



LSC TRANSPORTATION CONSULTANTS, INC.

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September 16, 2025

Mr. Rodrigo Cortina
Griffin Development LLC
701 W. Lionshead Circle
Vail, CO 81657

Re: Red Mountain Ranch
Eagle, CO
LSC #240790

Dear Mr. Cortina:

In response to your request, LSC Transportation Consultants, Inc. has prepared this updated traffic impact analysis for the proposed Red Mountain Ranch development to address Town comments. As shown on Figure 1, the site is located south of US Highway 6 (US 6) and east of Eby Creek Road in Eagle, Colorado.

REPORT CONTENTS

The report contains the following: the existing roadway and traffic conditions in the vicinity of the site including the lane geometries, traffic controls, posted speed limits, etc.; the existing weekday peak-hour traffic volumes; the typical weekday site-generated traffic volume projections for the site; the assignment of the projected traffic volumes to the area roadways; the projected background and resulting total traffic volumes on the area roadways; the site's projected traffic impacts; and any recommended roadway improvements to mitigate growth in background traffic or from the impact of the site. All work was completed per the approved CDOT methodology form which is attached for reference.

LAND USE AND ACCESS

The site is proposed to include 12 single-family detached dwelling units, 12 duplex dwelling units, 42 townhome dwelling units, a 60-room hotel, and a 3,000 square-foot restaurant. Full movement access is proposed on US 6 to the east of Nogal Road consistent with the 2019 *Red Mountain Ranch Access Management Plan*. The applicant has determined the Fire Department will not require secondary emergency access. The conceptual site plan is shown in Figure 2a. Figure 2b shows the interim access configuration and Figure 2c shows the ultimate access configuration. Figures 2d and 2e show the swept path of a WB-40 vehicle entering/exiting the future commercial area in Lot 2.

ROADWAY AND TRAFFIC CONDITIONS

Area Roadways

The major roadways in the site's vicinity are shown on Figure 1 and are described below.

- **US Highway 6 (US 6)** is an east-west, two-lane state highway roadway adjacent to the site. It is classified as R-A (Regional Highway) by CDOT. The posted speed limit transitions from 45 mph to 55 mph adjacent to the site. The proposed public access intersection is located in the 55 mph section. The CDOT straight line diagram is attached.
- **Nogal Road** is an east-west, two-lane local access roadway north of the site. The intersection with US 6 is stop-sign controlled with auxiliary turn lanes. The proposed western site access will align with Nogal Road.

Existing Traffic Conditions

Figures 3a and 3b show the existing December, 2024 and July, 2024 traffic volumes, existing traffic control, and lane geometry in the site's vicinity on a typical weekday. The weekday peak-hour traffic volumes and daily traffic counts are from the attached traffic counts conducted by Counter Measures in December, 2024. The traffic volumes in Figure 3a were adjusted higher by a factor of 1.386 based on seasonal CDOT data from the continuous count station (Station ID: 000011). The raw count data and the adjustment calculations are attached.

2027 and 2045 Background Traffic

Figure 4 shows the estimated 2027 background traffic and Figure 5 shows the estimated 2045 background traffic. The CDOT 20-year factor for US 6 is currently 1.33 which would convert to an annual growth rate about 1.44 percent but a higher rate of 2.54 percent was used to be consistent with the January 2020 *Red Mountain Ranch TIA* by McDowell Engineering.

Existing, 2027, and 2045 Background Levels of Service

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 is indicative of little congestion or delay and LOS F is indicative of a high level of congestion or delay. Attached are specific level of service definitions for unsignalized intersections.

The intersections in the study area were analyzed as appropriate to determine the existing, 2027, and 2045 background levels of service using Synchro. Table 1 shows the level of service analysis results. The level of service reports are attached.

1. **US Highway 6/Nogal Road:** All movements at this unsignalized intersection currently operate at LOS "B" or better during both morning and afternoon peak-hours and are expected to do so through 2045.
2. **US Highway 6/Site Access:** This intersection was analyzed only in the total traffic scenarios.

TRIP GENERATION

Table 2 shows the estimated average weekday, morning peak-hour, and afternoon peak-hour trip generation for the proposed site based on the rates from *Trip Generation, 11th Edition, 2021* by the Institute of Transportation Engineers (ITE).

The site is projected to generate about 1,302 vehicle-trips on the average weekday, with about half entering and half exiting 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 39 vehicles would enter and about 50 vehicles would exit the site. During the afternoon peak-hour, which generally occurs for one hour between 4:00 and 6:00 p.m., about 60 vehicles would enter and about 45 vehicles would exit. These estimates are expected to be reduced due to passby trips as shown in Table 2.

TRIP DISTRIBUTION

Figure 6 shows the estimated directional distribution of the site-generated traffic volumes on the area roadways. The estimates were based on the location of the site with respect to the regional population, employment, and activity centers; and the site's proposed land use.

TRIP ASSIGNMENT

Figure 7a shows the primary site-generated traffic volumes which are the directional distribution percentages (from Figure 6) applied to the primary trip generation estimate (from Table 2).

Figure 7b shows the passby site-generated traffic volumes shown in the passby trip generation estimate (from Table 2).

2027 AND 2045 TOTAL TRAFFIC

Figure 8 shows the 2027 total traffic which is the sum of the 2027 background traffic volumes (from Figure 4) and the site-generated traffic volumes (from Figures 7a and 7b). Figure 8 also shows the 2027 total traffic lane geometry and traffic control and recommended improvements.

Figure 9 shows the 2045 total traffic which is the sum of the 2045 background traffic volumes (from Figure 5) and the site-generated traffic volumes (from Figures 7a and 7b). Figure 9 also shows the 2045 total traffic lane geometry and traffic control and recommended improvements.

PROJECTED LEVELS OF SERVICE

The intersections in the study area were analyzed to determine the 2027 and 2045 total levels of service. Table 1 shows the level of service analysis results. The level of service reports are attached.

1. **US Highway 6/Nogal Road:** All movements at this unsignalized intersection are expected to operate at LOS "B" or better during both morning and afternoon peak-hours through 2045.

2. **US Highway 6/Site Access:** All movements at this unsignalized intersection are expected to operate at LOS “B” or better during both morning and afternoon peak-hours through 2045.

TURN LANE REQUIREMENTS

Eastbound Right-Turn Lane

This lane is required when the peak-hour turning volume exceeds 25 vph. The peak turning volume is 46 vph so this lane is required. An appropriate length is 320 feet plus a 180-foot transition taper (15:1) based on the posted speed limit of 55 mph.

Westbound Left-Turn Lane

This lane is required when the peak-hour turning volume exceeds 10 vph. The peak turning volume is 13 vph so this lane is required. An appropriate length is 345 feet (320 feet for deceleration plus 25 feet for vehicle storage) plus a 180-foot transition taper (15:1) and 55:1 redirect taper.

Northbound to Eastbound Right-Turn Acceleration Lane

This lane is required when the posted speed limit is greater than 40 mph and the peak-hour turning volume is greater than 50 vph. The peak turning traffic is 11 vph so this lane is not required.

CONCLUSIONS AND RECOMMENDATIONS

Trip Generation

1. The site is projected to generate about 1,302 vehicle-trips on the average weekday, with about half entering and half exiting during a 24-hour period. During the morning peak-hour, about 39 vehicles would enter and about 50 vehicles would exit the site. During the afternoon peak-hour, about 60 vehicles would enter and about 45 vehicles would exit. These estimates are expected to be reduced due to passby trips as shown in Table 2.

Projected Levels of Service

2. All movements at the intersections analyzed are expected to operate at LOS “B” or better through 2045.

Conclusions

3. The impact of the proposed Red Mountain Ranch development can be accommodated by the existing roadway network.
4. CDOT access permit applications should be submitted to CDOT for the proposed full movement access. This access permit will be for previously issued but expired permit #319172. Previously issued and expired permit #319171 will also need to be updated to close an existing access along the US 6 frontage. Previously issued but expired permit #319170 is no longer needed because a secondary emergency access is not being required by the Fire


Department. The recommended improvements at the site access intersection are similar to those from expired Permit #319172.

* * * * *

We trust our findings will assist you in gaining approval of the proposed Red Mountain Ranch development. Please contact me if you have any questions or need further assistance.

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.

By 
Christopher S. McGranahan, PE
Principal/President



CSM/wc

9-16-25

Enclosures: Tables 1 and 2
Figures 1 - 9
CDOT Approved TIS Methodology Form
CDOT Straight Line Diagram
Traffic Count Reports
CDOT Continuous Count Data and Seasonal Adjustment Calculation
Level of Service Definitions
Level of Service Reports

Table 1
Intersection Levels of Service Analysis
Red Mountain Ranch
Eagle, CO
LSC #240790; September, 2025

Intersection # and Location	Traffic Control	July, 2024 Existing Traffic		2027 Background Traffic		2027 Total Traffic		2045 Background Traffic		2045 Total Traffic	
		Level of Service	Level of Service	Level of Service	Level of Service	Level of Service	Level of Service	Level of Service	Level of Service	Level of Service	Level of Service
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1) <u>Highway 6/Nogal Road</u>	TWSC										
EB Left		A	A	A	A	A	A	A	A	A	A
SB Approach		A	B	A	B	B	B	B	B	B	B
Critical Movement Delay (sec./veh.)		9.7	10.4	9.8	10.7	10.2	11.3	10.3	12.1	10.8	12.9
2) <u>Highway 6/Site Access</u>	TWSC										
NB Left		--	--	--	--	B	B	--	--	B	B
NB Right		--	--	--	--	A	A	--	--	B	A
WB Left		--	--	--	--	A	A	--	--	A	A
Critical Movement Delay (sec./veh.)		--	--	--	--	11.1	11.1	--	--	12.9	12.7

Table 2
ESTIMATED TRAFFIC GENERATION
Red Mountain Ranch
Eagle, CO
LSC #240790; September, 2025

Trip Generating Category	Quantity	Trip Generation Rates ⁽¹⁾					Total Trips Generated				
		Average Weekday	AM Peak-Hour		PM Peak-Hour		Average Weekday	AM Peak-Hour		PM Peak-Hour	
			In	Out	In	Out		In	Out	In	Out
CURRENTLY PROPOSED LAND USE											
Single-Family Detached Homes ⁽²⁾	12 DU ⁽³⁾	9.43	0.182	0.518	0.592	0.348	113	2	6	7	4
Duplexes ⁽⁴⁾	12 DU ⁽³⁾	7.20	0.120	0.360	0.336	0.234	86	1	4	4	3
Townhomes ⁽⁴⁾	42 DU ⁽³⁾	7.20	0.120	0.360	0.336	0.234	302	5	15	14	10
Hotel ⁽⁵⁾	60 Rooms	7.99	0.258	0.202	0.301	0.289	479	15	12	18	17
Restaurant ⁽⁶⁾	3.00 KSF ⁽⁷⁾	107.20	5.264	4.307	5.521	3.530	322	16	13	17	11
Total =							1,302	39	50	60	45
Passby Trips ⁽⁸⁾ =							48	2	2	2	2
Primary Trips =							1,254	37	48	58	43

Notes:

(1) Source: *Trip Generation*, Institute of Transportation Engineers, 11th Edition, 2021

(2) ITE Land Use No. 210 - Single-Family Detached Housing

(3) DU - Dwelling Units

(4) ITE Land Use No. 215 - Single Family Attached Housing

(5) ITE Land Use No. 310 - Hotel

(6) ITE Land Use No. 932 - High Turnover (Sit-Down) Restaurant

(7) KSF = 1,000 square feet

(8) A passby trip percentage of 15% was assumed for the restaurant use based on feedback from the Town of Eagle.

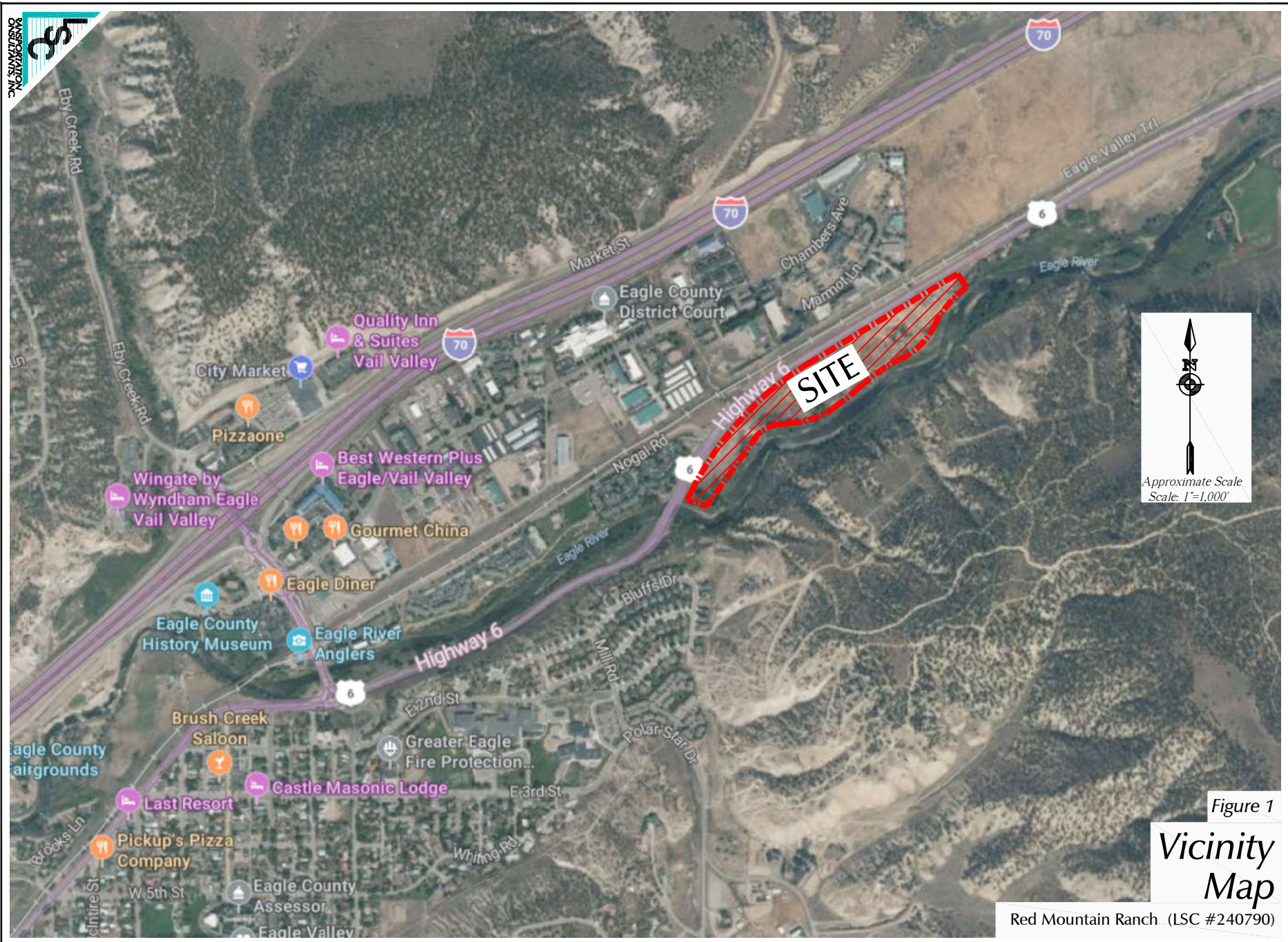


Figure 1

Vicinity Map

Red Mountain Ranch (LSC #240790)



