



## TRAFFIC TECHNICAL MEMORANDUM

# FILTER PLANT AND TAILINGS FACILITY ALTERNATIVES

RESOLUTION COPPER MINE PROJECT

19 JULY 2018



Expires 3-31-19

PREPARED FOR

**RESOLUTION COPPER  
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## **Appendix**

Traffic Counts

Trip Generation Calculations

Capacity Calculations

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## **FILTER PLANT AND TAILINGS FACILITY ALTERNATIVES RESOLUTION COPPER MINE PROJECT TRAFFIC TECHNICAL MEMORANDUM**

### **Project Description**

As part of the alternatives analysis for the Resolution Copper Mine Environmental Impact Statement (EIS), an alternative filter plant location and tailings storage facilities (TSF) are being considered for detailed analysis. The locations of the alternative filter plant and tailings locations are shown in **Figure 1**.

The purpose of this technical memorandum is to:

- Evaluate the current and future operational characteristics of the adjacent roadway network surrounding the alternative sites.
- Compare the traffic generation associated with the alternate filter plant location and the alternative TSF locations with traffic generation in the *Resolution Copper Mine* Traffic Impact Analysis (TIA), dated 13 April 2017 and completed by Southwest Traffic Engineering, LLC.
- Analyze traffic operations at the existing intersections serving the proposed alternatives for the existing conditions, peak construction year (2022), and opening year of regular operations (2027). These are the same study years analyzed in the TIA.
- Determine the need for auxiliary (left and right turn) lanes at the existing intersections that will serve the proposed alternatives.

The author of this report is a registered professional engineer (civil) in the State of Arizona having specific expertise and experience in the preparation of traffic impact analyses in support of Arizona Department of Transportation (ADOT) and Federal Highway National Environmental Policy Act (NEPA) projects.

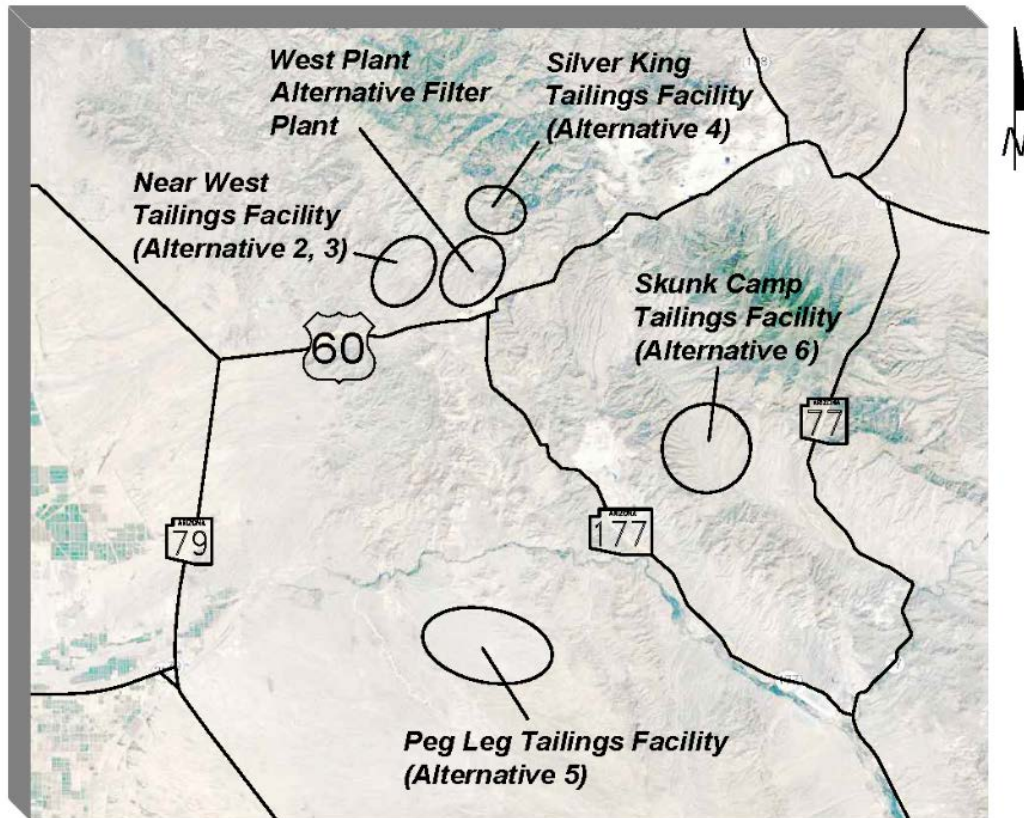
### **Study Methodology**

In order to analyze and evaluate the potential traffic impacts of the proposed development, the following tasks were undertaken:

- Field observation of the proposed site and surrounding area was conducted to evaluate the existing physical and operational characteristics of the adjacent roadway network.
- Site traffic volumes generated by the multiple TSF alternatives during peak construction and peak daily operations were estimated based on employment information provided by Resolution Copper.
- Calculated site traffic was distributed based on distribution assignments calculated for the TIA.
- Capacity analyses were performed for the existing conditions and future conditions with and without the project based on a peak construction year of 2022 and a peak operations year of 2027.
- The need for auxiliary turn lanes at the study intersections was evaluated based on the ADOT *Traffic Engineering Guidelines and Processes (TGP) Section 245 – Turn Lane Warrant*, dated June 2015.



**Figure 1 – Filter Plant and Tailings Facility Alternatives Vicinity Map**



**LEGEND:**

-  = Filter Plant and Tailings Facility Alternative Location
-  = Existing Road, Paved



## **Existing Conditions and Alternative Filter Plant and Tailings Storage Facilities Locations**

The five TSF alternatives are located at one of four sites near Superior, Arizona. A description of each site and the key roads that use them are outlined below.

### ***No Action – Alternative 1***

Alternative 1 proposes that no tailings facility is constructed. This could be a result of the mine not being approved.

### ***Near West Location – Alternatives 2 and 3***

TSF Alternatives 2 and 3 are proposed near Superior, Arizona at the Near West Location. Alternatives 2 and 3 will be located at the Near West Site north of United States Route 60 (US 60).

United States Route 60 (US 60) is an undivided two-lane roadway that has an east/west alignment and a posted speed limit of between 45 miles per hour (mph), 50 mph and 65 mph in the project area. The Arizona Department of Transportation (ADOT) facility generally has no curb, gutter or sidewalks provided in the area. The US 60 is considered a regional route in the area linking Superior, Miami, and Globe to the Phoenix metropolitan area. Between Silver King Mine Road (FS Road 229) and State Route 177 (SR 177) there is an existing two-way left turn lane on US 60.

Hewitt Station Road is an unpaved roadway with a northeast/southeast alignment. Hewitt Station Road is considered to be north/south aligned at its intersection with US 60 for the purposes of this report. Although unpaved, the roadway is wide enough to provide one through lane in each direction of travel. Overhead utilities are present on the west side of Hewitt Station Road. The posted speed limit on Hewitt Station Road is 25 mph.

The study intersection locations, lane configurations, and intersection control for Alternative 2 and 3 are shown in **Figure 2**.

### ***Silver King Location – Alternative 4***

TSF Alternative 4 will be located at the Silver King location north of Superior, Arizona and will be primarily served by US 60.

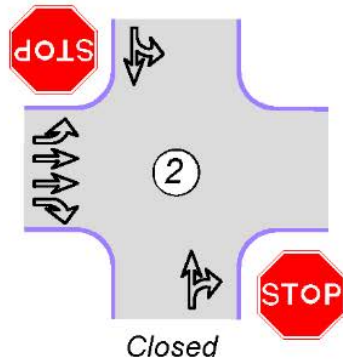
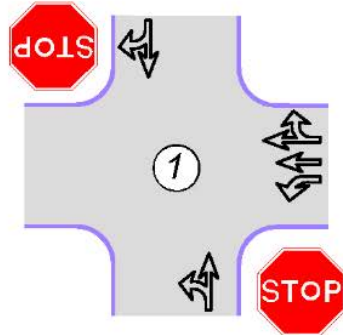
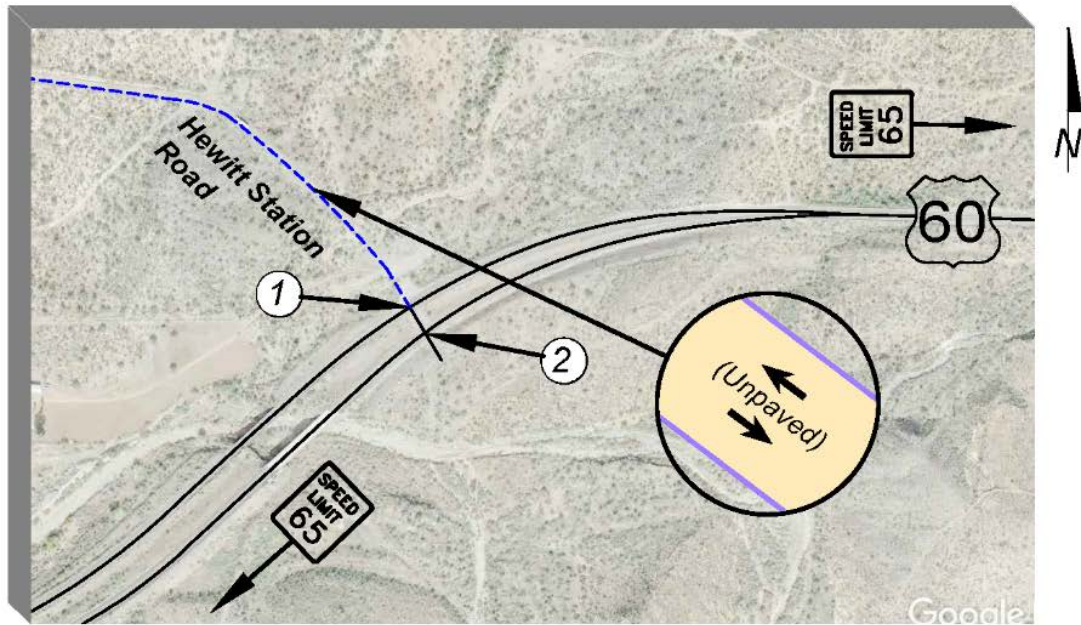
Silver King Mine Road is an unpaved roadway with a north/south alignment. The road is named Apache Tear Road south of US 60. Although unpaved, the roadway is wide enough to provide one through lane for each direction of travel.

The study intersection locations, lane configurations, and intersection control for Alternative 4 are shown in **Figure 3**.





**Figure 2 – Existing Lane Configurations and Traffic Control  
Near West Location – Alternatives 2 and 3**



### LEGEND:

= Stop Sign

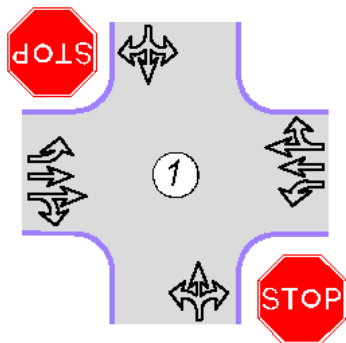
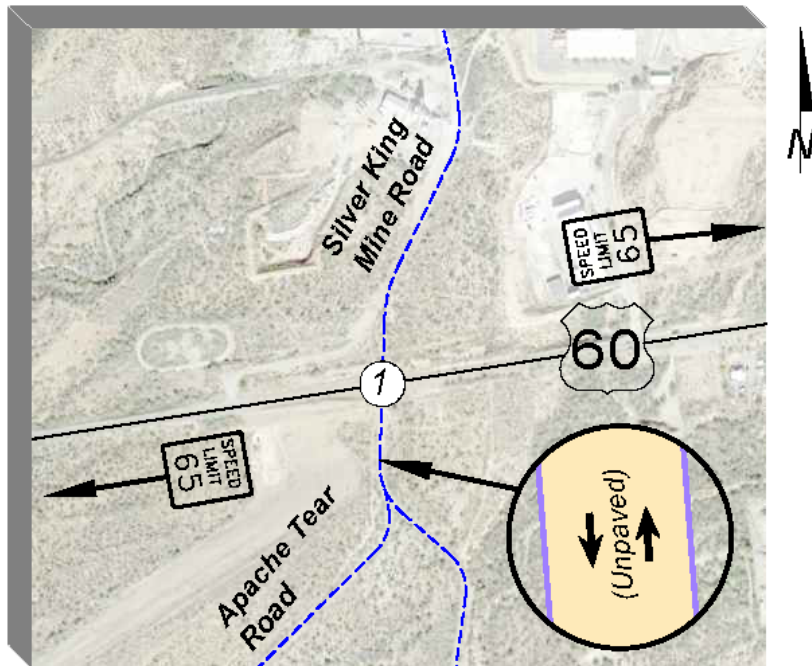
= Speed Limit

— = Existing Road, Paved

- - - = Existing Road, Unpaved



**Figure 3 – Existing Lane Configurations and Traffic Control  
Silver King Location – Alternative 4**



**LEGEND:**



= Stop Sign



= Speed Limit

— = Existing Road, Paved

- - - = Existing Road, Unpaved



### ***Peg Leg Location – Alternative 5***

The Peg Leg TSF facility will be used for TSF alternative 5. The Florence-Kelvin Highway will provide access to the Peg Leg facility from State Route 79 (SR 79) and State Route 177 (SR 177).

SR 79, designated as Pinal Pioneer Parkway, is a north/south aligned two-lane highway between Oracle Junction, Arizona and United States Route 60 (US 60). SR 79 serves as an alternate route between Tucson, Florence, and Phoenix. The roadway provides one through lane in each direction of travel. Overhead utilities parallel the west side of SR 79 near the study area. The speed limit on SR 79, near the Florence-Kelvin Highway is 65 miles per hour (mph).

SR 177 is a north/south aligned two-lane highway between State Route 77 (SR 77) and US 60. It is considered a spur road of SR 77 that serves the Arizona towns of Hayden, Kearny, Kelvin, Riverside, Superior, and Winkelman. The roadway offers one through lane in each direction of travel. Overhead utilities parallel the east side of SR 177, north of the Florence-Kelvin Highway. The posted speed limit on SR 177 is 55 mph.

The Florence-Kelvin Highway is an east/west aligned two-way road between SR 79 near Florence, Arizona and SR 177 near Kelvin, Arizona. Traveling east from SR 79, the Florence-Kelvin Highway is paved for twelve miles, unpaved for eighteen miles, and paved again for two miles as the roadway approaches SR 177. All of the Florence-Kelvin Highway, paved and unpaved, is wide enough to accommodate one through lane in each direction of travel. The posted speed limit on the Florence-Kelvin Highway is 50 mph.

It should be noted that near the intersection of the Florence-Kelvin Highway/SR 177, a branch of the Copper Basin Railway parallels the east side of the Florence-Kelvin Highway about 40 feet east of the roadway.

The study intersection locations, lane configurations, and intersection control for Alternative 5 are shown in **Figure 4**.

### ***Skunk Camp Location – Alternative 6***

The Skunk Camp TSF is located east of the Ray Mine between SR 177 and State Route 77 (SR 77). Skunk Camp will have access to SR 77 from Dripping Springs Road.

SR77 is a north/south aligned two-lane highway between Interstate 10 in Tucson, Arizona and the Navajo Nation north of Holbrook, Arizona. This route serves as a major connecting route between Tucson, Globe, and Show Low in eastern Arizona. The roadway offers one through lane in each direction of travel. The posted speed limit near Dripping Springs Road is 50 mph.

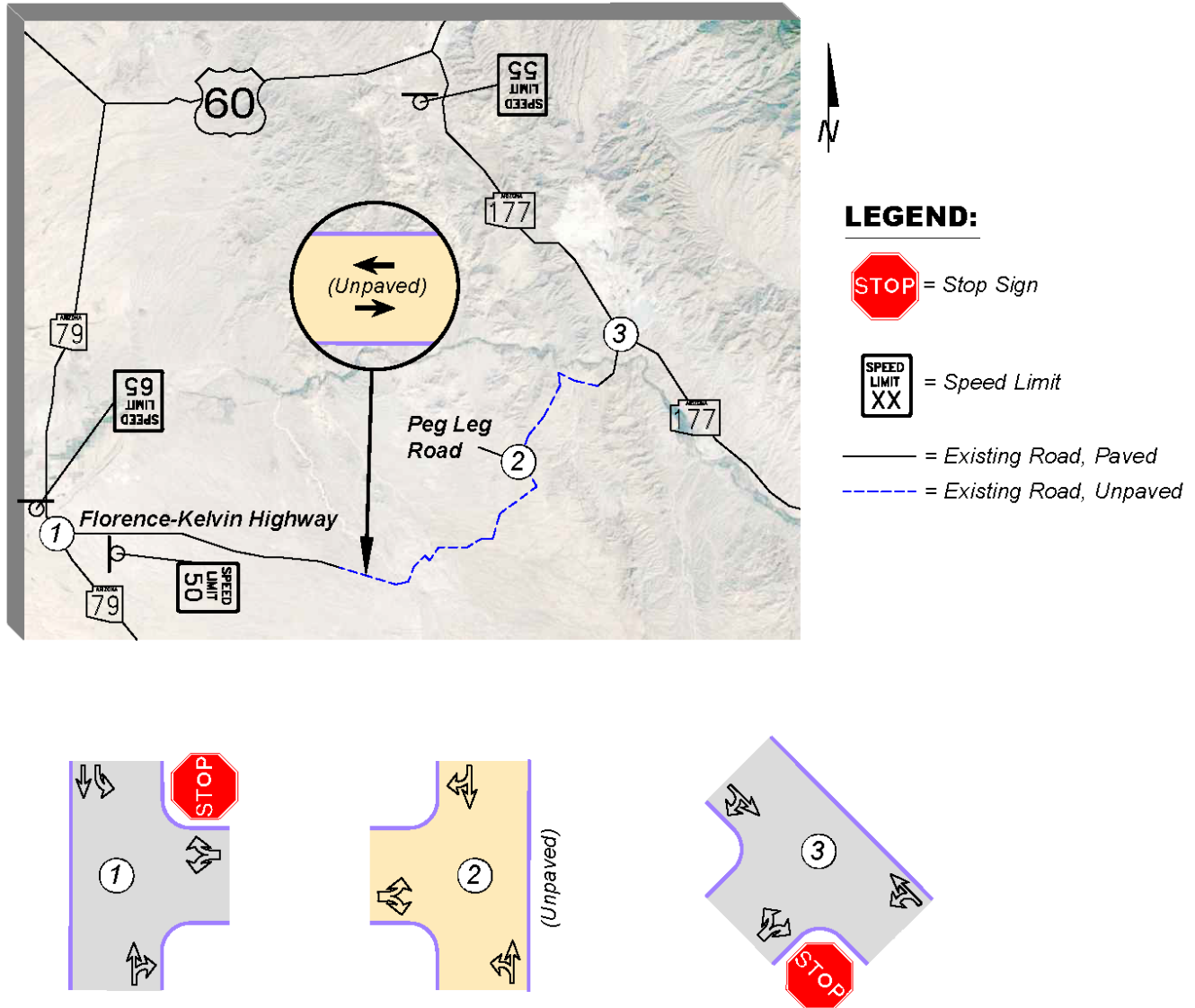
Dripping Springs Road is an east/west aligned unpaved roadway near SR 77. The roadway is unpaved, but wide enough to offer one through lane in each direction of travel.

The study intersection locations, lane configurations, and intersection control for Alternative 6 are shown in **Figure 5**.



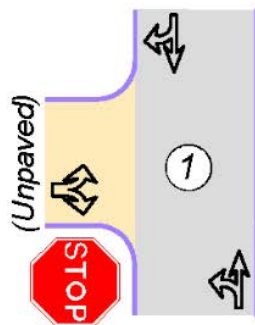
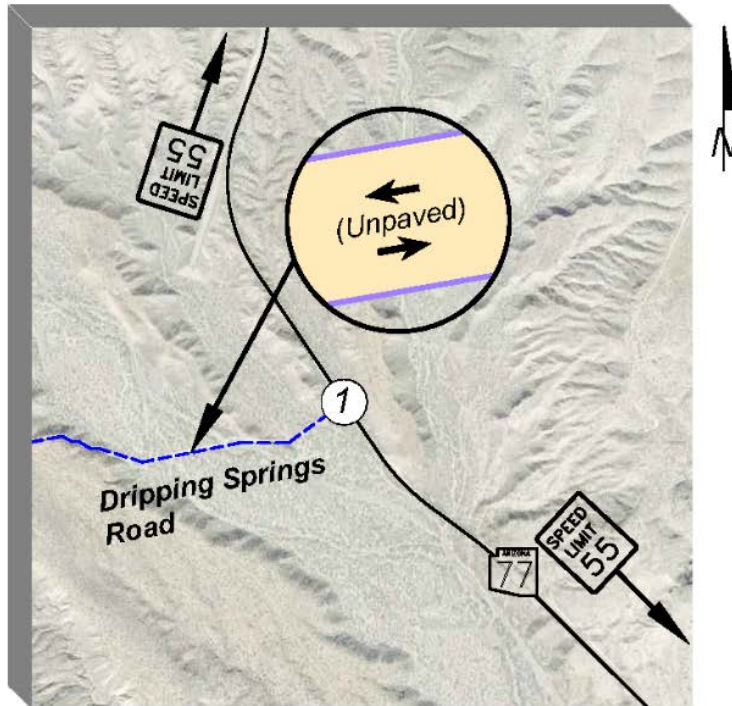


**Figure 4 – Existing Lane Configurations and Traffic Control  
Peg Leg Location – Alternative 5**





**Figure 5 – Existing Lane Configurations and Traffic Control  
Skunk Camp Location – Alternative 6**



**LEGEND:**



= Stop Sign

— = Existing Road, Paved

- - - = Existing Road, Unpaved



## **Existing Traffic Data**

In order to form a basis for analysis of the project impacts for Alternative 5, Friday turning movement counts and Friday 24-hour intersection approach counts were conducted at the intersections of Florence-Kelvin Highway/SR 79 and Florence-Kelvin Highway/SR 177. The Friday turning movement counts were conducted from 7:00 AM to 10:00 PM. In addition, Friday 24-hour bi-directional traffic volume counts were taken on the Florence-Kelvin Highway at Peg Leg Road. All of the traffic counts were taken in March 2018 while school was in session.

Additionally, existing traffic volumes for Alternative 6 are based on ADOT 24-hour bi-directional traffic volume counts located near Christmas, Arizona (taken in 2017) and on Dripping Springs Road west of SR 77 (taken in 2018). It was assumed that ten percent of the total daily traffic on SR 77 and Dripping Springs Road occurs during the Friday peak hour. The assumed Friday peak hour traffic was then assigned to turning movements at the intersection of Dripping Springs Road/SR 77 based on the directional split observed in the counted daily traffic volumes.

Analyses of Alternatives 2, 3, and 4 are based on traffic counts from the Original TIA taken in November 2016.

To establish a consistent basis for the existing traffic operations within the study area, traffic projections were made for traffic counts taken before 2018. A review of ADOT historical traffic data in the vicinity of the project showed increasing and decreasing traffic volumes. A conservative 2% annual traffic growth rate was used to estimate traffic volumes, as needed, for an existing traffic volume study year 2018.

The existing Friday peak hour traffic volumes at key intersections near the various alternatives are shown in **Figures 6** through **9**. Complete traffic count data can be found in the Appendix.

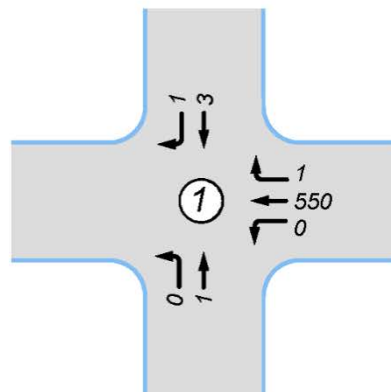
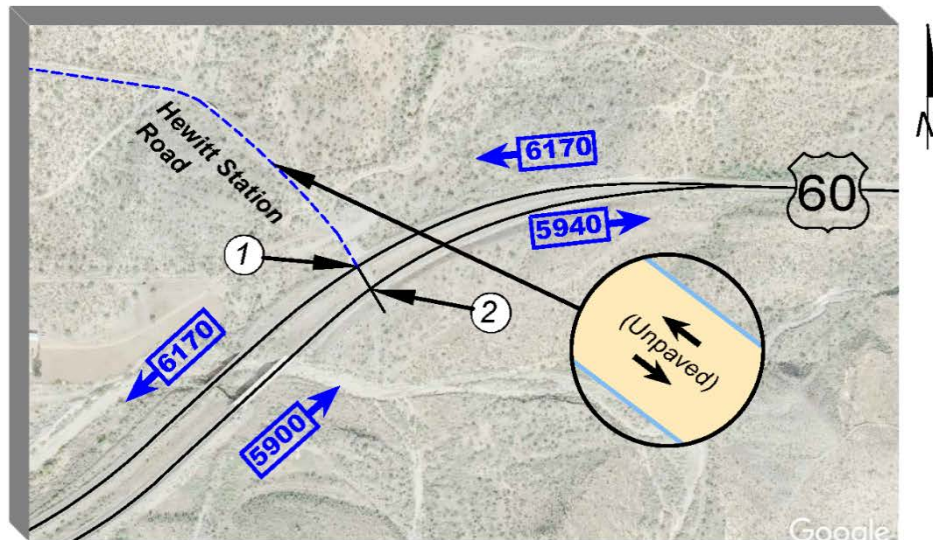
## **Trip Generation**

Trip generation for the alternative filter plant and TSF alternatives, during peak construction and regular operations, was developed utilizing data provided by Resolution Copper. For the purpose of the analysis, a peak construction year of 2022 was assumed with an operational opening year of 2027. The TSF alternatives are as follows:

- Alternative 1 – No tailings facility.
- Alternative 2 (Modified Proposed Action) – This facility is located in the same footprint as the original General Plan of Operations (GPO) TSF at the Near West location. Tailings will be segregated into coarser underflow tailings to construct a modified centerline dam and overflow tailings at approximately 25% solids will be placed in the interior. Pyrite tailings will be placed sub-aqueously and decant water from the overflow tailings will be directed to the pyrite tailings area to help maintain saturation.

