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## Overlook at Homestead Traffic Impact Study

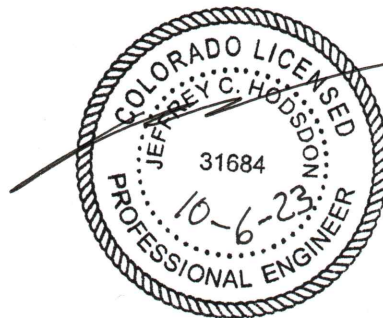
EPC PCD File No.: P-235  
(LSC #S234200)

& SP238

October 6, 2023

### Traffic Engineer's Statement

This traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.



### Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

✓ *Joseph W. Desjardin*

*10/06/2023*

Date

# Overlook at Homestead Traffic Impact Study

Prepared for:  
Joe DesJardin  
Proterra Properties  
1864 Woodmoor Drive, Suite 100  
Monument, CO 80132

OCTOBER 6, 2023

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LSC Transportation Consultants, Inc.  
Prepared by: Jeffrey C. Hodsdon, P.E.

EPC PCD FILE NO.: P-235  
LSC #S234200



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October 6, 2023

Joe DesJardin  
Proterra Properties  
1864 Woodmoor Drive, Suite 100  
Monument, CO 80132

RE: Overlook at Homestead  
El Paso County, CO  
Traffic Impact Study  
LSC #S234200

Dear Mr. DesJardin,

LSC Transportation Consultants, Inc. has prepared this Traffic Impact Study for the proposed Overlook at Homestead residential development in El Paso County, Colorado. The site is located east of Elbert Road generally between Hopper Road and Sweet Road. Access to the site is proposed via the existing Elbert Road/Apex Ranch Road intersection and a proposed new stop-sign-controlled intersection to the south (Elbert Road/Hatband Drive).

This report has been prepared for submittal to El Paso County.

## REPORT CONTENTS

The preparation of this report included the following:

- An inventory of existing roadway and traffic conditions on major thoroughfares adjacent to the site, including surface conditions, functional classification, widths, pavement markings, traffic-control signs, posted speed limits, intersection and access spacing, roadway and intersection alignments, roadway grades, and auxiliary turn lanes;
- Weekday peak-hour turning-movement traffic counts at the following “study-area” intersections:
  - Elbert Road/Apex Ranch Road
  - Elbert Road/proposed south access (Hatband Drive)
- Estimated average daily traffic (ADT) volumes adjacent to the proposed development on study-area roadway segments;
- Projections of 20-year background traffic volumes on the study-area roadways adjacent to the site;
- The proposed site land use and access plan;

- Estimates of average weekday and weekday peak-hour trip generation for the proposed development and the estimated directional distribution of site-generated vehicle trips on roadways and intersections adjacent to and in the vicinity of the site;
- Projected site-generated and resulting total peak-hour intersection traffic volumes at the following study-area intersections:
  - Elbert Road/Apex Ranch Road
  - Elbert Road/proposed south access (Hatband Drive).
- Projected total daily and peak-hour traffic volumes at the study-area intersections;
- Intersection level of service (LOS) analysis at the study-area intersections;
- Evaluation of short- and long-term projected intersection volumes to determine potential requirements for any auxiliary right-/left-turn lanes at the proposed site-access points, based on the criteria in El Paso County's *Engineering Criteria Manual (ECM)*. Also included are potential long-term lane requirements; and
- Findings and recommendations for submittal to El Paso County.

#### **LIST OF OTHER TRAFFIC REPORTS USED IN THE PREPARATION OF THIS REPORT**

The following previously-completed traffic reports were used for reference, context and/or background information for this study:

*Apex Ranch Estates Traffic Engineering Services* letter by Felsburg, Holt & Ullevig dated November 6, 2007 (PCD File # SP07013). The report is over 15 years old and Apex Ranch Estates has already been developed.

#### **LAND USE AND ACCESS**

##### **Proposed Land Use**

Figure 1 shows the site location relative to the adjacent and nearby roadways. The Overlook at Homestead site would consist of 62 single-family dwelling units. The site is located about one-quarter mile northeast of the intersection of Sweet Road and Elbert Road.

The project is planned to be developed in phases. Figure 2 also shows the proposed phasing plan.

##### **Proposed Site-Access Locations**

Figure 2 contains the proposed site plan showing the proposed land use, on-site circulation, and proposed access points. Access to the site is proposed via the existing Elbert Road/Apex Ranch Road stop-sign-controlled intersection and a new public road connection to Elbert Road (Hatband Drive) to be located 1,920 feet north of Sweet Road. Hatband Drive would also meet the spacing to a future intersection created to the north with the planned future Hodgen Road extension east to Elbert Road, as shown on Map 13 of the MTCP (Project N3). Hatband Drive would be about 2,000 feet to the south, which would meet the prescribed quarter-mile spacing.

### **Access to Nearby Parcels**

Parcels to the east, 4100000251 and 4126000004, will be afforded access as follows:

- 4100000251 is part of the regional park owned by the County, and the applicant is planning trail access as requested by the Parks Department, no vehicular access.
- 4126000004 is owned by Mr. Pickle and right-of-way will be provided at the end of the southernmost cul-de-sac per Code requirements. This will be shown on the upcoming Preliminary Plan.
- 4100000031 at the end of the Apex Ranch Road cul-de-sac. There will be an access stub to the parcel to the north.

### **INTERSECTION SIGHT DISTANCE**

#### **Entering Sight Distance**

Intersection entering sight distance at Apex Ranch Road/Elbert Road and the proposed site-access location (Hatband Drive) on Elbert Road shown in the site plan meet sight-distance requirements in *ECM* Table 2-21. The following are the existing sight-distance measurements. These measurements were conducted in the field by LSC. The measurements were taken from a driver's eye height of 3.5 feet to an approaching vehicle height of 3.5 feet.

- Apex Ranch Road/Elbert Road intersection:
  - 750 feet looking north from Apex Ranch Rd.
  - 1,230 feet south of Apex Ranch Road.
- Proposed Site Access (Hatband Drive)/Elbert Road Intersection:
  - 1,800 feet north of proposed Hatband Drive.
  - Over 1/2 mile south of proposed Hatband Drive – well past the Sweet Road intersection.

Please refer to the attached sight-distance exhibits for details. The lines of sight for both access point intersections will need to be kept clear of any sight-distance obstructions. This includes landscaping, signage, etc. proposed for the residential development.

#### **Stopping Sight Distance to Downstream Intersection**

Stopping sight distance along Elbert Road approaching Apex Ranch Road/Elbert Road and the proposed Hatband Drive/Elbert Road shown in the site plan meet stopping sight-distance requirements in *ECM* Table 2-17 (or 2-18 for grades over 3%). The following are the existing sight-distance measurements. These measurements were conducted in the field by LSC. The measurements were taken from the driver's eye height of an approaching vehicle to a height of 3.5 feet at the center of each intersection.

- Apex Ranch Road/Elbert Road intersection:
  - 750 feet south to Apex Ranch Road from a southbound motorist on Elbert Road approaching the intersection from the north.
  - 1,230 feet north to Apex Ranch Road from a northbound motorist on Elbert Road approaching the intersection from the south.
- Proposed Hatband Drive/Elbert Road Intersection:
  - 1,800 feet south to the proposed site access a southbound motorist on Elbert Road approaching the Hatband Drive intersection from the north.
  - There is over 1/2 mile of stopping sight distance for a northbound motorist on Elbert Road approaching the Hatband Drive intersection from the south.
  - Also, please refer to the attached profile drawing showing the clear lines of sight from each direction along Elbert Road for the required intersection sight distance along Elbert Road.

## ROAD AND TRAFFIC CONDITIONS AND MTCP CLASSIFICATION

Figure 1 shows the roads adjacent to and in the vicinity of the site. Adjacent roads serving the site are identified below followed by a brief description of each:

**Elbert Road** is a paved, “unimproved,” two-lane Rural Minor Arterial that extends for 10 miles north from Judge Orr Road to the El Paso County/Elbert County line. The roadway continues into Elbert County to State Highway 86 (in Elbert County). The posted speed limit at the Elbert Road/Apex Ranch Road intersection is 55 miles per hour (mph). No auxiliary turn lanes currently exist at Elbert Road’s intersections with Apex Ranch Road or Sweet Road.

**Apex Ranch Road** is a paved Rural Local roadway extending east-to-west for 0.5 miles between Elbert Road and its terminus to the east. The posted speed limit along this paved road is 25 mph. The westbound approach to the Elbert Road intersection is stop-sign controlled with a single lane.

**Sweet Road** is a Rural Collector extending generally east-to-west for 14.5 miles between Eastonville and Eurich Road. The segment of Sweet Road between Elbert Road and Eastonville Road is paved. Sweet Road is discontinuous at Elbert Road, with an offset of approximately 1,000 feet, between north and south intersections with Elbert Road. No auxiliary turn lanes exist at either of the two Elbert Road intersections with Sweet Road.



### Existing Traffic Volumes

Vehicular turning-movement counts were conducted for the following dates and times at the following intersections. Raw count data is attached:

- Elbert Road/Sweet Road
  - Wednesday, May 31, 2023 from 6:30 – 8:30 a.m.
  - Wednesday, May 31, 2023 from 4:00 – 6:00 p.m.
- Elbert Road/Apex Ranch Road
  - Wednesday, May 31, 2023 from 6:30 – 8:30 a.m.
  - Wednesday, May 31, 2023 from 4:00 – 6:00 p.m.

### PEDESTRIAN AND BICYCLE FACILITIES

Elbert Road and Apex Ranch Road do not currently have sidewalks or dedicated bicycle lanes to accommodate pedestrians or bicycles. Sidewalks would **not** be required along any study-area roadways following site buildout. The proposed subdivision roads are proposed to be Rural roadways and, per *ECM* criteria, would not require sidewalks.

### TRIP GENERATION

Estimates of the vehicle trips projected to be generated by the proposed Overlook at Homestead residential development have been made using the nationally published trip-generation rates from *Trip Generation, 11<sup>th</sup> Edition, 2021* by the Institute of Transportation Engineers (ITE). Corresponding trip-generation rates from ITE Land Use Category “210 – Single-Family (Detached) Housing” have been used to develop the trip-generation estimates for the proposed 62-dwelling unit residential site.

Table 1 below presents a summary of the estimated site trip generation. A detailed trip-generation estimate for the site, including ITE rates for the proposed residential land use, is presented in

Table 3 (attached).

The proposed residential development is projected to generate about 650 total vehicle trips on the average weekday during a 24-hour period, with approximately half entering and half exiting the site. During the morning peak hour, approximately 13 entering vehicles and 36 exiting vehicles are estimated to be generated. Approximately 40 entering and 23 exiting vehicles are estimated to be generated by the site during the afternoon peak hour.

**Table 1: Estimated Site Vehicle-Trip Generation**

Analysis Period	Weekday		
	In	Out	Total
Morning Peak Hour	13	36	49
Afternoon Peak Hour	40	23	63
Daily/24-hour	325	325	650

## TRIP DISTRIBUTION AND ASSIGNMENT

### Trip Directional Distribution

The directional-distribution estimate of site-generated vehicle trips to the study-area roads and intersections is a necessary component in determining the site's traffic impacts. Figure 4 shows the percentages of the site-generated vehicle trips projected to be oriented to and from the site's major approaches. Estimates have been based on the following factors: the proposed new land use, the area roadway system serving the site, and the site's geographic location relative to the overall greater El Paso County/Colorado Springs area and Elbert County to the north.

### Site-Generated Traffic

Site-generated traffic volumes have been estimated at the following intersections:

- Elbert Road/Apex Ranch Road
- Elbert Road/proposed south access (Hatband Drive).
- Elbert Road/Sweet Road (north intersection)

These site-generated volumes have been calculated by applying directional-distribution percentages estimated by LSC (from Figure 4) to the trip-generation estimates (from

Table 3). Figure 5 shows the projected short-term site-generated traffic volumes for the weekday morning and afternoon peak hours.

### Existing Plus Site-Generated Traffic Volumes

Figure 6 shows the sum of the existing traffic volumes (from Figure 3) and site-generated traffic volumes (shown in Figure 5). These volumes represent the projected short-term total traffic following site buildout.

### 2043 Background Traffic Volumes

Long-term background traffic volumes have been estimated by LSC based, in-part, on projected 2043 volumes adjacent to the site shown in Map 9 of the El Paso County *Major Transportation*

*Corridors Plan* (MTCP). The 2043 traffic volumes represent a 2.25 percent per year growth rate over existing traffic. Estimated traffic to be generated at buildout for the 62-dwelling unit Overlook at Homestead residential developments is **not** included in 2043 background traffic volumes. Please refer to Figure 7 for estimated long-term background volumes and assumed laneage at the study-area intersections.

**2043 Total Traffic Volumes**

Figure 8 shows the sum of 2043 background traffic volumes (from Figure 7) plus site-generated traffic volumes (from Figure 5).

**LEVEL OF SERVICE ANALYSIS**

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection and is indicated on a scale from “A” to “F.” LOS A is indicative of little congestion or delay. LOS F indicates a high level of congestion or delay. Table 2 shows the level of service delay ranges for signalized and unsignalized intersections.

**Table 2: 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.

LOS values have been included in each figure for each turning movement/approach during the weekday morning and afternoon peak hours for the proposed site-access intersections and off-site intersections in the study area:

- Figure 3: 2023 Existing Traffic, Lane Geometry, Traffic Control, and LOS
- Figure 6: 2023 Existing + Site Traffic, Lane Geometry, Traffic Control, and LOS
- Figure 7: 2043 Background Traffic, Lane Geometry, Traffic Control, and LOS
- Figure 8: 2043 Background + Site Traffic, Lane Geometry, Traffic Control, and LOS

LOS calculations for long-term scenarios were based upon the recommended lane geometries and traffic controls outlined in the figures above.

### **Elbert Road/Apex Ranch Road**

All movements at this intersection currently operate at and are projected to remain at LOS B or better during both peak hours with the addition of site-generated traffic. No modifications would be required to this intersection.

### **Elbert Road/Proposed South Access (Hatband Drive)**

All movements at this intersection are projected to operate at LOS B or better during both peak hours with the addition of site-generated traffic.

### **Elbert Road/Sweet Road (North Intersection)**

All movements at this intersection currently operate at and are projected to remain at LOS B or better during both peak hours with the addition of site-generated traffic. No modifications would be required to this intersection.

## **AUXILIARY TURN-LANE NEEDS ANALYSIS**

### **Elbert Road/Apex Ranch Road and Elbert Road/Proposed South Access (Hatband Drive)**

#### Southbound-Left-Turn Deceleration Lane(s)

According to the El Paso County *Engineering Criteria Manual (ECM)*, exclusive left-turn lanes shall be provided for any access on a Minor Arterial with a projected peak-hour ingress turning volume of 25 vehicles per hour (vph) or greater. Projected short-term total and long-term total volumes would **not** exceed the 25-vph threshold. As such, no modifications would be required to the southbound approach on Elbert Road at either Apex Ranch Road or the proposed Hatband Drive.

#### Northbound-Right-Turn Deceleration Lane(s)

According to the *ECM*, exclusive right-turn lanes shall be provided for any access on a Minor Arterial with a projected peak-hour ingress turning volume of 50 vehicles per hour (vph) or greater. The projected right-turn volumes at Elbert/Apex Ranch and at the Elbert/proposed south access are **not** expected to exceed the 50-vph minimum right-turn volume thresholds prescribing a turn lane outlined in the *ECM* upon site buildout. As such, a northbound-right-turn deceleration lane would **not** be required on Elbert Road approaching Apex Ranch Road or the proposed Hatband Drive.

## **Elbert Road/Sweet Road**

### Northbound-Left-Turn Deceleration Lane

Based on count data from May 2023, the existing northbound-left turning volume is 21 vehicles during the morning peak hour and 22 vehicles during the afternoon peak hour. Assuming an annual growth rate of 2 percent for background traffic, it is likely that the northbound-left turning volume would exceed the *ECM* threshold of 25 vph at some point within the next 20 years.

The proposed Overlook at Homestead residential development would **not** increase the peak-hour left-turn volume for this turning movement. Existing and future traffic making this turn constitutes background traffic only. This has been included in this report, even as need due to “background traffic,” because the intersection is within the study area and it is our understanding that El Paso County staff is interested in all potential future needed improvements, even if related to background traffic.

### Southbound-Right-Turn Deceleration Lane

The projected right-turn volumes at the Elbert Road/Sweet Road intersection are **not** expected to exceed the 50-vph minimum right-turn volume thresholds prescribing a turn lane outlined in the *ECM* upon site buildout or based on 2043 projected total traffic volumes. As such, no modifications would be required for the southbound approach on Elbert Road approaching Sweet Road.