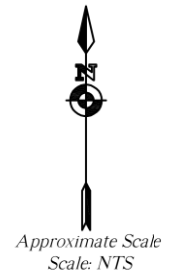
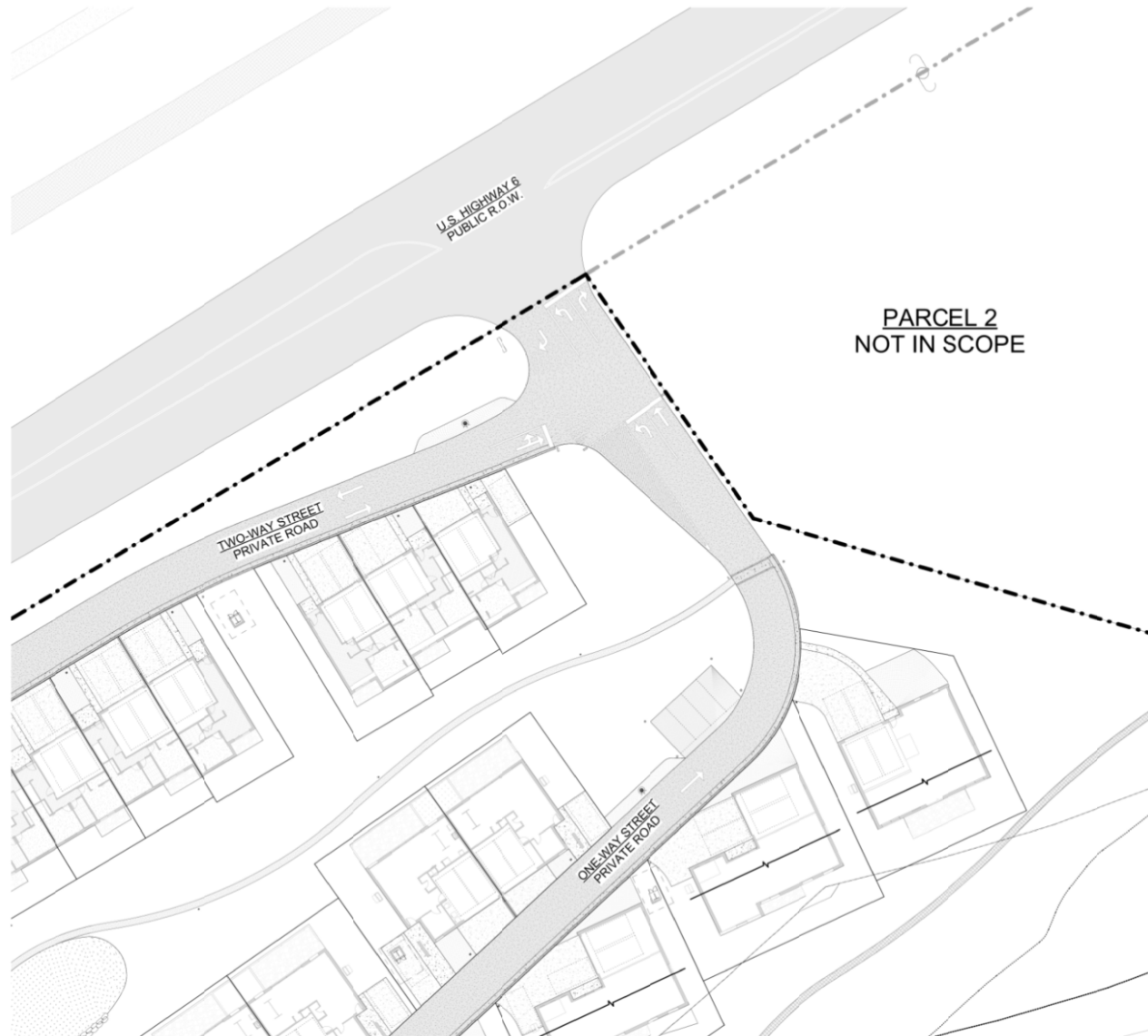
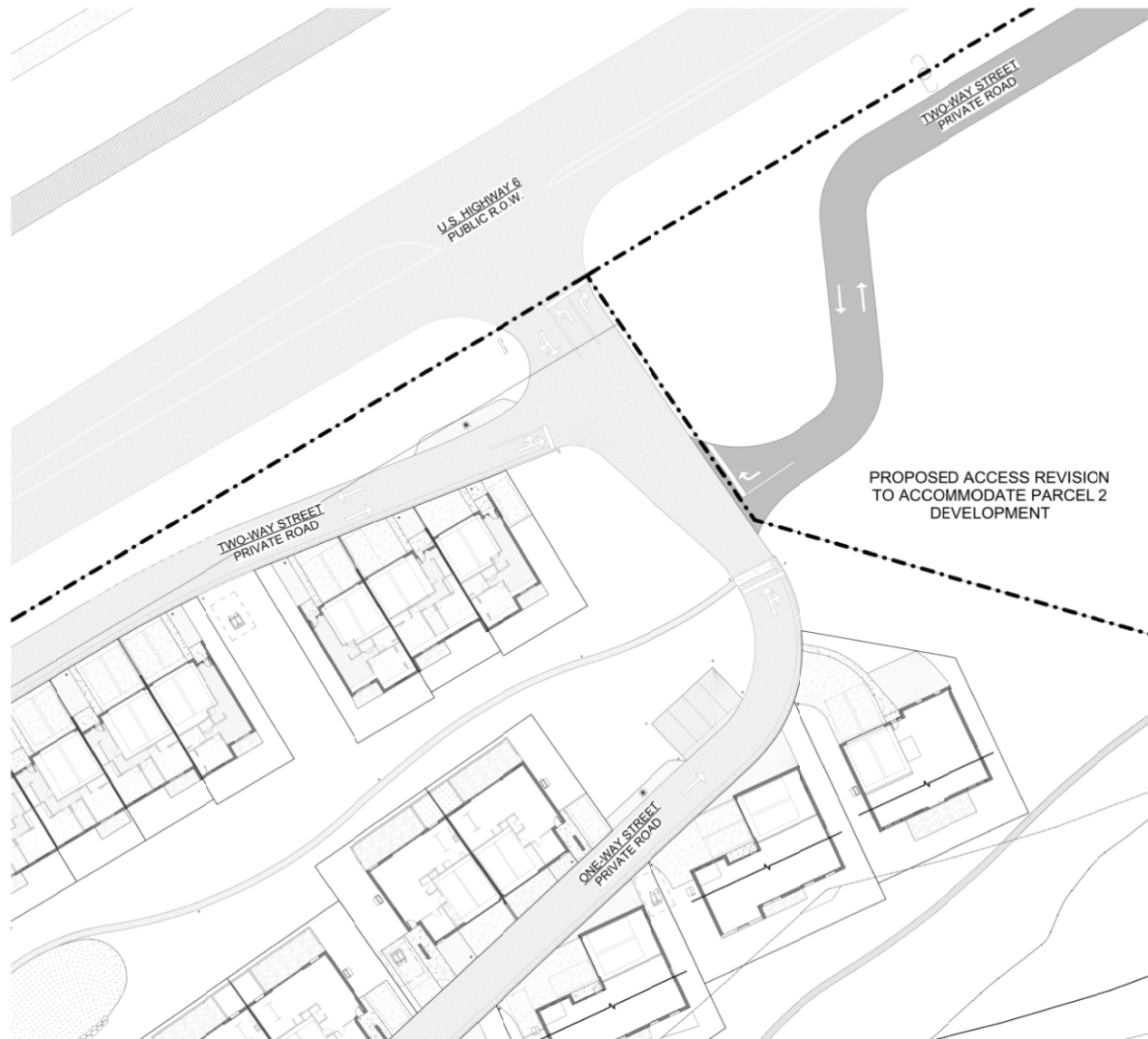


Figure 2b
Interim Access Configuration
Red Mountain Ranch (LSC #240790)



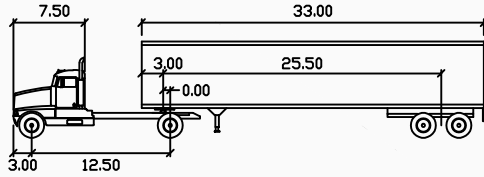
Approximate Scale
Scale: NTS

Figure 2c
Ultimate Access Configuration
Red Mountain Ranch (LSC #240790)



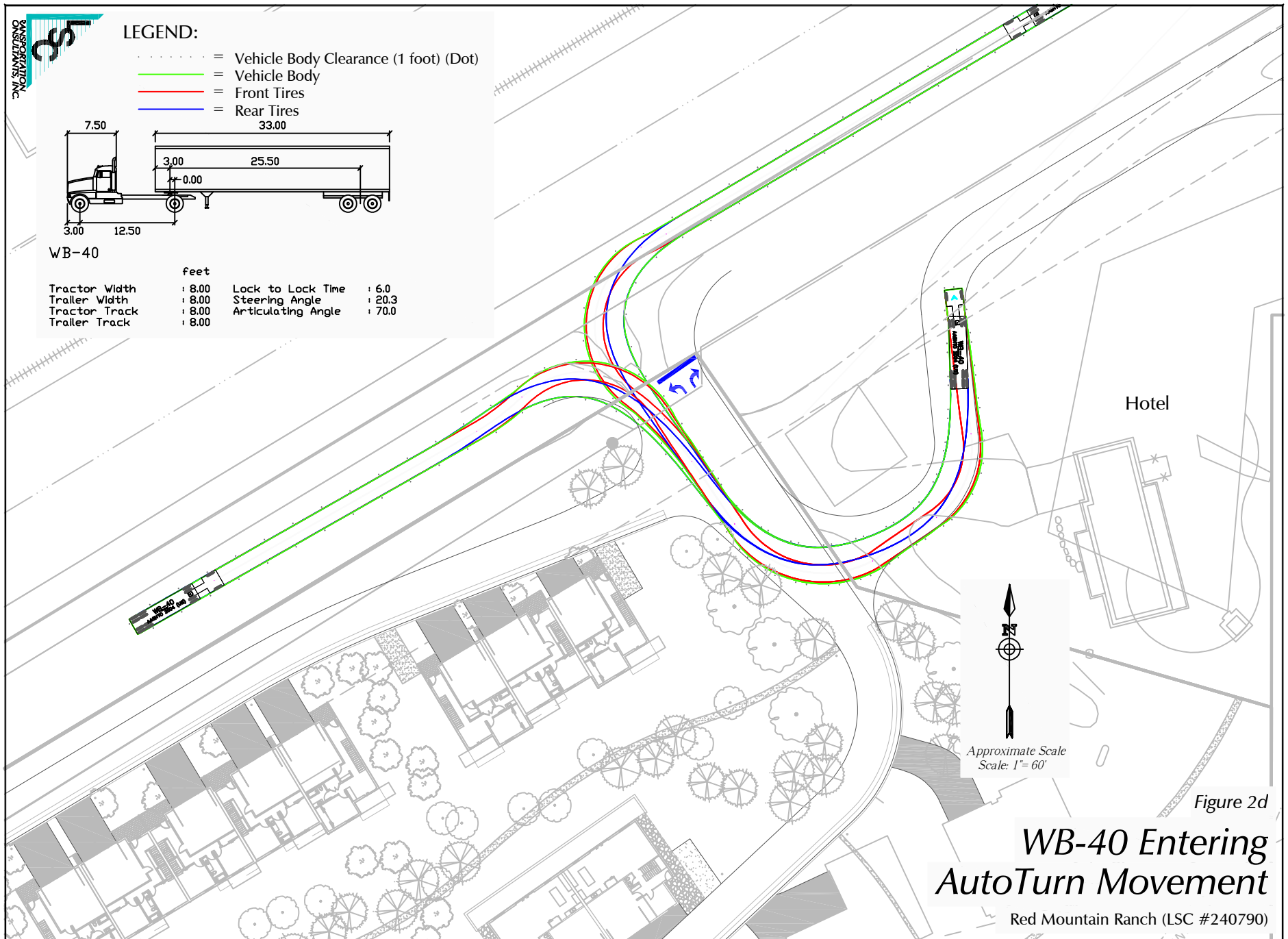
LEGEND:

- = Vehicle Body Clearance (1 foot) (Dot)
- = Vehicle Body
- = Front Tires
- = Rear Tires