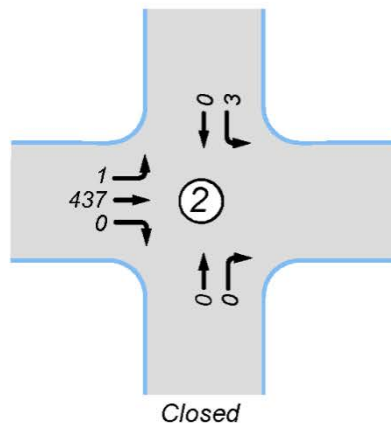


**Figure 6 – Existing Friday Peak Hour Traffic Volumes  
Near West Location – Alternatives 2 and 3**



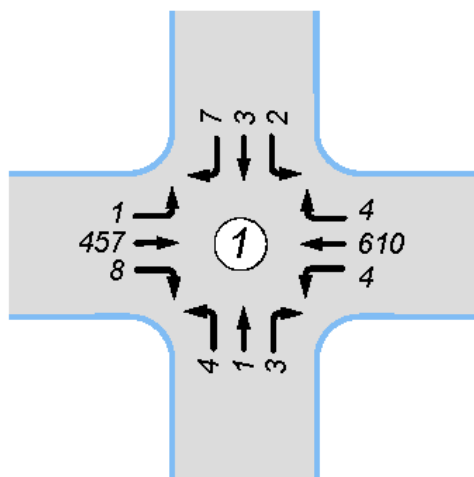
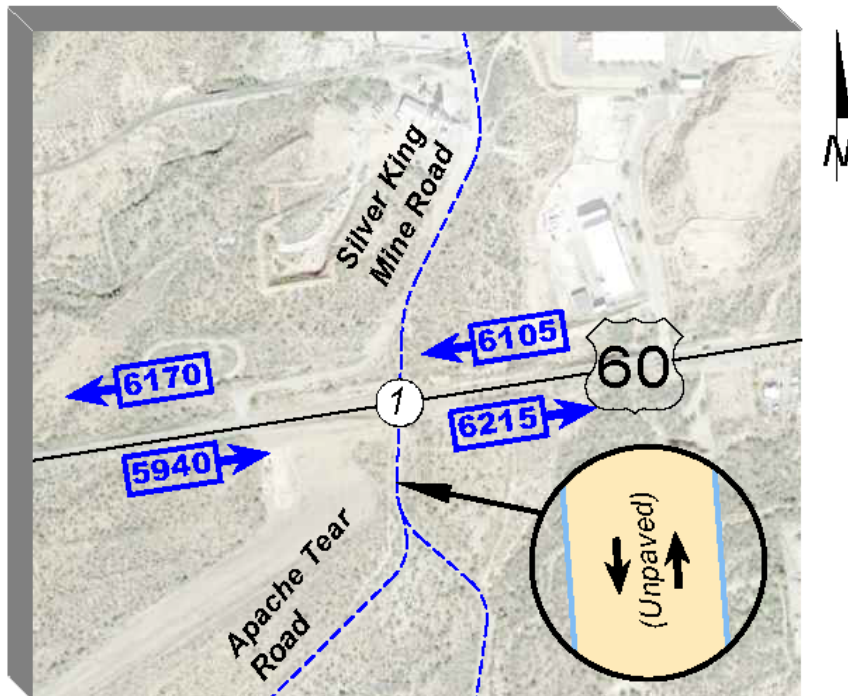
**LEGEND:**

XX = Friday Peak Hour Vehicle Trips  
Per Hour  
 — = Existing Road, Paved  
 - - - = Existing Road, Unpaved  
 [###] = Vehicles Per Day





**Figure 7 – Existing Friday Peak Hour Traffic Volumes  
Silver King Location – Alternative 4**



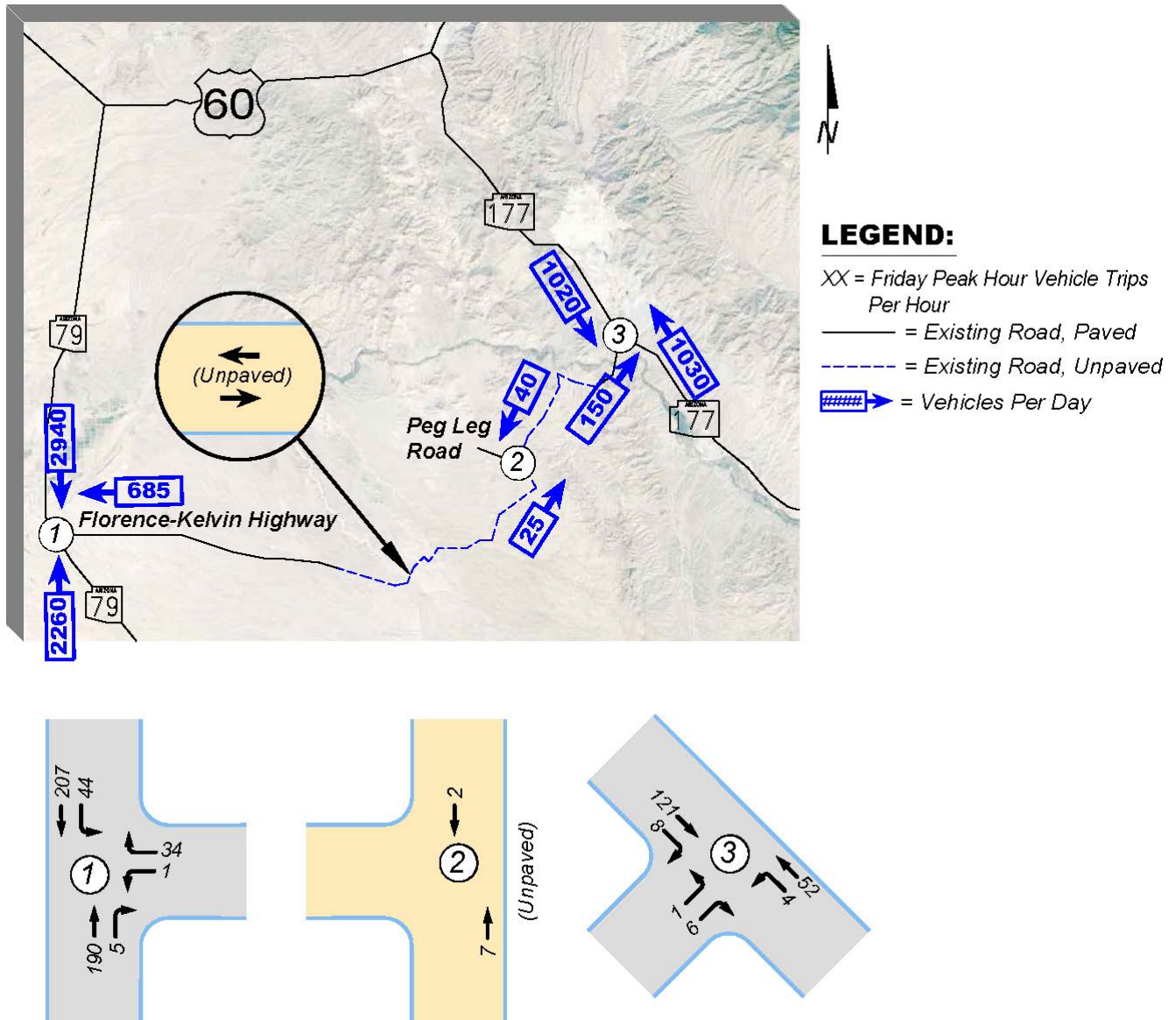
**LEGEND:**

- XX = Friday Peak Hour Vehicle Trips Per Hour
- = Existing Road, Paved
- = Existing Road, Unpaved
- = Vehicles Per Day



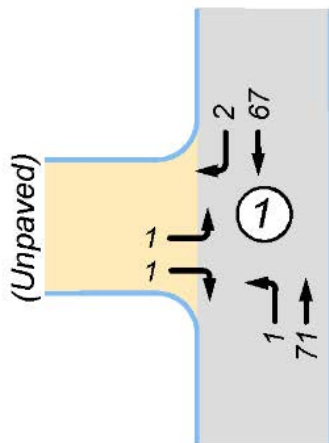
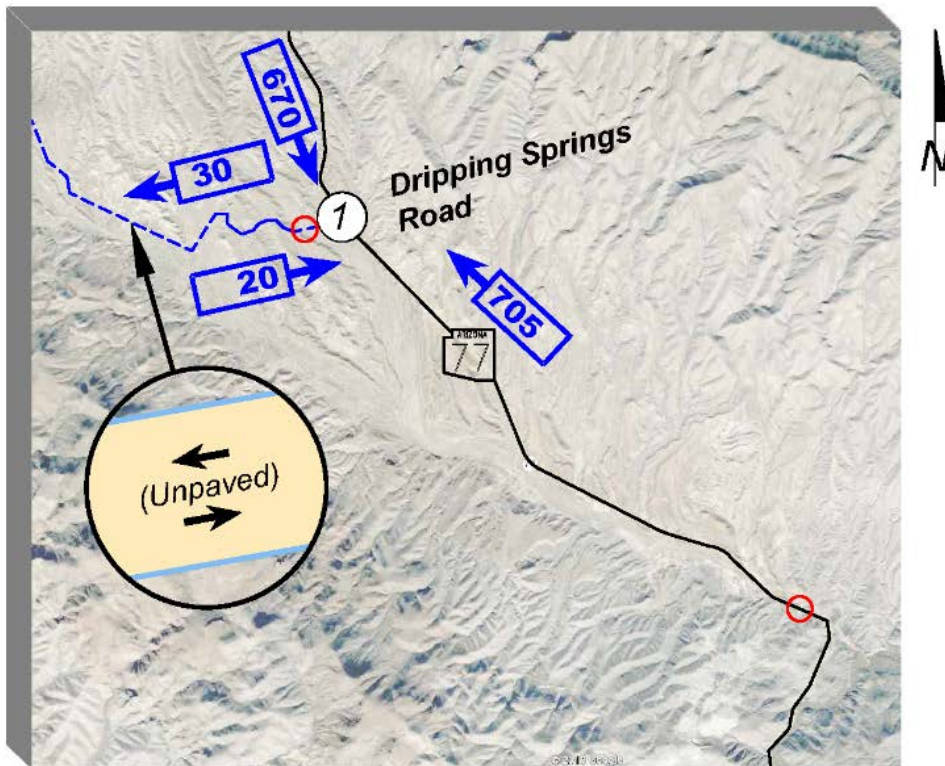


**Figure 8 – Existing Friday Peak Hour Traffic Volumes  
Peg Leg Location – Alternative 5**





**Figure 9 – Existing Friday Peak Hour Traffic Volumes  
Skunk Camp Location – Alternative 6**



### LEGEND:

- XX = Friday Peak Hour Vehicle Trips Per Hour
- = Existing Road, Paved
- - - = Existing Road, Unpaved
- #### = Vehicles Per Day
- = Traffic Volume Count Location



- Alternative 3 (Modified Proposed Action – Thin Lift/Separate Potentially Acid-Generating (PAG) pyrite tailings cell) – This facility is located in the same footprint as Alternative 2 and the original GPO TSF at the Near West location. Tailings will be segregated into coarser underflow tailings to construct a modified centerline dam and overflow tailings will be thickened using high-density thickeners at approximately 60 to 62% solids and placed in the interior. Pyrite tailings will be managed separate to the rest of the facility, placed sub-aqueously, and contained in a separate ring dam with an approximate 10-foot water cover over the top.
- Alternative 4 (Silver King) – The Silver King tailings facility is proposed at the south end of Silver King Canyon behind the West Plant Facility. Tailings would be pumped as a slurry to the TSF and then dried and placed as “dry-stacked” tailings. Potentially PAG would be stored separately from the not potentially acid-generating tailings (NPAG). No dam is required, but a structural zone would be placed around the outside of each TSF facility. In addition to the Silver King tailings facility, Alternative 4 also proposes relocation of the Filter Plant to Superior within Resolution Copper property boundaries at the West Plant Site.
- Alternative 5 (Peg Leg) – The Peg Leg tailings facility is located north of the Florence-Kelvin Highway near Peg Leg Road. Tailings will be segregated into coarser underflow tailings to construct a centerline dam and a separate downstream dam for containment of PAG that will managed sub-aqueously beneath a 10-foot water cover. Overflow tailings will be thickened using high-density thickeners to achieve approximately 60 to 62% solids and placed in the interior.
- Alternative 6 (Skunk Camp) – The Skunk Camp tailings facility is located east of the Ray Mine and west of SR 77. Tailings will be segregated into coarser underflow tailings to construct a modified centerline cross-valley dam and overflow tailings will be thickened using high-density thickeners at approximately 60 to 62% solids and placed in the interior. PAG will be managed separate to the rest of the facility, placed sub-aqueously, and contained by a separate centerline cross-valley dam with an approximate 10-foot water cover over the top.

It is assumed that none of the TSF alternatives significantly influence the trip generation of the originally proposed TSF or alternative filter plant. However, Alternative 4 requires more employees due to the additional processing facilities associated with filtering the tailings. The tailings filter plant for Alternative 4 would be located at the Silver King location.

The following trip generation assumptions are based on the original TIA:

- Due to the 12-hour shifts typical during construction and regular operations of the mine, employees are assumed to have on average, between 2 and 3 days off per week. Applying a 0.66 shift reduction factor accounts for the number of days per week an employee is predicted to travel to/from the site.
- It is assumed that every vehicle entering the site will carry an average of 1.7 employees. A 1.7 employee per vehicle carpooling factor was used to reduce the trips generated by the site as a result of employees carpooling.





- During the construction phase and operations phase, material deliveries are expected at a rate less than 11 trucks per hour.

**Tables 1 and 2** show the expected trip generation for the Resolution Copper Filter Plant and TSF alternatives during the peak of construction and during peak operations. Employment data provided by Resolution Copper Mine, as well as the originally proposed trip generation from the TIA, can be found in the appendix of this memorandum.

**Table 1a – Alternative Filter Plant and Tailings Facility Trip Generation – Peak Construction**

Time Period	Alternative Filter Plant		Tailings Storage Facility Alternatives					
			Alternative 2 - Modified Wet		Alternative 3 - Modified Dry		Alternative 4 - Silver King	
	Personnel	Materials/ Equipment	Personnel	Materials/ Equipment	Personnel	Materials/ Equipment	Personnel	Materials/ Equipment
Peak Hour, Inbound (vtph)	30	8	21	11	21	11	33	11
Peak Hour, Outbound (vtph)	30	8	21	11	21	11	33	11
<b>Total Peak</b>	<b>60</b>	<b>16</b>	<b>42</b>	<b>22</b>	<b>42</b>	<b>22</b>	<b>66</b>	<b>22</b>

-Personnel trips based on anticipated number of workers with a .66 shift reduction factor and a 1.7 divisor to account for carpooling.

-Materials trips based on the materials and equipment quantities anticipated to be required during construction and a maximum of 11 trucks per hour.

-vtph - vehicle trips per day, vtph - vehicle trips per hour

**Table 1b – Alternative Filter Plant and Tailings Facility Trip Generation – Peak Construction, continued**

Time Period	Tailings Storage Facility Alternatives, continued			
	Alternative 5 - Peg Leg		Alternative 6 - Skunk Camp	
	Personnel	Materials/ Equipment	Personnel	Materials/ Equipment
Peak Hour, Inbound (vtph)	22	11	21	11
Peak Hour, Outbound (vtph)	22	11	21	11
<b>Total Peak</b>	<b>44</b>	<b>22</b>	<b>42</b>	<b>22</b>

-Personnel trips based on anticipated number of workers with a .66 shift reduction factor and a 1.7 divisor to account for carpooling.

-Materials trips based on the materials and equipment quantities anticipated to be required during construction and a maximum of 11 trucks per hour.

-vtph - vehicle trips per day, vtph - vehicle trips per hour



**Table 2a – Alternative Filter Plant and Tailings Facility Trip Generation – Peak Operations**

Time Period	Alternative Filter Plant		Tailings Storage Facility Alternatives					
			Alternative 2 - Modified Wet		Alternative 3 - Modified Dry		Alternative 4 - Silver King	
	Personnel	Materials/ Equipment	Personnel	Materials/ Equipment	Personnel	Materials/ Equipment	Personnel	Materials/ Equipment
Peak Hour, Inbound (vtph)	9	N/A	12	11	12	11	18	11
Peak Hour, Outbound (vtph)	9	N/A	12	11	12	11	18	11
<b>Total Peak</b>	<b>18</b>	<b>N/A</b>	<b>24</b>	<b>22</b>	<b>24</b>	<b>22</b>	<b>36</b>	<b>22</b>

-Personnel trips based on anticipated number of workers with a .66 shift reduction factor and a 1.7 divisor to account for carpooling.  
 -Materials trips based on the materials and equipment quantities anticipated to be required during construction and a maximum of 11 trucks per hour.  
 -vtph - vehicle trips per hour

**Table 2b – Alternative Filter Plant and Tailings Facility Trip Generation – Peak Operations, continued**

Time Period	Tailings Storage Facility Alternatives, continued			
	Alternative 5 - Peg Leg		Alternative 6 - Skunk Camp	
	Personnel	Materials/ Equipment	Personnel	Materials/ Equipment
Peak Hour, Inbound (vtph)	22	11	12	11
Peak Hour, Outbound (vtph)	22	11	12	11
<b>Total Peak</b>	<b>24</b>	<b>22</b>	<b>24</b>	<b>22</b>

-Personnel trips based on anticipated number of workers with a .66 shift reduction factor and a 1.7 divisor to account for carpooling.  
 -Materials trips based on the materials and equipment quantities anticipated to be required during construction and a maximum of 11 trucks per hour.  
 -vtph - vehicle trips per hour

As shown in **Tables 1 and 2**, Alternative 4 (Silver King) is expected to generate the most trips during peak construction and peak operations.

Alternatives 2 and 3 are located at the same site and are expected to have a similar number of generated trips. These alternatives will be analyzed together.

The alternative filter plant is expected to require approximately two train trips per day during peak operations to deliver materials for daily operation of the mine. These trains will arrive and depart during the night shift.



## **Trip Distribution & Assignment**

Trip distribution for the alternatives were based on relative accessibility of cities and towns near the site that would be able to provide housing for construction workers and Resolution Copper Mine employees. In order to provide a conservative trip distribution, the Phoenix Metro, Globe, Superior, and Tucson Metro areas were assumed to provide workers during construction and regular operations. In reality, employees may also travel to and from other towns and cities within Gila and Pinal counties.

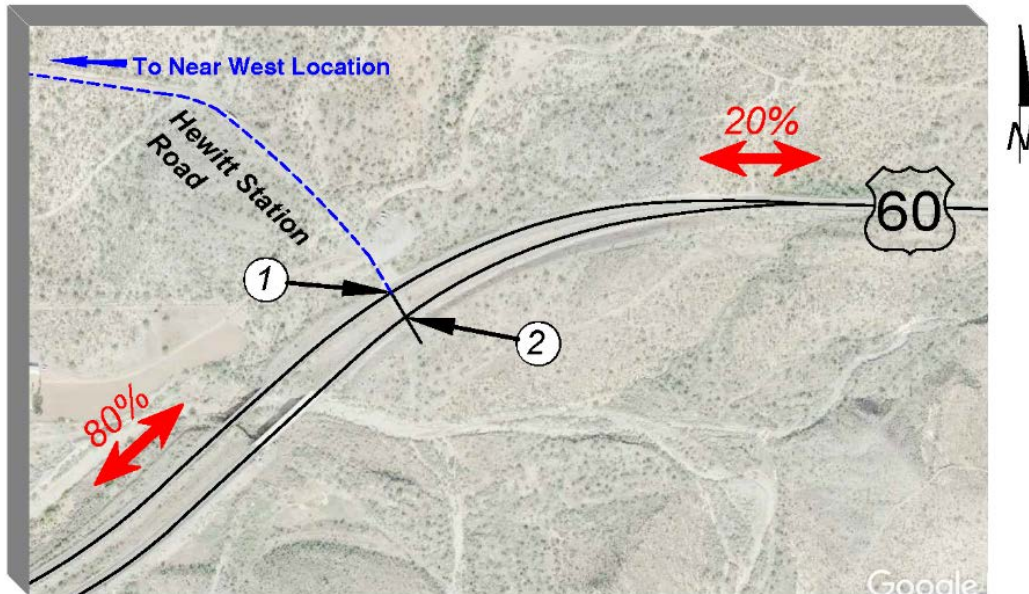
**Figures 10 through 13** show the Friday trip distribution for the alternatives as a percentage of net new primary trips based on the trip distribution provided in the original TIA.

**Figures 14 through 17** show the Friday peak hour traffic assignment of the TSF alternatives to the existing project intersections within their study areas during the peak of construction (2022).

**Figures 18 through 21** show the Friday peak hour traffic assignment of the TSF alternatives to the existing project intersections within their study areas once the mine begins daily operations (2027).



**Figure 10 – Friday Peak Hour Trip Distribution  
Near West Location – Alternatives 2 and 3**



**LEGEND:**

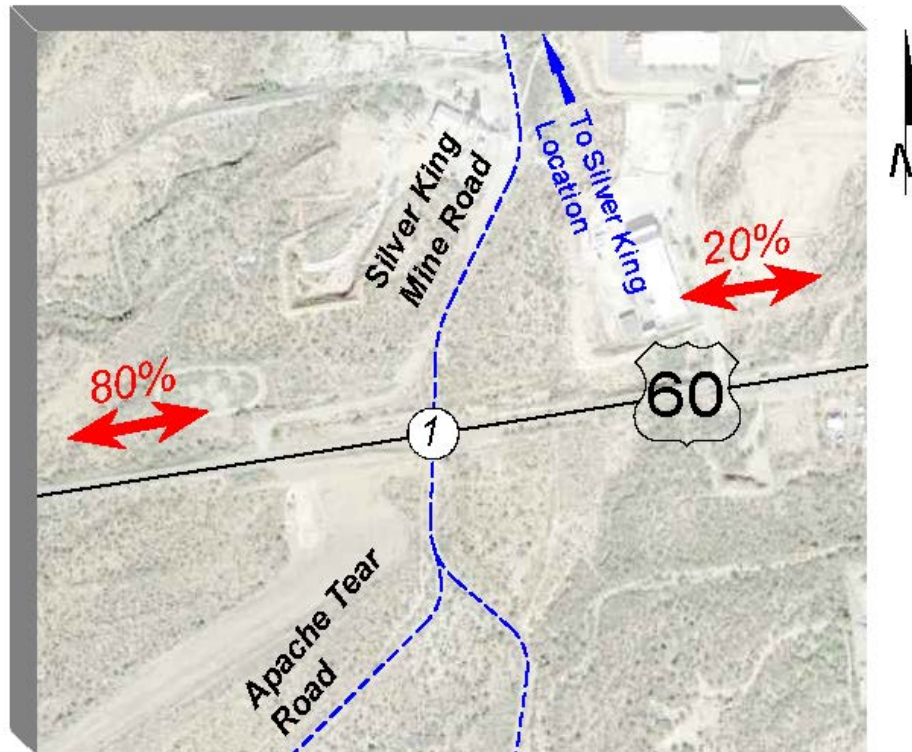
— = Existing Road, Paved

— = Existing Road, Unpaved

XX%  
↔ Distribution of Vehicle Trips



**Figure 11 – Friday Peak Hour Trip Distribution  
Silver King Location – Alternative 4**



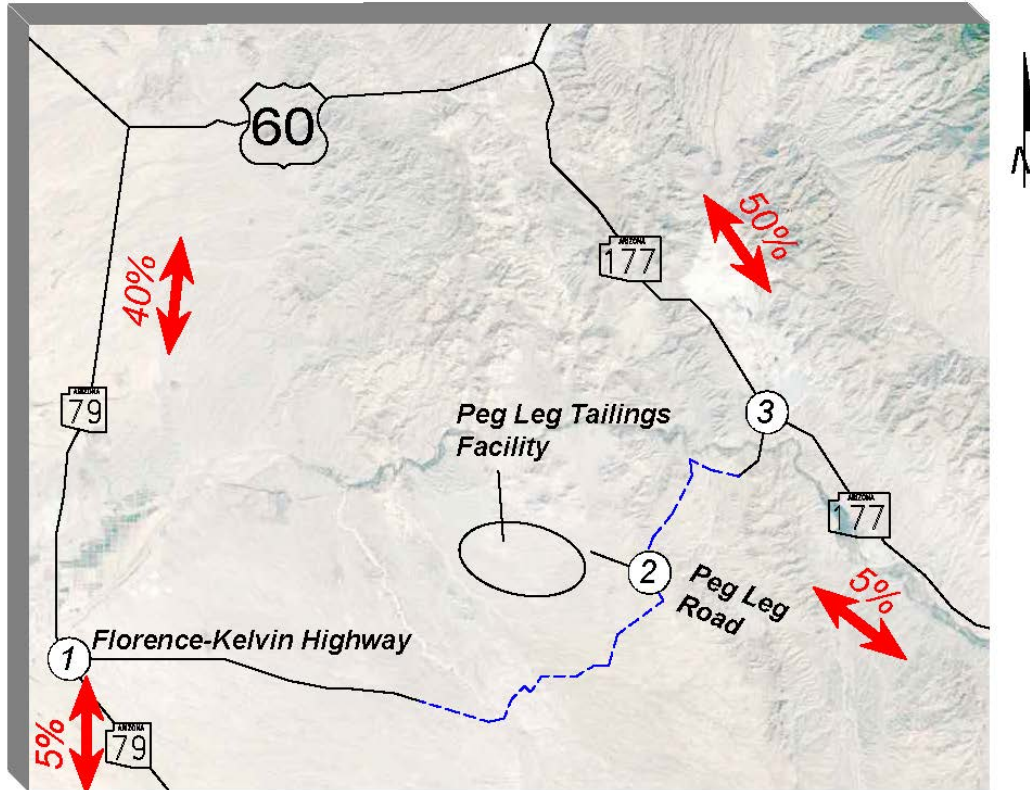
**LEGEND:**

———— = Existing Road, Paved

———— = Existing Road, Unpaved

XX%  
↔ Distribution of Vehicle Trips

**Figure 12 – Friday Peak Hour Trip Distribution  
Peg Leg Location – Alternative 5**



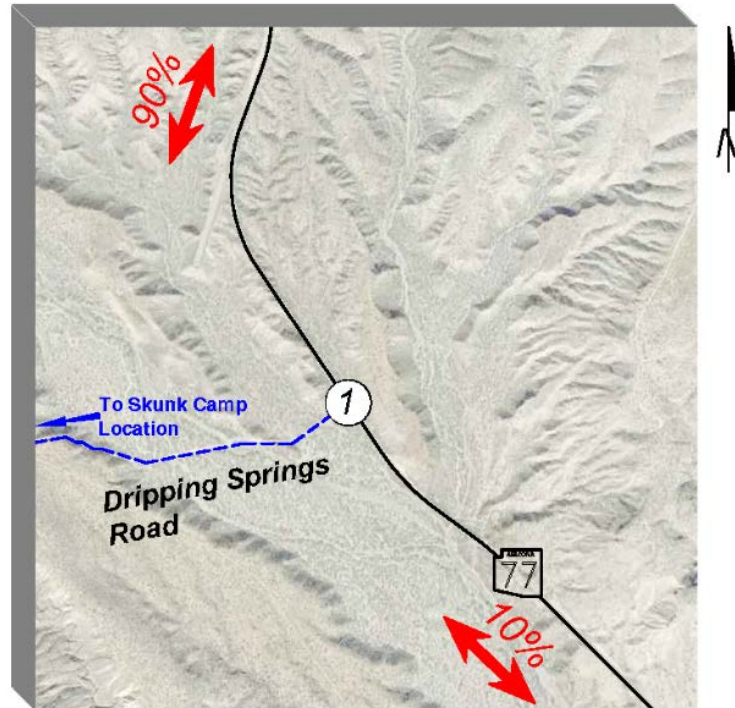
**LEGEND:**

- = Existing Road, Paved
- = Existing Road, Unpaved
-  XX% Distribution of Vehicle Trips
-  = Tailings Facility Alternative Location