## **ROADWAY CLASSIFICATIONS**

### **Elbert Road**

Per *ECM* Table B-1, the ADT threshold capacity for roads classified as Rural Minor Arterial is 10,000 vehicles per day. The projected ADT on Elbert Road in the vicinity of the site (between Hopper Road and Sweet Road) would be well below 10,000 vehicles per day for this classification.

### **Internal Roadways**

All proposed internal roadways within the 62-dwelling-unit residential development should be classified as Rural Local roadways. Based on buildout traffic volume estimates, the projected ADT on Apex Ranch Road and the proposed Hatband Drive would be less than the *ECM* threshold of 750 vehicles per day for Rural Local roadways. Apex Ranch Road currently conforms to Rural Local roadway standards, so no modifications would be needed. The proposed Hatband Drive and other internal roadways should be constructed to Rural Local roadway standards.

## **ROADWAY IMPROVEMENTS**

Based on the analysis herein, no off-site or adjacent roadway improvements would be “triggered” by this development. Staff has indicated that Elbert Road will need to be restriped to remove the

existing passing zone on Elbert Road in the vicinity of Hatband Drive. This can be addressed as part of the construction documents at a later stage in the process.

Elbert Road is currently a 24-foot, paved, “unimproved” (*MTCP* terminology) roadway in the vicinity of the site. The *ECM* standard width for the Rural Minor Arterial roadway classification is 40-feet of paved width, plus a ten-foot outside shoulder (8 feet paved, 2 feet gravel). This project should not be required to widen Elbert Road. *MTCP* Map 13 does not show an *MTCP* roadway project for Elbert Road. The 2040 Unimproved Roadway Analysis on *MTCP* Map 12 indicates that Elbert Road will be adequate, and the projected volumes in this report appear to be well under the capacity values shown in the latest *Road Impact Fee Study* for similar two-lane, paved, unimproved roadways.

Staff has requested the inclusion of some Elbert shoulder improvements for a short distance on both sides of Hatband Drive. This would involve widening Elbert Road on the east side for an 8-foot-wide paved shoulder for 40-feet north and 40-feet south from the end of the radius at Hatband Drive. In addition to the 40-feet of 8-foot shoulder on each side, a 45-foot “taper” or transition back to the existing edge of roadway on each side would be included. The radii would be set back eight feet to the edge of the new shoulder and the culvert under the new street would be placed accordingly.

The intersection of Apex Ranch Road/Elbert Road was previously constructed, so completing a similar improvement at that existing intersection would involve rebuilding and reconstruction, which would not be practical and would be unnecessarily disruptive to the traveling public.

## **COUNTY ROAD IMPROVEMENT FEE PROGRAM**

### **Transportation Impact Fees**

Per *ECM* Appendix B: *State what the current applicable Transportation Impact Fees are and what option the developer will be selecting for payment.*

The applicant will be required to participate in this program. The PID option will be identified with a future Preliminary Plan/Plat submittal.

### **Reimbursable Improvements**

The following roadway improvement projects have been identified as being needed by the year 2040 per Map 13 and Table 4 of El Paso County’s 2016 *MTCP*:

- N3 – Hodgen Road from Eastonville Road to Elbert Road (\$4,470,000)
  - Existing conditions – does not exist
  - Future conditions – 2-lane Rural Collector

See the attached *MTCP* maps for reference.

## **MULTI-MODAL TRANSPORTATION AND TDM OPPORTUNITIES**

The following roadway improvement projects have been identified as being needed by the year 2040 per Map 15 and Table 5 of El Paso County's 2016 *MTCP*:

- M10 – Hodgen Road from Meridian Road to Elbert Road
  - Bicycle improvements (1.67 miles)

No public schools are located within a two-mile radius of the site.

## **DEVIATIONS**

No deviations to *ECM* design criteria are proposed at the proposed study-area intersections.

## **FINDINGS AND CONCLUSIONS**

- The site is projected to generate about 650 new driveway vehicle-trips on the average weekday.
- During the weekday morning peak hour of adjacent street traffic, 13 vehicles would enter the site while 36 vehicles would exit.
- During the weekday afternoon peak hour of adjacent street traffic, 40 vehicles would enter the site while 23 vehicles would exit.
- All individual approaches and turn lanes at both site-access intersections would operate at LOS B or better during both short-term and long-term peak hours, with or without the addition of site-generated traffic.
- Auxiliary left-turn and right-turn deceleration lanes would **not** be required at either of the site-access points, based on projected buildout traffic volumes. Please refer to the "Auxiliary Turn-Lane Analysis" section for evaluation of potential turn-lane needs.
- All internal site-access roadways are proposed to be public Rural Local roadways.
- Intersection sight distance will meet ECM standards. Please refer to the SIGHT DISTANCE section for details.
- No deviations are included with this submittal.

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/JAB:jas

Enclosures: Table 3  
Figures 1-8  
Sight Distance Exhibits 1 & 2  
Stopping Sight Distance Exhibit  
Traffic Count Reports  
Synchro LOS Reports  
MTCP Map



# Table



**Table 3: Detailed Trip Generation Estimate**

ITE		Value Units <sup>1</sup>		Trip Generation Rates <sup>2</sup>				Driveway Trips Generated					
Code	Description			Average Weekday	A.M.		P.M.		Average Weekday	A.M.		P.M.	
					In	Out	In	Out		In	Out	In	Out
210	Single-Family (Detached) Housing	62	DU	10.48	0.20	0.58	0.64	0.38	650	13	36	40	23

<sup>1</sup> DU = dwelling units

<sup>2</sup> Source: *Trip Generation, 11th Edition (2021)* by the Institute of Transportation Engineers (ITE)

Updated by LSC 06/02/2023

# Figure 1 - Figure 8

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Not to scale

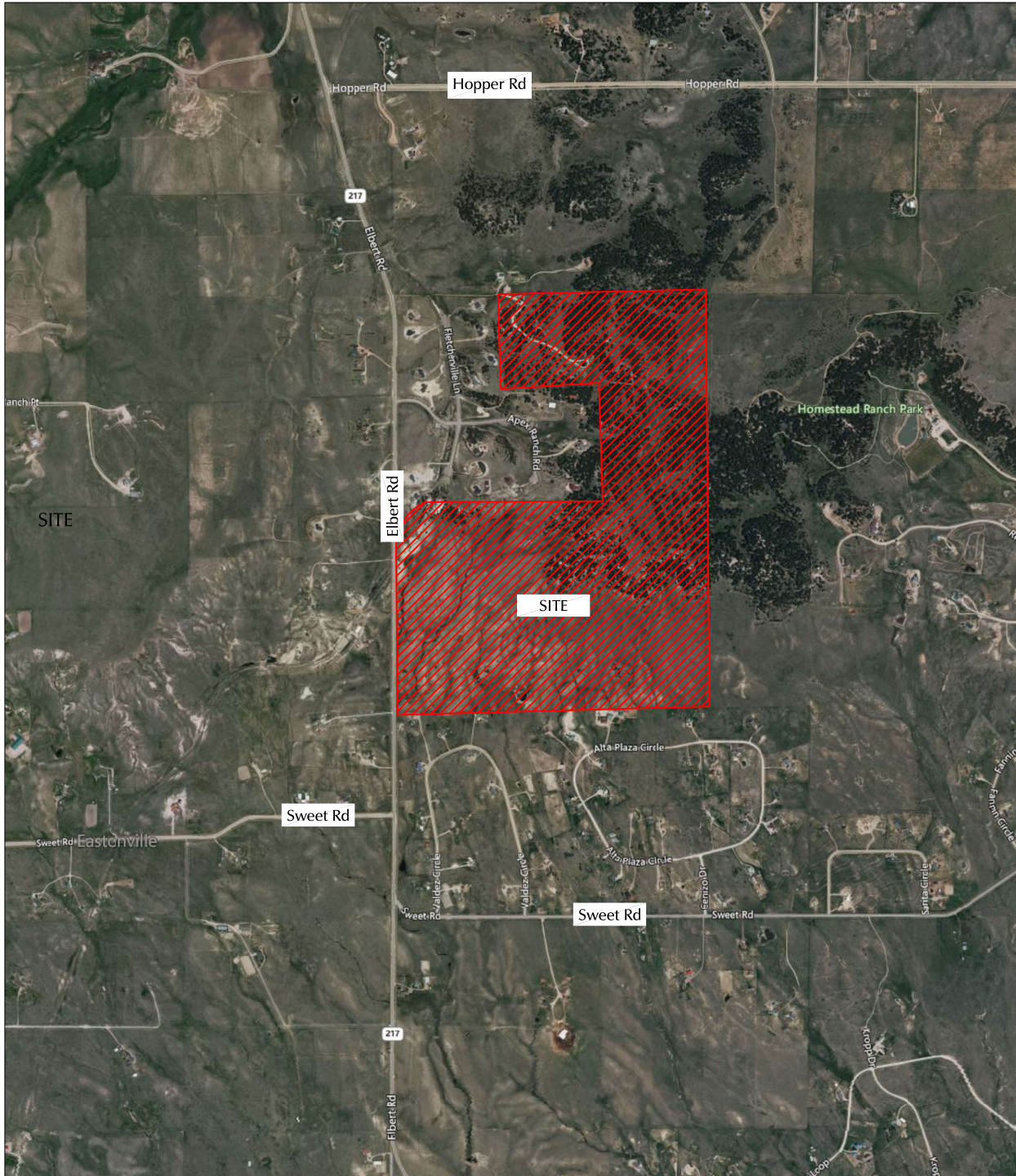


Figure 1  
**Vicinity Map**

Overlook at Homestead (LSC #S234200)



1" = 750' scale

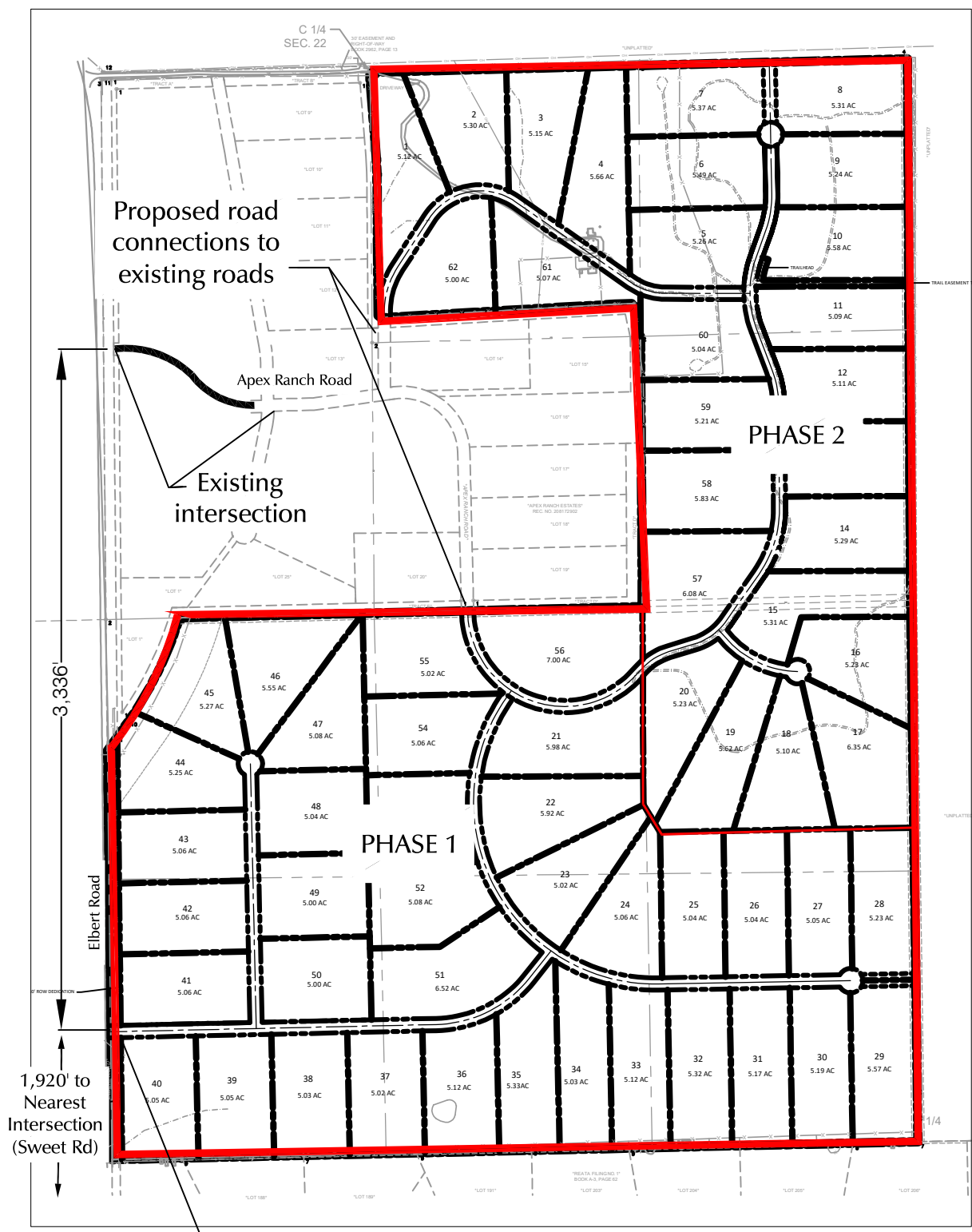
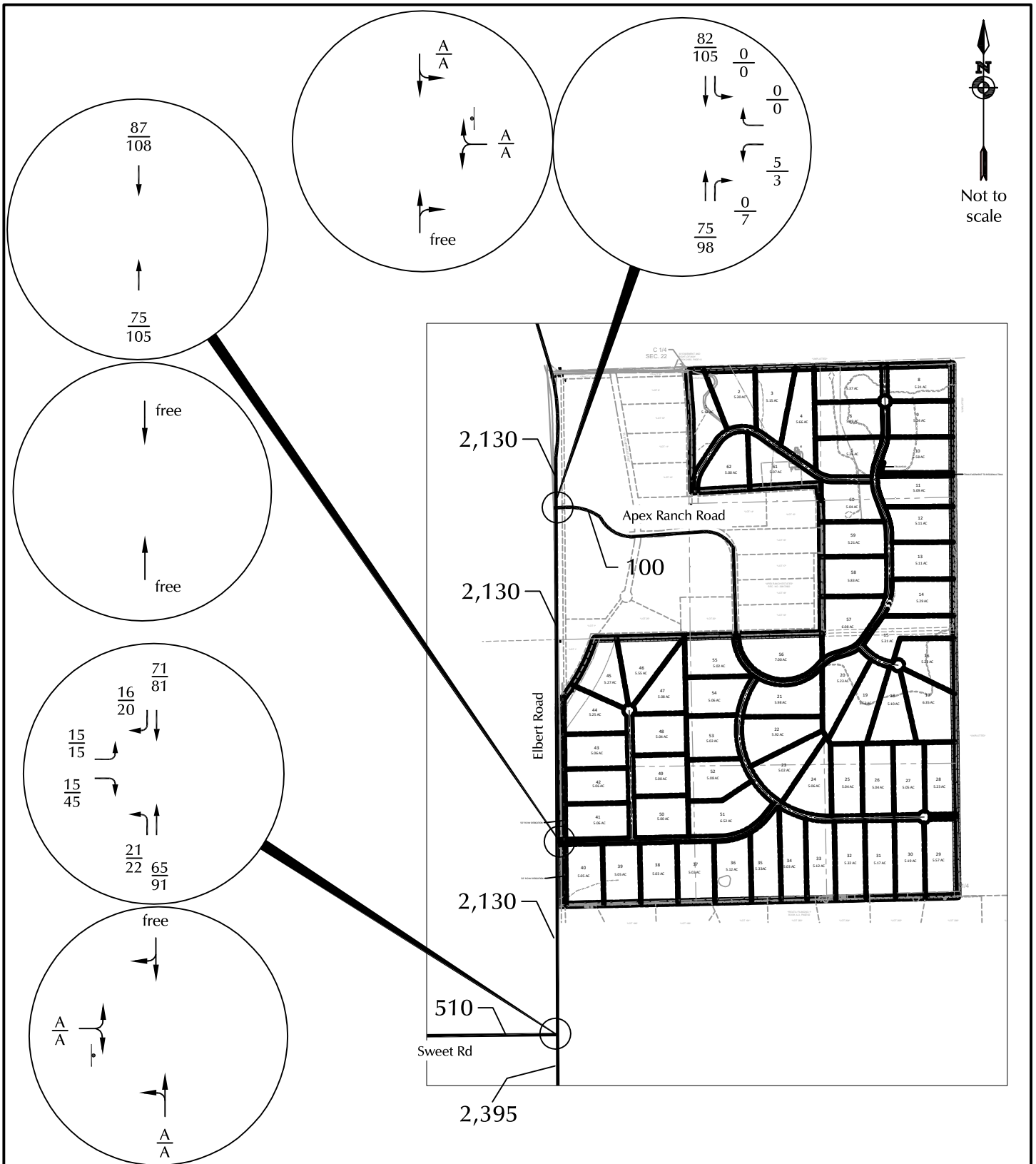