WB-40

	feet		
Tractor Width	8.00	Lock to Lock Time	6.0
Trailer Width	8.00	Steering Angle	20.3
Tractor Track	8.00	Articulating Angle	70.0
Trailer Track	8.00		



Hotel

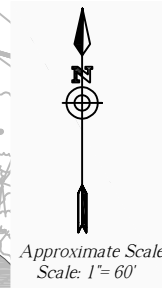


Figure 2d

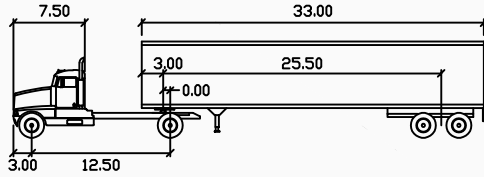
WB-40 Entering AutoTurn Movement

Red Mountain Ranch (LSC #240790)



LEGEND:

- = Vehicle Body Clearance (1 foot) (Dot)
- = Vehicle Body
- = Front Tires
- = Rear Tires



WB-40

	feet		
Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.00	Steering Angle	: 20.3
Tractor Track	: 8.00	Articulating Angle	: 70.0
Trailer Track	: 8.00		

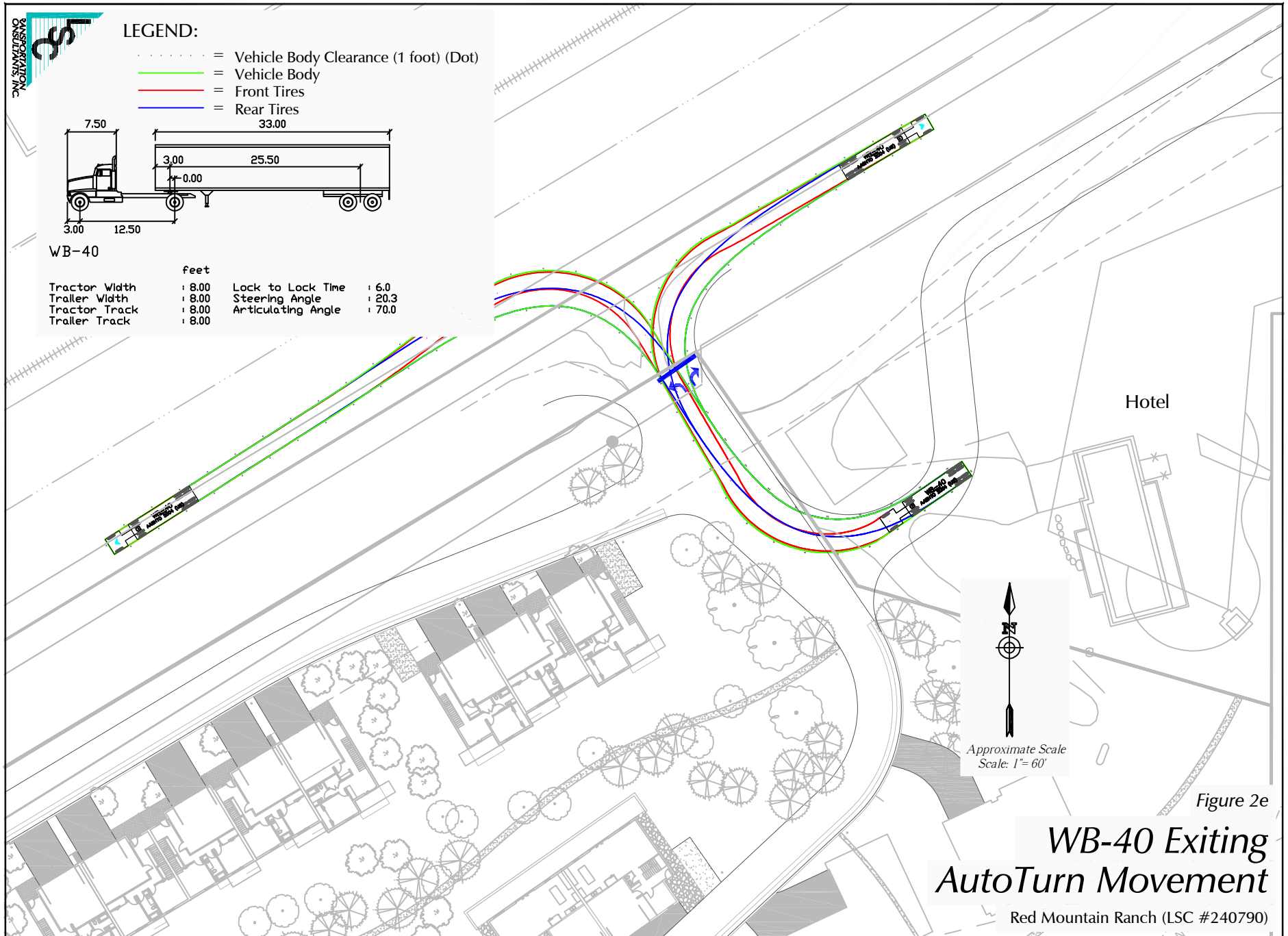


Figure 2e

WB-40 Exiting AutoTurn Movement

Red Mountain Ranch (LSC #240790)

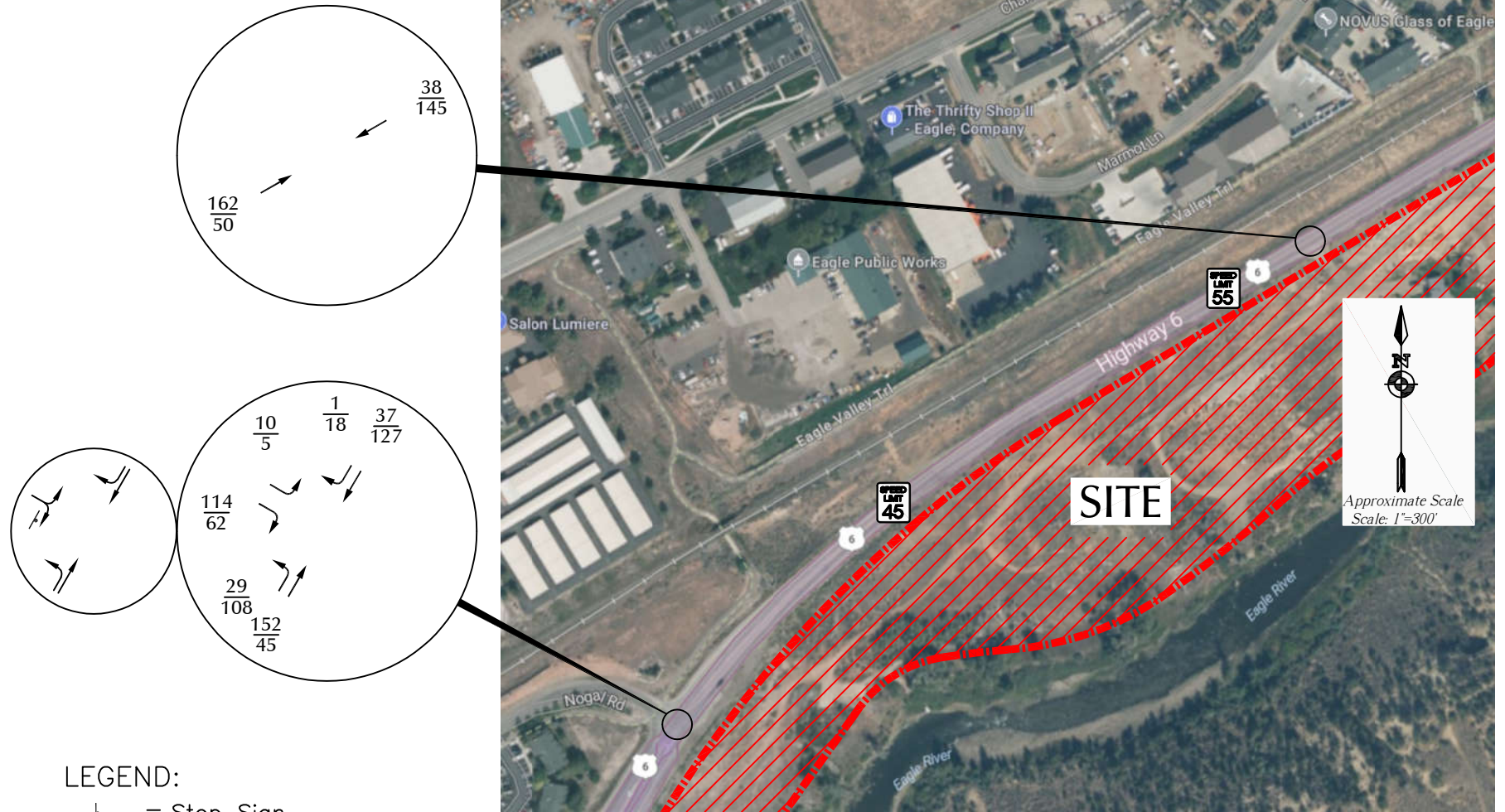
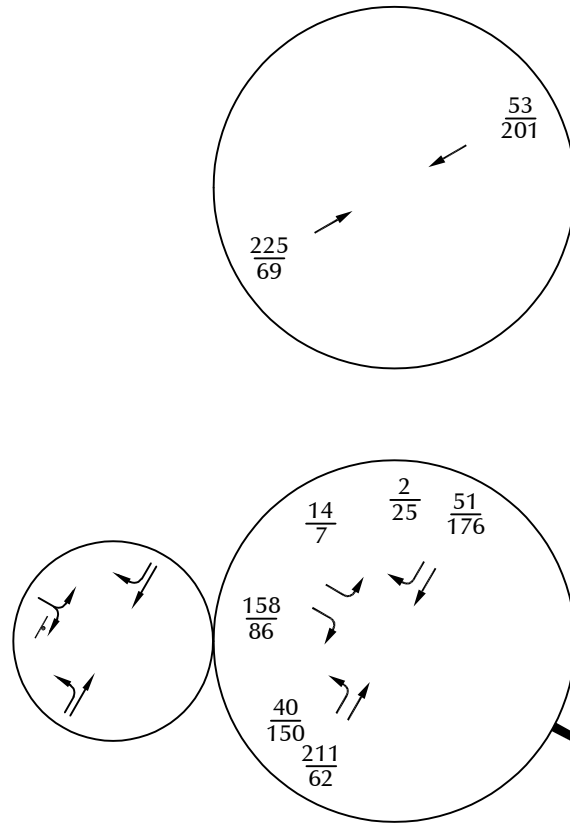




Figure 3a

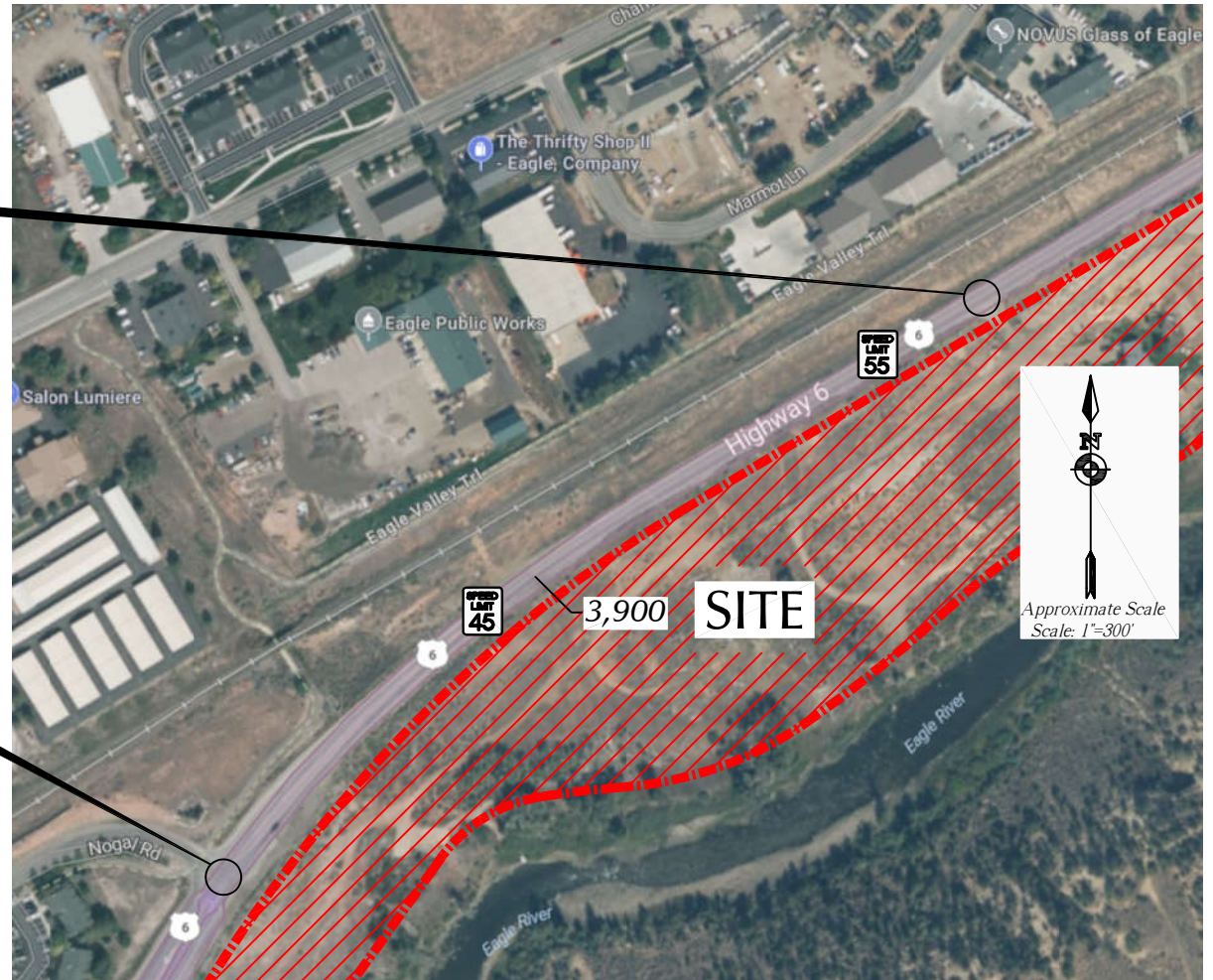
Existing December, 2024 Traffic, Lane Geometry and Traffic Control