**Figure 13 – Friday Peak Hour Trip Distribution  
Skunk Camp Location – Alternative 6**



**LEGEND:**

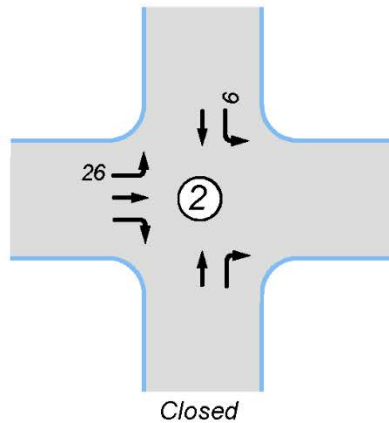
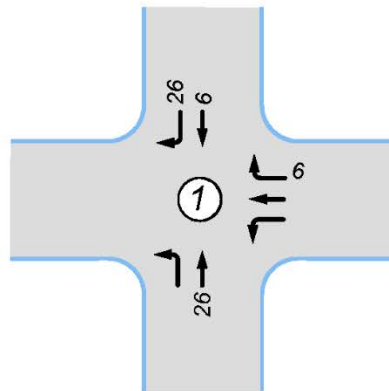
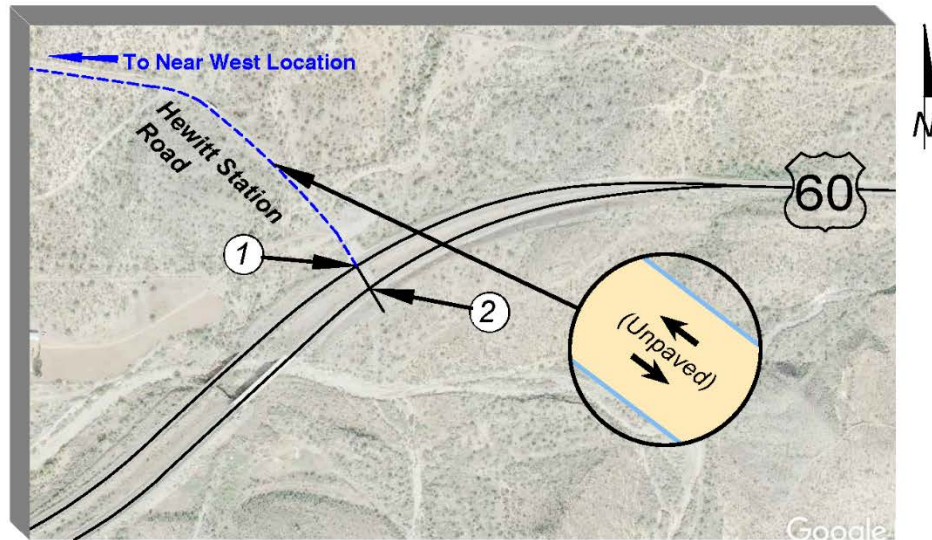
— = Existing Road, Paved

- - - = Existing Road, Unpaved

XX% Distribution of Vehicle Trips



**Figure 14 – 2022 Friday Peak Hour Trip Assignment  
Skunk Camp Location – Alternatives 2 and 3**



**LEGEND:**

XX = Friday Peak Hour Vehicle Trips  
Per Hour

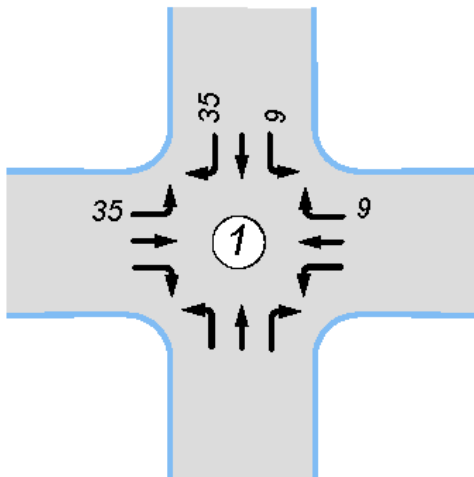
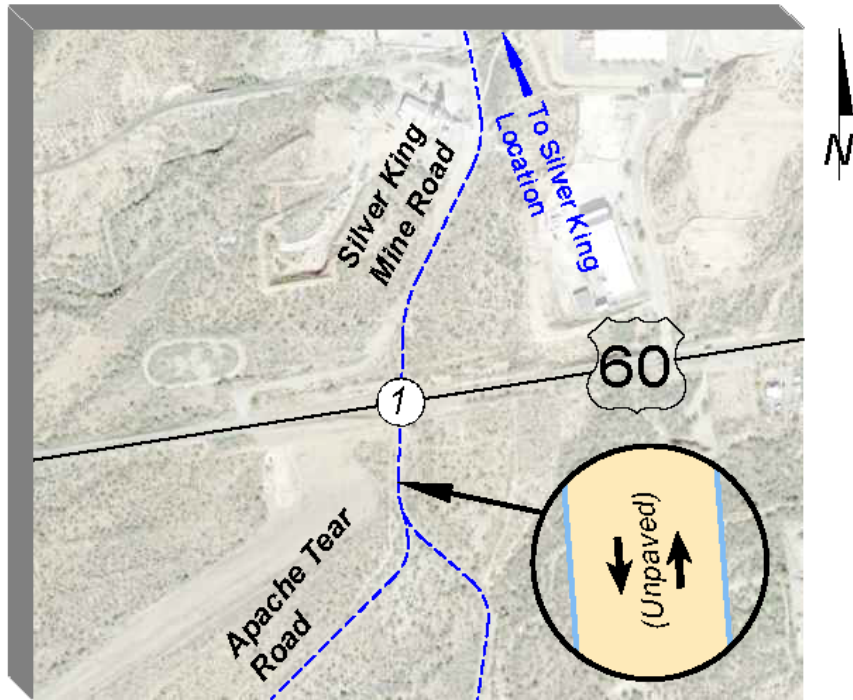
— = Existing Road, Paved

- - - = Existing Road, Unpaved





Figure 15 – 2022 Friday Peak Hour Trip Assignment  
Silver King Location – Alternative 4

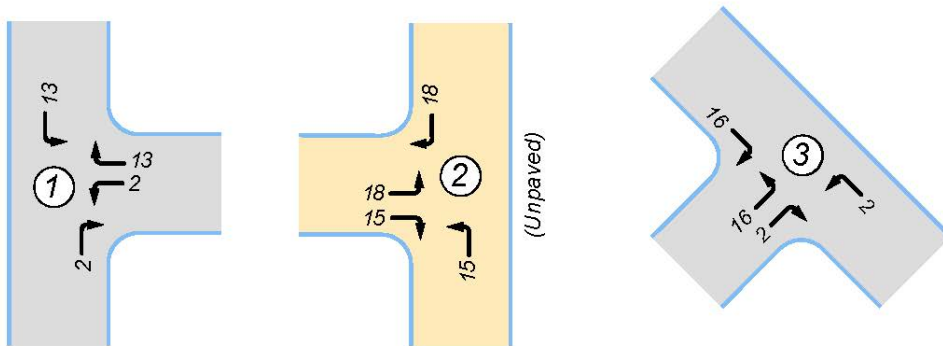
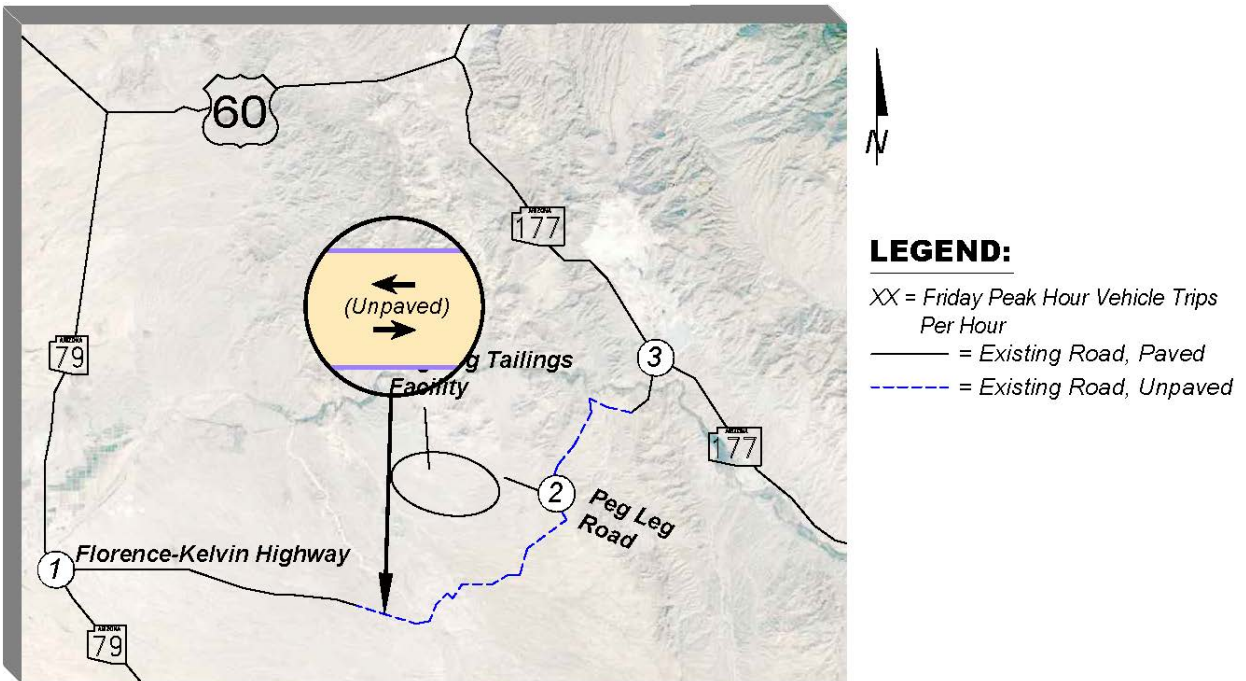


**LEGEND:**

- XX = Friday Peak Hour Vehicle Trips  
Per Hour
- = Existing Road, Paved
- - - = Existing Road, Unpaved

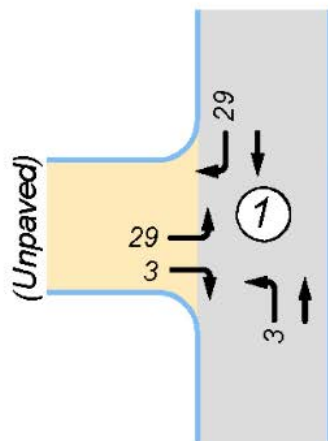
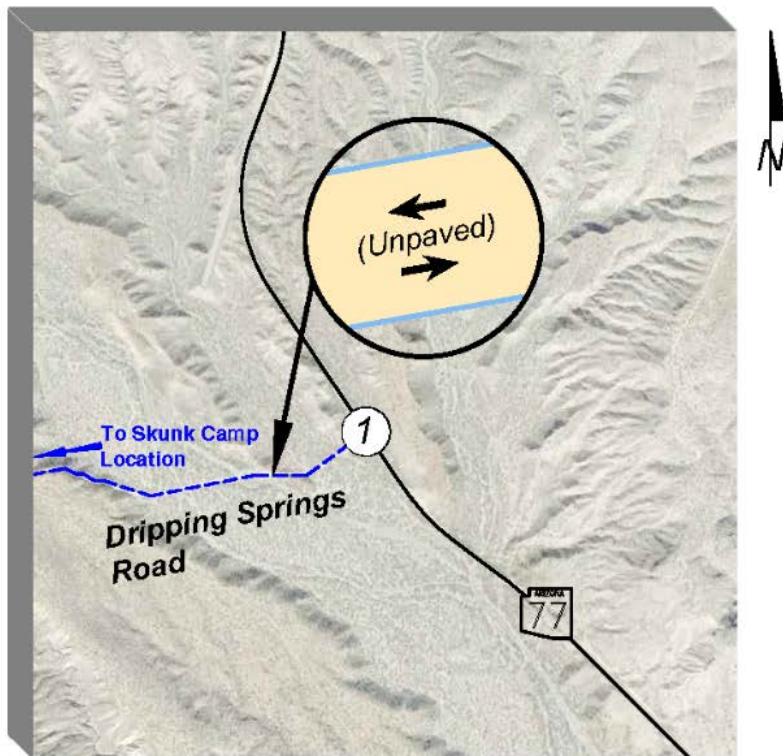


**Figure 16 – 2022 Friday Peak Hour Trip Assignment  
Peg Leg Location – Alternative 5**





**Figure 17 – 2022 Friday Peak Hour Trip Assignment  
Skunk Camp Location – Alternative 6**

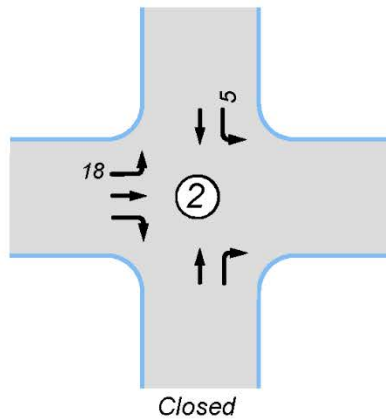
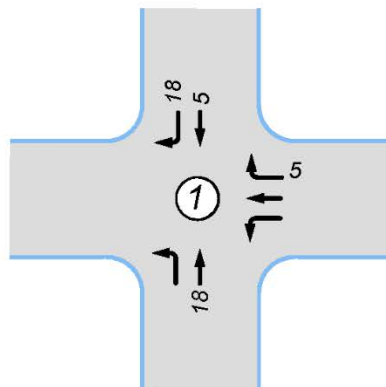
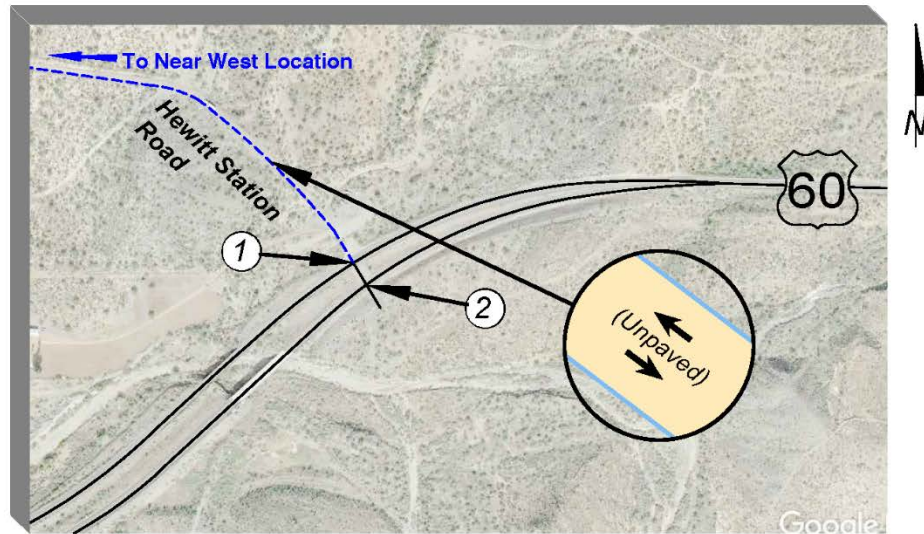


**LEGEND:**

- XX = Friday Peak Hour Vehicle Trips  
Per Hour
- = Existing Road, Paved
- - - = Existing Road, Unpaved



**Figure 18 – 2027 Friday Peak Hour Trip Assignment  
Near West Location – Alternatives 2 and 3**



**LEGEND:**

XX = Friday Peak Hour Vehicle Trips  
Per Hour

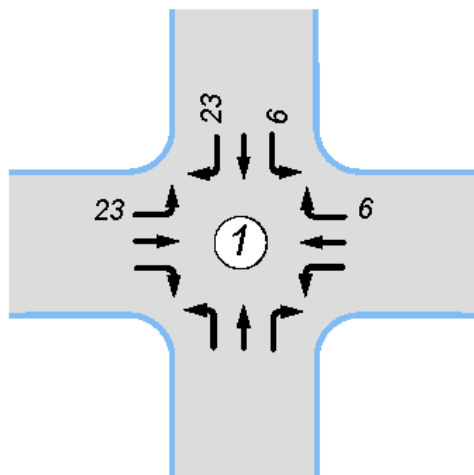
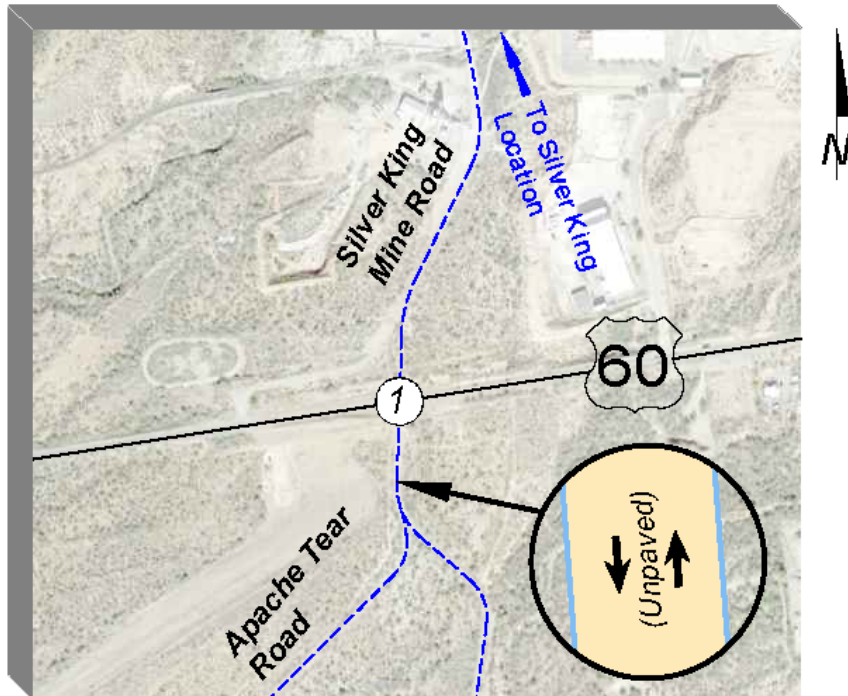
— = Existing Road, Paved

- - - = Existing Road, Unpaved





Figure 19 – 2027 Friday Peak Hour Trip Assignment  
Silver King Location – Alternative 4

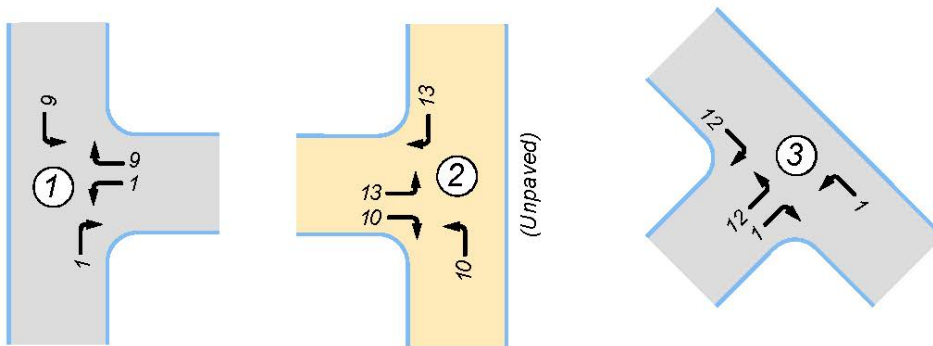
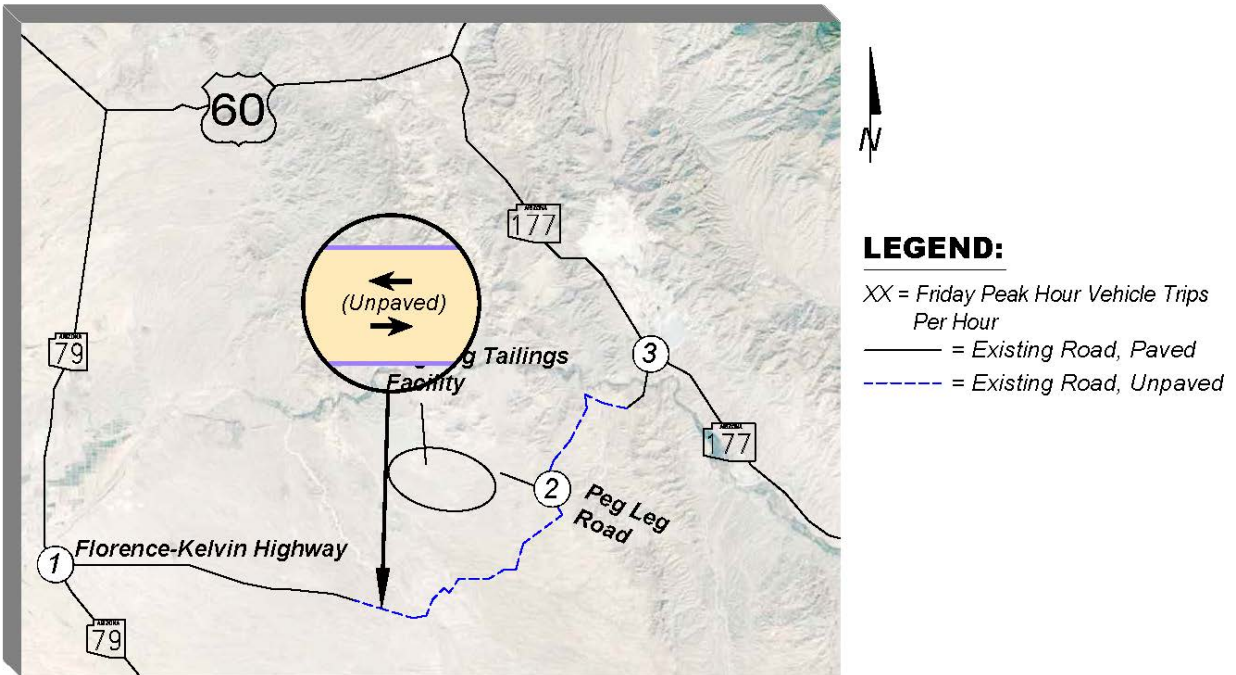


**LEGEND:**

- XX = Friday Peak Hour Vehicle Trips  
Per Hour
- = Existing Road, Paved
- = Existing Road, Unpaved

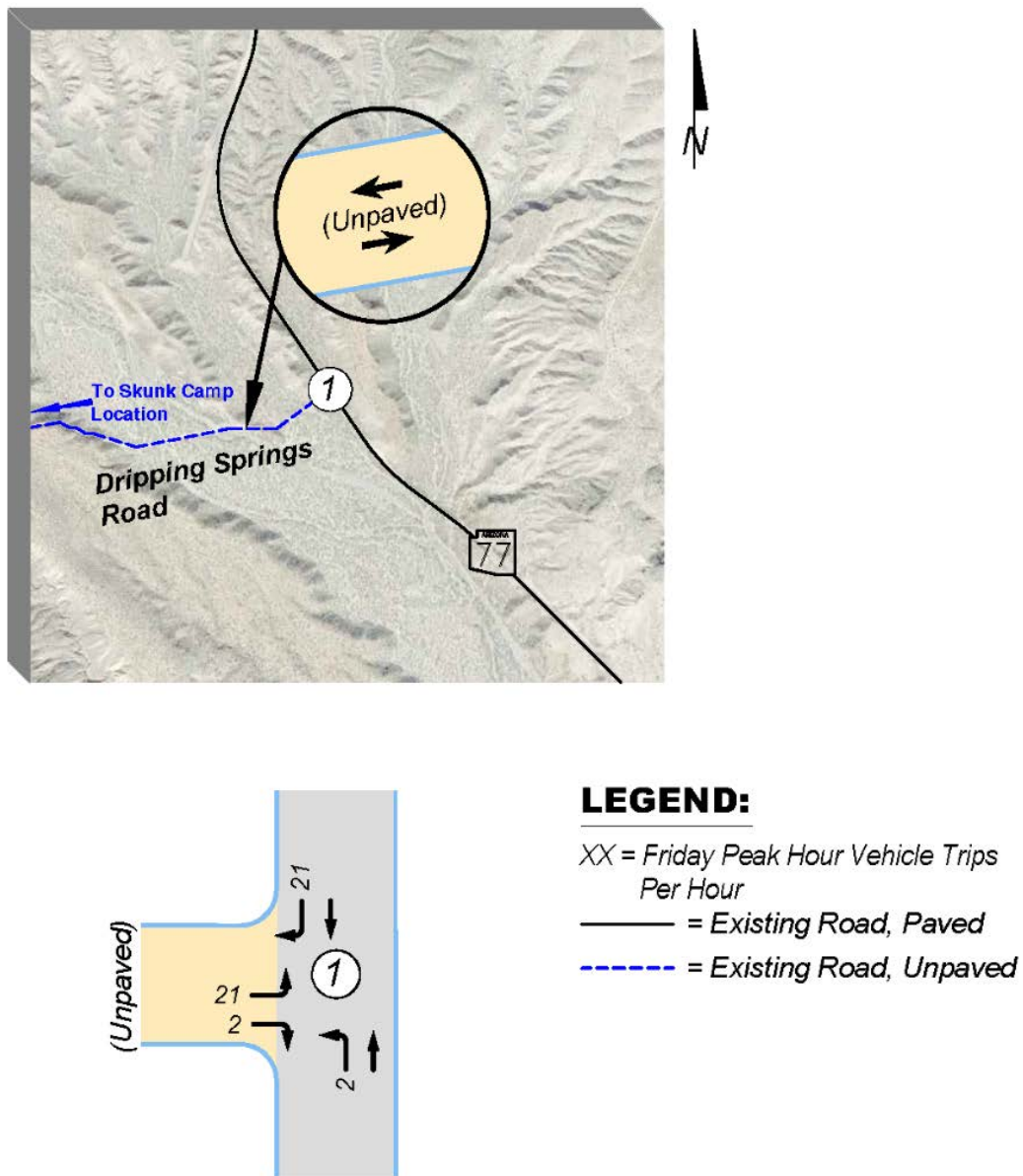


**Figure 20 – 2027 Friday Peak Hour Trip Assignment  
Peg Leg Location – Alternative 5**





**Figure 21 – 2027 Friday Peak Hour Trip Assignment  
Skunk Camp Location – Alternative 6**





## Existing Traffic Operations

Analysis of current intersection operations was conducted for the Friday peak hour using the nationally accepted methodology set forth in the *Highway Capacity Manual*, Transportation Research Board, 2010 (HCM 2010). The computer software Synchro 10 was utilized to calculate the levels of service for individual movements and approaches.

