

# Retreat at TimberRidge Filing No. 3

## Traffic Technical Memorandum

Prepared for:

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Classic Homes  
6385 Corporate Drive, Suite 200

JULY 1, 2022

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LSC Transportation Consultants  
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See comment letter also.

### Engineering Review

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LSC #S224350



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Traffic Count Reports

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MTCP Maps



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July 1, 2022

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RE: Retreat at TimberRidge Filing No. 3  
El Paso County, CO  
Traffic Technical Memorandum  
LSC #S224350

Dear Mr. Moreland:

LSC Transportation Consultants, Inc. has prepared this traffic technical memorandum for the Retreat at TimberRidge Filing No. 3. As shown in Figure 1, The Retreat at TimberRidge is located generally east of Vollmer Road and south of Arroya Lane in El Paso County, Colorado. LSC prepared a traffic impact study (TIS) for the entire Retreat at TimberRidge PUD development plan dated January 25, 2018 and a transportation memorandum that addressed phasing of that development dated June 29, 2018. LSC also completed a traffic technical memorandum for Filing No. 1 dated April 3, 2020 and for Filing No. 2 dated October 4, 2021. The lot and street plan has not changed since completion of those reports. This memorandum is intended as a site-specific, final-plat traffic report for the currently-proposed Filing No. 3.

## REPORT CONTENTS

This report presents:

- A description of Retreat at TimberRidge filings that are currently under review, currently proposed, and planned for the future;
- The current status of other subdivisions shown on the approved PUD plan;
- The existing roadway and traffic conditions in the site's vicinity, including the roadway widths, surface conditions, lane geometries, traffic controls, and posted speed limits;
- Existing (2022) traffic-volume data;
- Projections of short-term and long-term background traffic volumes at the intersections of Vollmer Road/Poco Road and Vollmer Road/Arroya Lane;
- The projected average weekday and peak-hour vehicle trips to be generated by the Retreat at TimberRidge Filing No. 3;

- The assignment of the Filing No. 3 projected trips to the intersections of Vollmer Road/Poco Road and Vollmer Road/Arroya Lane;
- The projected short-term and long-term level of service at the intersections of Vollmer Road/Poco Road and Vollmer Road/Arroya Lane;
- The recommended street classifications for the internal streets within the currently-proposed Retreat at TimberRidge Filing No. 3;
- Improvements needed with Retreat at TimberRidge Filing No. 3; and
- The project's obligation to the County roadway improvement fee program.

## LAND USE AND ACCESS

The Retreat at TimberRidge Preliminary Plan area includes the 203 lots for single-family homes located east of Vollmer Road and two lots for single-family homes located west of Vollmer Road and south of Arroya Lane. Figure 2 shows the location of the approved Retreat at TimberRidge Filing No. 1, the Retreat at TimberRidge Filing No. 2, which is currently under review, the currently proposed Retreat at TimberRidge Filing No. 3, and future filings. The June 2018 transportation memorandum included analysis of the preliminary plan by phase. Figure 1 from that report shows the phasing plan. No changes have been made to the PUD plan since completion of that memorandum. The current status of subdivisions is discussed below.

### Current Status of Other Subdivisions Shown on the Approved PUD Plan

The Retreat at TimberRidge Filing No. 1 is approved and currently under construction. Filing 1 includes 70 lots for single-family homes. The location of the lots within this filing includes 11 of the 13 lots assumed in the **Preliminary Plan Phase 2 plan** and the 59 lots assumed in **Preliminary Plan Phase 3 plan** in the June 2018 transportation memorandum. Poco Road has been constructed east of Vollmer Road to provide access for Filing 1. The proposed easternmost north/south street segment connecting to Arroya Lane has been constructed as a gravel road to provide an interim secondary emergency access. No improvements are planned to Arroya Lane as part of the approved Retreat at TimberRidge Filing No. 1.

approved in June, 2022

The Retreat at TimberRidge Filing No. 2 is currently under review. This filing is planned to include 90 lots for single-family homes. The location of the lots within this filing includes 6 of the 33 lots assumed in the **Preliminary Plan Phase 4**, 12 of the 15 lots assumed in the **Preliminary Plan Phase 5**, and 72 of the 75 lots assumed in the **Preliminary Plan Phase 6**. No changes are proposed to the Filing 1 access plan with Filing 2.

The TimberRidge Estates Filing No. 1 (different from "Retreat at TimberRidge" Filing No. 1) was under review by El Paso County. However, it has now been withdrawn. This filing planned 10 lots for single-family homes located east of Vollmer Road and north of Arroya Lane with access to Arroya Lane only. These 10 lots remain part of the approved PUD plan and are shown as part of **Phase 1 of the Preliminary Plan**. With the withdrawal of the subdivision plat, although part of Phase 1 of the Preliminary Plan, there is now no current plan to develop these lots in the short term.



LSC is not aware of any status updates for the two lots for single-family homes on the west side of Vollmer Road. These two lots were included in the **Preliminary Plan Phase 2** in the June 2018 transportation memorandum.

### Currently-Proposed Filing No. 3

The Retreat at TimberRidge Filing No. 3 is currently proposed to include 33 lots for single-family homes. The location of the lots within this filing includes 27 of the 33 lots assumed in the **Preliminary Plan Phase 4**, 3 of the 15 lots assumed in the **Preliminary Plan Phase 5**, and 3 of the 75 lots assumed in the **Preliminary Plan Phase 6**.

Arroya Lane is planned to be improved to a Rural Local cross section (paved) with a right-of-way (ROW) width of 80 feet as part of the currently-proposed Filing No. 3. The intersection of Vollmer/Arroya is planned to be realigned so that Arroya intersects Vollmer at a right angle. The easternmost north/south street segments connecting to Arroya Lane that were constructed as gravel roads to provide an interim secondary emergency access for Filing Nos. 1 and 2 will be paved and improved to their final cross sections as part of the currently-proposed Filing No. 3. Aspen Valley Road will also be extended north to Arroya Lane as part of this filing. Figure 2 shows the proposed intersection spacing to Arroya Lane.

CDs show collector width construction

Rural Minor Arterial should be 60 MPH

### Sight Distance Analysis

Figure 3 shows a sight-distance analysis at the realigned intersection of Vollmer/Arroya. Based on a design speed of 40 miles per hour (mph) and the criteria contained in Table 2-21 of the El Paso County *Engineering Criteria Manual (ECM)*, the required intersection sight distance at this intersection is 445 feet. Based on the criteria contained in Table 2-17 of the *ECM*, the required stopping sight distance approaching this intersection is 305 feet. As shown in Figure 3, the future intersection analyzed will meet the criteria.

665 (calculated)

40

570

Figure 4 shows a sight-distance analysis at the proposed access points to Arroya Lane. Based on a design speed of 25 mph and the criteria contained in Table 2-21 of the *ECM*, the required intersection sight distance at the future intersections is 280 feet. Based on the criteria contained in Table 2-17 of the *ECM*, the required stopping sight distance approaching these intersections is 155 feet. As shown in Figure 4, the future intersections analyzed will meet the criteria.

305

445

### Pedestrian and Bicycle Access

Pedestrian

There are no existing schools within two miles of the site. However, there are planned future school sites within the Sterling Ranch Master Plan area south of Briargate Parkway. There are planned sidewalks on Vollmer Road and Briargate Parkway. School crossings will be needed at the intersection of Briargate Parkway/Vollmer Road.

east side?

south of Poco Road?

## EXISTING ROAD AND TRAFFIC CONDITIONS

The adjacent streets are shown in Figure 1 and are described below. Copies of the 2016 *El Paso County Major Transportation Corridors Plan (MTCP)*, 2040 *Roadway Plan*, and 2016 *MTCP 2060 Corridor Preservation Plan* with the site location identified on each of them have been attached to this report.

**Vollmer Road** is currently a five-lane urban street within the City of Colorado Springs limits between Black Forest Road and Cowpoke Road; and a two-lane, rural, paved roadway north of Cowpoke Road extending to north of Hodgen Road. In the southbound direction, Vollmer Road has a posted speed limit of 45 mph. South of Cowpoke Road, Vollmer Road has a 40-mph posted speed limit. The 2040 *El Paso County MTCP* and the Sterling Ranch master traffic study show Vollmer Road as a four-lane Urban Minor Arterial adjacent to the site. Vollmer Road is planned to transition to a 2-lane Rural Minor Arterial north of Poco Road. In the interim, auxiliary turn lanes will be completed on Vollmer Road at Briargate Parkway as part of the Homestead at Sterling Ranch Filing No. 2 development.

← Update

**Marksheffel Road** is a Principal Arterial extending north from the City of Fountain to Woodmen Road. Marksheffel Road is planned to ultimately be widened to six lanes and extended north and west from Woodmen Road to connect to Research Parkway at Black Forest Road. Marksheffel Road is shown as a six-lane Principal Arterial through the Sterling Ranch Master Plan area on the El Paso County *MTCP*.

← Currently being constructed as a 4-lane principal arterial through Sterling Ranch.

**Briargate Parkway** is a six-lane, Principal Arterial that extends east from Interstate 25 (I-25) to Grand Lawn Circle (about one-half mile east of Powers Boulevard). Briargate Parkway/Stapleton Road is planned ultimately to extend to Towner Drive. The section of Briargate Parkway between Vollmer Road and the first Sterling Ranch access (Wheatland Drive) is planned to be constructed in the short term as a partial cross section with the Homestead at Sterling Ranch Filing No. 2 development.

← Update

**Poco Road** is an existing gravel road which extends east for about three quarters of a mile from Lochwinnoch Lane to Vollmer Road. Poco Road has recently been constructed east of Vollmer Road as an Urban Local Road to serve the Retreat at TimberRidge Filing No. 1 (PCD-SF-19-009).

### Existing Traffic Volumes

← Add statement that Poco Road and Arroya Lane provide two points of access to the Retreat at TimberRidge development,

Figure 5 shows the existing (2022) peak-hour traffic volumes at the intersection of Poco/Vollmer. The traffic volumes were based on traffic counts conducted by LSC in May 2022. At the time the traffic counts were conducted, only a few homes within the Retreat at TimberRidge were occupied. However, heavy construction activity was observed on the east leg of this intersection. The traffic count sheets are attached.

## LEVEL OF SERVICE ANALYSIS

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection. Level of service is indicated on a scale from "A" to "F." LOS A represents control delay of less than 10 seconds for unsignalized intersections. LOS F represents control delay of more than 50 seconds for unsignalized intersections. Table 1 shows the level of service delay ranges.

**Table 1: Intersection Levels of Service Delay Ranges**

Level of Service	Signalized Intersections	Unsignalized Intersections
	Average Control Delay (seconds per vehicle)	Average Control Delay (seconds per vehicle) <sup>(1)</sup>
A	10.0 sec or less	10.0 sec or less
B	10.1-20.0 sec	10.1-15.0 sec
C	20.1-35.0 sec	15.1-25.0 sec
D	35.1-55.0 sec	25.1-35.0 sec
E	55.1-80.0 sec	35.1-50.0 sec
F	80.1 sec or more	50.1 sec or more

(1) For unsignalized intersections, if V/C ratio is greater than 1.0 the level of service is LOS F, regardless of the projected average control delay per vehicle.

The intersection of Poco/Vollmer has been analyzed to determine the existing intersection levels of service. The analysis was based on the unsignalized-intersection analysis procedures from the *Highway Capacity Manual, 6th Edition*. Figure 5 shows the level of service analysis results. The level of service reports are attached.

All movements at the intersection of Poco/Vollmer are currently operating at LOS B or better during the peak hours.

## BACKGROUND (BASELINE) CONDITIONS

Background traffic is the traffic estimated to be on the adjacent roadways and at adjacent intersections without the proposed development's trip generation of site-generated traffic volumes. Background traffic includes the through traffic and the traffic generated by nearby developments but assumes zero traffic generated by Retreat at TimberRidge Filing No. 3.

Figure 6 shows the projected short-term background traffic volumes at the key area intersections. The short-term background traffic includes the existing traffic volumes (from Figure 5 with the traffic on the east leg of the intersection of Vollmer/Poco removed as most of it was observed to be construction related), plus increases in through traffic due to regional growth, plus traffic estimated to be generated by buildout of the Homestead at Sterling Ranch Filing 2, Branding Iron

at Sterling Ranch Filing 2, Sterling Ranch Filing No. 2, Sterling Ranch Phase 2, Homestead North Filings 1 through 3 located southeast of the intersection of Vollmer/Poco, and the Retreat at TimberRidge Filing Nos. 1 and 2. The short-term background volumes assume Aspen Valley Road and Hawks Hill Court have been constructed north to Arroya Lane.

Figure 7 shows the projected 2042 background traffic volumes at the key area intersections. 2042 background traffic-volume estimates were based on 2040 volume projections in the *El Paso County MTCP* and previous work completed in the area by LSC. The 2042 background traffic volumes assume buildout of the land uses and street network within the Sterling Ranch Master Plan area and future phases of the Retreat at TimberRidge.

### TRIP GENERATION

← Mention the potential Jaynes development and how that would generally affect background traffic if rezoning is approved.

The Retreat at TimberRidge Filing No. 3 site-generated vehicle trips have been estimated using the nationally published trip-generation rates from *Trip Generation, 11th Edition, 2021* by the Institute of Transportation Engineers (ITE). Table 2 (attached) shows the trip-generation estimates for Filing No. 3. Table 2 also shows estimates of the traffic expected to be generated by the approved Retreat at TimberRidge Filing No. 1, the Retreat at TimberRidge Filing No. 2 **currently under review**, and by future Retreat at TimberRidge filings. The total trips generated by the Retreat at TimberRidge at buildout is consistent with the estimate shown in Table 1 of *The Retreat at TimberRidge Preliminary Plan Transportation Memorandum* dated June 29, 2018.

The Retreat at TimberRidge Filing No. 3 is expected to generate 311 vehicle trips on the average weekday, with about half entering and half exiting the site during a 24-hour period. During the morning peak hour, which generally occurs for one hour between 6:30 and 8:30 a.m., about 6 vehicles would enter and 17 vehicles would exit the site. During the afternoon peak hour, which generally occurs for one hour between 4:15 and 6:15 p.m., about 20 vehicles would enter and 11 vehicles would exit the site.

### TRIP DISTRIBUTION AND ASSIGNMENT

The directional distribution of the site-generated traffic volumes on the street and roadway system serving the site is one of the most important factors in determining the site's traffic impacts. The specific short-term and long-term distribution estimates are shown in Figure 8. The directional-distribution estimates are based on the following factors: the location of the site with respect to the Colorado Springs metropolitan area, the planned access system for the site, the street and roadway system serving the site, the land uses proposed for the site, and the distribution of existing traffic volumes. The short-term distribution estimate assumes only the short section of Briargate Parkway between Vollmer Road and Wheatland Drive has been constructed in the vicinity of the site and the long-term distribution estimate assumes full buildout of the future roadway network in the vicinity of the site.

When the distribution percentages (from Figure 8) are applied to the trip-generation estimates (from Table 2), the resulting site-generated traffic volumes can be determined. Figures 8 and 10 show the

short-term and 2042 site-generated traffic-volume estimates for the Retreat at TimberRidge Filing 3, respectively.

### TOTAL TRAFFIC

Figure 11 shows the projected short-term total traffic volumes at the intersections of Vollmer Road/Poco Road and Vollmer Road/Arroya Lane. The short-term total traffic volumes are the sum of the short-term site-generated traffic volumes (from Figure 9) plus the short-term background traffic volumes (from Figure 6).

Figure 12 shows the projected 2040 total traffic volumes at the intersection of Vollmer Road/Poco Road. The 2040 total traffic volumes are the sum of the long-term site-generated traffic volumes (from Figure 10) plus the 2040 background traffic volumes (from Figure 7).