Red Mountain Ranch (LSC #240790)



LEGEND:

-  = Stop Sign
-  = Speed Limit
- $\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$
- 1,000 = Average Daily Traffic

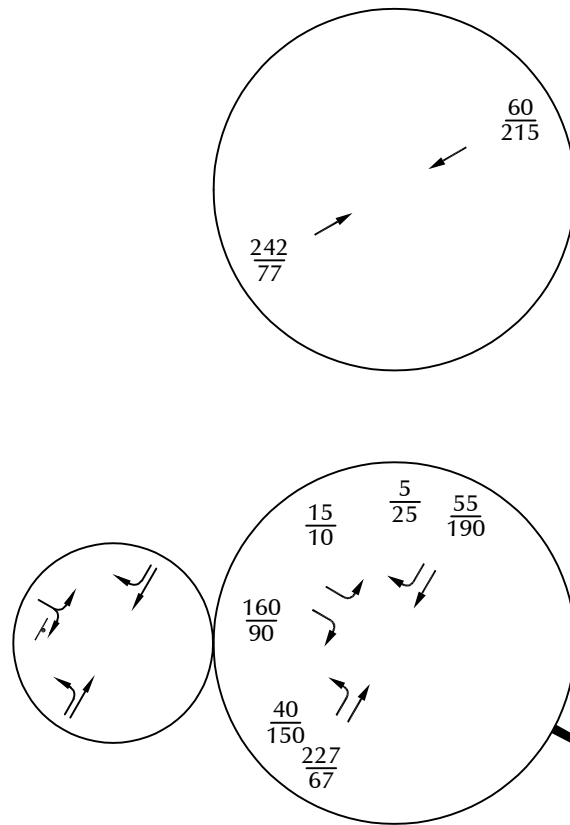


Note: The traffic volumes in Figure 3a were adjusted higher by a factor of 1.386 based on Seasonal CDOT data from continuous count (Station ID: 000011).

Figure 3b

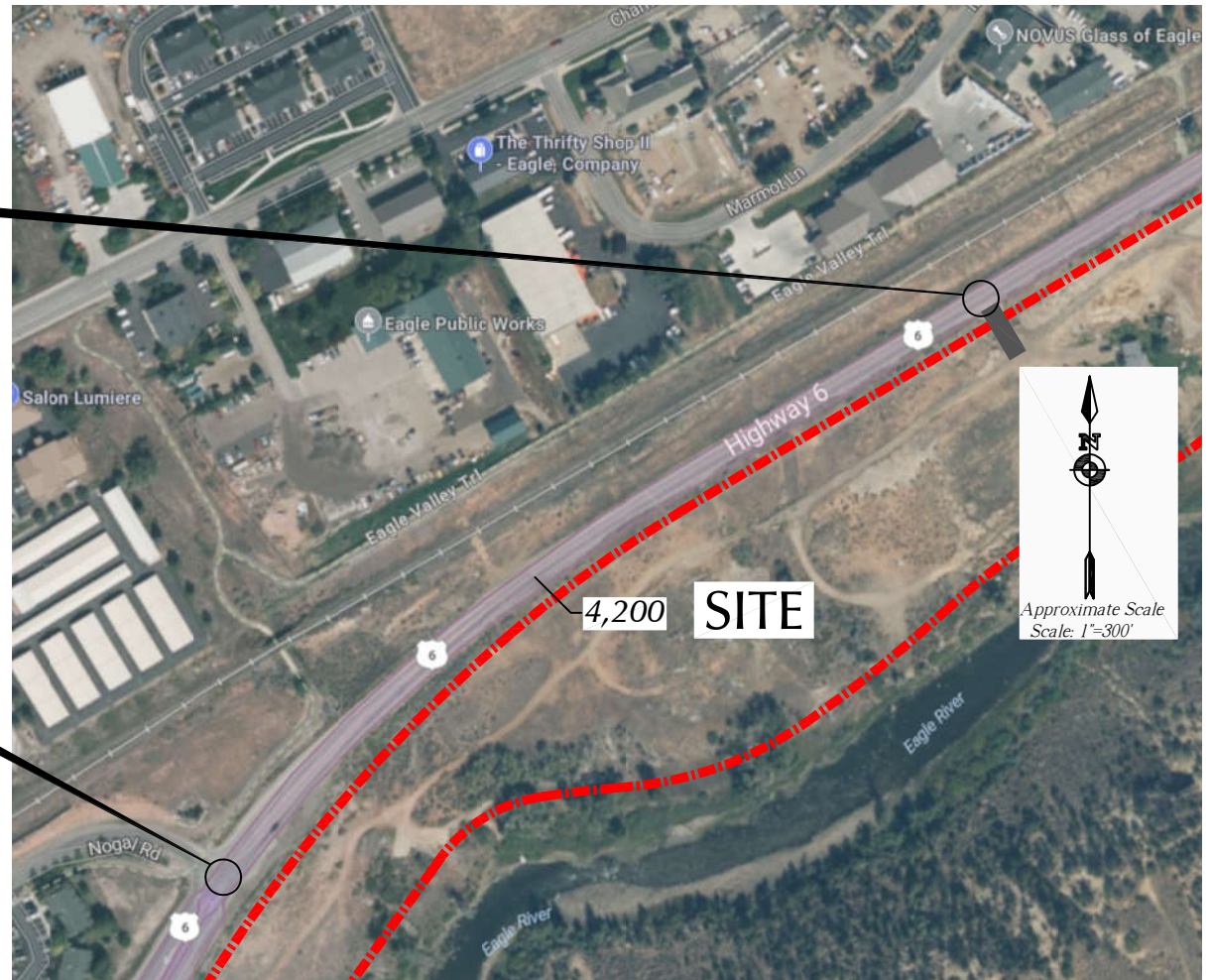
Existing July 2024 Traffic, Lane Geometry and Traffic Control

Red Mountain Ranch (LSC #240790)



LEGEND:

\downarrow = Stop Sign
 $\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$
 1,000 = Average Daily Traffic

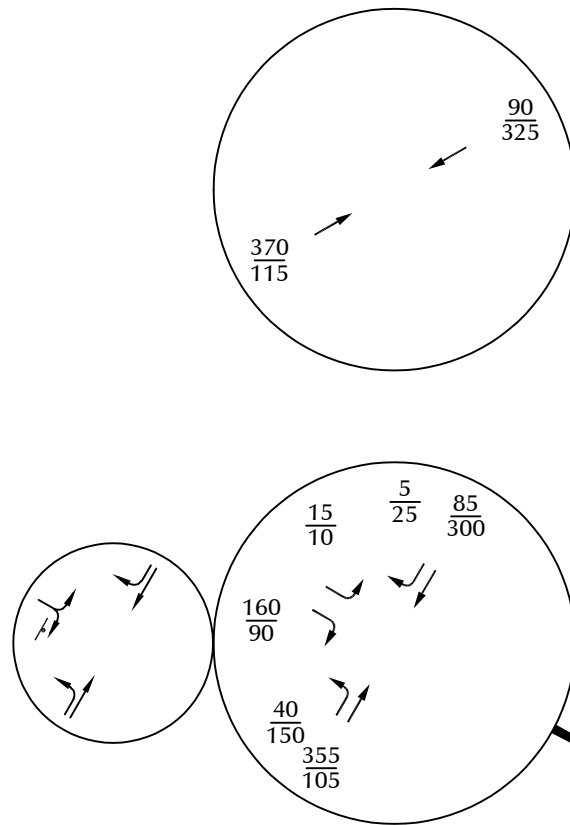


Note: The CDOT 20-year factor for US 6 is currently 1.33 which would convert to an annual growth rate about 1.44 percent but a higher rate of 2.54 percent was used to be consistent with the January 2020 Red Mountain Ranch TIA by McDowell Engineering.

Year 2027 Background Traffic, Lane Geometry and Traffic Control

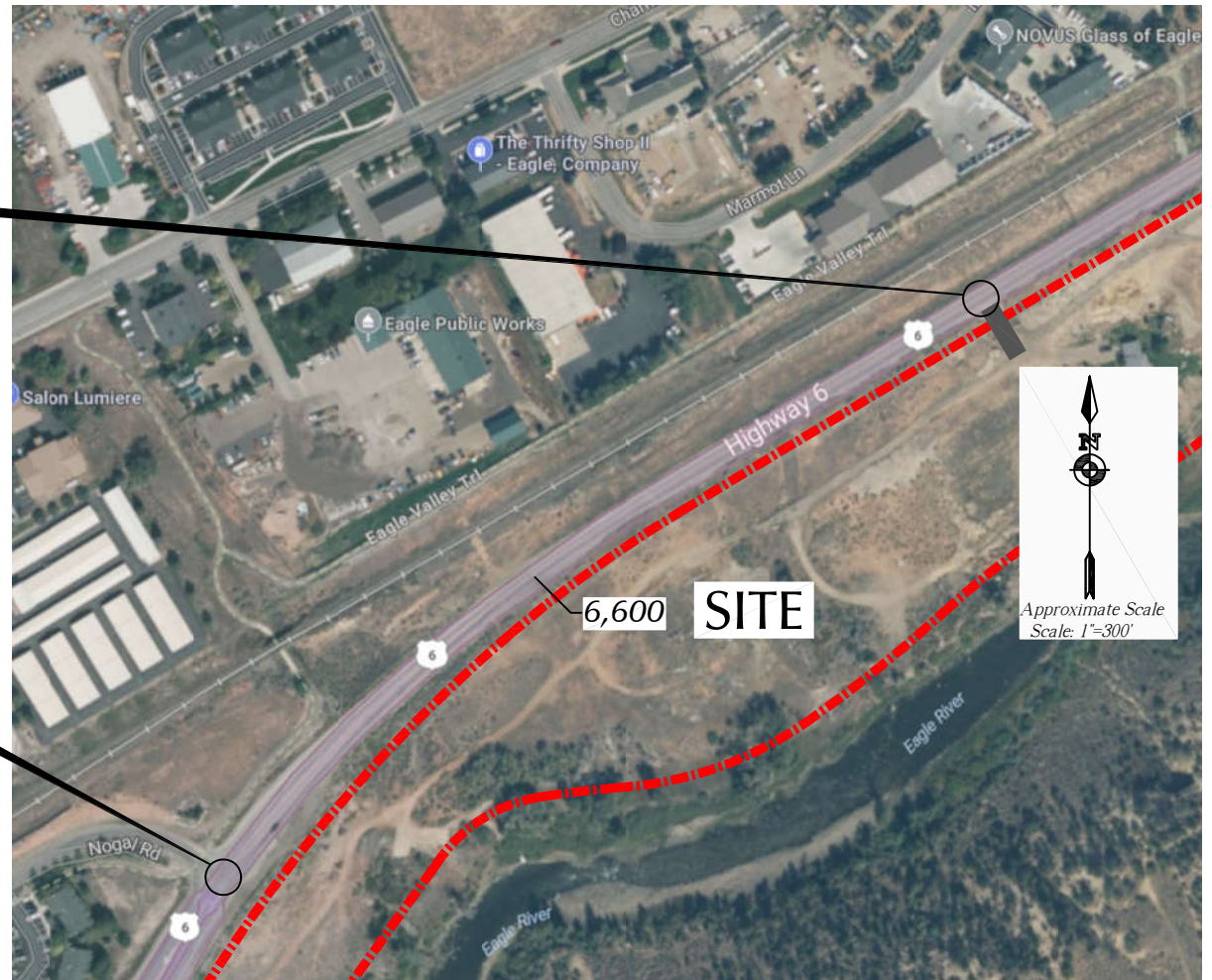
Red Mountain Ranch (LSC #240790)

Figure 4



LEGEND:

\downarrow = Stop Sign
 $\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$
 1,000 = Average Daily Traffic