LOS is a qualitative measure of the traffic operations at an intersection or on a roadway segment. Level of service is ranked from LOS A, which signifies little or no congestion and is the highest rank, to LOS F, which signifies congestion and jam conditions. LOS D is typically considered adequate operation at signalized and un-signalized intersections in developed areas.

At un-signalized intersections, level of service is predicted/calculated for those movements which must either stop for or yield to oncoming traffic and is based on average control delay for the particular movement. Control delay is the portion of total delay attributed to traffic control measures such as stop signs and traffic signals. The criteria for level of service at un-signalized intersections are shown in **Table 3**.

**Table 3 – Level of Service Criteria – Un-Signalized Intersections**

Level-of-Service	Delay
A	$\leq 10$ seconds
B	$> 10$ and $\leq 15$ seconds/vehicle
C	$> 15$ and $\leq 25$ seconds/vehicle
D	$> 25$ and $\leq 35$ seconds/vehicle
E	$> 35$ and $\leq 50$ seconds/vehicle
F	$> 50$ seconds per vehicle

**Tables 4 through 7** shows the existing levels of service that were calculated for each of the key study intersections adjacent to the alternatives. Complete capacity calculations are included in the Appendix.

**Table 4 – Existing Friday Peak Hour Levels of Service  
Near West Location – Alternatives 2 and 3**

Intersection	Friday Peak	
	LOS	Delay
<b>Un-Signalized Intersections</b>		
Hewitt Station Road/US 60 Eastbound		
Northbound Through/Right	A	0.0
Southbound Left/Through	B	10.4
Hewitt Station Road/US 60 Westbound		
Northbound Left/Through	B	14.3
Southbound Through/Right	B	13.4

Delay - seconds per vehicle, N/A - not available





**Table 5 – Existing Friday Peak Hour Levels of Service  
Silver King Location – Alternative 4**

Intersection	Friday Peak	
	LOS	Delay
<b>Un-Signalized Intersections</b>		
Silver King Road/US 60		
Eastbound Left	A	9.0
Westbound Left	A	8.6
Northbound Left/Through/Right	C	17.8
Southbound Left/Through/Right	C	16.8

Delay - seconds per vehicle, N/A - not available

**Table 6 – Existing Friday Peak Hour Levels of Service  
Peg Leg Location – Alternative 5**

Intersection	Friday Peak	
	LOS	Delay
<b>Un-Signalized Intersections</b>		
Florence-Kelvin Highway/SR 79		
Westbound Left/Right	A	9.8
Southbound Left	A	7.8
Florence-Kelvin Highway/SR 177		
Eastbound Left/Right	A	9.1
Northbound Left/Through	A	7.5

Delay - seconds per vehicle, N/A - not available

**Table 7 – Existing Friday Peak Hour Levels of Service  
Skunk Camp Location – Alternative 6**

Intersection	Friday Peak	
	LOS	Delay
<b>Un-Signalized Intersections</b>		
Dripping Springs Road/SR 77		
Eastbound Left/Right	A	9.1
Northbound Left/Through	A	7.4

Delay - seconds per vehicle, N/A - not available

In Alternative 5, the intersection of Peg Leg Road/Florence-Kelvin Highway is remote, unpaved, and only has approximately 50 cars per day using the major approach. Due to the very low volume nature of the major approaches, turning movement counts were not collected at this intersection and it was assumed that there are currently no vehicles on the minor approaches during the peak hours.

As shown in **Tables 4** through **7**, the existing study intersections adjacent to the alternatives currently operate at an adequate LOS C or better during the Friday peak hour.



## **Future Traffic Operations Without Project**

In order to assess the impacts of the project on future traffic operations, traffic projections were made for the peak construction year of 2022 and an assumed opening year of 2027.

A review of ADOT historical traffic data in the vicinity of the project showed increasing and decreasing traffic volumes. A conservative 2% annual traffic growth rate was used to estimate 2022 and 2027 Friday peak hour traffic volumes without the project for all of the alternatives, as shown in **Figures 22** through **29**.

As with the current volumes, levels of service were calculated for each of the key study intersections adjacent to the alternatives for 2022 and 2027 without the project as shown in **Tables 8** through **15**. Complete capacity calculations are included in the Appendix.

**Table 8 – 2022 Friday Peak Hour Levels of Service  
Without Near West Location – Alternatives 2 and 3**

Intersection	Friday Peak	
	LOS	Delay
<b>Un-Signalized Intersections</b>		
Hewitt Station Road/US 60 Eastbound		
Northbound Through/Right	A	0.0
Southbound Left/Through	B	10.6
Hewitt Station Road/US 60 Westbound		
Northbound Left/Through	C	15.1
Southbound Through/Right	B	13.7

Delay - seconds per vehicle, N/A - not available

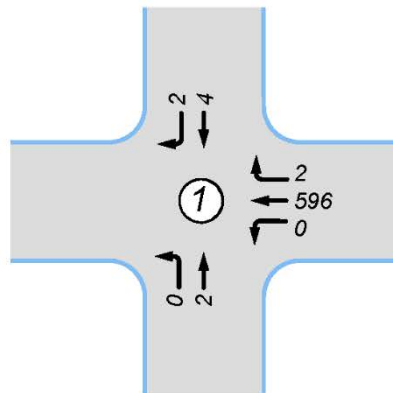
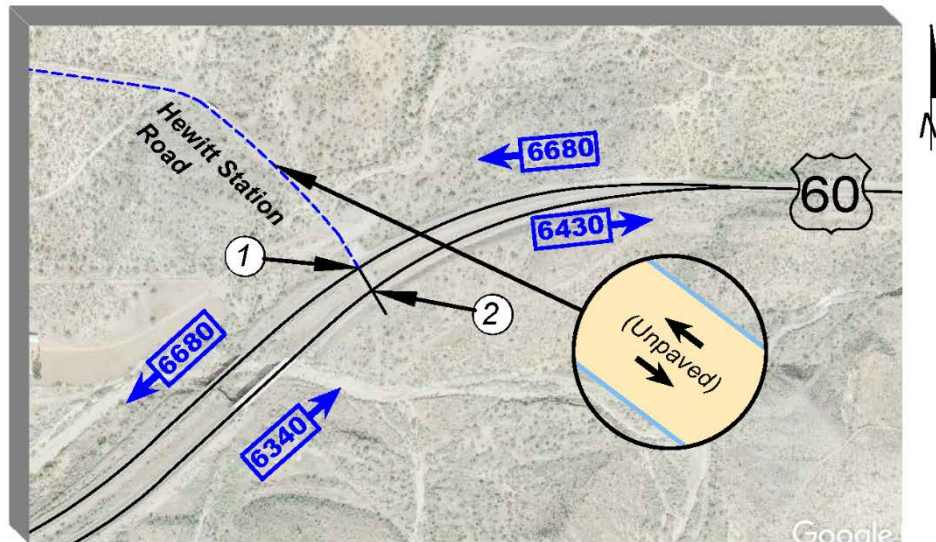
**Table 9 – 2022 Friday Peak Hour Levels of Service  
Without Silver King Location – Alternative 4**

Intersection	Friday Peak	
	LOS	Delay
<b>Un-Signalized Intersections</b>		
Silver King Road/US 60		
Eastbound Left	A	9.2
Westbound Left	A	8.7
Northbound Left/Through/Right	C	20.4
Southbound Left/Through/Right	C	19.6

Delay - seconds per vehicle, N/A - not available



**Figure 22 – 2022 Friday Peak Hour Traffic Volumes  
Without Near West Location – Alternatives 2 and 3**



**LEGEND:**

XX = Friday Peak Hour Vehicle Trips  
Per Hour  
 — = Existing Road, Paved  
 - - - = Existing Road, Unpaved  
 ##### = Vehicles Per Day

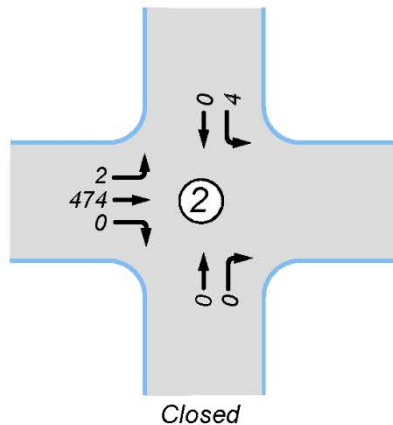
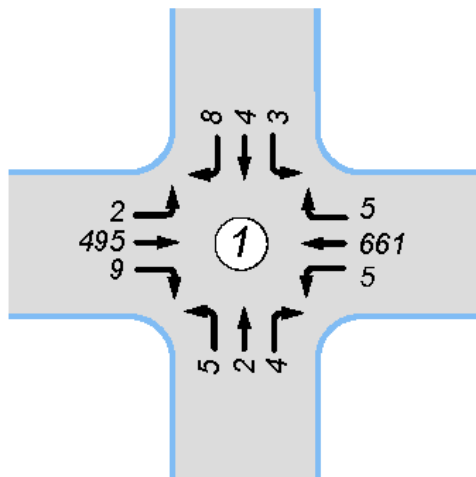
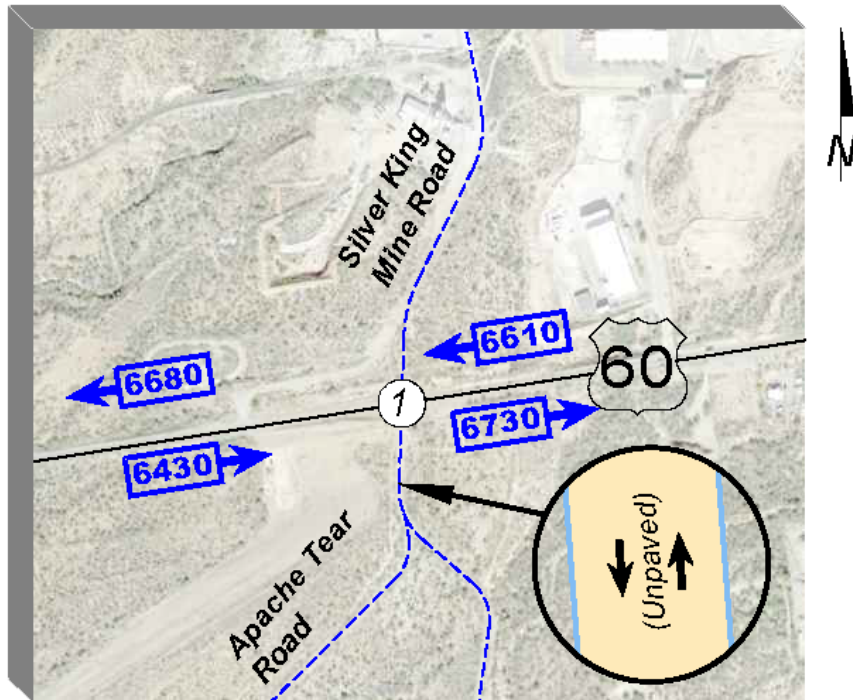




Figure 23 – 2022 Friday Peak Hour Traffic Volumes  
Without Silver King Location – Alternative 4

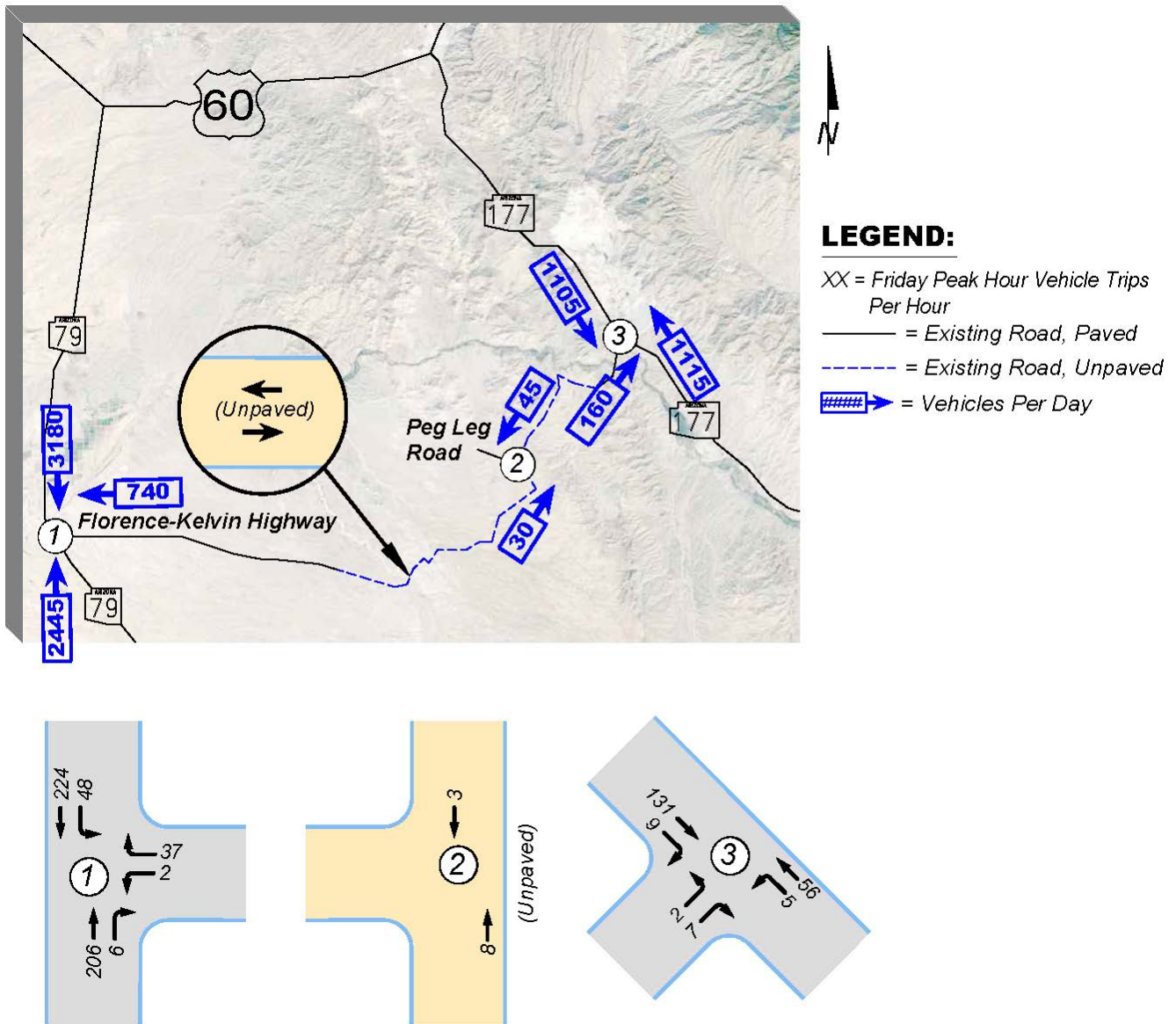


**LEGEND:**

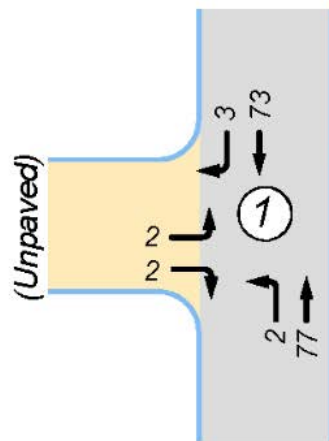
- XX = Friday Peak Hour Vehicle Trips  
Per Hour
- = Existing Road, Paved
- = Existing Road, Unpaved
- #### = Vehicles Per Day



Figure 24 – 2022 Friday Peak Hour Traffic Volumes  
Without Peg Leg Location – Alternative 5







XX = Friday Peak Hour Vehicle Trips  
Per Hour

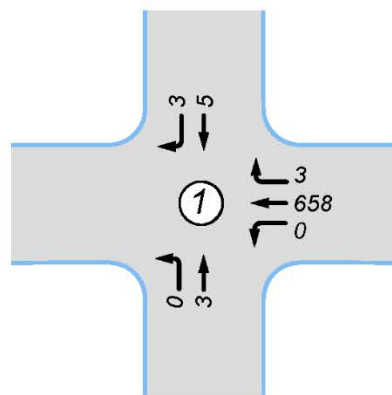
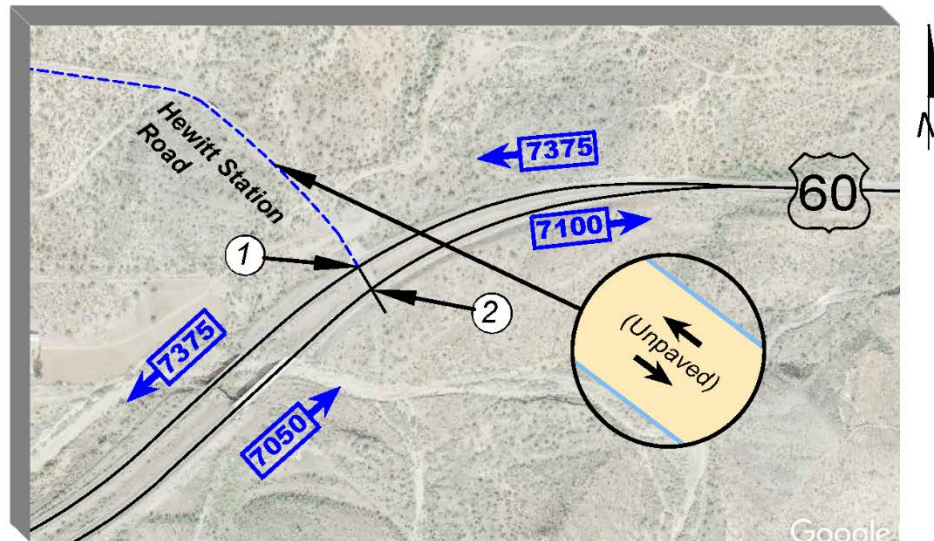
———— = Existing Road, Paved

----- = Existing Road, Unpaved

#### ➡ = Vehicles Per Day

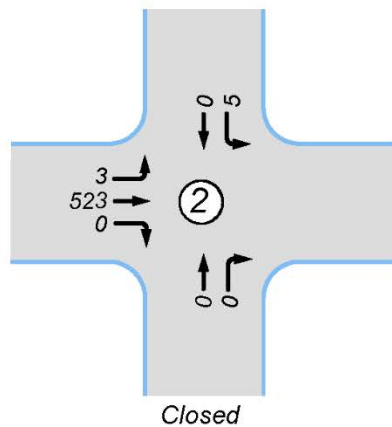


**Figure 26 – 2027 Friday Peak Hour Traffic Volumes  
Without Near West Location – Alternatives 2 and 3**



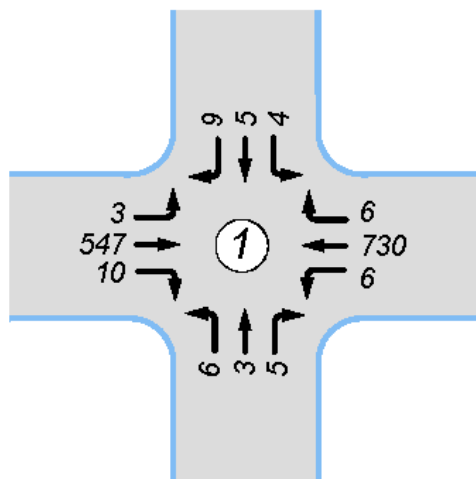
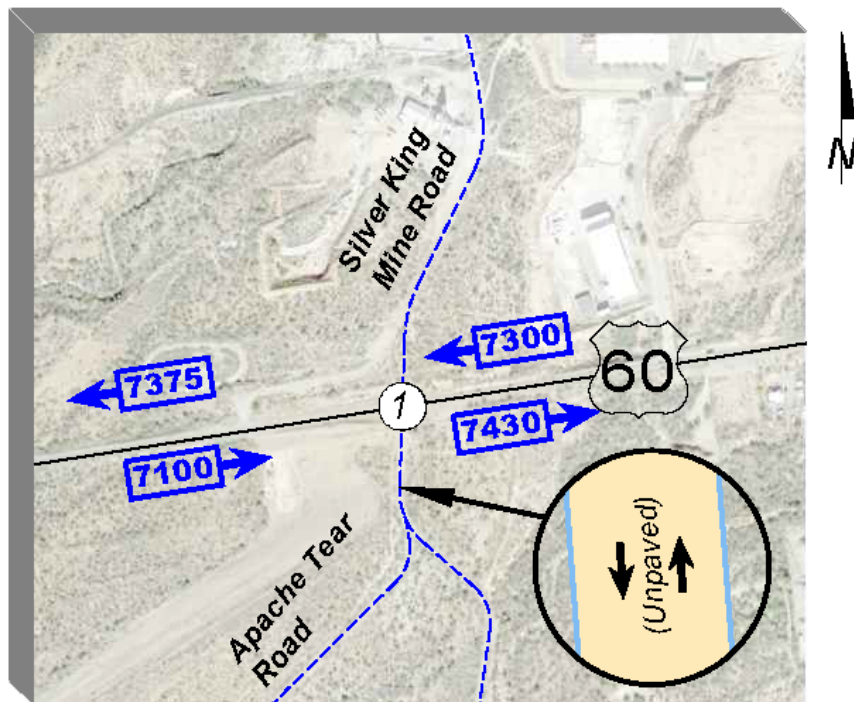
**LEGEND:**

- XX = Friday Peak Hour Vehicle Trips  
Per Hour  
— = Existing Road, Paved  
--- = Existing Road, Unpaved  
#### = Vehicles Per Day





**Figure 27 – 2027 Friday Peak Hour Traffic Volumes  
Without Silver King Location – Alternative 4**

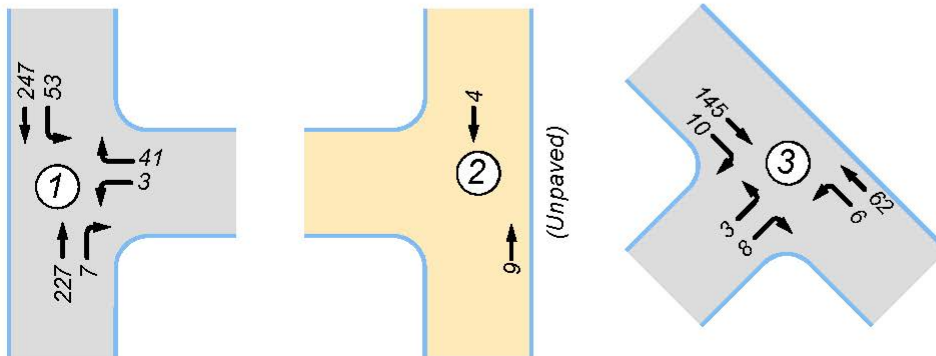
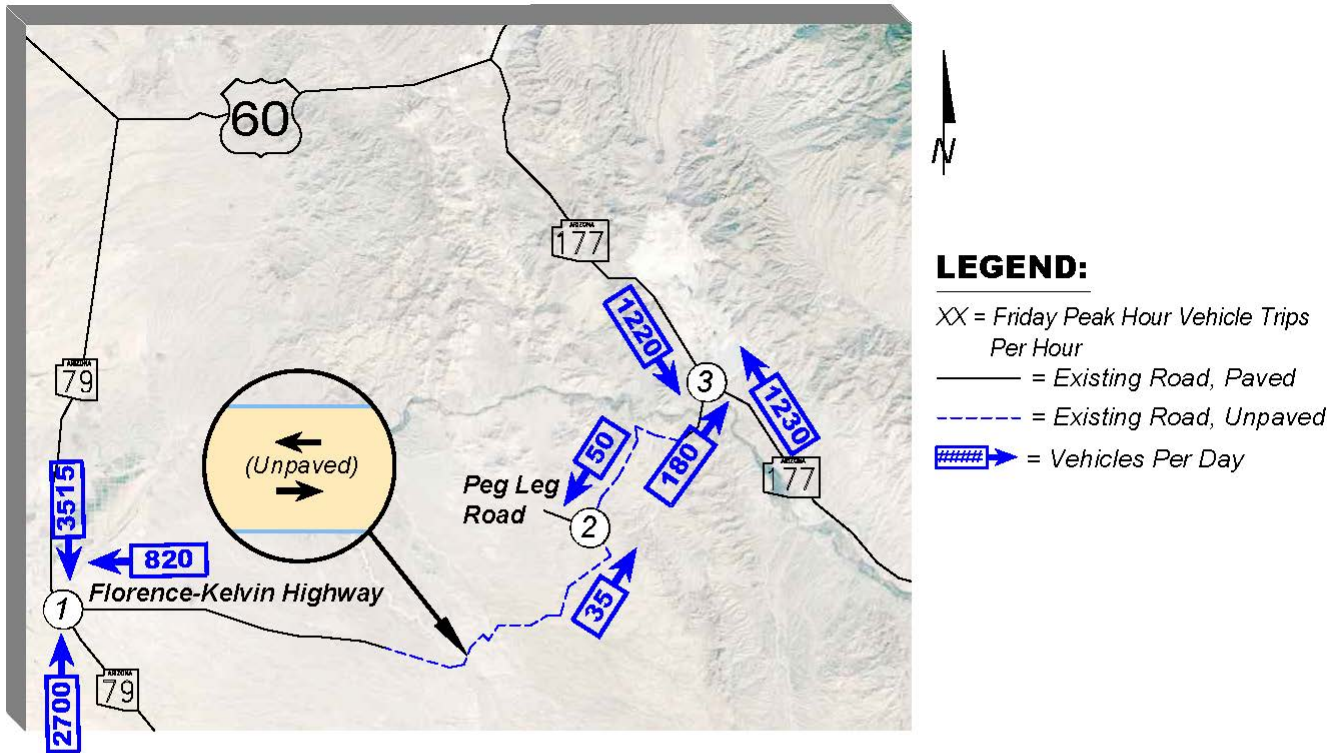