### LEVEL OF SERVICE

The intersections of Vollmer Road/Poco Road and Vollmer Road/Arroya Lane were analyzed using the unsignalized method of analysis procedures outlined in the *Highway Capacity Manual, 6th Edition* by the Transportation Research Board. The results of the analysis are shown in Figures 6, 7, 11 and 12.

All movements at the stop-sign-controlled intersections of Vollmer Road/Poco Road and Vollmer Road/Arroya Lane are projected to operate at an acceptable level of service (LOS D or better) during the peak hours through 2042.

### SUBDIVISION STREET CLASSIFICATIONS

Figure 13 shows the recommended street classifications for the internal streets within the Retreat at TimberRidge plan.

### ROADWAY IMPROVEMENTS

Table 3 from the June 2018 memorandum contained a summary of needed improvements for the entire TimberRidge PUD plan by phase. A copy of this table with markups and notations is attached. The approved Retreat at TimberRidge Filing No. 1, the Retreat at TimberRidge Filing No. 2 **currently under review**, and the currently-proposed Retreat at TimberRidge Filing No. 3 include 193 of the 195 lots identified in that memorandum as Phases 2 through 6. TimberRidge Filing Nos 1 through 3 do not include the two lots located west of Vollmer Road (included as part of Preliminary Plan Phase 2), nor the 10 lots shown as Preliminary Plan Phase 1.

All recommendations in that table are still valid. However, it is important to note that the first improvement listed, identified as "Arroya Lane Initial/Interim," is no longer necessary in the short term, as Arroya Lane is planned to be built to the final recommended Rural Local cross section

Collector? 

Verify whether Arroya might need to be upgraded to an urban road (curb and gutter) in the future based on additional traffic pushing ADT above 1,500. What might cause that - increase in SR density or connecting Arroya to the east?

Mr. Loren J. Moreland  
Retreat at TimberRidge Filing No. 3

with 80 feet of right-of-way as part of the currently-proposed Filing No. 3. The improvements specially needed with the Retreat at Timber Ridge Filing No. 3 have been repeated below.

- Update Arroya Lane to a Rural **Local** cross section (paved) with 80' right-of-way
- Realign Arroya Lane at the intersection of Vollmer Road so Arroya intersects Vollmer at a right angle.

**Vollmer Road (from Poco Road South to Future Briargate Parkway)**

Vollmer Road adjacent to and south of the site is a two-lane rural roadway (without paved shoulders) with a 60' right-of-way. The section south of Poco Road is ultimately planned as a four-lane urban minor arterial. It is planned to be improved as part of Homestead North. If the currently proposed filing is approved and recorded prior to the first Homestead North plat, an additional agreement, condition of approval, and/or Subdivision Improvement Agreement (SIA) clause will be required to address construction from Poco to Briargate.

Update

**ROADWAY IMPROVEMENT FEE PROGRAM**

This project will be required to participate in the El Paso County Road Improvement Fee Program. The Retreat at TimberRidge Filing No. 3 will join the ten-mil PID. The 2019 ten-mil PID building permit fee portion associated with this option is \$1,221 per single-family dwelling unit. Based on 33 lots, the total building permit fee would be \$40,293.

\* \* \* \* \*

Please contact me if you have any questions regarding this report.

Respectfully Submitted,

LSC TRANSPORTATION CONSULTANTS, INC.

By: Jeffrey C. Hodsdon, P.E.  
Principal

JCH/KDF:jas

- Enclosures:
- Table 1
  - Figures 1-13
  - Improvements Table – with March 2021, October 2021, and June 2022 Notations
  - Traffic Count Reports
  - Level of Service Reports
  - MTCP Maps

Address width (pavement and shoulders) and condition of Vollmer at Arroya and if any improvements are needed to Vollmer, what is proposed in the CDs, and why a southbound left turn is not recommended.

**Table 2**

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DRAFT



**Table 2  
Trip Generation Estimate  
Retreat at TimberRidge Filing No. 3**

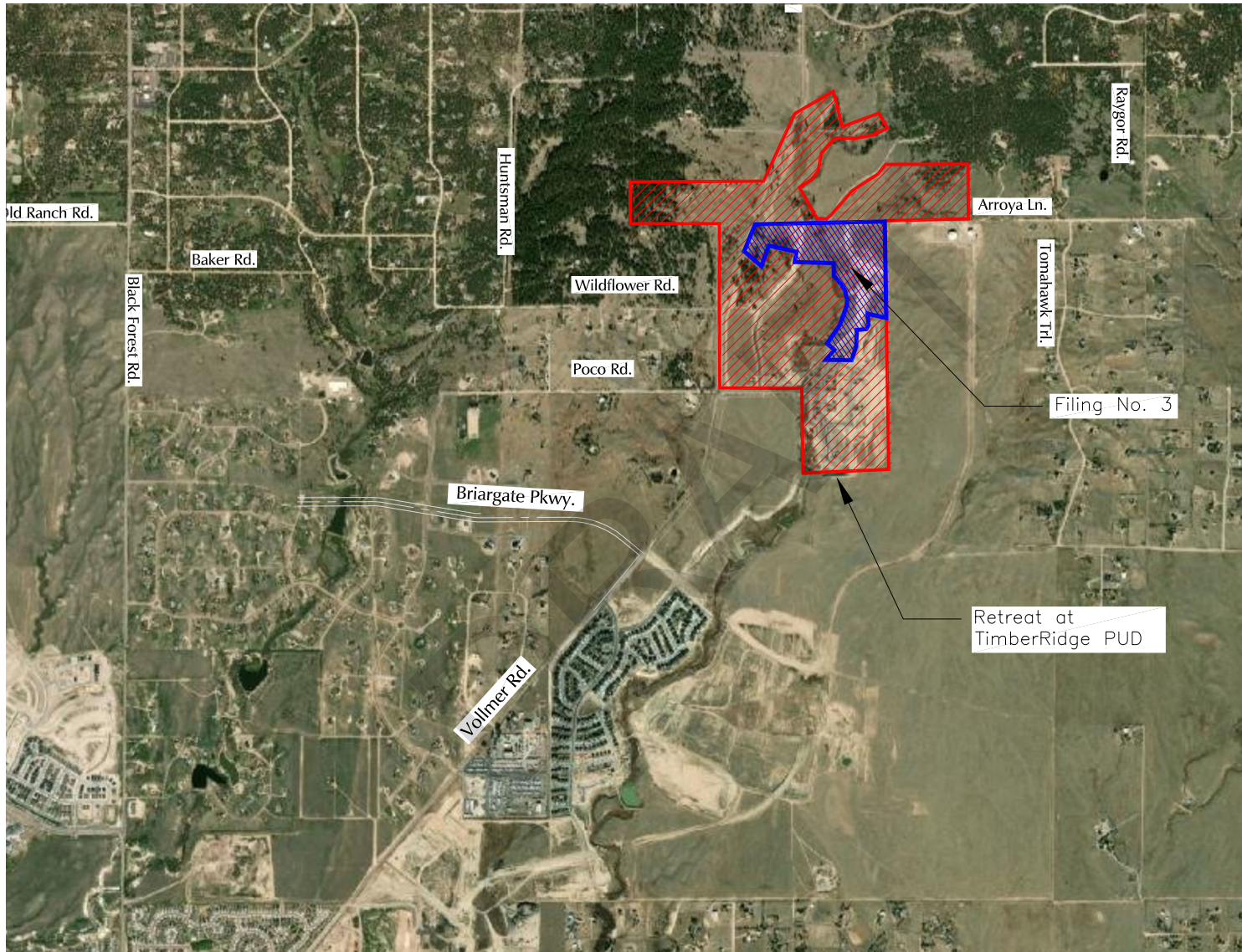
Phase	Land Use Code	Land Use Description	Trip Generation Units					Trip Generation Rates <sup>(1)</sup>					Filing No. 1 Trips Generated					Filing No. 2 Trips Generated					Filing No. 3 Trips Generated					Future Trips Generated					Total Trips Generated							
			Fil 1	Fil 2	Fil 3	Future	Total	Average Weekday Traffic	Morning Peak Hour		Afternoon Peak Hour		Average Weekday Traffic	Morning Peak Hour		Afternoon Peak Hour		Average Weekday Traffic	Morning Peak Hour		Afternoon Peak Hour		Average Weekday Traffic	Morning Peak Hour		Afternoon Peak Hour		Average Weekday Traffic	Morning Peak Hour		Afternoon Peak Hour									
									In	Out	In	Out		In	Out	In	Out		In	Out	In	Out		In	Out	In	Out		In	Out										
<b>Approved Preliminary Plan</b>																																								
1	210	Single-Family Detached Housing	0	0	0	10	10	DU <sup>(2)</sup>	9.43	0.18	0.52	0.59	0.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	94	2	5	6	3				
2	210	Single-Family Detached Housing	11	0	0	2	13	DU	9.43	0.18	0.52	0.59	0.35	104	2	6	7	4	0	0	0	0	0	0	0	0	0	0	0	19	0	1	1	1	123	2	7	8	5	
3	210	Single-Family Detached Housing	59	0	0	0	59	DU	9.43	0.18	0.52	0.59	0.35	556	11	31	35	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	556	11	31	35	21	
4	210	Single-Family Detached Housing	0	6	27	0	33	DU	9.43	0.18	0.52	0.59	0.35	0	0	0	0	0	57	1	3	4	2	255	5	14	16	9	0	0	0	0	0	0	0	311	6	17	20	11
5	210	Single-Family Detached Housing	0	12	3	0	15	DU	9.43	0.18	0.52	0.59	0.35	0	0	0	0	0	113	2	6	7	4	28	1	2	2	1	0	0	0	0	0	0	0	141	3	8	9	5
6	210	Single-Family Detached Housing	0	72	3	0	75	DU	9.43	0.18	0.52	0.59	0.35	0	0	0	0	0	679	13	37	43	25	28	1	2	2	1	0	0	0	0	0	0	0	707	14	39	44	26
			<b>70</b>	<b>90</b>	<b>33</b>	<b>12</b>	<b>205</b>	<b>DU</b>						<b>660</b>	<b>13</b>	<b>36</b>	<b>41</b>	<b>24</b>	<b>849</b>	<b>16</b>	<b>47</b>	<b>53</b>	<b>31</b>	<b>311</b>	<b>6</b>	<b>17</b>	<b>20</b>	<b>11</b>	<b>113</b>	<b>2</b>	<b>6</b>	<b>7</b>	<b>4</b>	<b>1,933</b>	<b>37</b>	<b>106</b>	<b>121</b>	<b>71</b>		
<b>Future Filings (Part of the overall PUD but not a part of the currently approved Preliminary Plan)</b>																																								
	210	Single-Family Detached Housing	0	0	0	7	7	DU	9.43	0.18	0.52	0.59	0.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66	1	4	4	2	66	1	4	4	2	
Total at Buildout of Retreat at TimberRidge							212	DU	9.43	0.18	0.52	0.59	0.35	660	13	36	41	24	849	16	47	53	31	311	6	17	20	11	179	3	10	11	7	1,999	39	110	126	74		
Notes:																																								
(1) Source: "Trip Generation, 11th Edition, 2021" by the Institute of Transportation Engineers (ITE)																																								
(2) DU = dwelling unit																																								
Source: LSC Transportation Consultants, Inc.																																								



# Figures 1-13

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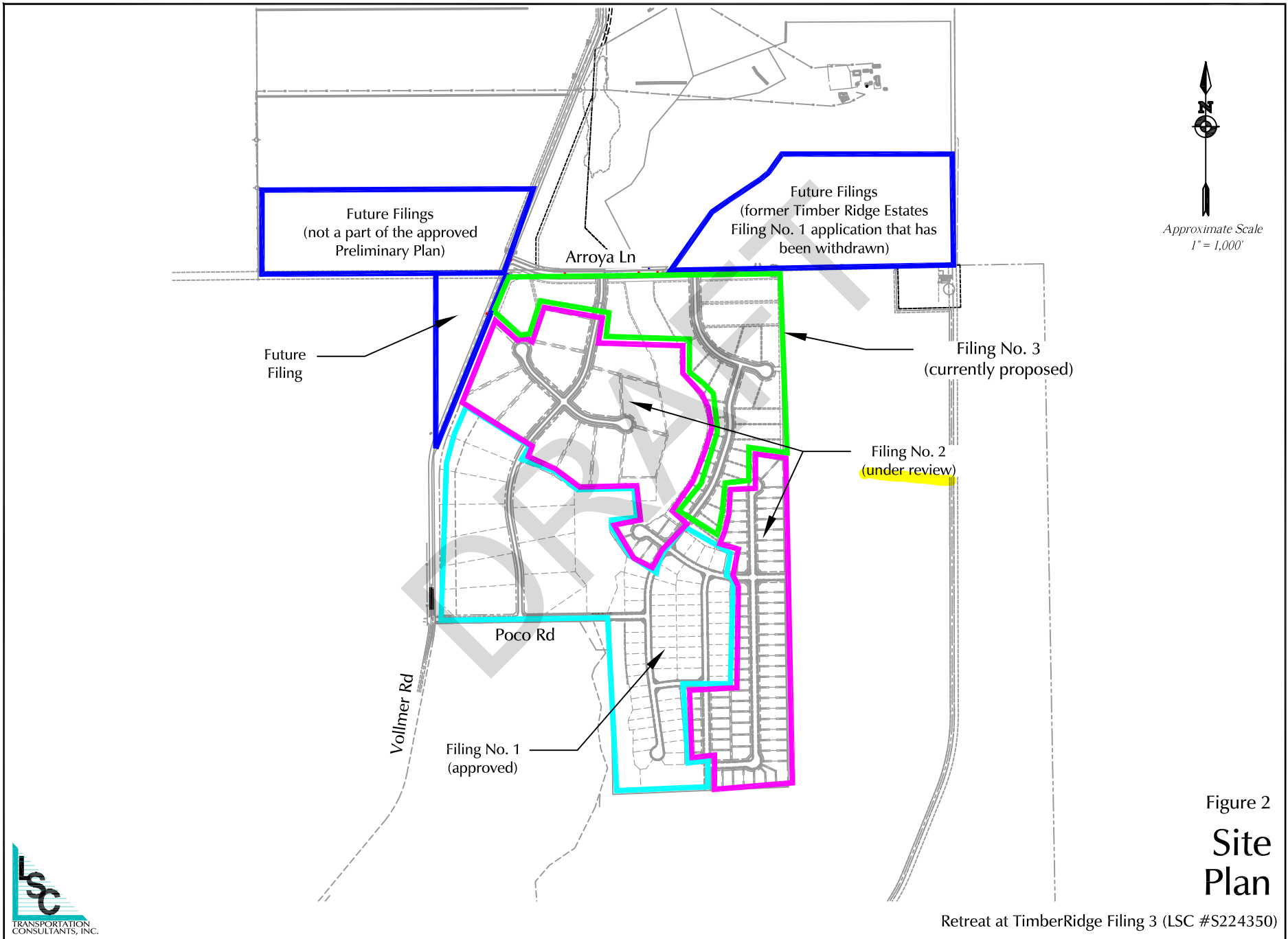
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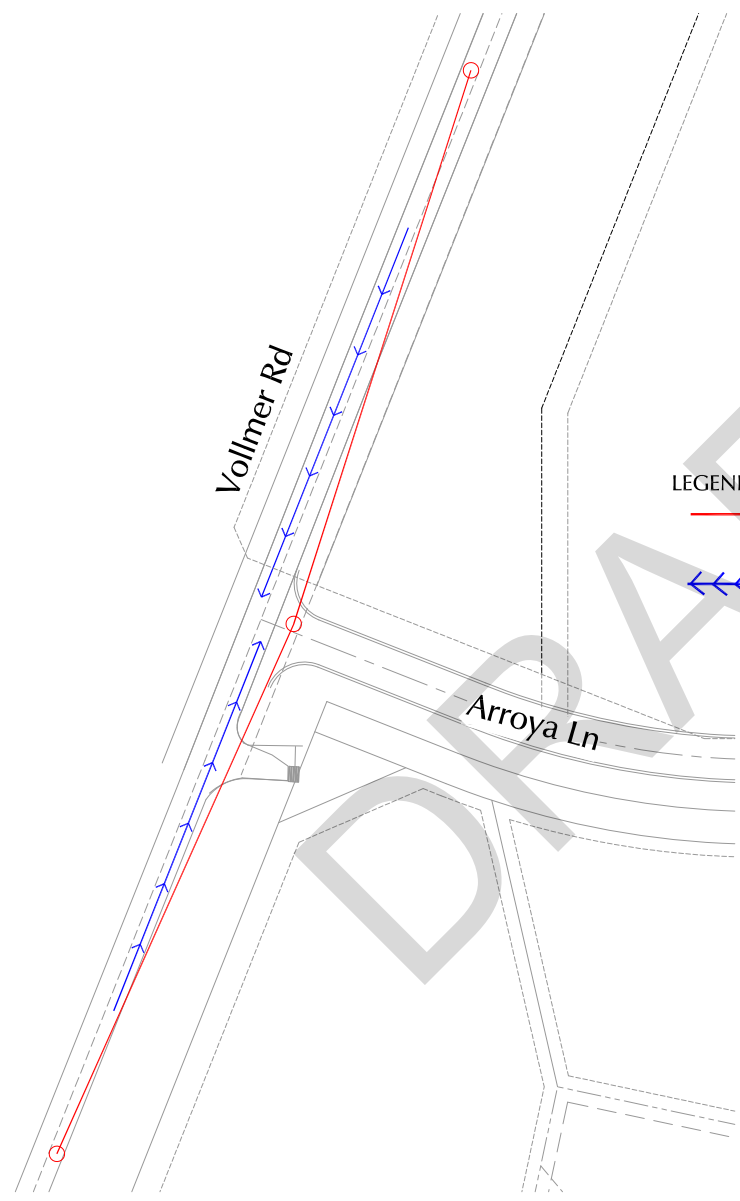
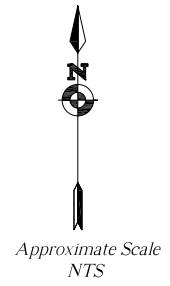




