt Highway
- ❖ Hunt Highway & Heritage Road
- ❖ All Site Accesses

EXISTING CONDITIONS

SURROUNDING LAND USE

The proposed site is currently agricultural. An existing residential development, Crestfield Manor, has partially been constructed in the southwest corner of Felix Road and Heritage Road.

DESCRIPTION OF EXISTING TRANSPORTATION SYSTEM

The existing roadway geometry and intersection control is depicted in **Figure 4**.



Figure 1: Location Map

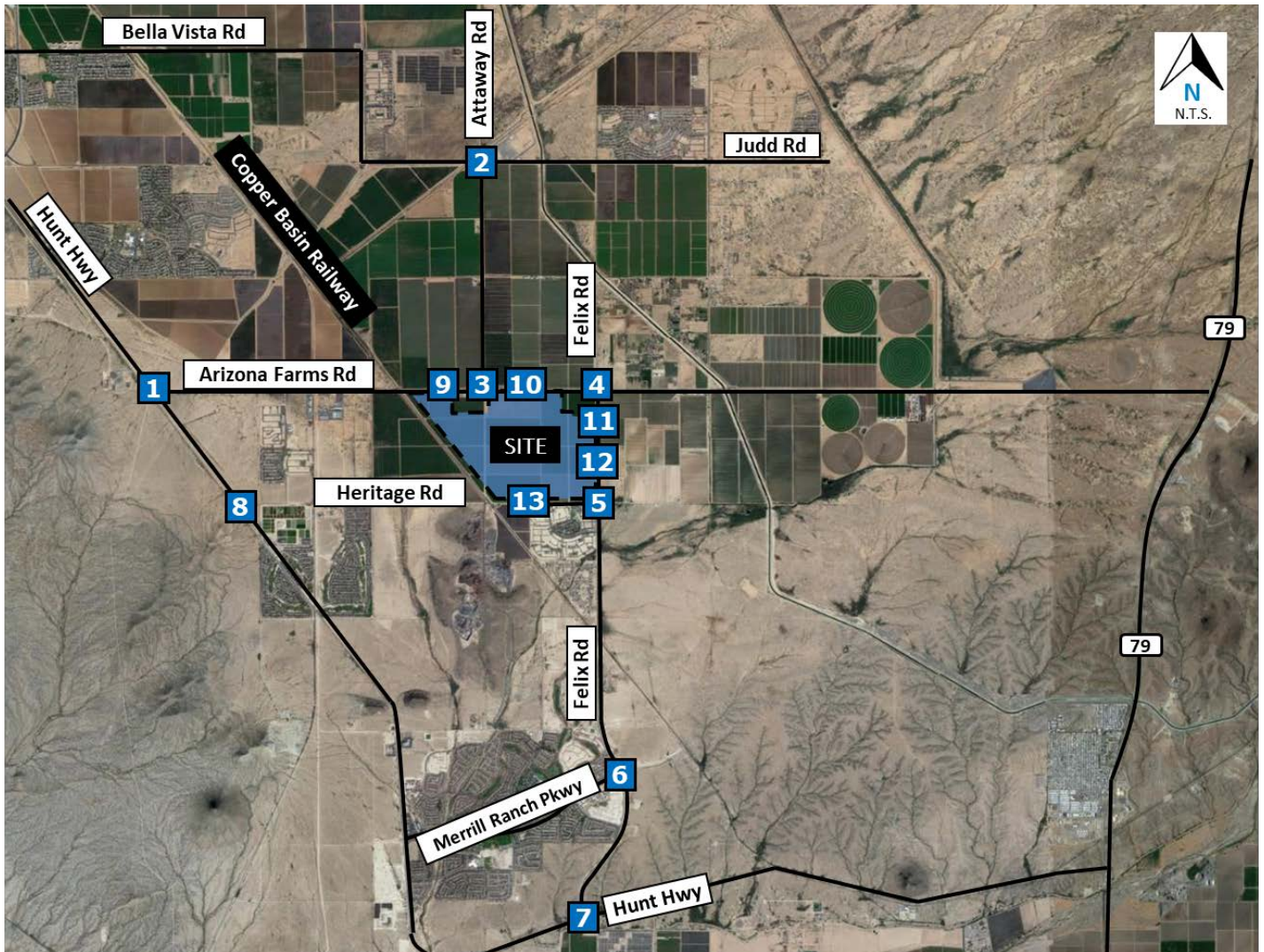
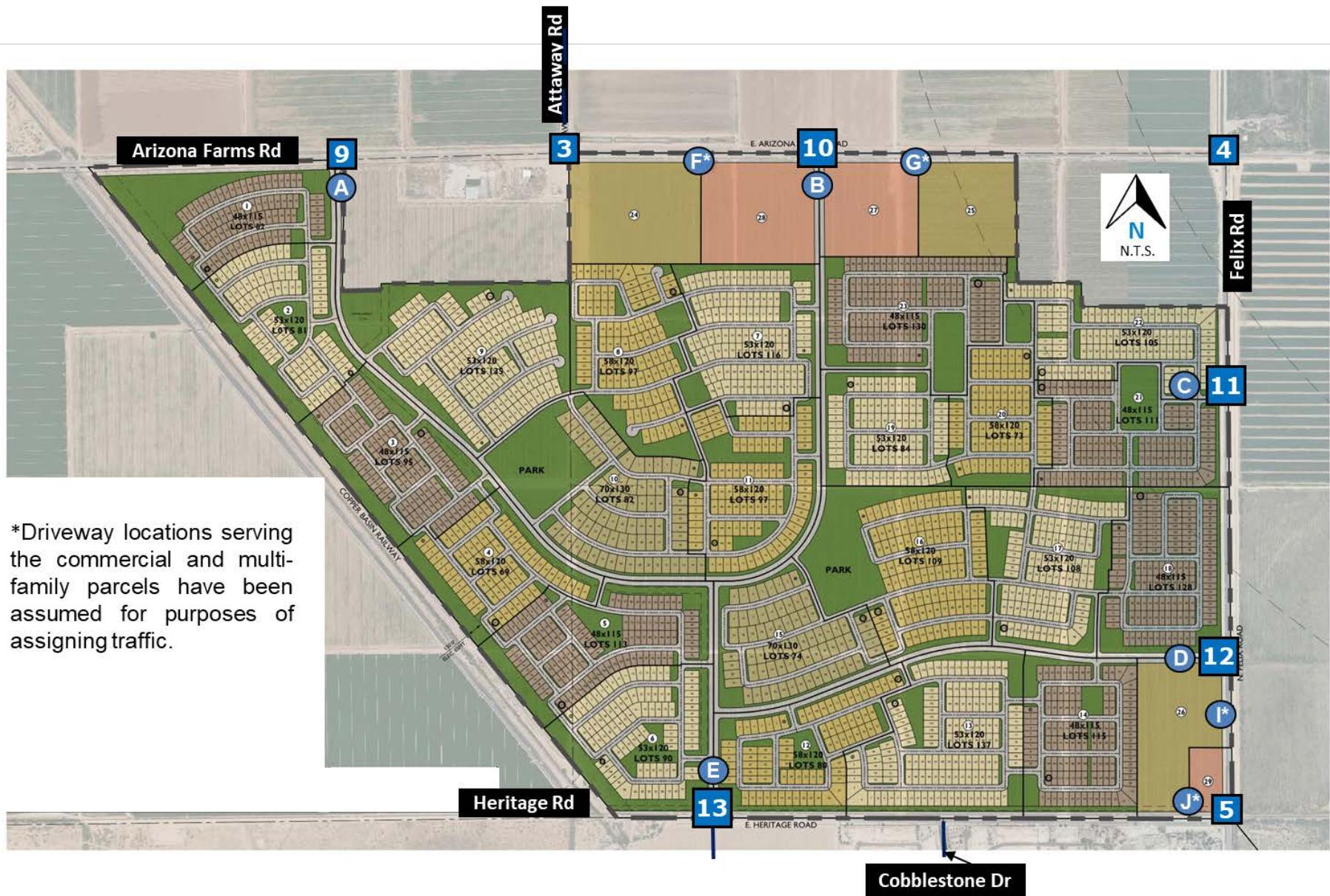


Figure 2: Aerial Map



*Driveway locations serving the commercial and multi-family parcels have been assumed for purposes of assigning traffic.

Figure 3: Site Plan

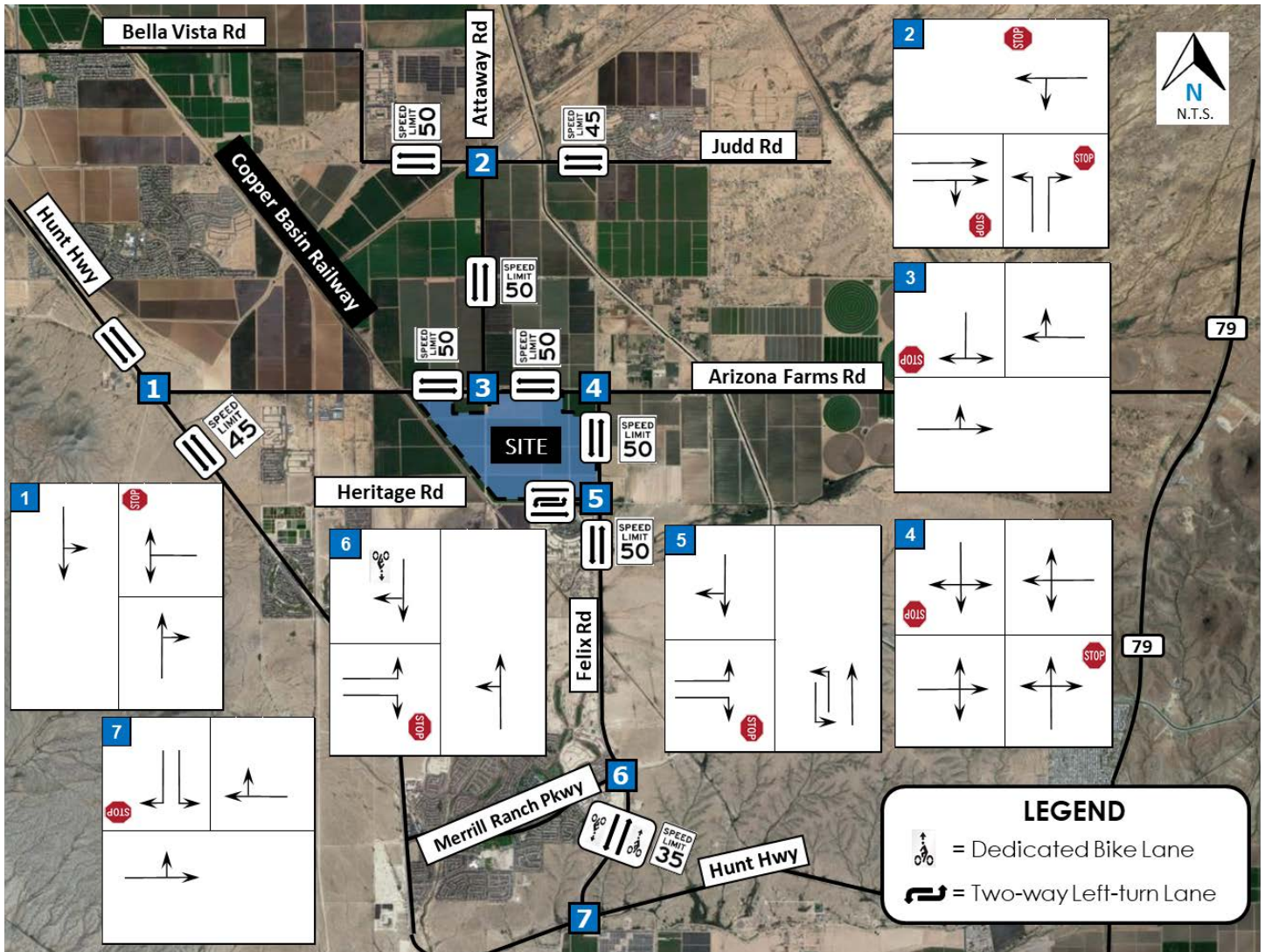


Figure 4: Existing Lane Configuration and Traffic Control

STUDY INTERSECTIONS

The existing intersection lane configuration and traffic control is depicted in **Figure 4**, and the traffic control is also summarized in **Table 1**.

Table 1: Traffic Control

Intersection	Traffic Control
1. Hunt Highway & Arizona Farms Road	Stop Control (WB)
2. Attaway Road & Judd Road	All-way Stop
3. Attaway Road & Arizona Farms Road	Stop Control (SB)
4. Felix Road & Arizona Farms Road	Stop Control (NB/SB)
5. Felix Road & Heritage Road	Stop Control (EB)
6. Felix Road & Merrill Ranch Parkway	Stop Control (EB)
7. Felix Road & Hunt Highway	Stop Control (SB)

ROADWAYS

Hunt Highway

Hunt Highway travels northwest/southeast within the study area and is identified as a regionally significant route (RSR). To the northwest, Hunt Highway turns and heads west towards Chandler at the intersection of Ellsworth Road and Empire Boulevard. To the south, Hunt Highway turns and heads east towards State Road 79 near Attaway Road. In the vicinity of Arizona Farms Road, Hunt Highway is a two-lane roadway. It widens to a five-lane section near Magma Road. The posted speed limit is 45 mph. Per the September 2021 counts conducted for this study, the daily traffic volume on Hunt Highway is 21,848 vpd north of Arizona Farms Road and 18,365 vpd south of Arizona Farms Road.

Arizona Farms Road

Arizona Farms Road is a two-lane rural roadway that travels east/west from Hunt Highway to State Road 79 and is identified as a regionally significant route (RSR). The posted speed limit is 50 mph. Per the September 2021 counts conducted for this study, the daily traffic volume on Arizona Farms Road is 4,373 vpd east of Hunt Highway and 3,670 vpd east of Felix Road.

Attaway Road

Attaway Road is a two-lane rural roadway that travels north/south from Arizona Farms Road to Judd Road. It is a dirt road north of Arizona Farms Road. The posted speed limit is 50 mph. Per the September 2021 counts conducted for this study, the daily traffic volume on Attaway Road is 2,752 vpd north of Arizona Farms Road.

Felix Road

Felix Road is a two-lane rural roadway that travels north/south from Hunt Highway to Arizona Farms Road. It is a dirt road north of Arizona Farms Road. The posted speed limit is 50 mph adjacent to the site. Per the September 2021 counts conducted for this study, the daily traffic volume on Felix Road is 3,597 vpd north of Heritage Road and 3,148 vpd south of Heritage Road.

Heritage Road

Only a ½ mile segment of Heritage Road is constructed adjacent to Crestview Manor west of Felix Road. It is a two-lane roadway divided by a two-way left-turn lane. A Pinal County study is underway to construct a two-lane roadway to Hunt Highway.

PINAL COUNTY REGIONALLY SIGNIFICANT ROUTES (RSR)

The Hunt Highway and Arizona Farms Road are identified as RSRs on Pinal County's map for *Regionally Significant Routes for Safety & Mobility (RSRSM), 2017 Update*.

Requirements for RSR access management and design is included in the *2008 Regionally Significant Routes for Safety & Mobility (RSRSM) Final Report* and the *Pinal County Access Management Manual, February 2017*. The 2008 RSRSM Access Management Manual states that "RSR Principal Arterials are major roadways that emphasize a high level of traffic mobility and a low level of access to land; generally roadways of regional importance, intended to serve moderate to high volumes of traffic traveling relatively long distances and a higher speed."

NORTH-SOUTH CORRIDOR STUDY

The north-south corridor is a 55-mile route between US 60 on the north and Interstate 10 on the south, as well as a connection to State Route (SR) 24 at Ironwood Drive. The preferred route in Pinal County borders the proposed Arizona Farms site. Interchange locations have not yet been determined. This analysis does not include a horizon year with the corridor. However, the construction of the corridor will change traffic patterns in the area and ultimately help relieve traffic congestion on Hunt Highway. The preferred alternative is depicted in **Figure 5**.



Figure 5: North-South Corridor Preferred Alternative

EXISTING TRAFFIC VOLUMES

Segment counts in each direction were collected on Thursday September 23, 2021 for 24 hours in 15-minute intervals on at the following locations:

- ❖ Hunt Highway north and south of Arizona Farms Road
- ❖ Arizona Farms Road east of Hunt Highway
- ❖ Arizona Farms Road east of Felix Road
- ❖ Attaway Road north of Arizona Farms Road
- ❖ Judd Road west of Attaway Road
- ❖ Felix Road south of Arizona Farms Road
- ❖ Felix Road south of Heritage Road
- ❖ Felix Road south of Merrill Ranch Parkway
- ❖ Merrill Ranch Parkway west of Felix Road

Six-hour turning movement traffic counts were also obtained on Thursday September 23, 2021 from 6:00 AM to 9:00 AM and from 3:00 PM to 6:00 PM at the following study intersections:

- ❖ Hunt Highway & Arizona Farms Road
- ❖ Attaway Road & Judd Road
- ❖ Attaway Road & Arizona Farms Road
- ❖ Felix Road & Arizona Farms Road
- ❖ Felix Road & Heritage Road
- ❖ Felix Road & Merrill Ranch Parkway
- ❖ Felix Road & Hunt Highway

Figure 6 depicts the existing weekday traffic volumes. The existing traffic volumes are provided in **Appendix B** to this report.

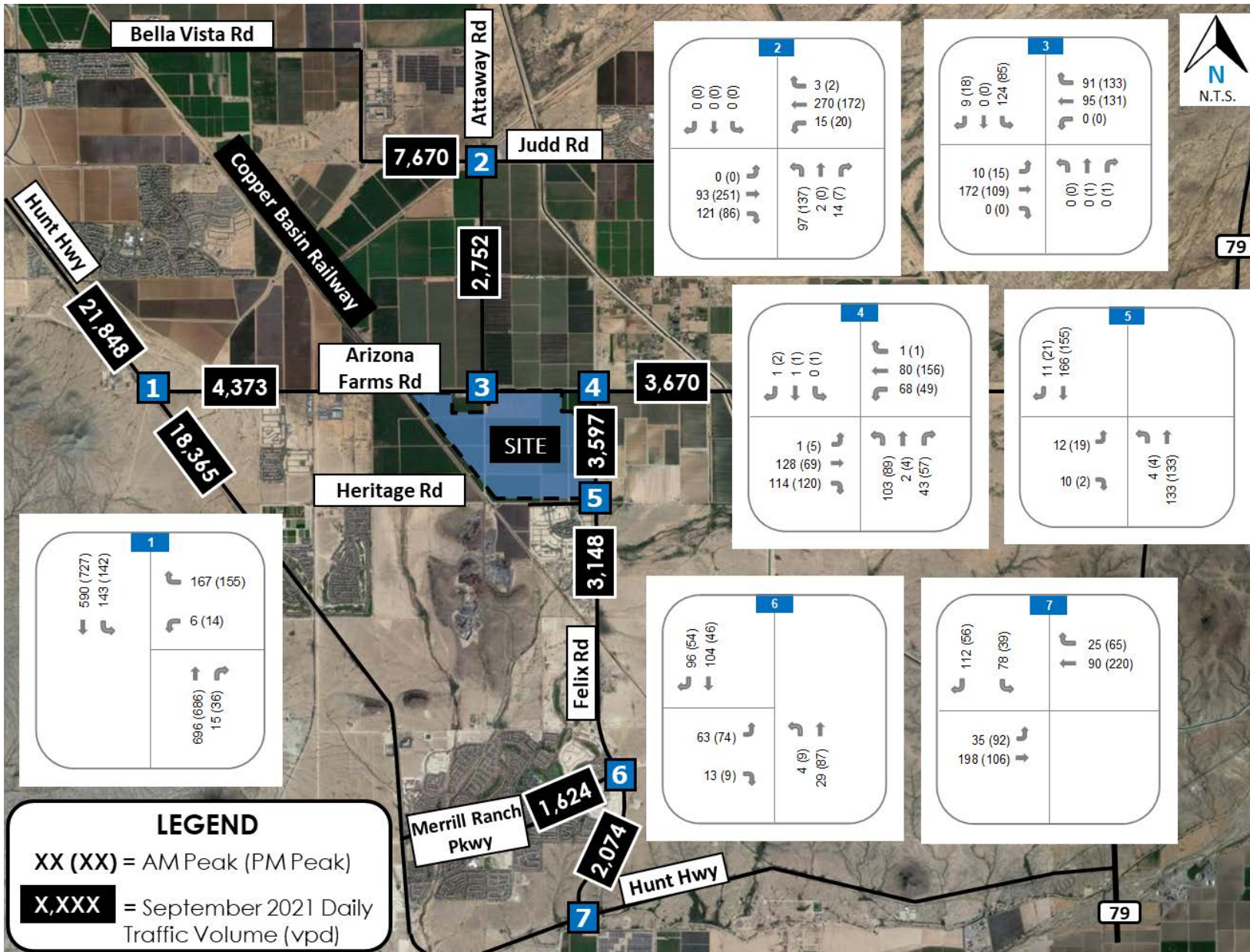


Figure 6: Existing Weekday Traffic Volumes

EXISTING LEVEL-OF-SERVICE ANALYSIS

The ability of a transportation system to transmit the transportation demand is characterized as its level-of-service (LOS). Level-of-service is a rating system from “A”, representing the best operation with the least delay, to “F”, representing the worst operation with the greatest delay. Typically, level-of-service “D” is considered the minimum acceptable operation. The appropriate reference for level-of-service operation is the *Highway Capacity Manual, 6th Edition* published by the Transportation Research Board in 2016.

This manual considers the average delay per vehicle as the measure to determine the level-of-service for both signalized and unsignalized intersections. For signalized intersections and for multi-way stop intersections, the delay and level-of-service are calculated for the intersection, each approach, and each turning movement. For unsignalized intersections the level-of-service is defined for each minor movement for two-way stop controls, and is not defined for the major street approaches or for the entire intersection **Figure 7** provides a diagram and **Table 2** lists the level-of-service criteria for both signalized and unsignalized intersections as stated in the *Highway Capacity Manual*.

Level-of-service (LOS) analyses were prepared for the AM and PM peak hours for the study intersections utilizing Synchro software. The study intersections operate at acceptable levels of service (LOS) with the exception of the Hunt Highway/Arizona Farms Road intersection, which experiences a LOS ‘E’ on the westbound approach. The analysis worksheets are included in **Appendix C**. A summary of the level-of-service analysis for the existing conditions is provided in **Table 3**.

Figure 7: Level-of-Service Criteria for Intersections

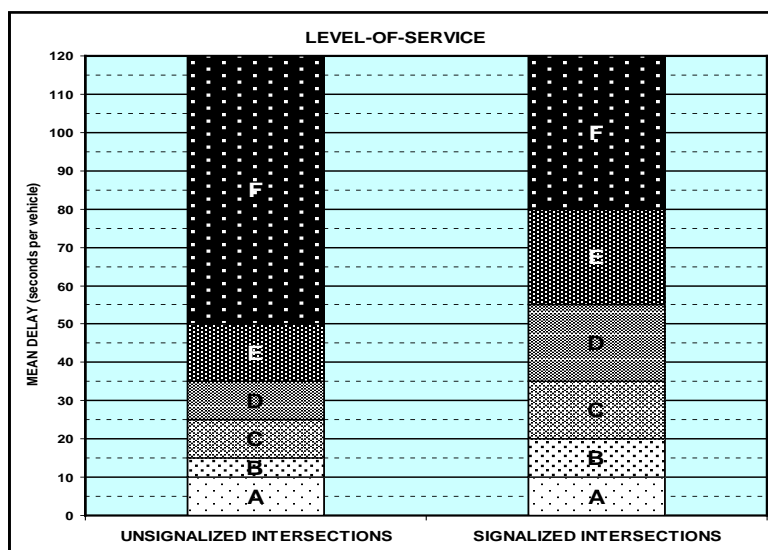


Table 2: Level-of-Service Criteria for Intersections

Level-of-Service	Average Delay (seconds per vehicle)	
	Unsignalized	Signalized
A	≤ 10	≤ 10
B	> 10 to 15	> 10 to 20
C	> 15 to 25	> 20 to 35
D	> 25 to 35	> 35 to 55
E	> 35 to 50	> 55 to 80
F	> 50	> 80

Table 3: Existing Level-of-Service Analysis

Intersection	Traffic Control	Movement/ Approach	Existing Conditions			
			AM Peak Hour		PM Peak Hour	
			Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1 Hunt Hwy & Arizona Farms Rd	Stop Controlled (WB)	WB Left/Thru	27.0	D	45.6	E
		WB Approach	27.0	D	45.6	E
		NB Thru/right	0.0	A	0.0	A
		NB Right	0.0	A	0.0	A
		NB Approach	0.0	A	0.0	A
		SB Left	10.2	B	10.3	B
		SB Thru	0.0	A	0.0	A
		SB Approach	2.0	A	1.7	A
INTERSECTION	3.8	A	5.2	A		
2 Attaway Rd & Judd Rd	All-Way Stop Controlled	EB Thru	8.5	A	9.9	A
		EB Right	8.6	A	9.3	A
		EB Approach	8.6	A	9.6	A
		WB Approach	11.7	B	10.6	B
		NB Left	10.5	B	11.5	B
		NB Thru/Right	8.0	A	8.0	A
		NB Approach	10.2	B	11.3	B
		INTERSECTION	10.3	B	10.2	B
3 Attaway Rd & Arizona Farms Rd	Stop Controlled (SB)	EB Left	7.6	A	7.9	A
		EB Approach	0.4	A	1.0	A
		WB Right	0.0	A	0.0	A
		WB Approach	0.0	A	0.0	A
		SB Left/Right	12.2	B	11.6	B
		SB Approach	12.2	B	11.6	B
		INTERSECTION	3.4	A	2.7	A
4 Felix Rd & Arizona Farms Rd	Stop Controlled (NB)	EB Left	7.4	A	7.6	A
		EB Thru/Right	0.0	A	0.0	A
		EB Approach	0.0	A	0.2	A
		WB Left	7.9	A	7.7	A
		WB Thru/Right	0.0	A	0.0	A
		WB Approach	3.6	A	1.8	A
		NB Approach	13.8	B	12.9	B
		SB Approach	10.9	B	11.0	B
INTERSECTION	4.8	A	4.3	A		
5 Felix Rd & Heritage Rd	Stop Controlled (NB/SB)	EB Left	10.6	B	10.6	B
		EB Right	9.3	A	9.2	A
		EB Approach	10.0	A	10.5	B
		NB Left	7.6	A	7.6	A
		NB Approach	0.2	A	0.2	A
		SB Approach	0.0	A	0.0	A
		INTERSECTION	0.7	A	0.7	A
6 Felix Rd & Merrill Ranch Pkwy	One-way Stop (EB)	EB Left	10.1	B	10.1	B
		EB Thru/Right	9.2	A	8.7	A
		EB Approach	9.9	A	9.9	A
		NB Left	7.7	A	7.4	A
		NB Thru	0.0	A	0.0	A
		NB Approach	0.9	A	0.7	A
		SB Approach	0.0	A	0.0	A
INTERSECTION	2.5	A	3.2	A		
7 Felix Rd & Hunt Hwy	Stop Controlled (SB)	EB Left	7.5	A	8.1	A
		EB Approach	1.1	A	3.8	A
		WB Right	0.0	A	0.0	A
		WB Approach	0.0	A	0.0	A
		SB Left	12.2	B	14.3	B
		SB Right	9.4	A	10.1	B
		SB Approach	10.5	B	11.8	B
INTERSECTION	4.2	A	3.2	A		

EXISTING TRAFFIC SIGNAL WARRANT ANALYSIS

Methodology

The *Manual on Uniform Traffic Control Devices (MUTCD)*, Federal Highway Administration (FHWA), 2009, describes nine warrants that are used to determine if a traffic signal should be considered for installation at an intersection. A traffic signal is warranted if one or more of the warrants are satisfied. Warrants #1 (Eight Hour Volume) and #2 (Four Hour Vehicular Volume) were used to evaluate the need to signalize the intersection. Based on existing conditions, availability of information, and applicability, the remaining warrants (#3, #4, #5, #6, #7, #8 and #9) are not applicable.

Warrant #1 (Eight Hour Volume) is satisfied when for at least eight (8) hours of an average day, specific traffic volume levels are met for both the major and minor streets (Condition A – Minimum Vehicular Volume). The MUTCD states these volumes depending on the vehicles per hour (vph) combined for both approaches of the major street, and for the highest volume approach on the minor street. The values vary depending on the number of approach lanes and speed limit. Warrant #1 also applies to operating conditions where the major street traffic levels are sufficiently high that traffic entering or crossing from a minor street suffers excessive delay (Condition B – Interruption of Continuous Traffic). The warrant is satisfied when for each of any of the same eight (8) hours of an average day, specific traffic volume levels are met for both the major and minor streets.

Warrant #2 (Four Hour Volume) is met when, for any four hours of the average day on both the major and minor streets, the hourly approach volumes are above the plotted curve contained in the MUTCD.

Hunt Highway and Arizona Farms Road

24-hour traffic counts were collected at the Hunt Highway/Arizona Farms intersection for this study on Thursday September 21, 2021. The existing traffic volumes are summarized in **Table 4**. The other study intersections do meet signal warrants with existing traffic volumes.

RESULTS

It is assumed that two minor street approach lanes would be provided with signal installation, and the posted speed limit is 45 mph on Hunt Highway.

To satisfy Warrant #1A (Minimum Vehicular Volume), a major street volume of at least 420 vph and a minor street volume of 140 vph is required for 8 hours of an average day based on approaches with two or more lanes. To satisfy Warrant #1B (Interruption of Continuous Traffic), a major street volume of at least 630 vph and a minor street volume of 70 vph is required for 8 hours of an average day based on approaches with two or more lanes.

	Condition A Minimum Vehicular Volume	Condition B Interruption of Continuous Traffic	Combination of Conditions A & B ²	
Criteria - Major (vph) Total of Both Approaches	420	630	336	504
Criteria - Minor (vph) Highest Approach	140	70	112	56

To satisfy Warrant #2 (Four-Hour Vehicular), a major street volume of at least 600 vph is required for 4 hours of an average day based on approaches with two or more lanes and a minor street volume of 175 vph or less.

Warrant # 1B is satisfied with existing traffic volumes at the Hunt Highway/Arizona Farms Road intersection and seven of the required eight hours are met for Warrant # 1A. The 8th highest major street volume (both approaches) is 1,099 vph on Hunt Highway and the 8th highest minor street volume (westbound approach) is 135 vph. The other study intersections do meet signal warrants with existing traffic volumes.

Table 4: Existing Hourly Approach Traffic Volumes - Hunt Highway & Arizona Farms Road

TIME	Major Street Volume (vph) Total of Both Approaches	Minor Street Volume (vph) Highest Approach
12:00 AM	78	7
1:00 AM	77	6
2:00 AM	92	5
3:00 AM	195	21
4:00 AM	521	55
5:00 AM	875	67
6:00 AM	1279	153
7:00 AM	1369	148
8:00 AM	1067	148
9:00 AM	993	122
10:00 AM	1033	133
11:00 AM	1087	125
12:00 PM	1074	112
1:00 PM	1108	135
2:00 PM	1456	159
3:00 PM	1591	169
4:00 PM	1503	187
5:00 PM	1364	149
6:00 PM	1099	92
7:00 PM	804	73
8:00 PM	630	52
9:00 PM	397	24
10:00 PM	262	19
11:00 PM	175	3
MAX	1,591	187
8th Highest	1,099	135

CRASH ANALYSIS

Five years of crash data (2015-2019) were obtained from ADOT's Arizona Crash Information System (ACIS) for the study intersections. Crashes are summarized by year and injury severity and by collision manner in tables in the following sections. The summaries in the tables are for all crashes including those involving motor vehicles, pedestrians, and bicycles.

Hunt Highway & Arizona Farms Road

During the 5-year period, there was a total of 48 crashes reported at the Hunt Highway/Arizona Farms Road intersection. Two serious injury crashes and no fatal crashes were reported. The majority of crashes involved rear end crashes. The serious injury crashes involved a rear-end and a head-on collision.

Table 5: All Crashes per year by Injury Severity – Hunt Highway & Arizona Farms Road

Injury Severity						
YEAR	Fatality	Incapacitating Injury	Non-Incapacitating Injury	Possible Injury	No Injury	TOTAL
2015	0	0	2	2	5	9
2016	0	1	2	3	3	9
2017	0	1	2	0	5	8
2018	0	0	3	1	8	12
2019	0	0	1	1	8	10
TOTAL	0	2	10	7	29	48

Table 6: All Crashes per year by Collision Manner – Hunt Highway & Arizona Farms Road

Collision Manner												
YEAR	Single Vehicle	Angle	Left-Turn	Rear End	Head On	Sideswipe Same Direction	Sideswipe Opposite Direction	Rear to Rear	Pedestrian	Bicycle	Other	TOTAL
2015	5	0	1	2	0	0	1	0	0	0	0	9
2016	1	0	0	4	2	0	1	1	0	0	0	9
2017	3	0	0	4	0	0	1	0	0	0	0	8
2018	1	0	1	5	0	1	2	0	0	0	2	12
2019	0	0	1	6	0	1	2	0	0	0	0	10
TOTAL	10	0	3	21	2	2	7	1	0	0	2	48

Attaway Road & Judd Road

During the 5-year period, there was a total of 7 crashes reported at the Attaway Road/Judd Road intersection. Two serious injury crashes and one fatal crash were reported. The fatal crash occurred in 2017 and involved a head-on collision. The serious injury crashes involved a single vehicle collision with an animal and a crash involving a sideswipe.

Table 7: All Crashes per year by Injury Severity – Attaway Road & Judd Road

Injury Severity						
YEAR	Fatality	Incapacitating Injury	Non-Incapacitating Injury	Possible Injury	No Injury	TOTAL
2015	0	1	0	0	0	1
2016	0	0	0	0	0	0
2017	1	0	0	0	1	2
2018	0	1	0	0	0	1
2019	0	0	1	0	2	3
TOTAL	1	2	1	0	3	7

Table 8: All Crashes per year by Collision Manner - Attaway Road & Judd Road

Collision Manner										
YEAR	Single Vehicle	Angle	Left-Turn	Rear End	Head On	Sideswipe Opposite Direction	Pedestrian	Bicycle	Other	TOTAL
2015	1	0	0	0	0	0	0	0	0	1
2016	0	0	0	0	0	0	0	0	0	0
2017	0	1	0	0	1	0	0	0	0	2
2018	0	0	0	0	0	1	0	0	0	1
2019	0	0	1	1	0	0	0	0	1	3
TOTAL	1	1	1	1	1	1	0	0	1	7

Attaway Road & Arizona Farms Road

During the 5-year period, there was a total of 10 crashes reported at the Attaway Road/Arizona Farms Road intersection. No serious injury crashes and no fatal crashes were reported. The majority of crashes involved single vehicles.

Table 9: All Crashes per year by Injury Severity – Attaway Road & Arizona Farms Road

Injury Severity						
YEAR	Fatality	Incapacitating Injury	Non-Incapacitating Injury	Possible Injury	No Injury	TOTAL
2015	0	0	0	0	0	0
2016	0	0	0	1	0	1
2017	0	0	0	0	4	4
2018	0	0	1	0	2	3
2019	0	0	0	0	2	2
TOTAL	0	0	1	1	8	10

Table 10: All Crashes per year by Collision Manner – Attaway Road & Arizona Farms Road

Collision Manner							
YEAR	Single Vehicle	Angle	Left-Turn	Rear End	Pedestrian	Bicycle	TOTAL
2015	0	0	0	0	0	0	0
2016	1	0	0	0	0	0	1
2017	2	1	0	1	0	0	4
2018	2	0	0	1	0	0	3
2019	2	0	0	0	0	0	2
TOTAL	7	1	0	2	0	0	10

Felix Road & Arizona Farms Road

During the 5-year period, there was a total of 10 crashes at the Felix Road/Arizona Farms Road intersection. Two serious injury crashes and no fatal crashes were reported. The serious injury crashes involved a left-turn and a rear-end collision. The majority of crashes involved single vehicles.

Table 11: All Crashes per year by Injury Severity – Felix Road & Arizona Farms Road

Injury Severity						
YEAR	Fatality	Incapacitating Injury	Non-Incapacitating Injury	Possible Injury	No Injury	TOTAL
2015	0	0	0	1	1	2
2016	0	2	2	0	1	5
2017	0	0	0	0	0	0
2018	0	0	0	0	3	3
2019	0	0	0	0	0	0
TOTAL	0	2	2	1	5	10

Table 12: All Crashes per year by Collision Manner - Felix Road & Arizona Farms Road

Collision Manner								
YEAR	Single Vehicle	Angle	Left-Turn	Rear End	Pedestrian	Bicycle	Other	TOTAL
2015	1	0	0	1	0	0	0	2
2016	2	0	2	1	0	0	0	5
2017	0	0	0	0	0	0	0	0
2018	2	1	0	0	0	0	0	3
2019	0	0	0	0	0	0	0	0
TOTAL	5	1	2	2	0	0	0	10

Felix Road & Heritage Road

During the 5-year period, there was one serious injury crash reported in 2019 involving a single vehicle rollover crash.

Table 13: All Crashes per year by Injury Severity – Felix Road & Heritage Road

Injury Severity						
YEAR	Fatality	Incapacitating Injury	Non-Incapacitating Injury	Possible Injury	No Injury	TOTAL
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	0	1	0	0	0	1
TOTAL	0	1	0	0	0	1

Table 14: All Crashes per year by Collision Manner - Felix Road & Heritage Road

Collision Manner								
YEAR	Single Vehicle	Angle	Left-Turn	Rear End	Pedestrian	Bicycle	Other	TOTAL
2015	0	0	0	0	0	0	0	0
2016	0	0	0	0	0	0	0	0
2017	0	0	0	0	0	0	0	0
2018	0	0	0	0	0	0	0	0
2019	1	0	0	0	0	0	0	1
TOTAL	1	0	0	0	0	0	0	1

Felix Road & Merrill Ranch Parkway

During the 5-year period, there was a total of two crashes reported at the Felix Road/Merrill Ranch Parkway intersection in 2016 involving single vehicle collisions. No serious injury crashes and no fatal crashes were reported.

Table 15: All Crashes per year by Injury Severity – Felix Road & Merrill Ranch Parkway

Injury Severity						
YEAR	Fatality	Incapacitating Injury	Non-Incapacitating Injury	Possible Injury	No Injury	TOTAL
2015	0	0	0	0	0	0
2016	0	0	0	0	2	2
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	0	0	0	0	0	0
TOTAL	0	0	0	0	2	2

Table 16: All Crashes per year by Collision Manner - Felix Road & Merrill Ranch Parkway

Collision Manner								
YEAR	Single Vehicle	Angle	Left-Turn	Rear End	Pedestrian	Bicycle	Other	TOTAL
2015	0	0	0	0	0	0	0	0
2016	2	0	0	0	0	0	0	2
2017	0	0	0	0	0	0	0	0
2018	0	0	0	0	0	0	0	0
2019	0	0	0	0	0	0	0	0
TOTAL	2	0	0	0	0	0	0	2

Felix Road & Hunt Highway

During the 5-year period, there was a total of 18 crashes reported at the Felix Road/Hunt Highway intersection. One serious injury crash and no fatal crashes were reported. The serious injury crash occurred in 2019 and involved a left-turn collision. The majority of crashes involved single vehicles.

Table 17: All Crashes per year by Injury Severity – Felix Road & Hunt Highway

Injury Severity						
YEAR	Fatality	Incapacitating Injury	Non-Incapacitating Injury	Possible Injury	No Injury	TOTAL
2015	0	0	1	0	2	3
2016	0	0	0	1	2	3
2017	0	0	2	0	1	3
2018	0	0	2	1	3	6
2019	0	1	0	1	1	3
TOTAL	0	1	5	3	9	18

Table 18: All Crashes per year by Collision Manner - Felix Road & Hunt Highway

Collision Manner									
YEAR	Single Vehicle	Angle	Left-Turn	Rear End	Sideswipe Same Direction	Sideswipe Opposite Direction	Pedestrian	Bicycle	TOTAL
2015	3	0	0	0	0	0	0	0	3
2016	2	0	0	1	0	0	0	0	3
2017	2	0	1	0	0	0	0	0	3
2018	2	0	1	1	1	1	0	0	6
2019	1	0	1	1	0	0	0	0	3
TOTAL	10	0	3	3	1	1	0	0	18

PROPOSED DEVELOPMENT

SITE LOCATION, LAND USE, AND ACCESS

A mixed-use development is proposed in the southwest corner of Felix Road and Arizona Farms Road in Pinal County. The site is bordered by Arizona Farms Road to the north, Felix Road to the east, Heritage Road to the south, and the Copper Basin Railway to the west. Access is proposed on Arizona Farms Road, Felix Road and Heritage Road. The development primarily consists of residential parcels with a few commercial parcels. The land use is summarized in **Table 19**. Four phases of development are proposed. For this analysis, phase 1 was assumed for horizon year 2025 with full build-out in horizon year 2035. **Figure 8** depicts the site plan with the access spacing. The site plan is included in **Appendix A**.

Table 19: Land Use

Land Use	SIZE	
Single Family Phase 1	747	DU
Single Family Phase 2	597	DU
Single Family Phase 3	635	DU
Single Family Phase 4	332	DU
Total Single Family	2311	DU
Multi-family Phase 2	721	DU
Multi-family Phase 4	212	DU
Total Multi-family	933	DU
Commercial Phase 2 (34.03 acres)	296,000	SF
Commercial Phase 4 (4.42 acres)	39,000	SF
Total Commercial (38.45 acres)	335,000	SF

ACCESS CONTROL AND SPACING

Access management is the coordinated planning, regulation, and design of access between roadways and the abutting land uses/activity centers they serve. The distance between adjacent driveways must be adequate to allow driveway vehicles to safely queue, accelerate, decelerate, and cross conflicting traffic streams without excessive interference with through traffic, or traffic using adjacent driveways. Access management guidelines are included in *Pinal County Access Management Manual, February 2017*. Hunt Highway and Arizona Farms Road are regional significant routes (RSR) according to Pinal County's map for *Regionally Significant Routes for Safety & Mobility (RSRSM), 2017 Update*.

The location of the collector and local streets has been designed as part of the site plan. Driveway locations serving the commercial and multi-family parcels have been assumed for purposes of assigning traffic. Private access/driveways with full movements should be 660 feet from a signal and partial access should be 330 feet from a signal. Signal locations should have at least ¼ mile spacing.

As depicted in **Figure 8**, all potential signal locations (Access A, Attaway Road/Arizona Farms Road, Access B, Felix Road/Arizona Farms Road, Access D, & Access E) have at least ¼ mile spacing, and all non-signalized full access driveways have spacing of at least 660 feet. The unidentified driveways for the multifamily and commercial parcels shall follow these spacing requirements when developed.

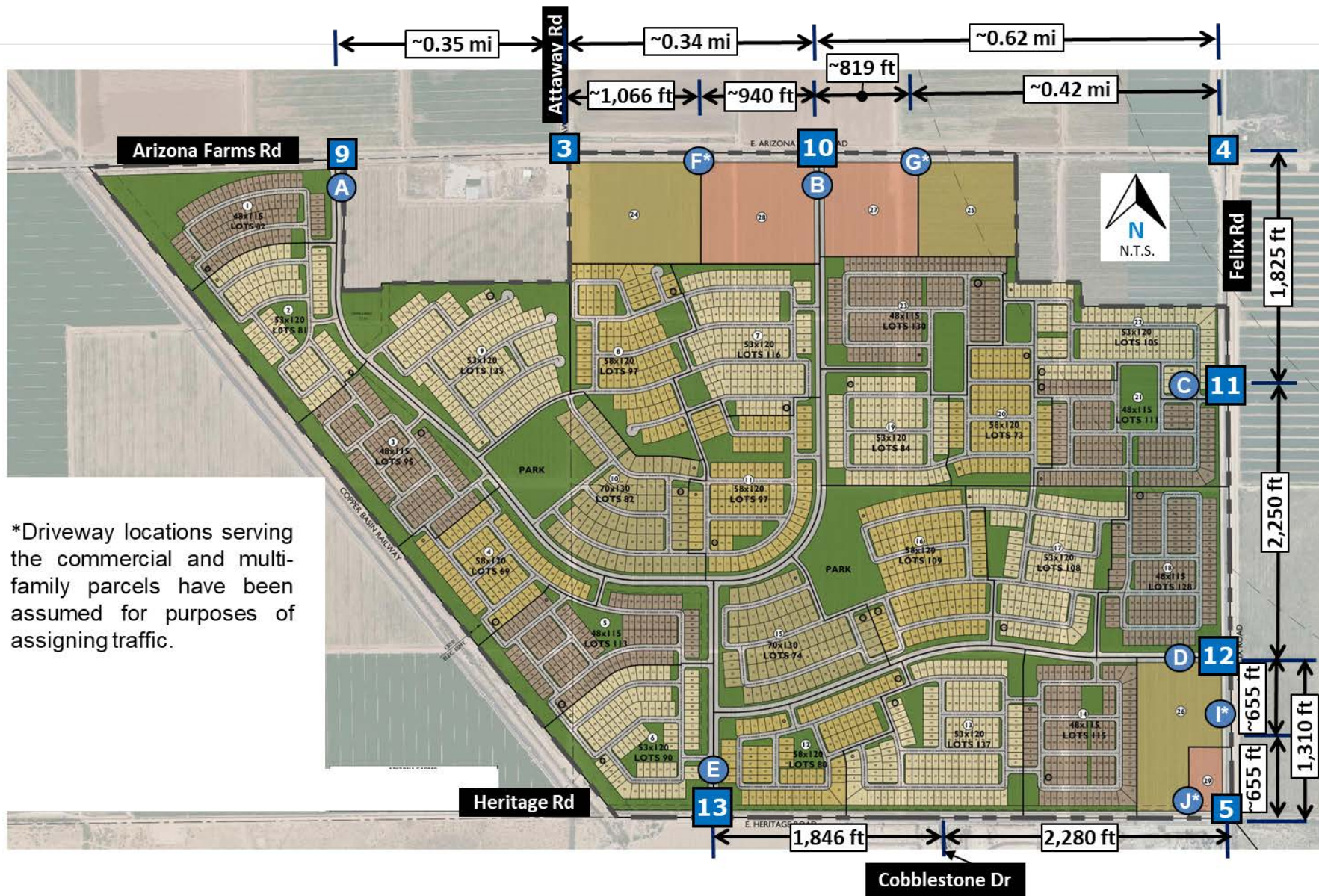


Figure 8: Site Plan with Access Spacing

TRIP GENERATION

The trip generation for the project was estimated utilizing the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 11th Edition*. The manual contains data collected by various transportation professionals for a wide range of different land uses. The data summarized in the manual include average rates and equations that have been established correlating the relationship between an independent variable that describes the development size and generated trips for each categorized land use. The manual provides information for daily and peak hour trips. **Table 20** summarizes the trip generation for the proposed development, and **Appendix D** provides the generated trip calculation.