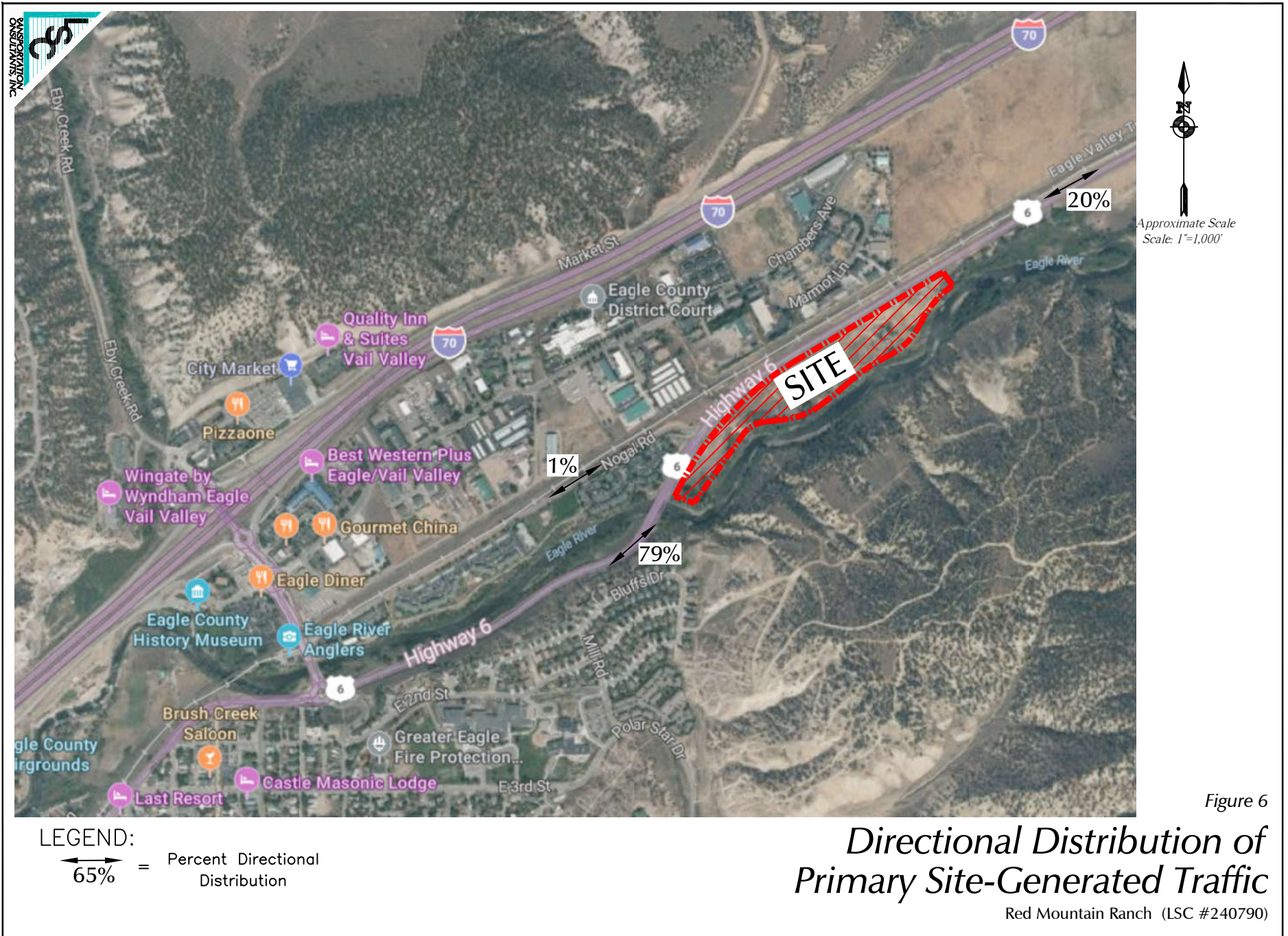


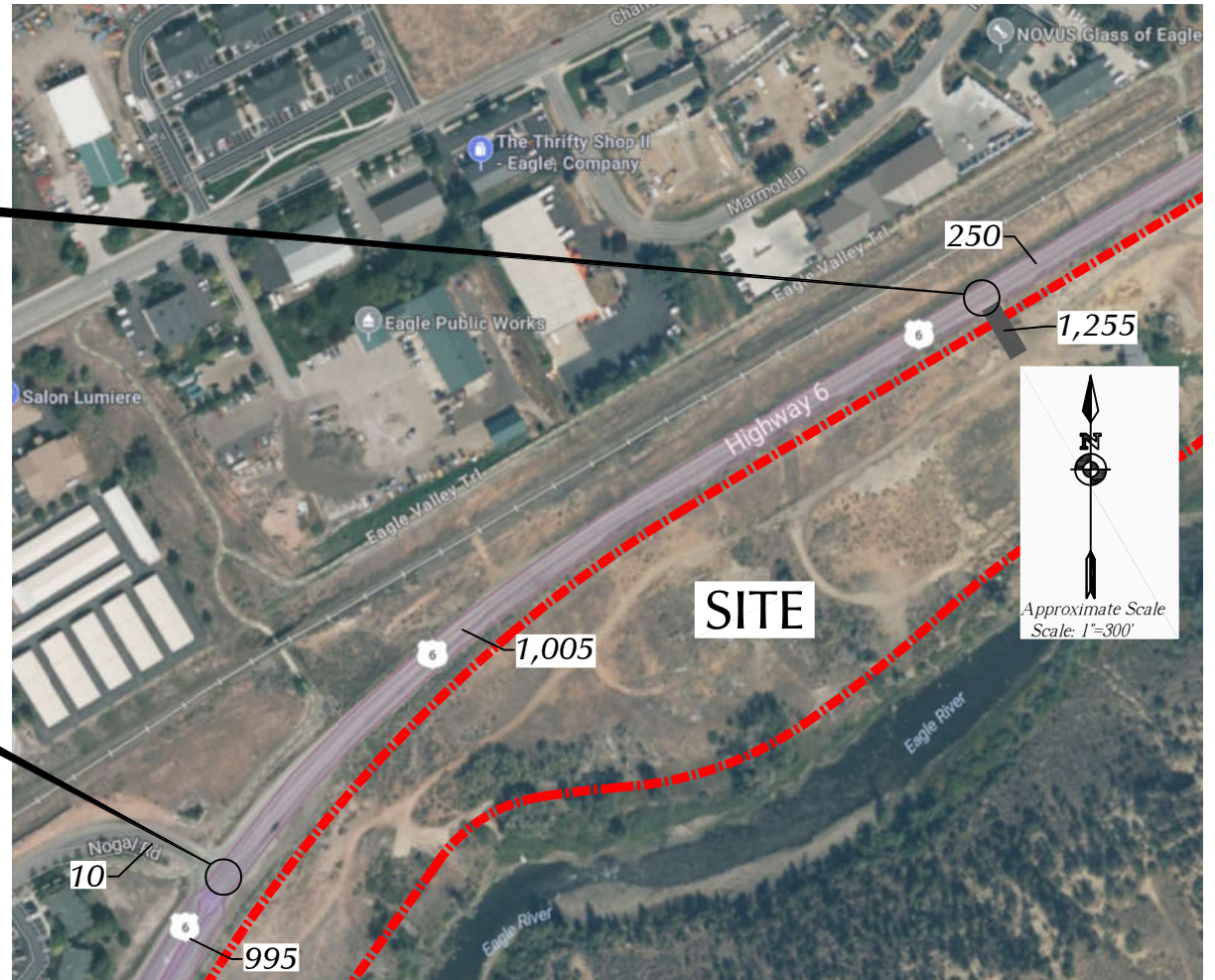
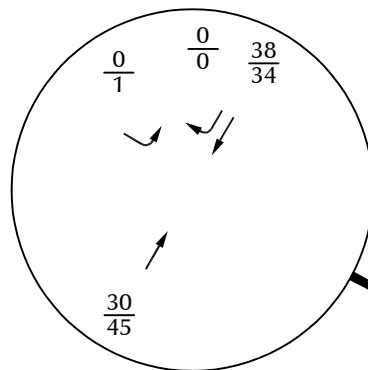
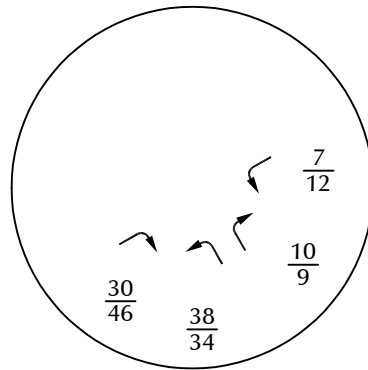
Note: The CDOT 20-year factor for US 6 is currently 1.33 which would convert to an annual growth rate about 1.44 percent but a higher rate of 2.54 percent was used to be consistent with the January 2020 Red Mountain Ranch TIA by McDowell Engineering.

Year 2045 Background Traffic, Lane Geometry and Traffic Control

Red Mountain Ranch (LSC #240790)

Figure 5





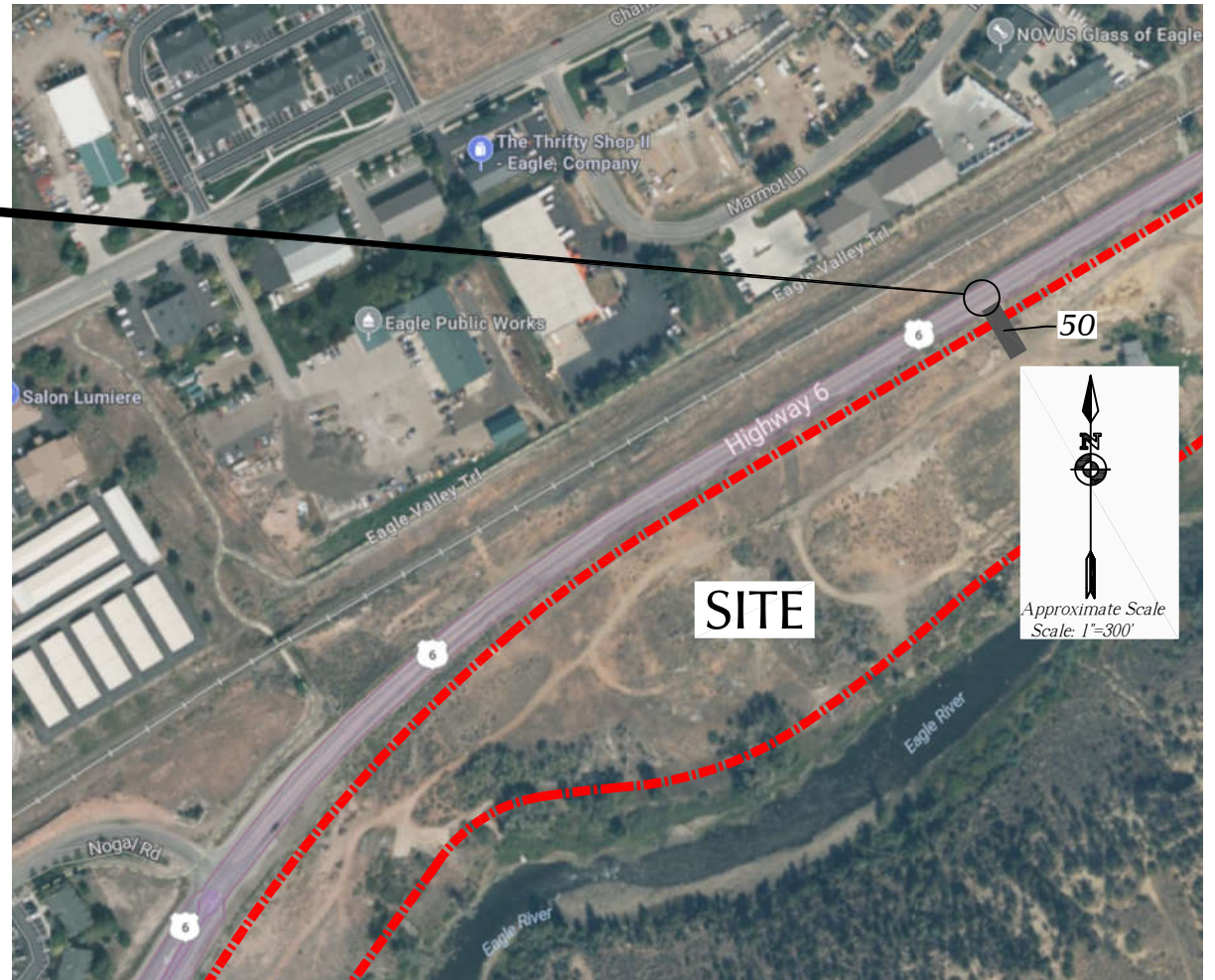
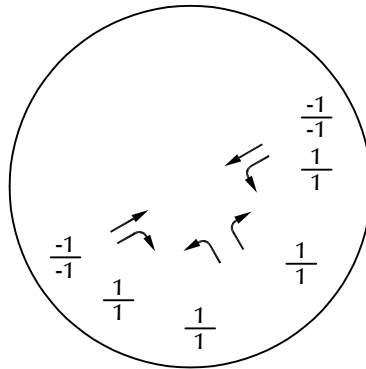
LEGEND:

$\frac{26}{35}$ = AM Peak Hour Traffic
 = PM Peak Hour Traffic
 1,000 = Average Daily Traffic

Figure 7a

Assignment of Primary Site-Generated Traffic

Red Mountain Ranch (LSC #240790)



LEGEND:

$\frac{26}{35}$ = AM Peak Hour Traffic
 1,000 = PM Peak Hour Traffic
 1,000 = Average Daily Traffic