Approximate Scale  
Scale: 1" = 2,500'

Figure 1  
Vicinity  
Map

Retreat at TimberRidge Filing 3 (LSC #S224350)





- LEGEND:
-  = ECM Required Intersection Sight Distance (445' based on a design speed of 40mph from Table 2-21)
  -  = ECM Required Stopping Sight Distance (305' based on a design speed of 40mph from Table 2-17)

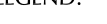

Update

Figure 3  
Sight Distance Analysis  
Vollmer/Arroya

Retreat at TimberRidge Filing 3 (LSC #S224350)



LEGEND:

-  = ECM Required Intersection Sight Distance (280' based on a design speed of 25mph from Table 2-21)
-  = ECM Required Stopping Sight Distance (155' based on a design speed of 25mph from Table 2-17)

Update

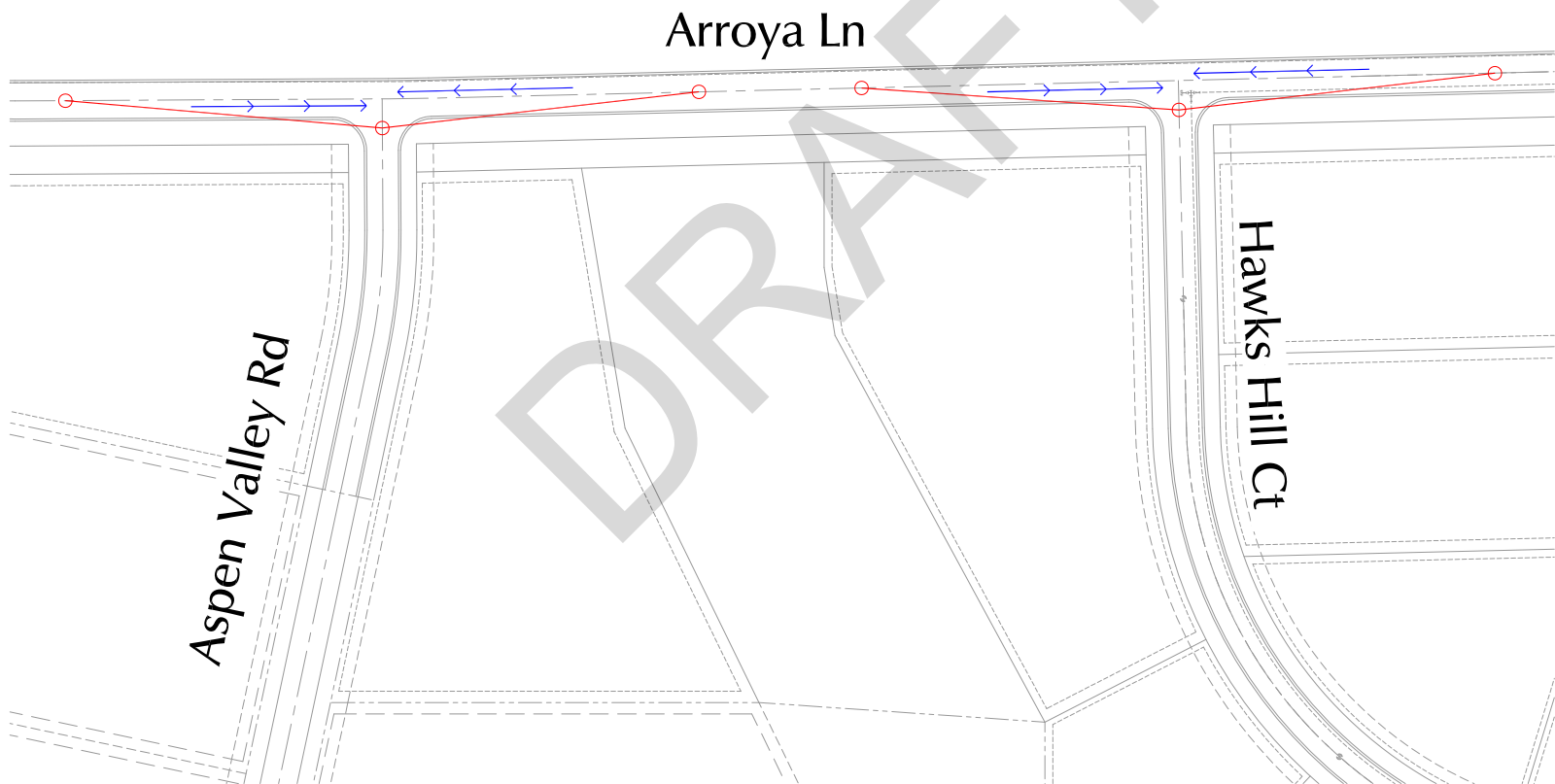
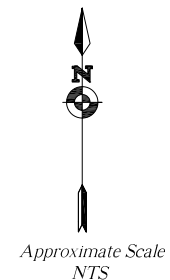


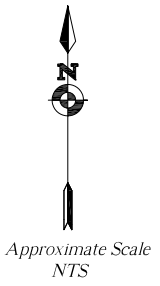
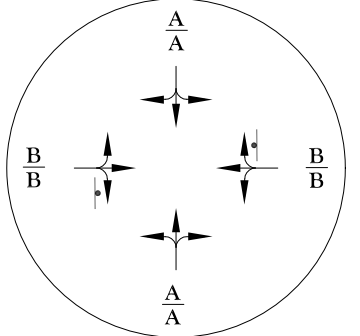
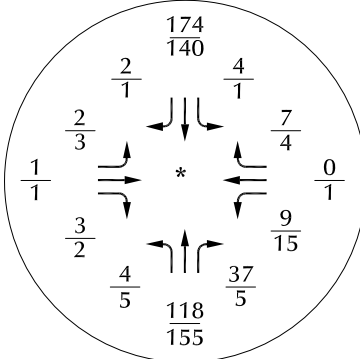
Figure 4

# Sight Distance Analysis - Arroya Access Points

Retreat at TimberRidge Filing 3 (LSC #S224350)



← Show Arroya



Label major roads

LEGEND:

$\frac{XX}{XX}$  = AM Weekday Peak-Hour Traffic (vehicles per hour) / PM Weekday Peak-Hour Traffic (vehicles per hour) Based on counts by LSC May 2022

XXX = Average Weekday Traffic (vehicles per day) Estimate by LSC

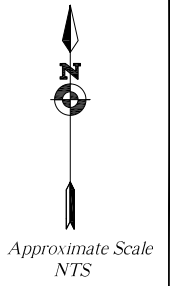
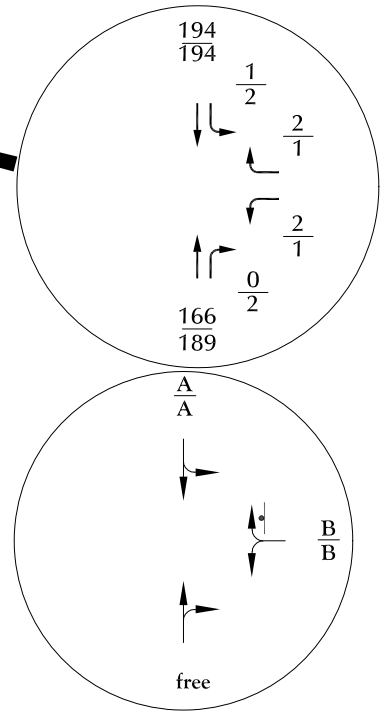
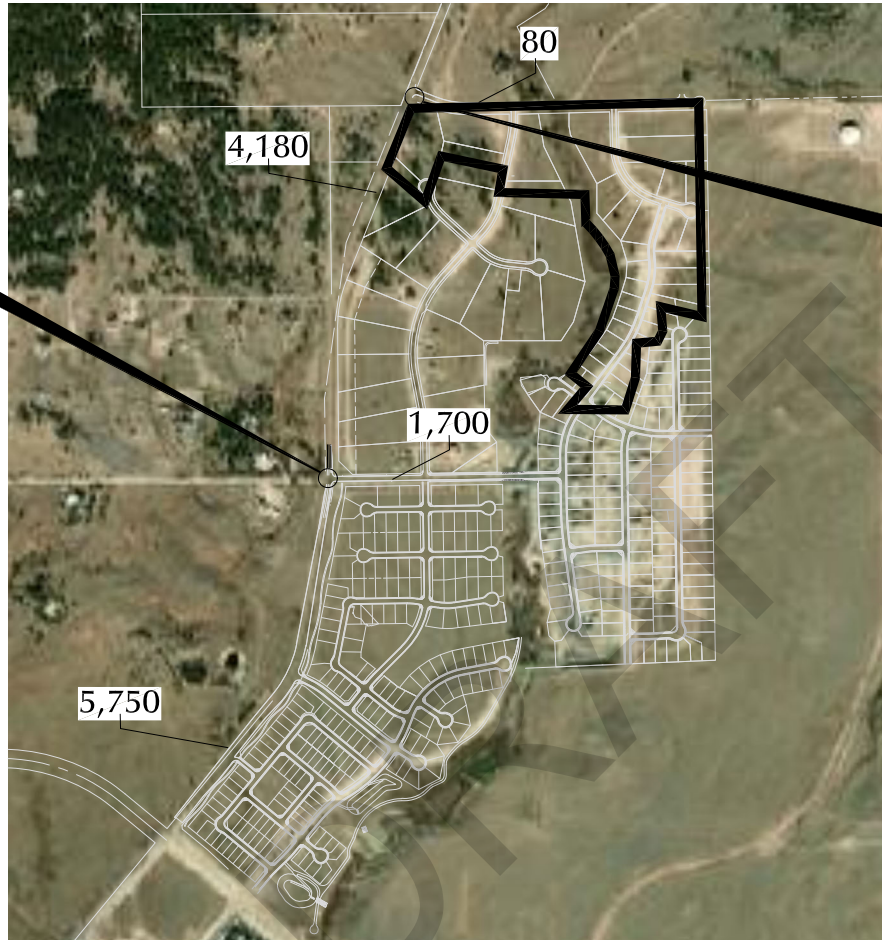
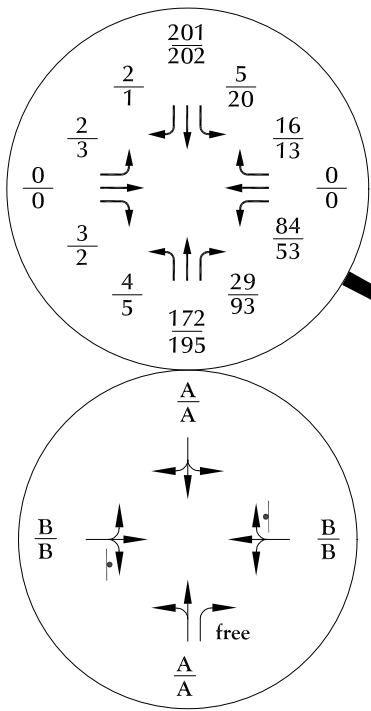


\*Note: Traffic on the east leg is primarily construction related traffic

Figure 5

# Existing Traffic

Retreat at TimberRidge Filing 3 (LSC #S224350)