Table 20: Trip Generation

DESCRIPTION OF LAND USE					VEHICLE GENERATED TRIPS						
					Daily	AM Peak Hour			PM Peak Hour		
Phase	Land Use	ITE LUC	SIZE		Total	Enter	Exit	Total	Enter	Exit	Total
1	Arizona Farms Single Family Phase 1	210	747	DU	6,417	121	343	464	415	243	658
2	Arizona Farms Single Family Phase 2	210	597	DU	5,222	99	280	379	336	197	533
2	Parcel 24: Multi-family	220	426	DU	2,871	41	129	170	137	80	217
2	Parcel 27: Commerical	710	130	KSF	1,409	174	24	198	32	155	187
2	Parcel 28: Commerical	820	166	KSF	6,144	86	53	139	271	293	564
2	Parcel 25: Multi-family	220	295	DU	1,988	28	90	118	95	55	150
PHASE 2 TOTAL					17,634	428	576	1,004	871	780	1,651
<i>25% Internal Trips (Commercial & Office Only)</i>					1,888	65	19	84	76	112	188
PHASE 2 "NEW" TRIPS ADDED TO THE STREET SYSTEM					15,746	363	557	920	795	668	1,463
3	Arizona Farms Single Family Phase 3	210	635	DU	5,527	104	297	401	356	209	565
4	Arizona Farms Single Family Phase 4	210	332	DU	3,043	58	164	222	193	114	307
4	Parcel 26: Multi-family	220	212	DU	1,429	20	65	85	68	40	108
4	Parcel 29: Commercial	820	39	KSF	1,472	23	14	37	72	77	149
FULL BUILD-OUT TOTAL (PHASES 1-4)					35,522	754	1,459	2,213	1,975	1,463	3,438
<i>25% Internal Trips (Commercial & Office Only)</i>					2,256	71	23	94	94	131	225
FULL BUILD-OUT "NEW" TRIPS ADDED TO THE STREET SYSTEM					33,266	683	1,436	2,119	1,881	1,332	3,213

Full build-out of the proposed development is anticipated to generate 33,266 weekday daily trips (entering/exiting) with 2,119 trips (entering/exiting) during the AM peak hour and 3,213 trips (entering/exiting) during PM Peak Hour.

TRIP DISTRIBUTION AND ASSIGNMENT

The generated trips for the proposed development have been distributed and assigned to the surrounding street system to estimate future traffic from the development. The distribution was based on existing traffic patterns and employment centers. The distribution percentages utilized in this analysis are depicted in **Figure 9** for 2025 (phase 1) without a Heritage Road connection to Hunt Highway and in **Figure 10** for 2035 (site full build-out) with a Heritage Road connection. A few trips from the corner commercial parcel were assumed to be captured within the study area. Utilizing the trip generation and distribution, new trips from the proposed development were assigned to the study intersections and are depicted in **Figure 11** for phase 1 and in **Figure 12** for full build-out.

FUTURE TRAFFIC

An annual growth rate of 3.5 percent was applied to the existing traffic volumes to capture growth through horizon years 2025 and 2035 as provided by Pinal County. The peak hour background without site traffic volumes is depicted in **Figure 13** and **Figure 14** respectively for horizon year 2025 and horizon year 2035. The construction of Heritage Road to Hunt Highway was assumed to be completed by 2035, but not in place for the 2025 scenario.

Site phase 1 is projected to be developed by horizon year 2025. Full build-out of the development is assumed for horizon year 2035. The weekday traffic volumes for the 2025 background with site phase 1 are depicted in Error! Reference source not found., and the 2035 background with site full build-out scenario is depicted in **Figure 16**.

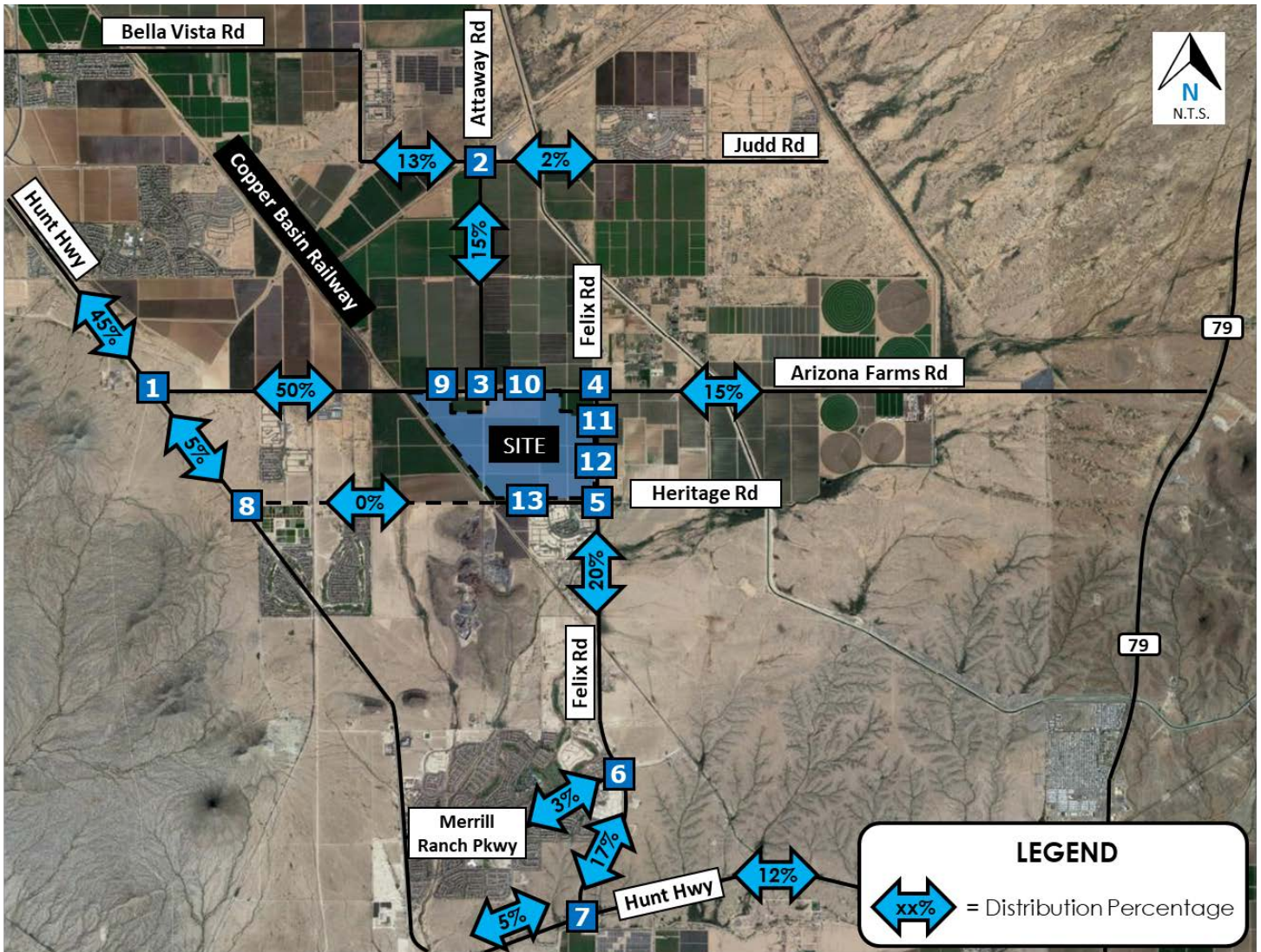


Figure 9: 2025 Trip Distribution

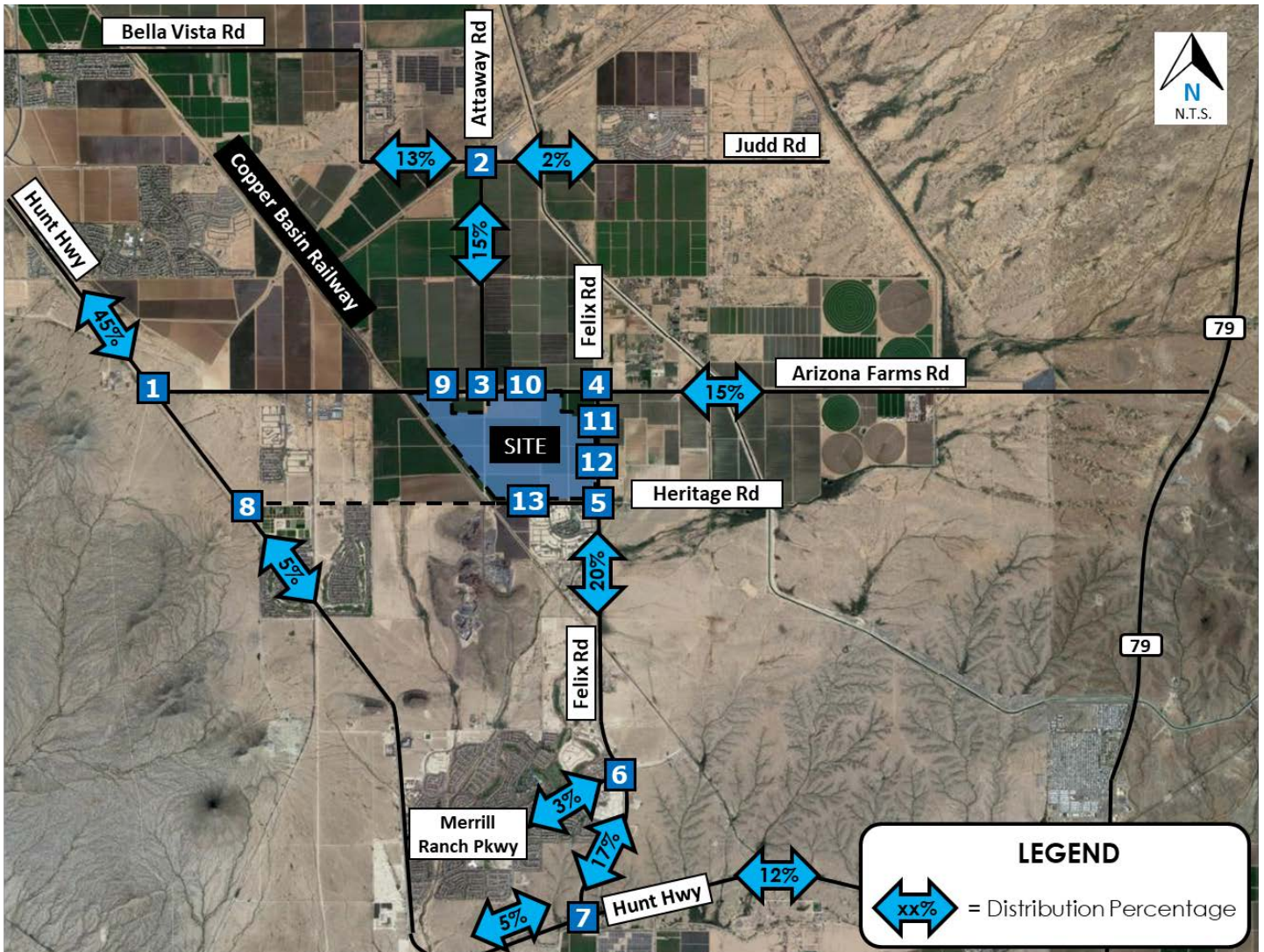


Figure 10: 2035 Trip Distribution

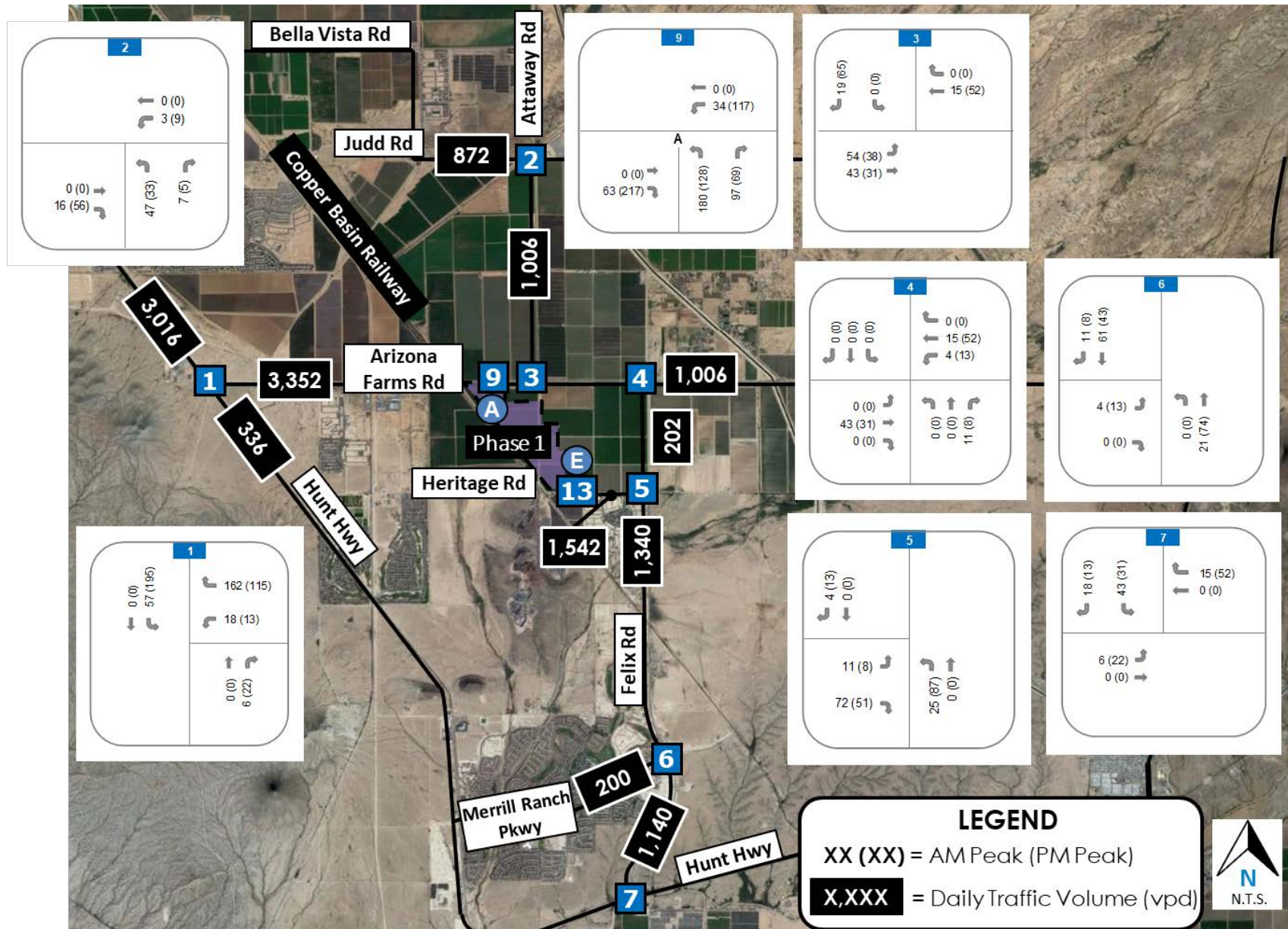


Figure 11: Site Weekday Traffic Volumes – Phase 1

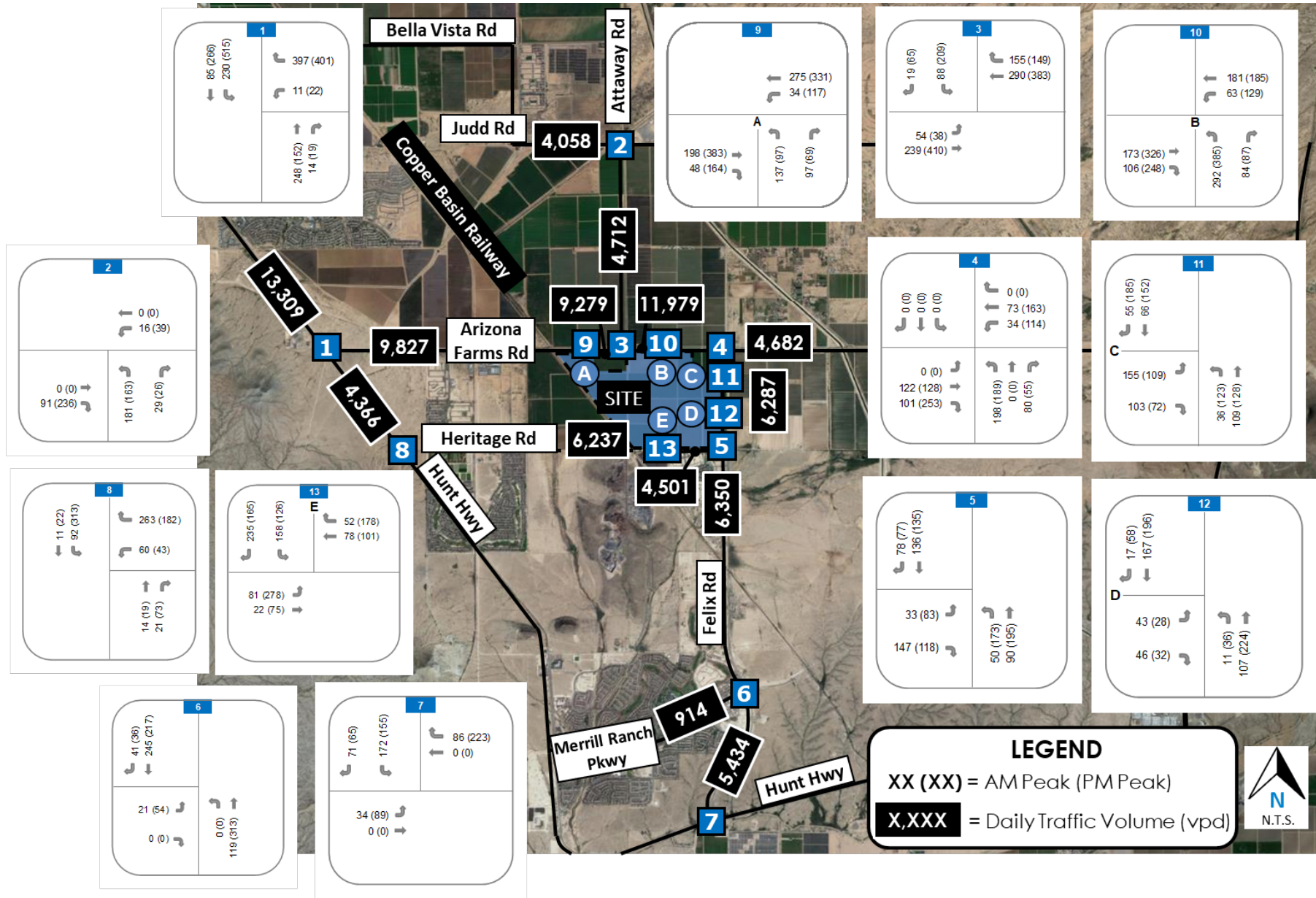


Figure 12: Site Weekday Traffic Volumes – Full Build-out (all phases)

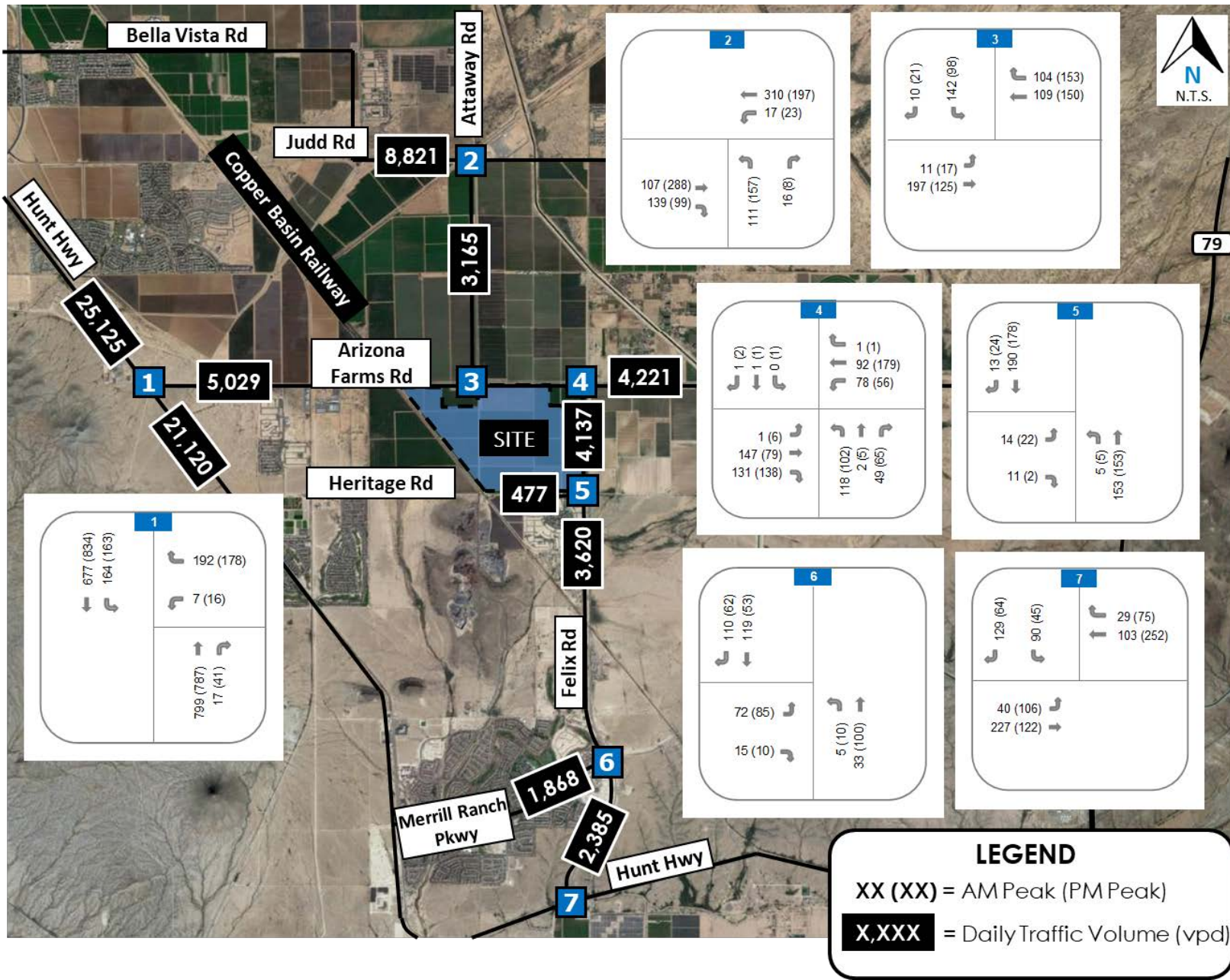


Figure 13: Background 2025 without Site Weekday Traffic Volumes

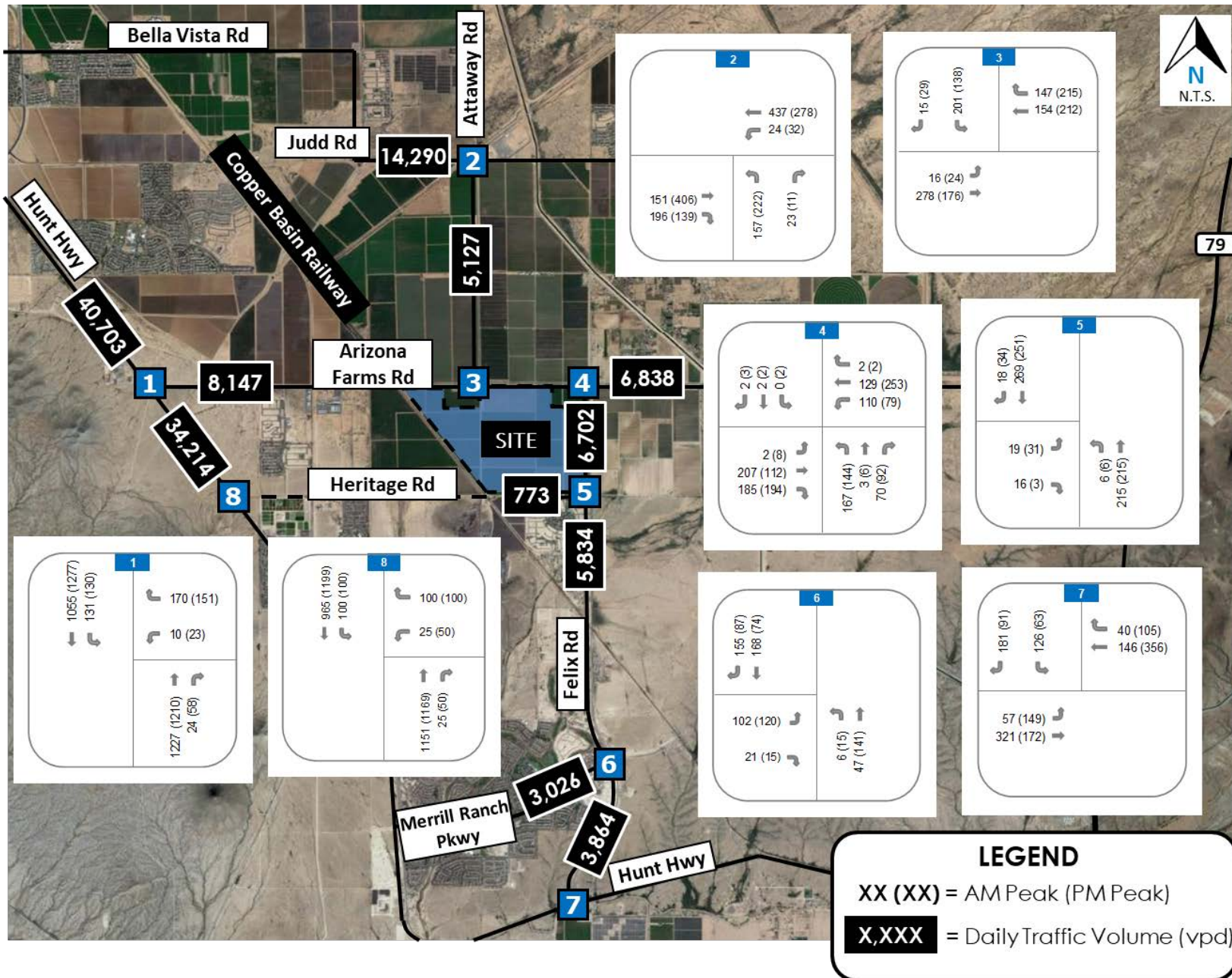


Figure 14: Background 2035 without Site Weekday Traffic Volumes

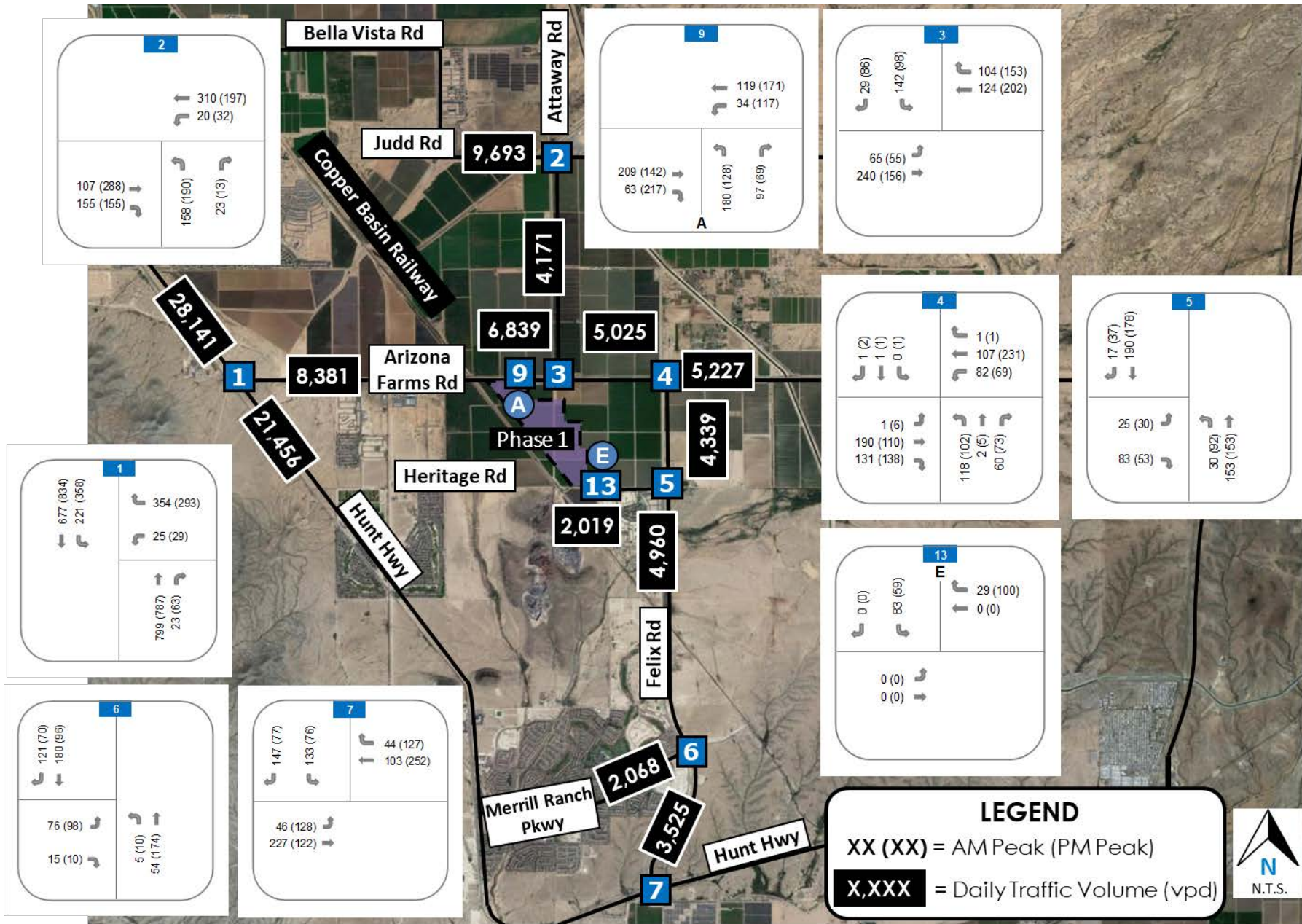


Figure 15: 2025 Background with Site Phase 1 Traffic Volumes

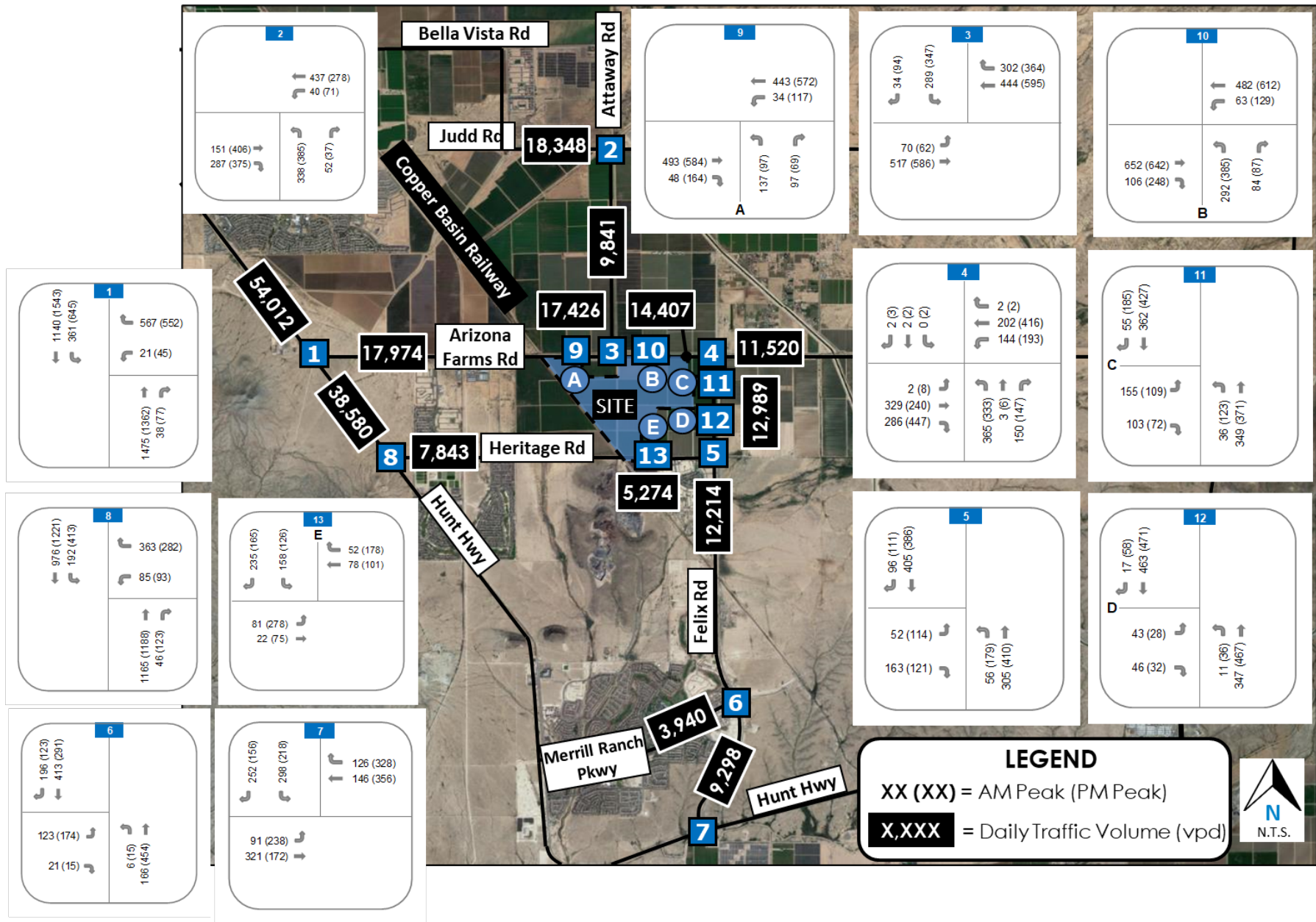


Figure 16: 2035 Background with Site Phases 1-4 Full Build-out Traffic Volumes

FUTURE TRAFFIC ANALYSES

FUTURE TRAFFIC SIGNAL WARRANT ANALYSIS

The traffic signal warrant methodology is previously discussed under existing conditions. To estimate future traffic, hourly traffic volumes from the site were estimated using the land use percentages provided in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*. The hourly trips were assigned to the study intersection based on the previously discussed trip distribution. A summary of the signal warrants is provided in **Table 21**.

All of the study intersections, with the exception of Felix Road/Local C, Felix Road/Collector D, and Felix Road/Merrill Ranch Parkway are expected to satisfy criteria for a traffic signal warrant by horizon year 2035.

The southbound approach at the intersection of Felix Road and Hunt Highway is expected to meet the minor street volume requirements with background traffic based on a 3.5% annual growth rate. The hourly traffic on Hunt Highway at Felix Road was not collected for this study.

Table 21: Signal Warrant Summary

Intersection	Traffic Signal Warrant Satisfied				
	Existing	2025 Background	2035 Background	2025 Total	2035 Total
1. Hunt Highway & Arizona Farms Road	Warrant 1A & 1B	Warrants 1A & 1B	Warrants 1A & 1B	Warrants 1A & 1B	Warrants 1A & 1B
2. Attaway Road & Judd Road	-	-	4 hrs met	3 hrs met	Warrant 1A
3. Attaway Road & Arizona Farms Road	-	-	5 hrs met	5 hrs met	Warrants 1A & 1B
4. Felix Road & Arizona Farms Road	-	-	6 hrs met	-	Warrants 1A & 1B
5. Felix Road & Heritage Road	-	-	-	-	Warrants 1A & 1B
6. Felix Road & Merrill Ranch Road	-	-	-	-	-
7. Felix Road & Hunt Highway	-	SB Approach Met	SB Approach Met	Monitor Intersection	
8. Hunt Highway & Heritage Road	-	-	-	-	Warrants 1A & 1B
9. Collector A & Arizona Farms Road	-	-	-	-	Warrants 1A & 1B
10. Collector B & Arizona Farms Road	-	-	-	-	Warrants 1A & 1B
11. Felix Road & Local C	-	-	-	-	-
12. Felix Road & Collector D	-	-	-	-	7 hrs met
13. Collector E & Heritage Road	-	-	-	-	Warrant 1B

FUTURE LEVEL-OF-SERVICE

The level-of-service for the future horizon years was analyzed for the study intersections. Synchro software was utilized to calculate the average delay and level-of-service. The input and output for these analyses are provided in **Appendix E** for 2025 and **Appendix F** for 2035. The level-of-service analysis are summarized in **Table 22** and **Table 23** respectively for horizon year 2025 and horizon year 2035.

Horizon Year 2025

The intersection of Hunt Highway and Arizona Farms will continue to operate a poor level of service in 2025 as stop controlled. A traffic signal warrant is satisfied at this intersection with existing traffic counts.

Table 22: Level-of-Service Summary – Horizon Year 2025 without Traffic Signals

Intersection	Traffic Control	Movement/ Approach	2025 Background				2025 Background Plus Site Full Build-out			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS
1 Hunt Hwy & Arizona Farms Rd	Stop Controlled (WB)	WB Approach	52.3	F	168.1	F	562.1	F	90.6	F
		SB Left	11.1	B	11.2	B	11.9	B	12.1	B
2 Attaway Rd & Judd Rd	Stop Controlled (All-Way)	EB Thru	8.7	A	10.6	B	9.1	A	11.1	B
		EB Right	9.1	A	9.9	A	9.8	A	11.3	B
		EB Approach	9.0	A	10.2	B	9.6	A	11.2	B
		WB Approach	13.2	B	11.5	B	14.3	B	12.5	B
		NB Left	11.1	B	12.4	B	12.5	B	14.0	B
		NB Right	8.2	A	8.2	A	8.4	A	8.5	A
		NB Approach	10.7	B	12.2	B	12.0	B	13.6	B
		INTERSECTION	11.3	B	11.0	B	12.2	B	12.1	B
3 Attaway Rd & Arizona Farms Rd	Stop Controlled (SB)	EB Left	7.7	A	8.0	A	7.9	A	8.2	A
		SB Approach	13.2	B	12.5	B	14.5	B	13.7	B
4 Felix Rd & Arizona Farms Rd	Stop Controlled (NB/SB)	EB Left	7.4	A	7.6	A	7.4	A	7.8	A
		WB Left	8.1	A	7.8	A	8.2	A	8.0	A
		NB Approach	15.8	C	14.5	B	17.7	C	17.1	C
		SB Approach	11.4	B	11.6	B	12.0	B	12.8	B
5 Felix Rd & Heritage Rd	Stop Controlled (EB)	EB Left	11.0	B	11.1	B	11.1	B	12.2	B
		EB Right	9.4	A	9.3	A	9.9	A	9.7	A
		EB Approach	10.3	B	11.0	B	10.2	B	10.6	B
		NB Left	7.7	A	7.7	A	7.7	A	7.9	A
6 Felix Rd & Merrill Ranch Pkwy	Stop Controlled (EB)	EB Left	10.4	B	10.4	B	11.2	B	11.8	B
		EB Right	9.3	A	8.8	A	9.7	A	9.0	A
		EB Approach	10.2	B	10.2	B	11.0	B	11.5	B
		NB Left	7.7	A	7.5	A	7.9	A	7.6	A
7 Felix Rd & Hunt Hwy	Stop Controlled (SB)	EB Left	7.6	A	8.3	A	7.6	A	8.6	A
		SB Left	13.2	B	16.0	C	14.6	B	19.6	C
		SB Right	9.6	A	10.5	B	9.8	A	10.8	B
		SB Approach	11.1	B	12.8	B	12.1	B	15.2	C
9 Collector A & Arizona Farms Rd	Stop Controlled (NB)	WB Left	-		-		7.9	A	8.5	A
		NB Left	-		-		13.3	B	15.3	C
		NB Right	-		-		10.1	B	9.4	A
		NB Approach	-		-		12.2	B	13.2	B
13 Collector E & Heritage Rd	Stop Controlled (SB)	SB Left	-		-		0.0	A	0.0	A
		WB Right	-		-		0.0	A	0.0	A

Table 23: Level-of-Service Summary – Horizon Year 2035 without Traffic Signals

Intersection	Traffic Control	Movement/ Approach	2035 Background				2035 Background Plus Site Full Build-out			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS
1 Hunt Hwy & Arizona Farms Rd	Stop Controlled (WB)	WB Left/Right	38.0	E	45.7	E	Exceeds 300	F	Exceeds 300	F
		WB Right	21.4	C	19.7	C	Exceeds 300	F	Exceeds 300	F
		WB Approach	22.3	C	23.1	C	Exceeds 300	F	Exceeds 300	F
		SB Left	15.0	B	15.2	C	80.3	F	Exceeds 300	F
2 Attaway Rd & Judd Rd	Stop Controlled (All-Way)	EB Thru	9.9	A	14.4	B	12.1	B	20.8	C
		EB Right	11.5	B	13.3	B	22.4	C	81.3	F
		EB Approach	11.0	B	13.8	B	20.0	C	60.3	F
		WB Approach	24.9	C	16.8	C	62.4	F	32.3	D
		NB Left	13.8	B	17.1	C	36.7	E	59.1	F
		NB Right	9.0	A	9.0	A	10.2	B	10.3	B
		NB Approach	13.2	B	16.7	C	33.2	D	54.8	F
		INTERSECTION	17.9	C	15.3	C	39.4	E	52.5	F
3 Attaway Rd & Arizona Farms Rd	Stop Controlled (SB)	EB Left	8.0	A	8.4	A	9.9	A	11.0	B
		SB Approach	14.3	B	13.9	B	99.6	F	Exceeds 300	F
4 Felix Rd & Arizona Farms Rd	Stop Controlled (NB/SB)	EB Left	7.5	A	7.8	A	7.7	A	8.3	A
		WB Left	8.6	A	8.2	A	9.7	A	10.6	B
		NB Left	22.3	C	16.8	C	344.8	F	Exceeds 300	F
		NB Thru	15.0	B	14.5	B	20.9	C	30.6	D
		NB Right	9.3	A	9.0	A	10.4	B	9.9	A
		NB Approach	18.4	C	13.8	B	246.1	F	Exceeds 300	F
		SB Approach	13.4	B	13.2	B	19.1	C	29.8	D
5 Felix Rd & Heritage Rd	Stop Controlled (EB)	EB Left	11.1	B	11.1	B	14.8	B	23.6	C
		EB Right	9.2	A	9.1	A	11.6	B	10.4	B
		EB Approach	10.2	B	10.9	B	12.4	B	16.8	C
		NB Left	7.9	A	7.9	A	8.7	A	9.3	A
6 Felix Rd & Merrill Ranch Pkwy	Stop Controlled (EB)	EB Left	11.6	B	11.1	B	18.8	C	22.9	C
		EB Right	9.4	A	8.8	A	10.6	B	9.7	A
		EB Approach	11.2	B	10.8	B	17.6	C	21.9	C
		NB Left	8.0	A	7.6	A	8.9	A	8.3	A
7 Felix Rd & Hunt Hwy	Stop Controlled (SB)	EB Left	7.8	A	9.0	A	8.1	A	11.0	B
		SB Left	14.7	B	25.4	D	46.1	E	Exceeds 300	F
		SB Right	9.7	A	10.5	B	11.0	B	12.9	B
		SB Approach	11.8	B	16.6	C	30.0	D	279.2	F
8 Hunt Hwy & Heritage Rd	Stop Controlled (WB)	WB Left	188.1	F	579.1	F	Exceeds 300	F	Exceeds 300	F
		WB Right	16.3	C	16.5	C	60.6	F	34.7	D
		WB Approach	50.7	F	204.0	F	Exceeds 300	F	Exceeds 300	F
		SB Left	13.4	B	13.8	B	16.5	C	59.3	F

Level-of-Service Summary Horizon Year 2035 Continued (without traffic signals)

Intersection	Traffic Control	Movement/ Approach	2035 Background				2035 Background Plus Site Full Build-out			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS
9 Collector A & Arizona Farms Rd	Stop Controlled (NB)	WB Left	-		-		8.8	A	10.3	B
		NB Left	-		-		18.9	C	25.2	D
		NB Right	-		-		10.8	B	11.0	B
		NB Approach	-		-		15.5	C	19.3	C
10 Collector B & Arizona Farms Rd	Stop Controlled (NB)	WB Left	-		-		9.9	A	11.3	B
		NB Left	-		-		89.1	F	Exceeds 300	F
		NB Right	-		-		11.5	B	11.5	B
		NB Approach	-		-		71.8	F	291.7	F
11 Local C & Felix Rd	Stop Controlled (EB)	EB Left	-		-		16.4	C	20.3	C
		EB Right	-		-		10.1	B	10.2	B
		EB Approach	-		-		13.9	B	16.3	C
		NB Left	-		-		8.4	A	9.6	A
12 Collector D & Felix Rd	Stop Controlled (EB)	EB Left	-		-		13.8	B	14.5	B
		EB Right	-		-		10.2	B	10.1	B
		EB Approach	-		-		11.9	B	12.2	B
		NB Left	-		-		8.5	A	8.8	A
13 Collector E & Heritage Rd	Stop Controlled (SB)	SB Left	-		-		11.9	B	19.5	C
		SB Right	-		-		10.0	A	9.7	A
		SB Approach	-		-		10.8	B	13.9	B
		EB Left	-		-		7.7	A	8.8	A

Horizon Year 2035

In horizon year 2035, the following intersections will operate at a poor level-of-service as stop sign controlled:

- ❖ Hunt Highway & Arizona Farms Road (Southbound Left & Westbound Approach)
- ❖ Attaway Road & Judd Road (All approaches)
- ❖ Attaway Road & Arizona Farms Road (Southbound Approach)
- ❖ Felix Road & Arizona Farms Road (Northbound Approach)
- ❖ Felix Road & Hunt Highway (Southbound Left)
- ❖ Hunt Highway & Heritage Road (Southbound Left & Westbound Approach)
- ❖ Collector B & Arizona Farms Road (Northbound Approach)

Traffic signal warrants are expected to be satisfied at all of the above intersections.

A traffic signal should not immediately be planned for the intersection of Felix Road and Hunt Highway. The intersection is further from the proposed development and may not experience the predicted traffic volumes until the surrounding area is built out. The intersection should be monitored for a future traffic signal as development occurs.