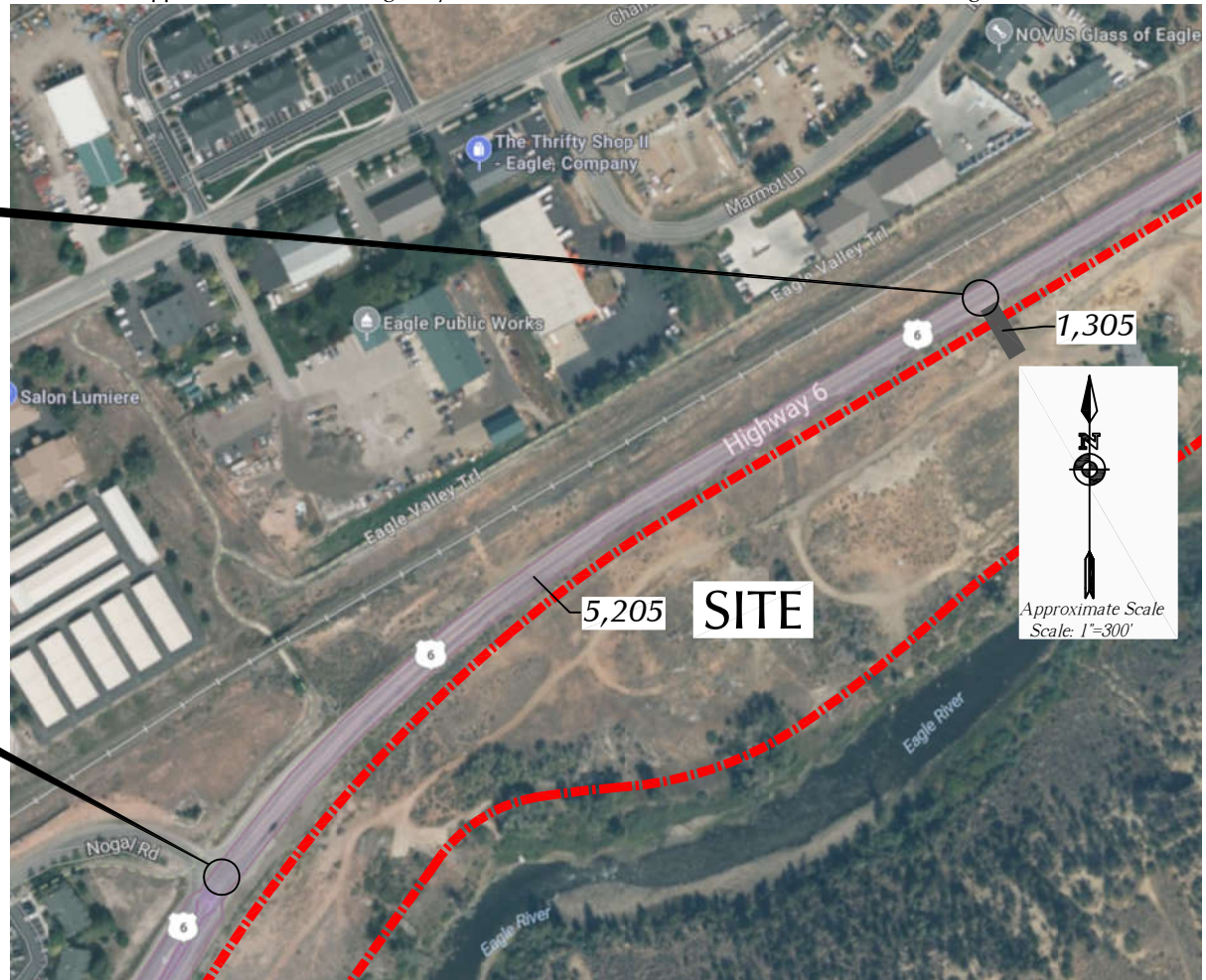
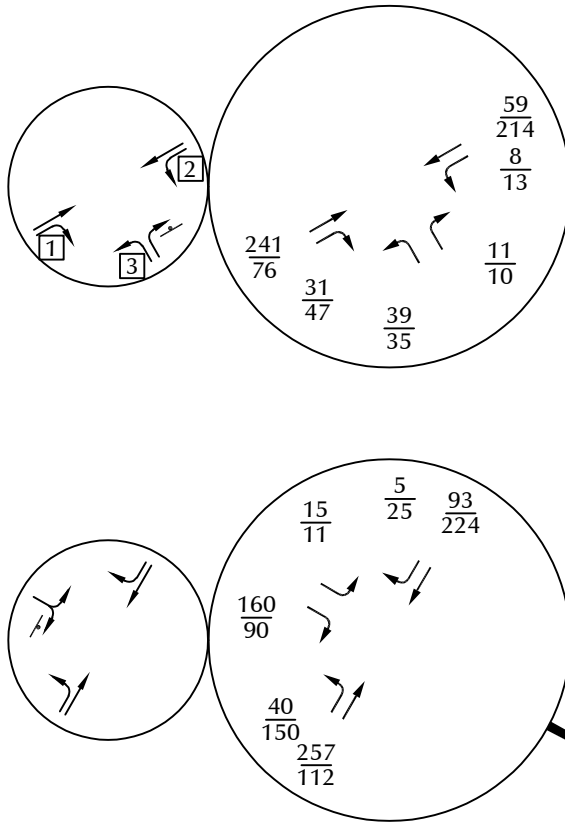
Figure 7b

Assignment of Passby Site-Generated Traffic

Red Mountain Ranch (LSC #240790)

Recommended Improvements:

- 1 EB RT = 320 feet + 180-foot transition taper (15:1).
- 2 WB LT = 345 feet + 180-foot transition taper (15:1) and 55:1 redirect taper.
- 3 Provide two short approach lanes to US Highway 6 - one for the left-turn movement and one for the right-turn movement.



Note: These volumes are the sum of the volumes in Figures 4, 7a and 7b.

LEGEND:

T = Stop Sign
 $\frac{26}{35}$ = AM Peak Hour Traffic
 $\frac{35}{26}$ = PM Peak Hour Traffic
 1,000 = Average Daily Traffic

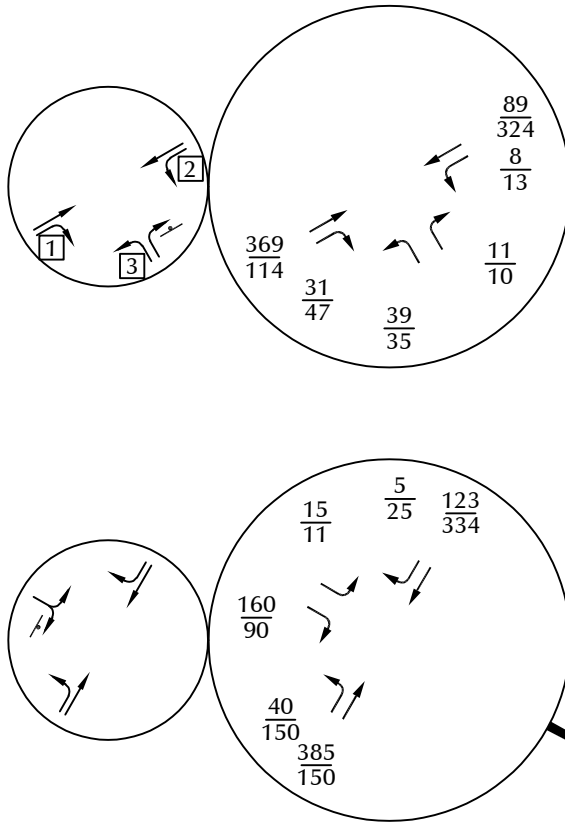
Figure 8

Year 2027 Total Traffic, Lane Geometry and Traffic Control

Red Mountain Ranch (LSC #240790)

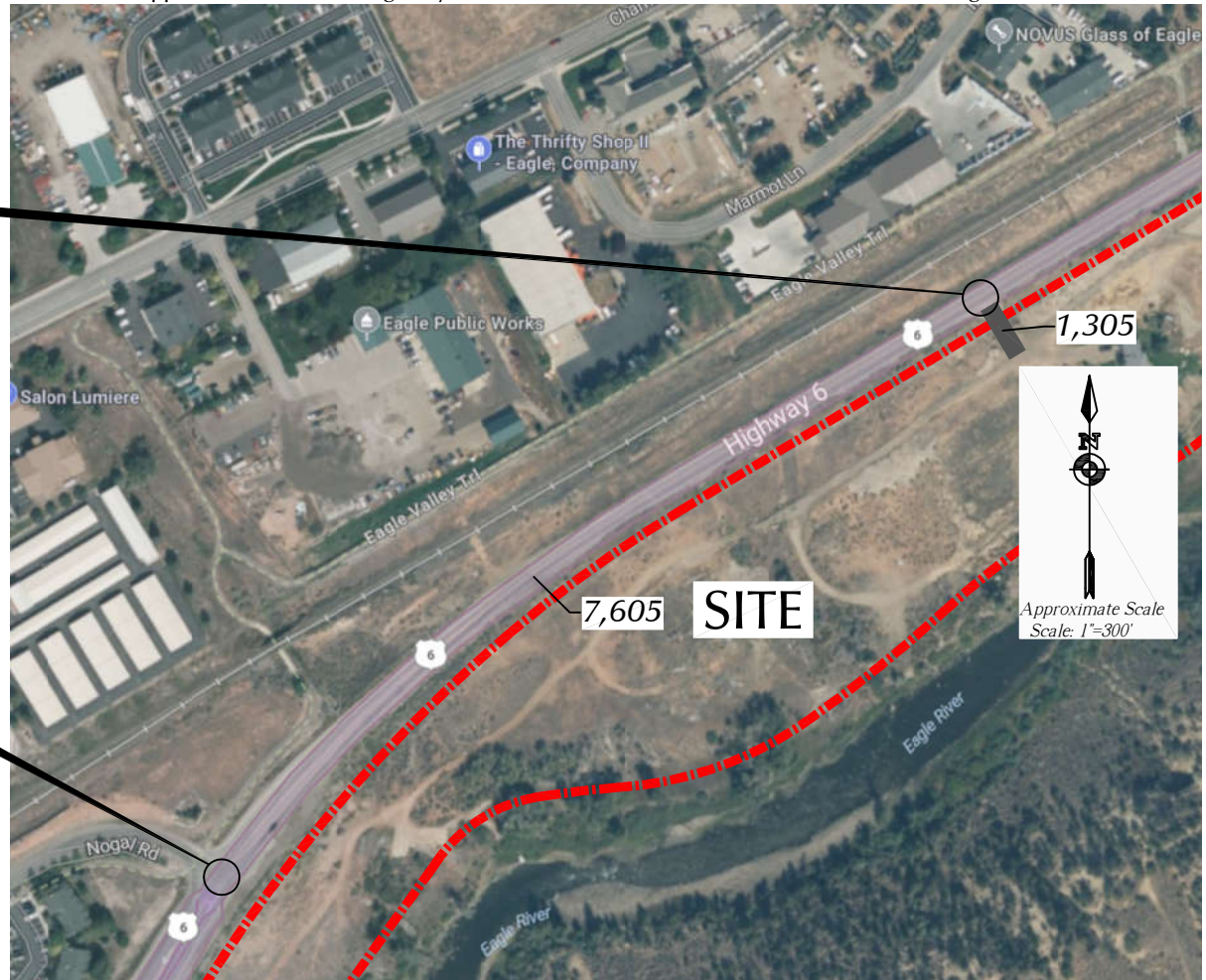
Recommended Improvements:

- 1 EB RT = 320 feet + 180-foot transition taper (15:1).
- 2 WB LT = 345 feet + 180-foot transition taper (15:1) and 55:1 redirect taper.
- 3 Provide two short approach lanes to US Highway 6 - one for the left-turn movement and one for the right-turn movement.



LEGEND:

T = Stop Sign
 $\frac{26}{35}$ = AM Peak Hour Traffic
 $\frac{35}{26}$ = PM Peak Hour Traffic
 1,000 = Average Daily Traffic



Note: These volumes are the sum of the volumes in Figures 5, 7a and 7b.

Figure 9

Year 2045 Total Traffic, Lane Geometry and Traffic Control

Red Mountain Ranch (LSC #240790)



Transportation Impact Study Methodology Form

Prior to starting a traffic impact study, a Methodology Form must be submitted for review and signed by the Region 3 Access Engineer. It shall be included as part of the study.

CONTACT INFORMATION			
Consultant:	Name:		
	Telephone:		
	Email:		
	Developer/Owner Name:		

PROJECT INFORMATION	
Project Name	
Project Location	
Project Description <i>(Attached proposed site plan)</i>	
State Highway	
County	
Mile Post	
Posted Speed Limit	

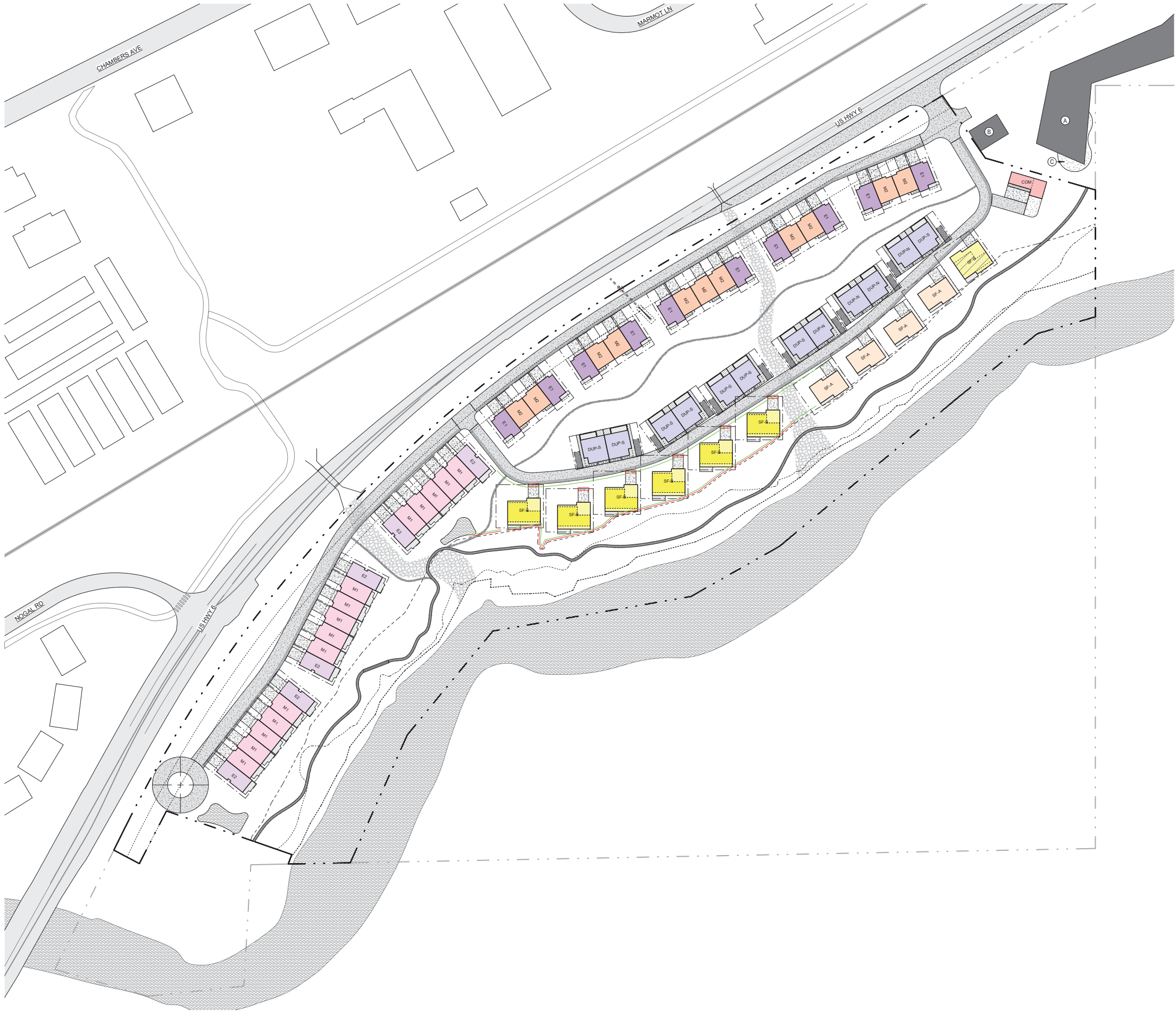
TIS ASSUMPTIONS			
Study Years	Current Year:	Buildout Year:	Long Term Year:
Traffic Assessment Level <i>(Provide justification)</i>			
Study Intersections	1.	6.	
	2.	7.	
	3.	8.	
	4.	9.	
	5.	10.	
Future Growth Rate	<input type="checkbox"/> OTIS Plus review of prior TIA	<input type="checkbox"/> Regional TDM	<input type="checkbox"/> Other
Seasonal Adjustment Factor			