**LEGEND:**

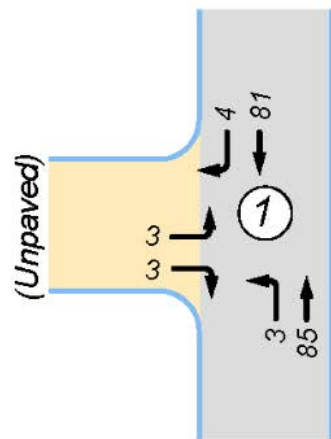
- XX = Friday Peak Hour Vehicle Trips Per Hour
- = Existing Road, Paved
- = Existing Road, Unpaved
- ####➔ = Vehicles Per Day



Figure 28 – 2027 Friday Peak Hour Traffic Volumes  
Without Peg Leg Location – Alternative 5







XX = Friday Peak Hour Vehicle Trips  
Per Hour

———— = Existing Road, Paved

----- = Existing Road, Unpaved

#### ➡ = Vehicles Per Day





**Table 10 – 2022 Friday Peak Hour Levels of Service  
Without Peg Leg Location – Alternative 5**

Intersection	Friday Peak	
	LOS	Delay
<b>Un-Signalized Intersections</b>		
Florence-Kelvin Highway/SR 79		
Westbound Left/Right	B	10.1
Southbound Left	A	7.9
Florence-Kelvin Highway/SR 177		
Eastbound Left/Right	A	9.3
Northbound Left/Through	A	7.6

Delay - seconds per vehicle, N/A - not available

**Table 11 – 2022 Friday Peak Hour Levels of Service  
Without Skunk Camp Location – Alternative 6**

Intersection	Friday Peak	
	LOS	Delay
<b>Un-Signalized Intersections</b>		
Dripping Springs Road/SR 77		
Eastbound Left/Right	A	9.1
Northbound Left/Through	A	7.4

Delay - seconds per vehicle, N/A - not available

**Table 12 – 2027 Friday Peak Hour Levels of Service  
Without Near West Location – Alternatives 2 and 3**

Intersection	Friday Peak	
	LOS	Delay
<b>Un-Signalized Intersections</b>		
Hewitt Station Road/US 60 Eastbound		
Northbound Through/Right	A	0.0
Southbound Left/Through	B	10.9
Hewitt Station Road/US 60 Westbound		
Northbound Left/Through	C	15.5
Southbound Through/Right	B	13.9

Delay - seconds per vehicle, N/A - not available



**Table 13 – 2027 Friday Peak Hour Levels of Service  
Without Silver King Location – Alternative 4**

Intersection	Friday Peak	
	LOS	Delay
<b>Un-Signalized Intersections</b>		
Silver King Road/US 60		
Eastbound Left	A	9.5
Westbound Left	A	8.9
Northbound Left/Through/Right	C	24.6
Southbound Left/Through/Right	C	23.9

Delay - seconds per vehicle, N/A - not available

**Table 14 – 2027 Friday Peak Hour Levels of Service  
Without Peg Leg Location – Alternative 5**

Intersection	Friday Peak	
	LOS	Delay
<b>Un-Signalized Intersections</b>		
Florence-Kelvin Highway/SR 79		
Westbound Left/Right	B	10.4
Southbound Left	A	7.9
Florence-Kelvin Highway/SR 177		
Eastbound Left/Right	A	9.5
Northbound Left/Through	A	7.6

Delay - seconds per vehicle, N/A - not available

**Table 15 – 2027 Friday Peak Hour Levels of Service  
Without Skunk Camp Location – Alternative 6**

Intersection	Friday Peak	
	LOS	Delay
<b>Un-Signalized Intersections</b>		
Dripping Springs Road/SR 77		
Eastbound Left/Right	A	9.2
Northbound Left/Through	A	7.4

Delay - seconds per vehicle, N/A - not available

As noted previously for Alternative 5, the intersection of Peg Leg Road/Florence-Kelvin Highway is remote, unpaved, and only has approximately 50 cars per day using the major approach. Due to the very low volume nature of the major approaches, turning movement counts were not collected at this intersection and it was assumed that there are currently no vehicles on the minor approaches during the peak hours.

As shown in **Tables 8 through 15**, the key study intersections adjacent to the alternatives are expected to continue operating at an adequate LOS in 2022 and 2027 without traffic from the project.



## **Future Traffic Operations With Project**

In order to assess the impacts of TSF Alternatives 2 through 6 on future traffic operations, levels of service were calculated for each study intersection for peak construction (2022) and peak operations (2027) of the TSF alternatives. Friday peak hour traffic volumes for 2022 and 2027 without the project were combined with the estimated trips generated by the corresponding proposed TSF alternative to yield Friday peak hour traffic volumes with the project as shown in **Figures 30** through **37**.

Friday peak hour intersection levels of service for 2022 and 2027, with the TSF alternatives, were then calculated for each of the key study intersections, as shown in **Tables 16** through **23**. Complete capacity calculations are included in the Appendix.

**Table 16 – 2022 Friday Peak Hour Levels of Service  
With Near West Location – Alternatives 2 and 3**

Intersection	2022 Without Project		2022 With Project	
	Friday Peak		Friday Peak	
	LOS	Delay	LOS	Delay
<b>Un-Signalized Intersections</b>				
Hewitt Station Road/US 60 Eastbound				
Northbound Through/Right	A	0.0	A	0.0
Southbound Left/Through	B	10.6	B	11.3
Hewitt Station Road/US 60 Westbound				
Northbound Left/Through	C	15.1	C	15.6
Southbound Through/Right	B	13.7	B	12.1

Delay - seconds per vehicle, N/A - not available

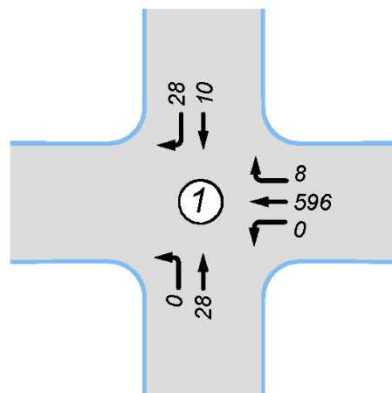
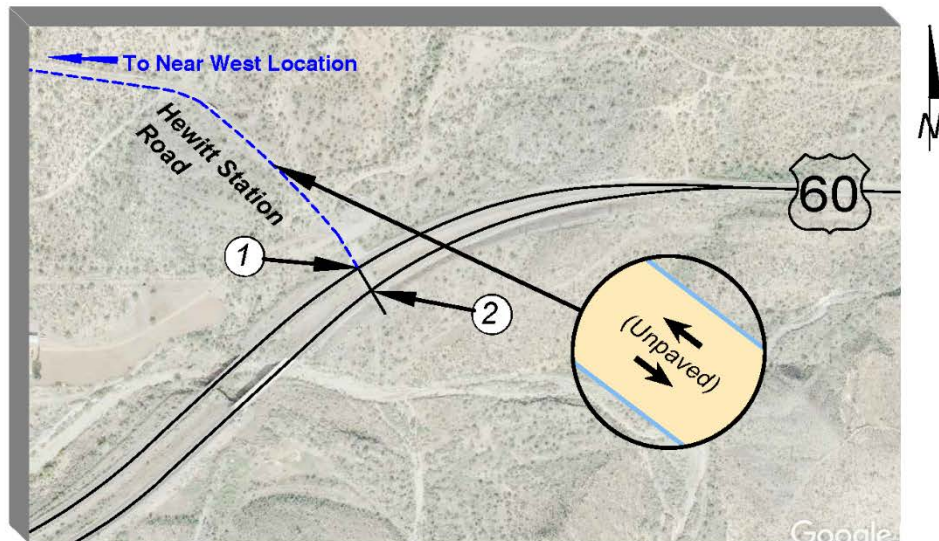
**Table 17 – 2022 Friday Peak Hour Levels of Service  
With Silver King Location – Alternative 4**

Intersection	2022 Without Project		2022 With Project	
	Friday Peak		Friday Peak	
	LOS	Delay	LOS	Delay
<b>Un-Signalized Intersections</b>				
Silver King Road/US 60				
Eastbound Left	A	9.2	A	9.4
Westbound Left	A	8.7	A	8.7
Northbound Left/Through/Right	C	20.4	C	24.2
Southbound Left/Through/Right	C	19.6	C	19.4

Delay - seconds per vehicle, N/A - not available



**Figure 30 – 2022 Friday Peak Hour Traffic Volumes  
With Near West Location – Alternatives 2 and 3**

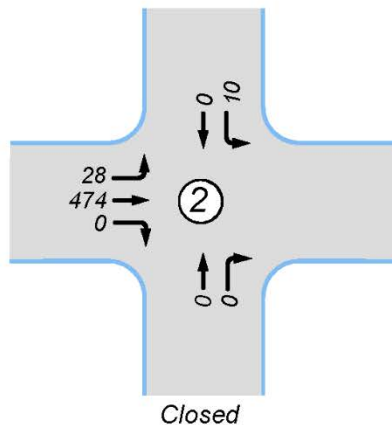


**LEGEND:**

XX = Friday Peak Hour Vehicle Trips  
Per Hour

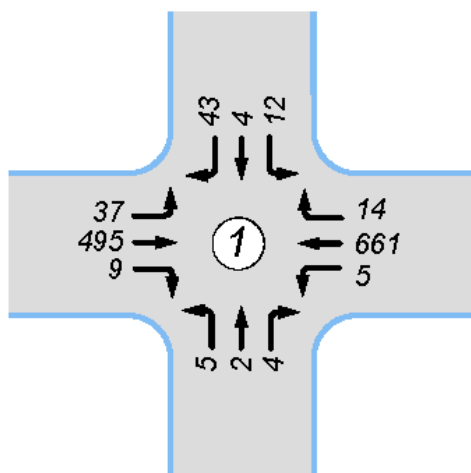
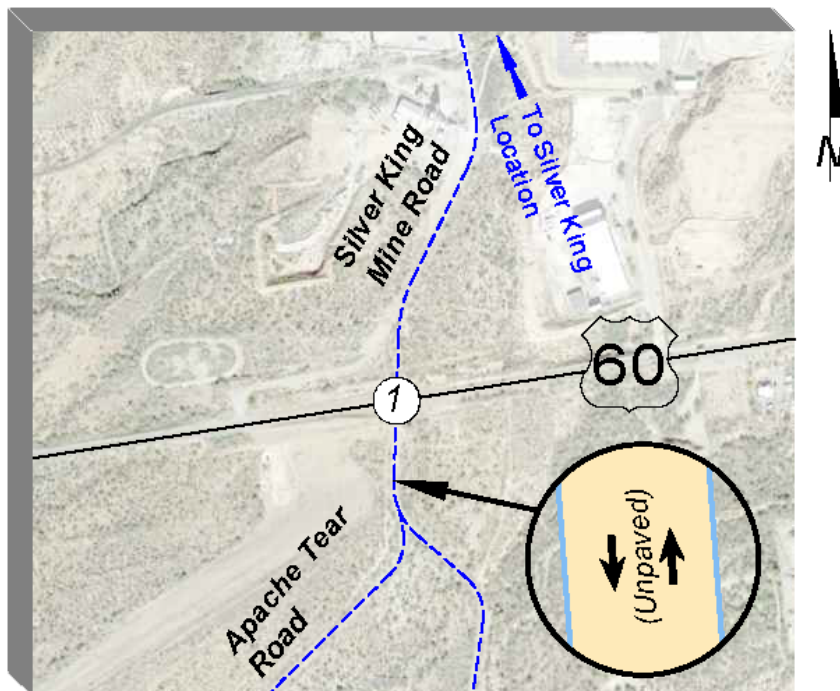
— = Existing Road, Paved

- - - = Existing Road, Unpaved





**Figure 31 – 2022 Friday Peak Hour Traffic Volumes  
With Alternative Silver King Location – Alternative 4**



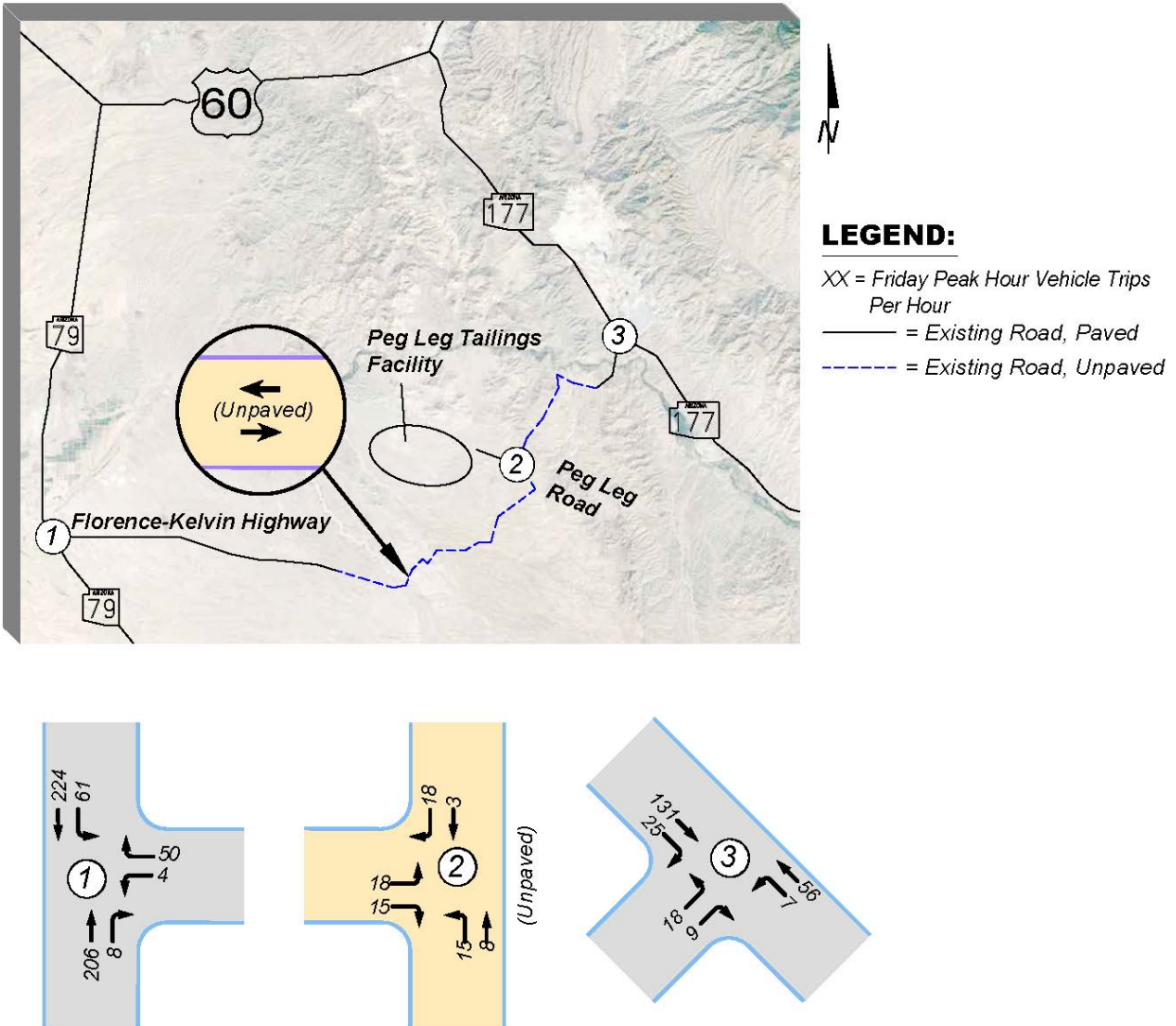
**LEGEND:**

- XX = Friday Peak Hour Vehicle Trips  
Per Hour
- = Existing Road, Paved
- = Existing Road, Unpaved



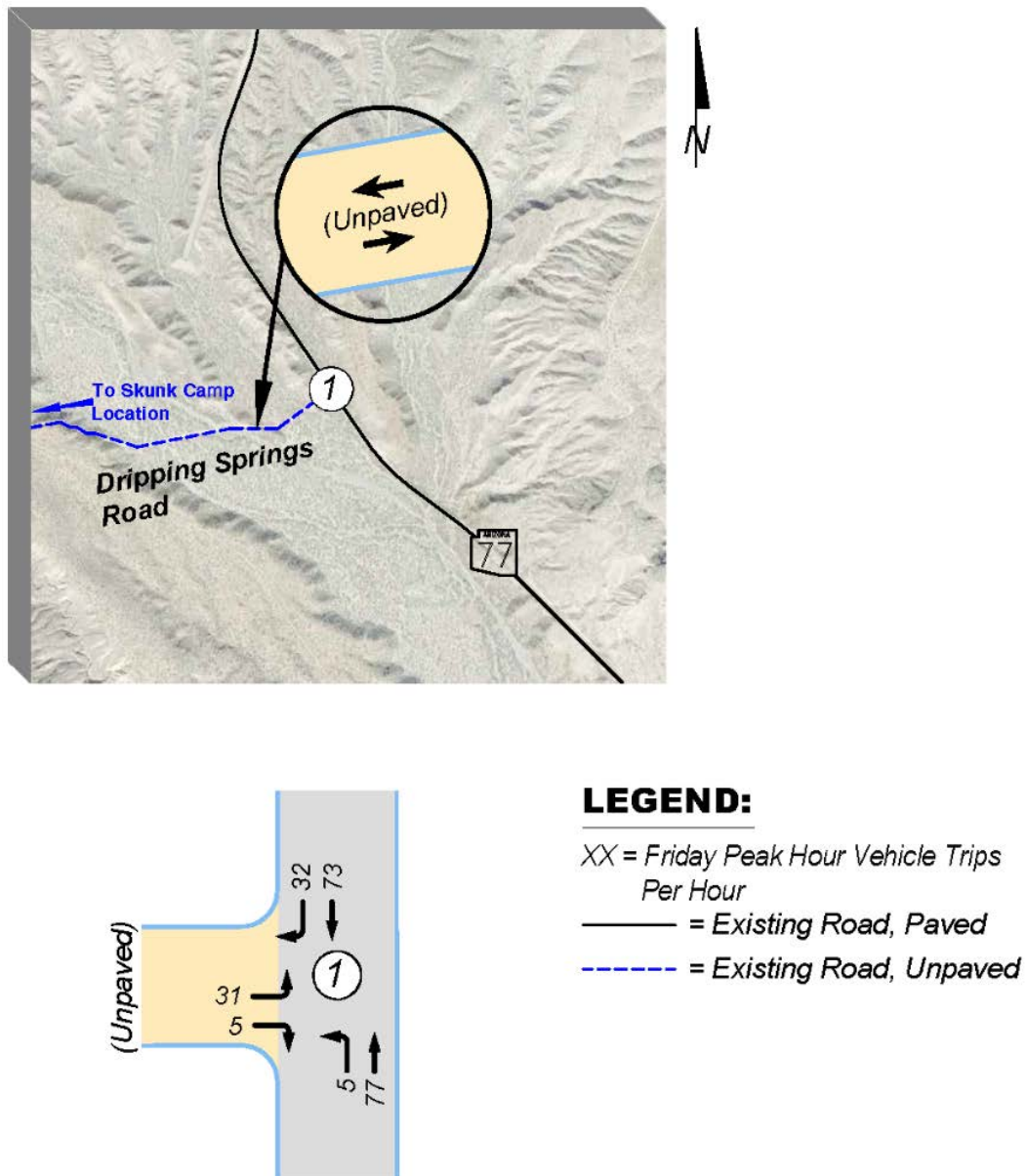


**Figure 32 – 2022 Friday Peak Hour Traffic Volumes  
With Alternative Peg Leg Location – Alternative 5**



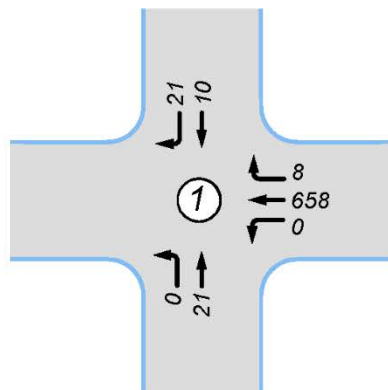
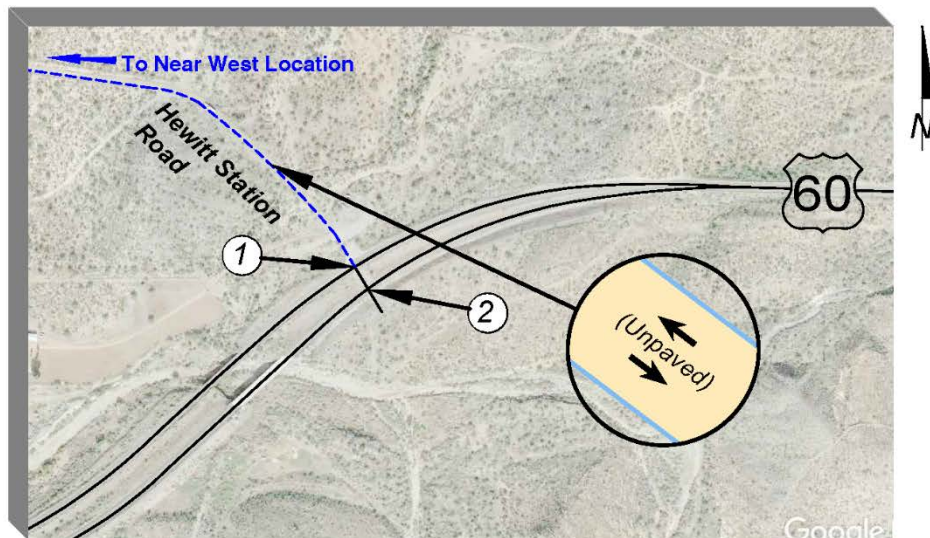


**Figure 33 – 2022 Friday Peak Hour Traffic Volumes  
With Skunk Camp Location – Alternative 6**



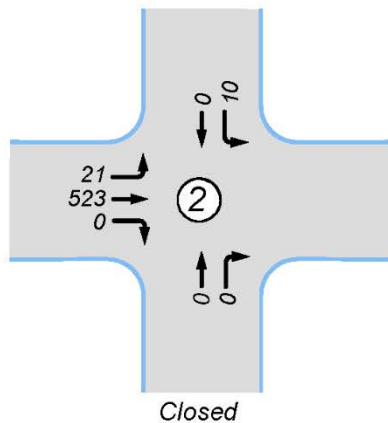


**Figure 34 – 2027 Friday Peak Hour Traffic Volumes  
With Near West Location – Alternatives 2 and 3**



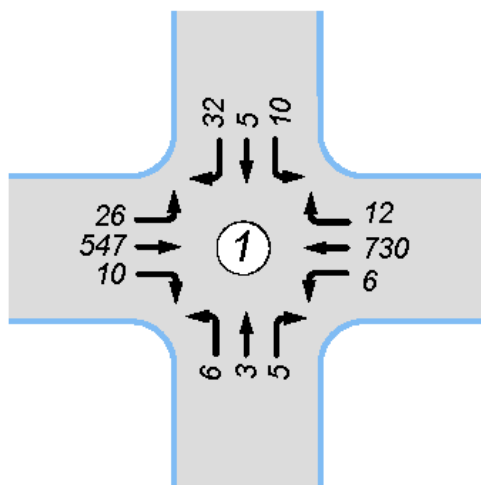
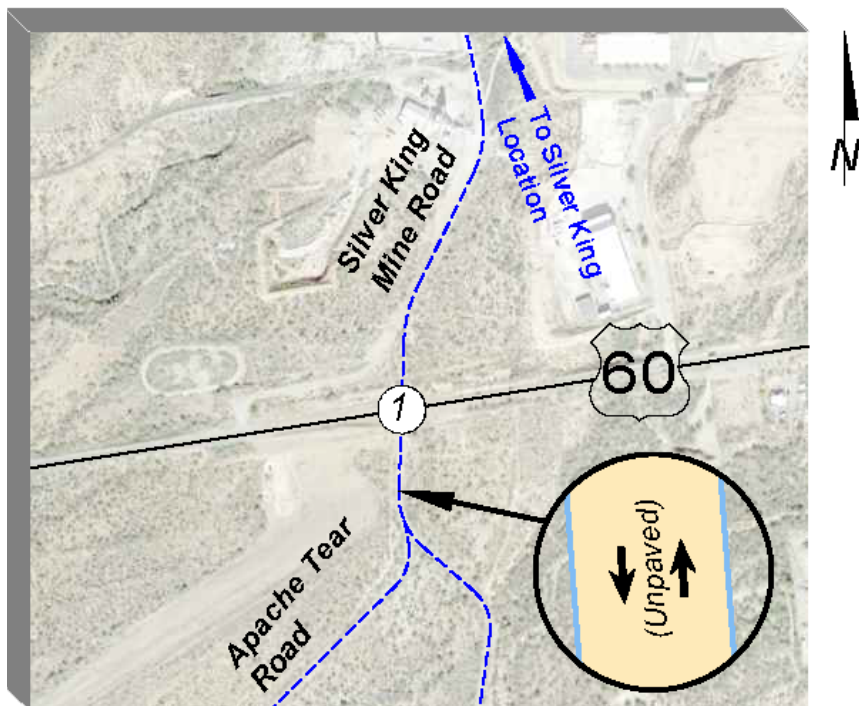
**LEGEND:**

- XX = Friday Peak Hour Vehicle Trips Per Hour
- = Existing Road, Paved
- = Existing Road, Unpaved