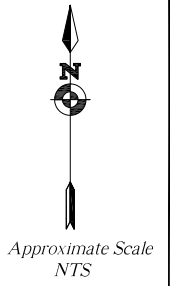
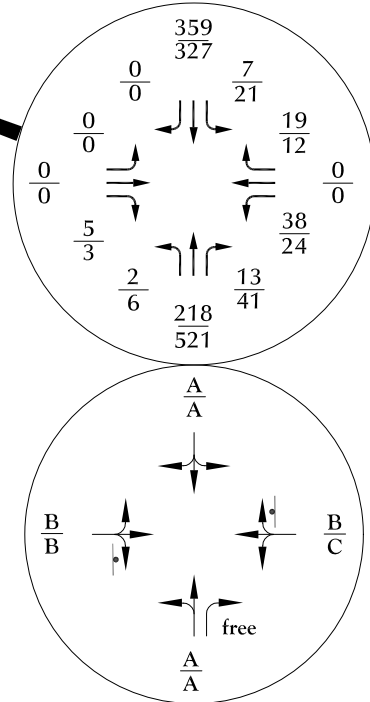
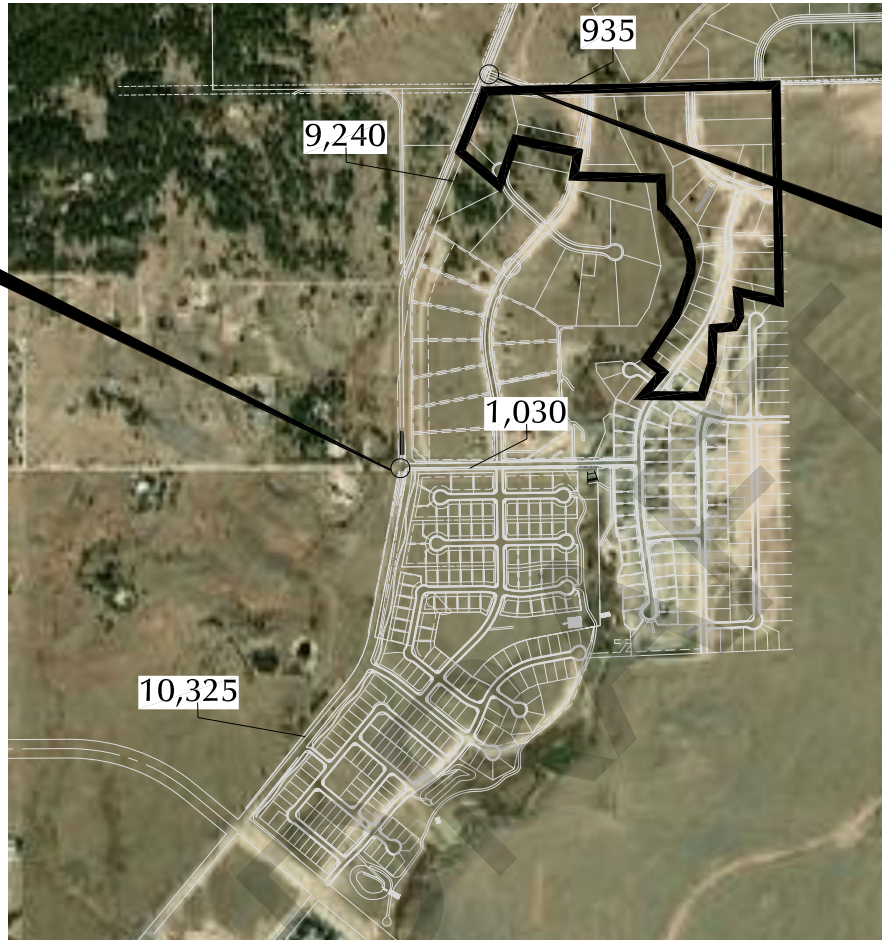
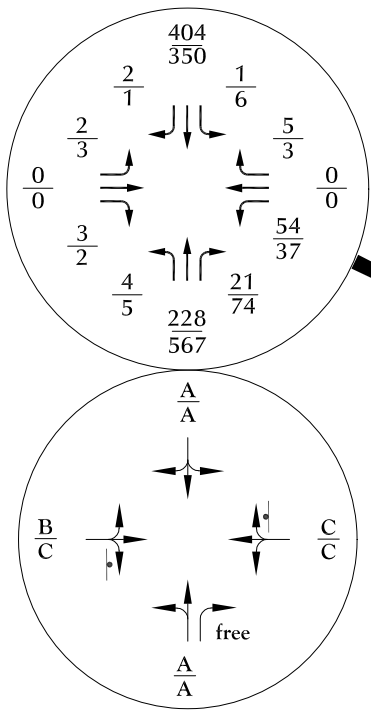


LEGEND:

- $\downarrow$  = Stop Sign
- $\frac{XX}{XX}$  = AM Weekday Peak-Hour Traffic (vehicles per hour)  
PM Weekday Peak-Hour Traffic (vehicles per hour)
- XXX = Average Weekday Traffic (vehicles per day)
- $\frac{A}{B}$  = AM Individual Movement Peak-Hour Level of Service  
PM Individual Movement Peak-Hour Level of Service
- $\frac{C}{D}$  = AM Entire Intersection Peak-Hour Level of Service  
PM Entire Intersection Peak-Hour Level of Service



Figure 6  
Short-Term Background Conditions  
Retreat at TimberRidge Filing 3 (LSC #S224350)



LEGEND:

- ⊥ = Stop Sign      [ ] = Traffic Signal
- $\frac{XX}{XX}$  = AM Weekday Peak-Hour Traffic (vehicles per hour)  
           PM Weekday Peak-Hour Traffic (vehicles per hour)
- XXX = Average Weekday Traffic (vehicles per day)
- $\frac{A}{B}$  = AM Individual Movement Peak-Hour Level of Service  
           PM Individual Movement Peak-Hour Level of Service
- $\frac{C}{D}$  = AM Entire Intersection Peak-Hour Level of Service  
           PM Entire Intersection Peak-Hour Level of Service

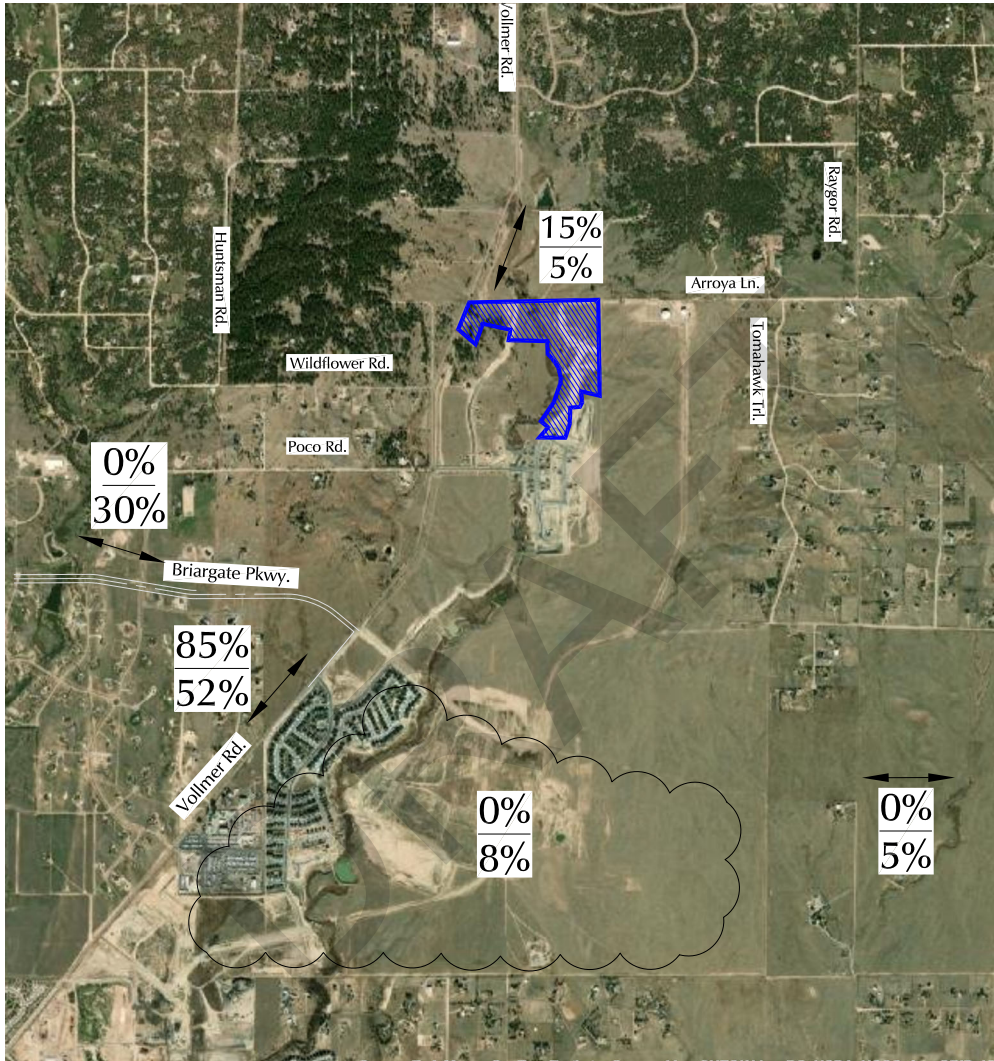


Figure 7  
**2042 Background Conditions**  
 Retreat at TimberRidge Filing 3 (LSC #S224350)





Approximate Scale  
Scale: 1" = 3,000'



LEGEND:

$$\frac{XX\%}{XX\%} = \frac{\text{Short-Term Percent Directional Distribution}}{\text{Long-Term Percent Directional Distribution}}$$

Figure 8

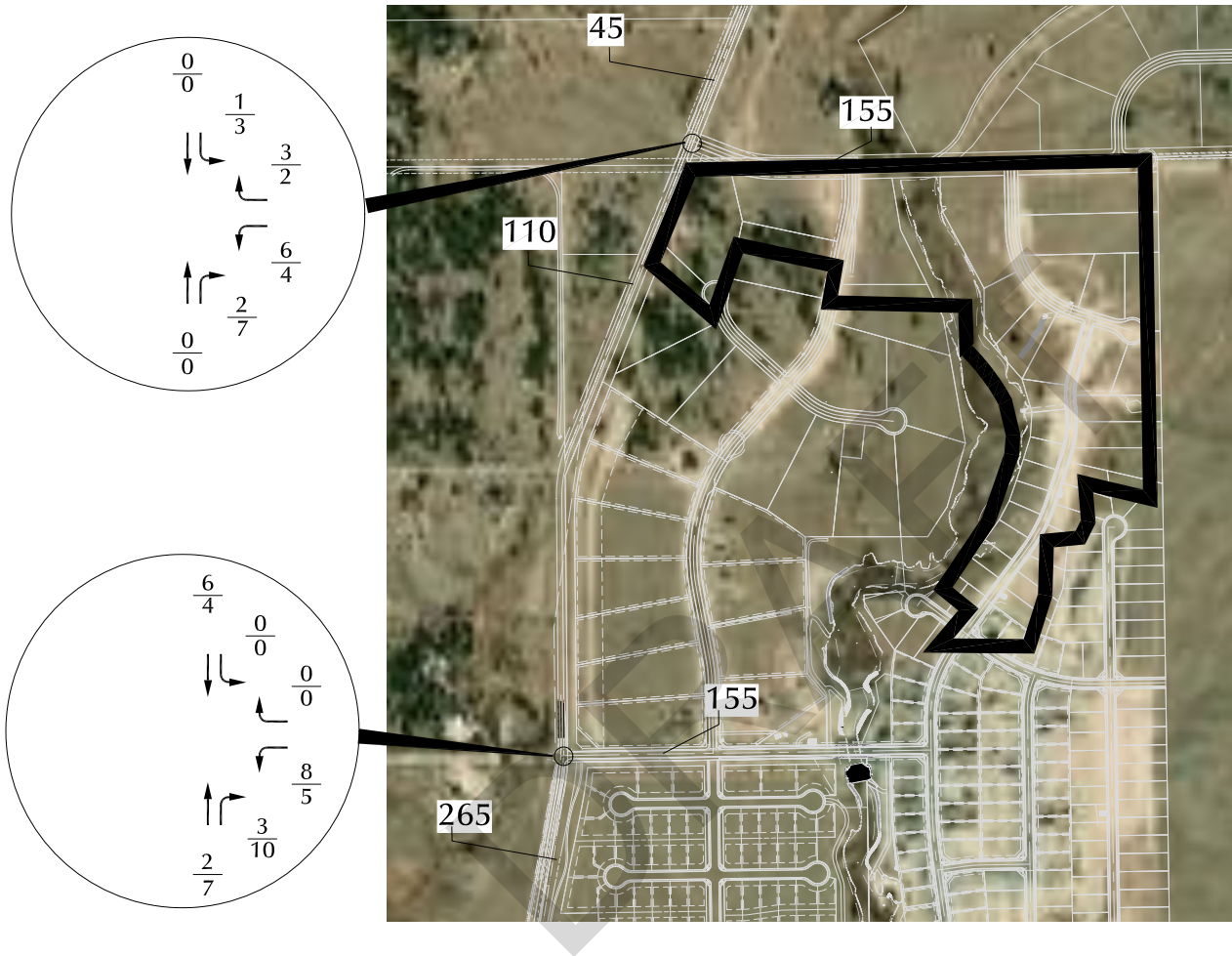
# Directional Distribution of Site-Generated Traffic

Retreat at TimberRidge Filing 3 (LSC #S224350)





Approximate Scale  
NTS

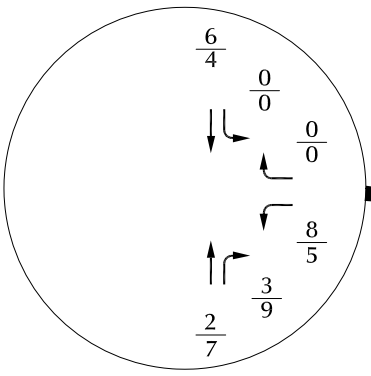
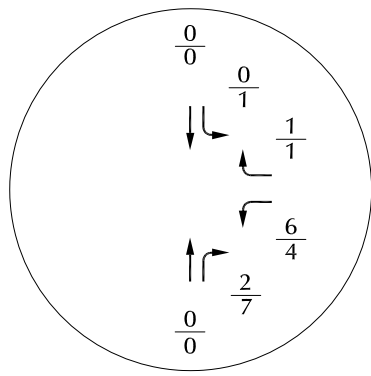


LEGEND:

- $\frac{XX}{XX}$  = AM Weekday Peak-Hour Traffic (vehicles per hour)
- $\frac{XX}{XX}$  = PM Weekday Peak-Hour Traffic (vehicles per hour)
- XXX = Average Weekday Traffic (vehicles per day)

Figure 9  
Short-Term Assignment of  
Filing No. 3 Site-Generated Traffic

Retreat at TimberRidge Filing 3 (LSC #S224350)



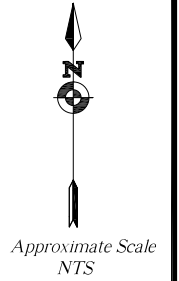
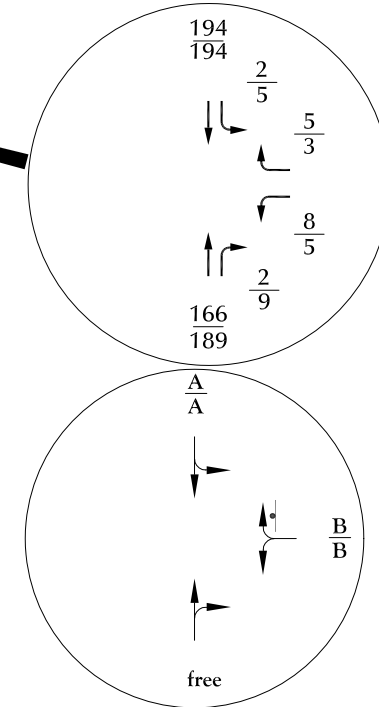
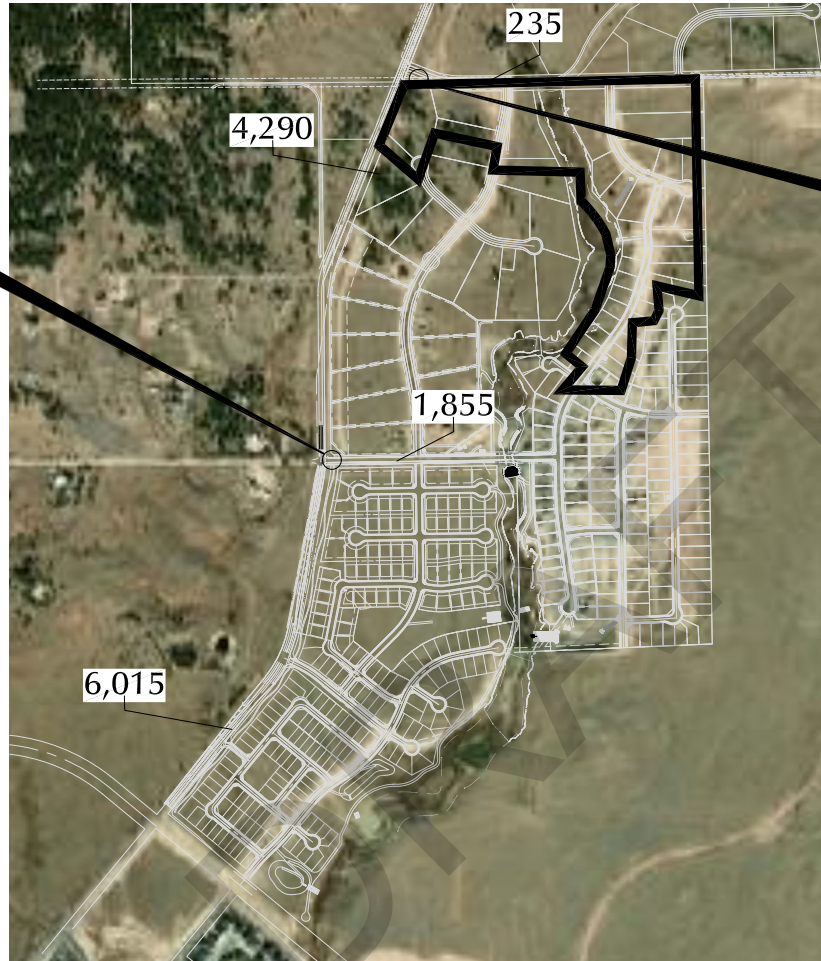
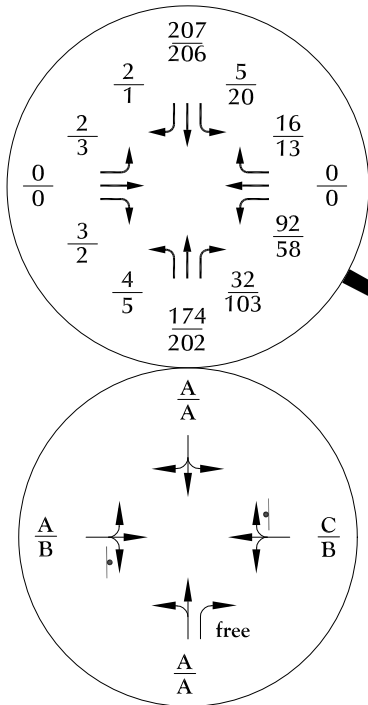
Approximate Scale  
 NTS