COLORADO
Department of Transportation
 Region 3

ASSUMPTIONS CONTINUED			
Project Trip Distribution <i>(State assumptions and attach sketch that shows individual movements.)</i>			
Trip Reduction Percentage	Internal Capture:		Pass By:
	Multi-Modal:		Other:
Study Time Periods	<input type="checkbox"/> AM (7-9)	<input type="checkbox"/> PM (4-6)	<input type="checkbox"/> Weekday
<i>(Check all that apply)</i>	<input type="checkbox"/> SAT (Midday)	<input type="checkbox"/> Other	
Existing and Proposed ITE Trip Generation Land Use	932 - High Turnover Sit-Down Restaurant		
Analysis Methods <i>(Check all that apply)</i>	<input type="checkbox"/> Synchro or <input type="checkbox"/> HCS <i>(isolated intersections only)</i>		<input type="checkbox"/> SimTraffic or <input type="checkbox"/> Other <i>(closely spaced intersections or when known/expected queuing issue)</i>
	<input type="checkbox"/> Signal Warrants		<input type="checkbox"/> Pedestrian/Transit/Bicycle
	<input type="checkbox"/> Safety/Sight Distance		<input type="checkbox"/> Queuing and Storage
	<input type="checkbox"/> Other		
Notes and Other Assumptions			
Crash Data	CDOT will perform a crash data analysis for the highway in the vicinity of the proposed access and provide to the consultant. As a part of the study consultant shall recommend mitigation measures for any identified safety issues.		
Simulation Input Files	Consultant to provide computer files used for analysis with a signed and sealed copy of the study.		

CDOT INTERNAL USE ONLY	
Review Comments	
<input type="checkbox"/> Revise and Resubmit	
Engineer Signature/Date	<input type="checkbox"/> Approved



1 SF-B SITE SKETCH
SCALE: 1" = 80'-0"

SHEET NOTES

- A PROPOSED HOTEL ON PARCEL 2 (N.I.S.)
B PROPOSED GREENHOUSE ON PARCEL 2 (N.I.S.)
C PROPOSED BEER GARDEN ON PARCEL 2 (N.I.S.)

PROJECT
RED MOUNTAIN
RANCH (SITE)

17500 US-6, Eagle, CO 81631

ARCHITECT/
GENERAL CONTRACTOR

tres birds

PROJECT TEAM

MIKE MOORE
303-324-3622
MMM@TRESBIRDS.COM

DOUG NEWBY
720-563-7289
DN@TRESBIRDS.COM

DAVID HOFFMAN
561-386-5528
DH@TRESBIRDS.COM

NOT FOR
CONSTRUCTION

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TRES BIRDS

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CONSULTANTS

STRUCTURAL ENGINEERING

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SUSTAINABILITY PLANNING

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TESSA.MCNAMARA@ARUP.COM
212-897-1067

LANDSCAPE

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303-501-1217

ECOLOGY

BIRCH ECOLOGY
HEATHER HOUSTON
HEATHER@BIRCHECOLOGY.COM
720-350-2530

ISSUANCE

100%
SCHEMATIC
DESIGN

ISSUE DATE

11.15.2024

REVISION HISTORY

DRAWING SHEET TITLE

SF-B SITE

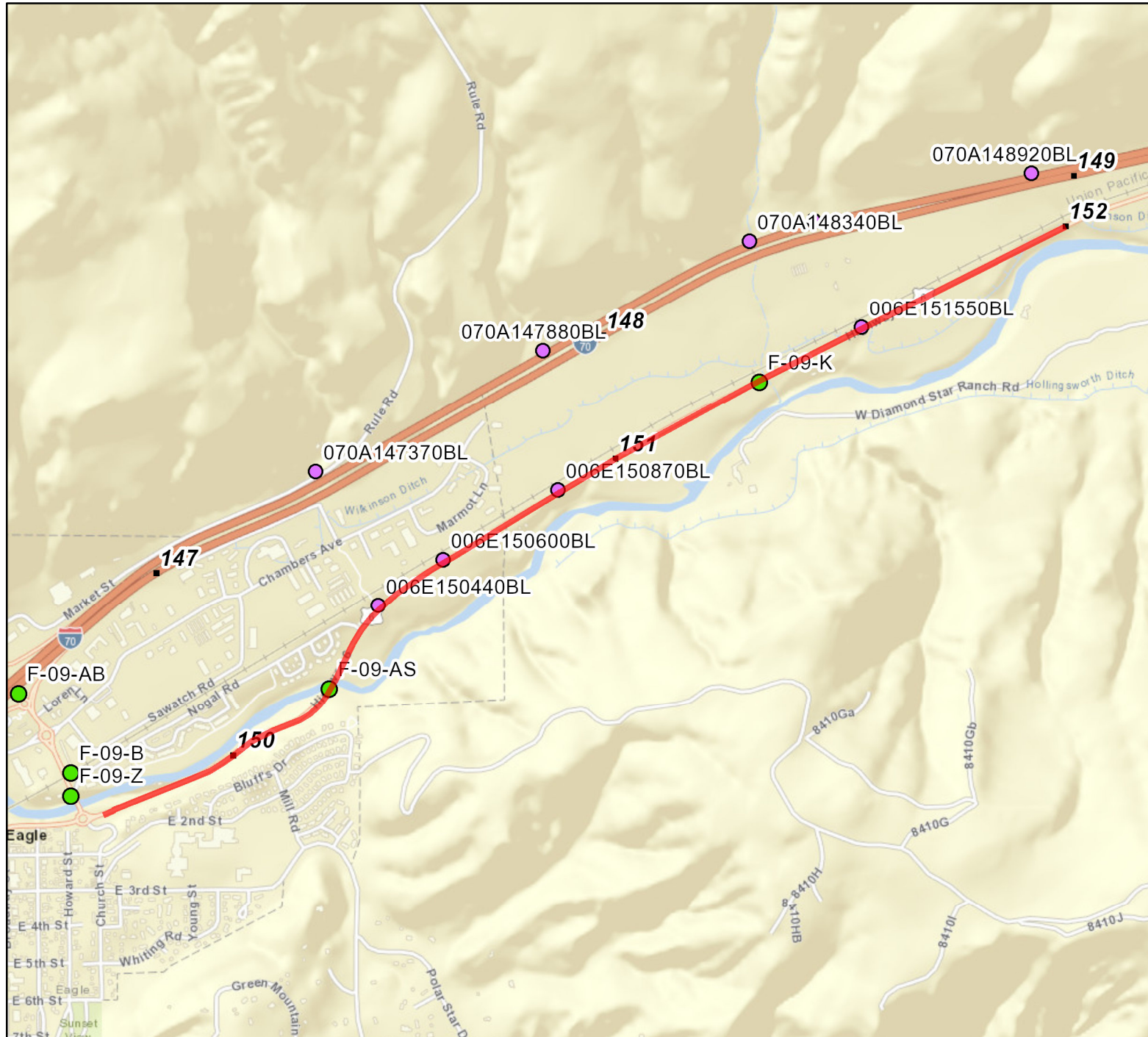
SK-003

LEGEND

- ROAD
ASPHALT
- SIDEWALK
CONCRETE
- TRAIL
DISCOVERY TRAIL
- STORMWATER SWALE
- STORMWATER/IRRIGATION POND
- BUILDING PADS
- DRIVEWAY/PARKING
CONCRETE

- PARCEL BOUNDARY LINE
- PROPERTY LINE
SPECIFIC TO INDIVIDUAL UNITS
- 75' STREAM SETBACK
- 100 YEAR FLOOD PLAIN
- AVERAGE HIGH WATER LINE

Route 006E From 149 to 152



Legend

Route

Milepoint

Structures

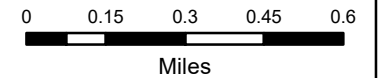
Major Structure

Minor Structure

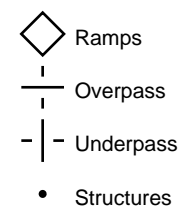
Created:

Date: 12/14/2024

Time: 5:07:08 AM



The information contained in this map is based on the most currently available data and has been checked for accuracy. CDOT does not guarantee the accuracy of any information presented, is not liable in any respect for any errors or omissions, and is not responsible for determining "fitness for use".

Route 006E
From 149 To 152

CLASSIFICATION

Access Control	R-A: Regional Highway
----------------	-----------------------

SAFETY

Primary Speed Limit	35	45	55
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TRAFFIC

AADT	3900
Design Hour Truck Percentage	0.20
DHV	15.0
Off Peak Truck Percentage	3.60
Route Capacity	2400
V/C Ratio	0.28
V/C Ratio 20	0.37
VMT	36886
Year 20 Factor	1.33

It may appear that information is missing from the straight line diagram. If so, reduce the number of miles/page and re-submit the request.

COUNTER MEASURES INC

1889 YORK ST
DENVER COLORADO
303-333-7409

N/S STREET: NOGAL RD
E/W STREET: HWY 6
CITY: EAGLE
COUNTY: EAGLE

File Name : NOGAL RD HWY 6 EAGLE
Site Code : 00000025
Start Date : 12/11/2024
Page No : 1

Groups Printed- Unshifted

	NOGAL RD SOUTHBOUND				HWY 6 WESTBOUND				NO ACCESS NORTHBOUND				HWY 6 EASTBOUND				Int. Total
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
06:30 AM	1	0	11	0	0	5	0	0	0	0	0	0	2	5	0	0	24
06:45 AM	4	0	21	0	0	4	1	0	0	0	0	0	1	8	0	0	39
Total	5	0	32	0	0	9	1	0	0	0	0	0	3	13	0	0	63
07:00 AM	4	0	20	0	0	6	0	0	0	0	0	0	3	17	0	0	50
07:15 AM	2	0	19	0	0	4	0	0	0	0	0	0	2	36	0	0	63
07:30 AM	3	0	33	0	0	7	1	0	0	0	0	0	7	62	0	0	113
07:45 AM	3	0	42	0	0	16	0	1	0	0	0	0	11	27	0	0	100
Total	12	0	114	0	0	33	1	1	0	0	0	0	23	142	0	0	326
08:00 AM	2	0	20	0	0	10	0	0	0	0	0	0	9	27	0	0	68
08:15 AM	8	0	16	0	0	7	1	0	0	0	0	0	7	19	0	0	58
Total	10	0	36	0	0	17	1	0	0	0	0	0	16	46	0	0	126
04:00 PM	0	0	17	0	0	21	2	1	0	0	0	0	23	16	0	0	80
04:15 PM	4	0	9	0	0	22	2	1	0	0	0	0	31	16	0	0	85
04:30 PM	0	0	12	0	0	28	2	0	0	0	0	0	22	11	0	0	75
04:45 PM	3	0	22	0	0	30	4	0	0	0	0	0	28	16	0	0	103
Total	7	0	60	0	0	101	10	2	0	0	0	0	104	59	0	0	343
05:00 PM	1	0	12	0	0	34	5	1	0	0	0	0	20	12	0	0	85
05:15 PM	0	0	10	0	0	27	3	0	0	0	0	0	29	10	0	0	79
05:30 PM	1	0	18	0	0	36	6	0	0	0	0	0	31	7	0	0	99
Total	2	0	40	0	0	97	14	1	0	0	0	0	80	29	0	0	263
Grand Total	36	0	282	0	0	257	27	4	0	0	0	0	226	289	0	0	1121
Apprch %	11.3	0	88.7	0	0	89.2	9.4	1.4	0	0	0	0	43.9	56.1	0	0	
Total %	3.2	0	25.2	0	0	22.9	2.4	0.4	0	0	0	0	20.2	25.8	0	0	