Figure 2  
Site Plan

Overlook at Homestead (LSC #S234200)



Counts by LSC (June 2023)

⊥ = Stop Sign

$\frac{X}{X}$  = AM Individual Movement Peak-Hour LOS

$\frac{X}{X}$  = PM Individual Movement Peak-Hour LOS

$\frac{XX}{XX}$  = AM Weekday Peak-Hour Traffic (Veh/Hour)

$\frac{XX}{XX}$  = PM Weekday Peak-Hour Traffic (Veh/Hour)

X,XXX = Average Daily Traffic (Vehicles/Day) - Estimated by LSC

Figure 3  
Existing Traffic, Lane  
Geometry, Traffic  
Control, and LOS

Overlook at Homestead (LSC #S234200)





Not to scale

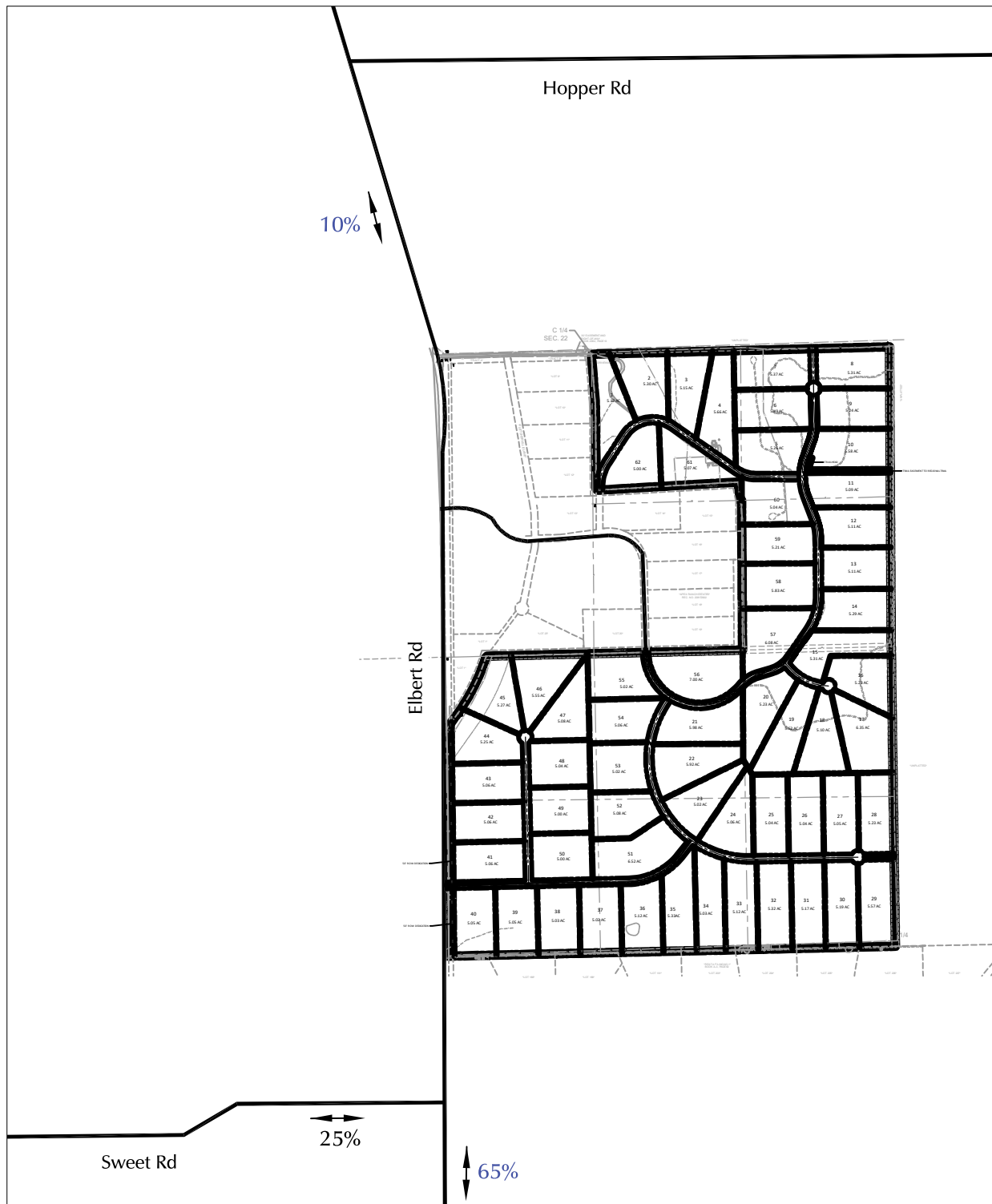


Figure 4

# Estimated Directional Distribution

Overlook at Homestead (LSC #S234200)



XX% = Percent Directional Distribution

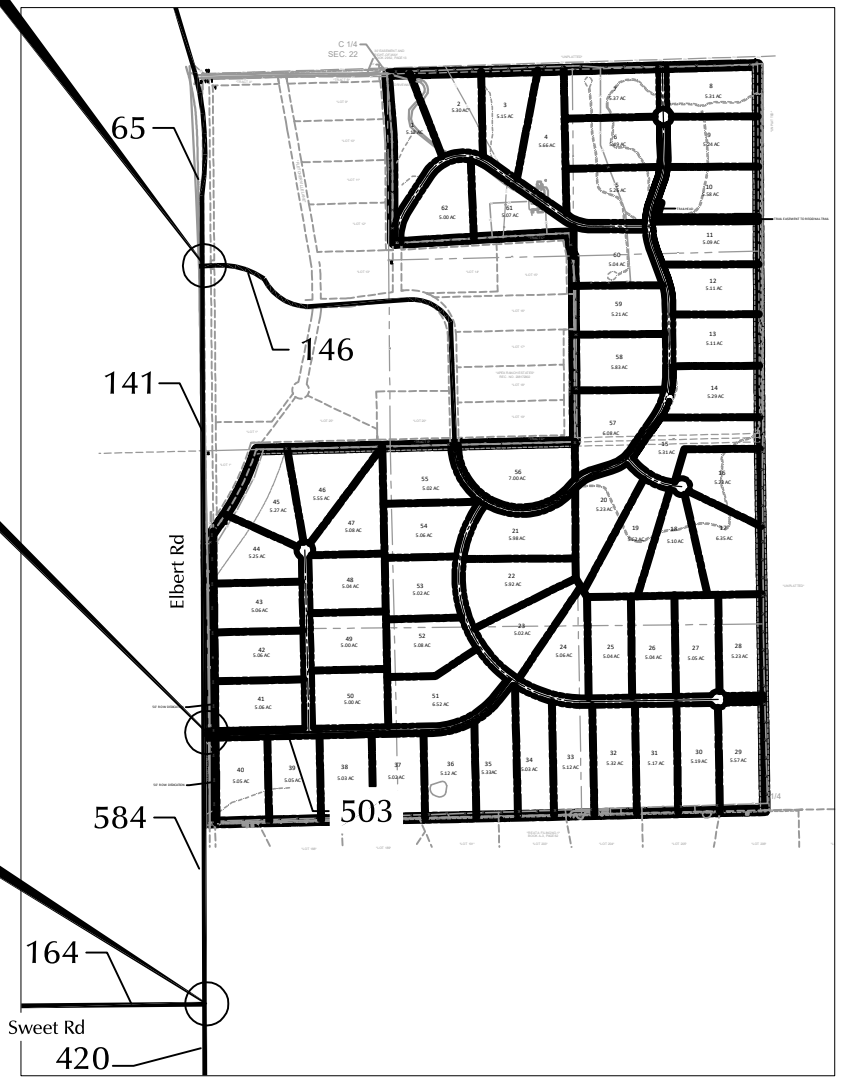
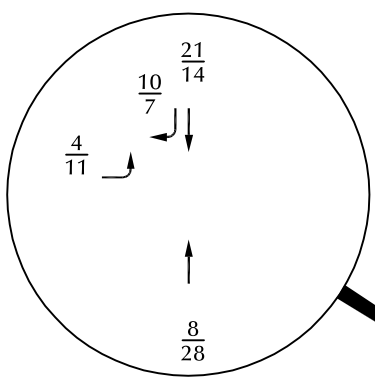
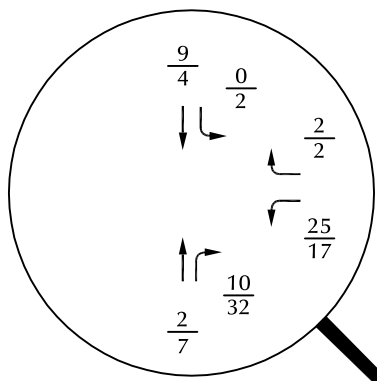
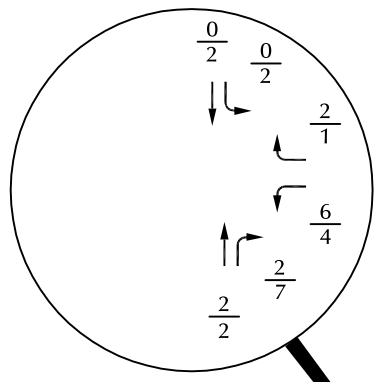


Figure 5  
**Estimated Buildout  
 Site-Generated Traffic**

Overlook at Homestead (LSC #S234200)



$\frac{XX}{XX}$  = AM Weekday Peak-Hour Traffic (Veh/Hour)  
 $\frac{XX}{XX}$  = PM Weekday Peak-Hour Traffic (Veh/Hour)  
 X,XXX = Average Daily Traffic (Vehicles/Day)



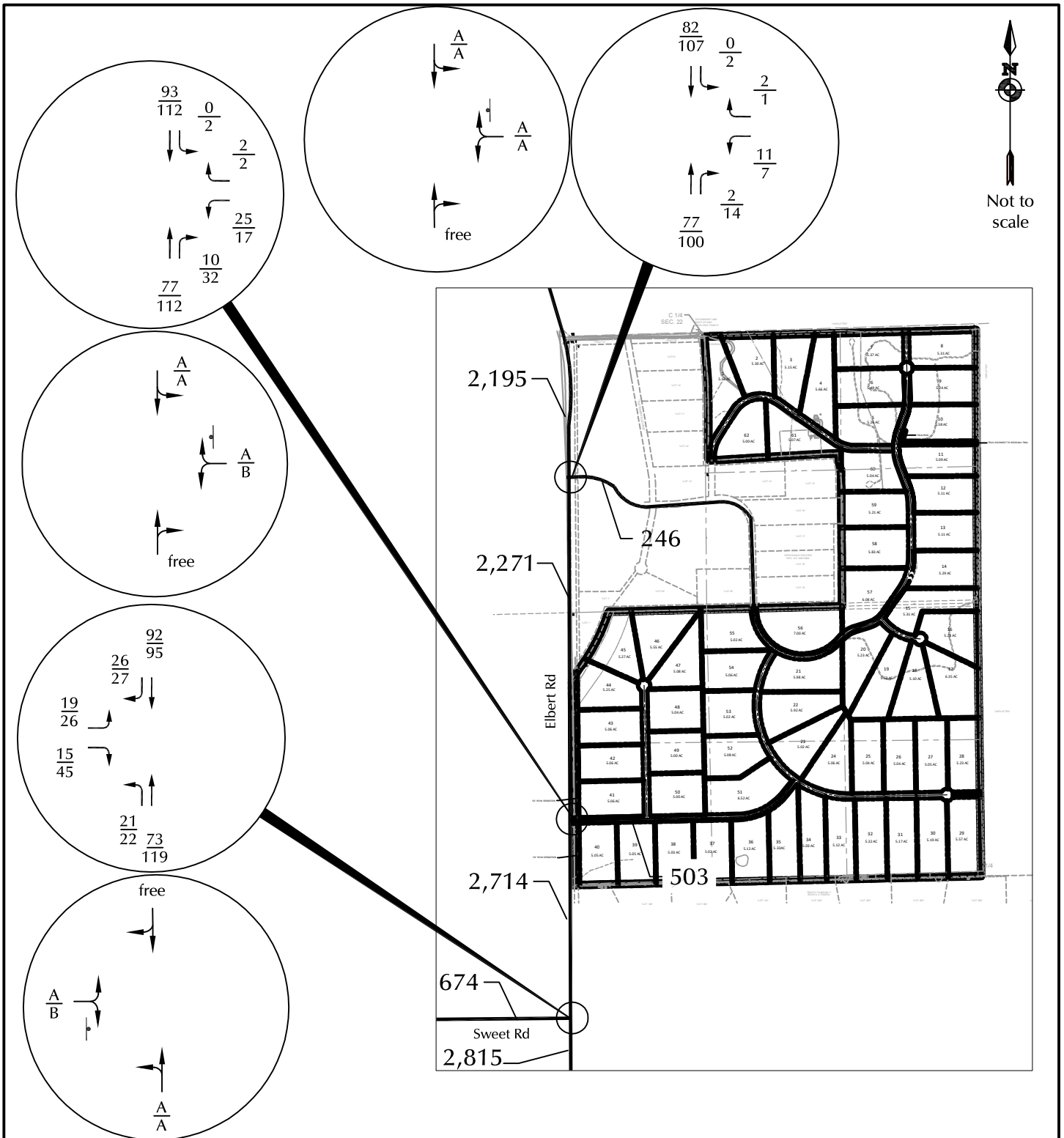


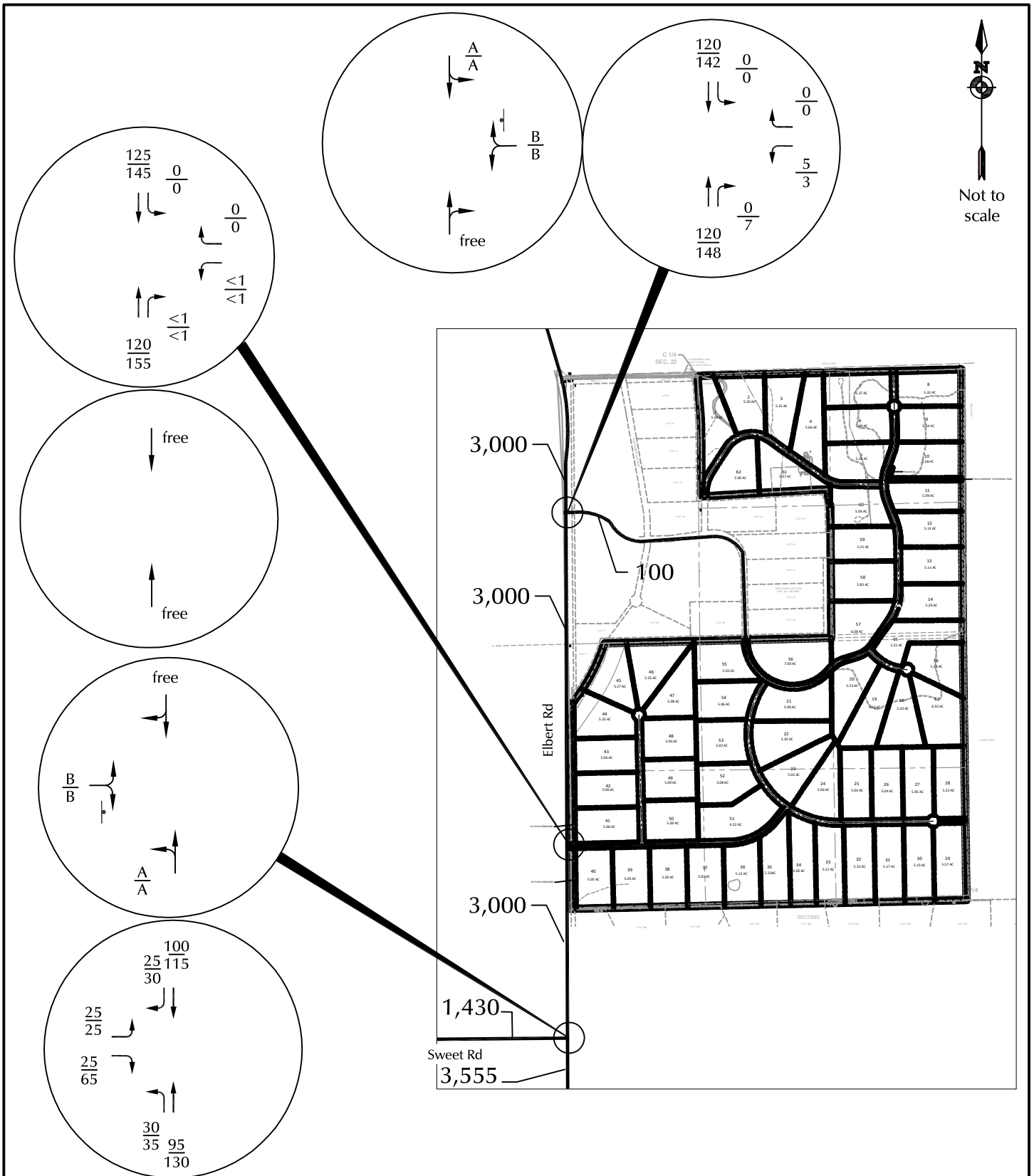
Figure 6

# Existing + Site-Generated Traffic, Lane Geometry, Traffic Control, and LOS

Overlook at Homestead (LSC #S234200)