Table 24 summarizes the level-of-service analysis for year 2035 with the proposed improvements. The input and output for the 2035 with proposed improvement analyses are provided in **Appendix G**.

Table 24: Level-of-Service Summary – Horizon Year 2035 with Proposed Improvements

Intersection	Traffic Control	Movement/ Approach	2035 Background Plus Site Full Build-out with Proposed Improvements			
			AM Peak Hour		PM Peak Hour	
			Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS
1 Hunt Hwy & Arizona Farms Rd	Traffic Signal					
		WB Left	35.3	D	41.6	D
		WB Right	32.0	C	28.5	C
		WB Approach	32.1	C	29.5	C
		NB Thru	37.4	D	36.4	D
		NB Right	14.1	B	17.3	B
		NB Approach	36.8	D	35.4	D
		SB Left	49.3	D	53.3	D
		SB Thru	8.3	A	8.5	A
		SB Approach	17.9	B	20.8	C
	INTERSECTION	28.3	C	27.0	C	
2 Attaway Rd & Judd Rd	Traffic Signal					
		EB Thru	7.8	A	10.3	B
		EB Right	9.5	A	11.3	B
		EB Approach	8.9	A	10.8	B
		WB Left	8.8	A	14.6	B
		WB Thru	10.7	B	9.0	A
		WB Approach	10.6	B	10.2	B
		NB Left	13.4	B	15.4	B
		NB Right	9.0	A	9.9	A
		NB Approach	12.8	B	14.9	B
	INTERSECTION	10.7	B	11.8	B	
3 Attaway Rd & Arizona Farms Rd	Traffic Signal					
		EB Left	7.9	A	9.3	A
		EB Thru	6.4	A	6.7	A
		EB Approach	6.6	A	7.0	A
		WB Left		A		A
		WB Thru	6.4	A	6.8	A
		WB Right	7.6	A	8.3	A
		WB Approach	6.8	A	7.4	A
		SB Left	10.8	B	12.0	B
		SB Right	9.7	A	11.3	B
SB Approach	10.7	B	11.8	B		
	INTERSECTION	7.5	A	8.3	A	
4 Felix Rd & Arizona Farms Rd	Traffic Signal					
		EB Left	11.3	B	15.5	B
		EB Thru	11.4	B	10.5	B
		EB Right	11.4	B	15.7	B
		EB Approach	11.4	B	13.8	B
		WB Left	18.0	B	19.7	B
		WB Thru	10.2	B	13.3	B
		WB Right	10.2	B	13.3	B
		WB Approach	13.4	B	15.4	B
		NB Left	29.1	C	25.9	C
		NB Thru	11.2	B	11.2	B
		NB Right	11.2	B	11.2	B
		NB Approach	23.1	C	20.7	C
		SB Left	0.0	A	19.0	B
SB Thru	19.1	B	19.1	B		
SB Right	19.1	B	19.1	B		
SB Approach	19.1	B	19.1	B		
	INTERSECTION	15.8	B	16.3	B	
5 Felix Rd & Heritage Rd	Stop Sign Control (EB)					
		EB Left	15.1	C	26.2	D
		EB Right	13.6	B	12.4	B
		EB Approach	13.9	B	18.2	C
6 Felix Rd & Merril Ranch Pkwy	Stop Sign Control (EB)					
		EB Left	17.7	C	32.8	D
		EB Right	11.3	B	10.2	B
		EB Approach	16.8	C	31.0	D
	NB Left	9.0	A	8.3	A	

Level-of-Service Summary Horizon Year 2035 with Proposed Improvements (continued)

Intersection	Traffic Control	Movement/ Approach	2035 Background Plus Site Full Build-out with Proposed Improvements			
			AM Peak Hour		PM Peak Hour	
			Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS
7 Felix Rd & Hunt Hwy	Stop Sign Control (SB)	EB Left	12.1	B	20.1	C
		EB Thru	22.5	C	14.2	B
		EB Approach	20.2	C	17.8	C
		WB Thru	13.2	B	26.8	D
		WB Right	11.4	B	19.4	C
		WB Approach	12.4	B	23.2	C
		SB Left	24.2	C	20.5	C
		SB Right	14.0	B	12.9	B
		SB Approach	19.6	C	17.4	C
		INTERSECTION	18.2	C	20.2	C
8 Hunt Hwy & Heritage Rd	Traffic Signal	WB Left	26.1	C	34.4	C
		WB Right	49.8	D	26.4	C
		WB Approach	45.7	D	28.2	C
		NB Thru	19.6	B	25.8	C
		NB Right	12.4	B	16.6	B
		NB Approach	19.3	B	24.9	C
		SB Left	37.6	D	40.9	D
		SB Thru	8.1	A	7.6	A
		SB Approach	13.4	B	17.1	B
		INTERSECTION	21.7	C	21.4	C
9 Collector A & Arizona Farms Rd	Traffic Signal	EB Thru	6.1	A	5.2	A
		EB Right	5.3	A	5.1	A
		EB Approach	6.1	A	5.2	A
		WB Left	7.4	A	7.8	A
		WB Thru	6.0	A	5.2	A
		WB Approach	6.1	A	5.7	A
		NB Left	11.9	B	13.8	B
		NB Right	10.9	B	12.9	B
		NB Approach	11.5	B	13.5	B
		INTERSECTION	7.2	A	6.4	A
10 Collector B & Arizona Farms Rd	Traffic Signal	EB Thru	6.8	A	6.5	A
		EB Right	5.9	A	6.7	A
		EB Approach	6.7	A	6.6	A
		WB Left	9.3	A	10.7	B
		WB Thru	6.2	A	6.4	A
		WB Approach	6.6	A	7.2	A
		NB Left	11.4	B	14.6	B
		NB Right	10.8	B	13.3	B
		NB Approach	11.3	B	14.3	B
		INTERSECTION	7.8	A	8.6	A
11 Local C & Felix Rd	Stop Sign Control (EB)	EB Left	13.5	B	14.9	B
		EB Right	9.8	A	10.0	A
		EB Approach	12.0	B	12.9	B
		NB Left	8.2	A	8.8	A
12 Collector D & Felix Rd	Stop Sign Control (EB)	EB Left	14.7	B	16.2	C
		EB Right	10.5	B	10.3	B
		EB Approach	12.4	B	12.9	B
		NB Left	8.5	A	9.1	A
13 Collector E & Heritage Rd	Stop Sign Control (SB)	EB Left	7.7	A	9.2	A
		SB Left	13.0	B	28.9	D
		SB Right	10.3	B	9.6	A
		SB Approach	11.3	B	17.1	C

TRANSPORTATION IMPROVEMENTS

The proposed lane configuration and traffic control for the study intersections is depicted in **Figure 17** and **Figure 18** respectively for horizon year 2025 and horizon year 2035.

ROADWAYS

All of the roadways within the study are currently two-lane roadways. The 2025 and 2035 total daily traffic volumes are summarized in Error! Reference source not found. and **Figure 16** respectively.

Hunt Highway

By year 2025, the daily traffic volume on Hunt Highway is projected to be 28,141 vpd north of Arizona Farms Road and 21,456 vpd south of Arizona Farms Road. By year 2035, the daily traffic volume on Hunt Highway is projected to be 54,012 vpd north of Arizona Farms Road and 38,580 vpd south of Arizona Farms Road. These volumes require a four-lane roadway in 2025 and would be approaching capacity as a four-lane roadway by year 2035.

Arizona Farms Road

By year 2025, the daily traffic volume on Arizona Farms Road is projected to be 8,381 vpd east of Hunt Highway and 6,839 vpd west of Attaway Road. By year 2035, the daily traffic volume on Arizona Farms Road is projected to be 17,974 vpd east of Hunt Highway and 17,426 vpd west of Attaway Road. Arizona Farms Road is recommended to be widened to a four-lane roadway between Hunt Highway and Felix Road by year 2035. The widening of Arizona Farms Road is not needed to accommodate traffic generated by the Arizona Farms development only. Arizona Farms will construct half-street improvements adjacent to its site.

Heritage Road

By year 2035, the daily traffic volume on Heritage Road is projected to be 7,843 vpd east of Hunt Highway. A study is underway to construct a two-lane roadway for Heritage Road from Felix Road to Hunt Highway. A four-lane roadway should be planned to accommodate future growth in the area, although two-lanes would accommodate full build-out of the proposed site.

Felix Road

By year 2025, the daily traffic volume on Felix Road is projected to be 4,339 vpd south of Arizona Farms Road. By year 2035, the daily traffic volume on Felix Road is projected to be 12,989 vpd south of Arizona Farms Road. The proposed development should construct half-street improvements adjacent to its site for a future four-lane roadway to accommodate future growth in the area. Two lanes would accommodate full build-out of the proposed site.

AUXILIARY LANES

When warranted, turn lanes permit separation of conflicting traffic movements and removes the slower turning traffic from the through traffic, thus improving capacity and reducing rear-end crashes. Determining the need for turn lanes is a key element of traffic impact studies.

Based on the projected traffic volumes, dedicated left-turn and right-turn lanes are recommended at the proposed site accesses (Collectors A & B on Arizona Farms Road, Local C & Collector D on Felix Road, and Collector E on Heritage Road).

Dedicated left-turn lanes are also recommended at the study intersections with traffic signal installation. Dual left-turn lanes are recommended at the signalized intersections with left-turn hourly volumes exceeding 300 vph and with two lanes available to receive traffic. Dedicated right-turn lanes are recommended at some locations to improve level-of-service and accommodate traffic volumes. The recommended lanes are depicted in **Figure 18** for 2035 background traffic with full build-out of the site.

Traffic signals are recommended at the following intersections:

- ❖ Hunt Highway & Arizona Farms Road (Existing Conditions)
- ❖ Collector B & Arizona Farms Road (2035)
- ❖ Attaway Road & Arizona Farms Road (2035)
- ❖ Felix Road & Arizona Farms Road (2035)
- ❖ Collector A & Arizona Farms Road (2035)
- ❖ Attaway Road & Judd Road (2035)
- ❖ Hunt Highway & Heritage Road (2035)

An all-way stop is recommended at the Felix Road/Hunt Highway intersection to improve the level of service for the southbound approach in horizon year 2035. This intersection should also be monitored in the future for the installation of a traffic signal as development occurs in the area.

Traffic signal warrants are expected to be satisfied at the Collector D/Heritage Road and Felix Road/Heritage Road intersections with full build-out of the site. These intersections are projected to operate at acceptable levels of service with stop sign control. Due to the volumes, preparations should be implemented for future traffic signals and the intersections monitored as the local area develops.

QUEUE STORAGE ANALYSIS

The necessary storage lengths for the existing turn lanes were also evaluated. Per AASHTO guidelines, the following methodology is provided: To calculate storage length for the turn lanes, the methodology in section 9.7 Auxiliary Lanes of the *AASHTO Green Book* was utilized. It recommends that turn lanes at an unsignalized intersection accommodate the number of vehicles likely to arrive in a 2-minute period. For signalized intersections, the *AASHTO Green Book* recommends a storage length based on the number of vehicles likely to arrive within 1.5 to 2.0 times the signal cycle length.

For this analysis, 25 feet was utilized to accommodate vehicle length and clearance between vehicles. The storage lengths are rounded to the nearest 25 feet. The queue storage analysis is summarized in **Table 25** for the 2035 background with site full build-out scenario.

Table 25: Turn-lane Queue Length Calculations – 2035 with Site Full Build-out

Intersection	Traffic Control	Movement	AM/PM Volume (vph)	2035 Background plus Site Full Build-out Queue Storage (feet)		
				AASHTO	AM/PM Synchro 95th %	Recommended Minimum
1 Hunt Hwy & Arizona Farms Rd	Traffic Signal	SB Left	354 /619	650	164/304	Dual (250 each)
		WB Left	21 /45	50	41/73	150
		NB Right	38 /77	100	25/44	150
		WB Right	551 /535	575	242/228	Dual (200 each) or Channelized
2 Attaway Rd & Judd Rd	Traffic Signal	NB Left	357 /397	250	195/203	250
		WB Left	40 /73	50	24/47	150
		NB Right	53 /38	50	20/15	150
		EB Right	291 /390	250	36/46	250
3 Attaway Rd & Arizona Farms Rd	Traffic Signal	SB Left	293 /362	250	50/73	Single: 250, Dual: 150 each
		EB Left	71 /63	50	29/30	150
		SB Right	34 /95	75	13/25	150
		WB Right	322 /377	250	32/36	250
4 Felix Rd & Arizona Farms Rd	Traffic Signal	NB Left	325 /303	225	108/99	Single: 250, Dual: 150 each
		SB Left	0 /2	25	0/5	150
		EB Left	2 /8	25	3/8	150
		WB Left	148 /206	150	75/102	150
		EB Right	273 /398	250	36/44	250
5 Felix Rd & Heritage Rd	Minor Street Stop Control (EB)	NB Left	62 /194	175	25/25	200
		EB Left	48 /97	100	25/50	150
		SB Right	99 /107	100	0/0	150
		EB Right	178 /132	150	50/25	150
6 Felix Rd & Merril Ranch Pkwy	Minor Street Stop Control (EB)	NB Left	6 /15	25	0/0	150
		EB Left	122 /172	150	50/100	150
		SB Right	194 /124	175	0/0	150
		EB Right	21 /15	25	25/25	150
7 Felix Rd & Hunt Hwy	All-way Stop Control	SB Left	314 /227	275	100/150	150
		EB Left	93 /246	225	100/25	150
		SB Right	258 /158	225	50/75	150
		WB Right	130 /345	300	125/25	150
8 Hunt Hwy & Heritage Rd	Traffic Signal	SB Left	214 /487	525	246/110	Dual: 150 each
		WB Left	91 /95	100	130/125	150
		NB Right	48 /130	150	63/31	150
		WB Right	435 /329	475	272/393	Dual (200 each) or Channelized

Turn-lane Queue Length Calculations - 2035 with Site Full Build-out (continued)

Intersection	Traffic Control	Movement	AM/PM Volume (vph)	2035 Background plus Site Full Build-out Queue Storage (feet)		
				AASHTO	AM/PM Synchro 95th %	Recommended Minimum
9 Collector A & Arizona Farms Rd	Traffic Signal					
		NB Left	156 /110	100	55/61	150
		WB Left	35 /119	75	48/18	150
		NB Right	98 /70	75	22/21	150
		EB Right	54 /188	125	48/14	150
10 Collector B & Arizona Farms Rd	Traffic Signal					
		NB Left	314 /399	250	93/60	Single: 250, Dual: 150 each
		WB Left	64 /131	100	64/29	150
		NB Right	85 /88	75	26/23	150
		EB Right	114 /274	175	30/19	150
11 Local C & Felix Rd	Minor Street Stop Control (EB)					
		NB Left	16 /52	50	25/0	150
		EB Left	67 /46	75	25/25	100
		SB Right	23 /78	75	0/0	150
		EB Right	45 /31	50	25/25	100
12 Collector D & Felix Rd	Minor Street Stop Control (EB)					
		NB Left	24 /81	75	25/25	150
		EB Left	82 /54	75	25/25	100
		SB Right	32 /107	100	0/0	150
		EB Right	102 /69	100	25/25	100
13 Collector E & Heritage Rd	Minor Street Stop Control (SB)					
		SB Left	173 /136	150	75/50	150
		EB Left	108 /366	325	50/25	250
		SB Right	311 /216	275	25/50	150
		WB Right	57 /195	175	25/0	150

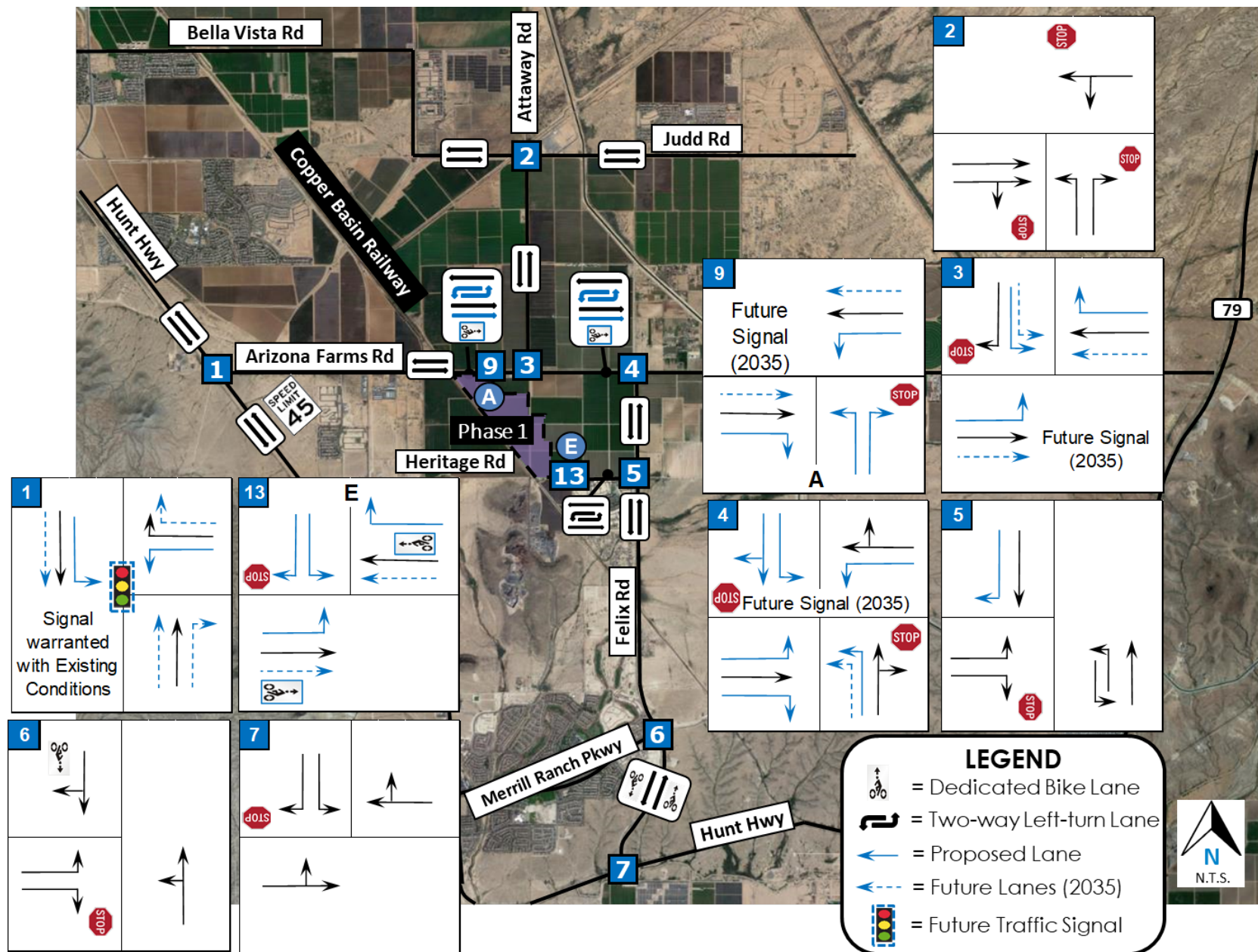


Figure 17: 2025 Lane Configurations and Traffic Control

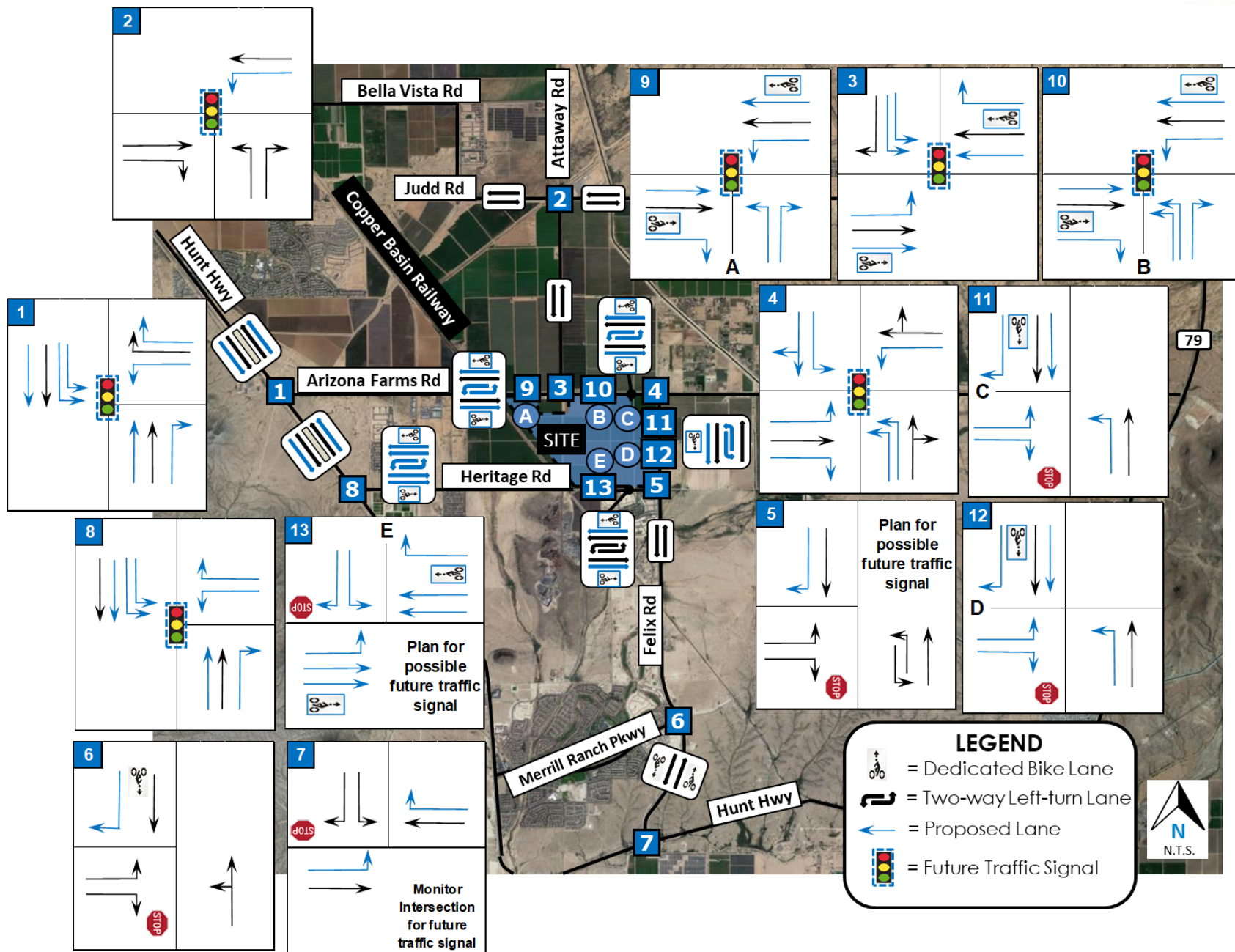


Figure 18: 2035 Lane Configurations and Traffic Control

PRINCIPAL FINDINGS AND RECOMMENDATIONS

TRIP GENERATION

Full build-out of the proposed development is anticipated to generate 33,266 weekday daily trips (entering/exiting) with 2,119 trips (entering/exiting) during the AM peak hour and 3,213 trips (entering/exiting) during PM Peak Hour.

EXISTING LEVEL-OF-SERVICE

The existing study intersections operate at acceptable levels of service (LOS) with the exception of the Hunt Highway/Arizona Farms Road intersection, which experiences a LOS 'E' on the westbound approach. Signal warrant # 1B is satisfied with existing traffic volumes at the Hunt Highway/Arizona Farms Road intersection and seven of the required eight hours are met for Warrant # 1A.

FUTURE LEVEL-OF-SERVICE

Horizon Year 2025

The Hunt Highway/Arizona Farms Road will operate at acceptable levels of service with a traffic signal as warranted with existing conditions. The other study intersections will operate at acceptable levels of service with stop sign control in horizon year 2025 and phase 1 of the proposed development.

Horizon Year 2035

In horizon year 2035 with full build-out of the development, the following intersections will operate at a poor level-of-service as stop sign controlled:

- ❖ Hunt Highway & Arizona Farms Road (Southbound Left & Westbound Approach)
- ❖ Attaway Road & Judd Road (All approaches)
- ❖ Attaway Road & Arizona Farms Road (Southbound Approach)
- ❖ Felix Road & Arizona Farms Road (Northbound Approach)
- ❖ Felix Road & Hunt Highway (Southbound Left)
- ❖ Hunt Highway & Heritage Road (Southbound Left & Westbound Approach)
- ❖ Collector B & Arizona Farms Road (Northbound Approach)

Traffic signal warrants are expected to be satisfied at all of the above intersections. A traffic signal should not immediately be planned for the intersection of Felix Road and Hunt Highway. The intersection is further from the proposed development and may not experience the predicted traffic volumes until the surrounding area is built out. The intersection should be monitored for a future traffic signal as development occurs.

RECOMMENDATIONS

Hunt Highway

By year 2025, the daily traffic volume on Hunt Highway is projected to be 28,141 vpd north of Arizona Farms Road and 21,456 vpd south of Arizona Farms Road. By year 2035, the daily traffic volume on Hunt Highway is projected to be 54,012 vpd north of Arizona Farms Road and 38,580 vpd south of Arizona Farms Road. These volumes require a four-lane roadway in 2025 and would be approaching capacity as a four-lane roadway by year 2035. The construction of the North-South corridor will change traffic patterns in the area and ultimately help relieve traffic congestion on Hunt Highway. The north-south corridor is a 55-mile route between US 60 on the north and Interstate 10 on the south, as well as a connection to State Route (SR) 24 at Ironwood Drive. The preferred route in Pinal County borders the proposed Arizona Farms site. Interchange locations have not yet been determined. This analysis does not include a horizon year with the corridor.

Arizona Farms Road

By year 2025, the daily traffic volume on Arizona Farms Road is projected to be 8,381 vpd east of Hunt Highway and 6,839 vpd west of Attaway Road. By year 2035, the daily traffic volume on Arizona Farms Road is projected to be 17,974 vpd east of Hunt Highway and 17,426 vpd west of Attaway Road. Arizona Farms Road is recommended to be widened to a four-lane roadway between Hunt Highway and Felix Road by year 2035 to accommodate future growth in the area. The widening of Arizona Farms Road is not needed to accommodate traffic generated by the Arizona Farms development only. Arizona Farms will construct half-street improvements adjacent to its site.

Heritage Road

By year 2035, the daily traffic volume on Heritage Road is projected to be 7,843 vpd east of Hunt Highway. A study is underway to construct a two-lane roadway for Heritage Road from Felix Road to Hunt Highway. A four-lane roadway should be planned to accommodate future growth in the area in the long-term, although two-lanes would accommodate full build-out of the proposed site.

Felix Road

By year 2025, the daily traffic volume on Felix Road is projected to be 4,339 vpd south of Arizona Farms Road. By year 2035, the daily traffic volume on Felix Road is projected to be 12,989 vpd south of Arizona Farms Road. The proposed development should construct half-street improvements adjacent to its site for a future four-lane roadway to accommodate future growth in the area. Two lanes would accommodate full build-out of the proposed site.

Intersections

Based on the projected traffic volumes, dedicated left-turn and right-turn lanes are recommended at the proposed site accesses (Collectors A & B on Arizona Farms Road, Local C & Collector D on Felix Road, and Collector E on Heritage Road). Future traffic signals are recommended at Collector A and Collector B on Arizona Farms Road. Minor street stop sign control is recommended for Local C and Collector D on Felix Road and Collector E on Heritage Road

Dedicated left-turn lanes are also recommended at the study intersections with traffic signal installation. Dual left-turn lanes are recommended at the signalized intersections with left-turn hourly volumes exceeding 300 vph and with two lanes available to receive traffic. Dedicated right-turn lanes are recommended at arterial intersections to improve level-of-service and accommodate traffic volumes. The recommended lanes are depicted in **Figure 18** for 2035 background traffic with full build-out of the site.

Westbound dual right-turn lanes or a channelized right-turn lane should be constructed at the Hunt Highway/Arizona Farms Road and Hunt Highway/Heritage Road intersections to facilitate the high westbound right-turn movement.

The auxiliary lanes adjacent to the development will be designed and constructed by the proposed development. The intersection improvements not adjacent to the site will be constructed by future developments adjacent to those intersections. A proportional amount for intersection improvements not adjacent to the site may be calculated by Pinal County based on existing traffic and future developments in the area.

Traffic signals are recommended at the following intersections:

- ❖ Hunt Highway & Arizona Farms Road (Existing Conditions)
- ❖ Collector B & Arizona Farms Road (2035)
- ❖ Attaway Road & Arizona Farms Road (2035)
- ❖ Felix Road & Arizona Farms Road (2035)
- ❖ Collector A & Arizona Farms Road (2035)
- ❖ Attaway Road & Judd Road (2035)
- ❖ Hunt Highway & Heritage Road (2035)

A traffic signal should not immediately be planned for the intersection of Felix Road and Hunt Highway. The intersection is further from the proposed development and may not experience the predicted traffic volumes until the surrounding area is built out. The intersection should be monitored for a future traffic signal as development occurs.

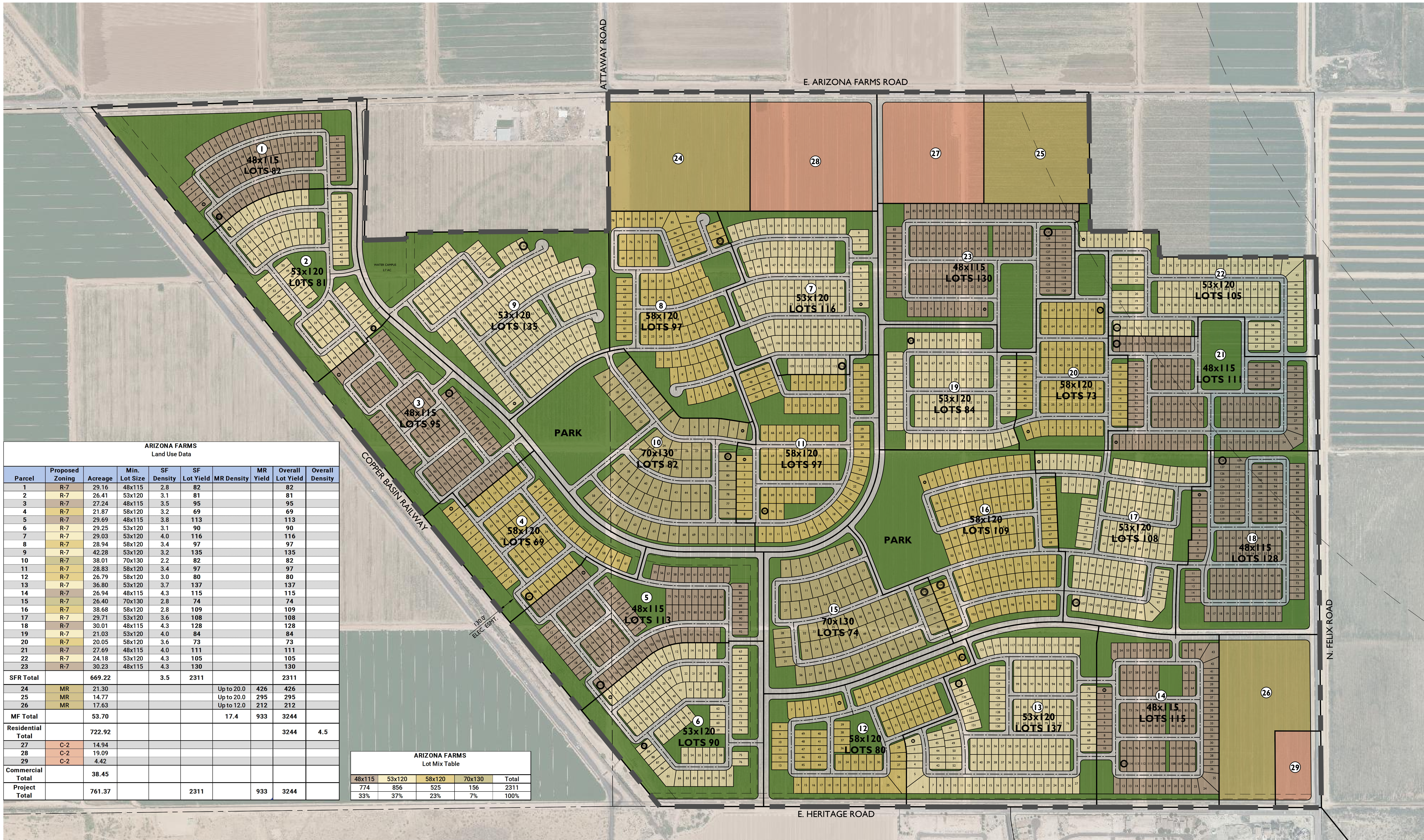
The Arizona Farms development is responsible for the traffic signals at the entry to the site: Access A, Access B, and Access E. Preparations will be made at these intersections for future traffic signals, which will be installed when warranted. The development should contribute to the traffic signals at Attaway Road/Arizona Farms Road, Felix Road/Arizona Farms Road, and Felix Road/Heritage Road based on a proportional amount determined by Pinal County considering existing traffic and future developments in the area. The traffic signal at the Hunt Highway/Arizona Farms Road intersection meets signal warrants with existing conditions, and the traffic signal at the Hunt Highway/Heritage Road intersection will be warranted in 2035 by future development on Heritage Road and should be included in the Heritage Road project.

Traffic signal warrants are expected to be satisfied at the Collector D/Heritage Road and Felix Road/Heritage Road intersections with full build-out of the site. These intersections are projected to operate at acceptable levels of service with stop sign control. Due to the volumes, preparations should be implemented for future traffic signals and the intersections monitored as the local area develops.

Traffic signal warrant studies shall be prepared by the developer to determine when new signals are warranted.

APPENDICES

APPENDIX A: Site Plan

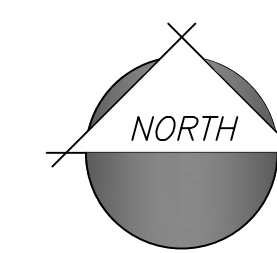


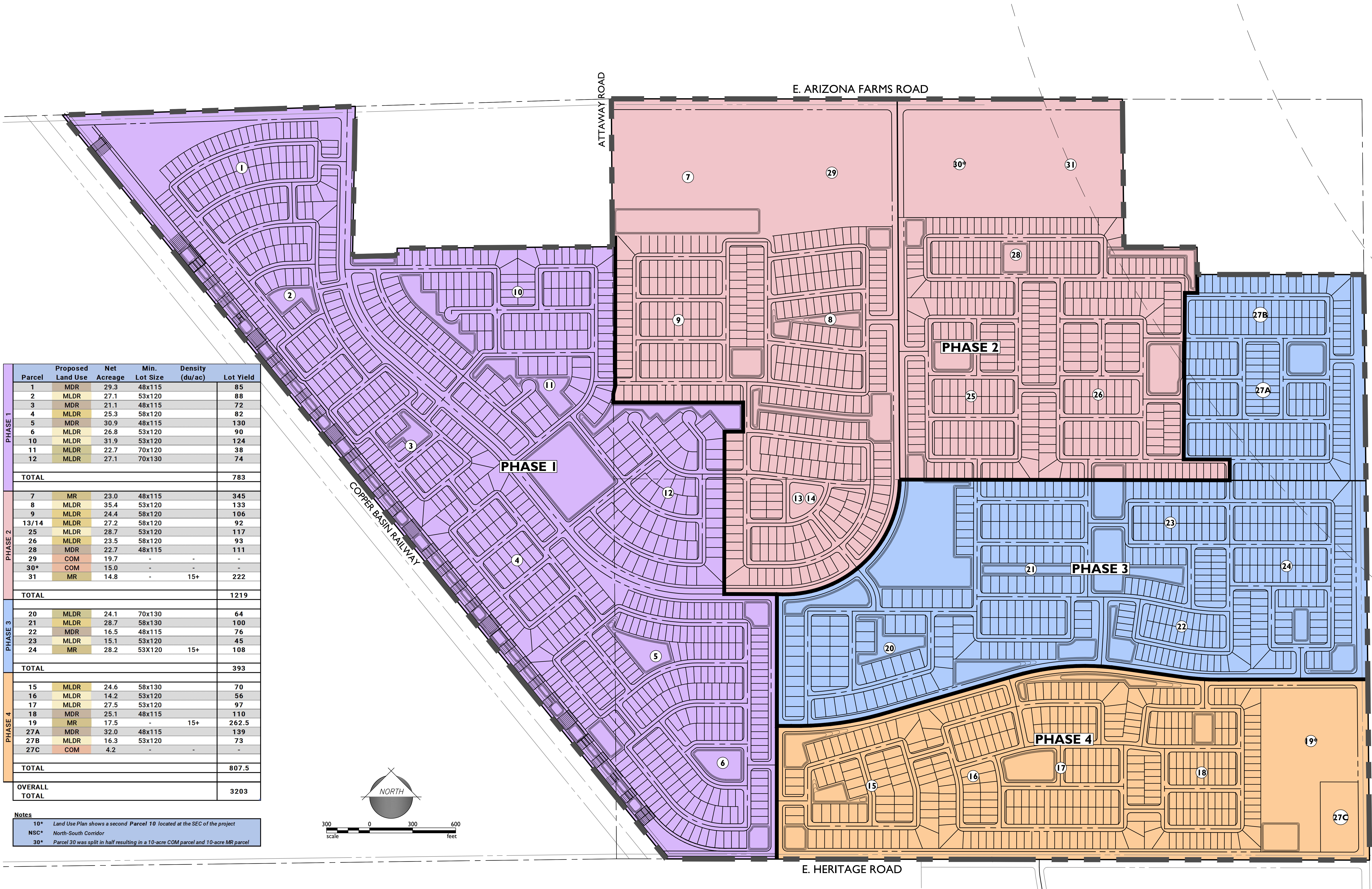
ARIZONA FARMS
Land Use Data

Parcel	Proposed Zoning	Acreage	Min. Lot Size	SF Density	SF Lot Yield	MR Density	MR Yield	Overall Lot Yield	Overall Density
1	R-7	29.16	48x115	2.8	82			82	
2	R-7	26.41	53x120	3.1	81			81	
3	R-7	27.24	48x115	3.5	95			95	
4	R-7	21.87	58x120	3.2	69			69	
5	R-7	29.69	48x115	3.8	113			113	
6	R-7	29.25	53x120	3.1	90			90	
7	R-7	29.03	53x120	4.0	116			116	
8	R-7	28.94	58x120	3.4	97			97	
9	R-7	42.28	53x120	3.2	135			135	
10	R-7	38.01	70x130	2.2	82			82	
11	R-7	28.83	58x120	3.4	97			97	
12	R-7	26.79	58x120	3.0	80			80	
13	R-7	36.80	53x120	3.7	137			137	
14	R-7	26.94	48x115	4.3	115			115	
15	R-7	26.40	70x130	2.8	74			74	
16	R-7	38.68	58x120	2.8	109			109	
17	R-7	29.71	53x120	3.6	108			108	
18	R-7	30.01	48x115	4.3	128			128	
19	R-7	21.03	53x120	4.0	84			84	
20	R-7	20.05	58x120	3.6	73			73	
21	R-7	27.69	48x115	4.0	111			111	
22	R-7	24.18	53x120	4.3	105			105	
23	R-7	30.23	48x115	4.3	130			130	
SFR Total		669.22		3.5	2311			2311	
24	MR	21.30				Up to 20.0	426	426	
25	MR	14.77				Up to 20.0	295	295	
26	MR	17.63				Up to 12.0	212	212	
MF Total		53.70				17.4	933	3244	
Residential Total		722.92						3244	4.5
27	C-2	14.94							
28	C-2	19.09							
29	C-2	4.42							
Commercial Total		38.45							
Project Total		761.37			2311		933	3244	

ARIZONA FARMS
Lot Mix Table

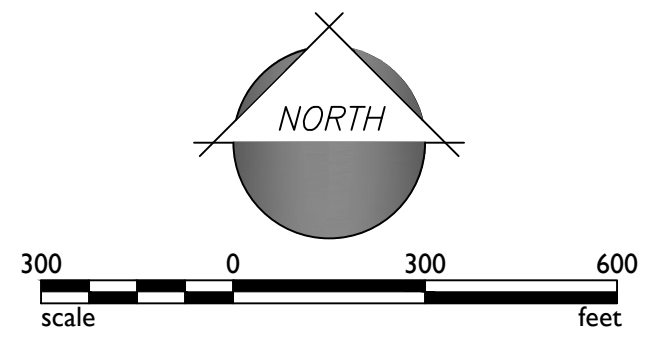
48x115	53x120	58x120	70x130	Total
774	856	525	156	2311
33%	37%	23%	7%	100%





	Parcel	Proposed Land Use	Net Acreage	Min. Lot Size	Density (du/ac)	Lot Yield	
PHASE 1	1	MDR	29.3	48x115		85	
	2	MLDR	27.1	53x120		88	
	3	MDR	21.1	48x115		72	
	4	MLDR	25.3	58x120		82	
	5	MDR	30.9	48x115		130	
	6	MLDR	26.8	53x120		90	
	10	MLDR	31.9	53x120		124	
	11	MLDR	22.7	70x120		38	
	12	MLDR	27.1	70x130		74	
	TOTAL						783
	PHASE 2	7	MR	23.0	48x115		345
		8	MLDR	35.4	53x120		133
9		MLDR	24.4	58x120		106	
13/14		MLDR	27.2	58x120		92	
25		MLDR	28.7	53x120		117	
26		MLDR	23.5	58x120		93	
28		MDR	22.7	48x115		111	
29		COM	19.7	-	-	-	
30*		COM	15.0	-	-	-	
31		MR	14.8	-	15+	222	
TOTAL						1219	
PHASE 3	20	MLDR	24.1	70x130		64	
	21	MLDR	28.7	58x130		100	
	22	MDR	16.5	48x115		76	
	23	MLDR	15.1	53x120		45	
	24	MR	28.2	53x120	15+	108	
TOTAL						393	
PHASE 4	15	MLDR	24.6	58x130		70	
	16	MLDR	14.2	53x120		56	
	17	MLDR	27.5	53x120		97	
	18	MDR	25.1	48x115		110	
	19	MR	17.5	-	15+	262.5	
	27A	MDR	32.0	48x115		139	
	27B	MLDR	16.3	53x120		73	
27C	COM	4.2	-	-	-		
TOTAL						807.5	
OVERALL TOTAL						3203	

Notes
 10* Land Use Plan shows a second Parcel 10 located at the SEC of the project
 NSC* North-South Corridor
 30* Parcel 30 was split in half resulting in a 10-acre COM parcel and 10-acre MR parcel



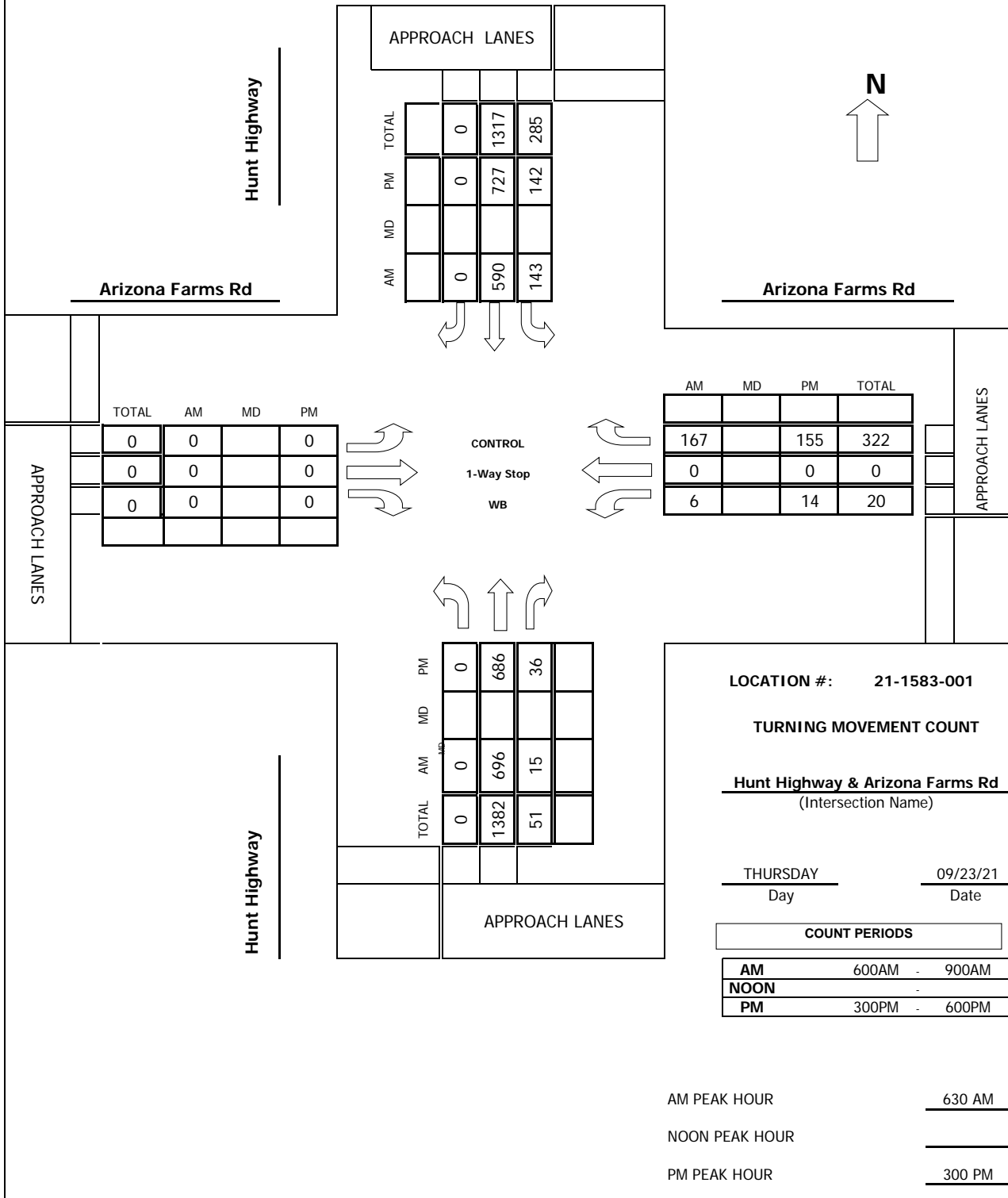
APPENDIX B: Existing Traffic Counts

**Intersection Turning Movement
Prepared by:**



Project #: 21-1583-001

TMC SUMMARY OF Hunt Highway & Arizona Farms Rd



Intersection Turning Movement

Prepared by:



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



N-S STREET: Hunt Highway DATE: 09/23/21 LOCATION: Florence
 E-W STREET: Arizona Farms Rd DAY: THURSDAY PROJECT#: 21-1583-001

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	0	0	0	0	1	0	
6:00 AM	0	127	5	20	102	0	0	0	0	4	0	25	283
6:15 AM	0	147	2	30	138	0	0	0	0	2	0	43	362
6:30 AM	0	197	8	44	141	0	0	0	0	1	0	37	428
6:45 AM	0	155	2	32	129	0	0	0	0	1	0	40	359
7:00 AM	0	164	0	32	169	0	0	0	0	2	0	50	417
7:15 AM	0	180	5	35	151	0	0	0	0	2	0	40	413
7:30 AM	0	188	7	33	109	0	0	0	0	4	0	28	369
7:45 AM	0	148	4	31	113	0	0	0	0	1	0	21	318
8:00 AM	0	134	2	35	115	0	0	0	0	5	0	22	313
8:15 AM	0	143	6	20	103	0	0	0	0	3	0	52	327
8:30 AM	0	101	2	30	116	0	0	0	0	5	0	35	289
8:45 AM	0	114	1	24	121	0	0	0	0	5	0	21	286
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	1798	44	366	1507	0	0	0	0	35	0	414	4164
Approach %	0.00	97.61	2.39	19.54	80.46	0.00	####	####	####	7.80	0.00	92.20	
App/Depart	1842	/	2212	1873	/	1542	0	/	410	449	/	0	

AM Peak Hr Begins at: 630 AM

PEAK

Volumes	0	696	15	143	590	0	0	0	0	6	0	167	1617
Approach %	0.00	97.89	2.11	19.51	80.49	0.00	####	####	####	3.47	0.00	96.53	

PEAK HR.