LEGEND:  
 $\frac{XX}{XX}$  = AM Weekday Peak-Hour Traffic (vehicles per hour)  
 $\frac{XX}{XX}$  = PM Weekday Peak-Hour Traffic (vehicles per hour)  
 XXX = Average Weekday Traffic (vehicles per day)

Figure 10  
**Long-Term Assignment of  
 Filing No. 3 Site-Generated Traffic**  
 Retreat at TimberRidge Filing 3 (LSC #S224350)







LEGEND:

⊥ = Stop Sign      [●●●] = Traffic Signal

$\frac{XX}{XX}$  = AM Weekday Peak-Hour Traffic (vehicles per hour)  
 $\frac{XX}{XX}$  = PM Weekday Peak-Hour Traffic (vehicles per hour)

XXX = Average Weekday Traffic (vehicles per day)

$\frac{A}{B}$  = AM Individual Movement Peak-Hour Level of Service  
 $\frac{B}{B}$  = PM Individual Movement Peak-Hour Level of Service

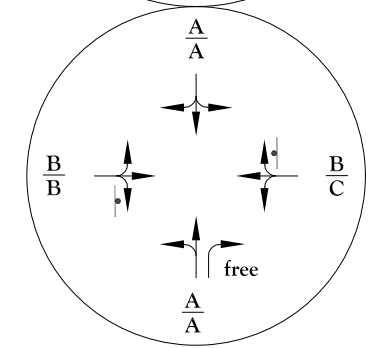
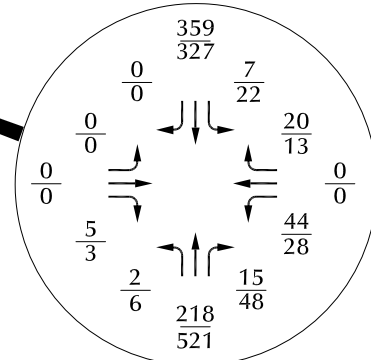
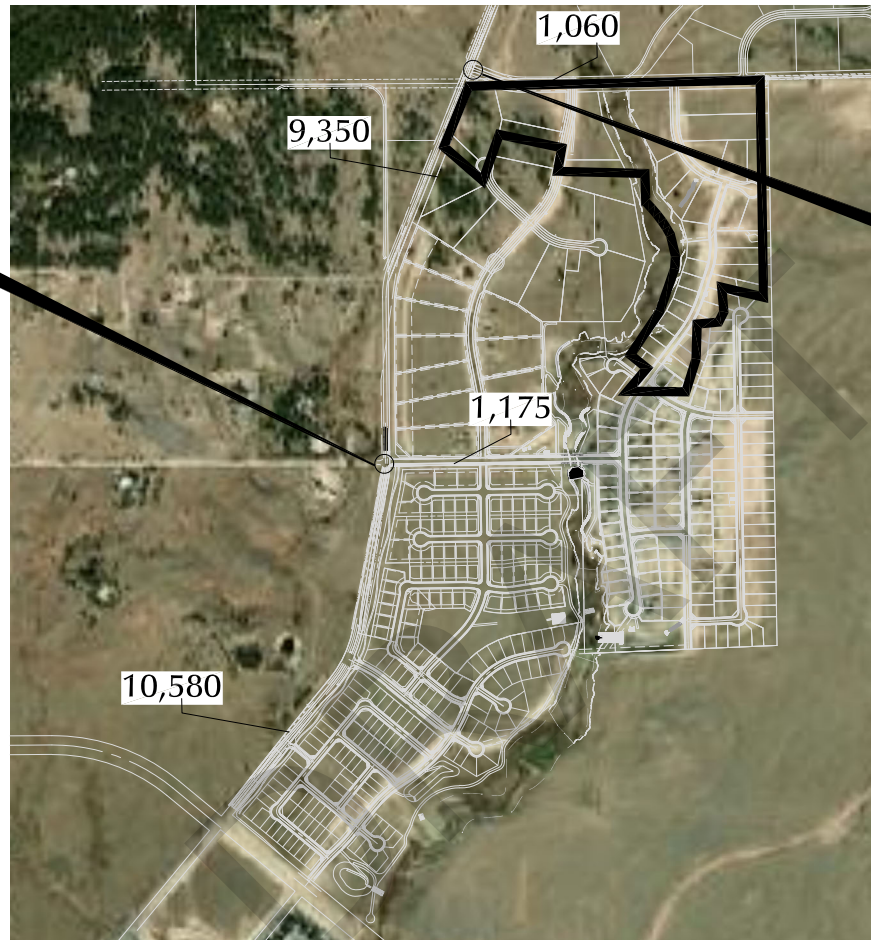
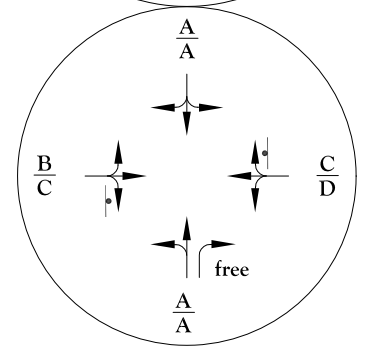
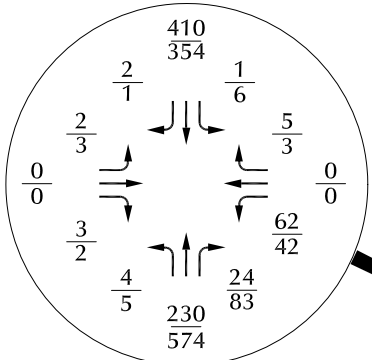
$\frac{C}{D}$  = AM Entire Intersection Peak-Hour Level of Service  
 $\frac{D}{D}$  = PM Entire Intersection Peak-Hour Level of Service

Figure 11  
**Short-Term Total Conditions**


Retreat at TimberRidge Filing 3 (LSC #S224350)



Approximate Scale  
NTS



LEGEND:

⊥ = Stop Sign       = Traffic Signal

$\frac{XX}{XX}$  = AM Weekday Peak-Hour Traffic (vehicles per hour)  
 PM Weekday Peak-Hour Traffic (vehicles per hour)

XXX = Average Weekday Traffic (vehicles per day)

$\frac{A}{A}$  = AM Individual Movement Peak-Hour Level of Service

$\frac{B}{B}$  = PM Individual Movement Peak-Hour Level of Service

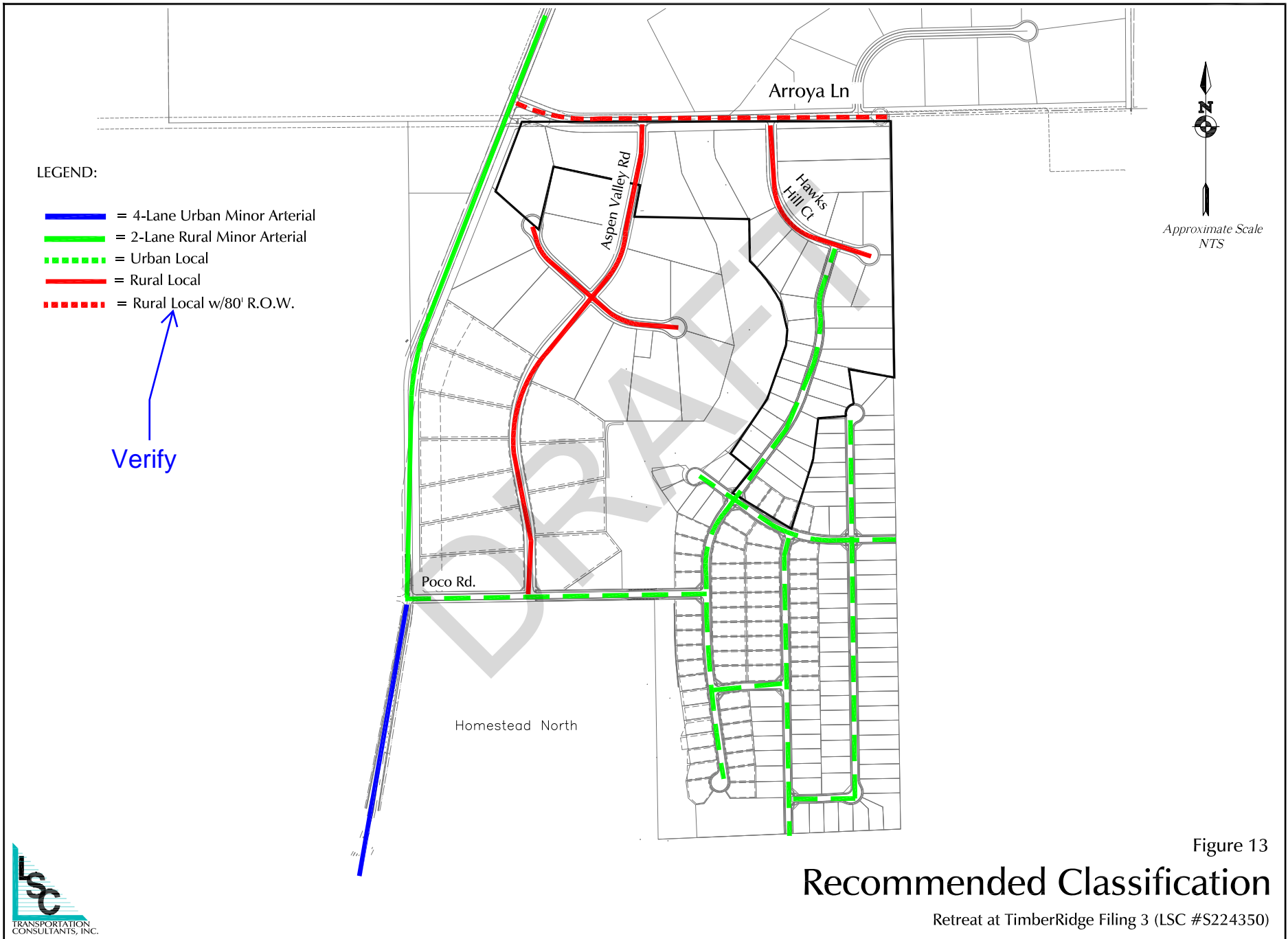
$\frac{C}{C}$  = AM Entire Intersection Peak-Hour Level of Service

$\frac{D}{D}$  = PM Entire Intersection Peak-Hour Level of Service



Figure 12  
**2042 Total Conditions**

Retreat at TimberRidge Filing 3 (LSC #S224350)



# Improvements Table

---

– with March 2021, October 2021, and June 2022 Notations

DRAFT



This improvement may no longer be needed. To be determined with the final plat of the area north of Arroya Lane previously included as Phase 1 of the preliminary Plan

From:

The Retreat at Timber Ridge  
Preliminary Plan  
Transportation Memorandum

PCD File No: SP-182  
(LSC #174030)  
June 29, 2018

**Table 3  
Roadway Improvements  
Retreat at Timber Ridge  
Preliminary Plan**

Improvement	Timing	Responsibility <sup>(1)</sup>
Arroya Lane Initial/interim: Dedicate 80' of ROW or 40' half ROW where applicable; construct a storm sewer crossing under Arroya Lane; regrade and improve the roadway to an interim all-weather, gravel cross section for two-way traffic and emergency vehicles suitable to the County and the fire district the from Vollmer to Nature Refuge Road; move the existing temporary turnaround on the east end of Arroya Lane onsite and construct a 50-foot apron at the tie-in to Vollmer Road.	Note (3/3/2021): The TimberRidge Estates Filing No. 1 plat has been withdrawn. See report narrative for details/explanation.  Note (6/8/2022): Interim improvements are no longer planned as Arroya will be upgraded to its final cross section with Filing No. 3	The Retreat at Timber Ridge
Upgrade Arroya Lane to a Rural Local cross section (paved). Along with this improvement, upgrade Nature Refuge Road to a Rural Local Road.	Once Upgrade Arroya Lane with the Retreat at TimberRidge Filing No. 3 (6/8/2022) This is	The Retreat at Timber Ridge
Realign Arroya Lane at the intersection of Vollmer Road/Arroya Lane so Arroya intersects Vollmer at a right angle.	With the Retreat at TimberRidge Filing No. 3	The Retreat at Timber Ridge
Extend Poco Road to the east including the creek crossing	This improvement has been completed (6/8/2022)	
Construct a gravel road to provide secondary emergency access through the Phase 4 area to Arroya Lane (this gravel road would be replaced with the subdivision streets in Phase 4).	This improvement has been completed (6/8/2022)	
Construct a northbound right-turn deceleration lane on Vollmer Road approaching Poco Road.	Design and installation Timber Ridge. This improvement has been completed (6/8/2022)	
Potential improvement: Southbound left-turn lane at Arroya	Evaluation with final plats. <i>Although the anticipated traffic counts do not warrant it, the County Engineer may require a southbound left-turn lane at Arroya based on unanticipated traffic patterns</i> [from Staff Comments].	The Retreat at Timber Ridge and/or possible-but-not-currently-anticipated-future development with access via Arroya
Possible future modern roundabout intersection control at Poco/Vollmer as an alternative to the two-way, Stop-sign control (TWSC) shown in this TIS	Consideration of roundabout traffic control instead of TWSC could be addressed with the applicable final plat(s) for The Retreat at Timber Ridge and/or Sterling Ranch. Roundabouts would require significant circular right-of-way around the center of the intersection. Currently, additional right-of-way to accommodate a roundabout(s) is not available on the west side of Vollmer. Also, the southeast corner of the intersection is not part of this project and is not owned by this applicant. It is owned by Sterling Ranch. The consideration is that although the TIS shows better side-street level of service with the roundabout, the projected approach traffic volumes are not close to being equal on all the intersection approaches. The northbound and southbound through volumes are significantly higher than the eastbound and westbound volumes. The balance of approach volumes is an element to consider when evaluating a roundabout as a potential traffic control solution.	The Retreat at Timber Ridge and/or Sterling Ranch  Only Sterling Ranch now?
As shown on the County MTCP: Vollmer Road upgrade between Poco Road and Shoup Road to a county-standard, two-lane Rural Minor Arterial.	Traffic volume estimates indicate this improvement will not be needed in the short term horizon. The 2040 MTCP indicates the Vollmer project will be needed by 2040. The 2040 MTCP shows the Vollmer upgrade "project" as Project ID U-12.	The Retreat at Timber Ridge will dedicate right-of-way to accommodate the future upgrade to Rural Minor Arterial standards (As shown in the MTCP and the Fee Study); The applicant will be required to participate in the County Road Impact Fee program.
Upgrade Vollmer Road between future Stapleton Drive and Poco Road to an Urban Minor Arterial cross section (five lanes)	Future MTCP Project ID U-12 (Note: MTCP indicates two-lane Rural Minor Arterial.)	(Sterling Ranch Metro District) MTCP Master-Planned MTCP Project ID U-12
Upgrade Vollmer Road generally between the south boundary of Sterling Ranch and future Stapleton Drive to an Urban Minor Arterial cross section (five lanes)	Designed MTCP Project ID C-13	Sterling Ranch Metro District
Upgrade Vollmer Road generally between Cowpoke Road and the south boundary of Sterling Ranch to an Urban Minor Arterial cross section (five lanes)	Designed MTCP Project ID C-13	Woodmen Heights Metro District
Construct section of Stapleton Road half section between Vollmer Road and the first Sterling Ranch access point	With development of Phase 1 of Sterling Ranch - Designed MTCP Project ID N-5	Sterling Ranch Metro District
Construct a northbound right-turn deceleration lane on Vollmer Road approaching Stapleton Road	With development of Phase 1 of Sterling Ranch - Designed MTCP Project ID C-13	Sterling Ranch Metro District
Construct Briargate Parkway (four-lane Principal Arterial) between Black Forest Road and Vollmer Road.	Future - TBD TBD with PPRTA <sup>(2)</sup> Corridor Study	TBD with PPRTA <sup>(2)</sup> Corridor Study MTCP Project N-5
Construct Stapleton Drive between Vollmer Road and Towner	Future TBD with PPRTA <sup>(2)</sup> Corridor Study	TBD with PPRTA <sup>(2)</sup> Corridor Study MTCP Project N-5
Southbound left-turn lanes on Vollmer Road approaching Burgess Road	Existing Deficiency	Existing Deficiency - Others (This development will not add volume to this turning movement.)
Northbound left-turn lane at Burgess/Vollmer	Projections indicate after 2020 but prior to 2040 the turning volume threshold warranting the turn lane (25 northbound left turns per hour) would be exceeded.	Based on the revised PUD plan, the afternoon peak-hour traffic impact from this project on the northbound approach to this intersection is projected to be below 10 percent. The site volume on the roadway link (both directions of travel) south of the intersection is more than 10 percent, however the turn lane thresholds are shown to be exceeded on the northbound approach during the afternoon peak hour when the impact of this project is below 10 percent on this approach. This project will be participating in the Fee Program and the MTCP Project ID is U-12.
Northbound right-turn lane at Burgess/Vollmer	Projections indicate by 2020 the turning volume threshold warranting the turn lane (50 northbound right turns per hour) would be exceeded.	Based on the revised PUD plan, the afternoon peak-hour traffic impact from this project on the northbound approach to this intersection is projected to be below 10 percent. The site volume on the roadway link (both directions of travel) south of the intersection is more than 10 percent, however the turn lane thresholds are shown to be exceeded on the northbound approach during the afternoon peak hour when the impact of this project is below 10 percent on this approach. This project will be participating in the Fee Program and the MTCP Project ID is U-12.
Future traffic signal at Stapleton/Vollmer	Once warrants are met; analysis to be included with final plat traffic reports; projections indicate by 2040 the intersection would be signalized.	Escrow a fair-share amount toward the cost the signal (to be determined with final plats). Once the signal is constructed, a portion of the escrow amount used to fund the installation of the signal may have become creditable under the Fee Program (if this signal is added to the fee program list of signals eligible for credit (County signals not currently programmed in Fee Program).

Not anticipated to be needed with the currently proposed Filing No. 3 (6/8/2022)

If this plat is approved and recorded prior to the first Homestead North plat, additional agreement or SIA clause will be required to address construction from Poco to Briargate. This is related to Item V6 on Table 3 of Homestead North TIS which reads: "Improve Vollmer Road between Sam Bass Drive and Poco Road to a 4-lane Urban Minor Arterial but with necessary lane transitions, redirect tapers, etc. south of Poco to adequately transition between the 4-Lane Urban Minor Arterial Cross Section and the 2-Lane Rural Arterial Cross Section north of Poco Road."

Update - HSN Filing 1 and/or Retreat at TR 2

Notes:  
(1) Preliminary concept of responsibility; the actual construction responsibility would be determined through subdivision applications and cost recovery if applicable agreements.  
(2) PPRTA = Pikes Peak Rural Transportation Authority.  
Source: LSC Transportation Consultants, Inc.



# Traffic Counts

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# LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304  
 Colorado Springs, CO 80909  
 719-633-2868

File Name : Vollmer rd - POCO rd Am

Site Code : S224250

Start Date : 5/11/2022

Page No : 1

## Groups Printed- Unshifted

Start Time	Vollmer Rd Southbound					Poco Rd Westbound					Vollmer Rd Northbound					Poco Rd Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
06:30	0	38	0	0	38	0	0	1	0	1	6	20	0	0	26	1	0	1	0	2	67
06:45	0	34	0	0	34	0	0	0	0	0	12	16	0	0	28	0	0	0	0	0	62
Total	0	72	0	0	72	0	0	1	0	1	18	36	0	0	54	1	0	1	0	2	129
07:00	1	28	1	0	30	0	0	2	0	2	8	15	0	0	23	0	0	1	0	1	56
07:15	0	38	0	0	38	0	0	3	0	3	2	24	3	0	29	0	1	1	0	2	72
07:30	2	64	1	0	67	3	0	3	0	6	8	19	0	0	27	3	0	0	0	3	103
07:45	0	41	2	0	43	0	0	2	0	2	13	39	0	0	52	0	0	0	0	0	97
Total	3	171	4	0	178	3	0	10	0	13	31	97	3	0	131	3	1	2	0	6	328
08:00	0	31	1	0	32	4	0	1	0	5	14	36	1	0	51	0	0	1	0	1	89
08:15	0	20	0	0	20	2	0	7	0	9	7	24	2	0	33	0	0	0	0	0	62
Grand Total	3	294	5	0	302	9	0	19	0	28	70	193	6	0	269	4	1	4	0	9	608
Apprch %	1	97.4	1.7	0		32.1	0	67.9	0		26	71.7	2.2	0		44.4	11.1	44.4	0		
Total %	0.5	48.4	0.8	0	49.7	1.5	0	3.1	0	4.6	11.5	31.7	1	0	44.2	0.7	0.2	0.7	0	1.5	

DRAFT

# LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304  
 Colorado Springs, CO 80909  
 719-633-2868

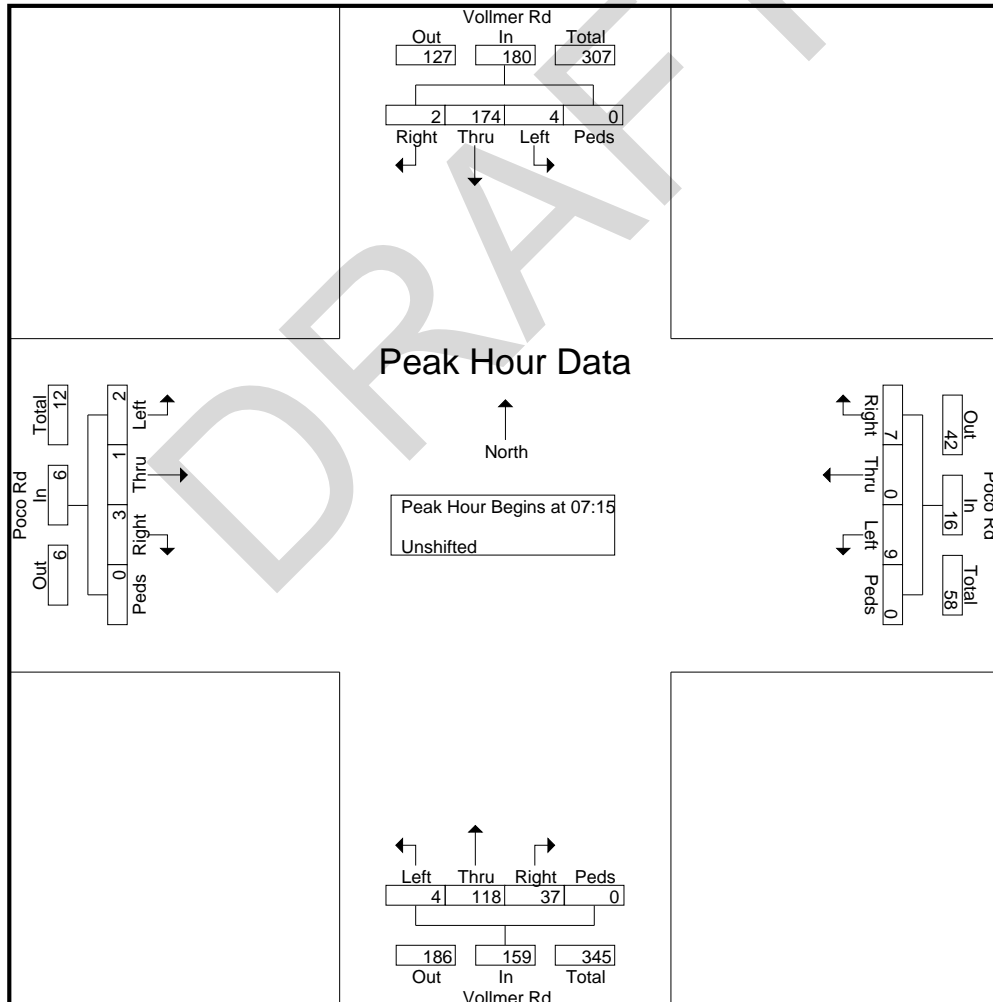
File Name : Vollmer rd - POCO rd Am

Site Code : S224250

Start Date : 5/11/2022

Page No : 2

Start Time	Vollmer Rd Southbound					Poco Rd Westbound					Vollmer Rd Northbound					Poco Rd Eastbound					Int. Total
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Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 7:15:00 AM																					
7:15:00 AM	0	38	0	0	38	0	0	3	0	3	2	24	3	0	29	0	1	1	0	2	72
7:30:00 AM	2	64	1	0	67	3	0	3	0	6	8	19	0	0	27	3	0	0	0	3	103
7:45:00 AM	0	41	2	0	43	0	0	2	0	2	13	39	0	0	52	0	0	0	0	0	97
8:00:00 AM	0	31	1	0	32	4	0	1	0	5	14	36	1	0	51	0	0	1	0	1	89
Total Volume	2	174	4	0	180	7	0	9	0	16	37	118	4	0	159	3	1	2	0	6	361
% App. Total	1.1	96.7	2.2	0		43.8	0	56.2	0		23.3	74.2	2.5	0		50	16.7	33.3	0		
PHF	.250	.680	.500	.000	.672	.438	.000	.750	.000	.667	.661	.756	.333	.000	.764	.250	.250	.500	.000	.500	.876



# LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304  
 Colorado Springs, CO 80909  
 719-633-2868

File Name : Vollmer Rd - POCO Rd PM Construction

Site Code : S224250

Start Date : 5/11/2022

Page No : 1

### Groups Printed- Unshifted

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16:15	1	29	0	0	30	0	0	2	0	2	1	43	0	0	44	0	0	0	0	0	76
16:30	0	40	0	0	40	4	0	5	0	9	0	41	3	0	44	0	1	1	0	2	95
16:45	0	36	0	0	36	0	1	6	0	7	2	30	0	0	32	0	0	1	0	1	76
<b>Total</b>	<b>2</b>	<b>140</b>	<b>6</b>	<b>0</b>	<b>148</b>	<b>4</b>	<b>1</b>	<b>19</b>	<b>0</b>	<b>24</b>	<b>4</b>	<b>146</b>	<b>3</b>	<b>0</b>	<b>153</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>0</b>	<b>6</b>	<b>331</b>
17:00	0	33	1	0	34	0	0	1	0	1	1	45	0	0	46	0	0	0	0	0	81
17:15	1	31	0	0	32	0	0	3	0	3	2	39	2	0	43	2	0	1	0	3	81
17:30	0	37	0	0	37	0	0	6	0	6	2	37	0	0	39	1	0	0	0	1	83
17:45	0	34	0	0	34	0	0	1	0	1	1	35	1	0	37	0	0	0	0	0	72
<b>Total</b>	<b>1</b>	<b>135</b>	<b>1</b>	<b>0</b>	<b>137</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>11</b>	<b>6</b>	<b>156</b>	<b>3</b>	<b>0</b>	<b>165</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>317</b>
<b>Grand Total</b>	<b>3</b>	<b>275</b>	<b>7</b>	<b>0</b>	<b>285</b>	<b>4</b>	<b>1</b>	<b>30</b>	<b>0</b>	<b>35</b>	<b>10</b>	<b>302</b>	<b>6</b>	<b>0</b>	<b>318</b>	<b>4</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>10</b>	<b>648</b>
<b>Apprch %</b>	<b>1.1</b>	<b>96.5</b>	<b>2.5</b>	<b>0</b>		<b>11.4</b>	<b>2.9</b>	<b>85.7</b>	<b>0</b>		<b>3.1</b>	<b>95</b>	<b>1.9</b>	<b>0</b>		<b>40</b>	<b>20</b>	<b>40</b>	<b>0</b>		
<b>Total %</b>	<b>0.5</b>	<b>42.4</b>	<b>1.1</b>	<b>0</b>	<b>44</b>	<b>0.6</b>	<b>0.2</b>	<b>4.6</b>	<b>0</b>	<b>5.4</b>	<b>1.5</b>	<b>46.6</b>	<b>0.9</b>	<b>0</b>	<b>49.1</b>	<b>0.6</b>	<b>0.3</b>	<b>0.6</b>	<b>0</b>	<b>1.5</b>	