- = Stop Sign
- $\frac{X}{X}$  =  $\frac{\text{AM Individual Movement Peak-Hour LOS}}{\text{PM Individual Movement Peak-Hour LOS}}$
- $\frac{XX}{XX}$  =  $\frac{\text{AM Weekday Peak-Hour Traffic (Veh/Hour)}}{\text{PM Weekday Peak-Hour Traffic (Veh/Hour)}}$
- X,XXX = Average Daily Traffic (Vehicles/Day)



- $\perp$  = Stop Sign
- $\frac{X}{X}$  =  $\frac{\text{AM Individual Movement Peak-Hour LOS}}{\text{PM Individual Movement Peak-Hour LOS}}$
- $\frac{XX}{XX}$  =  $\frac{\text{AM Weekday Peak-Hour Traffic (Veh/Hour)}}{\text{PM Weekday Peak-Hour Traffic (Veh/Hour)}}$
- X,XXX = Average Daily Traffic (Vehicles/Day)

Figure 7  
 2043 Background Traffic,  
 Lane Geometry, Traffic  
 Control, and LOS

Overlook at Homestead (LSC #S234200)

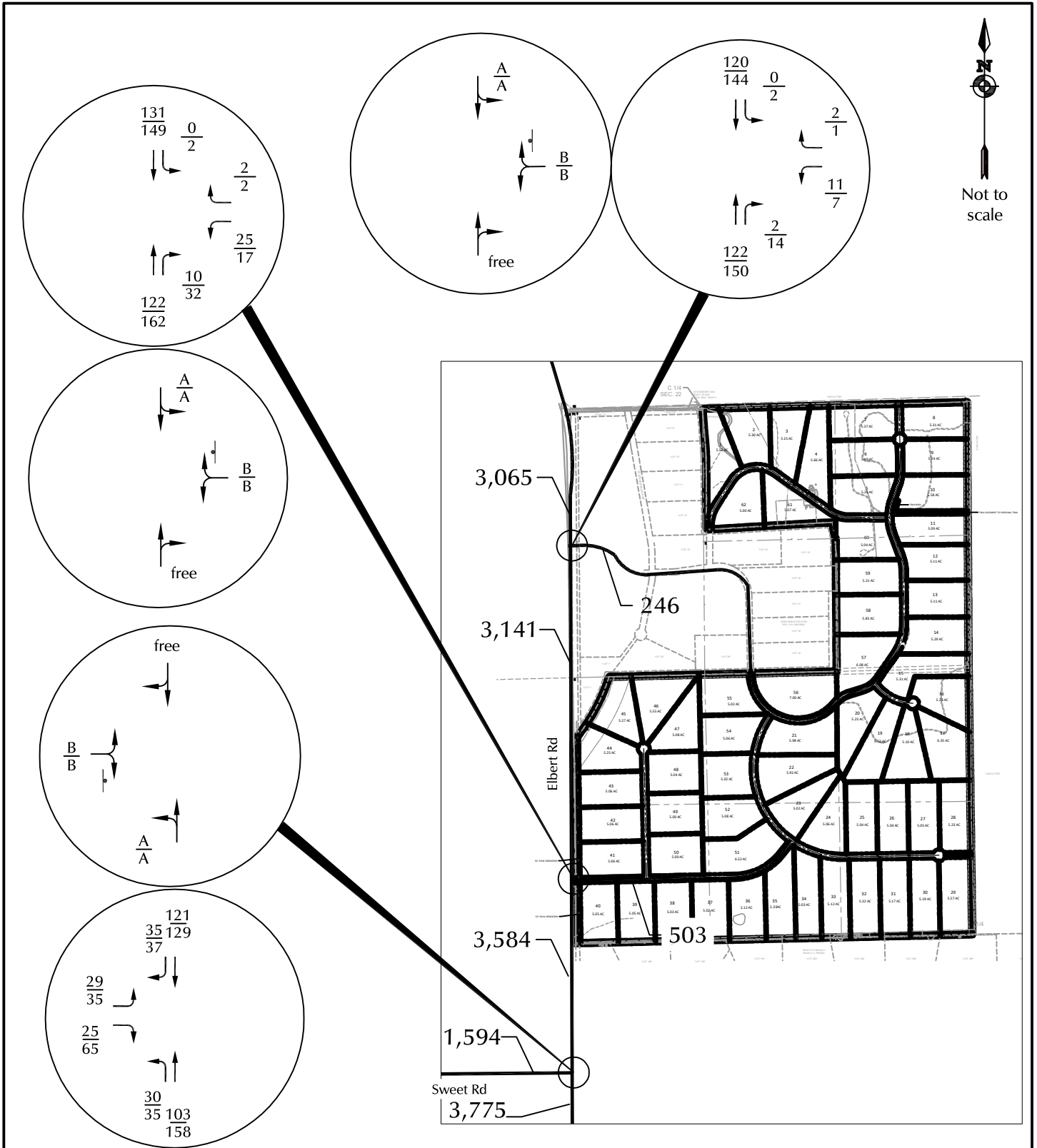


Figure 8

# 2043 Background + Site Traffic, Lane Geometry, Traffic Control, and LOS

Overlook at Homestead (LSC #S234200)



-  = Stop Sign
- $\frac{X}{X}$  =  $\frac{\text{AM Individual Movement Peak-Hour LOS}}{\text{PM Individual Movement Peak-Hour LOS}}$
- $\frac{XX}{XX}$  =  $\frac{\text{AM Weekday Peak-Hour Traffic (Veh/Hour)}}{\text{PM Weekday Peak-Hour Traffic (Veh/Hour)}}$
- X,XXX = Average Daily Traffic (Vehicles/Day)

# Sight Distance Exhibits 1 & 2

---





404

750' Field-Measured  
(665' Required)

Apex Ranch  
Road

Elbert Road

1,230' Field Measured  
(665' Required)

60mph  
Design  
Speed  
(55 Mph  
Posted  
Speed)

N  
n.t.s

405

Sight Distance Exhibit No. 1  
Intersection Sight Distance  
(Field Measured)  
Elbert Road/Apex Ranch Road



1800' Field Measured  
(665' Required)

Proposed Site Access  
(Hatband Drive)  
Location

60mph  
Design  
Speed  
(55 Mph  
Posted  
Speed)

Over 1/2 mile available  
(665' Required)

N  
n.t.s

Sweet Road

Elbert Road

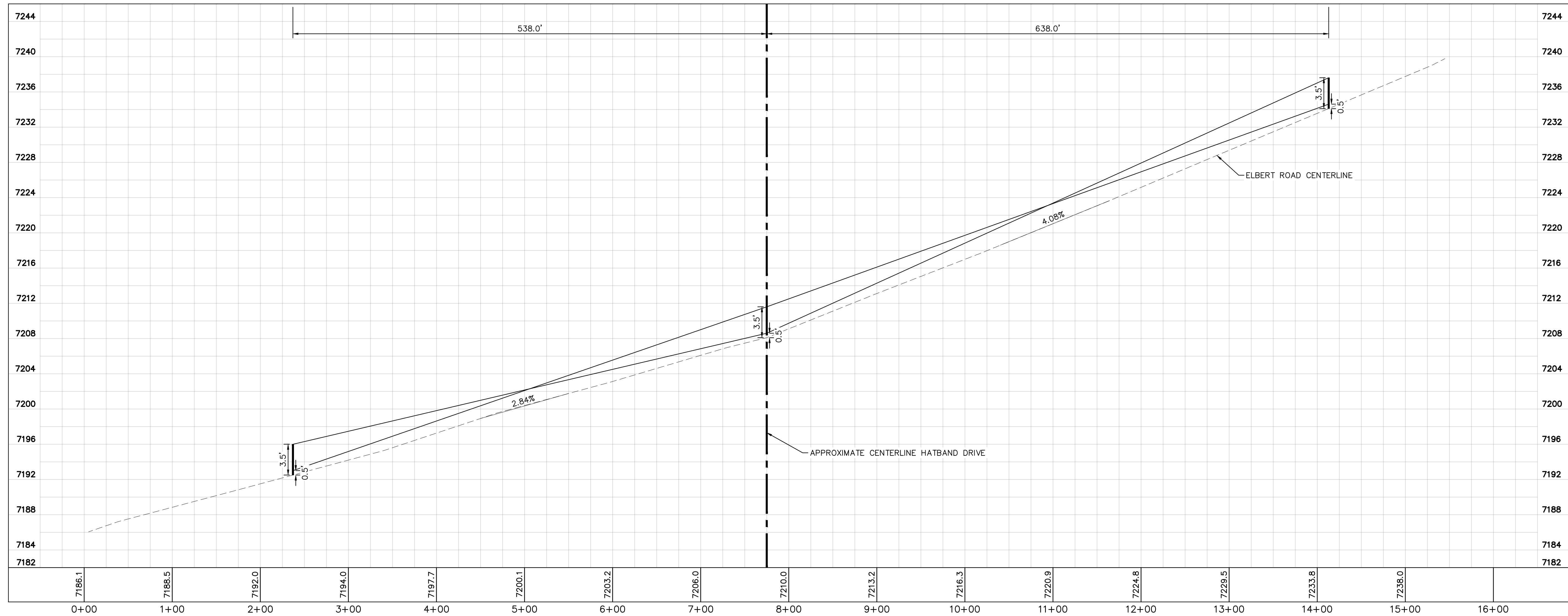
Sight Distance Exhibit No. 2  
Intersection Sight Distance  
(Field Measured)  
Elbert Road/Hatband Drive  
(Proposed Site Access)

# Stopping Sight Distance Exhibit

---



K:\COS\_Civil\196239003\_Overlook\CADD\PlanSheets\Roadway Stopping Distance\Elbert\_Profile.dwg Lundberg, Andrew 9/21/2023 4:03 PM

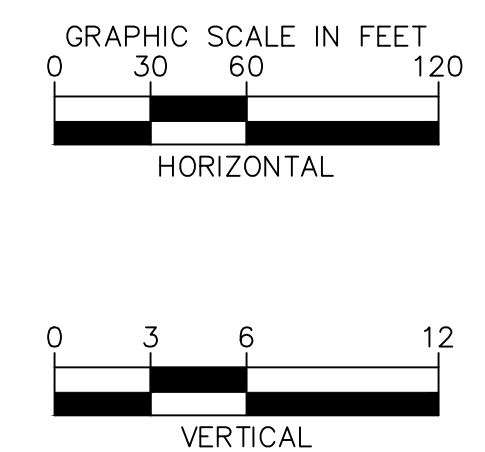


Design Speed (MPH)	Downgrades			Design Speed (MPH)	Upgrades		
	Stopping Distance (feet)				Stopping Distance (feet)		
	3%	6%	9%		3%	6%	9%
25	158	165	173	25	147	143	140
30	205	215	227	30	200	184	179
40	315	333	354	40	289	278	269
50	446	474	507	50	405	288	375
60	598	638	686	60	538	515	495
70	771	825	891	70	690	658	631

\*TABLE 2-18. STOPPING DISTANCE AT GRADE ECM 2.3.6.D

**DESIGN CRITERIA**

	ELBERT ROAD
ROADWAY CLASSIFICATION	RURAL MINOR ARTERIAL
DESIGN SPEED	60 MPH
POSTED SPEED	45 MPH
GRADE (MIN./MAX.)	1.0%/6.0%
INTERSECTION GRADES (MIN./MAX.)	1.0%/4.0%
MINIMUM S.S.D HORIZONTAL	570'
MINIMUM S.S.D. AT GRADE (DOWNGRADE)	638'
MINIMUM S.S.D. AT GRADE (UPGRADE)	538'



NO.	REVISION	BY	DATE	APPR.

**Kimley»Horn**  
 2023 KIMLEY-HORN AND ASSOCIATES, INC.  
 2 North Nevada Avenue Suite 900  
 Colorado Springs, Colorado 80903 (719) 453-0180

DESIGNED BY: KRK  
 DRAWN BY: A.JL  
 CHECKED BY: KRK  
 DATE: 09/21/2023

OVERLOOK  
 EL PASO COUNTY, COLORADO  
 CONSTRUCTION DOCUMENTS  
 ELBERT ROAD STOPPING DISTANCE EXHIBIT

PRELIMINARY  
 FOR REVIEW ONLY  
 NOT FOR CONSTRUCTION  
**Kimley»Horn**  
 Kimley-Horn and Associates, Inc.

PROJECT NO.  
 196239003

SHEET



# 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 : Elbert Rd - Apex Ranch Rd AM

Site Code : S234200

Start Date : 5/31/2024

Page No : 1

### Groups Printed- Unshifted

Start Time	Elbert Rd Southbound					Apex Ranch Rd Westbound					Elbert Rd Northbound					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	8	0	0	8	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	14
06:35	0	6	0	0	6	0	0	3	0	3	0	6	0	0	6	0	0	0	0	0	0	15
06:40	0	4	0	0	4	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	11
06:45	0	4	0	0	4	0	0	3	0	3	0	6	0	0	6	0	0	0	0	0	0	13
06:50	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	5
06:55	0	3	0	0	3	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	10
<b>Total</b>	0	25	0	0	25	0	0	6	0	6	0	37	0	0	37	0	0	0	0	0	0	68
07:00	0	9	0	0	9	0	0	1	0	1	0	8	0	0	8	0	0	0	0	0	0	18
07:05	0	6	0	0	6	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	12
07:10	0	9	0	0	9	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	13
07:15	0	6	0	0	6	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0	0	19
07:20	0	5	0	0	5	0	0	2	0	2	0	5	0	0	5	0	0	0	0	0	0	12
07:25	0	7	0	0	7	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	0	13
07:30	0	5	0	0	5	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	12
07:35	0	8	0	0	8	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	14
07:40	0	10	0	0	10	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	16
07:45	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	6
07:50	0	8	0	0	8	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	16
07:55	0	5	0	0	5	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	0	11
<b>Total</b>	0	82	0	0	82	0	0	5	0	5	0	75	0	0	75	0	0	0	0	0	0	162
08:00	0	2	0	0	2	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	11
08:05	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	8
08:10	0	4	0	0	4	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	0	8
08:15	0	5	0	0	5	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	14
08:20	0	7	0	0	7	0	0	1	0	1	0	9	0	0	9	0	0	0	0	0	0	17
08:25	0	6	0	0	6	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	10
Grand Total	0	135	0	0	135	0	0	13	0	13	0	150	0	0	150	0	0	0	0	0	0	298
Apprch %	0	100	0	0		0	0	100	0		0	100	0	0		0	0	0	0	0		
Total %	0	45.3	0	0	45.3	0	0	4.4	0	4.4	0	50.3	0	0	50.3	0	0	0	0	0		