FACTOR:	0.867	0.912	0.000	0.832	0.945
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CONTROL: 1-Way Stop (WB)

COMMENT 1:

GPS: 33.118163, -111.524865



Pedestrian & Bicycle Study

N-S STREET: Hunt Highway
E-W STREET: Arizona Farms Rd

Date: 09/23/21
Day: THURSDAY

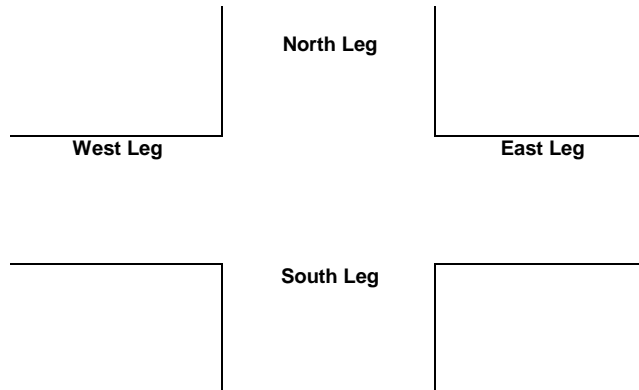
City: Florence
Project #: 21-1583-001

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	1	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	0	1	0

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	0	0	0

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	0	0	0	0

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	0	0	0	0

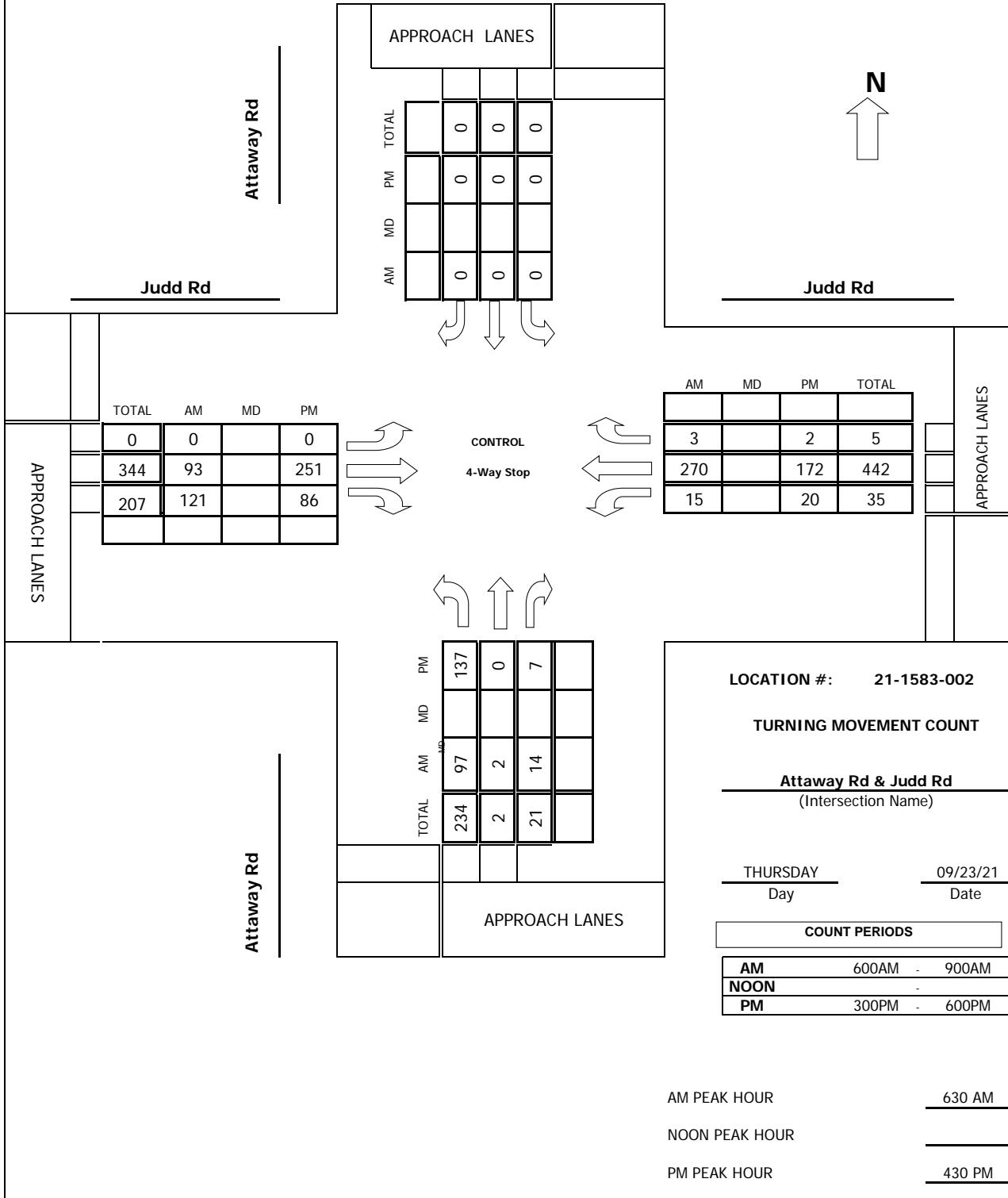


**Intersection Turning Movement
Prepared by:**



Project #: 21-1583-002

TMC SUMMARY OF Attaway Rd & Judd Rd



Intersection Turning Movement

Prepared by:



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



N-S STREET: **Attaway Rd** DATE: **09/23/21** LOCATION: **Florence**
 E-W STREET: **Judd Rd** DAY: **THURSDAY** PROJECT# **21-1583-002**

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	0	1	0	0	1	0	
6:00 AM	9	0	2	0	0	0	0	6	20	5	58	0	100
6:15 AM	19	0	2	0	0	0	0	10	29	4	60	0	124
6:30 AM	29	1	0	0	0	0	0	15	27	5	80	1	158
6:45 AM	22	0	4	0	0	0	0	20	32	4	81	0	163
7:00 AM	24	0	0	0	0	0	0	26	31	5	58	1	145
7:15 AM	22	1	10	0	0	0	0	32	31	1	51	1	149
7:30 AM	21	0	2	0	0	0	0	25	36	4	55	0	143
7:45 AM	14	0	4	0	0	0	0	41	36	5	47	1	148
8:00 AM	13	0	4	0	0	0	0	58	17	5	38	0	135
8:15 AM	14	0	3	1	0	0	0	45	17	5	51	0	136
8:30 AM	17	0	2	0	0	0	0	37	18	2	52	1	129
8:45 AM	22	0	2	0	0	0	0	16	12	1	43	0	96
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	226	2	35	1	0	0	0	331	306	46	674	5	1626
Approach %	85.93	0.76	13.31	100.00	0.00	0.00	0.00	51.96	48.04	6.34	92.97	0.69	
App/Depart	263	/	7	1	/	352	637	/	367	725	/	900	

AM Peak Hr Begins at: 630 AM

PEAK

Volumes	97	2	14	0	0	0	0	93	121	15	270	3	615
Approach %	85.84	1.77	12.39	####	####	####	0.00	43.46	56.54	5.21	93.75	1.04	

PEAK HR.

FACTOR:	0.856	0.000	0.849	0.837	0.943
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CONTROL: **4-Way Stop**

COMMENT 1:

GPS: **33.147687, -111.474185**

Intersection Turning Movement



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



N-S STREET: **Attaway Rd** DATE: **09/23/21** LOCATION: **Florence**
 E-W STREET: **Judd Rd** DAY: **THURSDAY** PROJECT# **21-1583-002**

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM	23	2	3	2	0	0	0	59	15	4	35	0	143
3:15 PM	30	0	11	0	0	0	0	77	19	3	28	2	170
3:30 PM	27	0	6	0	0	0	0	55	16	2	56	1	163
3:45 PM	27	0	7	0	0	0	0	70	23	3	40	0	170
4:00 PM	31	0	2	0	0	0	0	60	19	6	51	1	170
4:15 PM	27	0	6	0	0	0	0	58	22	2	34	0	149
4:30 PM	36	0	2	0	0	0	0	61	23	4	41	0	167
4:45 PM	35	0	2	0	0	0	0	57	22	2	39	2	159
5:00 PM	24	0	0	0	0	0	0	70	22	6	55	0	177
5:15 PM	42	0	3	0	0	0	0	63	19	8	37	0	172
5:30 PM	27	0	5	0	0	0	0	62	16	3	44	0	157
5:45 PM	28	0	3	1	0	0	0	65	10	4	33	0	144
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	357	2	50	3	0	0	0	757	226	47	493	6	1941
Approach %	87.29	0.49	12.22	100.00	0.00	0.00	0.00	77.01	22.99	8.61	90.29	1.10	
App/Depart	409	/	8	3	/	273	983	/	810	546	/	850	

PM Peak Hr Begins at: 430 PM

PEAK

Volumes	137	0	7	0	0	0	0	251	86	20	172	2	675
Approach %	95.14	0.00	4.86	####	####	####	0.00	74.48	25.52	10.31	88.66	1.03	

PEAK HR.

FACTOR:	0.800	0.000	0.916	0.795	0.953
---------	-------	-------	-------	-------	-------

CONTROL: **4-Way Stop**
 COMMENT 1: **0**
 GPS: **33.147687, -111.474185**



Pedestrian & Bicycle Study

N-S STREET: Attaway Rd
E-W STREET: Judd Rd

Date: 09/23/21
Day: THURSDAY

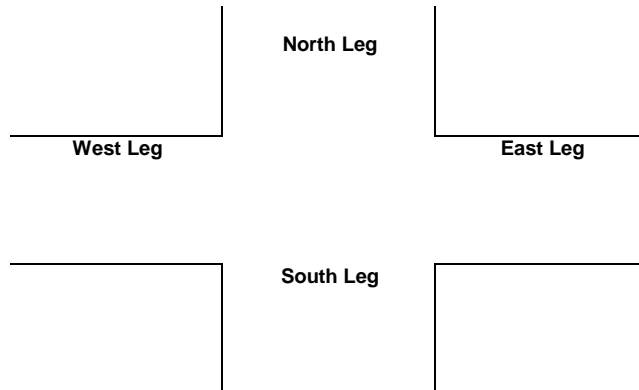
City: Florence
Project #: 21-1583-002

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	0	0	0

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	0	0	0

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	0	0	0	0

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	0	0	0	0

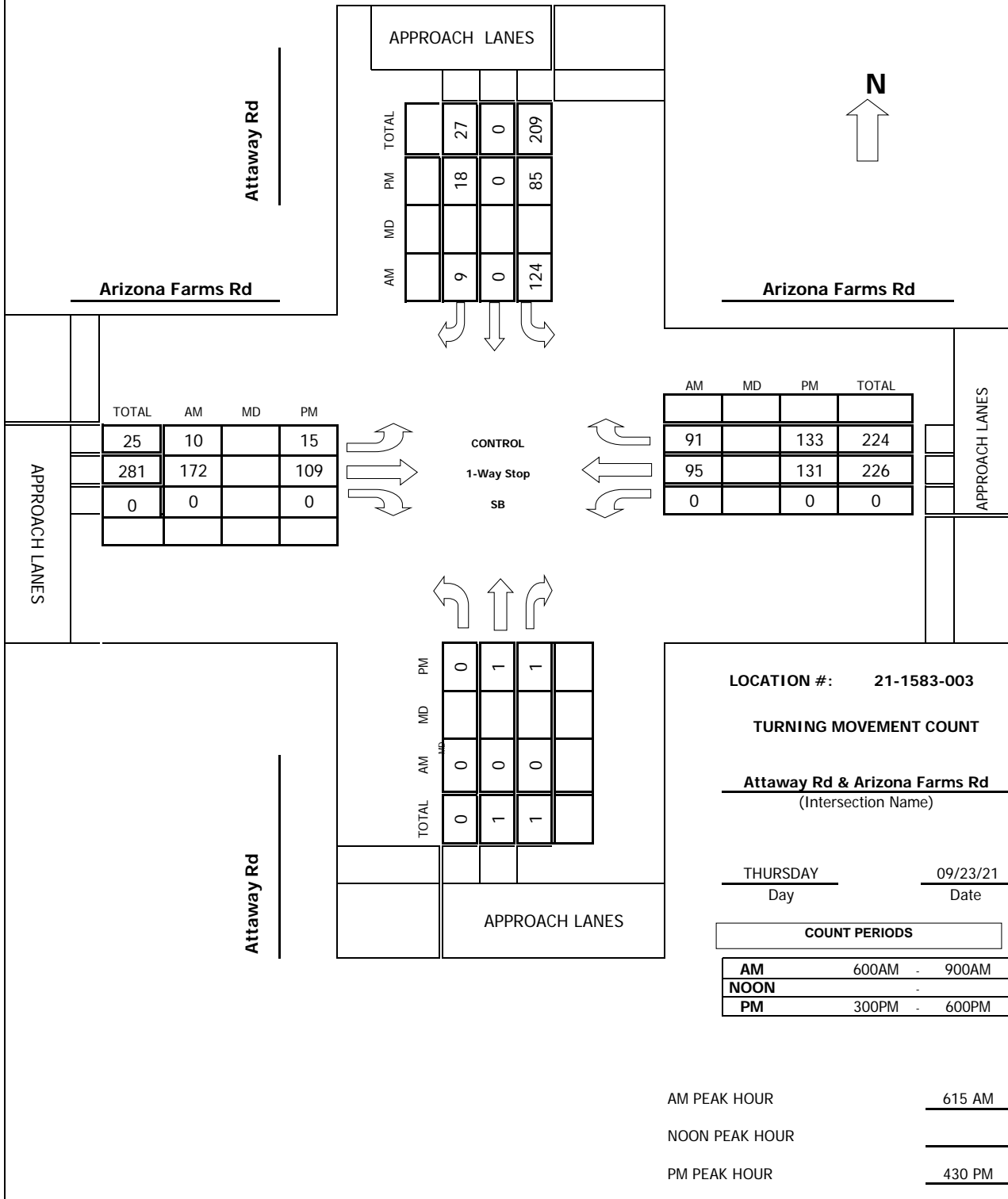


**Intersection Turning Movement
Prepared by:**



Project #: 21-1583-003

TMC SUMMARY OF Attaway Rd & Arizona Farms Rd



Intersection Turning Movement

Prepared by:



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



N-S STREET: **Attaway Rd** DATE: **09/23/21** LOCATION: **Florence**
 E-W STREET: **Arizona Farms Rd** DAY: **THURSDAY** PROJECT# **21-1583-003**

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	0	1	0	0	1	0	
6:00 AM	0	0	0	24	1	3	1	14	0	0	9	10	62
6:15 AM	0	0	0	24	0	1	4	35	0	0	26	23	113
6:30 AM	0	0	0	37	0	2	0	35	0	0	21	22	117
6:45 AM	0	0	0	30	0	2	3	40	0	0	19	28	122
7:00 AM	0	0	0	33	0	4	3	62	0	0	29	18	149
7:15 AM	0	0	0	32	0	2	1	28	0	0	25	24	112
7:30 AM	0	0	0	34	0	2	2	32	0	0	19	22	111
7:45 AM	0	0	0	44	0	4	2	21	0	0	27	16	114
8:00 AM	0	0	0	19	0	5	3	20	0	0	16	12	75
8:15 AM	0	0	0	15	0	5	3	21	0	0	30	14	88
8:30 AM	0	0	0	17	0	4	2	14	0	0	21	18	76
8:45 AM	0	0	0	9	0	2	3	14	0	0	18	25	71
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	0	318	1	36	27	336	0	0	260	232	1210
Approach %	####	####	####	89.58	0.28	10.14	7.44	92.56	0.00	0.00	52.85	47.15	
App/Depart	0	/	259	355	/	1	363	/	654	492	/	296	

AM Peak Hr Begins at: 6:15 AM

PEAK

Volumes	0	0	0	124	0	9	10	172	0	0	95	91	501
Approach %	####	####	####	93.23	0.00	6.77	5.49	94.51	0.00	0.00	51.08	48.92	

PEAK HR.

FACTOR:	0.000	0.853	0.700	0.949	0.841
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CONTROL: **1-Way Stop (SB)**

COMMENT 1:

GPS: **33.118621, -111.473629**



Pedestrian & Bicycle Study

N-S STREET: Attaway Rd
E-W STREET: Arizona Farms Rd

Date: 09/23/21
Day: THURSDAY

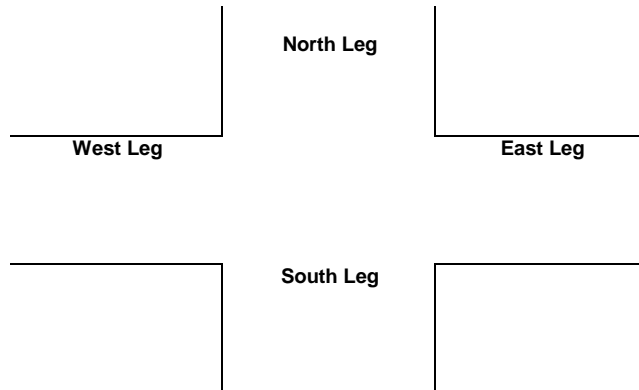
City: Florence
Project #: 21-1583-003

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	0	0	0

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	0	0	0

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	0	0	0	0

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	0	0	0	0

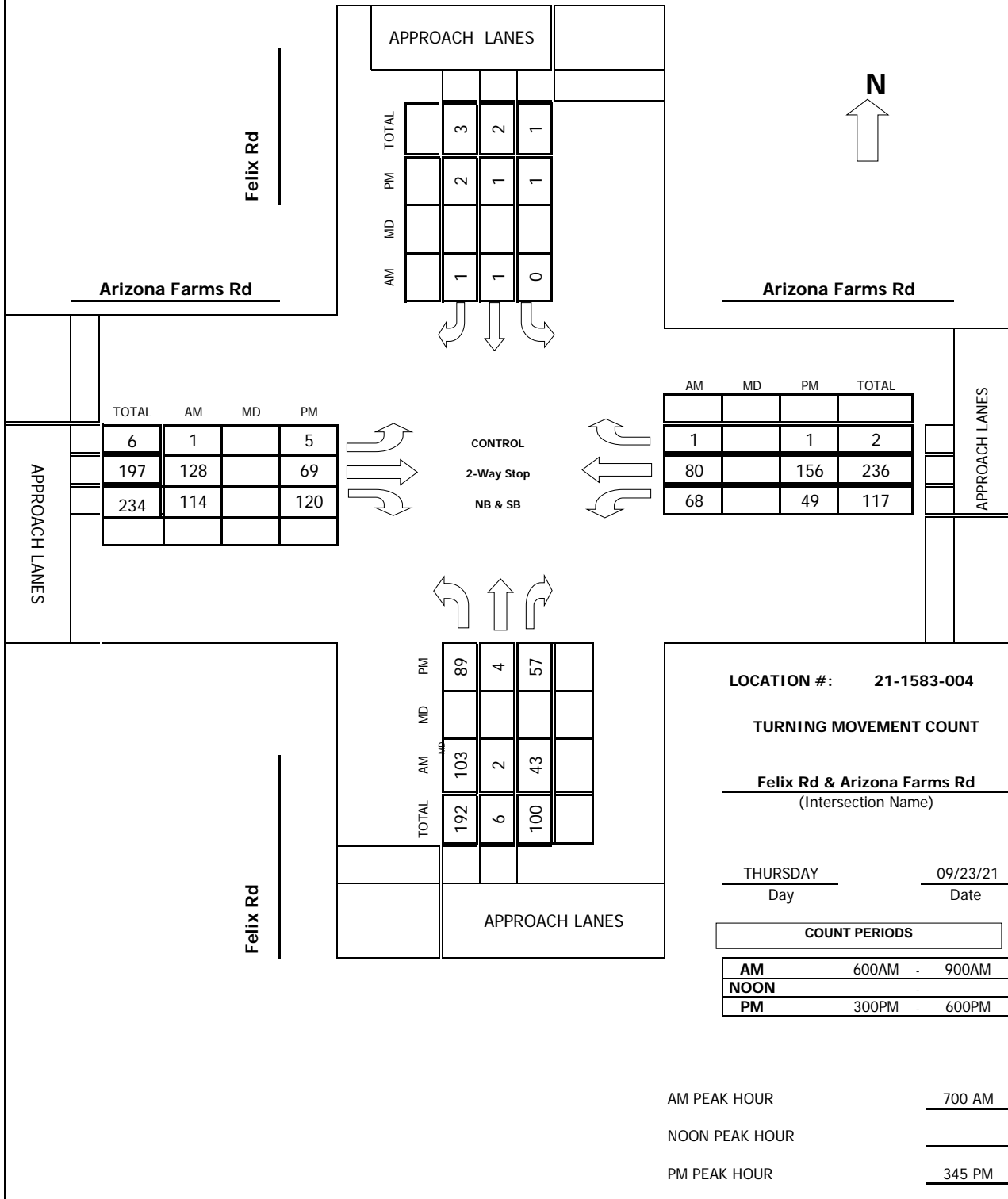


**Intersection Turning Movement
Prepared by:**



Project #: 21-1583-004

TMC SUMMARY OF Felix Rd & Arizona Farms Rd



Intersection Turning Movement

Prepared by:



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



N-S STREET: **Felix Rd** DATE: **09/23/21** LOCATION: **Florence**
 E-W STREET: **Arizona Farms Rd** DAY: **THURSDAY** PROJECT# **21-1583-004**

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	0	1	0	0	1	0	
6:00 AM	6	0	5	0	0	0	0	16	26	6	13	0	72
6:15 AM	19	0	7	0	0	0	0	28	18	7	30	0	109
6:30 AM	26	0	10	0	0	0	0	38	28	10	18	0	130
6:45 AM	24	0	11	0	0	0	0	51	19	11	20	0	136
7:00 AM	31	0	10	0	1	0	1	19	23	10	17	0	112
7:15 AM	23	0	11	0	0	0	0	38	32	22	24	0	150
7:30 AM	25	0	12	0	0	0	0	38	30	17	21	0	143
7:45 AM	24	2	10	0	0	1	0	33	29	19	18	1	137
8:00 AM	19	0	8	0	1	0	1	23	21	8	9	0	90
8:15 AM	28	0	7	0	0	2	1	17	18	7	14	0	94
8:30 AM	28	1	6	0	0	1	1	9	20	9	10	0	85
8:45 AM	25	0	4	1	0	0	0	11	11	7	19	0	78
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	278	3	101	1	2	4	4	321	275	133	213	1	1336
Approach %	72.77	0.79	26.44	14.29	28.57	57.14	0.67	53.50	45.83	38.33	61.38	0.29	
App/Depart	382	/	8	7	/	410	600	/	423	347	/	495	

AM Peak Hr Begins at: 700 AM

PEAK

Volumes	103	2	43	0	1	1	1	128	114	68	80	1	542
Approach %	69.59	1.35	29.05	0.00	50.00	50.00	0.41	52.67	46.91	45.64	53.69	0.67	

PEAK HR.

FACTOR:	0.902	0.500	0.868	0.810	0.903
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CONTROL: **2-Way Stop (NB & SB)**
 COMMENT 1:
 GPS: **33.118541, -111.456526**



Pedestrian & Bicycle Study

N-S STREET: Felix Rd
E-W STREET: Arizona Farms Rd

Date: 09/23/21
Day: THURSDAY

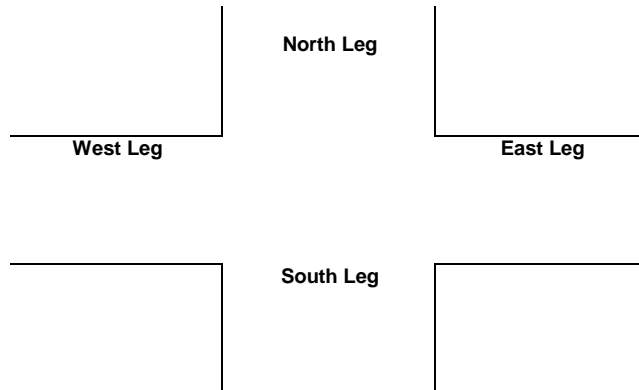
City: Florence
Project #: 21-1583-004

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	0	0	0

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	0	0	0

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	0	0	0	0

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	0	0	0	0

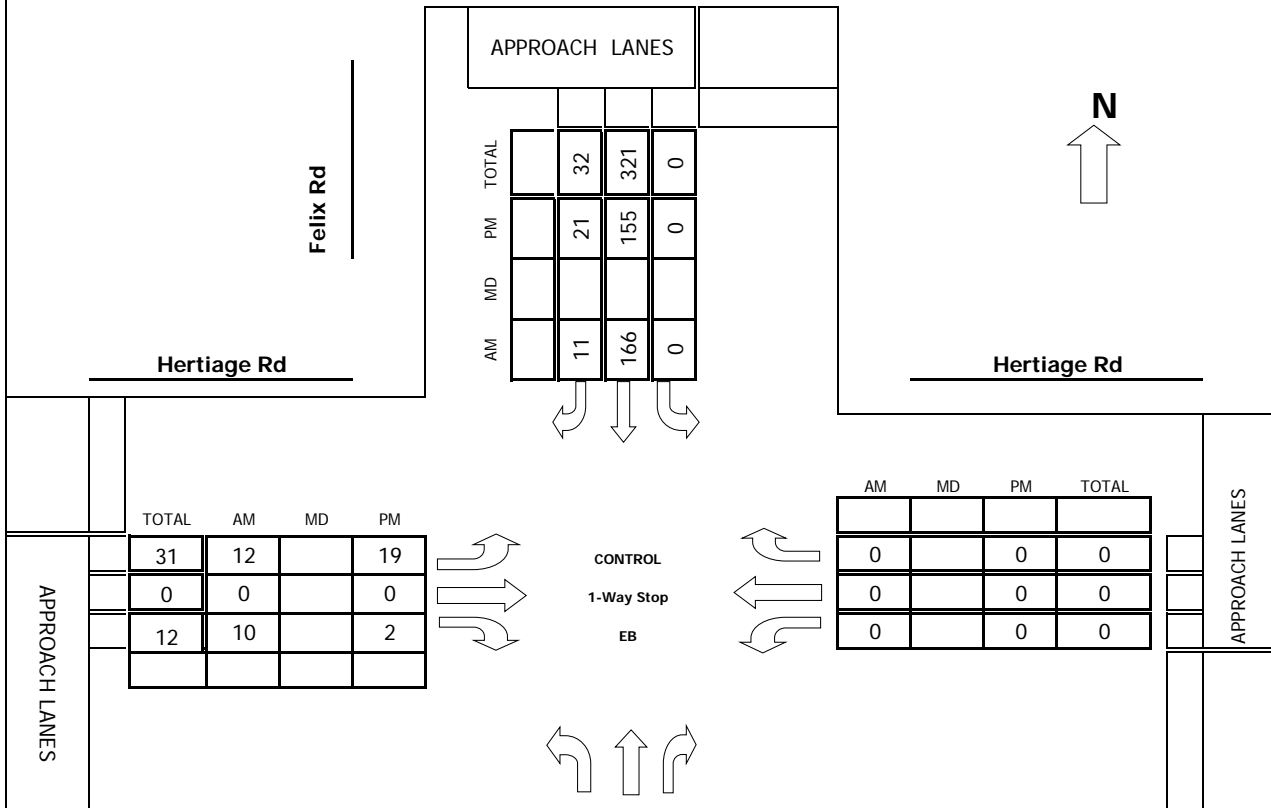


**Intersection Turning Movement
Prepared by:**



Project #: 21-1583-005

TMC SUMMARY OF Felix Rd & Herriage Rd



TOTAL	AM	MD	PM
31	12		19
0	0		0
12	10		2

AM	MD	PM	TOTAL
0		0	0
0		0	0
0		0	0

TOTAL	AM	MD	PM
8	4		4
266	133		133
0	0		0

LOCATION #: 21-1583-005

TURNING MOVEMENT COUNT

Felix Rd & Herriage Rd
(Intersection Name)

THURSDAY
Day

09/23/21
Date

COUNT PERIODS

AM	600AM - 900AM
NOON	-
PM	300PM - 600PM

AM PEAK HOUR 700 AM

NOON PEAK HOUR

PM PEAK HOUR 330 PM

Intersection Turning Movement

Prepared by:



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



N-S STREET: **Felix Rd** DATE: **09/23/21** LOCATION: **Florence**
 E-W STREET: **Hertiage Rd** DAY: **THURSDAY** PROJECT# **21-1583-005**

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
LANES:	0	1	0	0	1	0	1	0	1	0	0	0	
6:00 AM	2	10	0	0	25	3	3	0	3	0	0	0	46
6:15 AM	2	35	0	0	23	1	2	0	3	0	0	0	66
6:30 AM	2	25	0	0	38	4	6	0	1	0	0	0	76
6:45 AM	1	32	0	0	30	4	4	0	3	0	0	0	74
7:00 AM	0	34	0	0	33	4	5	0	2	0	0	0	78
7:15 AM	3	39	0	0	47	2	1	0	4	0	0	0	96
7:30 AM	0	33	0	0	47	2	2	0	3	0	0	0	87
7:45 AM	1	27	0	0	39	3	4	0	1	0	0	0	75
8:00 AM	1	26	0	0	25	5	5	0	1	0	0	0	63
8:15 AM	1	31	0	0	23	1	2	0	0	0	0	0	58
8:30 AM	0	33	0	0	25	3	5	0	0	0	0	0	66
8:45 AM	0	23	0	0	18	2	4	0	0	0	0	0	47
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	13	348	0	0	373	34	43	0	21	0	0	0	832
Approach %	3.60	96.40	0.00	0.00	91.65	8.35	67.19	0.00	32.81	####	####	####	
App/Depart	361	/	391	407	/	394	64	/	0	0	/	47	

AM Peak Hr Begins at: 700 AM

PEAK

Volumes	4	133	0	0	166	11	12	0	10	0	0	0	336
Approach %	2.92	97.08	0.00	0.00	93.79	6.21	54.55	0.00	45.45	####	####	####	

PEAK HR.

FACTOR:	0.815	0.903	0.786	0.000	0.875
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CONTROL: **1-Way Stop (EB)**

COMMENT 1:

GPS: **33.103955, -111.456467**

Intersection Turning Movement



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



N-S STREET: **Felix Rd** DATE: **09/23/21** LOCATION: **Florence**
 E-W STREET: **Hertiage Rd** DAY: **THURSDAY** PROJECT# **21-1583-005**

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	1	0	1	0	0	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM	1	33	0	0	33	2	4	0	2	0	0	0	75
3:15 PM	1	32	0	0	24	4	3	0	0	0	0	0	64
3:30 PM	1	28	0	0	34	9	4	0	1	0	0	0	77
3:45 PM	1	35	0	0	50	2	5	0	1	0	0	0	94
4:00 PM	1	37	0	0	43	8	5	0	0	0	0	0	94
4:15 PM	1	33	0	0	28	2	5	0	0	0	0	0	69
4:30 PM	0	25	0	0	32	5	6	0	0	0	0	0	68
4:45 PM	1	20	0	0	32	3	2	0	0	0	0	0	58
5:00 PM	0	25	0	0	39	4	5	0	0	0	0	0	73
5:15 PM	1	33	0	0	37	5	1	0	0	0	0	0	77
5:30 PM	0	29	0	0	24	4	0	0	1	0	0	0	58
5:45 PM	0	21	0	0	28	8	3	0	1	0	0	0	61
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	8	351	0	0	404	56	43	0	6	0	0	0	868
Approach %	2.23	97.77	0.00	0.00	87.83	12.17	87.76	0.00	12.24	####	####	####	
App/Depart	359	/	394	460	/	410	49	/	0	0	/	64	

PM Peak Hr Begins at: 330 PM

PEAK

Volumes	4	133	0	0	155	21	19	0	2	0	0	0	334
Approach %	2.92	97.08	0.00	0.00	88.07	11.93	90.48	0.00	9.52	####	####	####	

PEAK HR.

FACTOR:	0.901	0.846	0.875	0.000	0.888
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CONTROL: **1-Way Stop (EB)**
 COMMENT 1: **0**
 GPS: **33.103955, -111.456467**



Pedestrian & Bicycle Study

N-S STREET: Felix Rd
E-W STREET: Heritage Rd

Date: 09/23/21
Day: THURSDAY

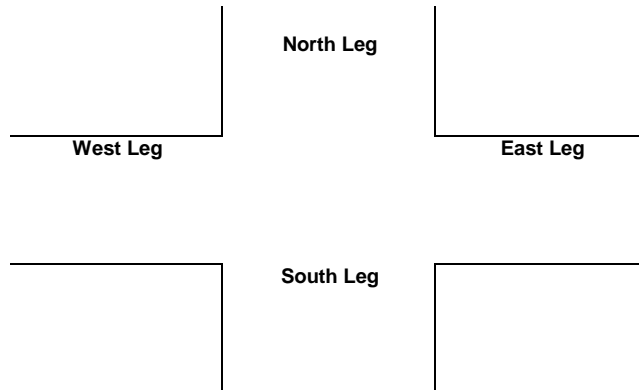
City: Florence
Project #: 21-1583-005

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	1
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	0	0	1

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	0	0	0

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	0	0	0	0

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	0	0	0	0

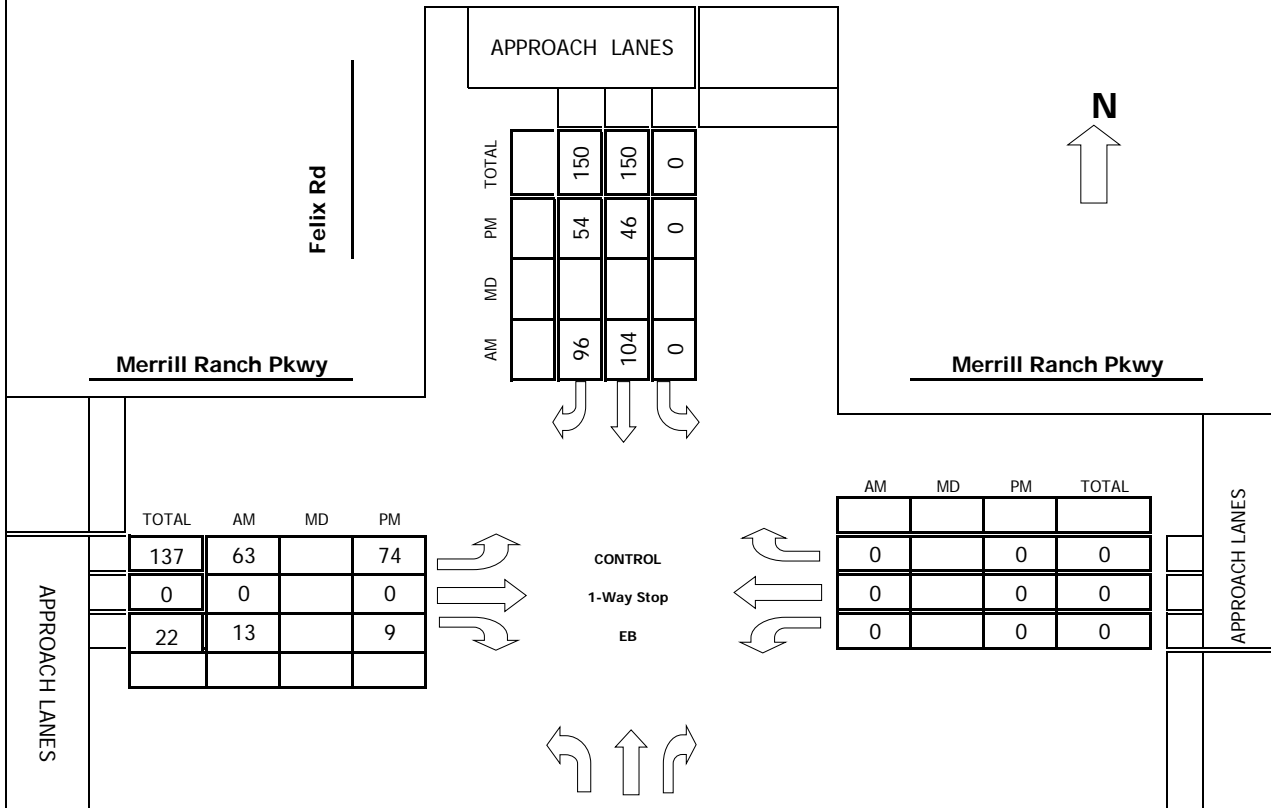


**Intersection Turning Movement
Prepared by:**



Project #: 21-1583-006

TMC SUMMARY OF Felix Rd & Merrill Ranch Pkwy



TOTAL	AM	MD	PM
137	63		74
0	0		0
22	13		9

AM	MD	PM	TOTAL
0		0	0
0		0	0
0		0	0

TOTAL	AM	MD	PM
13	4		9
116	29		87
0	0		0

LOCATION #: 21-1583-006

TURNING MOVEMENT COUNT

Felix Rd & Merrill Ranch Pkwy
(Intersection Name)

THURSDAY
Day

09/23/21
Date

COUNT PERIODS

AM	600AM - 900AM
NOON	-
PM	300PM - 600PM

AM PEAK HOUR 715 AM

NOON PEAK HOUR _____

PM PEAK HOUR 300 PM

Intersection Turning Movement

Prepared by:



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



N-S STREET: Felix Rd DATE: 09/23/21 LOCATION: Florence
 E-W STREET: Merrill Ranch Pkwy DAY: THURSDAY PROJECT# 21-1583-006

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
LANES:	0	1	0	0	1	0	1	0	1	0	0	0	
6:00 AM	1	9	0	0	16	17	6	0	2	0	0	0	51
6:15 AM	0	15	0	0	24	10	4	0	3	0	0	0	56
6:30 AM	1	17	0	0	40	14	8	0	6	0	0	0	86
6:45 AM	1	14	0	0	26	14	8	0	2	0	0	0	65
7:00 AM	1	10	0	0	18	14	13	0	1	0	0	0	57
7:15 AM	1	6	0	0	26	25	13	0	3	0	0	0	74
7:30 AM	1	7	0	0	34	36	12	0	4	0	0	0	94
7:45 AM	2	7	0	0	28	18	24	0	3	0	0	0	82
8:00 AM	0	9	0	0	16	17	14	0	3	0	0	0	59
8:15 AM	3	8	0	0	10	5	5	0	2	0	0	0	33
8:30 AM	3	14	0	0	16	8	11	0	2	0	0	0	54
8:45 AM	1	9	0	0	7	7	11	0	1	0	0	0	36
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	15	125	0	0	261	185	129	0	32	0	0	0	747
Approach %	10.71	89.29	0.00	0.00	58.52	41.48	80.12	0.00	19.88	####	####	####	
App/Depart	140	/	254	446	/	293	161	/	0	0	/	200	

AM Peak Hr Begins at: 715 AM

PEAK

Volumes	4	29	0	0	104	96	63	0	13	0	0	0	309
Approach %	12.12	87.88	0.00	0.00	52.00	48.00	82.89	0.00	17.11	####	####	####	

PEAK HR.

FACTOR:	0.917	0.714	0.704	0.000	0.822
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CONTROL: 1-Way Stop (EB)
 COMMENT 1:
 GPS: 33.069545, -111.453154

Intersection Turning Movement



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



N-S STREET: **Felix Rd** DATE: **09/23/21** LOCATION: **Florence**
 E-W STREET: **Merrill Ranch Pkwy** DAY: **THURSDAY** PROJECT# **21-1583-006**

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	1	0	1	0	0	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM	1	15	0	0	14	16	22	0	2	0	0	0	70
3:15 PM	5	23	0	0	6	9	22	0	2	0	0	0	67
3:30 PM	2	22	0	0	15	13	16	0	1	0	0	0	69
3:45 PM	1	27	0	0	11	16	14	0	4	0	0	0	73
4:00 PM	1	21	0	0	14	16	12	0	2	0	0	0	66
4:15 PM	1	23	0	0	12	12	12	0	2	0	0	0	62
4:30 PM	5	18	0	0	12	5	10	0	1	0	0	0	51
4:45 PM	2	14	0	0	14	12	7	0	2	0	0	0	51
5:00 PM	1	24	0	0	11	12	9	0	3	0	0	0	60
5:15 PM	1	25	0	0	13	16	6	0	1	0	0	0	62
5:30 PM	2	22	0	0	14	11	10	0	2	0	0	0	61
5:45 PM	1	12	0	0	9	9	10	0	4	0	0	0	45
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	23	246	0	0	145	147	150	0	26	0	0	0	737
Approach %	8.55	91.45	0.00	0.00	49.66	50.34	85.23	0.00	14.77	####	####	####	
App/Depart	269	/	396	292	/	171	176	/	0	0	/	170	

PM Peak Hr Begins at: 300 PM

PEAK

Volumes	9	87	0	0	46	54	74	0	9	0	0	0	279
Approach %	9.38	90.63	0.00	0.00	46.00	54.00	89.16	0.00	10.84	####	####	####	

PEAK HR.

FACTOR:	0.857	0.833	0.865	0.000	0.955
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CONTROL: **1-Way Stop (EB)**
 COMMENT 1: **0**
 GPS: **33.069545, -111.453154**



Pedestrian & Bicycle Study

N-S STREET: Felix Rd
E-W STREET: Merrill Ranch Pkwy

Date: 09/23/21
Day: THURSDAY

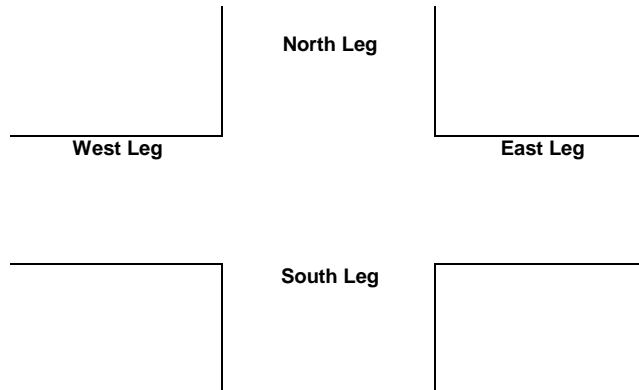
City: Florence
Project #: 21-1583-006

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	2
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	1
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	1
8:45 AM	0	0	0	0
TOTAL	0	0	0	4

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	1
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	0	0	1

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	0	0	0	0

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	0	0	0	0

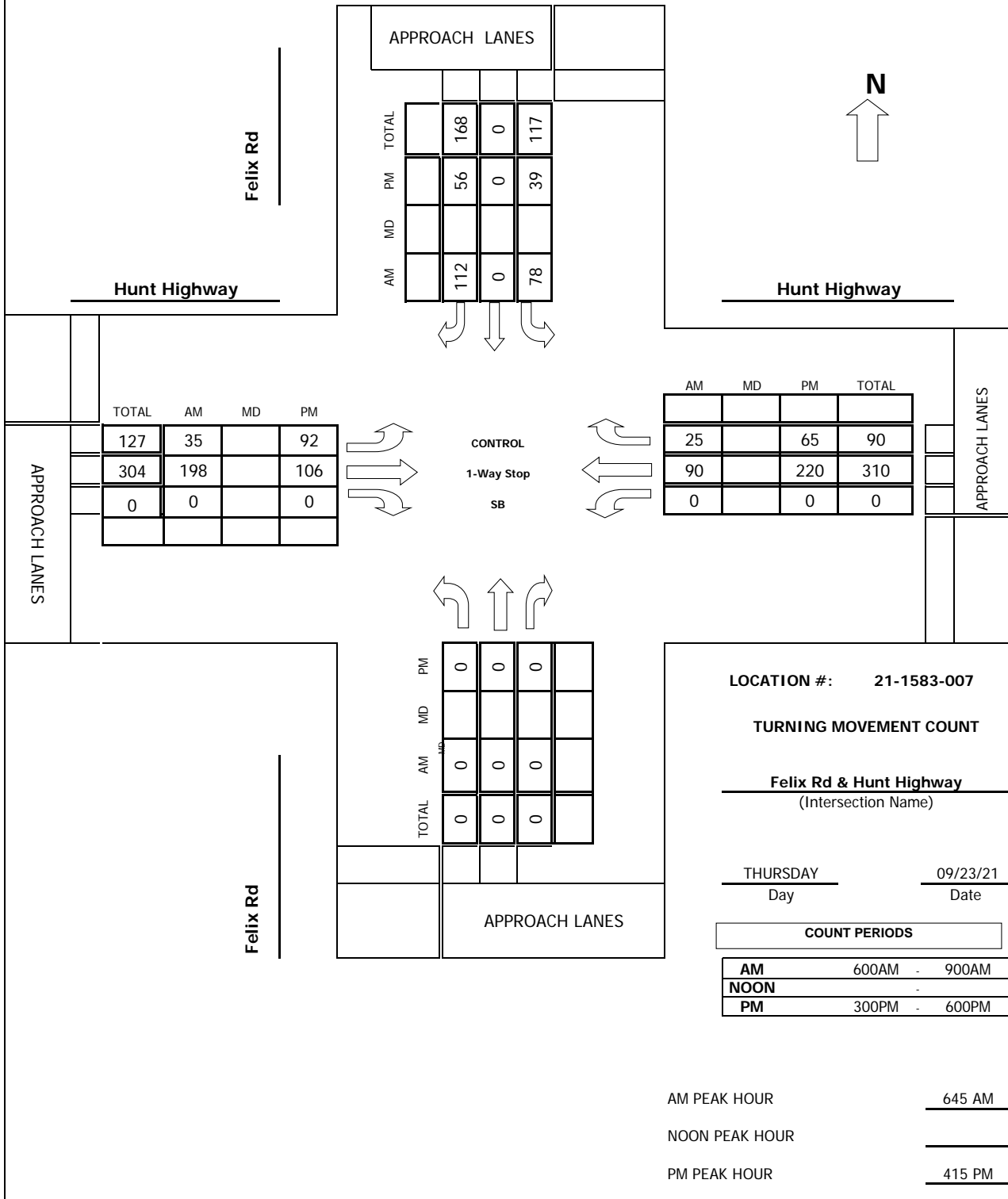


**Intersection Turning Movement
Prepared by:**



Project #: 21-1583-007

TMC SUMMARY OF Felix Rd & Hunt Highway



Intersection Turning Movement

Prepared by:



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



N-S STREET: Felix Rd DATE: 09/23/21 LOCATION: Florence
 E-W STREET: Hunt Highway DAY: THURSDAY PROJECT# 21-1583-007

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	0	0	1	0	1	0	1	0	0	1	0	
6:00 AM	0	0	0	18	0	21	10	27	0	0	19	3	98
6:15 AM	0	0	0	29	0	32	13	52	0	0	26	5	157
6:30 AM	0	0	0	23	0	28	10	41	0	0	22	9	133
6:45 AM	0	0	0	18	0	30	9	40	0	0	25	7	129
7:00 AM	0	0	0	10	0	24	7	48	0	0	19	5	113
7:15 AM	0	0	0	23	0	27	7	63	0	0	28	6	154
7:30 AM	0	0	0	27	0	31	12	47	0	0	18	7	142
7:45 AM	0	0	0	16	0	17	12	31	0	0	18	3	97
8:00 AM	0	0	0	2	0	9	15	28	0	0	18	6	78
8:15 AM	0	0	0	7	0	16	12	28	0	0	16	8	87
8:30 AM	0	0	0	9	0	18	8	16	0	0	10	9	70
8:45 AM	0	0	0	11	0	16	9	15	0	0	32	5	88
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	0	193	0	269	124	436	0	0	251	73	1346
Approach %	####	####	####	41.77	0.00	58.23	22.14	77.86	0.00	0.00	77.47	22.53	
App/Depart	0	/	197	462	/	0	560	/	629	324	/	520	

AM Peak Hr Begins at: 645 AM

PEAK

Volumes	0	0	0	78	0	112	35	198	0	0	90	25	538
Approach %	####	####	####	41.05	0.00	58.95	15.02	84.98	0.00	0.00	78.26	21.74	

PEAK HR.