DRAFT

# LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304  
 Colorado Springs, CO 80909  
 719-633-2868

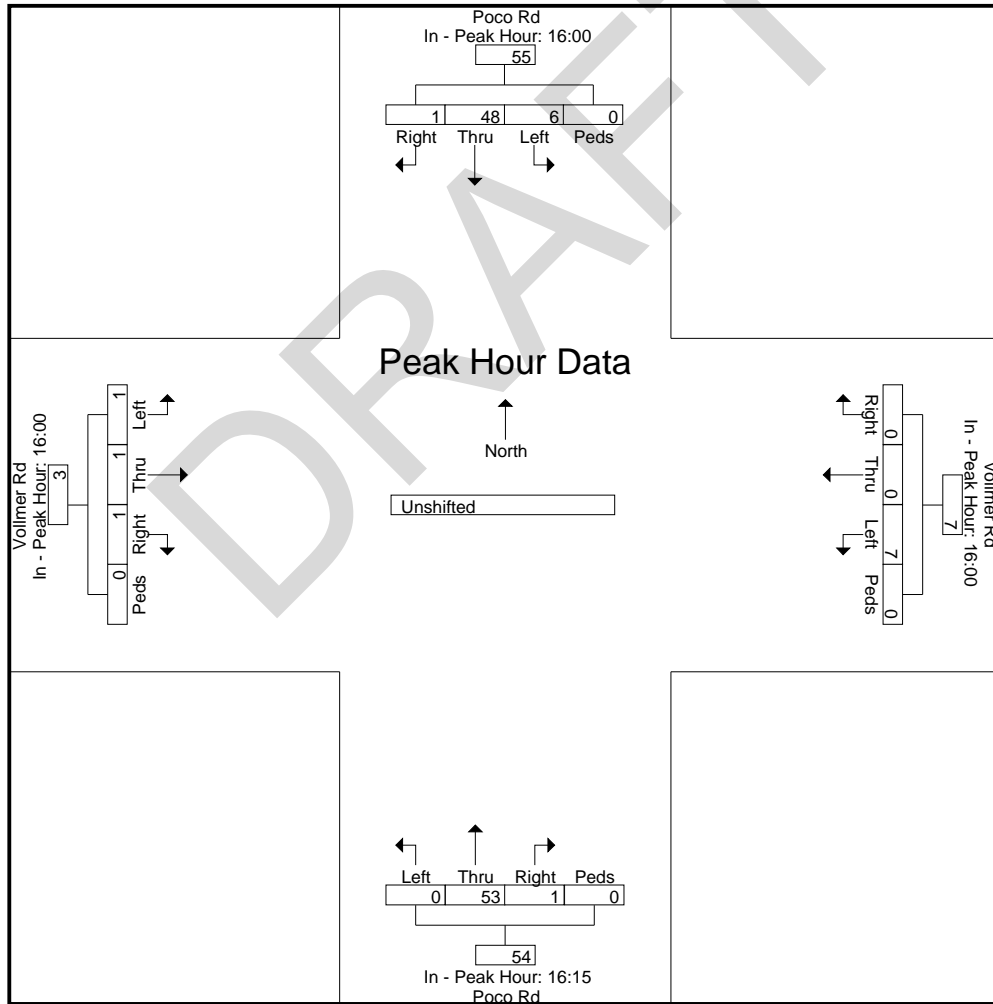
File Name : Vollmer Rd - POCO Rd PM Construction

Site Code : S224250

Start Date : 5/11/2022

Page No : 3

Start Time	Poco Rd Southbound					Vollmer Rd Westbound					Poco Rd Northbound					Vollmer Rd Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	4:00:00 PM					4:00:00 PM					4:15:00 PM					4:00:00 PM					
+0 mins.	1	35	6	0	42	0	0	6	0	6	1	43	0	0	44	1	1	1	0	3	
+5 mins.	1	29	0	0	30	0	0	2	0	2	0	41	3	0	44	0	0	0	0	0	
+10 mins.	0	40	0	0	40	4	0	5	0	9	2	30	0	0	32	0	1	1	0	2	
+15 mins.	0	36	0	0	36	0	1	6	0	7	1	45	0	0	46	0	0	1	0	1	
Total Volume	2	140	6	0	148	4	1	19	0	24	4	159	3	0	166	1	2	3	0	6	
% App. Total	1.4	94.6	4.1	0		16.7	4.2	79.2	0		2.4	95.8	1.8	0		16.7	33.3	50	0		
PHF	.500	.875	.250	.000	.881	.250	.250	.792	.000	.667	.500	.883	.250	.000	.902	.250	.500	.750	.000	.500	



# Levels of Service

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DRAFT

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	1	3	9	0	7	4	118	37	4	174	2
Future Vol, veh/h	2	1	3	9	0	7	4	118	37	4	174	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	67	67	67	87	87	87	67	67	67
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	2	6	13	0	10	5	136	43	6	260	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	447	463	262	446	443	158	263	0	0	179	0	0
Stage 1	274	274	-	168	168	-	-	-	-	-	-	-
Stage 2	173	189	-	278	275	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	522	496	777	523	509	887	1301	-	-	1397	-	-
Stage 1	732	683	-	834	759	-	-	-	-	-	-	-
Stage 2	829	744	-	728	683	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	512	492	777	514	504	887	1301	-	-	1397	-	-
Mov Cap-2 Maneuver	512	492	-	514	504	-	-	-	-	-	-	-
Stage 1	729	680	-	831	756	-	-	-	-	-	-	-
Stage 2	816	741	-	717	680	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11	10.9	0.2	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1301	-	-	612	630	1397	-	-
HCM Lane V/C Ratio	0.004	-	-	0.02	0.038	0.004	-	-
HCM Control Delay (s)	7.8	0	-	11	10.9	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	1	2	15	1	4	5	155	5	1	140	1
Future Vol, veh/h	3	1	2	15	1	4	5	155	5	1	140	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	56	56	56	87	87	87	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	1	3	27	2	7	6	178	6	1	157	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	358	356	158	355	353	181	158	0	0	184	0	0
Stage 1	160	160	-	193	193	-	-	-	-	-	-	-
Stage 2	198	196	-	162	160	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	597	570	887	600	572	862	1422	-	-	1391	-	-
Stage 1	842	766	-	809	741	-	-	-	-	-	-	-
Stage 2	804	739	-	840	766	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	588	567	887	595	569	862	1422	-	-	1391	-	-
Mov Cap-2 Maneuver	588	567	-	595	569	-	-	-	-	-	-	-
Stage 1	838	765	-	805	737	-	-	-	-	-	-	-
Stage 2	791	735	-	835	765	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	11	0.2	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1422	-	-	658	633	1391	-	-
HCM Lane V/C Ratio	0.004	-	-	0.012	0.056	0.001	-	-
HCM Control Delay (s)	7.5	0	-	10.5	11	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0	-	-



Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕	↕		↕	
Traffic Vol, veh/h	2	0	3	84	0	16	4	172	29	5	201	2
Future Vol, veh/h	2	0	3	84	0	16	4	172	29	5	201	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	85	85	85	87	87	87	67	67	67
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	6	99	0	19	5	198	33	7	300	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	550	557	302	527	525	198	303	0	0	231	0	0
Stage 1	316	316	-	208	208	-	-	-	-	-	-	-
Stage 2	234	241	-	319	317	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	446	439	738	462	458	843	1258	-	-	1337	-	-
Stage 1	695	655	-	794	730	-	-	-	-	-	-	-
Stage 2	769	706	-	693	654	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	432	434	738	455	453	843	1258	-	-	1337	-	-
Mov Cap-2 Maneuver	432	434	-	455	453	-	-	-	-	-	-	-
Stage 1	692	651	-	790	726	-	-	-	-	-	-	-
Stage 2	748	702	-	683	650	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.4	14.6	0.2	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1258	-	-	575	491	1337	-	-
HCM Lane V/C Ratio	0.004	-	-	0.017	0.24	0.006	-	-
HCM Control Delay (s)	7.9	0	-	11.4	14.6	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.9	0	-	-

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	2	2	166	0	1	194
Future Vol, veh/h	2	2	166	0	1	194
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	85	85	87	87	67	67
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	2	191	0	1	290
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	483	191	0	0	191	0
Stage 1	191	-	-	-	-	-
Stage 2	292	-	-	-	-	-
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	542	851	-	-	1383	-
Stage 1	841	-	-	-	-	-
Stage 2	758	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	541	851	-	-	1383	-
Mov Cap-2 Maneuver	541	-	-	-	-	-
Stage 1	841	-	-	-	-	-
Stage 2	757	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	10.5	0	0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	661	1383		
HCM Lane V/C Ratio	-	-	0.007	0.001		
HCM Control Delay (s)	-	-	10.5	7.6		
HCM Lane LOS	-	-	B	A		
HCM 95th %tile Q(veh)	-	-	0	0		

**Intersection**

Int Delay, s/veh 2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕	↕		↕	
Traffic Vol, veh/h	3	0	2	53	0	13	5	195	93	20	202	1
Future Vol, veh/h	3	0	2	53	0	13	5	195	93	20	202	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	85	85	85	87	87	87	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	3	62	0	15	6	224	107	22	227	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	569	615	228	509	508	224	228	0	0	331	0	0
Stage 1	272	272	-	236	236	-	-	-	-	-	-	-
Stage 2	297	343	-	273	272	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	433	407	811	475	468	815	1340	-	-	1228	-	-
Stage 1	734	685	-	767	710	-	-	-	-	-	-	-
Stage 2	712	637	-	733	685	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	416	396	811	464	455	815	1340	-	-	1228	-	-
Mov Cap-2 Maneuver	416	396	-	464	455	-	-	-	-	-	-	-
Stage 1	730	671	-	762	706	-	-	-	-	-	-	-
Stage 2	694	633	-	715	671	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.1	13.4	0.1	0.7
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1340	-	-	517	507	1228	-	-
HCM Lane V/C Ratio	0.004	-	-	0.012	0.153	0.018	-	-
HCM Control Delay (s)	7.7	0	-	12.1	13.4	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.5	0.1	-	-

**Intersection**

Int Delay, s/veh 0.1

**Movement** WBL WBR NBT NBR SBL SBT

Lane Configurations						
Traffic Vol, veh/h	1	1	189	2	2	194
Future Vol, veh/h	1	1	189	2	2	194
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	85	85	87	87	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	1	217	2	2	218

**Major/Minor** Minor1 Major1 Major2

Conflicting Flow All	440	218	0	0	219	0
Stage 1	218	-	-	-	-	-
Stage 2	222	-	-	-	-	-
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	574	822	-	-	1350	-
Stage 1	818	-	-	-	-	-
Stage 2	815	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	573	822	-	-	1350	-
Mov Cap-2 Maneuver	573	-	-	-	-	-
Stage 1	818	-	-	-	-	-
Stage 2	813	-	-	-	-	-

**Approach** WB NB SB

HCM Control Delay, s	10.4	0	0.1
HCM LOS	B		

**Minor Lane/Major Mvmt** NBT NBRWBLn1 SBL SBT

Capacity (veh/h)	-	-	675	1350	-
HCM Lane V/C Ratio	-	-	0.003	0.002	-
HCM Control Delay (s)	-	-	10.4	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

**Intersection**

Int Delay, s/veh 3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕	↕		↕	
Traffic Vol, veh/h	2	0	3	92	0	16	4	174	32	5	207	2
Future Vol, veh/h	2	0	3	92	0	16	4	174	32	5	207	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	85	85	85	87	87	87	67	67	67
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	6	108	0	19	5	200	37	7	309	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	563	572	311	538	536	200	312	0	0	237	0	0
Stage 1	325	325	-	210	210	-	-	-	-	-	-	-
Stage 2	238	247	-	328	326	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	437	430	729	454	451	841	1248	-	-	1330	-	-
Stage 1	687	649	-	792	728	-	-	-	-	-	-	-
Stage 2	765	702	-	685	648	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	423	425	729	446	446	841	1248	-	-	1330	-	-
Mov Cap-2 Maneuver	423	425	-	446	446	-	-	-	-	-	-	-
Stage 1	684	645	-	788	724	-	-	-	-	-	-	-
Stage 2	744	698	-	675	644	-	-	-	-	-	-	-




Approach	EB	WB	NB	SB
HCM Control Delay, s	11.5	15.2	0.2	0.2
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1248	-	-	565	479	1330	-	-
HCM Lane V/C Ratio	0.004	-	-	0.018	0.265	0.006	-	-
HCM Control Delay (s)	7.9	0	-	11.5	15.2	7.7	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	1.1	0	-	-

**Intersection**

Int Delay, s/veh 0.4

**Movement** WBL WBR NBT NBR SBL SBT

Lane Configurations						
Traffic Vol, veh/h	8	5	166	2	2	194
Future Vol, veh/h	8	5	166	2	2	194
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	85	85	87	87	67	67
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	6	191	2	3	290

**Major/Minor** Minor1 Major1 Major2

Conflicting Flow All	488	192	0	0	193	0
Stage 1	192	-	-	-	-	-
Stage 2	296	-	-	-	-	-
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	539	850	-	-	1380	-
Stage 1	841	-	-	-	-	-
Stage 2	755	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	537	850	-	-	1380	-
Mov Cap-2 Maneuver	537	-	-	-	-	-
Stage 1	841	-	-	-	-	-
Stage 2	753	-	-	-	-	-

**Approach** WB NB SB

HCM Control Delay, s	10.9	0	0.1
HCM LOS	B		

**Minor Lane/Major Mvmt** NBT NBRWBLn1 SBL SBT

Capacity (veh/h)	-	-	626	1380	-
HCM Lane V/C Ratio	-	-	0.024	0.002	-
HCM Control Delay (s)	-	-	10.9	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕	↕		↕	
Traffic Vol, veh/h	3	0	2	58	0	13	5	202	103	20	206	1
Future Vol, veh/h	3	0	2	58	0	13	5	202	103	20	206	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	85	85	85	87	87	87	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	3	68	0	15	6	232	118	22	231	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	587	638	232	521	520	232	232	0	0	350	0	0
Stage 1	276	276	-	244	244	-	-	-	-	-	-	-
Stage 2	311	362	-	277	276	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	421	394	807	466	461	807	1336	-	-	1209	-	-
Stage 1	730	682	-	760	704	-	-	-	-	-	-	-
Stage 2	699	625	-	729	682	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	405	383	807	455	449	807	1336	-	-	1209	-	-
Mov Cap-2 Maneuver	405	383	-	455	449	-	-	-	-	-	-	-
Stage 1	726	668	-	755	700	-	-	-	-	-	-	-
Stage 2	682	621	-	711	668	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.2	13.8	0.1	0.7
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1336	-	-	506	494	1209	-	-
HCM Lane V/C Ratio	0.004	-	-	0.013	0.169	0.019	-	-
HCM Control Delay (s)	7.7	0	-	12.2	13.8	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.6	0.1	-	-

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	5	3	189	9	5	194
Future Vol, veh/h	5	3	189	9	5	194
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	85	85	87	87	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	4	217	10	6	218
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	452	222	0	0	227	0
Stage 1	222	-	-	-	-	-
Stage 2	230	-	-	-	-	-
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	565	818	-	-	1341	-
Stage 1	815	-	-	-	-	-
Stage 2	808	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	562	818	-	-	1341	-
Mov Cap-2 Maneuver	562	-	-	-	-	-
Stage 1	815	-	-	-	-	-
Stage 2	804	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	10.7	0	0.2			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	637	1341		
HCM Lane V/C Ratio	-	-	0.015	0.004		
HCM Control Delay (s)	-	-	10.7	7.7		
HCM Lane LOS	-	-	B	A		
HCM 95th %tile Q(veh)	-	-	0	0		



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	2	0	3	54	0	5	4	228	21	1	404	2
Future Vol, veh/h	2	0	3	54	0	5	4	228	21	1	404	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	3	57	0	5	4	240	22	1	425	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	690	698	426	678	677	240	427	0	0	262	0	0
Stage 1	428	428	-	248	248	-	-	-	-	-	-	-
Stage 2	262	270	-	430	429	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	359	364	628	366	375	799	1132	-	-	1302	-	-
Stage 1	605	585	-	756	701	-	-	-	-	-	-	-
Stage 2	743	686	-	603	584	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	355	362	628	363	373	799	1132	-	-	1302	-	-
Mov Cap-2 Maneuver	355	362	-	363	373	-	-	-	-	-	-	-
Stage 1	603	584	-	753	698	-	-	-	-	-	-	-
Stage 2	735	683	-	599	583	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.6	16.3	0.1	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1132	-	-	480	381	1302	-	-
HCM Lane V/C Ratio	0.004	-	-	0.011	0.163	0.001	-	-
HCM Control Delay (s)	8.2	0	-	12.6	16.3	7.8	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.6	0	-	-