# LSC Transportation Consultants, Inc.

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

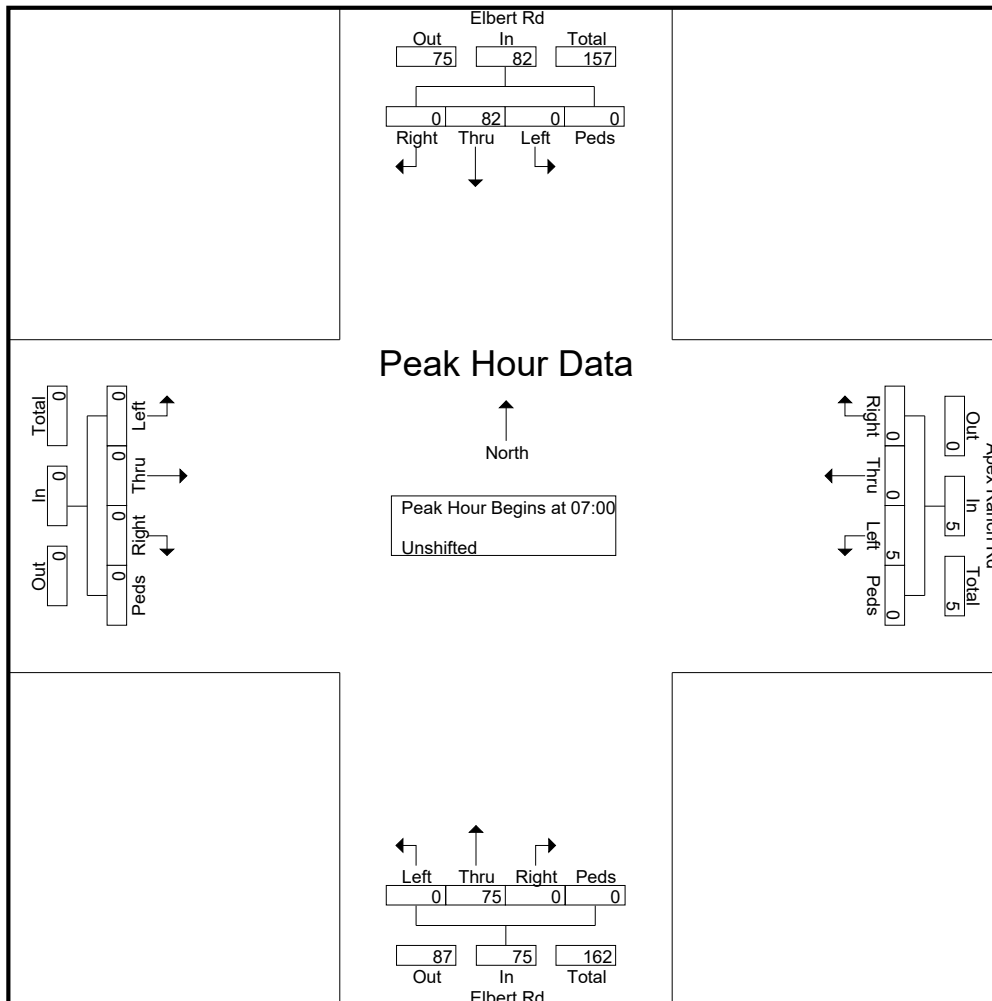
File Name : Elbert Rd - Apex Ranch Rd AM

Site Code : S234200

Start Date : 5/31/2024

Page No : 2

Start Time	Elbert Rd Southbound					Apex Ranch Rd Westbound					Elbert Rd Northbound					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 06:30 to 08:25 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00																					
07:00	0	9	0	0	9	0	0	1	0	1	0	8	0	0	8	0	0	0	0	0	18
07:05	0	6	0	0	6	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	12
07:10	0	9	0	0	9	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	13
07:15	0	6	0	0	6	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0	19
07:20	0	5	0	0	5	0	0	2	0	2	0	5	0	0	5	0	0	0	0	0	12
07:25	0	7	0	0	7	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	13
07:30	0	5	0	0	5	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	12
07:35	0	8	0	0	8	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	14
07:40	0	10	0	0	10	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	16
07:45	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	6
07:50	0	8	0	0	8	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	16
07:55	0	5	0	0	5	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	11
Total Volume	0	82	0	0	82	0	0	5	0	5	0	75	0	0	75	0	0	0	0	0	162
% App. Total	0	100	0	0		0	0	100	0		0	100	0	0		0	0	0	0		
PHF	.000	.683	.000	.000	.683	.000	.000	.208	.000	.208	.000	.481	.000	.000	.481	.000	.000	.000	.000	.000	.711



# LSC Transportation Consultants, Inc.

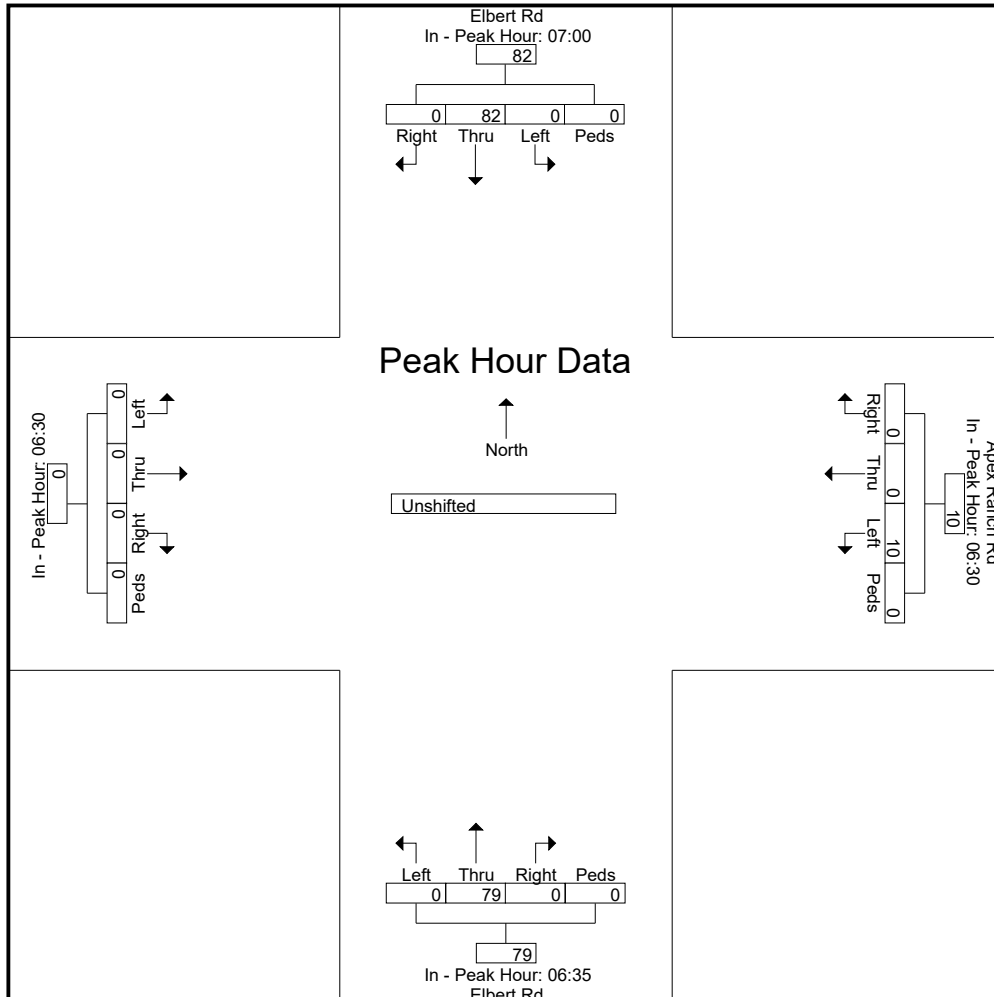
2504 E. Pikes Peak Ave, Suite 304  
 Colorado Springs, CO 80909  
 719-633-2868

File Name : Elbert Rd - Apex Ranch Rd AM  
 Site Code : S234200  
 Start Date : 5/31/2024  
 Page No : 3

Start Time	Elbert Rd Southbound					Apex Ranch Rd Westbound					Elbert Rd Northbound					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 06:30 to 08:25 - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	07:00					06:30					06:35					06:30				
+0 mins.	0	9	0	0	9	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0
+5 mins.	0	6	0	0	6	0	0	3	0	3	0	7	0	0	7	0	0	0	0	0
+10 mins.	0	9	0	0	9	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0
+15 mins.	0	6	0	0	6	0	0	3	0	3	0	5	0	0	5	0	0	0	0	0
+20 mins.	0	5	0	0	5	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0
+25 mins.	0	7	0	0	7	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0
+30 mins.	0	5	0	0	5	0	0	1	0	1	0	6	0	0	6	0	0	0	0	0
+35 mins.	0	8	0	0	8	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0
+40 mins.	0	10	0	0	10	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0
+45 mins.	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0
+50 mins.	0	8	0	0	8	0	0	2	0	2	0	5	0	0	5	0	0	0	0	0
+55 mins.	0	5	0	0	5	0	0	1	0	1	0	7	0	0	7	0	0	0	0	0
Total Volume	0	82	0	0	82	0	0	10	0	10	0	79	0	0	79	0	0	0	0	0
% App. Total	0	100	0	0		0	0	100	0		0	100	0	0		0	0	0	0	
PHF	.000	.683	.000	.000	.683	.000	.000	.278	.000	.278	.000	.506	.000	.000	.506	.000	.000	.000	.000	.000



# LSC Transportation Consultants, Inc.

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

File Name : Elbert Rd - Apex Ranch Rd Rd PM  
 Site Code : S234200  
 Start Date : 5/31/2024  
 Page No : 1

### Groups Printed- Unshifted

Start Time	Elbert Rd Southbound					Apex Ranch Rd Westbound					Elbert Rd Northbound					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		
16:00	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	8
16:05	0	5	0	0	5	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	11
16:10	0	5	0	0	5	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	12
16:15	0	5	0	0	5	0	0	2	0	2	0	7	0	0	7	0	0	0	0	0	0	14
16:20	0	11	0	0	11	0	0	0	0	0	1	7	0	0	8	0	0	0	0	0	0	19
16:25	0	13	0	0	13	0	0	0	0	0	0	5	0	1	6	0	0	0	0	0	0	19
16:30	0	6	0	0	6	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	0	20
16:35	0	13	0	0	13	0	0	0	0	0	1	9	0	0	10	0	0	0	0	0	0	23
16:40	0	8	0	0	8	0	0	0	0	0	2	6	0	0	8	0	0	0	0	0	0	16
16:45	0	7	0	0	7	0	0	0	0	0	1	8	0	0	9	0	0	0	0	0	0	16
16:50	0	10	0	0	10	0	0	1	0	1	0	4	0	0	4	0	0	0	0	0	0	15
16:55	0	8	0	0	8	0	0	0	0	0	1	8	0	0	9	0	0	0	0	0	0	17
<b>Total</b>	0	95	0	0	95	0	0	3	0	3	6	85	0	1	92	0	0	0	0	0	0	190
17:00	0	5	0	0	5	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	13
17:05	0	8	0	0	8	0	0	0	0	0	1	12	0	0	13	0	0	0	0	0	0	21
17:10	0	11	0	0	11	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	21
17:15	0	8	0	0	8	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	18
17:20	0	5	0	0	5	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	9
17:25	0	7	0	0	7	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	14
17:30	0	10	0	0	10	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	21
17:35	0	7	0	0	7	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	17
17:40	0	12	0	0	12	0	0	1	0	1	0	10	0	0	10	0	0	0	0	0	0	23
17:45	0	4	0	0	4	0	0	0	0	0	1	8	0	0	9	0	0	0	0	0	0	13
17:50	0	9	0	0	9	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	18
17:55	0	8	0	0	8	0	0	0	0	0	1	6	0	0	7	0	0	0	0	0	0	15
<b>Total</b>	0	94	0	0	94	0	0	1	0	1	3	105	0	0	108	0	0	0	0	0	0	203
<b>Grand Total</b>	0	189	0	0	189	0	0	4	0	4	9	190	0	1	200	0	0	0	0	0	0	393
<b>Apprch %</b>	0	100	0	0		0	0	100	0		4.5	95	0	0.5		0	0	0	0	0	0	
<b>Total %</b>	0	48.1	0	0	48.1	0	0	1	0	1	2.3	48.3	0	0.3	50.9	0	0	0	0	0	0	

# LSC Transportation Consultants, Inc.

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

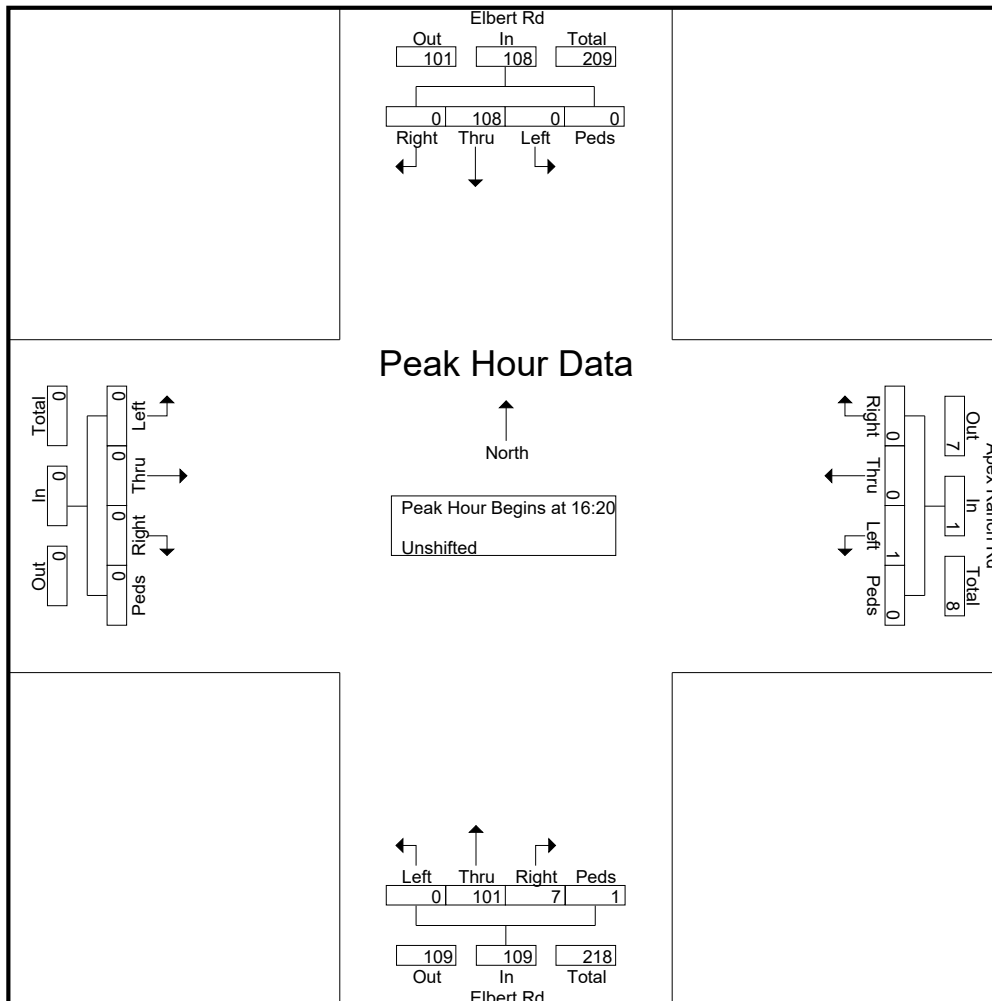
File Name : Elbert Rd - Apex Ranch Rd Rd PM

Site Code : S234200

Start Date : 5/31/2024

Page No : 2

Start Time	Elbert Rd Southbound					Apex Ranch Rd Westbound					Elbert Rd Northbound					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 16:00 to 17:55 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:20																					
16:20	0	11	0	0	11	0	0	0	0	0	1	7	0	0	8	0	0	0	0	0	19
16:25	0	13	0	0	13	0	0	0	0	0	0	5	0	1	6	0	0	0	0	0	19
16:30	0	6	0	0	6	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	20
16:35	0	13	0	0	13	0	0	0	0	0	1	9	0	0	10	0	0	0	0	0	23
16:40	0	8	0	0	8	0	0	0	0	0	2	6	0	0	8	0	0	0	0	0	16
16:45	0	7	0	0	7	0	0	0	0	0	1	8	0	0	9	0	0	0	0	0	16
16:50	0	10	0	0	10	0	0	1	0	1	0	4	0	0	4	0	0	0	0	0	15
16:55	0	8	0	0	8	0	0	0	0	0	1	8	0	0	9	0	0	0	0	0	17
17:00	0	5	0	0	5	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	13
17:05	0	8	0	0	8	0	0	0	0	0	1	12	0	0	13	0	0	0	0	0	21
17:10	0	11	0	0	11	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	21
17:15	0	8	0	0	8	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	18
Total Volume	0	108	0	0	108	0	0	1	0	1	7	101	0	1	109	0	0	0	0	0	218
% App. Total	0	100	0	0		0	0	100	0		6.4	92.7	0	0.9		0	0	0	0		
PHF	.000	.692	.000	.000	.692	.000	.000	.083	.000	.083	.292	.601	.000	.083	.649	.000	.000	.000	.000	.000	.790