FACTOR:	0.000	0.819	0.832	0.846	0.873
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CONTROL: 1-Way Stop (SB)

COMMENT 1:

GPS: 33.050900, -111.458550

Intersection Turning Movement



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



N-S STREET: Felix Rd DATE: 09/23/21 LOCATION: Florence
 E-W STREET: Hunt Highway DAY: THURSDAY PROJECT# 21-1583-007

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	0	0	1	0	1	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM	0	0	0	13	0	8	30	36	0	0	43	13	143
3:15 PM	0	0	0	8	0	14	21	29	0	0	41	13	126
3:30 PM	0	0	0	6	0	13	30	21	0	0	42	10	122
3:45 PM	0	0	0	8	0	15	21	24	0	0	42	18	128
4:00 PM	0	0	0	12	0	16	25	32	0	0	50	7	142
4:15 PM	0	0	0	5	0	14	23	19	0	0	50	15	126
4:30 PM	0	0	0	11	0	18	16	28	0	0	35	12	120
4:45 PM	0	0	0	11	0	10	25	25	0	0	68	17	156
5:00 PM	0	0	0	12	0	14	28	34	0	0	67	21	176
5:15 PM	0	0	0	9	0	9	23	25	0	0	34	11	111
5:30 PM	0	0	0	11	0	10	17	17	0	0	29	9	93
5:45 PM	0	0	0	4	0	8	10	14	0	0	36	13	85
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	0	110	0	149	269	304	0	0	537	159	1528
Approach %	#####	#####	#####	42.47	0.00	57.53	46.95	53.05	0.00	0.00	77.16	22.84	
App/Depart	0	/	428	259	/	0	573	/	414	696	/	686	

PM Peak Hr Begins at: 415 PM

PEAK	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	0	39	0	56	92	106	0	0	220	65	578
Approach %	#####	#####	#####	41.05	0.00	58.95	46.46	53.54	0.00	0.00	77.19	22.81	

PEAK HR. FACTOR:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0.000			0.819			0.798			0.810			0.821

CONTROL: 1-Way Stop (SB)
 COMMENT 1: 0
 GPS: 33.050900, -111.458550



Pedestrian & Bicycle Study

N-S STREET: Felix Rd
E-W STREET: Hunt Highway

Date: 09/23/21
Day: THURSDAY

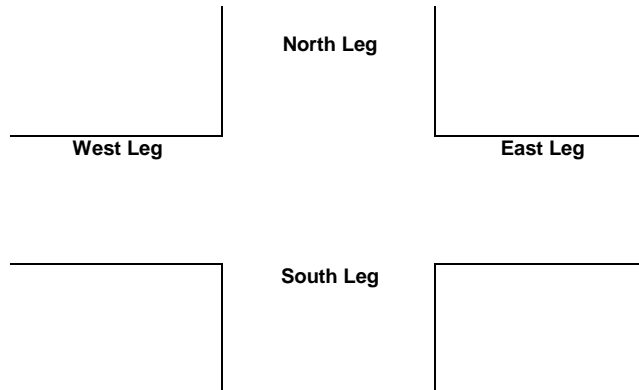
City: Florence
Project #: 21-1583-007

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	0	0	0

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	0	0	0

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	0	0	0	0

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	0	0	0	0



Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Thursday, September 23, 2021

City: Florence

Project #: 21-1583-008

Location: Hunt Highway north of Arizona Farms Rd

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB		
00:00	9	18			12:00	159	136				
00:15	9	21			12:15	152	147				
00:30	6	11			12:30	146	144				
00:45	1	25	6	56	81	12:45	133	590	135	562	1152
01:00	7	14			13:00	151	136				
01:15	9	9			13:15	162	153				
01:30	5	11			13:30	161	153				
01:45	11	32	17	51	83	13:45	156	630	149	591	1221
02:00	14	10			14:00	226	181				
02:15	12	9			14:15	211	173				
02:30	9	9			14:30	182	202				
02:45	20	55	13	41	96	14:45	188	807	218	774	1581
03:00	19	13			15:00	224	208				
03:15	27	21			15:15	225	209				
03:30	36	30			15:30	199	200				
03:45	49	131	18	82	213	15:45	193	841	252	869	1710
04:00	60	39			16:00	219	214				
04:15	76	64			16:15	203	202				
04:30	52	70			16:30	235	193				
04:45	115	303	82	255	558	16:45	185	842	210	819	1661
05:00	99	134			17:00	198	198				
05:15	107	140			17:15	220	211				
05:30	118	111			17:30	163	194				
05:45	109	433	108	493	926	17:45	141	722	166	769	1491
06:00	152	122			18:00	140	218				
06:15	190	168			18:15	142	175				
06:30	234	185			18:30	80	162				
06:45	195	771	161	636	1407	18:45	120	482	135	690	1172
07:00	214	201			19:00	91	150				
07:15	220	186			19:15	101	142				
07:30	216	142			19:30	73	105				
07:45	169	819	144	673	1492	19:45	90	355	116	513	868
08:00	156	150			20:00	77	99				
08:15	195	123			20:15	65	112				
08:30	136	146			20:30	62	101				
08:45	135	622	145	564	1186	20:45	56	260	97	409	669
09:00	157	108			21:00	54	92				
09:15	159	112			21:15	31	72				
09:30	139	124			21:30	27	60				
09:45	154	609	135	479	1088	21:45	34	146	45	269	415
10:00	158	117			22:00	19	38				
10:15	176	113			22:15	31	33				
10:30	143	138			22:30	24	38				
10:45	156	633	135	503	1136	22:45	47	121	45	154	275
11:00	145	141			23:00	22	25				
11:15	168	136			23:15	12	39				
11:30	165	113			23:30	11	30				
11:45	182	660	142	532	1192	23:45	12	57	24	118	175

Total Vol. 5093 4365 **9458** 5853 6537 **12390**

GPS Coordinates: 33.118916, -111.525553

Daily Totals

NB	SB	EB	WB	Combined
10946	10902			21848

AM

PM

Split % 53.8% 46.2% **43.3%** 47.2% 52.8% **56.7%**

Peak Hour 06:30 06:30 **06:30** 15:45 15:15 **15:15**

Volume 863 733 **1596** 850 875 **1711**

P.H.F. 0.92 0.91 **0.95** 0.90 0.87 **0.96**

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Thursday, September 23, 2021

City: Florence

Project #: 21-1583-009

Location: Hunt Highway south of Arizona Farms Rd

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB		
00:00	9	17			12:00	129	110				
00:15	6	19			12:15	143	118				
00:30	6	10			12:30	126	125				
00:45	1	22	5	51	73	12:45	114	512	116	469	981
01:00	6	11			13:00	127	115				
01:15	6	8			13:15	119	131				
01:30	5	8			13:30	142	134				
01:45	9	26	14	41	67	13:45	129	517	126	506	1023
02:00	13	7			14:00	196	153				
02:15	12	9			14:15	161	153				
02:30	9	9			14:30	160	168				
02:45	17	51	11	36	87	14:45	165	682	188	662	1344
03:00	16	11			15:00	196	179				
03:15	22	17			15:15	182	183				
03:30	30	26			15:30	177	164				
03:45	45	113	16	70	183	15:45	167	722	215	741	1463
04:00	47	29			16:00	178	191				
04:15	75	49			16:15	167	167				
04:30	48	52			16:30	191	152				
04:45	96	266	61	191	457	16:45	148	684	177	687	1371
05:00	90	110			17:00	163	165				
05:15	91	110			17:15	178	171				
05:30	100	80			17:30	133	153				
05:45	101	382	92	392	774	17:45	121	595	139	628	1223
06:00	132	106			18:00	115	181				
06:15	149	140			18:15	116	145				
06:30	205	142			18:30	71	134				
06:45	157	643	130	518	1161	18:45	107	409	118	578	987
07:00	164	171			19:00	77	125				
07:15	185	153			19:15	78	114				
07:30	195	113			19:30	59	90				
07:45	152	696	114	551	1247	19:45	77	291	96	425	716
08:00	136	120			20:00	70	87				
08:15	149	106			20:15	60	91				
08:30	103	121			20:30	47	88				
08:45	115	503	126	473	976	20:45	44	221	84	350	571
09:00	134	94			21:00	47	75				
09:15	136	105			21:15	27	58				
09:30	120	99			21:30	24	46				
09:45	124	514	117	415	929	21:45	30	128	41	220	348
10:00	132	102			22:00	18	34				
10:15	150	95			22:15	28	31				
10:30	116	117			22:30	21	35				
10:45	132	530	115	429	959	22:45	41	108	37	137	245
11:00	120	123			23:00	21	25				
11:15	144	116			23:15	12	35				
11:30	136	99			23:30	10	28				
11:45	155	555	121	459	1014	23:45	14	57	21	109	166

Total Vol. 4301 3626 **7927** 4926 5512 **10438**

GPS Coordinates: 33.117773, -111.524528

Daily Totals

NB	SB	EB	WB	Combined
9227	9138			18365

AM

PM

Split % 54.3% 45.7% **43.2%** 47.2% 52.8% **56.8%**

Peak Hour 06:30 06:30 **06:30** 15:00 15:15 **15:00**

Volume 711 596 **1307** 722 753 **1463**

P.H.F. 0.87 0.87 **0.94** 0.92 0.88 **0.96**

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Thursday, September 23, 2021

City: Florence

Project #: 21-1583-010

Location: Arizona Farms Rd east of Hunt Highway

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00			4	3	12:00			34	38			
00:15			3	4	12:15			41	21			
00:30			1	0	12:30			28	29			
00:45			1	9	0	7	16	24	127	24	112	239
01:00			3	1	13:00			30	33			
01:15			1	3	13:15			24	45			
01:30			3	0	13:30			26	26			
01:45			3	10	2	6	16	27	107	31	135	242
02:00			3	1	14:00			35	37			
02:15			0	0	14:15			31	61			
02:30			0	0	14:30			38	26			
02:45			3	6	4	5	11	42	146	35	159	305
03:00			2	3	15:00			40	39			
03:15			6	7	15:15			39	56			
03:30			4	6	15:30			49	35			
03:45			3	15	5	21	36	50	178	39	169	347
04:00			13	16	16:00			31	49			
04:15			21	7	16:15			43	44			
04:30			22	8	16:30			45	48			
04:45			26	82	24	55	137	42	161	46	187	348
05:00			29	14	17:00			38	40			
05:15			31	17	17:15			46	48			
05:30			37	24	17:30			47	36			
05:45			20	117	12	67	184	32	163	25	149	312
06:00			25	29	18:00			42	30			
06:15			32	45	18:15			32	28			
06:30			52	38	18:30			35	16			
06:45			34	143	41	153	296	22	131	18	92	223
07:00			32	52	19:00			28	17			
07:15			40	42	19:15			30	25			
07:30			40	32	19:30			17	16			
07:45			35	147	22	148	295	22	97	15	73	170
08:00			37	27	20:00			16	11			
08:15			26	55	20:15			25	9			
08:30			32	40	20:30			17	19			
08:45			25	120	26	148	268	14	72	13	52	124
09:00			20	29	21:00			20	10			
09:15			15	31	21:15			15	5			
09:30			32	26	21:30			15	4			
09:45			24	91	36	122	213	5	55	5	24	79
10:00			23	34	22:00			6	3			
10:15			29	37	22:15			4	5			
10:30			27	33	22:30			4	4			
10:45			25	104	29	133	237	9	23	7	19	42
11:00			24	31	23:00			0	1			
11:15			24	28	23:15			5	1			
11:30			19	34	23:30			2	1			
11:45			26	93	32	125	218	5	12	0	3	15

Total Vol. 937 990 1927 1272 1174 2446

GPS Coordinates: 33.118236, -111.524018

Daily Totals

NB	SB	EB	WB	Combined
		2209	2164	4373

AM

PM

Split % 48.6% 51.4% 44.1% 52.0% 48.0% 55.9%

Peak Hour	06:30	06:15	06:30	15:00	16:00	16:30
Volume	158	176	331	178	187	353
P.H.F.	0.76	0.85	0.92	0.89	0.95	0.94

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Thursday, September 23, 2021

City: Florence

Project #: 21-1583-011

Location: Judd Rd west of Attaway Rd

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00			2	3	12:00			50	44			
00:15			4	2	12:15			49	39			
00:30			8	2	12:30			53	42			
00:45			7	21	6	13	34	44	196	48	173	369
01:00			3	4	13:00			36	47			
01:15			2	2	13:15			37	48			
01:30			1	3	13:30			50	56			
01:45			4	10	3	12	22	39	162	39	190	352
02:00			1	5	14:00			47	51			
02:15			4	5	14:15			55	45			
02:30			2	8	14:30			61	57			
02:45			3	10	6	24	34	91	254	52	205	459
03:00			4	10	15:00			74	58			
03:15			4	11	15:15			96	58			
03:30			5	23	15:30			71	83			
03:45			8	21	22	66	87	93	334	67	266	600
04:00			7	29	16:00			79	82			
04:15			6	34	16:15			80	61			
04:30			13	47	16:30			84	77			
04:45			20	46	46	156	202	79	322	74	294	616
05:00			22	35	17:00			92	79			
05:15			25	44	17:15			82	79			
05:30			43	49	17:30			78	71			
05:45			33	123	55	183	306	75	327	61	290	617
06:00			26	67	18:00			62	55			
06:15			39	79	18:15			70	58			
06:30			42	109	18:30			68	40			
06:45			52	159	103	358	517	65	265	36	189	454
07:00			57	82	19:00			53	47			
07:15			63	73	19:15			57	40			
07:30			61	76	19:30			68	25			
07:45			77	258	61	292	550	60	238	17	129	367
08:00			75	51	20:00			39	29			
08:15			62	65	20:15			30	22			
08:30			55	69	20:30			45	19			
08:45			28	220	65	250	470	37	151	16	86	237
09:00			33	52	21:00			47	11			
09:15			32	56	21:15			45	7			
09:30			37	41	21:30			40	9			
09:45			45	147	40	189	336	26	158	9	36	194
10:00			28	48	22:00			15	9			
10:15			29	59	22:15			26	14			
10:30			37	43	22:30			12	4			
10:45			44	138	41	191	329	18	71	4	31	102
11:00			29	53	23:00			15	4			
11:15			38	56	23:15			11	2			
11:30			49	46	23:30			9	3			
11:45			40	156	52	207	363	7	42	2	11	53

Total Vol. 1309 1941 3250 2520 1900 4420

GPS Coordinates: 33.147640, -111.476959

Daily Totals

NB	SB	EB	WB	Combined
		3829	3841	7670

AM

PM

Split % 40.3% 59.7% 42.4% 57.0% 43.0% 57.6%

Peak Hour	07:15	06:15	06:30	15:15	16:30	16:30
Volume	276	373	581	339	309	646
P.H.F.	0.90	0.86	0.94	0.88	0.98	0.94

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Thursday, September 23, 2021

City: Florence

Project #: 21-1583-012

Location: Attaway Rd btwn Judd Rd & Arizona Farms Rd

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB		
00:00	1	0			12:00	10	22				
00:15	0	1			12:15	21	18				
00:30	3	3			12:30	15	16				
00:45	1	5	1	5	10	12:45	10	56	12	68	124
01:00	3	0			13:00	19	13				
01:15	1	0			13:15	17	15				
01:30	0	2			13:30	18	16				
01:45	2	6	2	4	10	13:45	14	68	8	52	120
02:00	2	1			14:00	23	14				
02:15	2	2			14:15	24	17				
02:30	0	1			14:30	28	14				
02:45	1	5	3	7	12	14:45	23	98	19	64	162
03:00	1	1			15:00	28	19				
03:15	2	3			15:15	41	22				
03:30	3	4			15:30	33	18				
03:45	3	9	7	15	24	15:45	34	136	26	85	221
04:00	1	5			16:00	33	25				
04:15	3	8			16:15	33	24				
04:30	8	11			16:30	38	27				
04:45	7	19	17	41	60	16:45	37	141	24	100	241
05:00	4	19			17:00	24	28				
05:15	8	20			17:15	45	27				
05:30	14	43			17:30	32	19				
05:45	13	39	28	110	149	17:45	31	132	14	88	220
06:00	11	25			18:00	25	12				
06:15	21	33			18:15	24	15				
06:30	30	32			18:30	14	11				
06:45	26	88	36	126	214	18:45	16	79	7	45	124
07:00	24	36			19:00	16	5				
07:15	33	32			19:15	13	16				
07:30	23	40			19:30	11	10				
07:45	18	98	41	149	247	19:45	6	46	6	37	83
08:00	17	22			20:00	11	8				
08:15	17	22			20:15	13	2				
08:30	19	20			20:30	9	10				
08:45	24	77	13	77	154	20:45	6	39	9	29	68
09:00	21	20			21:00	9	8				
09:15	20	16			21:15	1	7				
09:30	23	18			21:30	2	11				
09:45	16	80	20	74	154	21:45	2	14	3	29	43
10:00	14	17			22:00	5	7				
10:15	23	17			22:15	5	4				
10:30	11	17			22:30	3	3				
10:45	18	66	18	69	135	22:45	3	16	4	18	34
11:00	18	16			23:00	1	2				
11:15	14	15			23:15	0	2				
11:30	15	19			23:30	3	0				
11:45	18	65	18	68	133	23:45	1	5	1	5	10

Total Vol. 557 745 1302 830 620 1450

GPS Coordinates: 33.141225, -111.474043

Daily Totals

NB	SB	EB	WB	Combined
1387	1365			2752

AM

PM

Split % 42.8% 57.2% **47.3%** 57.2% 42.8% **52.7%**

Peak Hour	06:30	07:00	06:45	16:30	16:30	16:30
Volume	113	149	250	144	106	250
P.H.F.	0.86	0.91	0.96	0.80	0.95	0.87

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Thursday, September 23, 2021

City: Florence

Project #: 21-1583-013

Location: Arizona Farms Rd east of Felix Rd

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00			1	3	12:00			11	17			
00:15			3	0	12:15			22	26			
00:30			4	1	12:30			21	22			
00:45			0	8	2	6	14	24	78	20	85	163
01:00			1	1	13:00			23	25			
01:15			2	1	13:15			17	23			
01:30			2	0	13:30			15	20			
01:45			1	6	0	2	8	22	77	32	100	177
02:00			1	7	14:00			24	24			
02:15			3	1	14:15			20	51			
02:30			1	0	14:30			30	42			
02:45			2	7	0	8	15	27	101	31	148	249
03:00			3	1	15:00			24	34			
03:15			4	4	15:15			31	39			
03:30			9	2	15:30			24	47			
03:45			13	29	4	11	40	30	109	59	179	288
04:00			10	2	16:00			35	57			
04:15			17	6	16:15			30	47			
04:30			22	6	16:30			32	43			
04:45			22	71	15	29	100	29	126	50	197	323
05:00			36	12	17:00			25	45			
05:15			38	11	17:15			26	83			
05:30			54	14	17:30			35	44			
05:45			50	178	12	49	227	21	107	33	205	312
06:00			21	19	18:00			14	35			
06:15			35	37	18:15			10	35			
06:30			48	28	18:30			21	28			
06:45			62	166	31	115	281	12	57	20	118	175
07:00			29	27	19:00			9	19			
07:15			49	46	19:15			7	22			
07:30			50	38	19:30			14	12			
07:45			43	171	38	149	320	14	44	14	67	111
08:00			31	17	20:00			11	15			
08:15			24	21	20:15			8	20			
08:30			15	19	20:30			10	7			
08:45			16	86	26	83	169	15	44	9	51	95
09:00			16	18	21:00			10	12			
09:15			18	17	21:15			12	2			
09:30			21	15	21:30			4	6			
09:45			20	75	24	74	149	7	33	3	23	56
10:00			22	13	22:00			6	6			
10:15			20	22	22:15			2	5			
10:30			22	21	22:30			3	3			
10:45			17	81	26	82	163	3	14	5	19	33
11:00			31	17	23:00			3	6			
11:15			22	26	23:15			1	2			
11:30			20	24	23:30			5	2			
11:45			21	94	19	86	180	2	11	1	11	22

Total Vol. 972 694 1666 801 1203 2004

GPS Coordinates: 33.118499, -111.453047

Daily Totals

NB	SB	EB	WB	Combined
		1773	1897	3670

AM

PM

Split % 58.3% 41.7% 45.4% 40.0% 60.0% 54.6%

Peak Hour	06:45	07:00	06:45	15:45	16:45	16:45
Volume	190	149	332	127	222	337
P.H.F.	0.77	0.81	0.87	0.91	0.67	0.77

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Thursday, September 23, 2021

City: Florence

Project #: 21-1583-014

Location: Felix Rd south of Arizona Farms Rd

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	2	2			12:00	18	29		
00:15	2	1			12:15	30	25		
00:30	5	1			12:30	13	25		
00:45	1	10	4	8	12:45	23	84	22	101
01:00	1	0			13:00	28	27		
01:15	1	0			13:15	29	21		
01:30	0	1			13:30	27	25		
01:45	2	4	1	2	13:45	15	99	16	89
02:00	0	5			14:00	29	16		
02:15	1	3			14:15	24	30		
02:30	0	0			14:30	39	31		
02:45	3	4	0	8	14:45	34	126	41	118
03:00	3	2			15:00	37	32		
03:15	2	3			15:15	36	26		
03:30	8	3			15:30	33	44		
03:45	7	20	4	12	15:45	32	138	47	149
04:00	9	3			16:00	44	54		
04:15	9	6			16:15	38	32		
04:30	11	12			16:30	36	37		
04:45	13	42	19	40	16:45	25	143	40	163
05:00	10	10			17:00	29	34		
05:15	13	17			17:15	28	46		
05:30	18	19			17:30	32	30		
05:45	20	61	24	70	17:45	26	115	34	144
06:00	11	32			18:00	24	22		
06:15	26	25			18:15	12	31		
06:30	36	38			18:30	19	27		
06:45	35	108	30	125	18:45	13	68	18	98
07:00	41	34			19:00	9	14		
07:15	34	54			19:15	11	20		
07:30	37	47			19:30	22	13		
07:45	36	148	48	183	19:45	9	51	15	62
08:00	27	30			20:00	12	14		
08:15	35	25			20:15	5	16		
08:30	35	29			20:30	9	14		
08:45	29	126	18	102	20:45	10	36	13	57
09:00	22	22			21:00	8	5		
09:15	26	20			21:15	7	10		
09:30	30	25			21:30	2	10		
09:45	21	99	19	86	21:45	2	19	8	33
10:00	26	23			22:00	2	6		
10:15	28	24			22:15	2	6		
10:30	24	23			22:30	3	3		
10:45	21	99	23	93	22:45	1	8	8	23
11:00	37	24			23:00	3	4		
11:15	25	22			23:15	1	3		
11:30	24	21			23:30	3	2		
11:45	28	114	22	89	23:45	2	9	2	11

Total Vol. 835 818 **1653** 896 1048 **1944**

GPS Coordinates: 33.116312, -111.456536

Daily Totals

NB	SB	EB	WB	Combined
1731	1866			3597

AM

PM

Split % 50.5% 49.5% **46.0%** 46.1% 53.9% **54.0%**

Peak Hour 07:00 07:00 **07:00** 15:45 15:30 **15:30**

Volume 148 183 **331** 150 177 **324**

P.H.F. 0.90 0.85 **0.94** 0.85 0.82 **0.83**

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Thursday, September 23, 2021

City: Florence

Project #: 21-1583-015

Location: Felix Rd south of Heritage Rd

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB		
00:00	4	2			12:00	22	26				
00:15	1	1			12:15	15	25				
00:30	4	0			12:30	22	25				
00:45	2	11	0	3	14	12:45	17	76	28	104	180
01:00	1	0			13:00	16	24				
01:15	0	1			13:15	29	21				
01:30	1	2			13:30	10	23				
01:45	1	3	1	4	7	13:45	24	79	20	88	167
02:00	0	6			14:00	21	15				
02:15	1	2			14:15	39	29				
02:30	1	0			14:30	36	33				
02:45	1	3	0	8	11	14:45	32	128	34	111	239
03:00	1	1			15:00	37	30				
03:15	3	3			15:15	45	15				
03:30	5	5			15:30	38	28				
03:45	0	9	5	14	23	15:45	41	161	27	100	261
04:00	4	4			16:00	33	30				
04:15	3	5			16:15	35	24				
04:30	2	13			16:30	28	17				
04:45	8	17	13	35	52	16:45	21	117	26	97	214
05:00	9	13			17:00	33	23				
05:15	14	16			17:15	31	29				
05:30	9	24			17:30	32	25				
05:45	12	44	26	79	123	17:45	22	118	18	95	213
06:00	15	33			18:00	22	17				
06:15	19	34			18:15	16	21				
06:30	25	54			18:30	22	19				
06:45	22	81	40	161	242	18:45	17	77	7	64	141
07:00	23	32			19:00	17	12				
07:15	19	51			19:15	19	13				
07:30	19	70			19:30	12	5				
07:45	31	92	46	199	291	19:45	13	61	10	40	101
08:00	23	33			20:00	11	8				
08:15	13	15			20:15	6	8				
08:30	25	24			20:30	7	5				
08:45	20	81	14	86	167	20:45	14	38	7	28	66
09:00	19	22			21:00	3	3				
09:15	25	27			21:15	2	7				
09:30	15	19			21:30	5	3				
09:45	22	81	26	94	175	21:45	7	17	2	15	32
10:00	23	26			22:00	6	6				
10:15	20	28			22:15	5	2				
10:30	25	12			22:30	2	2				
10:45	25	93	34	100	193	22:45	3	16	4	14	30
11:00	27	28			23:00	1	1				
11:15	29	24			23:15	8	3				
11:30	20	18			23:30	3	2				
11:45	13	89	27	97	186	23:45	2	14	0	6	20

Total Vol. 604 880 1484 902 762 1664

GPS Coordinates: 33.102363, -111.456491

Daily Totals

NB	SB	EB	WB	Combined
1506	1642			3148

AM

PM

Split % 40.7% 59.3% **47.1%** 54.2% 45.8% **52.9%**

Peak Hour 10:30 07:15 **07:15** 15:00 14:15 **14:15**

Volume 106 200 **292** 161 126 **270**

P.H.F. 0.91 0.71 **0.82** 0.89 0.93 **0.98**

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Thursday, September 23, 2021

City: Florence

Project #: 21-1583-016

Location: Merrill Ranch Pkwy west of Felix Rd

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00			1	1	12:00			10	17			
00:15			0	0	12:15			7	14			
00:30			0	0	12:30			12	13			
00:45			0	1	0	1	2	14	43	11	55	98
01:00			1	0	13:00			10	11			
01:15			0	1	13:15			21	12			
01:30			1	0	13:30			9	8			
01:45			0	2	0	1	3	11	51	14	45	96
02:00			0	1	14:00			18	11			
02:15			0	0	14:15			17	28			
02:30			0	0	14:30			21	25			
02:45			0	0	0	1	1	16	72	26	90	162
03:00			0	0	15:00			24	17			
03:15			1	0	15:15			24	14			
03:30			1	0	15:30			17	15			
03:45			0	2	0	0	2	18	83	17	63	146
04:00			0	0	16:00			14	17			
04:15			3	0	16:15			14	13			
04:30			0	0	16:30			11	10			
04:45			3	6	3	3	9	9	48	14	54	102
05:00			3	2	17:00			12	13			
05:15			3	5	17:15			7	17			
05:30			1	10	17:30			12	13			
05:45			4	11	13	30	41	14	45	10	53	98
06:00			8	18	18:00			12	7			
06:15			7	10	18:15			12	11			
06:30			14	15	18:30			10	9			
06:45			10	39	15	58	97	8	42	6	33	75
07:00			14	15	19:00			9	7			
07:15			16	26	19:15			11	5			
07:30			16	37	19:30			7	3			
07:45			27	73	20	98	171	4	31	5	20	51
08:00			17	17	20:00			4	4			
08:15			7	8	20:15			2	7			
08:30			13	11	20:30			4	3			
08:45			12	49	8	44	93	6	16	5	19	35
09:00			12	8	21:00			1	2			
09:15			9	9	21:15			1	7			
09:30			6	16	21:30			2	2			
09:45			12	39	14	47	86	4	8	2	13	21
10:00			12	10	22:00			3	3			
10:15			11	15	22:15			2	1			
10:30			13	10	22:30			1	1			
10:45			15	51	22	57	108	1	7	1	6	13
11:00			16	16	23:00			0	1			
11:15			13	10	23:15			2	1			
11:30			16	10	23:30			0	1			
11:45			11	56	16	52	108	0	2	1	4	6

Total Vol. 329 392 721 448 455 903

GPS Coordinates: 33.068891, -111.455298

Daily Totals

NB	SB	EB	WB	Combined
		777	847	1624

AM 45.6% 54.4% 44.4%

PM 49.6% 50.4% 55.6%

Peak Hour	AM	PM
Volume	76 100 176	85 96 174
P.H.F.	0.70 0.68 0.83	0.89 0.86 0.95

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Thursday, September 23, 2021

City: Florence

Project #: 21-1583-017

Location: Felix Rd south of Merrill Ranch Pkwy

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	3	1			12:00	17	14		
00:15	1	1			12:15	11	14		
00:30	4	0			12:30	13	15		
00:45	2	10	0	2	12:45	8	49	22	65
01:00	0	0			13:00	14	21		
01:15	0	0			13:15	14	15		
01:30	1	3			13:30	8	22		
01:45	1	2	1	4	13:45	17	53	10	68
02:00	0	5			14:00	15	16		
02:15	1	2			14:15	32	11		
02:30	1	0			14:30	20	13		
02:45	1	3	0	7	14:45	21	88	13	53
03:00	1	1			15:00	16	16		
03:15	2	3			15:15	28	8		
03:30	4	5			15:30	24	16		
03:45	0	7	5	14	15:45	28	96	15	55
04:00	4	4			16:00	22	16		
04:15	1	6			16:15	24	14		
04:30	2	13			16:30	23	13		
04:45	6	13	11	34	16:45	16	85	16	59
05:00	6	11			17:00	25	14		
05:15	11	11			17:15	26	14		
05:30	8	14			17:30	24	16		
05:45	12	37	17	53	17:45	13	88	13	57
06:00	10	18			18:00	14	14		
06:15	15	27			18:15	7	13		
06:30	18	46			18:30	13	11		
06:45	15	58	28	119	18:45	13	47	5	43
07:00	11	19			19:00	14	11		
07:15	7	29			19:15	12	12		
07:30	8	38			19:30	6	3		
07:45	9	35	31	117	19:45	12	44	8	34
08:00	9	19			20:00	10	7		
08:15	11	12			20:15	6	3		
08:30	17	18			20:30	5	4		
08:45	10	47	8	57	20:45	11	32	5	19
09:00	8	15			21:00	3	2		
09:15	20	22			21:15	3	2		
09:30	14	8			21:30	4	2		
09:45	15	57	17	62	21:45	4	14	1	7
10:00	16	21			22:00	3	3		
10:15	14	18			22:15	3	1		
10:30	18	8			22:30	1	1		
10:45	13	61	15	62	22:45	2	9	3	8
11:00	14	15			23:00	1	0		
11:15	19	17			23:15	6	2		
11:30	13	17			23:30	3	1		
11:45	10	56	19	68	23:45	3	13	0	3

Total Vol. 386 599 **985** 618 471 **1089**

GPS Coordinates: 33.067505, -111.452404

Daily Totals

NB	SB	EB	WB	Combined
1004	1070			2074

AM

PM

Split % 39.2% 60.8% **47.5%** 56.7% 43.3% **52.5%**

Peak Hour	09:15	06:30	06:15	15:15	12:45	15:30
Volume	65	122	179	102	80	159
P.H.F.	0.81	0.66	0.70	0.91	0.91	0.92

APPENDIX C: Existing Level-of-Service Analysis

1: Hunt Hwy & Arizona Farm Road
Existing AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	3.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	167	696	15	143	590
Future Vol, veh/h	6	167	696	15	143	590
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	182	757	16	155	641

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1716	765	0	0	773	0
Stage 1	765	-	-	-	-	-
Stage 2	951	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	99	403	-	-	842	-
Stage 1	459	-	-	-	-	-
Stage 2	375	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	71	403	-	-	842	-
Mov Cap-2 Maneuver	71	-	-	-	-	-
Stage 1	459	-	-	-	-	-
Stage 2	268	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	27	0	2
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	347	842
HCM Lane V/C Ratio	-	-	0.542	0.185
HCM Control Delay (s)	-	-	27	10.2
HCM Lane LOS	-	-	D	B
HCM 95th %tile Q(veh)	-	-	3.1	0.7

2: Attaway Rd & Judd Road Existing AM Peak

HCM 6th AWSC

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑	↑	↑
Traffic Vol, veh/h	93	121	15	270	97	14
Future Vol, veh/h	93	121	15	270	97	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	101	132	16	293	105	15
Number of Lanes	2	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	8.6	11.7	10.2
HCM LOS	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	100%	0%	0%	0%	5%
Vol Thru, %	0%	0%	100%	20%	95%
Vol Right, %	0%	100%	0%	80%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	97	14	62	152	285
LT Vol	97	0	0	0	15
Through Vol	0	0	62	31	270
RT Vol	0	14	0	121	0
Lane Flow Rate	105	15	67	165	310
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.184	0.021	0.097	0.212	0.427
Departure Headway (Hd)	6.295	5.085	5.184	4.623	4.967
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	568	700	690	775	725
Service Time	4.057	2.846	2.925	2.363	3.005
HCM Lane V/C Ratio	0.185	0.021	0.097	0.213	0.428
HCM Control Delay	10.5	8	8.5	8.6	11.7
HCM Lane LOS	B	A	A	A	B
HCM 95th-tile Q	0.7	0.1	0.3	0.8	2.1

3: Arizona Farm Road & Attaway Rd
Existing AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	3.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	10	172	95	91	124	9
Future Vol, veh/h	10	172	95	91	124	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	187	103	99	135	10

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	202	0	0	362	153
Stage 1	-	-	-	153	-
Stage 2	-	-	-	209	-
Critical Hdwy	4.12	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	3.518	3.318
Pot Cap-1 Maneuver	1370	-	-	637	893
Stage 1	-	-	-	875	-
Stage 2	-	-	-	826	-
Platoon blocked, %		-	-		
Mov Cap-1 Maneuver	1370	-	-	631	893
Mov Cap-2 Maneuver	-	-	-	631	-
Stage 1	-	-	-	867	-
Stage 2	-	-	-	826	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1370	-	-	-	644
HCM Lane V/C Ratio	0.008	-	-	-	0.224
HCM Control Delay (s)	7.6	0	-	-	12.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.9

4: Felix Road & Arizona Farms Road
Existing AM Peak

HCM 6th TWSC

Intersection												
Int Delay, s/veh	4.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	128	114	68	80	1	103	2	43	0	1	1
Future Vol, veh/h	1	128	114	68	80	1	103	2	43	0	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	139	124	74	87	1	112	2	47	0	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	88	0	0	263	0	0	440	439	201	464	501	88
Stage 1	-	-	-	-	-	-	203	203	-	236	236	-
Stage 2	-	-	-	-	-	-	237	236	-	228	265	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1508	-	-	1301	-	-	527	512	840	508	472	970
Stage 1	-	-	-	-	-	-	799	733	-	767	710	-
Stage 2	-	-	-	-	-	-	766	710	-	775	689	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1508	-	-	1301	-	-	501	481	840	456	443	970
Mov Cap-2 Maneuver	-	-	-	-	-	-	501	481	-	456	443	-
Stage 1	-	-	-	-	-	-	798	732	-	766	667	-
Stage 2	-	-	-	-	-	-	718	667	-	729	688	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			3.6			13.8			10.9		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	567	1508	-	-	1301	-	-	608
HCM Lane V/C Ratio	0.284	0.001	-	-	0.057	-	-	0.004
HCM Control Delay (s)	13.8	7.4	0	-	7.9	0	-	10.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.2	0	-	-	0.2	-	-	0

5: Felix Road & Heritage Road
Existing AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	12	10	4	133	166	11
Future Vol, veh/h	12	10	4	133	166	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	330	0	250	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	11	4	145	180	12

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	339	186	192	0	-	0
Stage 1	186	-	-	-	-	-
Stage 2	153	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	657	856	1381	-	-	-
Stage 1	846	-	-	-	-	-
Stage 2	875	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	655	856	1381	-	-	-
Mov Cap-2 Maneuver	655	-	-	-	-	-
Stage 1	843	-	-	-	-	-
Stage 2	875	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1381	-	655	856	-	-
HCM Lane V/C Ratio	0.003	-	0.02	0.013	-	-
HCM Control Delay (s)	7.6	-	10.6	9.3	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0	-	-

6: Felix Road & Merrill Ranch Pkwy
Existing AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	63	13	4	29	104	96
Future Vol, veh/h	63	13	4	29	104	96
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	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	68	14	4	32	113	104

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	205	165	217	0	-	0
Stage 1	165	-	-	-	-	-
Stage 2	40	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	783	879	1353	-	-	-
Stage 1	864	-	-	-	-	-
Stage 2	982	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	781	879	1353	-	-	-
Mov Cap-2 Maneuver	781	-	-	-	-	-
Stage 1	861	-	-	-	-	-
Stage 2	982	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1353	-	781	879	-	-
HCM Lane V/C Ratio	0.003	-	0.088	0.016	-	-
HCM Control Delay (s)	7.7	0	10.1	9.2	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	0	-	-

7: Hunt Hwy & Felix Road
Existing AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	4.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	35	198	90	25	78	112
Future Vol, veh/h	35	198	90	25	78	112
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	175	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	215	98	27	85	122

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	125	0	-	0	403 112
Stage 1	-	-	-	-	112 -
Stage 2	-	-	-	-	291 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1462	-	-	-	603 941
Stage 1	-	-	-	-	913 -
Stage 2	-	-	-	-	759 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1462	-	-	-	585 941
Mov Cap-2 Maneuver	-	-	-	-	585 -
Stage 1	-	-	-	-	886 -
Stage 2	-	-	-	-	759 -

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1462	-	-	-	585	941
HCM Lane V/C Ratio	0.026	-	-	-	0.145	0.129
HCM Control Delay (s)	7.5	0	-	-	12.2	9.4
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5	0.4

1: Hunt Hwy & Arizona Farm Road
Existing PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	5.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	14	155	686	36	142	727
Future Vol, veh/h	14	155	686	36	142	727
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	168	746	39	154	790

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1864	766	0	0	785
Stage 1	766	-	-	-	-
Stage 2	1098	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	80	403	-	-	834
Stage 1	459	-	-	-	-
Stage 2	319	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	54	403	-	-	834
Mov Cap-2 Maneuver	54	-	-	-	-
Stage 1	459	-	-	-	-
Stage 2	214	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	45.6	0	1.7
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	262	834
HCM Lane V/C Ratio	-	-	0.701	0.185
HCM Control Delay (s)	-	-	45.6	10.3
HCM Lane LOS	-	-	E	B
HCM 95th %tile Q(veh)	-	-	4.7	0.7

2: Attaway Rd & Judd Rd/Judd Road Existing PM Peak

HCM 6th AWSC

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑	↑	↑
Traffic Vol, veh/h	251	86	20	172	137	7
Future Vol, veh/h	251	86	20	172	137	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	273	93	22	187	149	8
Number of Lanes	2	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	9.6	10.6	11.3
HCM LOS	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	100%	0%	0%	0%	10%
Vol Thru, %	0%	0%	100%	49%	90%
Vol Right, %	0%	100%	0%	51%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	137	7	167	170	192
LT Vol	137	0	0	0	20
Through Vol	0	0	167	84	172
RT Vol	0	7	0	86	0
Lane Flow Rate	149	8	182	184	209
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.264	0.011	0.265	0.25	0.305
Departure Headway (Hd)	6.371	5.16	5.239	4.882	5.254
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	560	687	682	732	680
Service Time	4.152	2.94	2.995	2.638	3.317
HCM Lane V/C Ratio	0.266	0.012	0.267	0.251	0.307
HCM Control Delay	11.5	8	9.9	9.3	10.6
HCM Lane LOS	B	A	A	A	B
HCM 95th-tile Q	1.1	0	1.1	1	1.3

3: Arizona Farm Road/Arizona Farms Road & Attaway Rd
Existing PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	2.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	15	109	131	133	85	18
Future Vol, veh/h	15	109	131	133	85	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	118	142	145	92	20

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	287	0	0	365	215
Stage 1	-	-	-	215	-
Stage 2	-	-	-	150	-
Critical Hdwy	4.12	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	3.518	3.318
Pot Cap-1 Maneuver	1275	-	-	635	825
Stage 1	-	-	-	821	-
Stage 2	-	-	-	878	-
Platoon blocked, %		-	-		
Mov Cap-1 Maneuver	1275	-	-	627	825
Mov Cap-2 Maneuver	-	-	-	627	-
Stage 1	-	-	-	810	-
Stage 2	-	-	-	878	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	11.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1275	-	-	-	654
HCM Lane V/C Ratio	0.013	-	-	-	0.171
HCM Control Delay (s)	7.9	0	-	-	11.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.6

4: Felix Road & Arizona Farms Road
Existing PM Peak

HCM 6th TWSC

Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	69	120	49	156	1	89	4	57	1	1	2
Future Vol, veh/h	5	69	120	49	156	1	89	4	57	1	1	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	75	130	53	170	1	97	4	62	1	1	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	171	0	0	205	0	0	428	427	140	460	492	171
Stage 1	-	-	-	-	-	-	150	150	-	277	277	-
Stage 2	-	-	-	-	-	-	278	277	-	183	215	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1406	-	-	1366	-	-	537	520	908	512	478	873
Stage 1	-	-	-	-	-	-	853	773	-	729	681	-
Stage 2	-	-	-	-	-	-	728	681	-	819	725	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1406	-	-	1366	-	-	516	496	908	457	456	873
Mov Cap-2 Maneuver	-	-	-	-	-	-	516	496	-	457	456	-
Stage 1	-	-	-	-	-	-	850	770	-	726	652	-
Stage 2	-	-	-	-	-	-	694	652	-	756	722	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			1.8			12.9			11		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	616	1406	-	-	1366	-	-	600
HCM Lane V/C Ratio	0.265	0.004	-	-	0.039	-	-	0.007
HCM Control Delay (s)	12.9	7.6	0	-	7.7	0	-	11
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.1	0	-	-	0.1	-	-	0

5: Felix Road & Heritage Road
Existing PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↑	↗	
Traffic Vol, veh/h	19	2	4	133	155	21
Future Vol, veh/h	19	2	4	133	155	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	330	0	250	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	2	4	145	168	23

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	333	180	191	0	-	0
Stage 1	180	-	-	-	-	-
Stage 2	153	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	662	863	1383	-	-	-
Stage 1	851	-	-	-	-	-
Stage 2	875	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	660	863	1383	-	-	-
Mov Cap-2 Maneuver	660	-	-	-	-	-
Stage 1	848	-	-	-	-	-
Stage 2	875	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1383	-	660	863	-	-
HCM Lane V/C Ratio	0.003	-	0.031	0.003	-	-
HCM Control Delay (s)	7.6	-	10.6	9.2	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0	-	-

6: Felix Road & Merrill Ranch Pkwy
Existing PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	74	9	9	87	46	54
Future Vol, veh/h	74	9	9	87	46	54
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	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	80	10	10	95	50	59

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	195	80	109	0	-	0
Stage 1	80	-	-	-	-	-
Stage 2	115	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	794	980	1481	-	-	-
Stage 1	943	-	-	-	-	-
Stage 2	910	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	788	980	1481	-	-	-
Mov Cap-2 Maneuver	788	-	-	-	-	-
Stage 1	936	-	-	-	-	-
Stage 2	910	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1481	-	788	980	-	-
HCM Lane V/C Ratio	0.007	-	0.102	0.01	-	-
HCM Control Delay (s)	7.4	0	10.1	8.7	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	0	-	-