**Figure 35 – 2027 Friday Peak Hour Traffic Volumes  
With Silver King Location – Alternative 4**



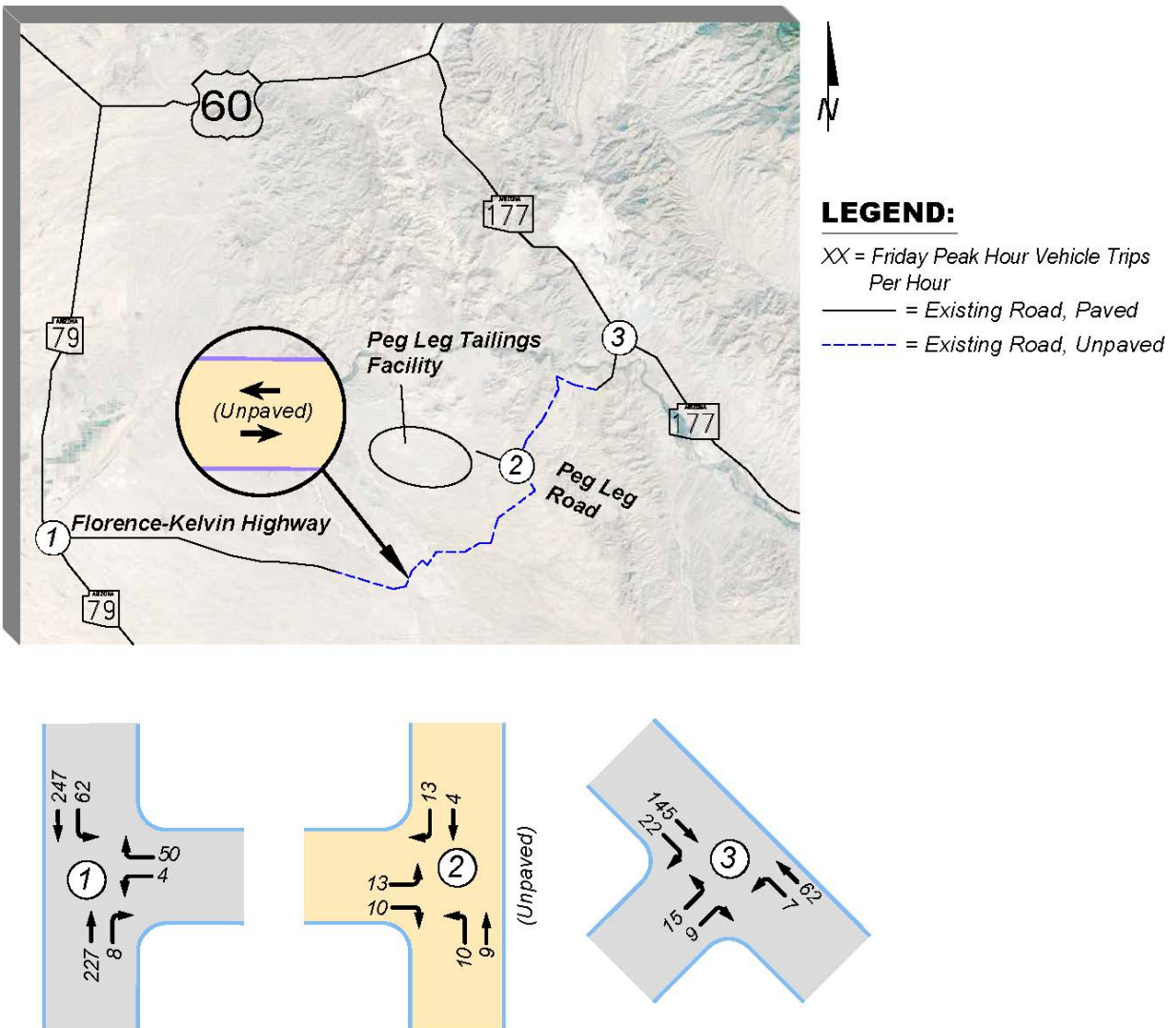
**LEGEND:**

- XX = Friday Peak Hour Vehicle Trips Per Hour
- = Existing Road, Paved
- - - = Existing Road, Unpaved
- #### ➔ = Vehicles Per Day





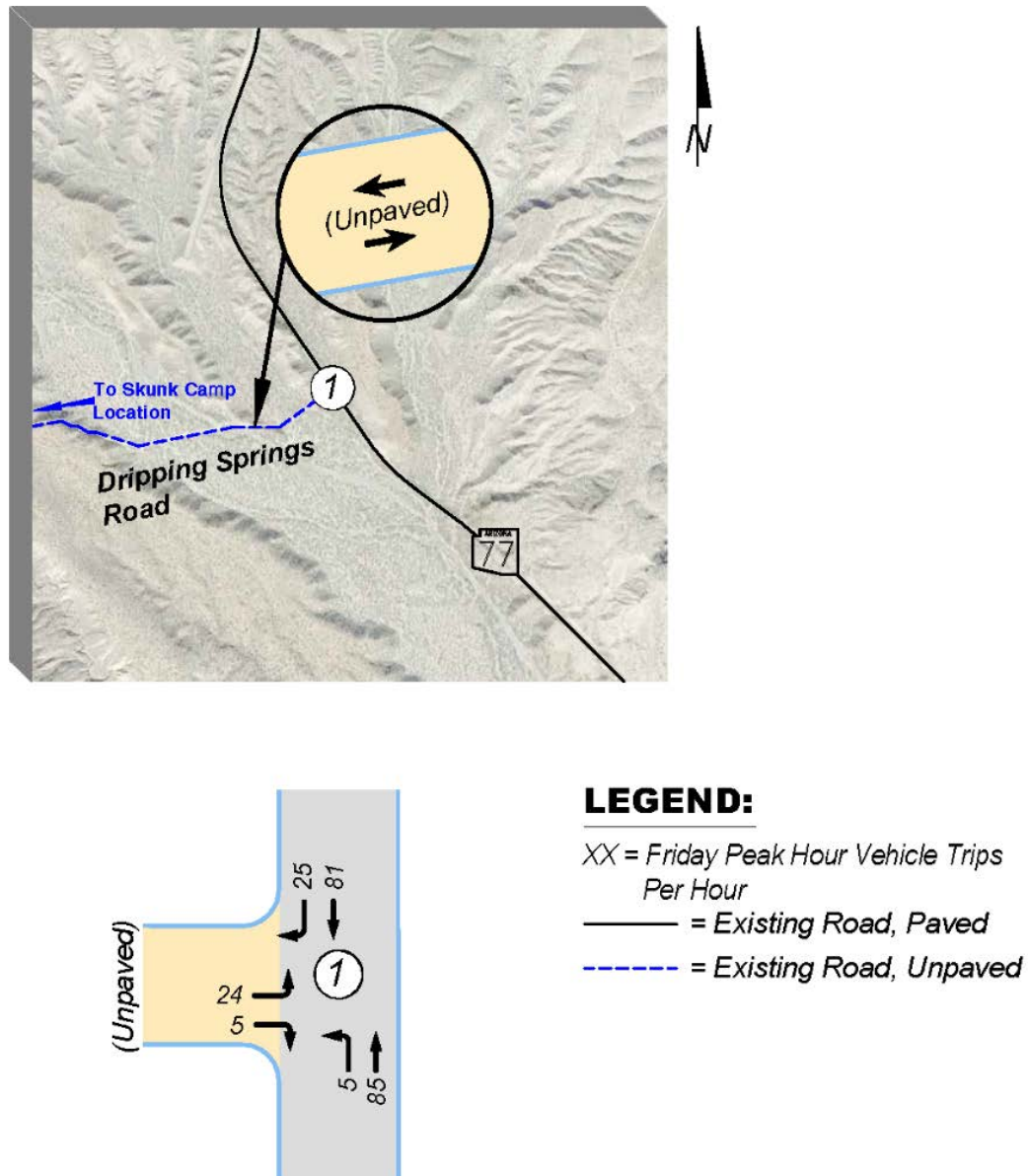
**Figure 36 – 2027 Friday Peak Hour Traffic Volumes  
With Peg Leg Location – Alternative 5**







**Figure 37 – 2027 Friday Peak Hour Traffic Volumes  
With Skunk Camp Location – Alternative 6**





**Table 18 – 2022 Friday Peak Hour Levels of Service  
With Peg Leg Location – Alternative 5**

Intersection	2022 Without Project		2022 With Project	
	Friday Peak		Friday Peak	
	LOS	Delay	LOS	Delay
<b>Un-Signalized Intersections</b>				
Florence-Kelvin Highway/SR 79				
Westbound Left/Right	B	10.1	B	10.4
Southbound Left	A	7.9	A	7.9
Florence-Kelvin Highway/SR 177				
Eastbound Left/Right	A	9.3	A	9.9
Northbound Left/Through	A	7.6	A	7.6
Peg Leg Road/Florence-Kelvin Highway				
Eastbound Left/Right	N/A		A	8.8
Northbound Left/Through			A	7.3

Delay - seconds per vehicle, N/A - not available

**Table 19 – 2022 Friday Peak Hour Levels of Service  
With Skunk Camp Location – Alternative 6**

Intersection	2022 Without Project		2022 With Project	
	Friday Peak		Friday Peak	
	LOS	Delay	LOS	Delay
<b>Un-Signalized Intersections</b>				
Dripping Springs Road/SR 77				
Eastbound Left/Right	A	9.1	A	9.8
Northbound Left/Through	A	7.4	A	7.4

Delay - seconds per vehicle, N/A - not available

**Table 20 – 2027 Friday Peak Hour Levels of Service  
With Near West Location – Alternatives 2 and 3**

Intersection	2022 Without Project		2022 With Project	
	Friday Peak		Friday Peak	
	LOS	Delay	LOS	Delay
<b>Un-Signalized Intersections</b>				
Hewitt Station Road/US 60 Eastbound				
Northbound Through/Right	A	0.0	A	0.0
Southbound Left/Through	B	10.9	B	11.4
Hewitt Station Road/US 60 Westbound				
Northbound Left/Through	C	15.5	C	16.4
Southbound Through/Right	B	13.9	B	12.9

Delay - seconds per vehicle, N/A - not available



**Table 21 – 2027 Friday Peak Hour Levels of Service  
With Silver King Location – Alternative 4**

Intersection	2022 Without Project		2022 With Project	
	Friday Peak		Friday Peak	
	LOS	Delay	LOS	Delay
<b>Un-Signalized Intersections</b>				
Silver King Road/US 60				
Eastbound Left	A	9.5	A	9.7
Westbound Left	A	8.9	A	8.9
Northbound Left/Through/Right	C	24.6	D	27.7
Southbound Left/Through/Right	C	23.9	C	22.7

Delay - seconds per vehicle, N/A - not available

**Table 22 – 2027 Friday Peak Hour Levels of Service  
With Peg Leg Location – Alternative 5**

Intersection	2022 Without Project		2022 With Project	
	Friday Peak		Friday Peak	
	LOS	Delay	LOS	Delay
<b>Un-Signalized Intersections</b>				
Florence-Kelvin Highway/SR 79				
Westbound Left/Right	B	10.4	B	10.6
Southbound Left	A	7.9	A	8.0
Florence-Kelvin Highway/SR 177				
Eastbound Left/Right	A	9.5	A	9.9
Northbound Left/Through	A	7.6	A	7.6
Peg Leg Road/Florence-Kelvin Highway				
Eastbound Left/Right	N/A		A	8.7
Northbound Left/Through			A	7.3

Delay - seconds per vehicle, N/A - not available

**Table 23 – 2027 Friday Peak Hour Levels of Service  
With Skunk Camp Location – Alternative 6**

Intersection	2022 Without Project		2022 With Project	
	Friday Peak		Friday Peak	
	LOS	Delay	LOS	Delay
<b>Un-Signalized Intersections</b>				
Dripping Springs Road/SR 77				
Eastbound Left/Right	A	9.2	A	9.8
Northbound Left/Through	A	7.4	A	7.5

Delay - seconds per vehicle, N/A - not available

As shown in **Tables 16** through **23**, the key study intersections adjacent to the TSF alternatives are expected to continue operating at an adequate LOS during both peak construction (2022) and peak operations (2027) with the project.



## Turn Lane Analysis

A key element of this traffic analysis is to determine if right or left turn lanes are required at the existing study intersections providing access to the TSF alternatives. The ADOT *Traffic Engineering Guidelines and Processes (TGP) Section 245 – Turn Lane Warrants* provides warrants for the inclusion of left and right turn lanes based on speed limit, through traffic volumes, and turning traffic volume during the peak hour.

When needed, turn lanes remove the slowing turning traffic from the through traffic stream, improving capacity. **Tables 24** through **27** show the locations that were evaluated for left and right turn lanes based on existing, 2022 peak construction, and 2027 peak operations Friday peak hours.

**Table 24 – Turn Lane Warrants, Near West Location – Alternatives 2 and 3**

Intersection	Direction	Turn Treatment Analyzed	Guidelines Applied	Turn Treatments Warranted?		
				Existing	2022 Peak Construction	2027 Peak Operations
Hewitt Station Road/US 60 Eastbound	Eastbound	Left Turn Lane	ADOT	Existing	Existing	Existing
Hewitt Station Road/US 60 Eastbound	Eastbound	Right Turn Lane	ADOT	Existing	Existing	Existing
Hewitt Station Road/US 60 Westbound	Westbound	Left Turn Lane	ADOT	Existing	Existing	Existing
Hewitt Station Road/US 60 Westbound	Westbound	Right Turn Lane	ADOT	No	No	No

**Table 25 – Turn Lane Warrants, Silver King Location – Alternative 4**

Intersection	Direction	Turn Treatment Analyzed	Guidelines Applied	Turn Treatments Warranted?		
				Existing	2022 Peak Construction	2027 Peak Operations
Silver King Road/US 60	Eastbound	Left Turn Lane	ADOT	Existing	Existing	Existing
Silver King Road/US 60	Eastbound	Right Turn Lane	ADOT	No	No	No
Silver King Road/US 60	Westbound	Left Turn Lane	ADOT	Existing	Existing	Existing
Silver King Road/US 60	Westbound	Right Turn Lane	ADOT	No	No	No

**Table 26 – Turn Lane Warrants, Peg Leg Location – Alternative 5**

Intersection	Direction	Turn Treatment Analyzed	Guidelines Applied	Turn Treatments Warranted?		
				Existing	2022 Peak Construction	2027 Peak Operations
Florence-Kelvin Highway/SR 79	Northbound	Right Turn Lane	ADOT	No	No	No
Florence-Kelvin Highway/SR 79	Southbound	Left Turn Lane	ADOT	Existing	Existing	Existing
Florence-Kelvin Highway/SR 177	Northbound	Left Turn Lane	ADOT	No	No	No
Florence-Kelvin Highway/SR 177	Southbound	Right Turn Lane	ADOT	No	No	No
Peg Leg Road/Florence-Kelvin Highway	Northbound	Left Turn Lane	ADOT	No	No	No
Peg Leg Road/Florence-Kelvin Highway	Southbound	Right Turn Lane	ADOT	No	No	No



**Table 27 – Turn Lane Warrants, Skunk Camp Location – Alternative 6**

Intersection	Direction	Turn Treatment Analyzed	Guidelines Applied	Turn Treatments Warranted?		
				Existing	2022 Peak Construction	2027 Peak Operations
Dripping Springs Road/SR 77	Northbound	Left Turn Lane	ADOT	No	No	No
Dripping Springs Road/SR 77	Southbound	Right Turn Lane	ADOT	No	No	No

**Tables 24** through **27** show that no additional turn lanes are warranted at the study intersections for any of the TSF alternatives.

### **Conclusion**

The Resolution Copper Mine is considering an alternative location for their filter plant and several alternative locations for their tailings facility. No significant changes in trip generation are expected with the alternate filter plant when compared to the original TIA. Based on employment information provided by Resolution Copper, the Alternate 4 (Silver King) Tailings Storage Facility is the alternative expected to generate the most vehicle trips with 88 Friday peak hour vehicle trips expected during peak construction and 58 Friday peak hour vehicle trips expected during peak operations.

The key study intersections adjacent to the TSF alternatives are currently operating at an adequate LOS during the Friday peak hour and are anticipated to continue doing so in 2022 (peak construction) and 2027 (peak operations) without or with traffic from the TSF alternatives.

No additional turn lanes are warranted at the study intersections for any of the TSF alternatives.

The results outlined in this report are based upon an assumed peak construction year (2022) and peak operations year (2027). Economic conditions or the timing of the EIS approval process may shift these study horizon years. The conclusions of this report are not expected to change if the Resolution Copper Mine project experiences minor delays and the study area is not significantly impacted by major development.





**FILTER PLANT AND TAILINGS FACILITY ALTERNATIVES  
RESOLUTION COPPER MINE PROJECT  
TRAFFIC TECHNICAL MEMORANDUM**

**APPENDIX**

**Traffic Counts**

**Trip Generation Calculations**

**Capacity Calculations**



**FILTER PLANT AND TAILINGS FACILITY ALTERNATIVES  
RESOLUTION COPPER MINE PROJECT  
TRAFFIC TECHNICAL MEMORANDUM**

**APPENDIX**

**Traffic Counts**

# Intersection Turning Movement

Prepared by:



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745

Project #: 18-1154-001

## TMC SUMMARY OF SR-79 & Florence Kelvin Highway

**SR-79**

Florence Kelvin Highway

APPROACH LANES

	0	1	1
TOTAL	0	207	44
24 HRS	0	207	44

**N**

Florence Kelvin Highway

APPROACH LANES

0	0	0		
0	0	0		
0	0	0		

CONTROL

1-Way Stop

WB

APPROACH LANES

34			34
0			0
1			1

**SR-79**

APPROACH LANES

TOTAL	0	190	5
24 HRS	0	190	5
	0	1	0

APPROACH LANES

LOCATION #: **18-1154-001**

TURNING MOVEMENT COUNT

**SR-79 & Florence Kelvin Highway**  
(Intersection Name)

FRIDAY 03/23/18  
Day Date

COUNT PERIODS

AM	700AM	-	1000PM
NOON		-	
PM		-	

AM PEAK HOUR 145 PM

NOON PEAK HOUR

PM PEAK HOUR

**Intersection Turning Movement**  
**Prepared by:**



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745



veracitytrafficgroup

N-S STREET: **SR-79** DATE: **03/23/18** LOCATION: **Florence**  
E-W STREET: **Florence Kelvin Highway** DAY: **FRIDAY** PROJECT#: **18-1154-001**

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	1	0	1	1	0	0	0	0	0	1	0	
7:00 AM	0	27	0	10	19	0	0	0	0	0	0	13	69
7:15 AM	0	27	2	4	13	0	0	0	0	1	0	10	57
7:30 AM	0	31	2	9	20	0	0	0	0	0	0	14	76
7:45 AM	0	37	0	4	15	0	0	0	0	0	0	17	73
8:00 AM	0	31	0	9	20	0	0	0	0	0	0	14	74
8:15 AM	0	31	0	7	16	0	0	0	0	0	0	14	68
8:30 AM	0	38	3	0	20	0	0	0	0	2	0	12	75
8:45 AM	0	39	1	8	18	0	0	0	0	0	0	14	80
9:00 AM	0	48	0	9	24	0	0	0	0	0	0	15	96
9:15 AM	0	36	1	9	29	0	0	0	0	1	0	11	87
9:30 AM	0	29	0	8	42	0	0	0	0	2	0	10	91
9:45 AM	0	53	0	8	40	0	0	0	0	0	0	12	113
10:00 AM	0	35	1	7	35	0	0	0	0	0	0	13	91
10:15 AM	0	41	0	9	45	0	0	0	0	0	0	10	105
10:30 AM	0	62	0	8	41	0	0	0	0	0	0	13	124
10:45 AM	0	45	1	5	44	0	0	0	0	1	0	12	108
11:00 AM	0	56	0	16	52	0	0	0	0	0	0	10	134
11:15 AM	0	37	0	9	35	0	0	0	0	0	0	11	92
11:30 AM	0	34	1	10	27	0	0	0	0	1	0	15	88
11:45 AM	0	44	1	10	38	0	0	0	0	0	0	8	101
12:00 PM	0	47	1	12	37	0	0	0	0	0	0	13	110
12:15 PM	0	39	1	11	51	0	0	0	0	1	0	17	120
12:30 PM	0	36	1	6	38	0	0	0	0	0	0	12	93
12:45 PM	0	40	0	14	47	0	0	0	0	0	0	6	107
1:00 PM	0	36	3	7	33	0	0	0	0	0	0	13	92
1:15 PM	0	49	0	9	40	0	0	0	0	1	0	6	105
1:30 PM	0	47	0	11	37	0	0	0	0	2	0	6	103
1:45 PM	0	37	0	17	48	0	0	0	0	0	0	7	109
2:00 PM	0	50	3	6	46	0	0	0	0	1	0	10	116
2:15 PM	0	42	1	11	58	0	0	0	0	0	0	8	120
2:30 PM	0	61	1	10	55	0	0	0	0	0	0	9	136
2:45 PM	0	38	0	8	42	0	0	0	0	1	0	9	98
3:00 PM	0	34	1	18	41	0	0	0	0	0	0	12	106
3:15 PM	0	51	0	15	55	0	0	0	0	0	0	8	129
3:30 PM	0	43	0	13	46	0	0	0	0	0	0	9	111
3:45 PM	0	40	2	13	44	0	0	0	0	2	0	6	107
4:00 PM	0	39	0	17	53	0	0	0	0	0	0	8	117
4:15 PM	0	36	0	8	49	0	0	0	0	0	0	12	105
4:30 PM	0	39	1	8	51	0	0	0	0	0	0	7	106
4:45 PM	0	34	0	13	33	0	0	0	0	0	0	8	88
5:00 PM	0	34	0	16	51	0	0	0	0	0	0	10	111
5:15 PM	0	23	0	20	33	0	0	0	0	0	0	9	85
5:30 PM	0	44	0	16	47	0	0	0	0	0	0	9	116
5:45 PM	0	27	0	17	43	0	0	0	0	0	0	5	92
6:00 PM	0	31	1	15	40	0	0	0	0	1	0	14	102
6:15 PM	0	25	0	11	42	0	0	0	0	1	0	9	88
6:30 PM	0	16	0	15	25	0	0	0	0	0	0	5	61
6:45 PM	0	24	0	13	35	0	0	0	0	0	0	10	82
7:00 PM	0	16	0	20	40	0	0	0	0	0	0	5	81
7:15 PM	0	18	0	14	26	0	0	0	0	1	0	5	64
7:30 PM	0	21	0	9	19	0	0	0	0	0	0	8	57
7:45 PM	0	15	0	9	17	0	0	0	0	0	0	4	45
8:00 PM	0	13	0	11	21	0	0	0	0	0	0	6	51
8:15 PM	0	15	0	9	14	0	0	0	0	0	0	3	41
8:30 PM	0	10	0	6	15	0	0	0	0	0	0	5	36
8:45 PM	0	14	0	3	14	0	0	0	0	1	0	4	36
9:00 PM	0	14	0	4	9	0	0	0	0	0	0	7	34
9:15 PM	0	8	0	8	15	0	0	0	0	0	0	3	34
9:30 PM	0	5	0	3	17	0	0	0	0	0	0	3	28
9:45 PM	0	4	0	9	22	0	0	0	0	1	0	0	36

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	1996	29	614	2042	0	0	0	0	21	0	558	5260
Approach %	0.00	98.57	1.43	23.12	76.88	0.00	####	####	####	3.63	0.00	96.37	
App/Depart	2025	/	2554	2656	/	2063	0	/	643	579	/	0	

AM Peak Hr Begins at: 145 PM

PEAK Volumes	0	190	5	44	207	0	0	0	0	1	0	34	481
Approach %	0.00	97.44	2.56	17.53	82.47	0.00	####	####	####	2.86	0.00	97.14	

PEAK HR. FACTOR:	0.786	0.909	0.000	0.795	0.884
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CONTROL: **1-Way Stop (WB)**  
COMMENT 1:  
GPS: **33.001859, -111.371226**

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

Volumes for: Friday, March 23, 2018

City: Florence

Project #: 18-1154-003

Location: Florence Kelvin Highway & SR-79

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	0	4		0	12:00	48	49		13
00:15	1	3		1	12:15	40	62		18
00:30	3	4		0	12:30	37	44		12
00:45	1	5	4	15	12:45	40	165	61	216
01:00	1	6		0	13:00	39	40		13
01:15	1	2		0	13:15	49	49		7
01:30	3	1		0	13:30	47	48		8
01:45	0	5	2	11	13:45	37	172	65	202
02:00	1	3		2	14:00	53	52		11
02:15	1	0		1	14:15	43	69		8
02:30	1	1		1	14:30	62	65		9
02:45	1	4	2	6	14:45	38	196	50	236
03:00	0	1		2	15:00	35	59		12
03:15	3	1		2	15:15	51	70		8
03:30	3	2		1	15:30	43	59		9
03:45	2	8	0	4	15:45	42	171	57	245
04:00	5	1		4	16:00	39	70		8
04:15	10	2		8	16:15	36	57		12
04:30	9	2		7	16:30	40	59		7
04:45	14	38	5	10	16:45	34	149	46	232
05:00	17	5		2	17:00	34	67		10
05:15	18	11		4	17:15	23	53		9
05:30	16	12		7	17:30	44	63		9
05:45	19	70	14	42	17:45	27	128	60	243
06:00	11	20		8	18:00	32	55		15
06:15	15	21		7	18:15	25	53		10
06:30	18	21		15	18:30	16	40		5
06:45	24	68	25	87	18:45	24	97	48	196
07:00	27	29		13	19:00	16	60		5
07:15	29	17		11	19:15	18	40		6
07:30	33	29		14	19:30	21	28		8
07:45	37	126	19	94	19:45	15	70	26	154
08:00	31	29		14	20:00	13	32		6
08:15	31	23		14	20:15	15	23		3
08:30	41	20		14	20:30	10	21		5
08:45	40	143	26	98	20:45	14	52	17	93
09:00	48	33		15	21:00	14	13		7
09:15	37	38		12	21:15	8	23		3
09:30	29	50		12	21:30	5	20		3
09:45	53	167	48	169	21:45	4	31	31	87
10:00	36	42		13	22:00	6	23		1
10:15	41	54		10	22:15	6	25		3
10:30	62	49		13	22:30	10	16		1
10:45	46	185	49	194	22:45	5	27	6	70
11:00	56	68		10	23:00	4	9		1
11:15	37	44		11	23:15	1	12		0
11:30	35	37		16	23:30	3	6		1
11:45	45	173	48	197	23:45	1	9	11	38

**Total Vol.** 992 927 349 **2268** 1267 2012 332 **3611**

**GPS Coordinates:** 33.001859, -111.371226

					Daily Totals				
					NB	SB	EB	WB	Combined
					2259	2939		681	5879
AM					PM				
Split %	43.7%	40.9%	15.4%	<b>38.6%</b>	35.1%	55.7%	9.2%	<b>61.4%</b>	
Peak Hour	10:15	10:15	07:30	<b>10:15</b>	14:00	15:15	12:00	<b>13:45</b>	
Volume	205	220	59	<b>471</b>	196	256	49	<b>481</b>	
P.H.F.	0.83	0.81	0.87	<b>0.88</b>	0.79	0.91	0.68	<b>0.88</b>	