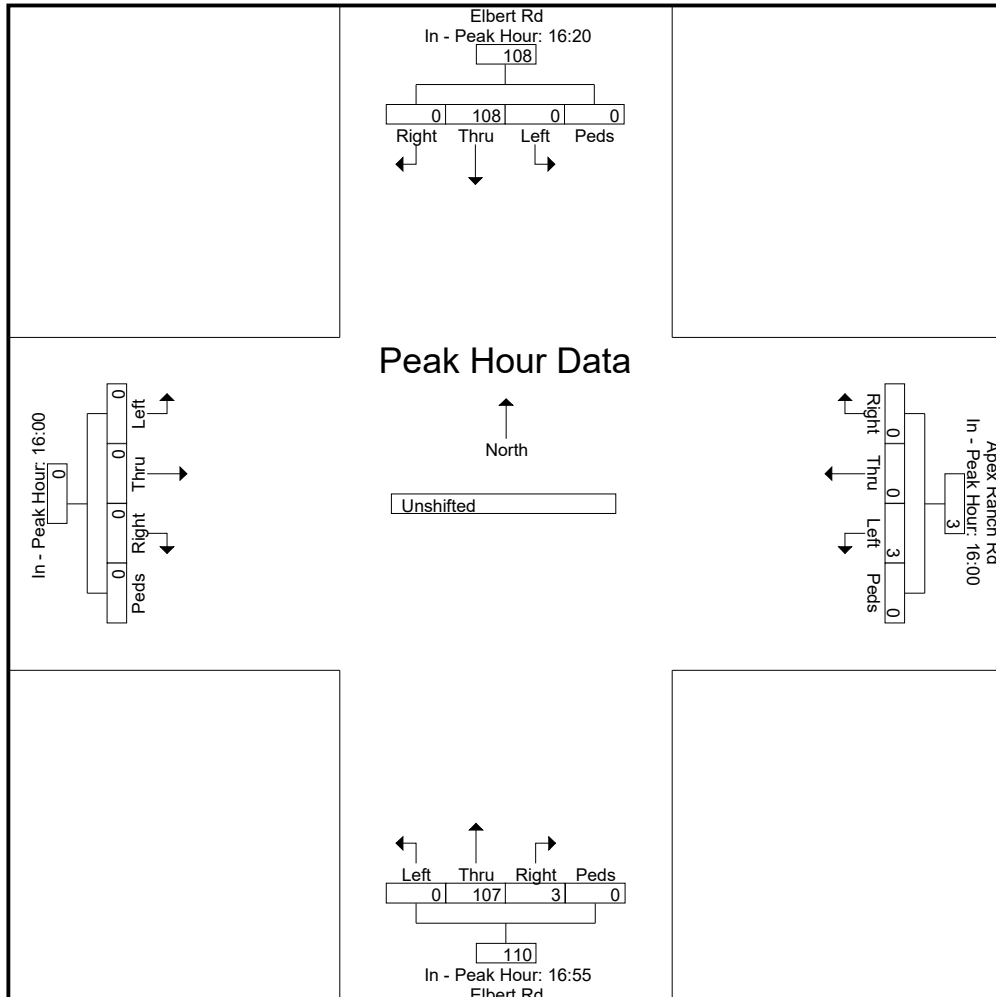


# LSC Transportation Consultants, Inc.

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

File Name : Elbert Rd - Apex Ranch Rd Rd PM  
 Site Code : S234200  
 Start Date : 5/31/2024  
 Page No : 3

Start Time	Elbert Rd Southbound					Apex Ranch Rd Westbound					Elbert Rd Northbound					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 16:00 to 17:55 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	16:20					16:00					16:55					16:00					
+0 mins.	0	11	0	0	11	0	0	0	0	0	1	8	0	0	9	0	0	0	0	0	0
+5 mins.	0	13	0	0	13	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0
+10 mins.	0	6	0	0	6	0	0	0	0	0	1	12	0	0	13	0	0	0	0	0	0
+15 mins.	0	13	0	0	13	0	0	2	0	2	0	10	0	0	10	0	0	0	0	0	0
+20 mins.	0	8	0	0	8	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0
+25 mins.	0	7	0	0	7	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0
+30 mins.	0	10	0	0	10	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0
+35 mins.	0	8	0	0	8	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0
+40 mins.	0	5	0	0	5	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0
+45 mins.	0	8	0	0	8	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0
+50 mins.	0	11	0	0	11	0	0	1	0	1	1	8	0	0	9	0	0	0	0	0	0
+55 mins.	0	8	0	0	8	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0
Total Volume	0	108	0	0	108	0	0	3	0	3	3	107	0	0	110	0	0	0	0	0	0
% App. Total	0	100	0	0		0	0	100	0		2.7	97.3	0	0		0	0	0	0		
PHF	.000	.692	.000	.000	.692	.000	.000	.125	.000	.125	.250	.743	.000	.000	.705	.000	.000	.000	.000	.000	.000



# LSC Transportation Consultants, Inc.

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

File Name : Elbert Rd - Sweet Rd AM  
 Site Code : S234200  
 Start Date : 5/31/2024  
 Page No : 1

### Groups Printed- Unshifted

Start Time	Elbert Rd Southbound					Westbound					Elbert Rd Northbound					Sweet 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	1	8	0	0	9	0	0	0	0	0	0	4	2	0	6	0	0	0	0	0	0
06:35	1	5	0	0	6	0	0	0	0	0	0	7	2	0	9	2	0	1	0	3	18
06:40	1	6	0	0	7	0	0	0	0	0	0	3	2	0	5	1	0	3	0	4	16
06:45	1	6	0	0	7	0	0	0	0	0	0	5	4	0	9	0	0	0	0	0	16
06:50	0	3	0	0	3	0	0	0	0	0	0	4	3	0	7	2	0	1	0	3	13
06:55	3	6	0	0	9	0	0	0	0	0	0	4	1	0	5	2	0	2	0	4	18
<b>Total</b>	<b>7</b>	<b>34</b>	<b>0</b>	<b>0</b>	<b>41</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>27</b>	<b>14</b>	<b>0</b>	<b>41</b>	<b>7</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>14</b>	<b>96</b>
07:00	1	5	0	0	6	0	0	0	0	0	0	6	1	0	7	0	0	2	0	2	15
07:05	1	9	0	0	10	0	0	0	0	0	0	8	1	0	9	1	0	0	0	1	20
07:10	0	6	0	0	6	0	0	0	0	0	0	5	2	0	7	1	0	3	0	4	17
07:15	2	3	0	0	5	0	0	0	0	0	0	9	3	0	12	0	0	1	0	1	18
07:20	1	7	0	0	8	0	0	0	0	0	0	3	4	0	7	3	0	1	0	4	19
07:25	3	4	0	0	7	0	0	0	0	0	0	6	2	0	8	2	0	0	0	2	17
07:30	2	5	0	0	7	0	0	0	0	0	0	5	1	0	6	1	0	2	0	3	16
07:35	0	9	0	0	9	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	14
07:40	1	4	0	0	5	0	0	0	0	0	0	3	2	0	5	1	0	2	0	3	13
07:45	1	6	0	0	7	0	0	0	0	0	0	5	0	0	5	2	0	0	0	2	14
07:50	1	7	0	0	8	0	0	0	0	0	0	6	4	0	10	2	0	2	0	4	22
07:55	0	1	0	0	1	0	0	0	0	0	0	3	4	0	7	2	0	2	0	4	12
<b>Total</b>	<b>13</b>	<b>66</b>	<b>0</b>	<b>0</b>	<b>79</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>64</b>	<b>24</b>	<b>0</b>	<b>88</b>	<b>15</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>30</b>	<b>197</b>
08:00	2	3	0	0	5	0	0	0	0	0	0	6	1	0	7	0	0	0	0	0	12
08:05	1	4	0	0	5	0	0	0	0	0	0	5	1	0	6	4	0	0	0	4	15
08:10	0	6	0	0	6	0	0	0	0	0	0	2	1	0	3	1	0	1	0	2	11
08:15	1	5	0	0	6	0	0	0	0	0	0	9	4	0	13	2	0	0	0	2	21
08:20	0	7	0	0	7	0	0	0	0	0	0	9	2	0	11	2	0	1	0	3	21
08:25	1	5	0	0	6	0	0	0	0	0	0	4	1	0	5	4	0	1	0	5	16
<b>Grand Total</b>	<b>25</b>	<b>130</b>	<b>0</b>	<b>0</b>	<b>155</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>126</b>	<b>48</b>	<b>0</b>	<b>174</b>	<b>35</b>	<b>0</b>	<b>25</b>	<b>0</b>	<b>60</b>	<b>389</b>
<b>Apprch %</b>	<b>16.1</b>	<b>83.9</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>72.4</b>	<b>27.6</b>	<b>0</b>		<b>58.3</b>	<b>0</b>	<b>41.7</b>	<b>0</b>		
<b>Total %</b>	<b>6.4</b>	<b>33.4</b>	<b>0</b>	<b>0</b>	<b>39.8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>32.4</b>	<b>12.3</b>	<b>0</b>	<b>44.7</b>	<b>9</b>	<b>0</b>	<b>6.4</b>	<b>0</b>	<b>15.4</b>	



# LSC Transportation Consultants, Inc.

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

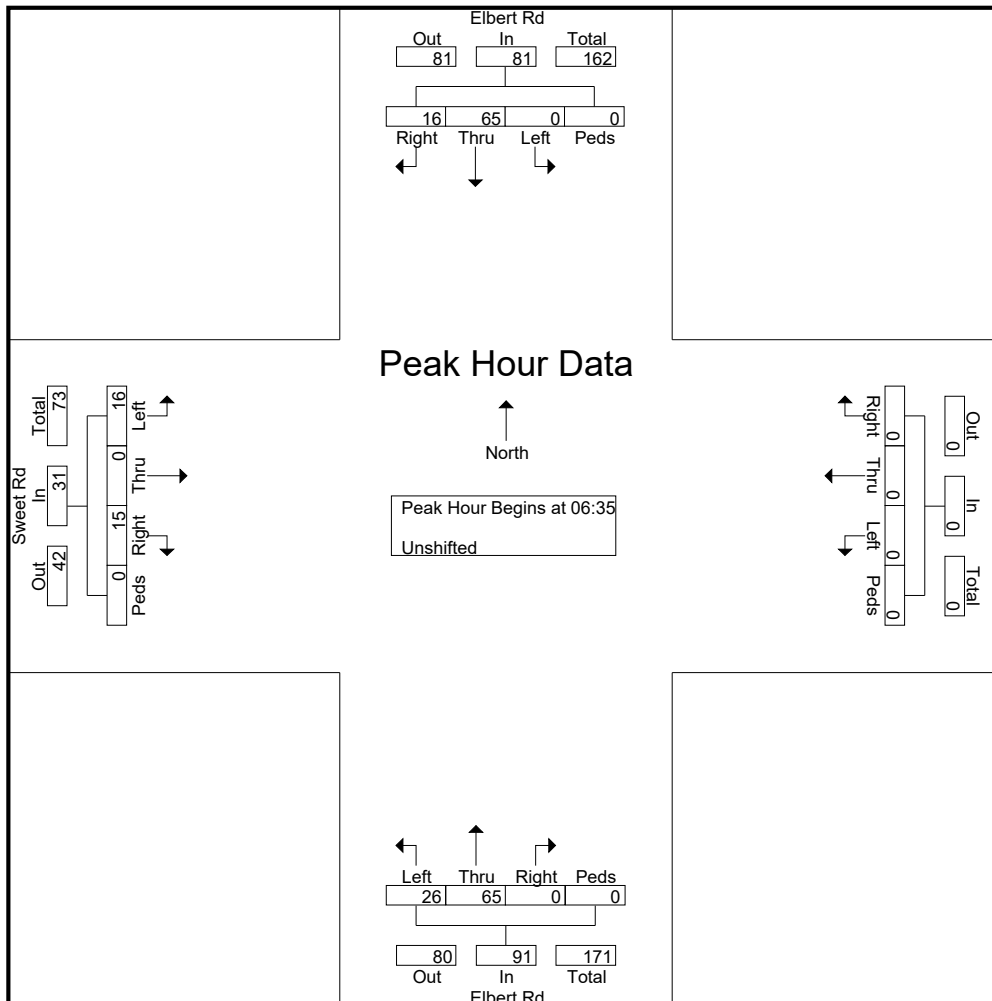
File Name : Elbert Rd - Sweet Rd AM

Site Code : S234200

Start Date : 5/31/2024

Page No : 2

Start Time	Elbert Rd Southbound					Westbound					Elbert Rd Northbound					Sweet 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 06:30 to 08:25 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 06:35																					
06:35	1	5	0	0	6	0	0	0	0	0	0	7	2	0	9	2	0	1	0	3	18
06:40	1	6	0	0	7	0	0	0	0	0	0	3	2	0	5	1	0	3	0	4	16
06:45	1	6	0	0	7	0	0	0	0	0	0	5	4	0	9	0	0	0	0	0	16
06:50	0	3	0	0	3	0	0	0	0	0	0	4	3	0	7	2	0	1	0	3	13
06:55	3	6	0	0	9	0	0	0	0	0	0	4	1	0	5	2	0	2	0	4	18
07:00	1	5	0	0	6	0	0	0	0	0	0	6	1	0	7	0	0	2	0	2	15
07:05	1	9	0	0	10	0	0	0	0	0	0	8	1	0	9	1	0	0	0	1	20
07:10	0	6	0	0	6	0	0	0	0	0	0	5	2	0	7	1	0	3	0	4	17
07:15	2	3	0	0	5	0	0	0	0	0	0	9	3	0	12	0	0	1	0	1	18
07:20	1	7	0	0	8	0	0	0	0	0	0	3	4	0	7	3	0	1	0	4	19
07:25	3	4	0	0	7	0	0	0	0	0	0	6	2	0	8	2	0	0	0	2	17
07:30	2	5	0	0	7	0	0	0	0	0	0	5	1	0	6	1	0	2	0	3	16
Total Volume	16	65	0	0	81	0	0	0	0	0	0	65	26	0	91	15	0	16	0	31	203
% App. Total	19.8	80.2	0	0		0	0	0	0	0	0	71.4	28.6	0		48.4	0	51.6	0		
PHF	.444	.602	.000	.000	.675	.000	.000	.000	.000	.000	.000	.602	.542	.000	.632	.417	.000	.444	.000	.646	.846



# LSC Transportation Consultants, Inc.

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

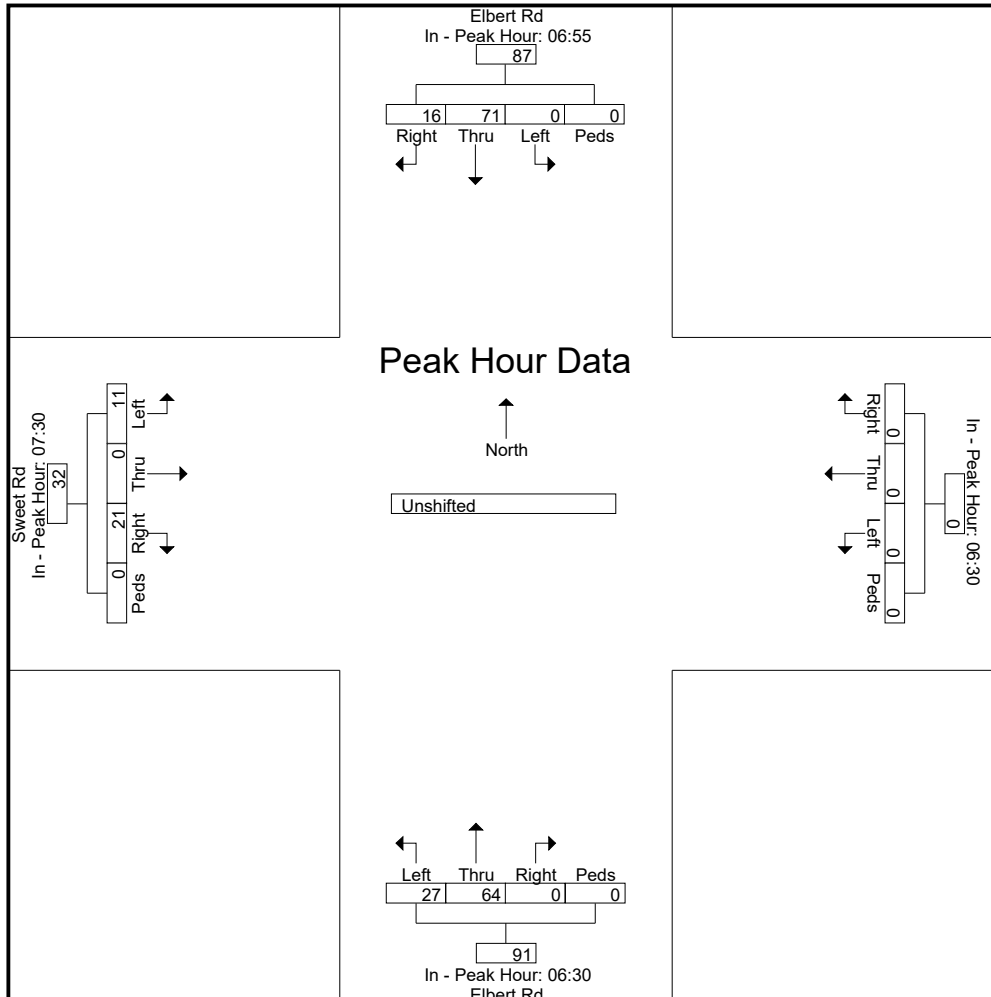
File Name : Elbert Rd - Sweet Rd AM

Site Code : S234200

Start Date : 5/31/2024

Page No : 3

Start Time	Elbert Rd Southbound					Westbound					Elbert Rd Northbound					Sweet 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 06:30 to 08:25 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	06:55					06:30					06:30					07:30					
+0 mins.	3	6	0	0	9	0	0	0	0	0	0	4	2	0	6	1	0	2	0	3	
+5 mins.	1	5	0	0	6	0	0	0	0	0	0	7	2	0	9	0	0	0	0	0	
+10 mins.	1	9	0	0	10	0	0	0	0	0	0	3	2	0	5	1	0	2	0	3	
+15 mins.	0	6	0	0	6	0	0	0	0	0	0	5	4	0	9	2	0	0	0	2	
+20 mins.	2	3	0	0	5	0	0	0	0	0	0	4	3	0	7	2	0	2	0	4	
+25 mins.	1	7	0	0	8	0	0	0	0	0	0	4	1	0	5	2	0	2	0	4	
+30 mins.	3	4	0	0	7	0	0	0	0	0	0	6	1	0	7	0	0	0	0	0	
+35 mins.	2	5	0	0	7	0	0	0	0	0	0	8	1	0	9	4	0	0	0	4	
+40 mins.	0	9	0	0	9	0	0	0	0	0	0	5	2	0	7	1	0	1	0	2	
+45 mins.	1	4	0	0	5	0	0	0	0	0	0	9	3	0	12	2	0	0	0	2	
+50 mins.	1	6	0	0	7	0	0	0	0	0	0	3	4	0	7	2	0	1	0	3	
+55 mins.	1	7	0	0	8	0	0	0	0	0	0	6	2	0	8	4	0	1	0	5	
Total Volume	16	71	0	0	87	0	0	0	0	0	0	64	27	0	91	21	0	11	0	32	
% App. Total	18.4	81.6	0	0		0	0	0	0		0	70.3	29.7	0		65.6	0	34.4	0		
PHF	.444	.657	.000	.000	.725	.000	.000	.000	.000	.000	.000	.593	.563	.000	.632	.438	.000	.458	.000	.533	