7: Hunt Hwy & Felix Road
Existing PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	92	106	220	65	39	56
Future Vol, veh/h	92	106	220	65	39	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	175	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	100	115	239	71	42	61

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	310	0	-	0	590 275
Stage 1	-	-	-	-	275 -
Stage 2	-	-	-	-	315 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1250	-	-	-	470 764
Stage 1	-	-	-	-	771 -
Stage 2	-	-	-	-	740 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1250	-	-	-	430 764
Mov Cap-2 Maneuver	-	-	-	-	430 -
Stage 1	-	-	-	-	705 -
Stage 2	-	-	-	-	740 -

Approach	EB	WB	SB
HCM Control Delay, s	3.8	0	11.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1250	-	-	-	430	764
HCM Lane V/C Ratio	0.08	-	-	-	0.099	0.08
HCM Control Delay (s)	8.1	0	-	-	14.3	10.1
HCM Lane LOS	A	A	-	-	B	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.3	0.3

APPENDIX D: Trip Generation Calculation

APPENDIX E: Future 2025 Level-of-Service Analysis

1: Hunt Hwy & Arizona Farm Road
2025 Background - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	6.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	T		T		T	
Traffic Vol, veh/h	7	192	799	17	164	677
Future Vol, veh/h	7	192	799	17	164	677
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	209	868	18	178	736

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1969	877	0	0	886	0
Stage 1	877	-	-	-	-	-
Stage 2	1092	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	69	348	-	-	764	-
Stage 1	407	-	-	-	-	-
Stage 2	322	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	42	348	-	-	764	-
Mov Cap-2 Maneuver	42	-	-	-	-	-
Stage 1	407	-	-	-	-	-
Stage 2	195	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	52.3	0	2.2
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	277	764
HCM Lane V/C Ratio	-	-	0.781	0.233
HCM Control Delay (s)	-	-	52.3	11.1
HCM Lane LOS	-	-	F	B
HCM 95th %tile Q(veh)	-	-	6	0.9

2: Attaway Rd & Judd Road
2025 Background - AM Peak

HCM 6th AWSC

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑	↑	↑
Traffic Vol, veh/h	107	139	17	310	111	16
Future Vol, veh/h	107	139	17	310	111	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	116	151	18	337	121	17
Number of Lanes	2	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	9	13.2	10.7
HCM LOS	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	100%	0%	0%	0%	5%
Vol Thru, %	0%	0%	100%	20%	95%
Vol Right, %	0%	100%	0%	80%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	111	16	71	175	327
LT Vol	111	0	0	0	17
Through Vol	0	0	71	36	310
RT Vol	0	16	0	139	0
Lane Flow Rate	121	17	78	190	355
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.217	0.025	0.114	0.25	0.501
Departure Headway (Hd)	6.482	5.269	5.303	4.741	5.072
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	550	673	673	754	707
Service Time	4.267	3.054	3.059	2.497	3.123
HCM Lane V/C Ratio	0.22	0.025	0.116	0.252	0.502
HCM Control Delay	11.1	8.2	8.7	9.1	13.2
HCM Lane LOS	B	A	A	A	B
HCM 95th-tile Q	0.8	0.1	0.4	1	2.8

3: Arizona Farm Road & Attaway Rd
2025 Background - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	3.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	11	197	109	104	142	10
Future Vol, veh/h	11	197	109	104	142	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	214	118	113	154	11

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	231	0	-	0	413
Stage 1	-	-	-	-	175
Stage 2	-	-	-	-	238
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1337	-	-	-	595
Stage 1	-	-	-	-	855
Stage 2	-	-	-	-	802
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1337	-	-	-	589
Mov Cap-2 Maneuver	-	-	-	-	589
Stage 1	-	-	-	-	846
Stage 2	-	-	-	-	802

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1337	-	-	-	602
HCM Lane V/C Ratio	0.009	-	-	-	0.274
HCM Control Delay (s)	7.7	0	-	-	13.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	1.1

4: Felix Road & Arizona Farms Road
2025 Background - AM Peak

HCM 6th TWSC

Intersection												
Int Delay, s/veh	5.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	147	131	78	92	1	118	2	49	0	1	1
Future Vol, veh/h	1	147	131	78	92	1	118	2	49	0	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	160	142	85	100	1	128	2	53	0	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	101	0	0	302	0	0	505	504	231	532	575	101
Stage 1	-	-	-	-	-	-	233	233	-	271	271	-
Stage 2	-	-	-	-	-	-	272	271	-	261	304	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1491	-	-	1259	-	-	478	470	808	458	429	954
Stage 1	-	-	-	-	-	-	770	712	-	735	685	-
Stage 2	-	-	-	-	-	-	734	685	-	744	663	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1491	-	-	1259	-	-	450	436	808	403	398	954
Mov Cap-2 Maneuver	-	-	-	-	-	-	450	436	-	403	398	-
Stage 1	-	-	-	-	-	-	769	711	-	734	636	-
Stage 2	-	-	-	-	-	-	679	636	-	692	662	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			3.7			15.8			11.4		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	516	1491	-	-	1259	-	-	562
HCM Lane V/C Ratio	0.356	0.001	-	-	0.067	-	-	0.004
HCM Control Delay (s)	15.8	7.4	0	-	8.1	0	-	11.4
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.6	0	-	-	0.2	-	-	0

5: Felix Road & Heritage Road
2025 Background - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	14	11	5	153	190	13
Future Vol, veh/h	14	11	5	153	190	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	330	0	250	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	12	5	166	207	14

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	390	214	221	0	-	0
Stage 1	214	-	-	-	-	-
Stage 2	176	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	614	826	1348	-	-	-
Stage 1	822	-	-	-	-	-
Stage 2	855	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	612	826	1348	-	-	-
Mov Cap-2 Maneuver	612	-	-	-	-	-
Stage 1	819	-	-	-	-	-
Stage 2	855	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.3	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1348	-	612	826	-	-
HCM Lane V/C Ratio	0.004	-	0.025	0.014	-	-
HCM Control Delay (s)	7.7	-	11	9.4	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0	-	-

6: Felix Road & Merrill Ranch Pkwy
2025 Background - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	72	15	5	33	119	110
Future Vol, veh/h	72	15	5	33	119	110
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	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	78	16	5	36	129	120

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	235	189	249	0	-	0
Stage 1	189	-	-	-	-	-
Stage 2	46	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	753	853	1317	-	-	-
Stage 1	843	-	-	-	-	-
Stage 2	976	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	750	853	1317	-	-	-
Mov Cap-2 Maneuver	750	-	-	-	-	-
Stage 1	840	-	-	-	-	-
Stage 2	976	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1317	-	750	853	-	-
HCM Lane V/C Ratio	0.004	-	0.104	0.019	-	-
HCM Control Delay (s)	7.7	0	10.4	9.3	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	0.1	-	-

7: Hunt Hwy & Felix Road
2025 Background - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	4.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	40	227	103	29	90	129
Future Vol, veh/h	40	227	103	29	90	129
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	175	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	247	112	32	98	140

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	144	0	-	0	461 128
Stage 1	-	-	-	-	128 -
Stage 2	-	-	-	-	333 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1438	-	-	-	559 922
Stage 1	-	-	-	-	898 -
Stage 2	-	-	-	-	726 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1438	-	-	-	539 922
Mov Cap-2 Maneuver	-	-	-	-	539 -
Stage 1	-	-	-	-	867 -
Stage 2	-	-	-	-	726 -

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1438	-	-	-	539	922
HCM Lane V/C Ratio	0.03	-	-	-	0.181	0.152
HCM Control Delay (s)	7.6	0	-	-	13.2	9.6
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.7	0.5

1: Hunt Hwy & Arizona Farm Road
2025 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	102.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	25	354	799	23	221	677
Future Vol, veh/h	25	354	799	23	221	677
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	385	868	25	240	736

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	2097	881	0	0	893	0
Stage 1	881	-	-	-	-	-
Stage 2	1216	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	57	~ 346	-	-	759	-
Stage 1	405	-	-	-	-	-
Stage 2	280	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	~ 27	~ 346	-	-	759	-
Mov Cap-2 Maneuver	~ 27	-	-	-	-	-
Stage 1	405	-	-	-	-	-
Stage 2	130	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	562.1	0	2.9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	194	759
HCM Lane V/C Ratio	-	-	2.123	0.316
HCM Control Delay (s)	-	-	562.1	11.9
HCM Lane LOS	-	-	F	B
HCM 95th %tile Q(veh)	-	-	32.1	1.4

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

2: Attaway Rd & Judd Road
2025 Background w/ Site - AM Peak

HCM 6th AWSC

Intersection	
Intersection Delay, s/veh	12.2
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑	↑	↑
Traffic Vol, veh/h	107	155	20	310	158	23
Future Vol, veh/h	107	155	20	310	158	23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	116	168	22	337	172	25
Number of Lanes	2	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	9.6	14.3	12
HCM LOS	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	100%	0%	0%	0%	6%
Vol Thru, %	0%	0%	100%	19%	94%
Vol Right, %	0%	100%	0%	81%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	158	23	71	191	330
LT Vol	158	0	0	0	20
Through Vol	0	0	71	36	310
RT Vol	0	23	0	155	0
Lane Flow Rate	172	25	78	207	359
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.318	0.038	0.121	0.291	0.528
Departure Headway (Hd)	6.672	5.457	5.635	5.059	5.295
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	541	659	640	715	674
Service Time	4.383	3.168	3.335	2.759	3.394
HCM Lane V/C Ratio	0.318	0.038	0.122	0.29	0.533
HCM Control Delay	12.5	8.4	9.1	9.8	14.3
HCM Lane LOS	B	A	A	A	B
HCM 95th-tile Q	1.4	0.1	0.4	1.2	3.1

3: Arizona Farm Road & Attaway Rd
2025 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	4.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	65	240	124	104	142	29
Future Vol, veh/h	65	240	124	104	142	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	261	135	113	154	32

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	248	0	0	595	192
Stage 1	-	-	-	192	-
Stage 2	-	-	-	403	-
Critical Hdwy	4.12	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	3.518	3.318
Pot Cap-1 Maneuver	1318	-	-	467	850
Stage 1	-	-	-	841	-
Stage 2	-	-	-	675	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1318	-	-	438	850
Mov Cap-2 Maneuver	-	-	-	529	-
Stage 1	-	-	-	788	-
Stage 2	-	-	-	675	-

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	14.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1318	-	-	-	565
HCM Lane V/C Ratio	0.054	-	-	-	0.329
HCM Control Delay (s)	7.9	0	-	-	14.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1.4

4: Felix Road & Arizona Farms Road
2025 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection												
Int Delay, s/veh	5.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	190	131	82	107	1	118	2	60	0	1	1
Future Vol, veh/h	1	190	131	82	107	1	118	2	60	0	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	207	142	89	116	1	128	2	65	0	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	117	0	0	349	0	0	576	575	278	609	646	117
Stage 1	-	-	-	-	-	-	280	280	-	295	295	-
Stage 2	-	-	-	-	-	-	296	295	-	314	351	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1471	-	-	1210	-	-	428	429	761	407	390	935
Stage 1	-	-	-	-	-	-	727	679	-	713	669	-
Stage 2	-	-	-	-	-	-	712	669	-	697	632	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1471	-	-	1210	-	-	401	395	761	348	359	935
Mov Cap-2 Maneuver	-	-	-	-	-	-	401	395	-	348	359	-
Stage 1	-	-	-	-	-	-	726	678	-	712	616	-
Stage 2	-	-	-	-	-	-	654	616	-	635	631	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			3.5			17.7			12		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	
Capacity (veh/h)	476	1471	-	-	1210	-	-	519	
HCM Lane V/C Ratio	0.411	0.001	-	-	0.074	-	-	0.004	
HCM Control Delay (s)	17.7	7.4	0	-	8.2	0	-	12	
HCM Lane LOS		C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)		2	0	-	-	0.2	-	-	0

5: Felix Road & Heritage Road
2025 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	2.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↙	↗	↙	↑	↗	
Traffic Vol, veh/h	25	83	30	153	190	17
Future Vol, veh/h	25	83	30	153	190	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	330	0	250	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	90	33	166	207	18

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	448	216	225	0	-	0
Stage 1	216	-	-	-	-	-
Stage 2	232	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	568	824	1344	-	-	-
Stage 1	820	-	-	-	-	-
Stage 2	807	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	554	824	1344	-	-	-
Mov Cap-2 Maneuver	620	-	-	-	-	-
Stage 1	800	-	-	-	-	-
Stage 2	807	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	1.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1344	-	620	824	-	-
HCM Lane V/C Ratio	0.024	-	0.044	0.109	-	-
HCM Control Delay (s)	7.7	-	11.1	9.9	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	0.4	-	-

6: Felix Road & Merrill Ranch Pkwy
2025 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	76	15	5	54	180	121
Future Vol, veh/h	76	15	5	54	180	121
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	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	83	16	5	59	196	132

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	331	262	328	0	-	0
Stage 1	262	-	-	-	-	-
Stage 2	69	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	664	777	1232	-	-	-
Stage 1	782	-	-	-	-	-
Stage 2	954	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	661	777	1232	-	-	-
Mov Cap-2 Maneuver	661	-	-	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	954	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1232	-	661	777	-	-
HCM Lane V/C Ratio	0.004	-	0.125	0.021	-	-
HCM Control Delay (s)	7.9	0	11.2	9.7	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.4	0.1	-	-

7: Hunt Hwy & Felix Road
2025 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	5.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	↔
Traffic Vol, veh/h	46	227	103	44	133	147
Future Vol, veh/h	46	227	103	44	133	147
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	175	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	50	247	112	48	145	160

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	160	0	-	0	483
Stage 1	-	-	-	-	136
Stage 2	-	-	-	-	347
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1419	-	-	-	542
Stage 1	-	-	-	-	890
Stage 2	-	-	-	-	716
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1419	-	-	-	520
Mov Cap-2 Maneuver	-	-	-	-	520
Stage 1	-	-	-	-	854
Stage 2	-	-	-	-	716

Approach	EB	WB	SB
HCM Control Delay, s	1.3	0	12.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1419	-	-	-	520	913
HCM Lane V/C Ratio	0.035	-	-	-	0.278	0.175
HCM Control Delay (s)	7.6	0	-	-	14.6	9.8
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	0.1	-	-	-	1.1	0.6

9: Collector A & Arizona Farm Road
2025 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	5.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	209	63	34	119	180	97
Future Vol, veh/h	209	63	34	119	180	97
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	150	-	0	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	227	68	37	129	196	105

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	295
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1266
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1266
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	12.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	627	812	-	-	1266	-
HCM Lane V/C Ratio	0.312	0.13	-	-	0.029	-
HCM Control Delay (s)	13.3	10.1	-	-	7.9	-
HCM Lane LOS	B	B	-	-	A	-
HCM 95th %tile Q(veh)	1.3	0.4	-	-	0.1	-

10: Collector B & Arizona Farms Road
 2025 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	383	0	0	228	0	0
Future Vol, veh/h	383	0	0	228	0	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	-	150	150	-	0	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	416	0	0	248	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	416
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1143
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1143
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	-	1143	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	0	-	-	0	-
HCM Lane LOS	A	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-

11: Felix Road & Driveway C
 2025 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	181	214	0
Future Vol, veh/h	0	0	0	181	214	0
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	150	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	197	233	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	430	233	233	0	-	0
Stage 1	233	-	-	-	-	-
Stage 2	197	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	582	806	1335	-	-	-
Stage 1	806	-	-	-	-	-
Stage 2	836	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	582	806	1335	-	-	-
Mov Cap-2 Maneuver	640	-	-	-	-	-
Stage 1	806	-	-	-	-	-
Stage 2	836	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1335	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	-	0	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-

12: Felix Road & Collector D
 2025 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	181	214	0
Future Vol, veh/h	0	0	0	181	214	0
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	150	150	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	197	233	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	430	233	233	0	-	0
Stage 1	233	-	-	-	-	-
Stage 2	197	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	582	806	1335	-	-	-
Stage 1	806	-	-	-	-	-
Stage 2	836	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	582	806	1335	-	-	-
Mov Cap-2 Maneuver	640	-	-	-	-	-
Stage 1	806	-	-	-	-	-
Stage 2	836	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1335	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	-	0	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-

13: Heritage Road & Collector E
2025 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑	↑	↗	↘	↗
Traffic Vol, veh/h	0	0	0	29	83	0
Future Vol, veh/h	0	0	0	29	83	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	150	-	-	150	0	150
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	32	90	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	32	0	-	0	0
Stage 1	-	-	-	-	0
Stage 2	-	-	-	-	0
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1580	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1580	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	
HCM LOS			-

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1580	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	-	0
HCM Lane LOS	A	-	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-	-

14: Driveway F & Arizona Farms Road
 2025 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑		↗
Traffic Vol, veh/h	383	0	0	228	0	0
Future Vol, veh/h	383	0	0	228	0	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	-	150	150	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	416	0	0	248	0	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	416	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	4.12	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	2.218	-	-
Pot Cap-1 Maneuver	-	-	1143	-	0
Stage 1	-	-	-	-	0
Stage 2	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1143	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1143	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

15: Driveway G & Arizona Farms Road
 2025 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑		↗
Traffic Vol, veh/h	383	0	0	228	0	0
Future Vol, veh/h	383	0	0	228	0	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	-	150	150	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	416	0	0	248	0	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	416	0	- 416
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	4.12	-	- 6.22
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	2.218	-	- 3.318
Pot Cap-1 Maneuver	-	-	1143	-	0 637
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	0 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1143	-	- 637
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1143	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

16: Felix Road & Driveway H
 2025 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗	↘	↑	↑	↗
Traffic Vol, veh/h	0	0	0	181	214	0
Future Vol, veh/h	0	0	0	181	214	0
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	150	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	197	233	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	-	233	233	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	4.12	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	0	806	1335	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	806	1335	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1335	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

17: Felix Road & Driveway I
 2025 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗	↘	↑	↑	↗
Traffic Vol, veh/h	0	0	0	181	214	0
Future Vol, veh/h	0	0	0	181	214	0
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	150	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	197	233	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	-	233	233	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	4.12	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	0	806	1335	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	806	1335	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1335	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

18: Heritage Road & Gas Station
 2025 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘		↘
Traffic Vol, veh/h	0	108	46	0	0	0
Future Vol, veh/h	0	108	46	0	0	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	100	-	-	100	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	117	50	0	0	0

Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	50	0	-	0	-	50
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.12	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.218	-	-	-	-	3.318
Pot Cap-1 Maneuver	1557	-	-	-	0	1018
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1557	-	-	-	-	1018
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1557	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

1: Hunt Hwy & Arizona Farm Road
2025 Background - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	17					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	178	787	41	163	834
Future Vol, veh/h	16	178	787	41	163	834
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	193	855	45	177	907

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	2139	878	0	0	900	0
Stage 1	878	-	-	-	-	-
Stage 2	1261	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	54	347	-	-	755	-
Stage 1	406	-	-	-	-	-
Stage 2	267	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	29	347	-	-	755	-
Mov Cap-2 Maneuver	29	-	-	-	-	-
Stage 1	406	-	-	-	-	-
Stage 2	141	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	168.1	0	1.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	182	755
HCM Lane V/C Ratio	-	-	1.159	0.235
HCM Control Delay (s)	-	-	168.1	11.2
HCM Lane LOS	-	-	F	B
HCM 95th %tile Q(veh)	-	-	10.9	0.9

2: Attaway Rd & Judd Road
2025 Background - PM Peak

HCM 6th AWSC

Intersection	
Intersection Delay, s/veh	11
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑	↑	↑
Traffic Vol, veh/h	288	99	23	197	157	8
Future Vol, veh/h	288	99	23	197	157	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	313	108	25	214	171	9
Number of Lanes	2	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	10.2	11.5	12.2
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	100%	0%	0%	0%	10%
Vol Thru, %	0%	0%	100%	49%	90%
Vol Right, %	0%	100%	0%	51%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	157	8	192	195	220
LT Vol	157	0	0	0	23
Through Vol	0	0	192	96	197
RT Vol	0	8	0	99	0
Lane Flow Rate	171	9	209	212	239
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.316	0.013	0.311	0.295	0.359
Departure Headway (Hd)	6.667	5.453	5.368	5.01	5.403
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	543	660	664	710	658
Service Time	4.367	3.153	3.154	2.795	3.496
HCM Lane V/C Ratio	0.315	0.014	0.315	0.299	0.363
HCM Control Delay	12.4	8.2	10.6	9.9	11.5
HCM Lane LOS	B	A	B	A	B
HCM 95th-tile Q	1.3	0	1.3	1.2	1.6

3: Arizona Farm Road & Attaway Rd
2025 Background - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	2.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	17	125	150	153	98	21
Future Vol, veh/h	17	125	150	153	98	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	136	163	166	107	23

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	329	0	-	0	418 246
Stage 1	-	-	-	-	246 -
Stage 2	-	-	-	-	172 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1231	-	-	-	591 793
Stage 1	-	-	-	-	795 -
Stage 2	-	-	-	-	858 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1231	-	-	-	582 793
Mov Cap-2 Maneuver	-	-	-	-	582 -
Stage 1	-	-	-	-	782 -
Stage 2	-	-	-	-	858 -

Approach	EB	WB	SB
HCM Control Delay, s	1	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1231	-	-	-	611
HCM Lane V/C Ratio	0.015	-	-	-	0.212
HCM Control Delay (s)	8	0	-	-	12.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.8

4: Felix Road & Arizona Farms Road
2025 Background - PM Peak

HCM 6th TWSC

Intersection												
Int Delay, s/veh	4.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	79	138	56	179	1	102	5	65	1	1	2
Future Vol, veh/h	6	79	138	56	179	1	102	5	65	1	1	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	86	150	61	195	1	111	5	71	1	1	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	196	0	0	236	0	0	494	493	161	531	568	196
Stage 1	-	-	-	-	-	-	175	175	-	318	318	-
Stage 2	-	-	-	-	-	-	319	318	-	213	250	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1377	-	-	1331	-	-	486	477	884	459	432	845
Stage 1	-	-	-	-	-	-	827	754	-	693	654	-
Stage 2	-	-	-	-	-	-	693	654	-	789	700	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1377	-	-	1331	-	-	463	450	884	400	407	845
Mov Cap-2 Maneuver	-	-	-	-	-	-	463	450	-	400	407	-
Stage 1	-	-	-	-	-	-	822	749	-	689	621	-
Stage 2	-	-	-	-	-	-	655	621	-	716	696	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			1.9			14.5			11.6		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	564	1377	-	-	1331	-	-	546
HCM Lane V/C Ratio	0.331	0.005	-	-	0.046	-	-	0.008
HCM Control Delay (s)	14.5	7.6	0	-	7.8	0	-	11.6
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.4	0	-	-	0.1	-	-	0

5: Felix Road & Heritage Road
2025 Background - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	2	5	153	178	24
Future Vol, veh/h	22	2	5	153	178	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	330	0	250	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	2	5	166	193	26

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	382	206	219	0	-	0
Stage 1	206	-	-	-	-	-
Stage 2	176	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	620	835	1350	-	-	-
Stage 1	829	-	-	-	-	-
Stage 2	855	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	618	835	1350	-	-	-
Mov Cap-2 Maneuver	618	-	-	-	-	-
Stage 1	826	-	-	-	-	-
Stage 2	855	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1350	-	618	835	-	-
HCM Lane V/C Ratio	0.004	-	0.039	0.003	-	-
HCM Control Delay (s)	7.7	-	11.1	9.3	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0	-	-

6: Felix Road & Merrill Ranch Pkwy
2025 Background - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	3.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	85	10	10	100	53	62
Future Vol, veh/h	85	10	10	100	53	62
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	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	92	11	11	109	58	67

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	223	92	125	0	-	0
Stage 1	92	-	-	-	-	-
Stage 2	131	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	765	965	1462	-	-	-
Stage 1	932	-	-	-	-	-
Stage 2	895	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	759	965	1462	-	-	-
Mov Cap-2 Maneuver	759	-	-	-	-	-
Stage 1	925	-	-	-	-	-
Stage 2	895	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1462	-	759	965	-	-
HCM Lane V/C Ratio	0.007	-	0.122	0.011	-	-
HCM Control Delay (s)	7.5	0	10.4	8.8	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.4	0	-	-

7: Hunt Hwy & Felix Road
2025 Background - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	3.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	106	122	252	75	45	64
Future Vol, veh/h	106	122	252	75	45	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	175	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	115	133	274	82	49	70

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	356	0	-	0	678
Stage 1	-	-	-	-	315
Stage 2	-	-	-	-	363
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1203	-	-	-	418
Stage 1	-	-	-	-	740
Stage 2	-	-	-	-	704
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1203	-	-	-	375
Mov Cap-2 Maneuver	-	-	-	-	375
Stage 1	-	-	-	-	664
Stage 2	-	-	-	-	704

Approach	EB	WB	SB
HCM Control Delay, s	3.9	0	12.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1203	-	-	-	375	725
HCM Lane V/C Ratio	0.096	-	-	-	0.13	0.096
HCM Control Delay (s)	8.3	0	-	-	16	10.5
HCM Lane LOS	A	A	-	-	C	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.4	0.3

1: Hunt Hwy & Arizona Farm Road
 2025 Background w/ Site Phase 1 - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	14.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	29	293	787	63	358	834
Future Vol, veh/h	29	293	787	63	358	834
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	318	855	68	389	907

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2574	889	0	0	923
Stage 1	889	-	-	-	-
Stage 2	1685	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	~ 28	342	-	-	740
Stage 1	402	-	-	-	-
Stage 2	165	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	0	342	-	-	740
Mov Cap-2 Maneuver	0	-	-	-	-
Stage 1	402	-	-	-	-
Stage 2	0	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	90.6	0	4.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	342	740
HCM Lane V/C Ratio	-	-	1.023	0.526
HCM Control Delay (s)	-	-	90.6	15.1
HCM Lane LOS	-	-	F	C
HCM 95th %tile Q(veh)	-	-	12	3.1

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

2: Attaway Rd & Judd Road
 2025 Background w/ Site Phase 1 - PM Peak

HCM 6th AWSC

Intersection	
Intersection Delay, s/veh	12.1
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑	↑	↑
Traffic Vol, veh/h	288	155	32	197	190	13
Future Vol, veh/h	288	155	32	197	190	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	313	168	35	214	207	14
Number of Lanes	2	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	11.2	12.5	13.6
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	100%	0%	0%	0%	14%
Vol Thru, %	0%	0%	100%	38%	86%
Vol Right, %	0%	100%	0%	62%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	190	13	192	251	229
LT Vol	190	0	0	0	32
Through Vol	0	0	192	96	197
RT Vol	0	13	0	155	0
Lane Flow Rate	207	14	209	273	249
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.393	0.022	0.329	0.397	0.397
Departure Headway (Hd)	6.852	5.636	5.67	5.233	5.736
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	527	635	639	693	627
Service Time	4.586	3.37	3.37	2.933	3.765
HCM Lane V/C Ratio	0.393	0.022	0.327	0.394	0.397
HCM Control Delay	14	8.5	11.1	11.3	12.5
HCM Lane LOS	B	A	B	B	B
HCM 95th-tile Q	1.9	0.1	1.4	1.9	1.9

3: Arizona Farm Road & Attaway Rd
 2025 Background w/ Site Phase 1 - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	55	156	202	153	98	86
Future Vol, veh/h	55	156	202	153	98	86
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	60	170	220	166	107	93

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	386	0	-	0	593
Stage 1	-	-	-	-	303
Stage 2	-	-	-	-	290
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1172	-	-	-	468
Stage 1	-	-	-	-	749
Stage 2	-	-	-	-	759
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1172	-	-	-	441
Mov Cap-2 Maneuver	-	-	-	-	534
Stage 1	-	-	-	-	706
Stage 2	-	-	-	-	759

Approach	EB	WB	SB
HCM Control Delay, s	2.1	0	13.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1172	-	-	-	613
HCM Lane V/C Ratio	0.051	-	-	-	0.326
HCM Control Delay (s)	8.2	0	-	-	13.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1.4

4: Felix Road & Arizona Farms Road
 2025 Background w/ Site Phase 1 - PM Peak

HCM 6th TWSC

Intersection												
Int Delay, s/veh	5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	110	138	69	231	1	102	5	73	1	1	2
Future Vol, veh/h	6	110	138	69	231	1	102	5	73	1	1	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	120	150	75	251	1	111	5	79	1	1	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	252	0	0	270	0	0	612	611	195	653	686	252
Stage 1	-	-	-	-	-	-	209	209	-	402	402	-
Stage 2	-	-	-	-	-	-	403	402	-	251	284	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1313	-	-	1293	-	-	405	409	846	380	370	787
Stage 1	-	-	-	-	-	-	793	729	-	625	600	-
Stage 2	-	-	-	-	-	-	624	600	-	753	676	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1313	-	-	1293	-	-	381	379	846	322	343	787
Mov Cap-2 Maneuver	-	-	-	-	-	-	381	379	-	322	343	-
Stage 1	-	-	-	-	-	-	788	725	-	621	560	-
Stage 2	-	-	-	-	-	-	579	560	-	673	672	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			1.8			17.1			12.8		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	490	1313	-	-	1293	-	-	467
HCM Lane V/C Ratio	0.399	0.005	-	-	0.058	-	-	0.009
HCM Control Delay (s)	17.1	7.8	0	-	8	0	-	12.8
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.9	0	-	-	0.2	-	-	0

5: Felix Road & Heritage Road
 2025 Background w/ Site Phase 1 - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	53	92	153	178	37
Future Vol, veh/h	30	53	92	153	178	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	330	0	250	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	58	100	166	193	40

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	579	213	233	0	-	0
Stage 1	213	-	-	-	-	-
Stage 2	366	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	477	827	1335	-	-	-
Stage 1	823	-	-	-	-	-
Stage 2	702	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	441	827	1335	-	-	-
Mov Cap-2 Maneuver	534	-	-	-	-	-
Stage 1	761	-	-	-	-	-
Stage 2	702	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1335	-	534	827	-	-
HCM Lane V/C Ratio	0.075	-	0.061	0.07	-	-
HCM Control Delay (s)	7.9	-	12.2	9.7	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	0.2	-	-

6: Felix Road & Merrill Ranch Pkwy
 2025 Background w/ Site Phase 1 - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	2.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	98	10	10	174	96	70
Future Vol, veh/h	98	10	10	174	96	70
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	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	107	11	11	189	104	76

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	353	142	180	0	-	0
Stage 1	142	-	-	-	-	-
Stage 2	211	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	645	906	1396	-	-	-
Stage 1	885	-	-	-	-	-
Stage 2	824	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	639	906	1396	-	-	-
Mov Cap-2 Maneuver	639	-	-	-	-	-
Stage 1	877	-	-	-	-	-
Stage 2	824	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.5	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1396	-	639	906	-	-
HCM Lane V/C Ratio	0.008	-	0.167	0.012	-	-
HCM Control Delay (s)	7.6	0	11.8	9	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.6	0	-	-

7: Hunt Hwy & Felix Road
 2025 Background w/ Site Phase 1 - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	4.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	128	122	252	127	76	77
Future Vol, veh/h	128	122	252	127	76	77
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	175	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	139	133	274	138	83	84

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	412	0	-	0	754
Stage 1	-	-	-	-	343
Stage 2	-	-	-	-	411
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1147	-	-	-	377
Stage 1	-	-	-	-	719
Stage 2	-	-	-	-	669
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1147	-	-	-	328
Mov Cap-2 Maneuver	-	-	-	-	328
Stage 1	-	-	-	-	625
Stage 2	-	-	-	-	669

Approach	EB	WB	SB
HCM Control Delay, s	4.4	0	15.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1147	-	-	-	328	700
HCM Lane V/C Ratio	0.121	-	-	-	0.252	0.12
HCM Control Delay (s)	8.6	0	-	-	19.6	10.8
HCM Lane LOS	A	A	-	-	C	B
HCM 95th %tile Q(veh)	0.4	-	-	-	1	0.4

9: Collector A & Arizona Farm Road
 2025 Background w/ Site Phase 1 - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	4.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	142	217	117	171	128	69
Future Vol, veh/h	142	217	117	171	128	69
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	150	-	0	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	154	236	127	186	139	75

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	390	0	594
Stage 1	-	-	-	-	154
Stage 2	-	-	-	-	440
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1169	-	468
Stage 1	-	-	-	-	874
Stage 2	-	-	-	-	649
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1169	-	417
Mov Cap-2 Maneuver	-	-	-	-	489
Stage 1	-	-	-	-	874
Stage 2	-	-	-	-	578

Approach	EB	WB	NB
HCM Control Delay, s	0	3.4	13.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	489	892	-	-	1169	-
HCM Lane V/C Ratio	0.285	0.084	-	-	0.109	-
HCM Control Delay (s)	15.3	9.4	-	-	8.5	-
HCM Lane LOS	C	A	-	-	A	-
HCM 95th %tile Q(veh)	1.2	0.3	-	-	0.4	-

13: Heritage Road & Collector E
 2025 Background w/ Site Phase 1 - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑	↑	↗	↘	↗
Traffic Vol, veh/h	0	0	0	100	59	0
Future Vol, veh/h	0	0	0	100	59	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	150	-	-	150	0	150
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	109	64	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	109	0	-	0	0
Stage 1	-	-	-	-	0
Stage 2	-	-	-	-	0
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1481	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1481	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	
HCM LOS			-

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1481	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	-	0
HCM Lane LOS	A	-	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-	-

APPENDIX F: Future 2035 Level-of-Service Analysis

1: Hunt Hwy & Arizona Farm Road
2035 Background - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	2.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘↗	↗	↑↑	↗	↘	↑↑
Traffic Vol, veh/h	10	170	1227	24	131	1055
Future Vol, veh/h	10	170	1227	24	131	1055
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	-	150	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	185	1334	26	142	1147

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2192	667	0	0	1360
Stage 1	1334	-	-	-	-
Stage 2	858	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	39	401	-	-	501
Stage 1	210	-	-	-	-
Stage 2	376	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	28	401	-	-	501
Mov Cap-2 Maneuver	120	-	-	-	-
Stage 1	210	-	-	-	-
Stage 2	270	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.3	0	1.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	120	401	501	-
HCM Lane V/C Ratio	-	-	0.091	0.461	0.284	-
HCM Control Delay (s)	-	-	38	21.4	15	-
HCM Lane LOS	-	-	E	C	C	-
HCM 95th %tile Q(veh)	-	-	0.3	2.4	1.2	-

2: Attaway Rd & Judd Rd/Judd Road
2035 Background - AM Peak

HCM 6th AWSC

Intersection	
Intersection Delay, s/veh	17.9
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↖	↗	↖
Traffic Vol, veh/h	151	196	24	437	157	23
Future Vol, veh/h	151	196	24	437	157	23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	164	213	26	475	171	25
Number of Lanes	2	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	11	24.9	13.2
HCM LOS	B	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	100%	0%	0%	0%	5%
Vol Thru, %	0%	0%	100%	20%	95%
Vol Right, %	0%	100%	0%	80%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	157	23	101	246	461
LT Vol	157	0	0	0	24
Through Vol	0	0	101	50	437
RT Vol	0	23	0	196	0
Lane Flow Rate	171	25	109	268	501
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.344	0.042	0.178	0.394	0.772
Departure Headway (Hd)	7.247	6.026	5.863	5.297	5.545
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	497	594	612	680	651
Service Time	4.989	3.767	3.599	3.034	3.576
HCM Lane V/C Ratio	0.344	0.042	0.178	0.394	0.77
HCM Control Delay	13.8	9	9.9	11.5	24.9
HCM Lane LOS	B	A	A	B	C
HCM 95th-tile Q	1.5	0.1	0.6	1.9	7.3

3: Arizona Farm Road/Arizona Farms Road & Attaway Rd
2035 Background - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	278	154	147	201	15
Future Vol, veh/h	16	278	154	147	201	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	302	167	160	218	16

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	327	0	-	0	432
Stage 1	-	-	-	-	247
Stage 2	-	-	-	-	185
Critical Hdwy	4.14	-	-	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	2.22	-	-	-	3.52
Pot Cap-1 Maneuver	1229	-	-	-	552
Stage 1	-	-	-	-	771
Stage 2	-	-	-	-	828
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1229	-	-	-	544
Mov Cap-2 Maneuver	-	-	-	-	609
Stage 1	-	-	-	-	760
Stage 2	-	-	-	-	828

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	14.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1229	-	-	-	621
HCM Lane V/C Ratio	0.014	-	-	-	0.378
HCM Control Delay (s)	8	-	-	-	14.3
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	1.8

4: Felix Road & Arizona Farms Road
2035 Background - AM Peak

HCM 6th TWSC

Intersection												
Int Delay, s/veh	6.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	207	185	110	129	2	167	3	70	0	2	2
Future Vol, veh/h	2	207	185	110	129	2	167	3	70	0	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	150	150	-	-	150	-	0	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	225	201	120	140	2	182	3	76	0	2	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	142	0	0	426	0	0	540	611	113	499	811	71
Stage 1	-	-	-	-	-	-	229	229	-	381	381	-
Stage 2	-	-	-	-	-	-	311	382	-	118	430	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1438	-	-	1130	-	-	425	407	918	454	312	977
Stage 1	-	-	-	-	-	-	753	713	-	613	612	-
Stage 2	-	-	-	-	-	-	674	611	-	874	582	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1438	-	-	1130	-	-	387	363	918	380	279	977
Mov Cap-2 Maneuver	-	-	-	-	-	-	387	363	-	380	279	-
Stage 1	-	-	-	-	-	-	752	712	-	612	547	-
Stage 2	-	-	-	-	-	-	599	546	-	797	581	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			3.9			18.4			13.4		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	387	363	918	1438	-	-	1130	-	-	-	434
HCM Lane V/C Ratio	0.469	0.009	0.083	0.002	-	-	0.106	-	-	-	0.01
HCM Control Delay (s)	22.3	15	9.3	7.5	-	-	8.6	-	-	0	13.4
HCM Lane LOS	C	C	A	A	-	-	A	-	-	A	B
HCM 95th %tile Q(veh)	2.4	0	0.3	0	-	-	0.4	-	-	-	0

5: Felix Road & Heritage Road
2035 Background - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	16	6	215	269	18
Future Vol, veh/h	19	16	6	215	269	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	330	0	250	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	17	7	234	292	20

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	423	146	312	0	-	0
Stage 1	292	-	-	-	-	-
Stage 2	131	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	559	875	1245	-	-	-
Stage 1	732	-	-	-	-	-
Stage 2	881	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	556	875	1245	-	-	-
Mov Cap-2 Maneuver	610	-	-	-	-	-
Stage 1	728	-	-	-	-	-
Stage 2	881	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1245	-	610	875	-	-
HCM Lane V/C Ratio	0.005	-	0.034	0.02	-	-
HCM Control Delay (s)	7.9	-	11.1	9.2	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0.1	-	-

6: Felix Road & Merrill Ranch Pkwy
2035 Background - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	2.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	102	21	6	47	168	155
Future Vol, veh/h	102	21	6	47	168	155
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	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	111	23	7	51	183	168

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	307	176	351	0	-	0
Stage 1	267	-	-	-	-	-
Stage 2	40	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	661	837	1204	-	-	-
Stage 1	754	-	-	-	-	-
Stage 2	977	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	657	837	1204	-	-	-
Mov Cap-2 Maneuver	657	-	-	-	-	-
Stage 1	749	-	-	-	-	-
Stage 2	977	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.2	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1204	-	657	837	-	-
HCM Lane V/C Ratio	0.005	-	0.169	0.027	-	-
HCM Control Delay (s)	8	0	11.6	9.4	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.6	0.1	-	-

7: Hunt Hwy & Felix Road
2035 Background - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	4.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	57	321	146	40	126	181
Future Vol, veh/h	57	321	146	40	126	181
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	150	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	62	349	159	43	137	197

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	202	0	-	0	458 80
Stage 1	-	-	-	-	159 -
Stage 2	-	-	-	-	299 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	1367	-	-	-	531 964
Stage 1	-	-	-	-	853 -
Stage 2	-	-	-	-	726 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1367	-	-	-	507 964
Mov Cap-2 Maneuver	-	-	-	-	507 -
Stage 1	-	-	-	-	815 -
Stage 2	-	-	-	-	726 -

Approach	EB	WB	SB
HCM Control Delay, s	1.3	0	11.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1367	-	-	-	507	964
HCM Lane V/C Ratio	0.045	-	-	-	0.27	0.204
HCM Control Delay (s)	7.8	0.1	-	-	14.7	9.7
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	0.1	-	-	-	1.1	0.8

8: Hunt Hwy & Heritage Road
2035 Background - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	3.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	100	1151	25	100	965
Future Vol, veh/h	25	100	1151	25	100	965
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	-	150	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	109	1251	27	109	1049

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1994	626	0	0	1278
Stage 1	1251	-	-	-	-
Stage 2	743	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	53	427	-	-	539
Stage 1	233	-	-	-	-
Stage 2	431	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	42	427	-	-	539
Mov Cap-2 Maneuver	42	-	-	-	-
Stage 1	233	-	-	-	-
Stage 2	344	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	50.7	0	1.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	42	427	539	-
HCM Lane V/C Ratio	-	-	0.647	0.255	0.202	-
HCM Control Delay (s)	-	-	188.1	16.3	13.4	-
HCM Lane LOS	-	-	F	C	B	-
HCM 95th %tile Q(veh)	-	-	2.4	1	0.7	-

1: Hunt Hwy & Arizona Farm Road
2035 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘↗	↗	↑↑	↗	↘	↑↑
Traffic Vol, veh/h	21	567	1475	38	361	1140
Future Vol, veh/h	21	567	1475	38	361	1140
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	-	150	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	616	1603	41	392	1239

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	3007	802	0	0	1644
Stage 1	1603	-	-	-	-
Stage 2	1404	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	~ 10	~ 327	-	-	~ 390
Stage 1	150	-	-	-	-
Stage 2	193	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	0	~ 327	-	-	~ 390
Mov Cap-2 Maneuver	0	-	-	-	-
Stage 1	150	-	-	-	-
Stage 2	0	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s		0	19.3
HCM LOS	-		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	-	327	~ 390
HCM Lane V/C Ratio	-	-	1.885	1.006
HCM Control Delay (s)	-	-	436.3	80.3
HCM Lane LOS	-	-	F	F
HCM 95th %tile Q(veh)	-	-	41.7	12.3

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

2: Attaway Rd & Judd Road
2035 Background w/ Site - AM Peak

HCM 6th AWSC

Intersection	
Intersection Delay, s/veh	39.4
Intersection LOS	E

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑	↑	↑
Traffic Vol, veh/h	151	287	40	437	338	52
Future Vol, veh/h	151	287	40	437	338	52
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	164	312	43	475	367	57
Number of Lanes	2	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	20	62.4	33.2
HCM LOS	C	F	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	100%	0%	0%	0%	8%
Vol Thru, %	0%	0%	100%	15%	92%
Vol Right, %	0%	100%	0%	85%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	338	52	101	337	477
LT Vol	338	0	0	0	40
Through Vol	0	0	101	50	437
RT Vol	0	52	0	287	0
Lane Flow Rate	367	57	109	367	518
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.81	0.105	0.221	0.679	0.987
Departure Headway (Hd)	7.933	6.702	7.279	6.666	6.852
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	456	535	492	543	529
Service Time	5.677	4.445	5.03	4.417	4.894
HCM Lane V/C Ratio	0.805	0.107	0.222	0.676	0.979
HCM Control Delay	36.7	10.2	12.1	22.4	62.4
HCM Lane LOS	E	B	B	C	F
HCM 95th-tile Q	7.5	0.3	0.8	5.1	13.5

3: Arizona Farm Road & Attaway Rd
2035 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	19.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	70	517	444	302	289	34
Future Vol, veh/h	70	517	444	302	289	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	76	562	483	328	314	37

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	811	0	-	0	1080 406
Stage 1	-	-	-	-	647 -
Stage 2	-	-	-	-	433 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	811	-	-	-	~ 213 594
Stage 1	-	-	-	-	483 -
Stage 2	-	-	-	-	621 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	811	-	-	-	~ 193 594
Mov Cap-2 Maneuver	-	-	-	-	318 -
Stage 1	-	-	-	-	438 -
Stage 2	-	-	-	-	621 -

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	99.6
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	811	-	-	-	334
HCM Lane V/C Ratio	0.094	-	-	-	1.051
HCM Control Delay (s)	9.9	-	-	-	99.6
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0.3	-	-	-	12.6

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

4: Felix Road & Arizona Farms Road
2035 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection												
Int Delay, s/veh	86.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↕	↘	↙	↕	↘	↙	↕	↘	↙	↕	↘
Traffic Vol, veh/h	2	329	286	144	202	2	365	3	150	0	2	2
Future Vol, veh/h	2	329	286	144	202	2	365	3	150	0	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	150	150	-	150	150	-	0	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	358	311	157	220	2	397	3	163	0	2	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	222	0	0	669	0	0	787	898	179	719	1207	110
Stage 1	-	-	-	-	-	-	362	362	-	534	534	-
Stage 2	-	-	-	-	-	-	425	536	-	185	673	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1344	-	-	917	-	-	~ 282	278	833	316	182	922
Stage 1	-	-	-	-	-	-	629	624	-	498	523	-
Stage 2	-	-	-	-	-	-	578	522	-	799	452	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1344	-	-	917	-	-	~ 241	230	833	218	151	922
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 241	230	-	218	151	-
Stage 1	-	-	-	-	-	-	628	623	-	498	434	-
Stage 2	-	-	-	-	-	-	476	433	-	638	452	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	4	246.1	19.1
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	241	230	833	1344	-	-	917	-	-	-	260
HCM Lane V/C Ratio	1.646	0.014	0.196	0.002	-	-	0.171	-	-	-	0.017
HCM Control Delay (s)	\$ 344.8	20.9	10.4	7.7	-	-	9.7	-	-	0	19.1
HCM Lane LOS	F	C	B	A	-	-	A	-	-	A	C
HCM 95th %tile Q(veh)	25.3	0	0.7	0	-	-	0.6	-	-	-	0.1

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

5: Felix Road & Heritage Road
2035 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	2.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	52	163	56	305	405	96
Future Vol, veh/h	52	163	56	305	405	96
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	330	0	250	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	57	177	61	332	440	104

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	780	272	544	0	-	0
Stage 1	492	-	-	-	-	-
Stage 2	288	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	332	726	1021	-	-	-
Stage 1	580	-	-	-	-	-
Stage 2	735	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	312	726	1021	-	-	-
Mov Cap-2 Maneuver	422	-	-	-	-	-
Stage 1	545	-	-	-	-	-
Stage 2	735	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.4	1.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1021	-	422	726	-	-
HCM Lane V/C Ratio	0.06	-	0.134	0.244	-	-
HCM Control Delay (s)	8.7	-	14.8	11.6	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.5	1	-	-