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	0	0	5	38	0	19	2	218	13	7	359	0
Future Vol, veh/h	0	0	5	38	0	19	2	218	13	7	359	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	5	40	0	20	2	229	14	7	378	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	642	639	378	635	632	236	378	0	0	243	0	0
Stage 1	392	392	-	240	240	-	-	-	-	-	-	-
Stage 2	250	247	-	395	392	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	387	394	669	391	398	803	1180	-	-	1323	-	-
Stage 1	633	606	-	763	707	-	-	-	-	-	-	-
Stage 2	754	702	-	630	606	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	375	390	669	385	394	803	1180	-	-	1323	-	-
Mov Cap-2 Maneuver	375	390	-	385	394	-	-	-	-	-	-	-
Stage 1	632	602	-	761	706	-	-	-	-	-	-	-
Stage 2	734	701	-	621	602	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.4	13.9	0.1	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1180	-	-	669	466	1323	-	-
HCM Lane V/C Ratio	0.002	-	-	0.008	0.129	0.006	-	-
HCM Control Delay (s)	8.1	0	-	10.4	13.9	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.4	0	-	-

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕	↕		↕	
Traffic Vol, veh/h	3	0	2	37	0	3	5	567	74	6	350	1
Future Vol, veh/h	3	0	2	37	0	3	5	567	74	6	350	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	2	39	0	3	5	597	78	6	368	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1029	1066	369	989	988	597	369	0	0	675	0	0
Stage 1	381	381	-	607	607	-	-	-	-	-	-	-
Stage 2	648	685	-	382	381	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	212	222	677	226	247	503	1190	-	-	916	-	-
Stage 1	641	613	-	483	486	-	-	-	-	-	-	-
Stage 2	459	448	-	640	613	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	208	219	677	223	243	503	1190	-	-	916	-	-
Mov Cap-2 Maneuver	208	219	-	223	243	-	-	-	-	-	-	-
Stage 1	637	608	-	480	483	-	-	-	-	-	-	-
Stage 2	453	445	-	633	608	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.7	23.8	0.1	0.2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1190	-	-	288	233	916	-	-
HCM Lane V/C Ratio	0.004	-	-	0.018	0.181	0.007	-	-
HCM Control Delay (s)	8	0	-	17.7	23.8	9	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.6	0	-	-

**Intersection**

Int Delay, s/veh 1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	3	24	0	12	6	521	41	21	327	0
Future Vol, veh/h	0	0	3	24	0	12	6	521	41	21	327	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	3	25	0	13	6	548	43	22	344	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	976	991	344	972	970	570	344	0	0	591	0	0
Stage 1	388	388	-	582	582	-	-	-	-	-	-	-
Stage 2	588	603	-	390	388	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	230	246	699	232	253	521	1215	-	-	985	-	-
Stage 1	636	609	-	499	499	-	-	-	-	-	-	-
Stage 2	495	488	-	634	609	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	219	237	699	225	244	521	1215	-	-	985	-	-
Mov Cap-2 Maneuver	219	237	-	225	244	-	-	-	-	-	-	-
Stage 1	632	592	-	496	496	-	-	-	-	-	-	-
Stage 2	480	485	-	613	592	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.2	20	0.1	0.5
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1215	-	-	699	278	985	-	-
HCM Lane V/C Ratio	0.005	-	-	0.005	0.136	0.022	-	-
HCM Control Delay (s)	8	0	-	10.2	20	8.7	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.5	0.1	-	-

**Intersection**

Int Delay, s/veh 1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕	↕		↕	
Traffic Vol, veh/h	2	0	3	62	0	5	4	230	24	1	410	2
Future Vol, veh/h	2	0	3	62	0	5	4	230	24	1	410	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	3	65	0	5	4	242	25	1	432	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	700	710	433	687	686	242	434	0	0	267	0	0
Stage 1	435	435	-	250	250	-	-	-	-	-	-	-
Stage 2	265	275	-	437	436	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	354	359	623	361	370	797	1126	-	-	1297	-	-
Stage 1	600	580	-	754	700	-	-	-	-	-	-	-
Stage 2	740	683	-	598	580	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	350	357	623	358	368	797	1126	-	-	1297	-	-
Mov Cap-2 Maneuver	350	357	-	358	368	-	-	-	-	-	-	-
Stage 1	598	579	-	751	697	-	-	-	-	-	-	-
Stage 2	732	680	-	594	579	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.7	16.9	0.1	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1126	-	-	475	373	1297	-	-
HCM Lane V/C Ratio	0.004	-	-	0.011	0.189	0.001	-	-
HCM Control Delay (s)	8.2	0	-	12.7	16.9	7.8	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.7	0	-	-

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	5	44	0	20	2	218	15	7	359	0
Future Vol, veh/h	0	0	5	44	0	20	2	218	15	7	359	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	5	46	0	21	2	229	16	7	378	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	644	641	378	636	633	237	378	0	0	245	0	0
Stage 1	392	392	-	241	241	-	-	-	-	-	-	-
Stage 2	252	249	-	395	392	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	386	393	669	391	397	802	1180	-	-	1321	-	-
Stage 1	633	606	-	762	706	-	-	-	-	-	-	-
Stage 2	752	701	-	630	606	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	373	389	669	385	393	802	1180	-	-	1321	-	-
Mov Cap-2 Maneuver	373	389	-	385	393	-	-	-	-	-	-	-
Stage 1	632	602	-	760	705	-	-	-	-	-	-	-
Stage 2	731	700	-	621	602	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.4	14.2	0.1	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1180	-	-	669	460	1321	-	-
HCM Lane V/C Ratio	0.002	-	-	0.008	0.146	0.006	-	-
HCM Control Delay (s)	8.1	0	-	10.4	14.2	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.5	0	-	-

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	3	0	2	42	0	3	5	574	83	6	354	1
Future Vol, veh/h	3	0	2	42	0	3	5	574	83	6	354	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	2	44	0	3	5	604	87	6	373	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1045	1087	374	1001	1000	604	374	0	0	691	0	0
Stage 1	386	386	-	614	614	-	-	-	-	-	-	-
Stage 2	659	701	-	387	386	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	207	216	672	222	243	498	1184	-	-	904	-	-
Stage 1	637	610	-	479	483	-	-	-	-	-	-	-
Stage 2	453	441	-	637	610	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	203	213	672	219	239	498	1184	-	-	904	-	-
Mov Cap-2 Maneuver	203	213	-	219	239	-	-	-	-	-	-	-
Stage 1	633	605	-	476	480	-	-	-	-	-	-	-
Stage 2	447	438	-	630	605	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18	25	0.1	0.1
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1184	-	-	282	227	904	-
HCM Lane V/C Ratio	0.004	-	-	0.019	0.209	0.007	-
HCM Control Delay (s)	8.1	0	-	18	25	9	0
HCM Lane LOS	A	A	-	C	D	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.8	0	-

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	3	28	0	13	6	521	48	22	327	0
Future Vol, veh/h	0	0	3	28	0	13	6	521	48	22	327	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	3	29	0	14	6	548	51	23	344	0

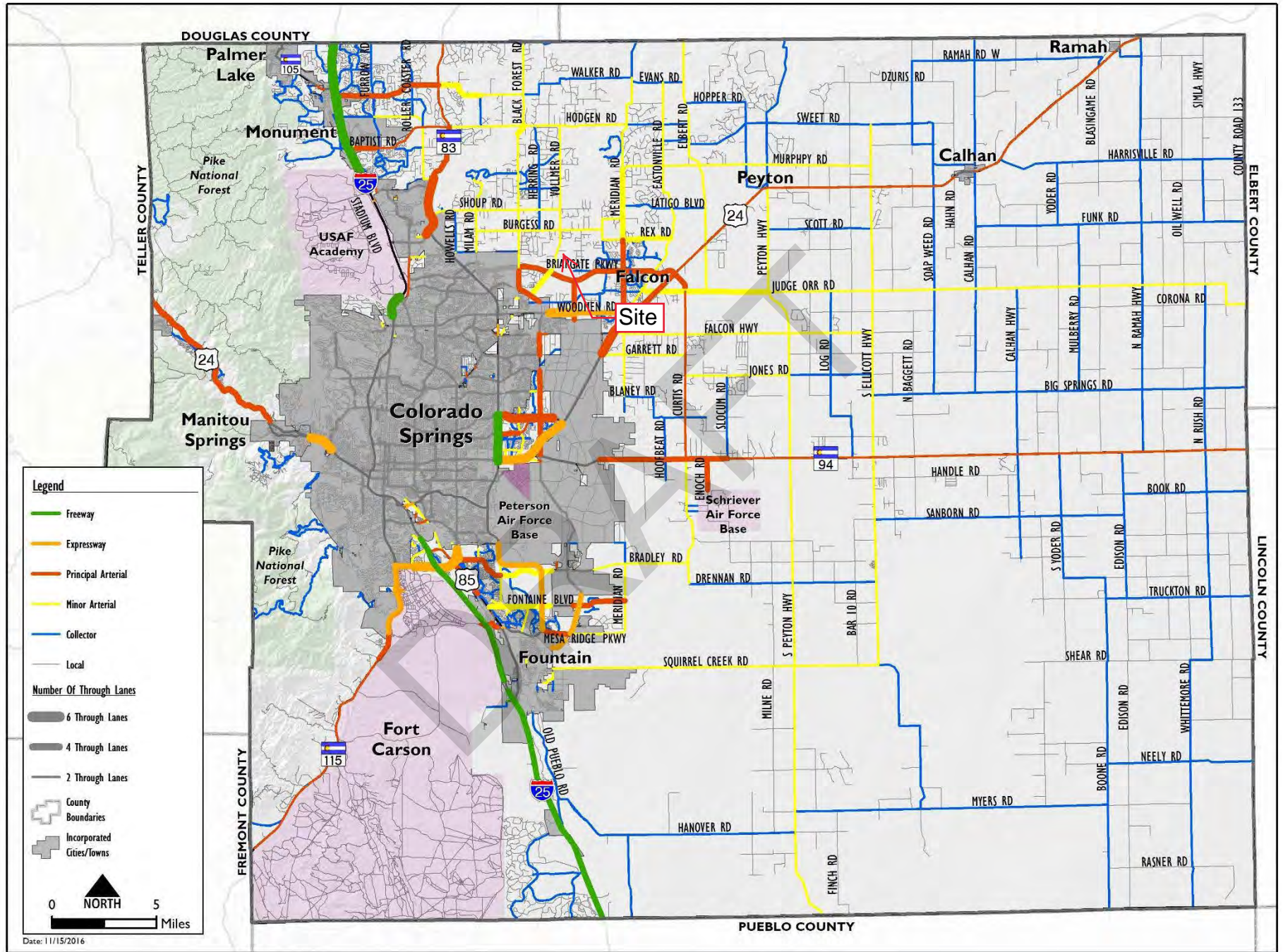
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	983	1001	344	978	976	574	344	0	0	599	0	0
Stage 1	390	390	-	586	586	-	-	-	-	-	-	-
Stage 2	593	611	-	392	390	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	228	243	699	230	251	518	1215	-	-	978	-	-
Stage 1	634	608	-	496	497	-	-	-	-	-	-	-
Stage 2	492	484	-	633	608	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	216	234	699	223	242	518	1215	-	-	978	-	-
Mov Cap-2 Maneuver	216	234	-	223	242	-	-	-	-	-	-	-
Stage 1	630	590	-	493	494	-	-	-	-	-	-	-
Stage 2	476	481	-	612	590	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.2	20.7	0.1	0.6
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1215	-	-	699	272	978	-	-
HCM Lane V/C Ratio	0.005	-	-	0.005	0.159	0.024	-	-
HCM Control Delay (s)	8	0	-	10.2	20.7	8.8	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.6	0.1	-	-



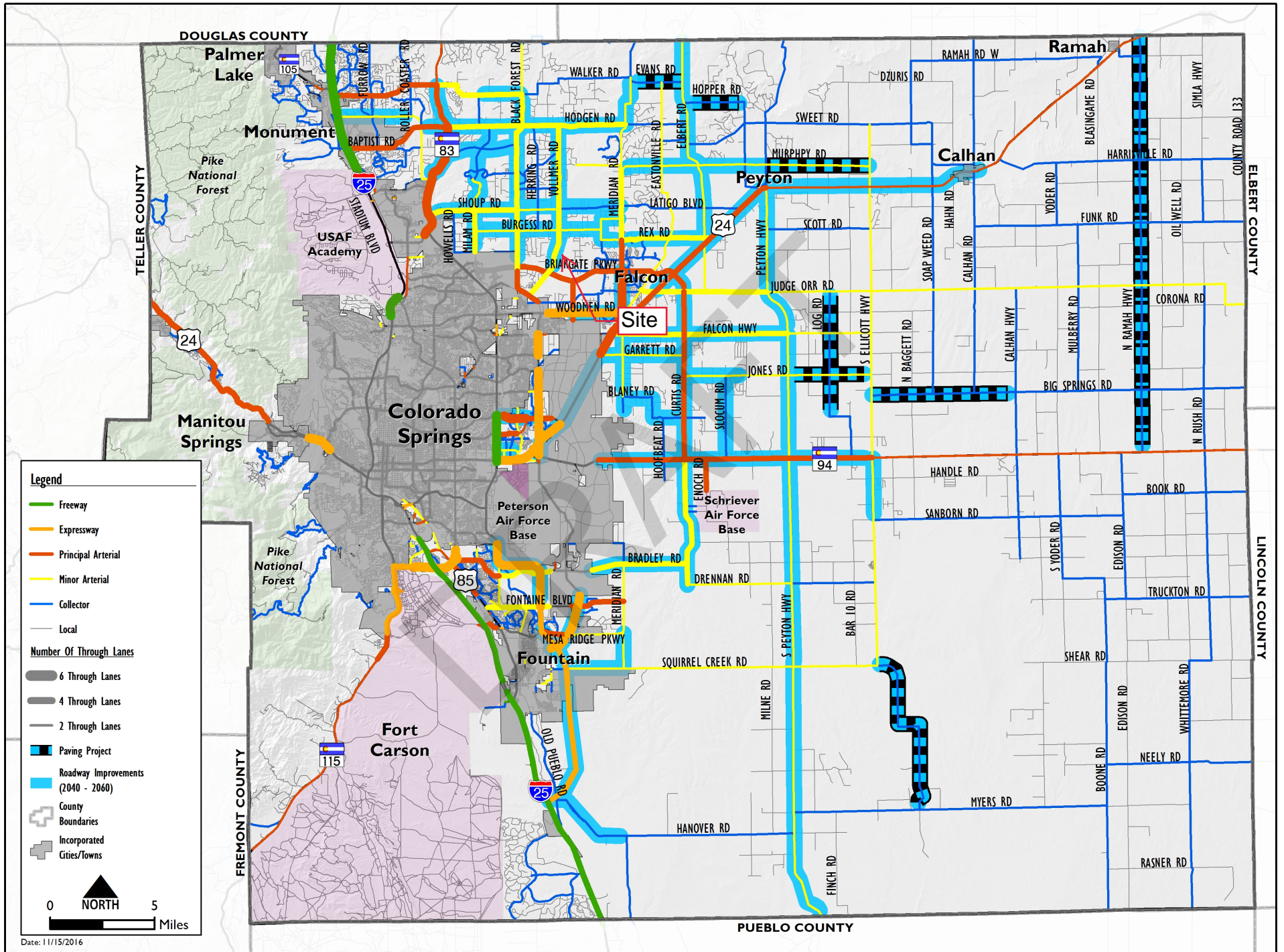
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Map 14: 2040 Roadway Plan (Classification and Lanes)



# Map 17: 2060 Corridor Preservation



**Legend**

- Freeway
- Expressway
- Principal Arterial
- Minor Arterial
- Collector
- Local

**Number Of Through Lanes**

- 6 Through Lanes
- 4 Through Lanes
- 2 Through Lanes

- Paving Project
- Roadway Improvements (2040 - 2060)
- County Boundaries
- Incorporated Cities/Towns

0 **NORTH** 5  
Miles