# LSC Transportation Consultants, Inc.

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

File Name : Elbert Rd - Sweet Rd PM

Site Code : S234200

Start Date : 5/31/2024

Page No : 1

### Groups Printed- Unshifted

Start Time	Elbert Rd Southbound					Westbound					Elbert Rd Northbound					Sweet 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	
16:00	1	3	0	0	4	0	0	0	0	0	0	4	1	0	5	1	0	1	0	2	11
16:05	1	4	0	0	5	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	11
16:10	0	2	0	0	2	0	0	0	0	0	0	5	1	0	6	1	0	1	0	2	10
16:15	1	7	0	0	8	0	0	0	0	0	0	9	1	0	10	2	0	0	0	2	20
16:20	1	9	0	0	10	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	16
16:25	3	12	0	0	15	0	0	0	0	0	0	9	0	0	9	0	0	1	0	1	25
16:30	1	5	0	0	6	0	0	0	0	0	0	9	0	0	9	4	0	3	0	7	22
16:35	1	14	0	0	15	0	0	0	0	0	0	6	0	0	6	8	0	1	0	9	30
16:40	4	4	0	0	8	0	0	0	0	0	0	6	2	0	8	2	0	1	0	3	19
16:45	1	5	0	0	6	0	0	0	0	0	0	5	2	0	7	10	0	3	0	13	26
16:50	6	6	0	0	12	0	0	0	0	0	0	10	0	0	10	2	0	0	0	2	24
16:55	3	6	0	0	9	0	0	0	0	0	0	3	1	0	4	2	0	2	0	4	17
<b>Total</b>	<b>23</b>	<b>77</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>78</b>	<b>8</b>	<b>0</b>	<b>86</b>	<b>32</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>45</b>	<b>231</b>
17:00	0	5	0	0	5	0	0	0	0	0	0	8	3	0	11	2	0	1	0	3	19
17:05	1	4	0	0	5	0	0	0	0	0	0	9	0	0	9	5	0	1	0	6	20
17:10	1	12	0	0	13	0	0	0	0	0	0	10	4	0	14	4	0	1	0	5	32
17:15	2	6	0	0	8	0	0	0	0	0	0	7	2	0	9	4	0	1	0	5	22
17:20	0	3	0	0	3	0	0	0	0	0	0	5	3	0	8	3	0	0	0	3	14
17:25	0	9	0	0	9	0	0	0	0	0	0	8	1	0	9	2	0	4	0	6	24
17:30	1	7	0	0	8	0	0	0	0	0	0	7	2	0	9	5	0	0	0	5	22
17:35	2	8	0	0	10	0	0	0	0	0	0	10	2	0	12	1	0	1	0	2	24
17:40	3	10	0	0	13	0	0	0	0	0	0	9	2	0	11	5	0	1	0	6	30
17:45	1	5	0	0	6	0	0	0	0	0	0	6	1	0	7	4	0	2	0	6	19
17:50	0	9	0	0	9	0	0	0	0	0	0	9	2	0	11	3	0	2	0	5	25
17:55	2	7	0	0	9	0	0	0	0	0	0	6	0	0	6	4	0	2	0	6	21
<b>Total</b>	<b>13</b>	<b>85</b>	<b>0</b>	<b>0</b>	<b>98</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>94</b>	<b>22</b>	<b>0</b>	<b>116</b>	<b>42</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>58</b>	<b>272</b>
<b>Grand Total</b>	<b>36</b>	<b>162</b>	<b>0</b>	<b>0</b>	<b>198</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>172</b>	<b>30</b>	<b>0</b>	<b>202</b>	<b>74</b>	<b>0</b>	<b>29</b>	<b>0</b>	<b>103</b>	<b>503</b>
<b>Apprch %</b>	<b>18.2</b>	<b>81.8</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>85.1</b>	<b>14.9</b>	<b>0</b>		<b>71.8</b>	<b>0</b>	<b>28.2</b>	<b>0</b>		
<b>Total %</b>	<b>7.2</b>	<b>32.2</b>	<b>0</b>	<b>0</b>	<b>39.4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>34.2</b>	<b>6</b>	<b>0</b>	<b>40.2</b>	<b>14.7</b>	<b>0</b>	<b>5.8</b>	<b>0</b>	<b>20.5</b>	

# LSC Transportation Consultants, Inc.

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

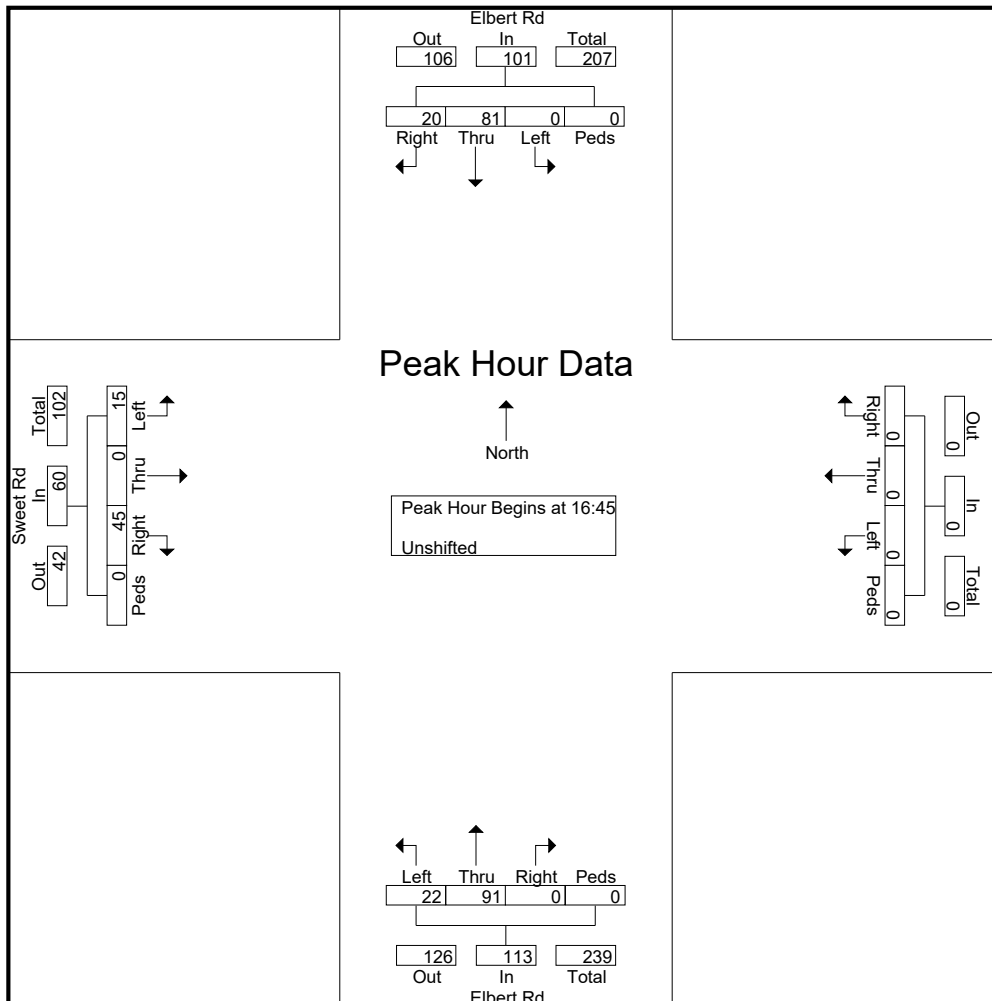
File Name : Elbert Rd - Sweet Rd PM

Site Code : S234200

Start Date : 5/31/2024

Page No : 2

Start Time	Elbert Rd Southbound					Westbound					Elbert Rd Northbound					Sweet 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 16:00 to 17:55 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	1	5	0	0	6	0	0	0	0	0	0	5	2	0	7	10	0	3	0	13	26
16:50	6	6	0	0	12	0	0	0	0	0	0	10	0	0	10	2	0	0	0	2	24
16:55	3	6	0	0	9	0	0	0	0	0	0	3	1	0	4	2	0	2	0	4	17
17:00	0	5	0	0	5	0	0	0	0	0	0	8	3	0	11	2	0	1	0	3	19
17:05	1	4	0	0	5	0	0	0	0	0	0	9	0	0	9	5	0	1	0	6	20
17:10	1	12	0	0	13	0	0	0	0	0	0	10	4	0	14	4	0	1	0	5	32
17:15	2	6	0	0	8	0	0	0	0	0	0	7	2	0	9	4	0	1	0	5	22
17:20	0	3	0	0	3	0	0	0	0	0	0	5	3	0	8	3	0	0	0	3	14
17:25	0	9	0	0	9	0	0	0	0	0	0	8	1	0	9	2	0	4	0	6	24
17:30	1	7	0	0	8	0	0	0	0	0	0	7	2	0	9	5	0	0	0	5	22
17:35	2	8	0	0	10	0	0	0	0	0	0	10	2	0	12	1	0	1	0	2	24
17:40	3	10	0	0	13	0	0	0	0	0	0	9	2	0	11	5	0	1	0	6	30
Total Volume	20	81	0	0	101	0	0	0	0	0	0	91	22	0	113	45	0	15	0	60	274
% App. Total	19.8	80.2	0	0		0	0	0	0	0	0	80.5	19.5	0		75	0	25	0		
PHF	.278	.563	.000	.000	.647	.000	.000	.000	.000	.000	.000	.758	.458	.000	.673	.375	.000	.313	.000	.385	.714



# LSC Transportation Consultants, Inc.

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

File Name : Elbert Rd - Sweet Rd PM

Site Code : S234200

Start Date : 5/31/2024

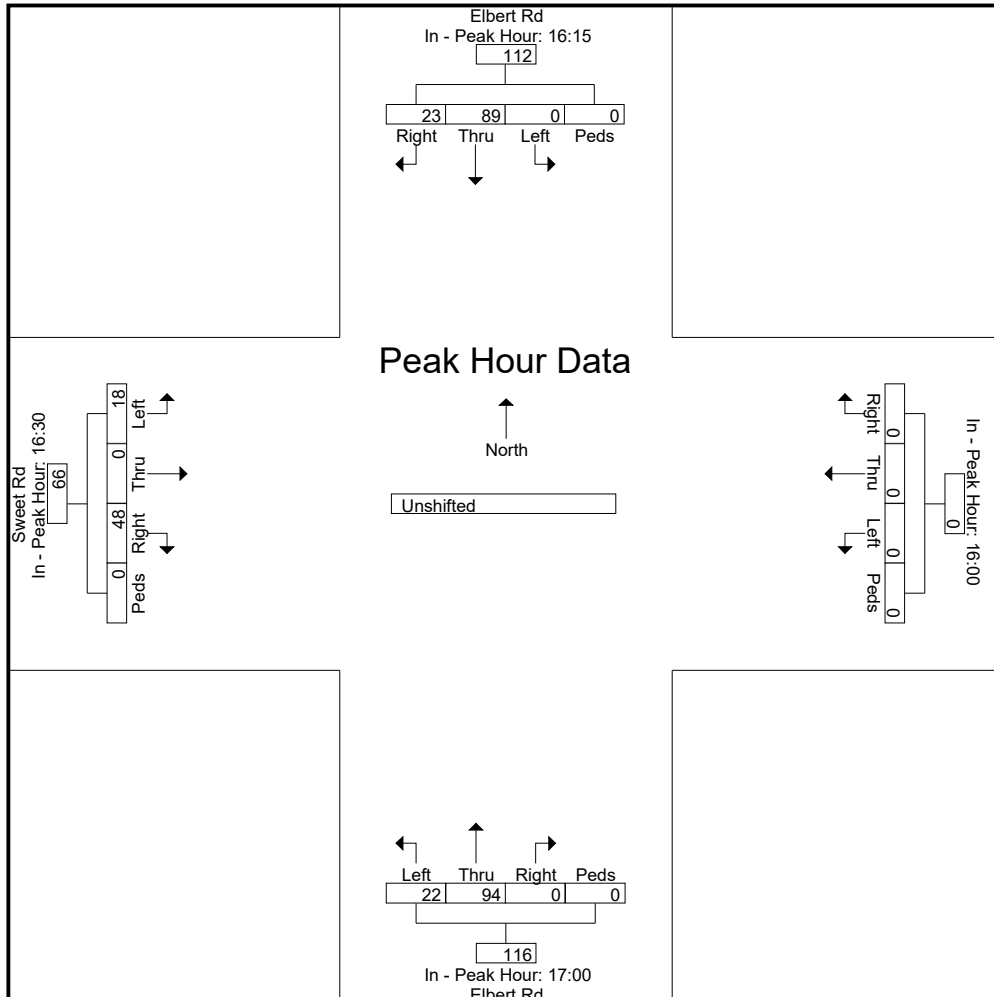
Page No : 3

Start Time	Elbert Rd Southbound					Westbound					Elbert Rd Northbound					Sweet 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 16:00 to 17:55 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:15					16:00					17:00					16:30				
+0 mins.	1	7	0	0	8	0	0	0	0	0	0	8	3	0	11	4	0	3	0	7
+5 mins.	1	9	0	0	10	0	0	0	0	0	0	9	0	0	9	8	0	1	0	9
+10 mins.	3	12	0	0	15	0	0	0	0	0	0	10	4	0	14	2	0	1	0	3
+15 mins.	1	5	0	0	6	0	0	0	0	0	0	7	2	0	9	10	0	3	0	13
+20 mins.	1	14	0	0	15	0	0	0	0	0	0	5	3	0	8	2	0	0	0	2
+25 mins.	4	4	0	0	8	0	0	0	0	0	0	8	1	0	9	2	0	2	0	4
+30 mins.	1	5	0	0	6	0	0	0	0	0	0	7	2	0	9	2	0	1	0	3
+35 mins.	6	6	0	0	12	0	0	0	0	0	0	10	2	0	12	5	0	1	0	6
+40 mins.	3	6	0	0	9	0	0	0	0	0	0	9	2	0	11	4	0	1	0	5
+45 mins.	0	5	0	0	5	0	0	0	0	0	0	6	1	0	7	4	0	1	0	5
+50 mins.	1	4	0	0	5	0	0	0	0	0	0	9	2	0	11	3	0	0	0	3
+55 mins.	1	12	0	0	13	0	0	0	0	0	0	6	0	0	6	2	0	4	0	6
Total Volume	23	89	0	0	112	0	0	0	0	0	0	94	22	0	116	48	0	18	0	66
% App. Total	20.5	79.5	0	0		0	0	0	0		0	81	19	0		72.7	0	27.3	0	
PHF	.319	.530	.000	.000	.622	.000	.000	.000	.000	.000	.000	.783	.458	.000	.690	.400	.000	.375	.000	.423