6: Felix Road & Merrill Ranch Pkwy
2035 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	2.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	123	21	6	166	413	196
Future Vol, veh/h	123	21	6	166	413	196
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	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	134	23	7	180	449	213

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	660	331	662	0	-	0
Stage 1	556	-	-	-	-	-
Stage 2	104	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	396	665	922	-	-	-
Stage 1	538	-	-	-	-	-
Stage 2	909	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	393	665	922	-	-	-
Mov Cap-2 Maneuver	393	-	-	-	-	-
Stage 1	534	-	-	-	-	-
Stage 2	909	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.6	0.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	922	-	393	665	-	-
HCM Lane V/C Ratio	0.007	-	0.34	0.034	-	-
HCM Control Delay (s)	8.9	0	18.8	10.6	-	-
HCM Lane LOS	A	A	C	B	-	-
HCM 95th %tile Q(veh)	0	-	1.5	0.1	-	-

7: Hunt Hwy & Felix Road
2035 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	14					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Traffic Vol, veh/h	91	321	146	126	298	252
Future Vol, veh/h	91	321	146	126	298	252
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	99	349	159	137	324	274

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	296	0	-	0	601
Stage 1	-	-	-	-	228
Stage 2	-	-	-	-	373
Critical Hdwy	4.14	-	-	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	2.22	-	-	-	3.52
Pot Cap-1 Maneuver	1262	-	-	-	432
Stage 1	-	-	-	-	788
Stage 2	-	-	-	-	666
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1262	-	-	-	390
Mov Cap-2 Maneuver	-	-	-	-	390
Stage 1	-	-	-	-	712
Stage 2	-	-	-	-	666

Approach	EB	WB	SB
HCM Control Delay, s	2	0	30
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1262	-	-	-	390	872
HCM Lane V/C Ratio	0.078	-	-	-	0.831	0.314
HCM Control Delay (s)	8.1	0.3	-	-	46.1	11
HCM Lane LOS	A	A	-	-	E	B
HCM 95th %tile Q(veh)	0.3	-	-	-	7.6	1.4

8: Hunt Hwy & Heritage Road
 2035 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	63					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↗	↑↑	↗	↘	↑↑
Traffic Vol, veh/h	85	363	1165	46	192	976
Future Vol, veh/h	85	363	1165	46	192	976
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	-	150	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	92	395	1266	50	209	1061

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2215	633	0	0	1316
Stage 1	1266	-	-	-	-
Stage 2	949	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	~ 37	422	-	-	521
Stage 1	229	-	-	-	-
Stage 2	337	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	~ 22	422	-	-	521
Mov Cap-2 Maneuver	~ 22	-	-	-	-
Stage 1	229	-	-	-	-
Stage 2	202	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s\$	390.3	0	2.7
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	22	422	521	-
HCM Lane V/C Ratio	-	-	4.2	0.935	0.401	-
HCM Control Delay (s)	-	\$	1798.2	60.6	16.5	-
HCM Lane LOS	-	-	F	F	C	-
HCM 95th %tile Q(veh)	-	-	11.7	10.6	1.9	-

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

9: Collector A & Arizona Farm Road
2035 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	3.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↑
Traffic Vol, veh/h	493	48	34	443	137	97
Future Vol, veh/h	493	48	34	443	137	97
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	150	-	0	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	536	52	37	482	149	105

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	588	0	851
Stage 1	-	-	-	-	536
Stage 2	-	-	-	-	315
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	983	-	299
Stage 1	-	-	-	-	551
Stage 2	-	-	-	-	713
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	983	-	288
Mov Cap-2 Maneuver	-	-	-	-	407
Stage 1	-	-	-	-	551
Stage 2	-	-	-	-	686

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	15.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	407	730	-	-	983	-
HCM Lane V/C Ratio	0.366	0.144	-	-	0.038	-
HCM Control Delay (s)	18.9	10.8	-	-	8.8	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	1.6	0.5	-	-	0.1	-

10: Collector B & Arizona Farms Road
 2035 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	16.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	652	106	63	482	292	84
Future Vol, veh/h	652	106	63	482	292	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	150	-	0	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	709	115	68	524	317	91

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	824	0	1107
Stage 1	-	-	-	-	709
Stage 2	-	-	-	-	398
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	802	-	~ 204
Stage 1	-	-	-	-	449
Stage 2	-	-	-	-	647
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	802	-	~ 187
Mov Cap-2 Maneuver	-	-	-	-	~ 316
Stage 1	-	-	-	-	449
Stage 2	-	-	-	-	592

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	71.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	316	641	-	-	802	-
HCM Lane V/C Ratio	1.004	0.142	-	-	0.085	-
HCM Control Delay (s)	89.1	11.5	-	-	9.9	-
HCM Lane LOS	F	B	-	-	A	-
HCM 95th %tile Q(veh)	11	0.5	-	-	0.3	-

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

11: Felix Road & Driveway C
 2035 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	3.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	155	103	36	349	362	55
Future Vol, veh/h	155	103	36	349	362	55
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	150	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	168	112	39	379	393	60

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	661	197	453	0	-	0
Stage 1	393	-	-	-	-	-
Stage 2	268	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	395	811	1104	-	-	-
Stage 1	651	-	-	-	-	-
Stage 2	753	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	381	811	1104	-	-	-
Mov Cap-2 Maneuver	483	-	-	-	-	-
Stage 1	628	-	-	-	-	-
Stage 2	753	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.9	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1104	-	483	811	-	-
HCM Lane V/C Ratio	0.035	-	0.349	0.138	-	-
HCM Control Delay (s)	8.4	-	16.4	10.1	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	1.5	0.5	-	-

12: Felix Road & Collector D
2035 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↕	↕	↗
Traffic Vol, veh/h	43	46	11	347	463	17
Future Vol, veh/h	43	46	11	347	463	17
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	150	150	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	47	50	12	377	503	18

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	716	252	521	0	-	0
Stage 1	503	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	365	748	1041	-	-	-
Stage 1	573	-	-	-	-	-
Stage 2	802	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	361	748	1041	-	-	-
Mov Cap-2 Maneuver	457	-	-	-	-	-
Stage 1	566	-	-	-	-	-
Stage 2	802	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1041	-	457	748	-	-
HCM Lane V/C Ratio	0.011	-	0.102	0.067	-	-
HCM Control Delay (s)	8.5	-	13.8	10.2	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	0.2	-	-

13: Heritage Road & Collector E
2035 Background w/ Site - AM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	7.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	81	22	78	52	158	235
Future Vol, veh/h	81	22	78	52	158	235
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	150	0	150
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	88	24	85	57	172	255

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	142	0	-	0	285 85
Stage 1	-	-	-	-	85 -
Stage 2	-	-	-	-	200 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1441	-	-	-	705 974
Stage 1	-	-	-	-	938 -
Stage 2	-	-	-	-	834 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1441	-	-	-	662 974
Mov Cap-2 Maneuver	-	-	-	-	692 -
Stage 1	-	-	-	-	881 -
Stage 2	-	-	-	-	834 -

Approach	EB	WB	SB
HCM Control Delay, s	6	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1441	-	-	-	692	974
HCM Lane V/C Ratio	0.061	-	-	-	0.248	0.262
HCM Control Delay (s)	7.7	-	-	-	11.9	10
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1	1.1

1: Hunt Hwy & Arizona Farm Road
2035 Background - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	2.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘↗	↗	↑↑	↗	↘	↑↑
Traffic Vol, veh/h	23	151	1210	58	130	1277
Future Vol, veh/h	23	151	1210	58	130	1277
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	-	150	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	164	1315	63	141	1388

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2291	658	0	0	1378
Stage 1	1315	-	-	-	-
Stage 2	976	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	33	407	-	-	493
Stage 1	215	-	-	-	-
Stage 2	326	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	~ 24	407	-	-	493
Mov Cap-2 Maneuver	113	-	-	-	-
Stage 1	215	-	-	-	-
Stage 2	233	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.1	0	1.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	113	407	493	-
HCM Lane V/C Ratio	-	-	0.221	0.403	0.287	-
HCM Control Delay (s)	-	-	45.7	19.7	15.2	-
HCM Lane LOS	-	-	E	C	C	-
HCM 95th %tile Q(veh)	-	-	0.8	1.9	1.2	-

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

2: Attaway Rd & Judd Rd/Judd Road
2035 Background - PM Peak

HCM 6th AWSC

Intersection	
Intersection Delay, s/veh	15.3
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↔	↔	↔
Traffic Vol, veh/h	406	139	32	278	222	11
Future Vol, veh/h	406	139	32	278	222	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	441	151	35	302	241	12
Number of Lanes	2	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	13.8	16.8	16.7
HCM LOS	B	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	100%	0%	0%	0%	10%
Vol Thru, %	0%	0%	100%	49%	90%
Vol Right, %	0%	100%	0%	51%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	222	11	271	274	310
LT Vol	222	0	0	0	32
Through Vol	0	0	271	135	278
RT Vol	0	11	0	139	0
Lane Flow Rate	241	12	294	298	337
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.492	0.02	0.49	0.467	0.568
Departure Headway (Hd)	7.346	6.125	5.996	5.636	6.066
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	490	583	600	638	593
Service Time	5.098	3.875	3.743	3.383	4.114
HCM Lane V/C Ratio	0.492	0.021	0.49	0.467	0.568
HCM Control Delay	17.1	9	14.4	13.3	16.8
HCM Lane LOS	C	A	B	B	C
HCM 95th-tile Q	2.7	0.1	2.7	2.5	3.5

3: Arizona Farm Road/Arizona Farms Road & Attaway Rd
2035 Background - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	24	176	212	215	138	29
Future Vol, veh/h	24	176	212	215	138	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	191	230	234	150	32

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	464	0	-	0	495 232
Stage 1	-	-	-	-	347 -
Stage 2	-	-	-	-	148 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	1094	-	-	-	504 770
Stage 1	-	-	-	-	687 -
Stage 2	-	-	-	-	864 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1094	-	-	-	492 770
Mov Cap-2 Maneuver	-	-	-	-	559 -
Stage 1	-	-	-	-	671 -
Stage 2	-	-	-	-	864 -

Approach	EB	WB	SB
HCM Control Delay, s	1	0	13.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1094	-	-	-	587
HCM Lane V/C Ratio	0.024	-	-	-	0.309
HCM Control Delay (s)	8.4	-	-	-	13.9
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	1.3

4: Felix Road & Arizona Farms Road
2035 Background - PM Peak

HCM 6th TWSC

Intersection												
Int Delay, s/veh	4.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗	↙	↑↑		↙	↑	↗		↕	
Traffic Vol, veh/h	8	112	194	79	253	2	144	6	92	2	2	3
Future Vol, veh/h	8	112	194	79	253	2	144	6	92	2	2	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	150	150	-	-	150	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	122	211	86	275	2	157	7	100	2	2	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	277	0	0	333	0	0	451	589	61	531	799	139
Stage 1	-	-	-	-	-	-	140	140	-	448	448	-
Stage 2	-	-	-	-	-	-	311	449	-	83	351	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1283	-	-	1223	-	-	492	419	991	431	317	884
Stage 1	-	-	-	-	-	-	849	780	-	560	571	-
Stage 2	-	-	-	-	-	-	674	571	-	916	631	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1283	-	-	1223	-	-	459	387	991	360	293	884
Mov Cap-2 Maneuver	-	-	-	-	-	-	459	387	-	360	293	-
Stage 1	-	-	-	-	-	-	843	775	-	556	531	-
Stage 2	-	-	-	-	-	-	622	531	-	811	627	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			1.9			13.8			13.2		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	459	387	991	1283	-	-	1223	-	-	444
HCM Lane V/C Ratio	0.341	0.017	0.101	0.007	-	-	0.07	-	-	0.017
HCM Control Delay (s)	16.8	14.5	9	7.8	-	-	8.2	-	-	13.2
HCM Lane LOS	C	B	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	1.5	0.1	0.3	0	-	-	0.2	-	-	0.1

5: Felix Road & Heritage Road
2035 Background - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↙	↗	↙	↑↑	↑↑	↗
Traffic Vol, veh/h	31	3	6	215	251	34
Future Vol, veh/h	31	3	6	215	251	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	330	0	250	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	3	7	234	273	37

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	404	137	310	0	-	0
Stage 1	273	-	-	-	-	-
Stage 2	131	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	575	886	1247	-	-	-
Stage 1	748	-	-	-	-	-
Stage 2	881	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	572	886	1247	-	-	-
Mov Cap-2 Maneuver	623	-	-	-	-	-
Stage 1	744	-	-	-	-	-
Stage 2	881	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.9	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1247	-	623	886	-	-
HCM Lane V/C Ratio	0.005	-	0.054	0.004	-	-
HCM Control Delay (s)	7.9	-	11.1	9.1	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	0	-	-

6: Felix Road & Merrill Ranch Pkwy
2035 Background - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	3.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	120	15	15	141	74	87
Future Vol, veh/h	120	15	15	141	74	87
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	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	130	16	16	153	80	95

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	237	88	175	0	-	0
Stage 1	128	-	-	-	-	-
Stage 2	109	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	730	953	1399	-	-	-
Stage 1	884	-	-	-	-	-
Stage 2	903	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	721	953	1399	-	-	-
Mov Cap-2 Maneuver	721	-	-	-	-	-
Stage 1	873	-	-	-	-	-
Stage 2	903	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.8	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1399	-	721	953	-	-
HCM Lane V/C Ratio	0.012	-	0.181	0.017	-	-
HCM Control Delay (s)	7.6	0	11.1	8.8	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.7	0.1	-	-

7: Hunt Hwy & Felix Road
2035 Background - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	4.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Traffic Vol, veh/h	149	172	356	105	63	91
Future Vol, veh/h	149	172	356	105	63	91
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	162	187	387	114	68	99

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	501	0	-	0	862
Stage 1	-	-	-	-	444
Stage 2	-	-	-	-	418
Critical Hdwy	4.14	-	-	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	2.22	-	-	-	3.52
Pot Cap-1 Maneuver	1059	-	-	-	294
Stage 1	-	-	-	-	614
Stage 2	-	-	-	-	632
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1059	-	-	-	244
Mov Cap-2 Maneuver	-	-	-	-	244
Stage 1	-	-	-	-	509
Stage 2	-	-	-	-	632

Approach	EB	WB	SB
HCM Control Delay, s	4.3	0	16.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1059	-	-	-	244	749
HCM Lane V/C Ratio	0.153	-	-	-	0.281	0.132
HCM Control Delay (s)	9	0.3	-	-	25.4	10.5
HCM Lane LOS	A	A	-	-	D	B
HCM 95th %tile Q(veh)	0.5	-	-	-	1.1	0.5

8: Hunt Hwy & Heritage Road
2035 Background - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	12					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↗	↕↕	↗	↘	↕↕
Traffic Vol, veh/h	50	100	1169	50	100	1199
Future Vol, veh/h	50	100	1169	50	100	1199
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	-	150	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	109	1271	54	109	1303

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2141	636	0	0	1325
Stage 1	1271	-	-	-	-
Stage 2	870	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	~ 42	421	-	-	517
Stage 1	227	-	-	-	-
Stage 2	370	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	~ 33	421	-	-	517
Mov Cap-2 Maneuver	~ 33	-	-	-	-
Stage 1	227	-	-	-	-
Stage 2	292	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	204	0	1.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	33	421	517	-
HCM Lane V/C Ratio	-	-	1.647	0.258	0.21	-
HCM Control Delay (s)	-	-	\$ 579.1	16.5	13.8	-
HCM Lane LOS	-	-	F	C	B	-
HCM 95th %tile Q(veh)	-	-	6	1	0.8	-

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

1: Hunt Hwy & Arizona Farm Road
2035 Background w/ Site - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	51.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘↗	↗	↑↑	↗	↘	↑↑
Traffic Vol, veh/h	45	552	1362	77	645	1543
Future Vol, veh/h	45	552	1362	77	645	1543
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	-	150	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	600	1480	84	701	1677

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	3721	740	0
Stage 1	1480	-	-
Stage 2	2241	-	-
Critical Hdwy	6.84	6.94	-
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.32	-
Pot Cap-1 Maneuver	~ 3	~ 359	-
Stage 1	175	-	-
Stage 2	67	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	0	~ 359	-
Mov Cap-2 Maneuver	0	-	-
Stage 1	175	-	-
Stage 2	0	-	-

Approach	WB	NB	SB
HCM Control Delay, s		0	99.8
HCM LOS	-		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	-	359	~ 418
HCM Lane V/C Ratio	-	-	1.671	1.677
HCM Control Delay (s)	-	-	\$ 340.3	\$ 338.4
HCM Lane LOS	-	-	F	F
HCM 95th %tile Q(veh)	-	-	36.3	41.7

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

2: Attaway Rd & Judd Road
2035 Background w/ Site - PM Peak

HCM 6th AWSC

Intersection	
Intersection Delay, s/veh	52.5
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑	↑	↑
Traffic Vol, veh/h	406	375	71	278	385	37
Future Vol, veh/h	406	375	71	278	385	37
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	441	408	77	302	418	40
Number of Lanes	2	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	60.3	32.3	54.8
HCM LOS	F	D	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	100%	0%	0%	0%	20%
Vol Thru, %	0%	0%	100%	27%	80%
Vol Right, %	0%	100%	0%	73%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	385	37	271	510	349
LT Vol	385	0	0	0	71
Through Vol	0	0	271	135	278
RT Vol	0	37	0	375	0
Lane Flow Rate	418	40	294	555	379
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.945	0.077	0.605	1.058	0.779
Departure Headway (Hd)	8.25	7.016	7.397	6.868	7.541
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	444	514	491	533	482
Service Time	5.95	4.716	5.097	4.568	5.541
HCM Lane V/C Ratio	0.941	0.078	0.599	1.041	0.786
HCM Control Delay	59.1	10.3	20.8	81.3	32.3
HCM Lane LOS	F	B	C	F	D
HCM 95th-tile Q	11	0.2	3.9	16.4	6.9

3: Arizona Farm Road & Attaway Rd
2035 Background w/ Site - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	75.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	62	586	595	364	347	94
Future Vol, veh/h	62	586	595	364	347	94
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	67	637	647	396	377	102

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1043	0	0 1298 522
Stage 1	-	-	- 845 -
Stage 2	-	-	- 453 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	663	-	- ~ 153 499
Stage 1	-	-	- 382 -
Stage 2	-	-	- 607 -
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	663	-	- ~ 138 499
Mov Cap-2 Maneuver	-	-	- ~ 256 -
Stage 1	-	-	- ~ 343 -
Stage 2	-	-	- 607 -

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	\$ 350.3
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	663	-	-	-	286
HCM Lane V/C Ratio	0.102	-	-	-	1.676
HCM Control Delay (s)	11	-	-	-	\$ 350.3
HCM Lane LOS	B	-	-	-	F
HCM 95th %tile Q(veh)	0.3	-	-	-	30.1

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

4: Felix Road & Arizona Farms Road
2035 Background w/ Site - PM Peak

HCM 6th TWSC

Intersection												
Int Delay, s/veh	101.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Traffic Vol, veh/h	8	240	447	193	416	2	333	6	147	2	2	3
Future Vol, veh/h	8	240	447	193	416	2	333	6	147	2	2	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	150	150	-	150	150	-	0	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	261	486	210	452	2	362	7	160	2	2	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	454	0	0	747	0	0	926	1153	131	1024	1637	226
Stage 1	-	-	-	-	-	-	279	279	-	872	872	-
Stage 2	-	-	-	-	-	-	647	874	-	152	765	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1103	-	-	857	-	-	~ 224	196	894	190	100	777
Stage 1	-	-	-	-	-	-	704	678	-	312	366	-
Stage 2	-	-	-	-	-	-	426	365	-	835	410	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1103	-	-	857	-	-	~ 176	147	894	122	75	777
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 176	147	-	122	75	-
Stage 1	-	-	-	-	-	-	698	673	-	310	276	-
Stage 2	-	-	-	-	-	-	~ 318	276	-	674	407	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			3.3			\$ 371.9			29.8		
HCM LOS							F			D		

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	176	147	894	1103	-	-	857	-	-	122	164
HCM Lane V/C Ratio	2.057	0.044	0.179	0.008	-	-	0.245	-	-	0.018	0.033
HCM Control Delay (s)	\$ 537.9	30.6	9.9	8.3	-	-	10.6	-	-	35	27.7
HCM Lane LOS	F	D	A	A	-	-	B	-	-	E	D
HCM 95th %tile Q(veh)	28.1	0.1	0.6	0	-	-	1	-	-	0.1	0.1

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

5: Felix Road & Heritage Road
2035 Background w/ Site - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	4.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↙	↗	↙	↑↑	↑↑	↗
Traffic Vol, veh/h	114	121	179	410	386	111
Future Vol, veh/h	114	121	179	410	386	111
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	330	0	250	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	124	132	195	446	420	121

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1033	210	541	0	-	0
Stage 1	420	-	-	-	-	-
Stage 2	613	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	228	796	1024	-	-	-
Stage 1	631	-	-	-	-	-
Stage 2	503	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	185	796	1024	-	-	-
Mov Cap-2 Maneuver	316	-	-	-	-	-
Stage 1	511	-	-	-	-	-
Stage 2	503	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.8	2.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1024	-	316	796	-	-
HCM Lane V/C Ratio	0.19	-	0.392	0.165	-	-
HCM Control Delay (s)	9.3	-	23.6	10.4	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.7	-	1.8	0.6	-	-

6: Felix Road & Merrill Ranch Pkwy
2035 Background w/ Site - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	174	15	15	454	291	123
Future Vol, veh/h	174	15	15	454	291	123
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	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	189	16	16	493	316	134

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	662	225	450	0	-	0
Stage 1	383	-	-	-	-	-
Stage 2	279	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	395	778	1107	-	-	-
Stage 1	659	-	-	-	-	-
Stage 2	743	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	387	778	1107	-	-	-
Mov Cap-2 Maneuver	387	-	-	-	-	-
Stage 1	646	-	-	-	-	-
Stage 2	743	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	21.9	0.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1107	-	387	778	-	-
HCM Lane V/C Ratio	0.015	-	0.489	0.021	-	-
HCM Control Delay (s)	8.3	0.1	22.9	9.7	-	-
HCM Lane LOS	A	A	C	A	-	-
HCM 95th %tile Q(veh)	0	-	2.6	0.1	-	-

7: Hunt Hwy & Felix Road
 2035 Background w/ Site - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	72.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑		↘	↘
Traffic Vol, veh/h	238	172	356	328	218	156
Future Vol, veh/h	238	172	356	328	218	156
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	259	187	387	357	237	170

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	744	0	-	0	1178 372
Stage 1	-	-	-	-	566 -
Stage 2	-	-	-	-	612 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	859	-	-	-	~ 184 625
Stage 1	-	-	-	-	532 -
Stage 2	-	-	-	-	504 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	859	-	-	-	~ 128 625
Mov Cap-2 Maneuver	-	-	-	-	~ 128 -
Stage 1	-	-	-	-	371 -
Stage 2	-	-	-	-	504 -

Approach	EB	WB	SB
HCM Control Delay, s	6.4	0	279.2
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	859	-	-	-	128	625
HCM Lane V/C Ratio	0.301	-	-	-	1.851	0.271
HCM Control Delay (s)	11	-	-	-	\$ 469.8	12.9
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	1.3	-	-	-	18.4	1.1

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

8: Hunt Hwy & Heritage Road
 2035 Background w/ Site - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	1467.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↗	↑↑	↗	↘	↑↑
Traffic Vol, veh/h	93	282	1188	123	413	1221
Future Vol, veh/h	93	282	1188	123	413	1221
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	-	150	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	101	307	1291	134	449	1327

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	2853	646	0	0	1425	0
Stage 1	1291	-	-	-	-	-
Stage 2	1562	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 13	414	-	-	473	-
Stage 1	222	-	-	-	-	-
Stage 2	158	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	~ 1	414	-	-	473	-
Mov Cap-2 Maneuver	~ 1	-	-	-	-	-
Stage 1	222	-	-	-	-	-
Stage 2	~ 8	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay \$	2928.6	0	15
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	1	414	473	-
HCM Lane V/C Ratio	-	101.087	0.74	0.949	-	-
HCM Control Delay (s)	-	\$ 52026.1	34.7	59.3	-	-
HCM Lane LOS	-	-	F	D	F	-
HCM 95th %tile Q(veh)	-	-	15	5.9	11.6	-

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

9: Collector A & Arizona Farm Road
2035 Background w/ Site - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	2.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↘	↑↑	↘	↗
Traffic Vol, veh/h	584	164	117	572	97	69
Future Vol, veh/h	584	164	117	572	97	69
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	150	-	0	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	635	178	127	622	105	75

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	813	0	1200
Stage 1	-	-	-	-	635
Stage 2	-	-	-	-	565
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	810	-	178
Stage 1	-	-	-	-	490
Stage 2	-	-	-	-	532
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	810	-	150
Mov Cap-2 Maneuver	-	-	-	-	282
Stage 1	-	-	-	-	490
Stage 2	-	-	-	-	448

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	19.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	282	678	-	-	810	-
HCM Lane V/C Ratio	0.374	0.111	-	-	0.157	-
HCM Control Delay (s)	25.2	11	-	-	10.3	-
HCM Lane LOS	D	B	-	-	B	-
HCM 95th %tile Q(veh)	1.7	0.4	-	-	0.6	-

10: Collector B & Arizona Farms Road
2035 Background w/ Site - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	66.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	642	248	129	612	385	87
Future Vol, veh/h	642	248	129	612	385	87
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	150	-	0	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	698	270	140	665	418	95

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	968	0	1311
Stage 1	-	-	-	-	698
Stage 2	-	-	-	-	613
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	707	-	~ 150
Stage 1	-	-	-	-	455
Stage 2	-	-	-	-	503
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	707	-	~ 120
Mov Cap-2 Maneuver	-	-	-	-	~ 250
Stage 1	-	-	-	-	455
Stage 2	-	-	-	-	~ 403

Approach	EB	WB	NB
HCM Control Delay, s	0	2	291.7
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	250	647	-	-	707	-
HCM Lane V/C Ratio	1.674	0.146	-	-	0.198	-
HCM Control Delay (s)	\$ 355	11.5	-	-	11.3	-
HCM Lane LOS	F	B	-	-	B	-
HCM 95th %tile Q(veh)	26.9	0.5	-	-	0.7	-

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

11: Felix Road & Driveway C
 2035 Background w/ Site - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	109	72	123	371	427	185
Future Vol, veh/h	109	72	123	371	427	185
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	150	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	118	78	134	403	464	201

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	934	232	665	0	-	0
Stage 1	464	-	-	-	-	-
Stage 2	470	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	264	770	920	-	-	-
Stage 1	599	-	-	-	-	-
Stage 2	595	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	225	770	920	-	-	-
Mov Cap-2 Maneuver	353	-	-	-	-	-
Stage 1	512	-	-	-	-	-
Stage 2	595	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.3	2.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	920	-	353	770	-	-
HCM Lane V/C Ratio	0.145	-	0.336	0.102	-	-
HCM Control Delay (s)	9.6	-	20.3	10.2	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.5	-	1.4	0.3	-	-

12: Felix Road & Collector D
 2035 Background w/ Site - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	28	32	36	467	471	58
Future Vol, veh/h	28	32	36	467	471	58
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	150	150	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	35	39	508	512	63

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	844	256	575	0	-	0
Stage 1	512	-	-	-	-	-
Stage 2	332	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	302	743	994	-	-	-
Stage 1	567	-	-	-	-	-
Stage 2	699	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	290	743	994	-	-	-
Mov Cap-2 Maneuver	408	-	-	-	-	-
Stage 1	545	-	-	-	-	-
Stage 2	699	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.2	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	994	-	408	743	-	-
HCM Lane V/C Ratio	0.039	-	0.075	0.047	-	-
HCM Control Delay (s)	8.8	-	14.5	10.1	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0.1	-	-

13: Heritage Road & Collector E
 2035 Background w/ Site - PM Peak

HCM 6th TWSC

Intersection						
Int Delay, s/veh	7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	278	75	101	178	126	165
Future Vol, veh/h	278	75	101	178	126	165
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	150	0	150
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	302	82	110	193	137	179

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	303	0	-	0	796 110
Stage 1	-	-	-	-	110 -
Stage 2	-	-	-	-	686 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1258	-	-	-	356 943
Stage 1	-	-	-	-	915 -
Stage 2	-	-	-	-	500 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1258	-	-	-	271 943
Mov Cap-2 Maneuver	-	-	-	-	383 -
Stage 1	-	-	-	-	695 -
Stage 2	-	-	-	-	500 -

















Approach	EB	WB	SB
HCM Control Delay, s	6.9	0	13.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1258	-	-	-	383	943
HCM Lane V/C Ratio	0.24	-	-	-	0.358	0.19
HCM Control Delay (s)	8.8	-	-	-	19.5	9.7
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.9	-	-	-	1.6	0.7

APPENDIX G: Future 2035 Level-of-Service Analysis with Proposed Improvements

1: Hunt Hwy & Arizona Farm Road
 2035 Background w/ Site - AM Peak (Improvements)

HCM 6th Signalized Intersection Summary

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		 	 		 	 
Traffic Volume (veh/h)	21	567	1475	38	361	1140
Future Volume (veh/h)	21	567	1475	38	361	1140
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	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	616	1603	41	392	1239
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	363	955	1744	778	478	2433
Arrive On Green	0.20	0.20	0.49	0.49	0.14	0.68
Sat Flow, veh/h	1781	2790	3647	1585	3456	3647
Grp Volume(v), veh/h	23	616	1603	41	392	1239
Grp Sat Flow(s),veh/h/ln	1781	1395	1777	1585	1728	1777
Q Serve(g_s), s	1.1	20.1	45.1	1.5	11.9	18.2
Cycle Q Clear(g_c), s	1.1	20.1	45.1	1.5	11.9	18.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	363	955	1744	778	478	2433
V/C Ratio(X)	0.06	0.64	0.92	0.05	0.82	0.51
Avail Cap(c_a), veh/h	363	955	1812	808	801	2834
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.6	29.9	25.5	14.4	45.2	8.2
Incr Delay (d2), s/veh	0.1	1.5	7.9	0.0	3.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	6.5	19.0	0.5	5.2	5.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.7	31.4	33.4	14.4	48.7	8.4
LnGrp LOS	C	C	C	B	D	A
Approach Vol, veh/h	639		1644			1631
Approach Delay, s/veh	31.5		32.9			18.1
Approach LOS	C		C			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	20.9	58.9			79.8	28.0
Change Period (Y+Rc), s	6.0	6.0			6.0	6.0
Max Green Setting (Gmax), s	25.0	55.0			86.0	22.0
Max Q Clear Time (g_c+I1), s	13.9	47.1			20.2	22.1
Green Ext Time (p_c), s	1.0	5.8			11.5	0.0
Intersection Summary						
HCM 6th Ctrl Delay			26.5			
HCM 6th LOS			C			

1: Hunt Hwy & Arizona Farm Road
 2035 Background w/ Site - AM Peak (Improvements)

Queues



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	23	616	1603	41	392	1239
v/c Ratio	0.17	0.70	0.82	0.05	0.44	0.38
Control Delay	47.0	31.2	22.4	7.7	31.7	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.0	31.2	22.4	7.7	31.7	1.8
Queue Length 50th (ft)	12	171	332	5	89	0
Queue Length 95th (ft)	41	249	605	24	167	128
Internal Link Dist (ft)	5028		2526			4409
Turn Bay Length (ft)	200			150	150	
Base Capacity (vph)	444	956	2224	1002	980	3263
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.64	0.72	0.04	0.40	0.38
Intersection Summary						

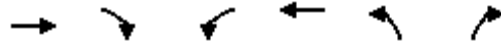
2: Attaway Rd & Judd Road
 2035 Background w/ Site - AM Peak (Improvements)

HCM 6th Signalized Intersection Summary

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↙	↑	↖	↗
Traffic Volume (veh/h)	151	287	40	437	338	52
Future Volume (veh/h)	151	287	40	437	338	52
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	1870	1870	1870	1870
Adj Flow Rate, veh/h	164	312	43	475	367	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	675	572	494	675	489	435
Arrive On Green	0.36	0.36	0.36	0.36	0.27	0.27
Sat Flow, veh/h	1870	1585	918	1870	1781	1585
Grp Volume(v), veh/h	164	312	43	475	367	57
Grp Sat Flow(s),veh/h/ln	1870	1585	918	1870	1781	1585
Q Serve(g_s), s	2.0	5.2	1.1	7.2	6.2	0.9
Cycle Q Clear(g_c), s	2.0	5.2	3.2	7.2	6.2	0.9
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	675	572	494	675	489	435
V/C Ratio(X)	0.24	0.55	0.09	0.70	0.75	0.13
Avail Cap(c_a), veh/h	1534	1300	915	1534	1136	1011
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.4	8.4	8.5	9.0	10.9	9.0
Incr Delay (d2), s/veh	0.2	0.8	0.1	1.4	2.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.0	0.1	1.7	1.6	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.6	9.2	8.6	10.4	13.2	9.1
LnGrp LOS	A	A	A	B	B	A
Approach Vol, veh/h	476			518	424	
Approach Delay, s/veh	8.6			10.2	12.7	
Approach LOS	A			B	B	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		17.9			17.9	15.0
Change Period (Y+Rc), s		6.0			6.0	6.0
Max Green Setting (Gmax), s		27.0			27.0	21.0
Max Q Clear Time (g_c+I1), s		7.2			9.2	8.2
Green Ext Time (p_c), s		1.8			2.7	1.0
Intersection Summary						
HCM 6th Ctrl Delay			10.4			
HCM 6th LOS			B			

2: Attaway Rd & Judd Road
 2035 Background w/ Site - AM Peak (Improvements)

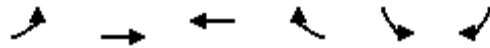
Queues



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	164	312	43	475	367	57
v/c Ratio	0.23	0.39	0.09	0.66	0.64	0.10
Control Delay	10.4	3.1	9.7	16.4	19.6	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.4	3.1	9.7	16.4	19.6	5.0
Queue Length 50th (ft)	25	0	6	88	71	0
Queue Length 95th (ft)	65	36	24	200	183	20
Internal Link Dist (ft)	119			917	5223	
Turn Bay Length (ft)		200	150		115	
Base Capacity (vph)	1218	1142	795	1218	900	833
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.27	0.05	0.39	0.41	0.07
Intersection Summary						

3: Arizona Farm Road & Attaway Rd
 2035 Background w/ Site - AM Peak (Improvements)

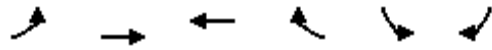
HCM 6th Signalized Intersection Summary



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	70	517	444	302	289	34
Future Volume (veh/h)	70	517	444	302	289	34
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	1870	1870	1870	1870
Adj Flow Rate, veh/h	76	562	483	328	314	37
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	457	1392	1392	621	618	283
Arrive On Green	0.39	0.39	0.39	0.39	0.18	0.18
Sat Flow, veh/h	673	3647	3647	1585	3456	1585
Grp Volume(v), veh/h	76	562	483	328	314	37
Grp Sat Flow(s),veh/h/ln	673	1777	1777	1585	1728	1585
Q Serve(g_s), s	2.5	3.2	2.7	4.4	2.3	0.5
Cycle Q Clear(g_c), s	5.2	3.2	2.7	4.4	2.3	0.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	457	1392	1392	621	618	283
V/C Ratio(X)	0.17	0.40	0.35	0.53	0.51	0.13
Avail Cap(c_a), veh/h	819	3306	3306	1475	2721	1248
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.8	6.1	6.0	6.5	10.4	9.6
Incr Delay (d2), s/veh	0.2	0.2	0.1	0.7	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.3	0.3	0.5	0.5	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.0	6.3	6.1	7.2	11.0	9.9
LnGrp LOS	A	A	A	A	B	A
Approach Vol, veh/h		638	811		351	
Approach Delay, s/veh		6.5	6.6		10.9	
Approach LOS		A	A		B	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		16.9			16.9	11.0
Change Period (Y+Rc), s		6.0			6.0	6.0
Max Green Setting (Gmax), s		26.0			26.0	22.0
Max Q Clear Time (g_c+I1), s		6.4			7.2	4.3
Green Ext Time (p_c), s		3.8			3.8	1.1
Intersection Summary						
HCM 6th Ctrl Delay			7.4			
HCM 6th LOS			A			

3: Arizona Farm Road & Attaway Rd
 2035 Background w/ Site - AM Peak (Improvements)

Queues



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	76	562	483	328	314	37
v/c Ratio	0.23	0.42	0.36	0.41	0.36	0.09
Control Delay	9.4	8.9	8.5	3.0	11.6	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.4	8.9	8.5	3.0	11.6	5.2
Queue Length 50th (ft)	8	34	28	0	21	0
Queue Length 95th (ft)	29	68	58	31	50	13
Internal Link Dist (ft)		1775	986		2606	
Turn Bay Length (ft)	150					150
Base Capacity (vph)	707	2822	2822	1329	2316	1080
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.20	0.17	0.25	0.14	0.03
Intersection Summary						

4: Felix Road & Arizona Farms Road
 2035 Background w/ Site - AM Peak (Improvements)

Queues

























Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	2	358	311	157	222	397	166	4
v/c Ratio	0.00	0.50	0.39	0.41	0.31	0.61	0.33	0.01
Control Delay	8.0	11.4	3.2	12.3	9.3	21.9	4.5	13.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.0	11.4	3.2	12.3	9.3	21.9	4.5	13.8
Queue Length 50th (ft)	0	37	0	16	21	28	0	0
Queue Length 95th (ft)	3	135	37	72	82	#125	28	7
Internal Link Dist (ft)		2323			1288		1671	145
Turn Bay Length (ft)	150		150	150		150		
Base Capacity (vph)	646	1042	1022	558	1041	656	1452	965
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.34	0.30	0.28	0.21	0.61	0.11	0.00

Intersection Summary

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

4: Felix Road & Arizona Farms Road
 2035 Background w/ Site - AM Peak (Improvements)

HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	329	286	144	202	2	365	3	150	0	2	2
Future Volume (veh/h)	2	329	286	144	202	2	365	3	150	0	2	2
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	358	311	157	220	2	397	3	163	0	2	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	506	721	611	340	713	6	448	10	555	156	82	82
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.13	0.36	0.36	0.00	0.10	0.10
Sat Flow, veh/h	1159	1870	1585	768	1851	17	3456	29	1561	1220	858	858
Grp Volume(v), veh/h	2	358	311	157	0	222	397	0	166	0	0	4
Grp Sat Flow(s),veh/h/ln	1159	1870	1585	768	0	1867	1728	0	1589	1220	0	1716
Q Serve(g_s), s	0.1	6.7	6.9	9.0	0.0	3.8	5.2	0.0	3.5	0.0	0.0	0.1
Cycle Q Clear(g_c), s	3.9	6.7	6.9	15.8	0.0	3.8	5.2	0.0	3.5	0.0	0.0	0.1
Prop In Lane	1.00		1.00	1.00		0.01	1.00		0.98	1.00		0.50
Lane Grp Cap(c), veh/h	506	721	611	340	0	719	448	0	565	156	0	165
V/C Ratio(X)	0.00	0.50	0.51	0.46	0.00	0.31	0.89	0.00	0.29	0.00	0.00	0.02
Avail Cap(c_a), veh/h	510	728	617	343	0	727	448	0	1031	513	0	668
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	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	11.3	10.8	10.9	16.8	0.0	9.9	19.8	0.0	10.7	0.0	0.0	19.0
Incr Delay (d2), s/veh	0.0	0.5	0.7	1.0	0.0	0.2	18.7	0.0	0.3	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	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.9	1.7	1.3	0.0	1.1	2.8	0.0	0.9	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.3	11.3	11.6	17.8	0.0	10.2	38.5	0.0	11.0	0.0	0.0	19.0
LnGrp LOS	B	B	B	B	A	B	D	A	B	A	A	B
Approach Vol, veh/h		671			379			563				4
Approach Delay, s/veh		11.4			13.3			30.4				19.0
Approach LOS		B			B			C				B
Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		23.8		22.4		23.8	12.0	10.4				
Change Period (Y+Rc), s		6.0		6.0		6.0	6.0	6.0				
Max Green Setting (Gmax), s		18.0		30.0		18.0	6.0	18.0				
Max Q Clear Time (g_c+I1), s		17.8		5.5		8.9	7.2	2.1				
Green Ext Time (p_c), s		0.1		0.8		2.1	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay				18.5								
HCM 6th LOS				B								

5: Felix Road & Heritage Road
 2035 Background w/ Site - AM Peak (Improvements)

HCM 6th TWSC

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↗	↖
Traffic Vol, veh/h	52	163	56	305	405	96
Future Vol, veh/h	52	163	56	305	405	96
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	330	0	250	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	57	177	61	332	440	104

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	894	440	544	0	-	0
Stage 1	440	-	-	-	-	-
Stage 2	454	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	312	617	1025	-	-	-
Stage 1	649	-	-	-	-	-
Stage 2	640	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	293	617	1025	-	-	-
Mov Cap-2 Maneuver	419	-	-	-	-	-
Stage 1	610	-	-	-	-	-
Stage 2	640	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.6	1.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1025	-	419	617	-	-
HCM Lane V/C Ratio	0.059	-	0.135	0.287	-	-
HCM Control Delay (s)	8.7	-	14.9	13.2	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.5	1.2	-	-

6: Felix Road & Merrill Ranch Pkwy
 2035 Background w/ Site - AM Peak (Improvements)

HCM 6th TWSC

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	123	21	6	166	413	196
Future Vol, veh/h	123	21	6	166	413	196
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	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	134	23	7	180	449	213

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	643	449	662	0	-	0
Stage 1	449	-	-	-	-	-
Stage 2	194	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	438	610	927	-	-	-
Stage 1	643	-	-	-	-	-
Stage 2	839	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	434	610	927	-	-	-
Mov Cap-2 Maneuver	434	-	-	-	-	-
Stage 1	638	-	-	-	-	-
Stage 2	839	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.1	0.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	927	-	434	610	-	-
HCM Lane V/C Ratio	0.007	-	0.308	0.037	-	-
HCM Control Delay (s)	8.9	0	16.9	11.1	-	-
HCM Lane LOS	A	A	C	B	-	-
HCM 95th %tile Q(veh)	0	-	1.3	0.1	-	-

7: Hunt Hwy & Felix Road
 2035 Background w/ Site - AM Peak (Improvements)

HCM 6th TWSC

Intersection						
Int Delay, s/veh	15.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↗	↗	↖	↖	↖
Traffic Vol, veh/h	91	321	146	126	298	252
Future Vol, veh/h	91	321	146	126	298	252
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	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	99	349	159	137	324	274

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	296	0	-	0	706
Stage 1	-	-	-	-	159
Stage 2	-	-	-	-	547
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1265	-	-	-	402
Stage 1	-	-	-	-	870
Stage 2	-	-	-	-	580
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1265	-	-	-	371
Mov Cap-2 Maneuver	-	-	-	-	371
Stage 1	-	-	-	-	802
Stage 2	-	-	-	-	580

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	34.4
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1265	-	-	-	371	886
HCM Lane V/C Ratio	0.078	-	-	-	0.873	0.309
HCM Control Delay (s)	8.1	-	-	-	54.2	10.9
HCM Lane LOS	A	-	-	-	F	B
HCM 95th %tile Q(veh)	0.3	-	-	-	8.5	1.3

8: Hunt Hwy & Heritage Road
 2035 Background w/ Site - AM Peak (Improvements)













Queues



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	92	395	1266	50	209	1061
v/c Ratio	0.40	0.67	0.76	0.07	0.30	0.38
Control Delay	44.2	26.4	22.9	8.6	31.4	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.2	26.4	22.9	8.6	31.4	4.4
Queue Length 50th (ft)	43	140	272	6	45	88
Queue Length 95th (ft)	117	309	481	30	100	146
Internal Link Dist (ft)	2374		744			3895
Turn Bay Length (ft)	150			150	150	
Base Capacity (vph)	444	899	2516	1134	1387	3348
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.44	0.50	0.04	0.15	0.32
Intersection Summary						

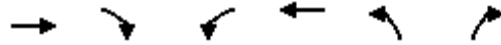
8: Hunt Hwy & Heritage Road
 2035 Background w/ Site - AM Peak (Improvements)

HCM 6th Signalized Intersection Summary

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	85	363	1165	46	192	976
Future Volume (veh/h)	85	363	1165	46	192	976
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	1870	1870	1870	1870
Adj Flow Rate, veh/h	92	395	1266	50	209	1061
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	403	503	1623	724	314	2213
Arrive On Green	0.23	0.23	0.46	0.46	0.09	0.62
Sat Flow, veh/h	1781	1585	3647	1585	3456	3647
Grp Volume(v), veh/h	92	395	1266	50	209	1061
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1728	1777
Q Serve(g_s), s	3.4	18.0	23.9	1.4	4.7	12.8
Cycle Q Clear(g_c), s	3.4	18.0	23.9	1.4	4.7	12.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	403	503	1623	724	314	2213
V/C Ratio(X)	0.23	0.79	0.78	0.07	0.67	0.48
Avail Cap(c_a), veh/h	403	503	2457	1096	1260	4021
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.1	24.7	18.2	12.1	35.0	8.1
Incr Delay (d2), s/veh	0.3	8.1	0.9	0.0	2.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	7.1	8.5	0.4	1.9	3.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.4	32.8	19.2	12.2	37.4	8.2
LnGrp LOS	C	C	B	B	D	A
Approach Vol, veh/h	487		1316			1270
Approach Delay, s/veh	31.4		18.9			13.0
Approach LOS	C		B			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	13.2	42.3			55.5	24.0
Change Period (Y+Rc), s	6.0	6.0			6.0	6.0
Max Green Setting (Gmax), s	29.0	55.0			90.0	18.0
Max Q Clear Time (g_c+I1), s	6.7	25.9			14.8	20.0
Green Ext Time (p_c), s	0.6	10.4			9.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			18.5			
HCM 6th LOS			B			

9: Collector A & Arizona Farm Road
 2035 Background w/ Site - AM Peak (Improvements)

Queues



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	536	52	37	482	149	105
v/c Ratio	0.31	0.07	0.09	0.28	0.33	0.22
Control Delay	7.9	3.2	8.1	7.8	12.2	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.9	3.2	8.1	7.8	12.2	4.3
Queue Length 50th (ft)	32	0	4	28	19	0
Queue Length 95th (ft)	66	12	17	59	54	21
Internal Link Dist (ft)	2074		1775		1035	
Turn Bay Length (ft)	150		150		150	
Base Capacity (vph)	2896	1304	690	2896	1269	1165
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.04	0.05	0.17	0.12	0.09
Intersection Summary						