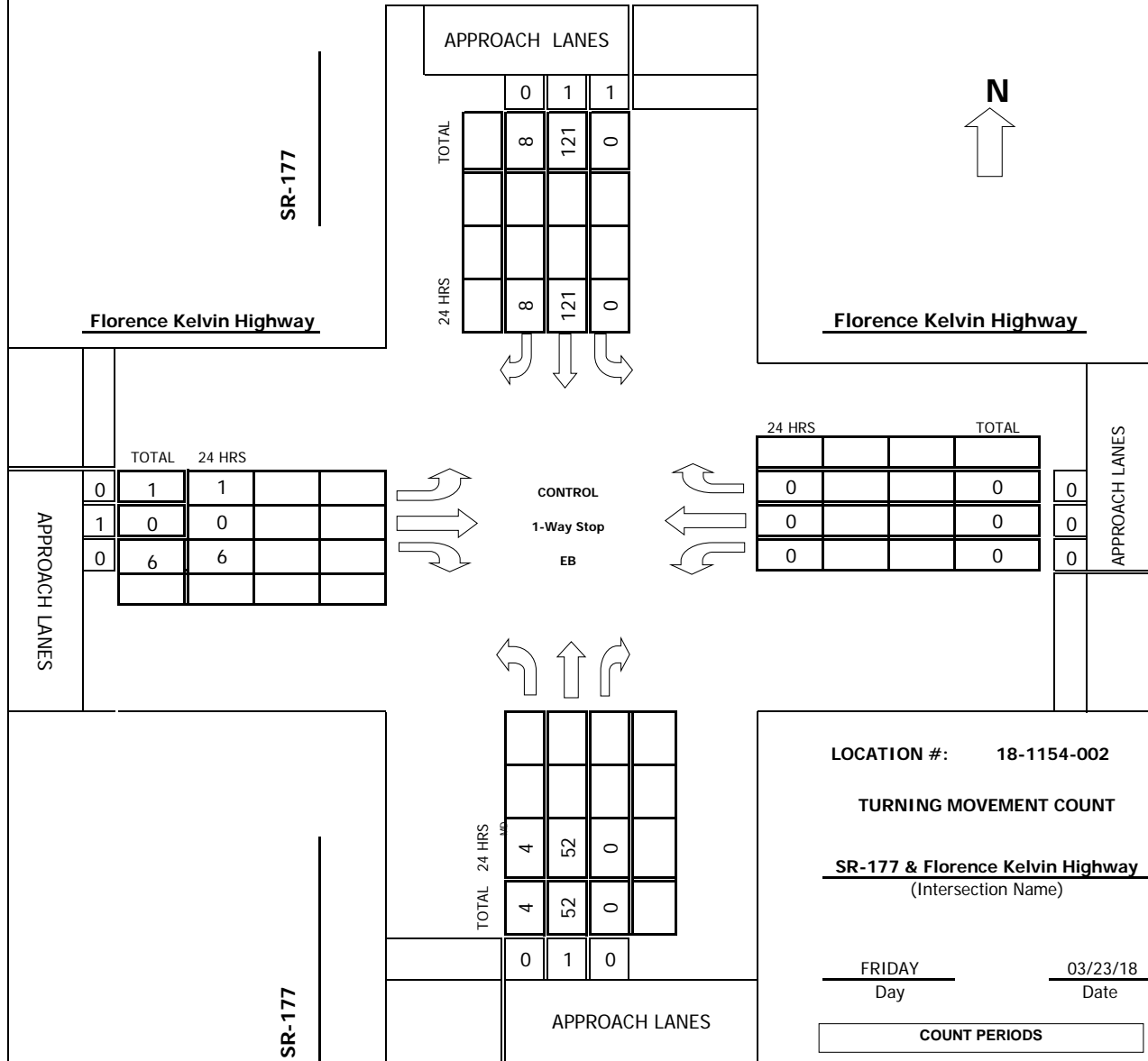
# Intersection Turning Movement

Prepared by:



Project #: 18-1154-002

## TMC SUMMARY OF SR-177 & Florence Kelvin Highway



AM PEAK HOUR 415 PM

NOON PEAK HOUR

PM PEAK HOUR

**Intersection Turning Movement**  
Prepared by:



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745



**veracitytrafficgroup**

N-S STREET: **SR-177** DATE: **03/23/18** LOCATION: **Kearny**  
E-W STREET: **Florence Kelvin Highway** DAY: **FRIDAY** PROJECT#: **18-1154-002**

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	1	0	1	1	0	0	1	0	0	0	0	
7:00 AM	0	18	0	0	8	0	0	0	0	0	0	0	26
7:15 AM	1	8	0	0	5	1	0	0	1	0	0	0	16
7:30 AM	0	10	0	0	4	0	1	0	0	0	0	0	15
7:45 AM	2	4	0	0	10	1	0	0	0	0	0	0	17
8:00 AM	6	11	0	0	5	0	0	0	3	0	0	0	25
8:15 AM	1	7	0	0	3	0	2	0	0	0	0	0	13
8:30 AM	4	10	0	0	16	0	0	0	1	0	0	0	31
8:45 AM	0	10	0	0	6	1	2	0	3	0	0	0	22
9:00 AM	0	6	0	0	9	1	0	0	0	0	0	0	16
9:15 AM	1	21	0	0	9	2	0	0	0	0	0	0	33
9:30 AM	0	8	0	0	5	1	0	0	4	0	0	0	18
9:45 AM	0	9	0	0	8	3	0	0	1	0	0	0	21
10:00 AM	1	5	0	0	19	0	0	0	2	0	0	0	27
10:15 AM	2	17	0	0	11	1	1	0	3	0	0	0	35
10:30 AM	1	11	0	0	20	1	2	0	3	0	0	0	38
10:45 AM	2	11	0	0	17	0	0	0	1	0	0	0	31
11:00 AM	1	20	0	0	9	1	0	0	2	0	0	0	33
11:15 AM	1	16	0	0	11	0	0	0	3	0	0	0	31
11:30 AM	0	12	0	0	18	0	0	0	1	0	0	0	31
11:45 AM	1	16	0	0	14	1	0	0	2	0	0	0	34
12:00 PM	0	13	0	0	6	0	0	0	3	0	0	0	22
12:15 PM	3	14	0	0	13	1	0	0	3	0	0	0	34
12:30 PM	2	25	0	0	15	2	1	0	10	0	0	0	55
12:45 PM	2	16	0	0	14	0	1	0	0	0	0	0	33
1:00 PM	1	13	0	0	16	0	0	0	1	0	0	0	31
1:15 PM	2	17	0	0	8	3	1	0	3	0	0	0	34
1:30 PM	2	22	0	0	13	0	0	0	2	0	0	0	39
1:45 PM	0	10	0	0	11	1	1	0	2	0	0	0	25
2:00 PM	2	15	0	0	23	1	2	0	2	0	0	0	45
2:15 PM	4	16	0	0	7	0	0	0	1	0	0	0	28
2:30 PM	3	13	0	0	18	0	1	0	6	0	0	0	41
2:45 PM	3	21	0	0	18	0	0	0	3	0	0	0	45
3:00 PM	1	26	0	0	13	0	2	0	5	0	0	0	47
3:15 PM	1	17	0	0	23	3	1	0	1	0	0	0	46
3:30 PM	3	21	0	0	16	2	1	0	2	0	0	0	45
3:45 PM	3	21	0	0	18	0	1	0	3	0	0	0	46
4:00 PM	1	8	0	0	17	0	0	0	2	0	0	0	28
4:15 PM	0	15	0	0	43	3	0	0	0	0	0	0	61
4:30 PM	2	9	0	0	43	1	0	0	2	0	0	0	57
4:45 PM	1	15	0	0	15	2	0	0	2	0	0	0	35
5:00 PM	1	13	0	0	20	2	1	0	2	0	0	0	39
5:15 PM	1	8	0	0	24	0	1	0	3	0	0	0	37
5:30 PM	3	13	0	0	20	0	0	0	0	0	0	0	36
5:45 PM	2	17	0	0	17	0	3	0	0	0	0	0	39
6:00 PM	2	18	0	0	17	1	0	0	0	0	0	0	38
6:15 PM	0	10	0	0	14	0	0	0	4	0	0	0	28
6:30 PM	0	14	0	0	12	2	0	0	1	0	0	0	29
6:45 PM	0	8	0	0	15	0	1	0	0	0	0	0	24
7:00 PM	1	8	0	0	6	0	0	0	2	0	0	0	17
7:15 PM	2	11	0	0	14	3	0	0	0	0	0	0	30
7:30 PM	3	3	0	0	10	0	1	0	0	0	0	0	17
7:45 PM	1	2	0	0	20	0	0	0	0	0	0	0	23
8:00 PM	3	4	0	0	11	0	0	0	0	0	0	0	18
8:15 PM	0	4	0	0	7	1	2	0	1	0	0	0	15
8:30 PM	1	4	0	0	7	0	0	0	0	0	0	0	12
8:45 PM	0	2	0	0	11	0	0	0	0	0	0	0	13
9:00 PM	0	1	0	0	9	0	0	0	0	0	0	0	10
9:15 PM	0	2	0	0	7	1	0	0	0	0	0	0	10
9:30 PM	0	2	0	0	11	0	0	0	0	0	0	0	13
9:45 PM	1	1	0	0	3	0	0	0	2	0	0	0	7

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	81	702	0	0	812	43	29	0	98	0	0	0	1765
Approach %	10.34	89.66	0.00	0.00	94.97	5.03	22.83	0.00	77.17	####	####	####	
App/Depart	783	/	731	855	/	910	127	/	0	0	/	124	

AM Peak Hr Begins at: 415 PM

PEAK													
Volumes	4	52	0	0	121	8	1	0	6	0	0	0	192
Approach %	7.14	92.86	0.00	0.00	93.80	6.20	14.29	0.00	85.71	####	####	####	

PEAK HR.													
FACTOR:		0.875			0.701			0.583			0.000		0.787

CONTROL: **1-Way Stop (EB)**  
COMMENT 1:  
GPS: **33.121474, -110.975332**

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

Volumes for: Friday, March 23, 2018

City: Kearny

Project #: 18-1154-004

Location: Florence Kelvin Highway & SR-177

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	0	1	0		12:00	13	6	3	
00:15	0	0	0		12:15	17	14	3	
00:30	0	0	0		12:30	27	17	11	
00:45	0	0	1	1	12:45	18	75	14	51
01:00	0	2	0		13:00	14	16	1	
01:15	1	2	0		13:15	19	11	4	
01:30	0	1	0		13:30	24	13	2	
01:45	0	1	0	5	13:45	10	67	12	52
02:00	0	1	0		14:00	17	24	4	
02:15	1	0	0		14:15	20	7	1	
02:30	0	2	0		14:30	16	18	7	
02:45	0	1	0	3	14:45	24	77	18	67
03:00	2	2	0		15:00	27	13	7	
03:15	2	2	1		15:15	18	26	2	
03:30	4	1	0		15:30	24	18	3	
03:45	7	15	2	7	15:45	24	93	18	75
04:00	4	1	0		16:00	9	17	2	
04:15	12	5	0		16:15	15	46	0	
04:30	18	4	1		16:30	11	44	2	
04:45	13	47	6	16	16:45	16	51	17	124
05:00	10	15	0		17:00	14	22	3	
05:15	20	11	0		17:15	9	24	4	
05:30	26	10	4		17:30	16	20	0	
05:45	33	89	13	49	17:45	19	58	17	83
06:00	34	11	2		18:00	20	18	0	
06:15	23	15	3		18:15	10	14	4	
06:30	15	16	2		18:30	14	14	1	
06:45	12	84	4	46	18:45	8	52	15	61
07:00	18	8	0		19:00	9	6	2	
07:15	9	6	1		19:15	13	17	0	
07:30	10	4	1		19:30	6	10	1	
07:45	6	43	11	29	19:45	3	31	20	53
08:00	17	5	3		20:00	7	11	0	
08:15	8	3	2		20:15	4	8	3	
08:30	14	16	1		20:30	5	7	0	
08:45	10	49	7	31	20:45	2	18	11	37
09:00	6	10	0		21:00	1	9	0	
09:15	22	11	0		21:15	2	8	0	
09:30	8	6	4		21:30	2	11	0	
09:45	9	45	11	38	21:45	2	7	3	31
10:00	6	19	2		22:00	2	5	2	
10:15	19	12	4		22:15	1	5	0	
10:30	12	21	5		22:30	1	4	0	
10:45	13	50	17	69	22:45	0	4	3	17
11:00	21	10	2		23:00	1	6	0	
11:15	17	11	3		23:15	0	3	1	
11:30	12	18	1		23:30	3	3	0	
11:45	17	67	15	54	23:45	2	6	5	17

**Total Vol.** 491 348 56 **895** 539 668 93 **1300**

**GPS Coordinates:** 33.121474, -110.975332

					Daily Totals				
					NB	SB	EB	WB	Combined
					1030	1016	149		2195
AM					PM				
Split %	54.9%	38.9%	6.3%	40.8%	Split %	41.5%	51.4%	7.2%	59.2%
Peak Hour	05:30	10:00	11:45	05:30	Peak Hour	14:45	16:15	14:30	15:45
Volume	116	69	19	176	Volume	93	129	19	192
P.H.F.	0.85	0.82	0.43	0.92	P.H.F.	0.86	0.70	0.68	0.79

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

Volumes for: Friday, March 23, 2018

City: Florence

Project #: 18-1154-005

Location: Florence Kelvin Highway at Peg Leg Rd.

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	0	0			12:00	0	0		
00:15	0	0			12:15	0	6		
00:30	0	0			12:30	0	0		
00:45	0	0	0		12:45	2	2	0	6
01:00	0	0			13:00	0	1		
01:15	0	0			13:15	0	1		
01:30	0	0			13:30	0	1		
01:45	0	0	0		13:45	0	0	1	4
02:00	0	0			14:00	1	2		
02:15	0	0			14:15	0	1		
02:30	0	0			14:30	0	0		
02:45	0	0	0		14:45	1	2	1	4
03:00	0	0			15:00	1	1		
03:15	0	0			15:15	0	1		
03:30	0	0			15:30	0	1		
03:45	0	0	0		15:45	1	2	1	4
04:00	0	0			16:00	1	0		
04:15	0	0			16:15	0	1		
04:30	0	0			16:30	0	0		
04:45	0	0	0		16:45	0	1	1	2
05:00	0	0			17:00	2	3		
05:15	1	0			17:15	0	0		
05:30	1	1			17:30	0	0		
05:45	0	2	0	1	17:45	1	3	1	4
06:00	1	0			18:00	1	0		
06:15	0	0			18:15	0	1		
06:30	0	0			18:30	0	2		
06:45	0	1	0	0	18:45	0	1	1	4
07:00	0	0			19:00	0	1		
07:15	0	0			19:15	0	0		
07:30	1	0			19:30	0	0		
07:45	0	1	1	1	19:45	0	0	0	1
08:00	0	0			20:00	0	0		
08:15	2	0			20:15	1	0		
08:30	1	0			20:30	0	0		
08:45	1	4	0	0	20:45	0	1	0	0
09:00	1	0			21:00	0	0		
09:15	0	1			21:15	0	0		
09:30	0	0			21:30	0	0		
09:45	0	1	0	1	21:45	0	0	0	0
10:00	0	1			22:00	0	0		
10:15	0	0			22:15	0	0		
10:30	0	2			22:30	0	0		
10:45	1	1	0	3	22:45	0	0	0	0
11:00	0	0			23:00	0	0		
11:15	0	1			23:15	0	0		
11:30	0	0			23:30	0	0		
11:45	0	0	1	2	23:45	0	0	1	1

**Total Vol.** 10 8 18 12 30 42

**GPS Coordinates:** 33.045836, -111.046771

**Daily Totals**

NB	SB	EB	WB	Combined
22	38			60

**AM**

**PM**

Split %	55.6%	44.4%	30.0%	28.6%	71.4%	70.0%
<b>Peak Hour</b>	08:15	11:30	11:30	17:00	12:15	12:15
<b>Volume</b>	5	7	7	3	7	9
<b>P.H.F.</b>	0.63	0.29	0.29	0.38	0.29	0.38



**FILTER PLANT AND TAILINGS FACILITY ALTERNATIVES  
RESOLUTION COPPER MINE PROJECT  
TRAFFIC TECHNICAL MEMORANDUM**

**APPENDIX**

**Trip Generation Calculations**



**TSF Employee/Contractor Count Estimate for each alternative**

	KCB OOM	DEIS Alternatives (Averages)				
		Alt 2	Alt 3	Alt 4	Alt 5	Alt 6
<b>Totals</b>	44	106	106	169	112	106
<b>Administrative Assistant/Others</b>	1	1	1	1	1	1
<b>Senior Engineer</b>	1	1	1	1	1	1
<b>Engineer</b>	1	1	1	2	1	1
<b>Technicians</b>	3	2	2	2	2	2
<b>Superintendent</b>	1	1	1	1	1	1
<b>Supervisor</b>	2	4	4	8	4	4
<b>Maintenance Superintendents</b>	1	1	1	1	1	1
<b>M&amp;I Supervisor</b>	2	2	2	2	2	2
<b>Maintenance Planners</b>	2	2	2	2	2	2
<b>Electrician</b>	4	6	6	12	6	6
<b>Electrical/Instrument Tech</b>	2	2	2	7	2	2
<b>Mechanic</b>	8	13	13	25	13	13
<b>Non-Skilled</b>	8	34	34	29	32	34
<b>Skilled (includes equip operators)</b>	8	38	38	78	45	38
<b>Contractors for Dam Build</b>	not included	included	included	N/A	included	included
<b>People on site M-F Days</b>		7	7	7	7	7
<b>People on site Day Shift 12 hrs/7 days</b>		33	33	48	35	33
<b>People on site Night Shift 12 hrs/7 days</b>		17	17	35	18	17

**DEIS Alternatives**

Alt 1 - No Action

Alt 2 - Near West Location. Slurry tailings, unlined/no PAG cell, modified centerline dam

Alt 3 - Near West Location. Slurry/thin lift, lined PAG cell, modified centerline dam

Alt 4 - Silver King Location. Filtered tailings, lined PAG dam

Alt 5 - Peg Leg Location. Slurry tailings, lined PAG cell/other selective lining, true centerline dam

Alt 6 - Skunk Camp Location. Slurry tailings, lined PAG cell, true centerline dam








**FILTER PLANT AND TAILINGS FACILITY ALTERNATIVES  
RESOLUTION COPPER MINE PROJECT  
TRAFFIC TECHNICAL MEMORANDUM**

**APPENDIX**

**Capacity Calculations**

HCM 6th TWSC  
18: Hewitt Station Road & US 60 Eastbound

07/10/2018

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	437	0	0	0	0	0	0	0	3	0	0
Future Vol, veh/h	1	437	0	0	0	0	0	0	0	3	0	0
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	0	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	514	0	0	0	0	0	0	0	4	0	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	-	516	257	259	516	-
Stage 1	-	-	-	-	516	-	0	0	-
Stage 2	-	-	-	-	0	-	259	516	-
Critical Hdwy	4.14	-	-	-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	-	-	-	0	461	742	673	461	0
Stage 1	-	-	-	0	533	-	-	-	0
Stage 2	-	-	-	0	-	-	723	533	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	461	742	673	461	-
Mov Cap-2 Maneuver	-	-	-	-	461	-	673	461	-
Stage 1	-	-	-	-	533	-	-	-	-
Stage 2	-	-	-	-	-	-	723	533	-

Approach	EB	NB	SB
HCM Control Delay, s		0	10.4
HCM LOS		A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	-	-	-	-	673
HCM Lane V/C Ratio	-	-	-	-	0.006
HCM Control Delay (s)	0	-	-	-	10.4
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	-	0







HCM 6th TWSC  
17: Hewitt Station Road & US 60 Westbound

07/10/2018

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↑↑			↱			↱	
Traffic Vol, veh/h	0	0	0	0	550	1	0	1	0	0	3	1
Future Vol, veh/h	0	0	0	0	550	1	0	1	0	0	3	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	-	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	85	85	85	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	647	1	0	1	0	0	4	1
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				0	0	0	326	648	-	-	648	324
Stage 1				-	-	-	0	0	-	-	648	-
Stage 2				-	-	-	326	648	-	-	0	-
Critical Hdwy				4.14	-	-	7.54	6.54	-	-	6.54	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.54	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				2.22	-	-	3.52	4.02	-	-	4.02	3.32
Pot Cap-1 Maneuver				-	-	-	603	388	0	0	388	672
Stage 1				-	-	-	-	-	0	0	464	-
Stage 2				-	-	-	661	464	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				-	-	-	598	388	-	-	388	672
Mov Cap-2 Maneuver				-	-	-	598	388	-	-	388	-
Stage 1				-	-	-	-	-	-	-	464	-
Stage 2				-	-	-	654	464	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s				0		14.3		13.4				
HCM LOS						B		B				
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	388	-	-	-	434							
HCM Lane V/C Ratio	0.003	-	-	-	0.012							
HCM Control Delay (s)	14.3	0	-	-	13.4							
HCM Lane LOS	B	A	-	-	B							
HCM 95th %tile Q(veh)	0	-	-	-	0							

HCM 6th TWSC  
17: Silver King Road & US 60 Westbound

07/10/2018

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	457	8	4	610	4	4	1	3	2	3	7
Future Vol, veh/h	1	457	8	4	610	4	4	1	3	2	3	7
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	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	90	90	90	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	538	9	4	678	4	5	1	4	3	4	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	682	0	0	547	0	0	894	1235	274	960	1237	341
Stage 1	-	-	-	-	-	-	545	545	-	688	688	-
Stage 2	-	-	-	-	-	-	349	690	-	272	549	-
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	907	-	-	1018	-	-	236	175	724	211	175	655
Stage 1	-	-	-	-	-	-	490	517	-	403	445	-
Stage 2	-	-	-	-	-	-	640	444	-	711	515	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	907	-	-	1018	-	-	228	174	724	208	174	655
Mov Cap-2 Maneuver	-	-	-	-	-	-	228	174	-	208	174	-
Stage 1	-	-	-	-	-	-	490	516	-	403	443	-
Stage 2	-	-	-	-	-	-	624	442	-	705	514	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.1			17.8			16.8		
HCM LOS							C			C		





  

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	292	907	-	-	1018	-	-	320
HCM Lane V/C Ratio	0.034	0.001	-	-	0.004	-	-	0.047
HCM Control Delay (s)	17.8	9	-	-	8.6	-	-	16.8
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1






HCM 6th TWSC  
3: SR 79 & Florence-Kelvin Highway

07/10/2018

Intersection						
Int Delay, s/veh	1.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	34	190	5	44	207
Future Vol, veh/h	1	34	190	5	44	207
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	-	-	-	225	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	43	224	6	52	244
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	575	227	0	0	230	0
Stage 1	227	-	-	-	-	-
Stage 2	348	-	-	-	-	-
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	480	812	-	-	1338	-
Stage 1	811	-	-	-	-	-
Stage 2	715	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	461	812	-	-	1338	-
Mov Cap-2 Maneuver	461	-	-	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	715	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	9.8	0	1.4			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	795	1338	-	
HCM Lane V/C Ratio	-	-	0.055	0.039	-	
HCM Control Delay (s)	-	-	9.8	7.8	-	
HCM Lane LOS	-	-	A	A	-	
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-	




HCM 6th TWSC  
13: SR 177 & Florence-Kelvin Highway

07/10/2018

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	6	4	52	121	8
Future Vol, veh/h	1	6	4	52	121	8
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	80	80	80	80	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	8	5	65	142	9
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	222	147	151	0	-	0
Stage 1	147	-	-	-	-	-
Stage 2	75	-	-	-	-	-
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	766	900	1430	-	-	-
Stage 1	880	-	-	-	-	-
Stage 2	948	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	763	900	1430	-	-	-
Mov Cap-2 Maneuver	763	-	-	-	-	-
Stage 1	876	-	-	-	-	-
Stage 2	948	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.1	0.5		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1430	-	877	-	-	
HCM Lane V/C Ratio	0.003	-	0.01	-	-	
HCM Control Delay (s)	7.5	0	9.1	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	




HCM 6th TWSC  
8: Florence-Kelvin Highway & Peg Leg Road

07/10/2018

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	7	2	0
Future Vol, veh/h	0	0	0	7	2	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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	9	3	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	12	3	3	0	-	0
Stage 1	3	-	-	-	-	-
Stage 2	9	-	-	-	-	-
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	1008	1081	1619	-	-	-
Stage 1	1020	-	-	-	-	-
Stage 2	1014	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1008	1081	1619	-	-	-
Mov Cap-2 Maneuver	1008	-	-	-	-	-
Stage 1	1020	-	-	-	-	-
Stage 2	1014	-	-	-	-	-
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)	1619	-	-	-	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Control Delay (s)	0	-	0	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	-	-	-	






HCM 6th TWSC  
17: SR 77 & Dripping Springs Road

07/10/2018

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	1	71	67	2
Future Vol, veh/h	1	1	1	71	67	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	1	1	89	84	3
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	177	86	87	0	-	0
Stage 1	86	-	-	-	-	-
Stage 2	91	-	-	-	-	-
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	813	973	1509	-	-	-
Stage 1	937	-	-	-	-	-
Stage 2	933	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	812	973	1509	-	-	-
Mov Cap-2 Maneuver	812	-	-	-	-	-
Stage 1	936	-	-	-	-	-
Stage 2	933	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.1	0.1		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1509	-	885	-	-	
HCM Lane V/C Ratio	0.001	-	0.003	-	-	
HCM Control Delay (s)	7.4	0	9.1	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

HCM 6th TWSC  
18: Hewitt Station Road & US 60 Eastbound

07/10/2018

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	474	0	0	0	0	0	0	0	4	0	0
Future Vol, veh/h	2	474	0	0	0	0	0	0	0	4	0	0
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	0	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	558	0	0	0	0	0	0	0	5	0	0





Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	-	562	279	283	562	-
Stage 1	-	-	-	-	562	-	0	0	-
Stage 2	-	-	-	-	0	-	283	562	-
Critical Hdwy	4.14	-	-	-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	-	-	-	0	434	718	647	434	0
Stage 1	-	-	-	0	508	-	-	-	0
Stage 2	-	-	-	0	-	-	700	508	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	434	718	647	434	-
Mov Cap-2 Maneuver	-	-	-	-	434	-	647	434	-
Stage 1	-	-	-	-	508	-	-	-	-
Stage 2	-	-	-	-	-	-	700	508	-

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

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	-	-	-	-	647
HCM Lane V/C Ratio	-	-	-	-	0.008
HCM Control Delay (s)	0	-	-	-	10.6
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	-	0