# Levels of Service

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Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	0	75	0	0	82
Future Vol, veh/h	5	0	75	0	0	82
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	78	78	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	0	90	0	0	99

Major/Minor	Minor1	Major1	Major2	Major2	Major2
Conflicting Flow All	189	90	0	0	90
Stage 1	90	-	-	-	-
Stage 2	99	-	-	-	-
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	800	968	-	-	1505
Stage 1	934	-	-	-	-
Stage 2	925	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	800	968	-	-	1505
Mov Cap-2 Maneuver	800	-	-	-	-
Stage 1	934	-	-	-	-
Stage 2	925	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	800	1505
HCM Lane V/C Ratio	-	-	0.008	-
HCM Control Delay (s)	-	-	9.5	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	15	15	21	65	71	16
Future Vol, veh/h	15	15	21	65	71	16
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	78	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	18	25	78	86	19

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	224	96	105	0	0
Stage 1	96	-	-	-	-
Stage 2	128	-	-	-	-
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	764	960	1486	-	-
Stage 1	928	-	-	-	-
Stage 2	898	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	750	960	1486	-	-
Mov Cap-2 Maneuver	750	-	-	-	-
Stage 1	911	-	-	-	-
Stage 2	898	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	1.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1486	-	839	-	-
HCM Lane V/C Ratio	0.017	-	0.044	-	-
HCM Control Delay (s)	7.5	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-



Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	3	0	98	7	0	105
Future Vol, veh/h	3	0	98	7	0	105
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	78	78	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	0	118	8	0	127

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	249	122	0	0	126	0
Stage 1	122	-	-	-	-	-
Stage 2	127	-	-	-	-	-
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	739	929	-	-	1460	-
Stage 1	903	-	-	-	-	-
Stage 2	899	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	739	929	-	-	1460	-
Mov Cap-2 Maneuver	739	-	-	-	-	-
Stage 1	903	-	-	-	-	-
Stage 2	899	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	739	1460
HCM Lane V/C Ratio	-	-	0.005	-
HCM Control Delay (s)	-	-	9.9	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection						
Int Delay, s/veh	2.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	15	45	22	91	81	20
Future Vol, veh/h	15	45	22	91	81	20
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	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	54	27	110	98	24

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	274	110	122	0	0
Stage 1	110	-	-	-	-
Stage 2	164	-	-	-	-
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	716	943	1465	-	-
Stage 1	915	-	-	-	-
Stage 2	865	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	702	943	1465	-	-
Mov Cap-2 Maneuver	702	-	-	-	-
Stage 1	897	-	-	-	-
Stage 2	865	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	1.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1465	-	868	-	-
HCM Lane V/C Ratio	0.018	-	0.083	-	-
HCM Control Delay (s)	7.5	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	11	2	77	2	0	82
Future Vol, veh/h	11	2	77	2	0	82
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	78	78	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	3	93	2	0	99

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	193	94	0	0	95
Stage 1	94	-	-	-	-
Stage 2	99	-	-	-	-
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	796	963	-	-	1499
Stage 1	930	-	-	-	-
Stage 2	925	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	796	963	-	-	1499
Mov Cap-2 Maneuver	796	-	-	-	-
Stage 1	930	-	-	-	-
Stage 2	925	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	818	1499
HCM Lane V/C Ratio	-	-	0.02	-
HCM Control Delay (s)	-	-	9.5	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	2	77	10	0	93
Future Vol, veh/h	25	2	77	10	0	93
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	78	78	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	3	93	12	0	112

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	211	99	0	0	105
Stage 1	99	-	-	-	-
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	777	957	-	-	1486
Stage 1	925	-	-	-	-
Stage 2	913	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	777	957	-	-	1486
Mov Cap-2 Maneuver	777	-	-	-	-
Stage 1	925	-	-	-	-
Stage 2	913	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	788	1486
HCM Lane V/C Ratio	-	-	0.044	-
HCM Control Delay (s)	-	-	9.8	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	15	21	73	92	26
Future Vol, veh/h	19	15	21	73	92	26
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	78	78	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	19	25	88	111	31

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	265	127	142	0	0
Stage 1	127	-	-	-	-
Stage 2	138	-	-	-	-
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	724	923	1441	-	-
Stage 1	899	-	-	-	-
Stage 2	889	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	711	923	1441	-	-
Mov Cap-2 Maneuver	711	-	-	-	-
Stage 1	883	-	-	-	-
Stage 2	889	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	1.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1441	-	791	-	-
HCM Lane V/C Ratio	0.018	-	0.055	-	-
HCM Control Delay (s)	7.5	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	1	100	14	2	107
Future Vol, veh/h	7	1	100	14	2	107
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	78	78	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	1	120	17	2	129

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	262	129	0	0	137
Stage 1	129	-	-	-	-
Stage 2	133	-	-	-	-
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	727	921	-	-	1447
Stage 1	897	-	-	-	-
Stage 2	893	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	726	921	-	-	1447
Mov Cap-2 Maneuver	726	-	-	-	-
Stage 1	897	-	-	-	-
Stage 2	892	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	746	1447
HCM Lane V/C Ratio	-	-	0.014	0.002
HCM Control Delay (s)	-	-	9.9	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	17	2	112	32	2	112
Future Vol, veh/h	17	2	112	32	2	112
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	78	78	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	3	135	39	2	135

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	294	155	0	0	174
Stage 1	155	-	-	-	-
Stage 2	139	-	-	-	-
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	697	891	-	-	1403
Stage 1	873	-	-	-	-
Stage 2	888	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	696	891	-	-	1403
Mov Cap-2 Maneuver	696	-	-	-	-
Stage 1	873	-	-	-	-
Stage 2	886	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.2	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	712	1403
HCM Lane V/C Ratio	-	-	0.034	0.002
HCM Control Delay (s)	-	-	10.2	7.6
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	26	45	22	119	95	27
Future Vol, veh/h	26	45	22	119	95	27
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	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	31	54	27	143	114	33

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	328	131	147	0	0
Stage 1	131	-	-	-	-
Stage 2	197	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	666	919	1435	-	-
Stage 1	895	-	-	-	-
Stage 2	836	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	653	919	1435	-	-
Mov Cap-2 Maneuver	653	-	-	-	-
Stage 1	877	-	-	-	-
Stage 2	836	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	1.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1435	-	800	-	-
HCM Lane V/C Ratio	0.018	-	0.107	-	-
HCM Control Delay (s)	7.6	0	10	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-



Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	5	0	120	0	0	120
Future Vol, veh/h	5	0	120	0	0	120
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	78	78	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	0	145	0	0	145

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	290	145	0	0	145
Stage 1	145	-	-	-	-
Stage 2	145	-	-	-	-
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	701	902	-	-	1437
Stage 1	882	-	-	-	-
Stage 2	882	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	701	902	-	-	1437
Mov Cap-2 Maneuver	701	-	-	-	-
Stage 1	882	-	-	-	-
Stage 2	882	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	701	1437
HCM Lane V/C Ratio	-	-	0.009	-
HCM Control Delay (s)	-	-	10.2	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection						
Int Delay, s/veh	2.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			L		R
Traffic Vol, veh/h	25	25	30	95	100	25
Future Vol, veh/h	25	25	30	95	100	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	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	30	36	114	120	30

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	321	135	150	0	0
Stage 1	135	-	-	-	-
Stage 2	186	-	-	-	-
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	673	914	1431	-	-
Stage 1	891	-	-	-	-
Stage 2	846	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	655	914	1431	-	-
Mov Cap-2 Maneuver	655	-	-	-	-
Stage 1	867	-	-	-	-
Stage 2	846	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	1.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1431	-	763	-	-
HCM Lane V/C Ratio	0.025	-	0.079	-	-
HCM Control Delay (s)	7.6	0	10.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	0	148	7	0	142
Future Vol, veh/h	3	0	148	7	0	142
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	78	78	87	87	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	0	170	8	0	171

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	345	174	0	0	178
Stage 1	174	-	-	-	-
Stage 2	171	-	-	-	-
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	652	869	-	-	1398
Stage 1	856	-	-	-	-
Stage 2	859	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	652	869	-	-	1398
Mov Cap-2 Maneuver	652	-	-	-	-
Stage 1	856	-	-	-	-
Stage 2	859	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	652	1398
HCM Lane V/C Ratio	-	-	0.006	-
HCM Control Delay (s)	-	-	10.6	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	25	65	35	130	115	30
Future Vol, veh/h	25	65	35	130	115	30
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	83	83	87	87	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	78	40	149	139	36

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	386	157	175	0	0
Stage 1	157	-	-	-	-
Stage 2	229	-	-	-	-
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	617	889	1401	-	-
Stage 1	871	-	-	-	-
Stage 2	809	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	598	889	1401	-	-
Mov Cap-2 Maneuver	598	-	-	-	-
Stage 1	844	-	-	-	-
Stage 2	809	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.3	1.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1401	-	783	-	-
HCM Lane V/C Ratio	0.029	-	0.138	-	-
HCM Control Delay (s)	7.6	0	10.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	11	2	122	2	0	120
Future Vol, veh/h	11	2	122	2	0	120
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	78	78	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	3	147	2	0	145

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	293	148	0	0	149
Stage 1	148	-	-	-	-
Stage 2	145	-	-	-	-
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	698	899	-	-	1432
Stage 1	880	-	-	-	-
Stage 2	882	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	698	899	-	-	1432
Mov Cap-2 Maneuver	698	-	-	-	-
Stage 1	880	-	-	-	-
Stage 2	882	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	723	1432
HCM Lane V/C Ratio	-	-	0.023	-
HCM Control Delay (s)	-	-	10.1	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	2	122	10	0	131
Future Vol, veh/h	25	2	122	10	0	131
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	78	78	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	3	147	12	0	158

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	311	153	0	0	159
Stage 1	153	-	-	-	-
Stage 2	158	-	-	-	-
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	681	893	-	-	1420
Stage 1	875	-	-	-	-
Stage 2	871	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	681	893	-	-	1420
Mov Cap-2 Maneuver	681	-	-	-	-
Stage 1	875	-	-	-	-
Stage 2	871	-	-	-	-

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)	-	-	693	1420
HCM Lane V/C Ratio	-	-	0.05	-
HCM Control Delay (s)	-	-	10.5	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0

Intersection						
Int Delay, s/veh	2.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			L		R
Traffic Vol, veh/h	29	25	30	103	121	35
Future Vol, veh/h	29	25	30	103	121	35
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	83	83	83	83	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	30	36	124	139	40

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	355	159	179	0	0
Stage 1	159	-	-	-	-
Stage 2	196	-	-	-	-
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	643	886	1397	-	-
Stage 1	870	-	-	-	-
Stage 2	837	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	625	886	1397	-	-
Mov Cap-2 Maneuver	625	-	-	-	-
Stage 1	846	-	-	-	-
Stage 2	837	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	1.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1397	-	724	-	-
HCM Lane V/C Ratio	0.026	-	0.09	-	-
HCM Control Delay (s)	7.6	0	10.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	1	150	14	2	144
Future Vol, veh/h	7	1	150	14	2	144
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	78	78	87	87	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	1	172	16	2	173

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	357	180	0	0	188
Stage 1	180	-	-	-	-
Stage 2	177	-	-	-	-
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	641	863	-	-	1386
Stage 1	851	-	-	-	-
Stage 2	854	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	640	863	-	-	1386
Mov Cap-2 Maneuver	640	-	-	-	-
Stage 1	851	-	-	-	-
Stage 2	852	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	661	1386
HCM Lane V/C Ratio	-	-	0.016	0.002
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	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	17	2	162	32	2	149
Future Vol, veh/h	17	2	162	32	2	149
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	78	78	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	3	186	37	2	171

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	380	205	0	0	223	0
Stage 1	205	-	-	-	-	-
Stage 2	175	-	-	-	-	-
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	622	836	-	-	1346	-
Stage 1	829	-	-	-	-	-
Stage 2	855	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	621	836	-	-	1346	-
Mov Cap-2 Maneuver	621	-	-	-	-	-
Stage 1	829	-	-	-	-	-
Stage 2	853	-	-	-	-	-

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)	-	-	638	1346
HCM Lane V/C Ratio	-	-	0.038	0.002
HCM Control Delay (s)	-	-	10.9	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	36	65	35	158	129	37
Future Vol, veh/h	36	65	35	158	129	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	78	40	182	148	43

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	432	170	191	0	0
Stage 1	170	-	-	-	-
Stage 2	262	-	-	-	-
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	581	874	1383	-	-
Stage 1	860	-	-	-	-
Stage 2	782	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	562	874	1383	-	-
Mov Cap-2 Maneuver	562	-	-	-	-
Stage 1	832	-	-	-	-
Stage 2	782	-	-	-	-

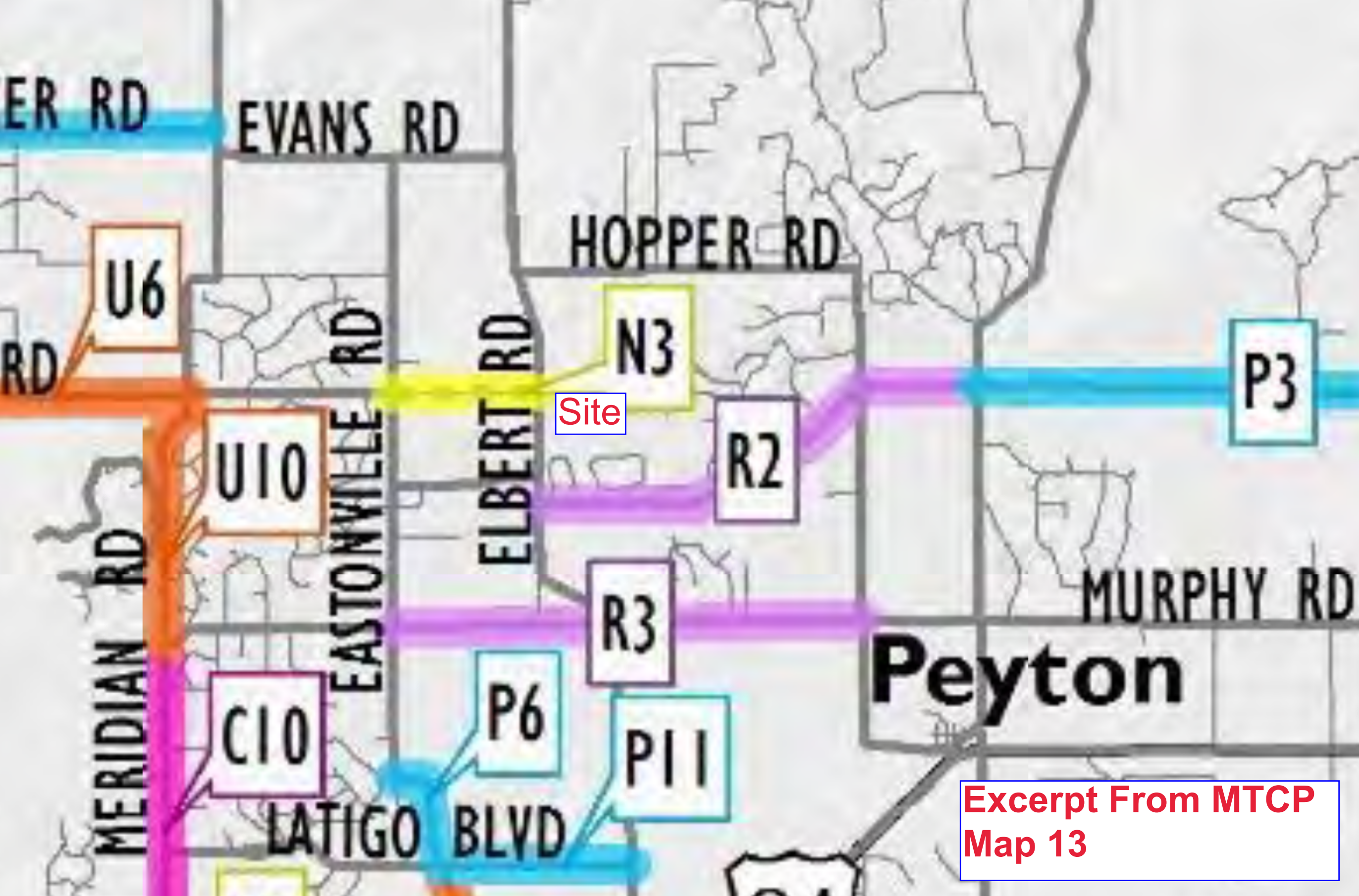
Approach	EB	NB	SB
HCM Control Delay, s	10.9	1.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1383	-	730	-	-
HCM Lane V/C Ratio	0.029	-	0.167	-	-
HCM Control Delay (s)	7.7	0	10.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-

# MTCP Maps

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Site

Excerpt From MTCP  
Map 13