9: Collector A & Arizona Farm Road
 2035 Background w/ Site - AM Peak (Improvements)

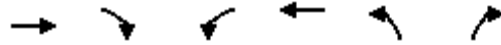
HCM 6th Signalized Intersection Summary



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Volume (veh/h)	493	48	34	443	137	97
Future Volume (veh/h)	493	48	34	443	137	97
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	1870	1870	1870	1870
Adj Flow Rate, veh/h	536	52	37	482	149	105
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1356	605	500	1356	286	255
Arrive On Green	0.38	0.38	0.38	0.38	0.16	0.16
Sat Flow, veh/h	3647	1585	828	3647	1781	1585
Grp Volume(v), veh/h	536	52	37	482	149	105
Grp Sat Flow(s),veh/h/ln	1777	1585	828	1777	1781	1585
Q Serve(g_s), s	2.9	0.5	0.9	2.5	2.0	1.6
Cycle Q Clear(g_c), s	2.9	0.5	3.8	2.5	2.0	1.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1356	605	500	1356	286	255
V/C Ratio(X)	0.40	0.09	0.07	0.36	0.52	0.41
Avail Cap(c_a), veh/h	3389	1512	973	3389	1563	1391
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.9	5.2	7.3	5.8	10.1	9.9
Incr Delay (d2), s/veh	0.2	0.1	0.1	0.2	1.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.1	0.2	0.5	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	6.1	5.2	7.3	6.0	11.5	11.0
LnGrp LOS	A	A	A	A	B	B
Approach Vol, veh/h	588			519	254	
Approach Delay, s/veh	6.0			6.1	11.3	
Approach LOS	A			A	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		16.0		10.2		16.0
Change Period (Y+Rc), s		6.0		6.0		6.0
Max Green Setting (Gmax), s		25.0		23.0		25.0
Max Q Clear Time (g_c+I1), s		5.8		4.0		4.9
Green Ext Time (p_c), s		2.9		0.7		3.2
Intersection Summary						
HCM 6th Ctrl Delay			7.0			
HCM 6th LOS			A			

10: Collector B & Arizona Farms Road
 2035 Background w/ Site - AM Peak (Improvements)

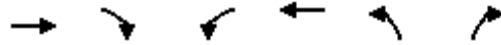
HCM 6th Signalized Intersection Summary



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↵	↑↑	↵↵	↵
Traffic Volume (veh/h)	652	106	63	482	292	84
Future Volume (veh/h)	652	106	63	482	292	84
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	1870	1870	1870	1870
Adj Flow Rate, veh/h	709	115	68	524	317	91
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1466	654	419	1466	635	291
Arrive On Green	0.41	0.41	0.41	0.41	0.18	0.18
Sat Flow, veh/h	3647	1585	665	3647	3456	1585
Grp Volume(v), veh/h	709	115	68	524	317	91
Grp Sat Flow(s),veh/h/ln	1777	1585	665	1777	1728	1585
Q Serve(g_s), s	4.4	1.4	2.5	3.0	2.5	1.5
Cycle Q Clear(g_c), s	4.4	1.4	6.8	3.0	2.5	1.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1466	654	419	1466	635	291
V/C Ratio(X)	0.48	0.18	0.16	0.36	0.50	0.31
Avail Cap(c_a), veh/h	3227	1439	748	3227	2441	1120
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.4	5.5	8.9	6.0	10.9	10.5
Incr Delay (d2), s/veh	0.2	0.1	0.2	0.1	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.2	0.2	0.4	0.6	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	6.7	5.7	9.1	6.2	11.5	11.1
LnGrp LOS	A	A	A	A	B	B
Approach Vol, veh/h	824			592	408	
Approach Delay, s/veh	6.5			6.5	11.4	
Approach LOS	A			A	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		18.3		11.5		18.3
Change Period (Y+Rc), s		6.0		6.0		6.0
Max Green Setting (Gmax), s		27.0		21.0		27.0
Max Q Clear Time (g_c+I1), s		8.8		4.5		6.4
Green Ext Time (p_c), s		3.4		1.2		4.6
Intersection Summary						
HCM 6th Ctrl Delay			7.6			
HCM 6th LOS			A			

10: Collector B & Arizona Farms Road
 2035 Background w/ Site - AM Peak (Improvements)

Queues



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	709	115	68	524	317	91
v/c Ratio	0.50	0.16	0.24	0.37	0.37	0.20
Control Delay	9.3	2.6	9.6	8.3	12.9	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.3	2.6	9.6	8.3	12.9	5.0
Queue Length 50th (ft)	47	0	8	32	24	0
Queue Length 95th (ft)	90	18	28	64	57	23
Internal Link Dist (ft)	860			739	1344	
Turn Bay Length (ft)		150	150			150
Base Capacity (vph)	2765	1262	556	2765	2086	997
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.09	0.12	0.19	0.15	0.09
Intersection Summary						

11: Felix Road & Driveway C
 2035 Background w/ Site - AM Peak (Improvements)

HCM 6th TWSC

Intersection						
Int Delay, s/veh	3.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↙	↗	↙	↕↕	↕↕	↗
Traffic Vol, veh/h	155	103	36	349	362	55
Future Vol, veh/h	155	103	36	349	362	55
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	150	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	168	112	39	379	393	60

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	661	197	453	0	-	0
Stage 1	393	-	-	-	-	-
Stage 2	268	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	395	811	1104	-	-	-
Stage 1	651	-	-	-	-	-
Stage 2	753	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	381	811	1104	-	-	-
Mov Cap-2 Maneuver	483	-	-	-	-	-
Stage 1	628	-	-	-	-	-
Stage 2	753	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.9	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1104	-	483	811	-	-
HCM Lane V/C Ratio	0.035	-	0.349	0.138	-	-
HCM Control Delay (s)	8.4	-	16.4	10.1	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	1.5	0.5	-	-

12: Felix Road & Collector D
 2035 Background w/ Site - AM Peak (Improvements)

HCM 6th TWSC

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↕↕	↕↕	↗
Traffic Vol, veh/h	43	46	11	347	463	17
Future Vol, veh/h	43	46	11	347	463	17
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	150	150	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	47	50	12	377	503	18

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	716	252	521	0	-	0
Stage 1	503	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	365	748	1041	-	-	-
Stage 1	573	-	-	-	-	-
Stage 2	802	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	361	748	1041	-	-	-
Mov Cap-2 Maneuver	457	-	-	-	-	-
Stage 1	566	-	-	-	-	-
Stage 2	802	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1041	-	457	748	-	-
HCM Lane V/C Ratio	0.011	-	0.102	0.067	-	-
HCM Control Delay (s)	8.5	-	13.8	10.2	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	0.2	-	-

13: Heritage Road & Collector E
 2035 Background w/ Site - AM Peak (Improvements)

HCM 6th TWSC

Intersection						
Int Delay, s/veh	7.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	81	22	78	52	158	235
Future Vol, veh/h	81	22	78	52	158	235
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	150	0	150
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	88	24	85	57	172	255

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	142	0	-	0	273
Stage 1	-	-	-	-	85
Stage 2	-	-	-	-	188
Critical Hdwy	4.14	-	-	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	2.22	-	-	-	3.52
Pot Cap-1 Maneuver	1438	-	-	-	694
Stage 1	-	-	-	-	929
Stage 2	-	-	-	-	825
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1438	-	-	-	652
Mov Cap-2 Maneuver	-	-	-	-	684
Stage 1	-	-	-	-	872
Stage 2	-	-	-	-	825

Approach	EB	WB	SB
HCM Control Delay, s	6	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1438	-	-	-	684	1018
HCM Lane V/C Ratio	0.061	-	-	-	0.251	0.251
HCM Control Delay (s)	7.7	-	-	-	12	9.7
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0.2	-	-	-	1	1

1: Hunt Hwy & Arizona Farm Road
 2035 Background w/ Site - PM Peak (Improvements)

















Queues



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	49	600	1480	84	701	1677
v/c Ratio	0.33	0.56	0.84	0.10	0.77	0.56
Control Delay	53.8	26.0	28.5	9.2	42.4	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.8	26.0	28.5	9.2	42.4	4.3
Queue Length 50th (ft)	34	176	459	15	237	167
Queue Length 95th (ft)	73	236	596	43	318	250
Internal Link Dist (ft)	5028		2526			4409
Turn Bay Length (ft)	200			150	150	
Base Capacity (vph)	336	1177	2056	937	1051	3042
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.51	0.72	0.09	0.67	0.55
Intersection Summary						

1: Hunt Hwy & Arizona Farm Road
 2035 Background w/ Site - PM Peak (Improvements)

HCM 6th Signalized Intersection Summary

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		 	 		 	 
Traffic Volume (veh/h)	45	552	1362	77	645	1543
Future Volume (veh/h)	45	552	1362	77	645	1543
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	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	600	1480	84	701	1677
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	282	1070	1628	726	779	2617
Arrive On Green	0.16	0.16	0.46	0.46	0.23	0.74
Sat Flow, veh/h	1781	2790	3647	1585	3456	3647
Grp Volume(v), veh/h	49	600	1480	84	701	1677
Grp Sat Flow(s),veh/h/ln	1781	1395	1777	1585	1728	1777
Q Serve(g_s), s	2.7	18.0	44.0	3.4	22.4	26.8
Cycle Q Clear(g_c), s	2.7	18.0	44.0	3.4	22.4	26.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	282	1070	1628	726	779	2617
V/C Ratio(X)	0.17	0.56	0.91	0.12	0.90	0.64
Avail Cap(c_a), veh/h	282	1070	1718	766	881	2811
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	27.5	28.6	17.6	42.8	7.5
Incr Delay (d2), s/veh	0.3	0.7	7.3	0.1	11.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	6.1	18.9	1.2	10.4	7.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.7	28.2	35.9	17.7	54.1	7.9
LnGrp LOS	D	C	D	B	D	A
Approach Vol, veh/h	649		1564			2378
Approach Delay, s/veh	29.2		35.0			21.6
Approach LOS	C		C			C
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	31.6	58.1			89.8	24.0
Change Period (Y+Rc), s	6.0	6.0			6.0	6.0
Max Green Setting (Gmax), s	29.0	55.0			90.0	18.0
Max Q Clear Time (g_c+I1), s	24.4	46.0			28.8	20.0
Green Ext Time (p_c), s	1.2	6.1			20.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			27.2			
HCM 6th LOS			C			

2: Attaway Rd & Judd Road
 2035 Background w/ Site - PM Peak (Improvements)

Queues



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	441	408	77	302	418	40
v/c Ratio	0.64	0.48	0.27	0.44	0.68	0.07
Control Delay	17.3	3.7	14.0	13.7	19.5	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.3	3.7	14.0	13.7	19.5	4.8
Queue Length 50th (ft)	88	0	13	55	89	0
Queue Length 95th (ft)	202	45	45	131	195	15
Internal Link Dist (ft)	119			917	5223	
Turn Bay Length (ft)		200	150		115	
Base Capacity (vph)	1035	1060	430	1035	983	897
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.38	0.18	0.29	0.43	0.04
Intersection Summary						

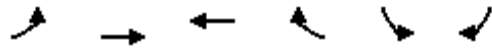
2: Attaway Rd & Judd Road
 2035 Background w/ Site - PM Peak (Improvements)

HCM 6th Signalized Intersection Summary

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	406	375	71	278	385	37
Future Volume (veh/h)	406	375	71	278	385	37
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	1870	1870	1870	1870
Adj Flow Rate, veh/h	441	408	77	302	418	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	730	618	319	730	528	470
Arrive On Green	0.39	0.39	0.39	0.39	0.30	0.30
Sat Flow, veh/h	1870	1585	649	1870	1781	1585
Grp Volume(v), veh/h	441	408	77	302	418	40
Grp Sat Flow(s),veh/h/ln	1870	1585	649	1870	1781	1585
Q Serve(g_s), s	7.2	8.1	4.1	4.5	8.3	0.7
Cycle Q Clear(g_c), s	7.2	8.1	11.3	4.5	8.3	0.7
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	730	618	319	730	528	470
V/C Ratio(X)	0.60	0.66	0.24	0.41	0.79	0.09
Avail Cap(c_a), veh/h	1173	994	473	1173	1117	994
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.3	9.6	13.8	8.5	12.4	9.7
Incr Delay (d2), s/veh	0.8	1.2	0.4	0.4	2.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	1.8	0.5	1.1	2.4	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.1	10.8	14.2	8.9	15.1	9.8
LnGrp LOS	B	B	B	A	B	A
Approach Vol, veh/h	849			379	458	
Approach Delay, s/veh	10.4			10.0	14.6	
Approach LOS	B			A	B	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		20.9			20.9	17.3
Change Period (Y+Rc), s		6.0			6.0	6.0
Max Green Setting (Gmax), s		24.0			24.0	24.0
Max Q Clear Time (g_c+I1), s		10.1			13.3	10.3
Green Ext Time (p_c), s		3.4			1.6	1.2
Intersection Summary						
HCM 6th Ctrl Delay			11.5			
HCM 6th LOS			B			

3: Arizona Farm Road & Attaway Rd
 2035 Background w/ Site - PM Peak (Improvements)

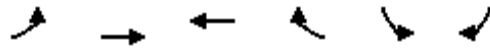
Queues



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	67	637	647	396	377	102
v/c Ratio	0.22	0.45	0.46	0.45	0.42	0.21
Control Delay	9.7	9.3	9.3	3.0	13.5	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.7	9.3	9.3	3.0	13.5	4.8
Queue Length 50th (ft)	8	43	44	0	30	0
Queue Length 95th (ft)	30	88	90	35	71	25
Internal Link Dist (ft)		1775	986		2606	
Turn Bay Length (ft)	150					150
Base Capacity (vph)	577	2701	2701	1302	2108	1011
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.24	0.24	0.30	0.18	0.10
Intersection Summary						

3: Arizona Farm Road & Attaway Rd
 2035 Background w/ Site - PM Peak (Improvements)

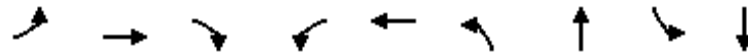
HCM 6th Signalized Intersection Summary



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	62	586	595	364	347	94
Future Volume (veh/h)	62	586	595	364	347	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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	637	647	396	377	102
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	384	1498	1498	668	702	322
Arrive On Green	0.42	0.42	0.42	0.42	0.20	0.20
Sat Flow, veh/h	541	3647	3647	1585	3456	1585
Grp Volume(v), veh/h	67	637	647	396	377	102
Grp Sat Flow(s),veh/h/ln	541	1777	1777	1585	1728	1585
Q Serve(g_s), s	3.2	4.0	4.1	6.2	3.1	1.8
Cycle Q Clear(g_c), s	7.3	4.0	4.1	6.2	3.1	1.8
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	384	1498	1498	668	702	322
V/C Ratio(X)	0.17	0.43	0.43	0.59	0.54	0.32
Avail Cap(c_a), veh/h	596	2890	2890	1289	2378	1091
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.1	6.5	6.5	7.1	11.4	10.9
Incr Delay (d2), s/veh	0.2	0.2	0.2	0.8	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.6	0.6	0.9	0.8	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.3	6.7	6.7	8.0	12.0	11.4
LnGrp LOS	A	A	A	A	B	B
Approach Vol, veh/h		704	1043		479	
Approach Delay, s/veh		7.0	7.2		11.9	
Approach LOS		A	A		B	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		19.5			19.5	12.5
Change Period (Y+Rc), s		6.0			6.0	6.0
Max Green Setting (Gmax), s		26.0			26.0	22.0
Max Q Clear Time (g_c+I1), s		8.2			9.3	5.1
Green Ext Time (p_c), s		5.0			4.2	1.5
Intersection Summary						
HCM 6th Ctrl Delay			8.1			
HCM 6th LOS			A			

4: Felix Road & Arizona Farms Road
 2035 Background w/ Site - PM Peak (Improvements)

Queues

























Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	9	261	486	210	454	362	167	2	5
v/c Ratio	0.03	0.34	0.52	0.46	0.60	0.58	0.34	0.01	0.02
Control Delay	8.0	9.3	3.5	12.5	12.7	21.8	4.9	16.5	13.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.0	9.3	3.5	12.5	12.7	21.8	4.9	16.5	13.8
Queue Length 50th (ft)	1	25	0	22	50	29	1	0	0
Queue Length 95th (ft)	8	97	46	94	180	#112	29	5	8
Internal Link Dist (ft)		2323			1288		1671		145
Turn Bay Length (ft)	150		150	150		150		150	
Base Capacity (vph)	410	996	1072	595	995	629	1416	996	908
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.26	0.45	0.35	0.46	0.58	0.12	0.00	0.01

Intersection Summary

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

4: Felix Road & Arizona Farms Road
2035 Background w/ Site - PM Peak (Improvements)

HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	240	447	193	416	2	333	6	147	2	2	3
Future Volume (veh/h)	8	240	447	193	416	2	333	6	147	2	2	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	261	486	210	452	2	362	7	160	2	2	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	334	724	614	361	721	3	446	24	542	272	65	97
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.13	0.35	0.35	0.10	0.10	0.10
Sat Flow, veh/h	937	1870	1585	714	1861	8	3456	67	1528	1218	675	1013
Grp Volume(v), veh/h	9	261	486	210	0	454	362	0	167	2	0	5
Grp Sat Flow(s),veh/h/ln	937	1870	1585	714	0	1869	1728	0	1595	1218	0	1688
Q Serve(g_s), s	0.4	4.6	12.6	13.4	0.0	9.1	4.7	0.0	3.5	0.1	0.0	0.1
Cycle Q Clear(g_c), s	9.5	4.6	12.6	18.0	0.0	9.1	4.7	0.0	3.5	0.1	0.0	0.1
Prop In Lane	1.00		1.00	1.00		0.00	1.00		0.96	1.00		0.60
Lane Grp Cap(c), veh/h	334	724	614	361	0	724	446	0	565	272	0	162
V/C Ratio(X)	0.03	0.36	0.79	0.58	0.00	0.63	0.81	0.00	0.30	0.01	0.00	0.03
Avail Cap(c_a), veh/h	334	724	614	361	0	724	446	0	1030	627	0	654
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	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.4	10.1	12.6	16.7	0.0	11.5	19.7	0.0	10.8	19.0	0.0	19.0
Incr Delay (d2), s/veh	0.0	0.3	7.0	2.4	0.0	1.7	10.8	0.0	0.3	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	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.3	4.1	1.8	0.0	2.8	2.2	0.0	0.9	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.4	10.4	19.6	19.1	0.0	13.2	30.5	0.0	11.1	19.0	0.0	19.1
LnGrp LOS	B	B	B	B	A	B	C	A	B	B	A	B
Approach Vol, veh/h		756			664			529				7
Approach Delay, s/veh		16.4			15.1			24.4				19.1
Approach LOS		B			B			C				B
Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		24.0		22.5		24.0	12.0	10.5				
Change Period (Y+Rc), s		6.0		6.0		6.0	6.0	6.0				
Max Green Setting (Gmax), s		18.0		30.0		18.0	6.0	18.0				
Max Q Clear Time (g_c+I1), s		20.0		5.5		14.6	6.7	2.1				
Green Ext Time (p_c), s		0.0		0.9		1.1	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			18.1									
HCM 6th LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

5: Felix Road & Heritage Road
 2035 Background w/ Site - PM Peak (Improvements)

HCM 6th TWSC

Intersection						
Int Delay, s/veh	4.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↗	↖
Traffic Vol, veh/h	114	121	179	410	386	111
Future Vol, veh/h	114	121	179	410	386	111
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	330	0	250	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	124	132	195	446	420	121

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1256	420	541	0	-	0
Stage 1	420	-	-	-	-	-
Stage 2	836	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	189	633	1028	-	-	-
Stage 1	663	-	-	-	-	-
Stage 2	425	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	153	633	1028	-	-	-
Mov Cap-2 Maneuver	285	-	-	-	-	-
Stage 1	537	-	-	-	-	-
Stage 2	425	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.4	2.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1028	-	285	633	-	-
HCM Lane V/C Ratio	0.189	-	0.435	0.208	-	-
HCM Control Delay (s)	9.3	-	27	12.2	-	-
HCM Lane LOS	A	-	D	B	-	-
HCM 95th %tile Q(veh)	0.7	-	2.1	0.8	-	-

6: Felix Road & Merrill Ranch Pkwy
 2035 Background w/ Site - PM Peak (Improvements)

HCM 6th TWSC

Intersection						
Int Delay, s/veh	5.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	174	15	15	454	291	123
Future Vol, veh/h	174	15	15	454	291	123
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	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	189	16	16	493	316	134

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	841	316	450	0	-	0
Stage 1	316	-	-	-	-	-
Stage 2	525	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	335	724	1110	-	-	-
Stage 1	739	-	-	-	-	-
Stage 2	593	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	328	724	1110	-	-	-
Mov Cap-2 Maneuver	328	-	-	-	-	-
Stage 1	724	-	-	-	-	-
Stage 2	593	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	28.3	0.3	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1110	-	328	724	-	-
HCM Lane V/C Ratio	0.015	-	0.577	0.023	-	-
HCM Control Delay (s)	8.3	0	29.9	10.1	-	-
HCM Lane LOS	A	A	D	B	-	-
HCM 95th %tile Q(veh)	0	-	3.4	0.1	-	-

7: Hunt Hwy & Felix Road
 2035 Background w/ Site - PM Peak (Improvements)

HCM 6th TWSC

Intersection						
Int Delay, s/veh	43.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	238	172	356	328	218	156
Future Vol, veh/h	238	172	356	328	218	156
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	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	259	187	387	357	237	170

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	744	0	-	0	1092 387
Stage 1	-	-	-	-	387 -
Stage 2	-	-	-	-	705 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	864	-	-	-	237 661
Stage 1	-	-	-	-	686 -
Stage 2	-	-	-	-	490 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	864	-	-	-	~ 166 661
Mov Cap-2 Maneuver	-	-	-	-	~ 166 -
Stage 1	-	-	-	-	480 -
Stage 2	-	-	-	-	490 -

Approach	EB	WB	SB
HCM Control Delay, s	6.3	0	165.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	864	-	-	-	166	661
HCM Lane V/C Ratio	0.299	-	-	-	1.427	0.257
HCM Control Delay (s)	10.9	-	-	-	275.1	12.3
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	1.3	-	-	-	14.9	1

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

8: Hunt Hwy & Heritage Road
 2035 Background w/ Site - PM Peak (Improvements)













Queues



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	101	307	1291	134	449	1327
v/c Ratio	0.45	0.52	0.75	0.17	0.61	0.47
Control Delay	47.8	23.5	23.3	8.0	37.7	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.8	23.5	23.3	8.0	37.7	5.0
Queue Length 50th (ft)	55	118	312	17	121	132
Queue Length 95th (ft)	125	228	492	57	208	212
Internal Link Dist (ft)	2374		744			3895
Turn Bay Length (ft)	150			150	150	
Base Capacity (vph)	395	822	2358	1080	1237	3284
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.37	0.55	0.12	0.36	0.40
Intersection Summary						

8: Hunt Hwy & Heritage Road
 2035 Background w/ Site - PM Peak (Improvements)

HCM 6th Signalized Intersection Summary

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	93	282	1188	123	413	1221
Future Volume (veh/h)	93	282	1188	123	413	1221
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	1870	1870	1870	1870
Adj Flow Rate, veh/h	101	307	1291	134	449	1327
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	326	548	1607	717	563	2426
Arrive On Green	0.18	0.18	0.45	0.45	0.16	0.68
Sat Flow, veh/h	1781	1585	3647	1585	3456	3647
Grp Volume(v), veh/h	101	307	1291	134	449	1327
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1728	1777
Q Serve(g_s), s	4.4	14.0	27.9	4.5	11.1	16.9
Cycle Q Clear(g_c), s	4.4	14.0	27.9	4.5	11.1	16.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	326	548	1607	717	563	2426
V/C Ratio(X)	0.31	0.56	0.80	0.19	0.80	0.55
Avail Cap(c_a), veh/h	360	578	2192	978	1124	3587
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	23.7	21.0	14.6	35.9	7.2
Incr Delay (d2), s/veh	0.5	1.1	1.6	0.1	2.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	4.9	10.5	1.5	4.6	4.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.1	24.8	22.6	14.7	38.5	7.4
LnGrp LOS	C	C	C	B	D	A
Approach Vol, veh/h	408		1425			1776
Approach Delay, s/veh	26.6		21.9			15.2
Approach LOS	C		C			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	20.5	46.3			66.9	22.3
Change Period (Y+Rc), s	6.0	6.0			6.0	6.0
Max Green Setting (Gmax), s	29.0	55.0			90.0	18.0
Max Q Clear Time (g_c+I1), s	13.1	29.9			18.9	16.0
Green Ext Time (p_c), s	1.4	10.5			13.0	0.3
Intersection Summary						
HCM 6th Ctrl Delay			19.1			
HCM 6th LOS			B			

9: Collector A & Arizona Farm Road
 2035 Background w/ Site - PM Peak (Improvements)

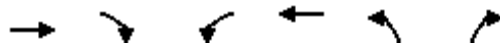
Queues



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	635	178	127	622	105	75
v/c Ratio	0.32	0.18	0.30	0.31	0.28	0.19
Control Delay	6.9	2.0	9.5	6.8	14.4	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.9	2.0	9.5	6.8	14.4	5.6
Queue Length 50th (ft)	37	0	14	36	14	0
Queue Length 95th (ft)	74	21	47	72	51	22
Internal Link Dist (ft)	2074		1775		1035	
Turn Bay Length (ft)	150		150		150	
Base Capacity (vph)	2911	1334	630	2911	953	887
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.13	0.20	0.21	0.11	0.08
Intersection Summary						

9: Collector A & Arizona Farm Road
 2035 Background w/ Site - PM Peak (Improvements)

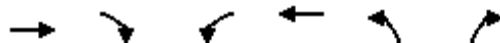
HCM 6th Signalized Intersection Summary



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Volume (veh/h)	584	164	117	572	97	69
Future Volume (veh/h)	584	164	117	572	97	69
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	1870	1870	1870	1870
Adj Flow Rate, veh/h	635	178	127	622	105	75
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1701	759	481	1701	228	203
Arrive On Green	0.48	0.48	0.48	0.48	0.13	0.13
Sat Flow, veh/h	3647	1585	671	3647	1781	1585
Grp Volume(v), veh/h	635	178	127	622	105	75
Grp Sat Flow(s),veh/h/ln	1777	1585	671	1777	1781	1585
Q Serve(g_s), s	3.5	2.0	4.5	3.4	1.7	1.3
Cycle Q Clear(g_c), s	3.5	2.0	8.0	3.4	1.7	1.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1701	759	481	1701	228	203
V/C Ratio(X)	0.37	0.23	0.26	0.37	0.46	0.37
Avail Cap(c_a), veh/h	3377	1506	798	3377	1109	987
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.1	4.7	7.6	5.0	12.3	12.2
Incr Delay (d2), s/veh	0.1	0.2	0.3	0.1	1.4	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.2	0.3	0.3	0.5	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.2	4.8	7.9	5.2	13.8	13.3
LnGrp LOS	A	A	A	A	B	B
Approach Vol, veh/h	813			749	180	
Approach Delay, s/veh	5.1			5.6	13.6	
Approach LOS	A			A	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		20.6		9.9		20.6
Change Period (Y+Rc), s		6.0		6.0		6.0
Max Green Setting (Gmax), s		29.0		19.0		29.0
Max Q Clear Time (g_c+I1), s		10.0		3.7		5.5
Green Ext Time (p_c), s		4.6		0.4		4.5
Intersection Summary						
HCM 6th Ctrl Delay			6.2			
HCM 6th LOS			A			

10: Collector B & Arizona Farms Road
 2035 Background w/ Site - PM Peak (Improvements)

Queues



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	698	270	140	665	418	95
v/c Ratio	0.48	0.33	0.47	0.46	0.46	0.19
Control Delay	9.6	2.6	14.7	9.4	14.8	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.6	2.6	14.7	9.4	14.8	5.2
Queue Length 50th (ft)	50	0	19	47	35	0
Queue Length 95th (ft)	102	29	64	96	89	27
Internal Link Dist (ft)	860			739	1344	
Turn Bay Length (ft)		150	150			150
Base Capacity (vph)	2553	1217	518	2553	1926	929
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.22	0.27	0.26	0.22	0.10
Intersection Summary						

10: Collector B & Arizona Farms Road
 2035 Background w/ Site - PM Peak (Improvements)

HCM 6th Signalized Intersection Summary

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘	↑↑	↘↗	↗
Traffic Volume (veh/h)	642	248	129	612	385	87
Future Volume (veh/h)	642	248	129	612	385	87
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	1870	1870	1870	1870
Adj Flow Rate, veh/h	698	270	140	665	418	95
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1739	776	398	1739	692	318
Arrive On Green	0.49	0.49	0.49	0.49	0.20	0.20
Sat Flow, veh/h	3647	1585	581	3647	3456	1585
Grp Volume(v), veh/h	698	270	140	665	418	95
Grp Sat Flow(s),veh/h/ln	1777	1585	581	1777	1728	1585
Q Serve(g_s), s	4.8	4.1	7.8	4.5	4.3	2.0
Cycle Q Clear(g_c), s	4.8	4.1	12.6	4.5	4.3	2.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1739	776	398	1739	692	318
V/C Ratio(X)	0.40	0.35	0.35	0.38	0.60	0.30
Avail Cap(c_a), veh/h	2481	1107	519	2481	1876	861
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.3	6.1	10.3	6.2	14.1	13.2
Incr Delay (d2), s/veh	0.1	0.3	0.5	0.1	0.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.6	0.6	0.7	1.2	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	6.4	6.3	10.8	6.3	14.9	13.7
LnGrp LOS	A	A	B	A	B	B
Approach Vol, veh/h	968			805	513	
Approach Delay, s/veh	6.4			7.1	14.7	
Approach LOS	A			A	B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		24.9		13.7		24.9
Change Period (Y+Rc), s		6.0		6.0		6.0
Max Green Setting (Gmax), s		27.0		21.0		27.0
Max Q Clear Time (g_c+I1), s		14.6		6.3		6.8
Green Ext Time (p_c), s		4.3		1.5		5.1
Intersection Summary						
HCM 6th Ctrl Delay			8.5			
HCM 6th LOS			A			

11: Felix Road & Driveway C
 2035 Background w/ Site - PM Peak (Improvements)

HCM 6th TWSC

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	109	72	123	371	427	185
Future Vol, veh/h	109	72	123	371	427	185
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	150	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	118	78	134	403	464	201

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	934	232	665	0	-	0
Stage 1	464	-	-	-	-	-
Stage 2	470	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	264	770	920	-	-	-
Stage 1	599	-	-	-	-	-
Stage 2	595	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	225	770	920	-	-	-
Mov Cap-2 Maneuver	353	-	-	-	-	-
Stage 1	512	-	-	-	-	-
Stage 2	595	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.3	2.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	920	-	353	770	-	-
HCM Lane V/C Ratio	0.145	-	0.336	0.102	-	-
HCM Control Delay (s)	9.6	-	20.3	10.2	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.5	-	1.4	0.3	-	-

12: Felix Road & Collector D
 2035 Background w/ Site - PM Peak (Improvements)

HCM 6th TWSC

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	28	32	36	467	471	58
Future Vol, veh/h	28	32	36	467	471	58
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	150	150	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	35	39	508	512	63

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	844	256	575	0	-	0
Stage 1	512	-	-	-	-	-
Stage 2	332	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	302	743	994	-	-	-
Stage 1	567	-	-	-	-	-
Stage 2	699	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	290	743	994	-	-	-
Mov Cap-2 Maneuver	408	-	-	-	-	-
Stage 1	545	-	-	-	-	-
Stage 2	699	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.2	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	994	-	408	743	-	-
HCM Lane V/C Ratio	0.039	-	0.075	0.047	-	-
HCM Control Delay (s)	8.8	-	14.5	10.1	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0.1	-	-

13: Heritage Road & Collector E
 2035 Background w/ Site - PM Peak (Improvements)

HCM 6th TWSC

Intersection						
Int Delay, s/veh	7.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑	↗	↘	↗
Traffic Vol, veh/h	278	75	101	178	126	165
Future Vol, veh/h	278	75	101	178	126	165
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	150	0	150
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	302	82	110	193	137	179

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	303	0	-	0	755 55
Stage 1	-	-	-	-	110 -
Stage 2	-	-	-	-	645 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	1255	-	-	-	345 1000
Stage 1	-	-	-	-	902 -
Stage 2	-	-	-	-	484 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1255	-	-	-	262 1000
Mov Cap-2 Maneuver	-	-	-	-	372 -
Stage 1	-	-	-	-	685 -
Stage 2	-	-	-	-	484 -

Approach	EB	WB	SB
HCM Control Delay, s	6.9	0	14.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1255	-	-	-	372	1000
HCM Lane V/C Ratio	0.241	-	-	-	0.368	0.179
HCM Control Delay (s)	8.8	-	-	-	20.2	9.4
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.9	-	-	-	1.7	0.7

14: Driveway F & Arizona Farms Road
 2035 Background w/ Site - PM Peak (Improvements)

HCM 6th TWSC

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑		↑
Traffic Vol, veh/h	843	94	37	959	0	44
Future Vol, veh/h	843	94	37	959	0	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	150	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	916	102	40	1042	0	48

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1018	0	458
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	3.32
Pot Cap-1 Maneuver	-	-	677	0	550
Stage 1	-	-	-	0	-
Stage 2	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	677	-	550
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	12.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	550	-	-	677	-
HCM Lane V/C Ratio	0.087	-	-	0.059	-
HCM Control Delay (s)	12.2	-	-	10.7	-
HCM Lane LOS	B	-	-	B	-
HCM 95th %tile Q(veh)	0.3	-	-	0.2	-

15: Driveway G & Arizona Farms Road
 2035 Background w/ Site - PM Peak (Improvements)

HCM 6th TWSC

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑		↑
Traffic Vol, veh/h	654	75	37	742	0	44
Future Vol, veh/h	654	75	37	742	0	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	150	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	711	82	40	807	0	48

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	793	0	- 356
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	- 6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	- 3.32
Pot Cap-1 Maneuver	-	-	824	-	0 640
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	0 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	824	-	- 640
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	11.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	640	-	-	824	-
HCM Lane V/C Ratio	0.075	-	-	0.049	-
HCM Control Delay (s)	11.1	-	-	9.6	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.2	-

16: Felix Road & Driveway H
 2035 Background w/ Site - PM Peak (Improvements)

HCM 6th TWSC

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗	↘	↕	↕	↗
Traffic Vol, veh/h	0	0	0	494	499	0
Future Vol, veh/h	0	0	0	494	499	0
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	150	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	537	542	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	-	271	542	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	4.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	0	727	1023	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	727	1023	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1023	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

17: Felix Road & Driveway I
 2035 Background w/ Site - PM Peak (Improvements)

HCM 6th TWSC

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗	↘	↑↑	↑↑	↗
Traffic Vol, veh/h	0	15	17	503	472	17
Future Vol, veh/h	0	15	17	503	472	17
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	150	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	16	18	547	513	18

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	-	257	531	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	4.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	0	742	1033	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	742	1033	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1033	-	742	-	-
HCM Lane V/C Ratio	0.018	-	0.022	-	-
HCM Control Delay (s)	8.5	-	10	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

18: Heritage Road & Gas Station
 2035 Background w/ Site - PM Peak (Improvements)

HCM 6th TWSC

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘		↘
Traffic Vol, veh/h	26	213	264	26	0	55
Future Vol, veh/h	26	213	264	26	0	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	100	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	232	287	28	0	60

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	315	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	6.22
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	3.318
Pot Cap-1 Maneuver	1245	-	752
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1245	-	752
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1245	-	-	-	752
HCM Lane V/C Ratio	0.023	-	-	-	0.079
HCM Control Delay (s)	8	-	-	-	10.2
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

86: Quail Run Ln & Bella Vista Road
 2035 Background w/ Site - PM Peak (Improvements)

HCM 6th TWSC

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↑	↖	↗	↖	↖
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	275	-	275	275	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	1022	895	1084	1022	895	-	1622	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	895	1084	1022	895	-	1622	-	-	-	-	-
Mov Cap-2 Maneuver	-	895	-	1022	895	-	-	-	-	-	-	-
Stage 1	1022	895	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1022	895	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	0		0		0		0	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-

202: Hunt Hwy & Merrill Ranch Pkwy
2035 Background w/ Site - PM Peak (Improvements)

Queues

Lane Group

Lane Group Flow (vph)

v/c Ratio

Control Delay

Queue Delay

Total Delay

Queue Length 50th (ft)

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn
























Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

202: Hunt Hwy & Merrill Ranch Pkwy
 2035 Background w/ Site - PM Peak (Improvements)

HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	0	0	0	0	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	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	475	948	0	922	499	423	107	1362	0	107	1362	0
Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	1781	3647	0	3456	1870	1585	1781	5274	0	1781	5274	0
Grp Volume(v), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1728	1870	1585	1781	1702	0	1781	1702	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	475	948	0	922	499	423	107	1362	0	107	1362	0
V/C Ratio(X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	475	948	0	922	499	423	107	1362	0	107	1362	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	1.00
Upstream Filter(I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), 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
Incr Delay (d2), 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
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),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
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			0			0			0	
Approach Delay, s/veh		0.0			0.0			0.0			0.0	
Approach LOS												
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		0.0		0.0		0.0		0.0				
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				0.0								
HCM 6th LOS				A								

APPENDIX H: Review Comments & Responses

1st Review Comments

Project: Arizona Farms
Prepared by: EPS Group
Date of Report: 2/16/2022
Case #: PZ-PD-014-22
Reviewer: John Kraft & Christopher Wanamaker
Date of Review: 8/3/2022



#	Reviewer:	Review Comment:	EPS Group Response:
1	Pinal County	The report provides a future analysis of only 2025 and 2035. Per the County TIA Guidelines, this size of project needs to analyze the at least three scenarios to include the opening year, 5 year horizon year, and 10 year horizon. It's not clear if 2025 is intended to be the opening year. If so, than an analysis would be needed for 2030 and 2040. Please revise the report.	The horizon years were originally approved by Pinal County when the scope was developed, since 2040 is unknown with the potential N/S corridor and unidentified developments.
2	Pinal County	The report indicates that 8 intersections will operate with unacceptable levels of service in the future. Furthermore, the report indicates that traffic signal warrants will likely be met at these locations in the future. However, the report does not provide any commitments on who will install these signals and when? It is expected that this development would be responsible for at least some portion of these signals. The report needs to make specific recommendations on what the development is responsible for.	The development is responsible for the traffic signals at the entry to the site, Access A, Access B, and Access E. Preparations will be at these intersections when constructed for future traffic signals, which will be installed when warranted. The development should contribute to the traffic signals at Attaway Road/Arizona Farms Road, Felix Road/Arizona Farms Road, and Felix Road/Heritage Road based on a proportional amount determined by Pinal County considering existing traffic and other surrounding developments in the area. The traffic signal at Hunt Highway/Arizona Farms Road meets signal warrants with existing conditions, and the traffic signal at Hunt Highway/Heritage Road will be warranted by future development on Heritage Road in 2035 and should be included in the Heritage Road project.
3	Pinal County	The report mentions that Arizona Farms Road "Should be widened to a four-lane roadway" in the future but does not mention who will do this or when. The County does not have any immediate plans for this roadway. If it is needed to accommodate traffic generated by this development then we would expect this development to contribute to those improvements.	The widening of Arizona Farms Road is not needed to accommodate traffic generated by Arizona Farms only. Arizona Farms will construct half-street improvements adjacent to its site.
4	Pinal County	Include information in this report stating that traffic signal warrant studies shall be prepared by the developer to determine when new signals are warranted.	Statement added.
5	Pinal County	Please define the opening year of the project.	Opening year is 2024.
6	Pinal County	Please draw or label the site on the N/S corridor map, figure 5. It would help to show Hunt Highway and Arizona Farms as well.	The site location has been added to the N/S corridor map. This map was excerpted from another study, and the local roads are not shown.
7	Pinal County	Show or explain how the dimensions shown in figure 8 regarding access spaced meets the Pinal County Access Management Manual.	The report states that "Private access/driveways with full movements should be 660 feet from a signal and partial access should be 330 feet from a signal. Signal locations should have at least ¼ mile spacing." The 'Site Plan with Access Spacing' graphic depicts the spacing between the proposed driveways. all potential signal locations (Access A, Attaway Road/Arizona Farms Road, Access B, Felix Road/Arizona Farms Road, and Access E) have at least ¼ mile spacing, and all non-signalized full access driveways (Access C and Access D) having spacing of at least 660 feet. The unidentified driveways for the multifamily and commercial parcels shall follow these spacing requirements when developed.

8	Pinal County	Please state specific that this project will construct the needed auxiliary turn lanes to serve the project.	The proposed Arizona Farms development will construct the auxiliary lanes adjacent to the site. The off-site intersection improvements (Attaway Rd/Arizona Farms & Felix Road/Arizona Farms Road) should be constructed by the future adjacent developments.
9	Pinal County	Please state that the turn lanes shown in Table 25 will be designed and constructed by the developer for the project.	The auxiliary lanes adjacent to the development will be designed and constructed by the proposed development. The intersection improvements not adjacent to the site will be constructed by future developments adjacent to those intersections. A proportional amount for intersection improvements not adjacent to the site may be calculated by Pinal County based on existing traffic and future developments in the area.
10	Pinal County	Again, it is expected that this project will construct traffic signals to support the needs of this project. There are 8 intersections with poor LOS. Please provide more detail and make a commitment on what traffic signals this project will install.	See Comment #2.
11	Pinal County	With regard to the Heritage Road Discussion. Pinal County is currently undergoing a design concept report that will layout out a plan to construct a 2-Lane facility from Hunt Highway to Felix Report. Yes, a 4 or 5 lane facility should ultimately be planned for, however, the County's project is currently only for 2 lanes. Update the report to include this information.	Updated.
12	Pinal County	Provide a statement at the end of the report noting that "The developer plans to monitor traffic volumes generated by development and to have traffic signal warrant studies performed to see if new signals are warranted and be prepared to have signals designed and installed when appropriate."	Statement added.
13	Pinal County	This Traffic Report will need to be reviewed by the Town of Florence. A Letter from the Town or information concerning their concurrence with the report is needed prior to approval by Pinal County.	Noted.
14	Pinal County	Review comments made to the Traffic Impact Analysis may require revisions be made to the projects Paving Plan and/or the Signing & Striping Plan. It is the applicant's and engineer's responsibility to ensure that both the plans and report reflect the same design/information. information concerning their concurrence with the report is needed prior to approval by Pinal County.	Noted.
15	Pinal County	Based on the information being requested, additional comments may be forth coming.	Noted.
16	Pinal County	This report is not approved and a 2nd review will be required. Please resubmit a revised traffic report, accompanying figures/exhibits and supporting calculations, along with written responses to the comments.	Noted.



PINAL COUNTY
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Public Works Traffic Engineering Review Comment Letter

Project Name:		Arizona Farms (SE Corner of Attaway RD. & Arizona Farms Road)			
Engineering Firm:		EPS Group		Reviewed by:	John Kraft Christopher Wanamaker
Engineer:		Sarah A. Simpson #32850, Sealed: 03/07/2022			
Case #:	PZ-PD-014-22	Review Status:	1 st Review:	Date:	08/03/2022
RESPOND TO ALL COMMENTS AND REDLINES:					
Sheet #	Comment #				
Executive Summary	1	The report provides a future analysis of only 2025 and 2035. Per the County TIA Guidelines, this size of project needs to analyze the at least three scenarios to include the opening year, 5 year horizon year, and 10 year horizon. It's not clear if 2025 is intended to be the opening year. If so, than an analysis would be needed for 2030 and 2040. Please revise the report.			
Executive Summary	2	The report indicates that 8 intersections will operate with unacceptable levels of service in the future. Furthermore, the report indicates that traffic signal warrants will likely be met at these locations in the future. However, the report does not provide any commitments on who will install these signals and when? It is expected that this development would be responsible for at least some portion of these signals. The report needs to make specific recommendations on what the development is responsible for.			
	3	The report mentions that Arizona Farms Road "Should be widened to a four-lane roadway" in the future but does not mention who will do this or when. The County does not have any immediate plans for this roadway. If it is needed to accommodate traffic generated by this development then we would expect this development to contribute to those improvements.			
	4	Include information in this report stating that traffic signal warrant studies shall be prepared by the developer to determine when new signals are warranted.			
Intro	5	Please define the opening year of the project.			
Figure 5	6	Please draw or label the site on the N/S corridor map, figure 5. It would help to show Hunt Highway and Arizona Farms as well.			
Page 24	7	Show or explain how the dimensions shown in figure 8 regarding access spaced meets the Pinal County Access Management Manual.			
Page 41	8	Please state specific that this project will construct the needed auxiliary turn lanes to serve the project.t			
Page 42	9	Please state that the turn lanes shown in Table 25 will be designed and constructed by the developer for the project.			
Page 47	10	Again, it is expected that this project will construct traffic signals to support the needs of this project. There are 8 intersections with poor LOS. Please provide more detail and make a commitment on what traffic signals this project will install.			
	11	With regard to the Heritage Road Discussion. Pinal County is currently undergoing a design concept report that will layout out a plan to construct a 2-Lane facility from Hunt Highway to Felix Report. Yes, a 4 or 5 lane facility should ultimately be planned for, however, the County's project is currently only for 2 lanes. Update the report to include this information.			
	12	Provide a statement at the end of the report noting that "The developer plans to monitor traffic volumes generated by development and to have traffic signal warrant studies performed to see if new signals are warranted and be prepared to have signals designed and installed when appropriate."			

Public Works Department

31 N. Pinal Street, Building F., PO Box 727 Florence, AZ 85132
T520-509-3555 **Hours:** M-F 8:00 am – 5:00 pm F520-866-6511

www.pinalcountyyaz.gov



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	13	This Traffic Report will need to be reviewed by the Town of Florence. A Letter from the Town or information concerning their concurrence with the report is needed prior to approval by Pinal County.
	14	Review comments made to the Traffic Impact Analysis may require revisions be made to the projects Paving Plan and/or the Signing & Striping Plan. It is the applicant's and engineer's responsibility to ensure that both the plans and report reflect the same design/information.
	15	Based on the information being requested, additional comments may be forth coming.
	16	This report is not approved and a 2nd review will be required. Please resubmit a revised traffic report, accompanying figures/exhibits and supporting calculations, along with <u>written responses to the comments.</u>