HCM 6th TWSC  
17: Hewitt Station Road & US 60 Westbound







07/10/2018

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	596	2	0	2	0	0	4	2
Future Vol, veh/h	0	0	0	0	596	2	0	2	0	0	4	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	-	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	85	85	85	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	701	2	0	3	0	0	5	3
Major/Minor				Major2			Minor1			Minor2		
Conflicting Flow All				0	0	0	353	703	-	-	702	352
Stage 1				-	-	-	0	0	-	-	702	-
Stage 2				-	-	-	353	703	-	-	0	-
Critical Hdwy				4.14	-	-	7.54	6.54	-	-	6.54	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.54	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				2.22	-	-	3.52	4.02	-	-	4.02	3.32
Pot Cap-1 Maneuver				-	-	-	577	360	0	0	361	644
Stage 1				-	-	-	-	-	0	0	439	-
Stage 2				-	-	-	637	438	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				-	-	-	569	360	-	-	361	644
Mov Cap-2 Maneuver				-	-	-	569	360	-	-	361	-
Stage 1				-	-	-	-	-	-	-	439	-
Stage 2				-	-	-	627	438	-	-	-	-
Approach				WB			NB			SB		
HCM Control Delay, s				0			15.1			13.7		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	360	-	-	-	423							
HCM Lane V/C Ratio	0.007	-	-	-	0.018							
HCM Control Delay (s)	15.1	0	-	-	13.7							
HCM Lane LOS	C	A	-	-	B							
HCM 95th %tile Q(veh)	0	-	-	-	0.1							



HCM 6th TWSC  
17: Silver King Road & US 60

07/10/2018

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	495	9	5	661	5	5	2	4	3	4	8
Future Vol, veh/h	2	495	9	5	661	5	5	2	4	3	4	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	90	90	90	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	582	11	6	734	6	6	3	5	4	5	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	740	0	0	593	0	0	974	1344	297	1046	1346	370
Stage 1	-	-	-	-	-	-	592	592	-	749	749	-
Stage 2	-	-	-	-	-	-	382	752	-	297	597	-
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	862	-	-	979	-	-	206	151	699	183	150	627
Stage 1	-	-	-	-	-	-	460	492	-	370	417	-
Stage 2	-	-	-	-	-	-	612	416	-	687	490	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	862	-	-	979	-	-	196	150	699	178	149	627
Mov Cap-2 Maneuver	-	-	-	-	-	-	196	150	-	178	149	-
Stage 1	-	-	-	-	-	-	459	491	-	369	414	-
Stage 2	-	-	-	-	-	-	591	414	-	677	489	-





Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.1			20.4			19.6		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	247	862	-	-	979	-	-	266
HCM Lane V/C Ratio	0.056	0.003	-	-	0.006	-	-	0.07
HCM Control Delay (s)	20.4	9.2	-	-	8.7	-	-	19.6
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

HCM 6th TWSC  
3: SR 79 & Florence-Kelvin Highway

07/10/2018




Intersection						
Int Delay, s/veh	1.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	37	206	6	48	224
Future Vol, veh/h	2	37	206	6	48	224
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	-	-	-	225	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	46	242	7	56	264
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	622	246	0	0	249	0
Stage 1	246	-	-	-	-	-
Stage 2	376	-	-	-	-	-
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	450	793	-	-	1317	-
Stage 1	795	-	-	-	-	-
Stage 2	694	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	431	793	-	-	1317	-
Mov Cap-2 Maneuver	431	-	-	-	-	-
Stage 1	761	-	-	-	-	-
Stage 2	694	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	10.1	0	1.4			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	760	1317	-	
HCM Lane V/C Ratio	-	-	0.064	0.043	-	
HCM Control Delay (s)	-	-	10.1	7.9	-	
HCM Lane LOS	-	-	B	A	-	
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-	

HCM 6th TWSC  
13: SR 177 & Florence-Kelvin Highway

07/10/2018

Intersection

Int Delay, s/veh 0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	7	5	56	131	9
Future Vol, veh/h	2	7	5	56	131	9
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	80	80	80	80	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	9	6	70	154	11




Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	242	160	165
Stage 1	160	-	-
Stage 2	82	-	-
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	746	885	1413
Stage 1	869	-	-
Stage 2	941	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	743	885	1413
Mov Cap-2 Maneuver	743	-	-
Stage 1	866	-	-
Stage 2	941	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	0.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1413	-	849	-	-
HCM Lane V/C Ratio	0.004	-	0.013	-	-
HCM Control Delay (s)	7.6	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-




HCM 6th TWSC  
8: Florence-Kelvin Highway & Peg Leg Road

07/10/2018

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	8	3	0
Future Vol, veh/h	0	0	0	8	3	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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	10	4	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	14	4	4	0	-	0
Stage 1	4	-	-	-	-	-
Stage 2	10	-	-	-	-	-
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	1005	1080	1618	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	1013	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1005	1080	1618	-	-	-
Mov Cap-2 Maneuver	1005	-	-	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	1013	-	-	-	-	-
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)	1618	-	-	-	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Control Delay (s)	0	-	0	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	-	-	-	






HCM 6th TWSC  
17: SR 77 & Dripping Springs Road

07/10/2018

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	2	2	77	73	3
Future Vol, veh/h	2	2	2	77	73	3
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	80	80	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	3	2	91	86	4
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	183	88	90	0	-	0
Stage 1	88	-	-	-	-	-
Stage 2	95	-	-	-	-	-
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	806	970	1505	-	-	-
Stage 1	935	-	-	-	-	-
Stage 2	929	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	805	970	1505	-	-	-
Mov Cap-2 Maneuver	805	-	-	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	929	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.1	0.2		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1505	-	880	-	-	
HCM Lane V/C Ratio	0.002	-	0.006	-	-	
HCM Control Delay (s)	7.4	0	9.1	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

HCM 6th TWSC  
18: Hewitt Station Road & US 60 Eastbound

07/10/2018

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	523	0	0	0	0	0	0	0	5	0	0
Future Vol, veh/h	3	523	0	0	0	0	0	0	0	5	0	0
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	0	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	615	0	0	0	0	0	0	0	6	0	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	-	623	308	316	623	-
Stage 1	-	-	-	-	623	-	0	0	-
Stage 2	-	-	-	-	0	-	316	623	-
Critical Hdwy	4.14	-	-	-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	-	-	-	0	401	688	613	401	0
Stage 1	-	-	-	0	476	-	-	-	0
Stage 2	-	-	-	0	-	-	670	476	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	401	688	613	401	-
Mov Cap-2 Maneuver	-	-	-	-	401	-	613	401	-
Stage 1	-	-	-	-	476	-	-	-	-
Stage 2	-	-	-	-	-	-	670	476	-

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

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	-	-	-	-	613
HCM Lane V/C Ratio	-	-	-	-	0.01
HCM Control Delay (s)	0	-	-	-	10.9
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	-	0



HCM 6th TWSC  
17: Hewitt Station Road & US 60 Westbound







07/10/2018

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↑↑			↱			↱	
Traffic Vol, veh/h	0	0	0	0	658	3	0	3	0	0	5	3
Future Vol, veh/h	0	0	0	0	658	3	0	3	0	0	5	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	-	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	90	90	90	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	731	3	0	4	0	0	6	4

Major/Minor	Major2		Minor1		Minor2	
Conflicting Flow All	0	0	0	369	734	-
Stage 1	-	-	-	0	0	-
Stage 2	-	-	-	369	734	-
Critical Hdwy	4.14	-	-	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	3.52	4.02	-
Pot Cap-1 Maneuver	-	-	-	562	346	0
Stage 1	-	-	-	-	-	0
Stage 2	-	-	-	623	424	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	551	346	-
Mov Cap-2 Maneuver	-	-	-	551	346	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	610	424	-

Approach	WB	NB	SB
HCM Control Delay, s	0	15.5	13.9
HCM LOS		C	B

Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	346	-	-	-	416
HCM Lane V/C Ratio	0.011	-	-	-	0.024
HCM Control Delay (s)	15.5	0	-	-	13.9
HCM Lane LOS	C	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	547	10	6	730	6	6	3	5	4	5	9
Future Vol, veh/h	3	547	10	6	730	6	6	3	5	4	5	9
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	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	90	90	90	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	644	12	7	811	7	8	4	6	5	6	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	818	0	0	656	0	0	1081	1490	328	1161	1493	409
Stage 1	-	-	-	-	-	-	658	658	-	829	829	-
Stage 2	-	-	-	-	-	-	423	832	-	332	664	-
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	806	-	-	927	-	-	172	123	668	150	122	592
Stage 1	-	-	-	-	-	-	420	459	-	331	383	-
Stage 2	-	-	-	-	-	-	579	382	-	655	456	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	806	-	-	927	-	-	160	121	668	144	120	592
Mov Cap-2 Maneuver	-	-	-	-	-	-	160	121	-	144	120	-
Stage 1	-	-	-	-	-	-	418	457	-	329	380	-
Stage 2	-	-	-	-	-	-	554	379	-	640	454	-





Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.1			24.6			23.9		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	201	806	-	-	927	-	-	213
HCM Lane V/C Ratio	0.087	0.004	-	-	0.007	-	-	0.106
HCM Control Delay (s)	24.6	9.5	-	-	8.9	-	-	23.9
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.3




HCM 6th TWSC  
3: SR 79 & Florence-Kelvin Highway

07/10/2018

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	41	227	7	53	247
Future Vol, veh/h	3	41	227	7	53	247
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	-	-	-	225	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	51	267	8	62	291
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	686	271	0	0	275	0
Stage 1	271	-	-	-	-	-
Stage 2	415	-	-	-	-	-
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	413	768	-	-	1288	-
Stage 1	775	-	-	-	-	-
Stage 2	666	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	393	768	-	-	1288	-
Mov Cap-2 Maneuver	393	-	-	-	-	-
Stage 1	738	-	-	-	-	-
Stage 2	666	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	10.4	0	1.4			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	721	1288	-	
HCM Lane V/C Ratio	-	-	0.076	0.048	-	
HCM Control Delay (s)	-	-	10.4	7.9	-	
HCM Lane LOS	-	-	B	A	-	
HCM 95th %tile Q(veh)	-	-	0.2	0.2	-	




HCM 6th TWSC  
13: SR 177 & Florence-Kelvin Highway

07/10/2018

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	8	6	62	145	10
Future Vol, veh/h	3	8	6	62	145	10
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	80	80	80	80	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	10	8	78	171	12
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	271	177	183	0	-	0
Stage 1	177	-	-	-	-	-
Stage 2	94	-	-	-	-	-
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	718	866	1392	-	-	-
Stage 1	854	-	-	-	-	-
Stage 2	930	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	714	866	1392	-	-	-
Mov Cap-2 Maneuver	714	-	-	-	-	-
Stage 1	849	-	-	-	-	-
Stage 2	930	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.5	0.7		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1392	-	818	-	-	
HCM Lane V/C Ratio	0.005	-	0.017	-	-	
HCM Control Delay (s)	7.6	0	9.5	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	




HCM 6th TWSC  
8: Florence-Kelvin Highway & Peg Leg Road

07/10/2018

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	9	4	0
Future Vol, veh/h	0	0	0	9	4	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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	11	5	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	16	5	5	0	-	0
Stage 1	5	-	-	-	-	-
Stage 2	11	-	-	-	-	-
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	1002	1078	1616	-	-	-
Stage 1	1018	-	-	-	-	-
Stage 2	1012	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1002	1078	1616	-	-	-
Mov Cap-2 Maneuver	1002	-	-	-	-	-
Stage 1	1018	-	-	-	-	-
Stage 2	1012	-	-	-	-	-
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)	1616	-	-	-	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Control Delay (s)	0	-	0	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	-	-	-	

HCM 6th TWSC  
17: SR 77 & Dripping Springs Road






07/10/2018

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	3	3	85	81	4
Future Vol, veh/h	3	3	3	85	81	4
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	80	80	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	4	4	100	95	5
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	206	98	100	0	-	0
Stage 1	98	-	-	-	-	-
Stage 2	108	-	-	-	-	-
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	782	958	1493	-	-	-
Stage 1	926	-	-	-	-	-
Stage 2	916	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	780	958	1493	-	-	-
Mov Cap-2 Maneuver	780	-	-	-	-	-
Stage 1	923	-	-	-	-	-
Stage 2	916	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.2	0.3		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1493	-	860	-	-	
HCM Lane V/C Ratio	0.002	-	0.009	-	-	
HCM Control Delay (s)	7.4	0	9.2	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	



HCM 6th TWSC  
18: Hewitt Station Road & US 60 Eastbound

07/10/2018

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	474	0	0	0	0	0	0	0	10	0	0
Future Vol, veh/h	28	474	0	0	0	0	0	0	0	10	0	0
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	0	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	558	0	0	0	0	0	0	0	13	0	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	-	624	279	345	624	-
Stage 1	-	-	-	-	624	-	0	0	-
Stage 2	-	-	-	-	0	-	345	624	-
Critical Hdwy	4.14	-	-	-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	-	-	-	0	400	718	585	400	0
Stage 1	-	-	-	0	476	-	-	-	0
Stage 2	-	-	-	0	-	-	644	476	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	400	718	585	400	-
Mov Cap-2 Maneuver	-	-	-	-	400	-	585	400	-
Stage 1	-	-	-	-	476	-	-	-	-
Stage 2	-	-	-	-	-	-	644	476	-

Approach	EB	NB	SB
HCM Control Delay, s		0	11.3
HCM LOS		A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	-	-	-	-	585
HCM Lane V/C Ratio	-	-	-	-	0.021
HCM Control Delay (s)	0	-	-	-	11.3
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	-	0.1







HCM 6th TWSC  
17: Hewitt Station Road & US 60 Westbound

07/10/2018

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↵	↶↷			↶			↷	
Traffic Vol, veh/h	0	0	0	0	596	8	0	28	0	0	10	28
Future Vol, veh/h	0	0	0	0	596	8	0	28	0	0	10	28
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	-	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	90	90	90	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	662	9	0	35	0	0	13	35
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				0	0	0	338	671	-	-	667	336
Stage 1				-	-	-	0	0	-	-	667	-
Stage 2				-	-	-	338	671	-	-	0	-
Critical Hdwy				4.14	-	-	7.54	6.54	-	-	6.54	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.54	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				2.22	-	-	3.52	4.02	-	-	4.02	3.32
Pot Cap-1 Maneuver				-	-	-	592	376	0	0	378	660
Stage 1				-	-	-	-	-	0	0	455	-
Stage 2				-	-	-	650	453	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				-	-	-	546	376	-	-	378	660
Mov Cap-2 Maneuver				-	-	-	546	376	-	-	378	-
Stage 1				-	-	-	-	-	-	-	455	-
Stage 2				-	-	-	599	453	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s				0		15.6		12.1				
HCM LOS						C		B				
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	376	-	-	-	552							
HCM Lane V/C Ratio	0.093	-	-	-	0.086							
HCM Control Delay (s)	15.6	0	-	-	12.1							
HCM Lane LOS	C	A	-	-	B							
HCM 95th %tile Q(veh)	0.3	-	-	-	0.3							

HCM 6th TWSC  
17: Silver King Road & US 60

07/10/2018

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	37	495	9	5	661	14	5	2	4	12	4	43
Future Vol, veh/h	37	495	9	5	661	14	5	2	4	12	4	43
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	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	90	90	90	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	44	582	11	6	734	16	6	3	5	15	5	54

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	750	0	0	593	0	0	1058	1438	297	1135	1435	375
Stage 1	-	-	-	-	-	-	676	676	-	754	754	-
Stage 2	-	-	-	-	-	-	382	762	-	381	681	-
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	855	-	-	979	-	-	179	132	699	157	133	623
Stage 1	-	-	-	-	-	-	409	451	-	367	415	-
Stage 2	-	-	-	-	-	-	612	412	-	613	448	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	855	-	-	979	-	-	152	124	699	147	125	623
Mov Cap-2 Maneuver	-	-	-	-	-	-	152	124	-	147	125	-
Stage 1	-	-	-	-	-	-	388	428	-	348	413	-
Stage 2	-	-	-	-	-	-	549	410	-	574	425	-





Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			0.1			24.2			19.4		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	201	855	-	-	979	-	-	323
HCM Lane V/C Ratio	0.068	0.051	-	-	0.006	-	-	0.228
HCM Control Delay (s)	24.2	9.4	-	-	8.7	-	-	19.4
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0.2	-	-	0	-	-	0.9

HCM 6th TWSC  
3: SR 79 & Florence-Kelvin Highway

07/10/2018

Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	50	206	8	61	224
Future Vol, veh/h	4	50	206	8	61	224
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	-	-	-	225	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	63	242	9	72	264
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	655	247	0	0	251	0
Stage 1	247	-	-	-	-	-
Stage 2	408	-	-	-	-	-
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	431	792	-	-	1314	-
Stage 1	794	-	-	-	-	-
Stage 2	671	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	407	792	-	-	1314	-
Mov Cap-2 Maneuver	407	-	-	-	-	-
Stage 1	750	-	-	-	-	-
Stage 2	671	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	10.4	0		1.7		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-	740	1314	-	
HCM Lane V/C Ratio	-	-	0.091	0.055	-	
HCM Control Delay (s)	-	-	10.4	7.9	-	
HCM Lane LOS	-	-	B	A	-	
HCM 95th %tile Q(veh)	-	-	0.3	0.2	-	

HCM 6th TWSC  
13: SR 177 & Florence-Kelvin Highway

07/10/2018

Intersection

Int Delay, s/veh 1.3

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 18 9 7 56 131 25

Future Vol, veh/h 18 9 7 56 131 25

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 80 80 80 80 85 85

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 23 11 9 70 154 29

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 257 169 183 0 - 0

Stage 1 169 - - - - -

Stage 2 88 - - - - -

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 732 875 1392 - - -

Stage 1 861 - - - - -

Stage 2 935 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 727 875 1392 - - -

Mov Cap-2 Maneuver 727 - - - - -

Stage 1 855 - - - - -

Stage 2 935 - - - - -

Approach EB NB SB

HCM Control Delay, s 9.9 0.8 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1392 - 770 - -

HCM Lane V/C Ratio 0.006 - 0.044 - -




HCM Control Delay (s) 7.6 0 9.9 - -

HCM Lane LOS A A A - -

HCM 95th %tile Q(veh) 0 - 0.1 - -

HCM 6th TWSC  
8: Florence-Kelvin Highway & Peg Leg Road




07/10/2018

Intersection						
Int Delay, s/veh	5.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	18	15	15	8	3	18
Future Vol, veh/h	18	15	15	8	3	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	19	19	10	4	23
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	64	16	27	0	-	0
Stage 1	16	-	-	-	-	-
Stage 2	48	-	-	-	-	-
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	942	1063	1587	-	-	-
Stage 1	1007	-	-	-	-	-
Stage 2	974	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	931	1063	1587	-	-	-
Mov Cap-2 Maneuver	931	-	-	-	-	-
Stage 1	995	-	-	-	-	-
Stage 2	974	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.8	4.8		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1587	-	987	-	-	
HCM Lane V/C Ratio	0.012	-	0.042	-	-	
HCM Control Delay (s)	7.3	0	8.8	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	








HCM 6th TWSC  
17: SR 77 & Dripping Springs Road

07/10/2018

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	31	5	5	77	73	32
Future Vol, veh/h	31	5	5	77	73	32
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	80	80	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	6	6	91	86	38
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	208	105	124	0	-	0
Stage 1	105	-	-	-	-	-
Stage 2	103	-	-	-	-	-
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	780	949	1463	-	-	-
Stage 1	919	-	-	-	-	-
Stage 2	921	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	777	949	1463	-	-	-
Mov Cap-2 Maneuver	777	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	921	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.8	0.5		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1463	-	797	-	-	
HCM Lane V/C Ratio	0.004	-	0.056	-	-	
HCM Control Delay (s)	7.5	0	9.8	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	

HCM 6th TWSC  
18: Hewitt Station Road & US 60 Eastbound

07/10/2018

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	523	0	0	0	0	0	0	0	10	0	0
Future Vol, veh/h	21	523	0	0	0	0	0	0	0	10	0	0
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	0	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	615	0	0	0	0	0	0	0	13	0	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	-	665	308	358	665	-
Stage 1	-	-	-	-	665	-	0	0	-
Stage 2	-	-	-	-	0	-	358	665	-
Critical Hdwy	4.14	-	-	-	6.54	6.94	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	-	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	-	-	-	0	379	688	573	379	0
Stage 1	-	-	-	0	456	-	-	-	0
Stage 2	-	-	-	0	-	-	633	456	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	379	688	573	379	-
Mov Cap-2 Maneuver	-	-	-	-	379	-	573	379	-
Stage 1	-	-	-	-	456	-	-	-	-
Stage 2	-	-	-	-	-	-	633	456	-

Approach	EB	NB	SB
HCM Control Delay, s		0	11.4
HCM LOS		A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1
Capacity (veh/h)	-	-	-	-	573
HCM Lane V/C Ratio	-	-	-	-	0.022
HCM Control Delay (s)	0	-	-	-	11.4
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	-	0.1







HCM 6th TWSC  
17: Hewitt Station Road & US 60 Westbound

07/10/2018

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↑↑			↱			↱	
Traffic Vol, veh/h	0	0	0	0	658	8	0	21	0	0	10	21
Future Vol, veh/h	0	0	0	0	658	8	0	21	0	0	10	21
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	-	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	90	90	90	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	731	9	0	26	0	0	13	26
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				0	0	0	372	740	-	-	736	370
Stage 1				-	-	-	0	0	-	-	736	-
Stage 2				-	-	-	372	740	-	-	0	-
Critical Hdwy				4.14	-	-	7.54	6.54	-	-	6.54	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.54	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				2.22	-	-	3.52	4.02	-	-	4.02	3.32
Pot Cap-1 Maneuver				-	-	-	560	343	0	0	345	627
Stage 1				-	-	-	-	-	0	0	423	-
Stage 2				-	-	-	621	421	0	0	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				-	-	-	522	343	-	-	345	627
Mov Cap-2 Maneuver				-	-	-	522	343	-	-	345	-
Stage 1				-	-	-	-	-	-	-	423	-
Stage 2				-	-	-	577	421	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s				0		16.4		12.9				
HCM LOS						C		B				
Minor Lane/Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	343	-	-	-	496							
HCM Lane V/C Ratio	0.077	-	-	-	0.078							
HCM Control Delay (s)	16.4	0	-	-	12.9							
HCM Lane LOS	C	A	-	-	B							
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3							





HCM 6th TWSC  
17: Silver King Road & US 60

07/10/2018

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	547	10	6	730	12	6	3	5	10	5	32
Future Vol, veh/h	26	547	10	6	730	12	6	3	5	10	5	32
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	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	90	90	90	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	31	644	12	7	811	13	8	4	6	13	6	40
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	824	0	0	656	0	0	1135	1550	328	1218	1550	412
Stage 1	-	-	-	-	-	-	712	712	-	832	832	-
Stage 2	-	-	-	-	-	-	423	838	-	386	718	-
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	802	-	-	927	-	-	157	113	668	136	113	589
Stage 1	-	-	-	-	-	-	389	434	-	330	382	-
Stage 2	-	-	-	-	-	-	579	380	-	609	431	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	802	-	-	927	-	-	135	108	668	127	108	589
Mov Cap-2 Maneuver	-	-	-	-	-	-	135	108	-	127	108	-
Stage 1	-	-	-	-	-	-	374	417	-	317	379	-
Stage 2	-	-	-	-	-	-	527	377	-	575	414	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.1			27.7			22.7		
HCM LOS							D			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	176	802	-	-	927	-	-	262				
HCM Lane V/C Ratio	0.099	0.038	-	-	0.007	-	-	0.224				
HCM Control Delay (s)	27.7	9.7	-	-	8.9	-	-	22.7				
HCM Lane LOS	D	A	-	-	A	-	-	C				
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	0.8				




HCM 6th TWSC  
3: SR 79 & Florence-Kelvin Highway

07/10/2018

Intersection						
Int Delay, s/veh	1.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	50	227	8	62	247
Future Vol, veh/h	4	50	227	8	62	247
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	-	-	-	225	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	85	85	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	63	267	9	69	274
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	684	272	0	0	276	0
Stage 1	272	-	-	-	-	-
Stage 2	412	-	-	-	-	-
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	414	767	-	-	1287	-
Stage 1	774	-	-	-	-	-
Stage 2	669	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	392	767	-	-	1287	-
Mov Cap-2 Maneuver	392	-	-	-	-	-
Stage 1	732	-	-	-	-	-
Stage 2	669	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	10.6	0	1.6			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	716	1287	-	
HCM Lane V/C Ratio	-	-	0.094	0.054	-	
HCM Control Delay (s)	-	-	10.6	8	-	
HCM Lane LOS	-	-	B	A	-	
HCM 95th %tile Q(veh)	-	-	0.3	0.2	-	

HCM 6th TWSC  
13: SR 177 & Florence-Kelvin Highway




07/10/2018

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	19	7	62	145	22
Future Vol, veh/h	15	19	7	62	145	22
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	80	80	80	80	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	24	9	78	171	26

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	280	184	197
Stage 1	184	-	-
Stage 2	96	-	-
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	710	858	1376
Stage 1	848	-	-
Stage 2	928	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	705	858	1376
Mov Cap-2 Maneuver	705	-	-
Stage 1	842	-	-
Stage 2	928	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0.8	0
HCM LOS	A		




Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1376	-	783	-	-
HCM Lane V/C Ratio	0.006	-	0.054	-	-
HCM Control Delay (s)	7.6	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection						
Int Delay, s/veh	4.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	10	10	9	4	13
Future Vol, veh/h	13	10	10	9	4	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	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	13	13	11	5	16
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	50	13	21	0	-	0
Stage 1	13	-	-	-	-	-
Stage 2	37	-	-	-	-	-
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	959	1067	1595	-	-	-
Stage 1	1010	-	-	-	-	-
Stage 2	985	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	951	1067	1595	-	-	-
Mov Cap-2 Maneuver	951	-	-	-	-	-
Stage 1	1002	-	-	-	-	-
Stage 2	985	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.7	3.8		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1595	-	998	-	-	
HCM Lane V/C Ratio	0.008	-	0.029	-	-	
HCM Control Delay (s)	7.3	0	8.7	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	



HCM 6th TWSC  
17: SR 77 & Dripping Springs Road

07/10/2018

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	24	5	5	85	81	25
Future Vol, veh/h	24	5	5	85	81	25
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	80	80	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	6	6	100	95	29
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	222	110	124	0	-	0
Stage 1	110	-	-	-	-	-
Stage 2	112	-	-	-	-	-
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	766	943	1463	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	913	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	763	943	1463	-	-	-
Mov Cap-2 Maneuver	763	-	-	-	-	-
Stage 1	911	-	-	-	-	-
Stage 2	913	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.8	0.4		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1463	-	789	-	-	
HCM Lane V/C Ratio	0.004	-	0.046	-	-	
HCM Control Delay (s)	7.5	0	9.8	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	