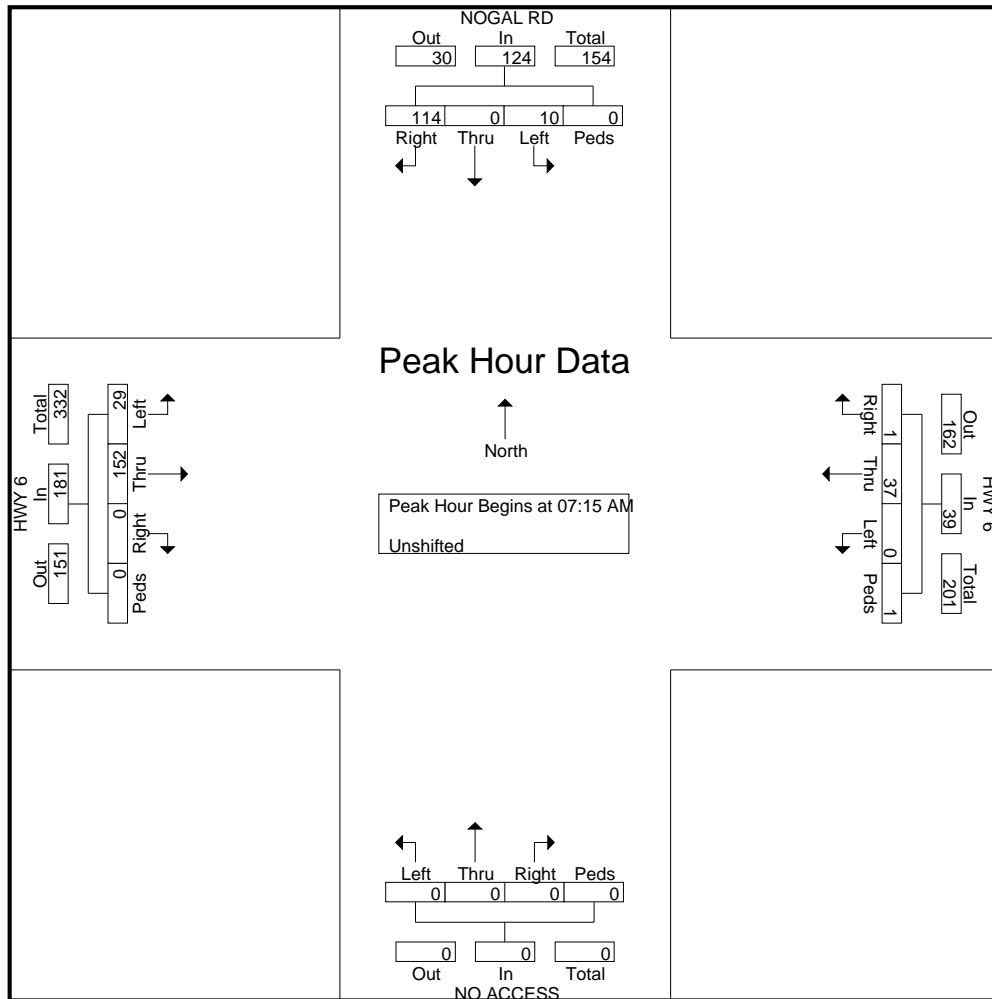
COUNTER MEASURES INC

1889 YORK ST
DENVER COLORADO
303-333-7409

N/S STREET: NOGAL RD
E/W STREET: HWY 6
CITY: EAGLE
COUNTY: EAGLE

File Name : NOGAL RD HWY 6 EAGLE
Site Code : 00000025
Start Date : 12/11/2024
Page No : 2

	NOGAL RD SOUTHBOUND					HWY 6 WESTBOUND					NO ACCESS NORTHBOUND					HWY 6 EASTBOUND					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	2	0	19	0	21	0	4	0	0	4	0	0	0	0	0	2	36	0	0	38	63
07:30 AM	3	0	33	0	36	0	7	1	0	8	0	0	0	0	0	7	62	0	0	69	113
07:45 AM	3	0	42	0	45	0	16	0	1	17	0	0	0	0	0	11	27	0	0	38	100
08:00 AM	2	0	20	0	22	0	10	0	0	10	0	0	0	0	0	9	27	0	0	36	68
Total Volume	10	0	114	0	124	0	37	1	1	39	0	0	0	0	0	29	152	0	0	181	344
% App. Total	8.1	0	91.9	0		0	94.9	2.6	2.6		0	0	0	0		16	84	0	0		
PHF	.833	.000	.679	.000	.689	.000	.578	.250	.250	.574	.000	.000	.000	.000	.000	.659	.613	.000	.000	.656	.761



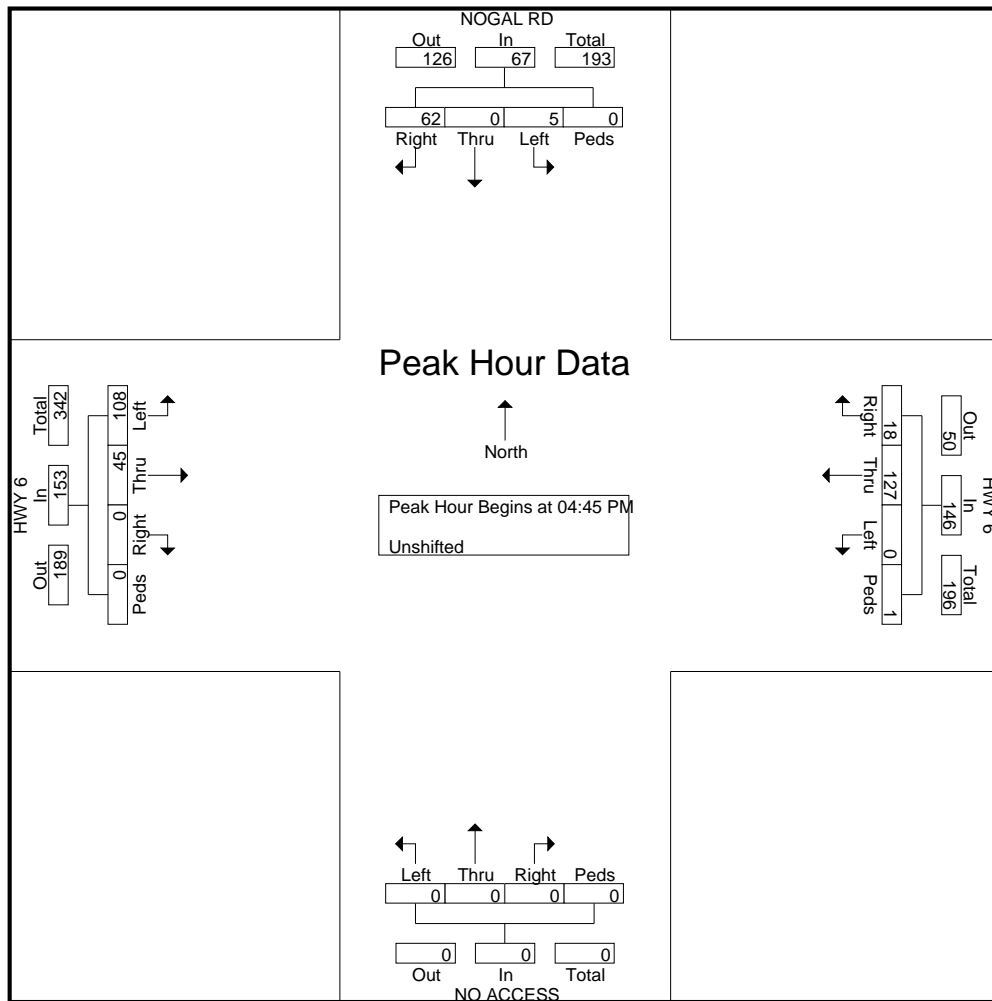
COUNTER MEASURES INC

1889 YORK ST
DENVER COLORADO
303-333-7409

N/S STREET: NOGAL RD
E/W STREET: HWY 6
CITY: EAGLE
COUNTY: EAGLE

File Name : NOGAL RD HWY 6 EAGLE
Site Code : 00000025
Start Date : 12/11/2024
Page No : 3

	NOGAL RD SOUTHBOUND					HWY 6 WESTBOUND					NO ACCESS NORTHBOUND					HWY 6 EASTBOUND					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	3	0	22	0	25	0	30	4	0	34	0	0	0	0	0	28	16	0	0	44	103
05:00 PM	1	0	12	0	13	0	34	5	1	40	0	0	0	0	0	20	12	0	0	32	85
05:15 PM	0	0	10	0	10	0	27	3	0	30	0	0	0	0	0	29	10	0	0	39	79
05:30 PM	1	0	18	0	19	0	36	6	0	42	0	0	0	0	0	31	7	0	0	38	99
Total Volume	5	0	62	0	67	0	127	18	1	146	0	0	0	0	0	108	45	0	0	153	366
% App. Total	7.5	0	92.5	0		0	87	12.3	0.7		0	0	0	0		70.6	29.4	0	0		
PHF	.417	.000	.705	.000	.670	.000	.882	.750	.250	.869	.000	.000	.000	.000	.000	.871	.703	.000	.000	.869	.888



CDOT CONTINUOUS COUNT DATA
I-70 Northwest of SH 131 Wolcott (Station ID: 000011)

COUNT STATION ID	CAL YR	JAN COUNT	FEB COUNT	MAR COUNT	APR COUNT	MAY COUNT	JUN COUNT	JUL COUNT	AUG COUNT	SEP COUNT	OCT COUNT	NOV COUNT	DEC COUNT
11	2024	24599	26348	28636	27598	31699	35277	37063	35273	33292	30521	25011	
11	2023	25318	27442	28837	27527	30139	34140	35558	33604	31508	30156	26525	25651
11	2022	24486	24843	29366	26912	28616	33694	34262	33264	32983	29877	26727	25384
11	2021	24064	24697	29156	28675	32013	35571	34096	25913	32666	30062	27745	25939
11	2020	25212	24948	20794	14355	23111	28892	32426	24820	31220	30163	24252	23951
11	2019	24754	24526	26836	26614	29111	33505	34978	34099	32049	29503	25247	25706
11	2018	23833	23879	28066	25227	29140	31990	32973	31668	31171	27693	24967	24944
11	2017	21883	23391	27430	24926	27503	32675	33346	31620	29830	27045	25064	24946
11	2016	22470	20829	25512	23563	27800	31702	33354	32044	30647	27020	23524	23246
11	2015	21420	20606	25633	23457	25290	29571	32273	29663	28616	25758	21938	23347
11	2014	19821	19902	23275	21317	23761	27277	29877	28696	26362	24408	20203	21459
11	2013	19541	19101	22792	20349	23523	21059	28327	27702	24218	22205	19886	20527
11	2012	19531	19755	23271	20611	23037	26496	27976	27526	24666	22125	20449	18208
11	2011	18928	18957	21794	19271	21061	25090	27358	27519	25481	22004	19863	20684
11	2010	19580	19845	20536	20416	22368	25691	28091	27231	24872	20956	19086	19337
11	2009	20473	21084	22687	20734	22971	26494	28787	27696	25134	22138	20205	19814
11	2008	21786	22880	24374	22791	24524	26906	28666	28362	25861	23962	20539	19436
11	2007	21395	21353	23637	22582	24265	27268	29439	26065	23595	22722	22460	20238
11	2006	19845	18485	23220	22153	21138	26740	28011	27524	25338	20618	21992	20939
11	2005	19470	21207	22943	21288	23505	27502	26983	26646	24940	22596	20515	19588
11	2004	18910	18951	22690	21136	22659	24727	28076	27149	24787	22388	19567	19931
11	2003	18431	17949	18942	20692	22441	25869	27729	27381	23831	22323	18017	18767
11	2002	17455	18639	20925	20125	22250	23241	25979	25025	21984	21313	18322	19105
11	2001								18732	19138	18973	18976	17924

$$\text{Seasonal Adjustment Factor} = \frac{35,558 \text{ vpd}}{25,651 \text{ vpd}} = 1.386$$

LEVEL OF SERVICE DEFINITIONS

From *Highway Capacity Manual*, Transportation Research Board







UNSIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS)

Applicable to Two-Way Stop Control, All-Way Stop Control, and Roundabouts

LOS	Average Vehicle Control Delay	Operational Characteristics
A	<10 seconds	Normally, vehicles on the stop-controlled approach only have to wait up to 10 seconds before being able to clear the intersection. Left-turning vehicles on the uncontrolled street do not have to wait to make their turn.
B	10 to 15 seconds	Vehicles on the stop-controlled approach will experience delays before being able to clear the intersection. <u>The delay could be up to 15 seconds.</u> Left-turning vehicles on the uncontrolled street may have to wait to make their turn.
C	15 to 25 seconds	Vehicles on the stop-controlled approach can expect delays in the range of 15 to 25 seconds before clearing the intersection. Motorists may begin to take chances due to the long delays, thereby posing a safety risk to through traffic. <u>Left-turning vehicles on the uncontrolled street will now be required to wait to make their turn causing a queue to be created in the turn lane.</u>
D	25 to 35 seconds	<u>This is the point at which a traffic signal may be warranted for this intersection.</u> The delays for the stop-controlled intersection are not considered to be excessive. The length of the queue may begin to block other public and private access points.
E	35 to 50 seconds	The delays for all critical traffic movements are considered to be unacceptable. The length of the queues for the stop-controlled approaches as well as the left-turn movements are extremely long. <u>There is a high probability that this intersection will meet traffic signal warrants.</u> The ability to install a traffic signal is affected by the location of other existing traffic signals. Consideration may be given to restricting the accesses by eliminating the left-turn movements from and to the stop-controlled approach.
F	>50 seconds	The delay for the critical traffic movements are probably in excess of 100 seconds. The length of the queues are extremely long. Motorists are selecting alternative routes due to the long delays. <u>The only remedy for these long delays is installing a traffic signal or restricting the accesses.</u> The potential for accidents at this intersection are extremely high due to motorist taking more risky chances. If the median permits, motorists begin making two-stage left-turns.







HCM 6th TWSC
1: HWY 6 & Nogal Rd







Existing
AM Peak







Intersection						
Int Delay, s/veh	4.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	40	211	51	2	14	158
Future Vol, veh/h	40	211	51	2	14	158
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	240	58	2	16	180
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	60	0	-	0	388	58
Stage 1	-	-	-	-	58	-
Stage 2	-	-	-	-	330	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1544	-	-	-	616	1008
Stage 1	-	-	-	-	965	-
Stage 2	-	-	-	-	728	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1544	-	-	-	598	1008
Mov Cap-2 Maneuver	-	-	-	-	598	-
Stage 1	-	-	-	-	937	-
Stage 2	-	-	-	-	728	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.2	0		9.7		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1544	-	-	-	955	
HCM Lane V/C Ratio	0.029	-	-	-	0.205	
HCM Control Delay (s)	7.4	-	-	-	9.7	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.8	

HCM 6th TWSC
1: HWY 6 & Nogal Rd

Existing
PM Peak

Intersection						
Int Delay, s/veh	4.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	150	62	176	25	7	86
Future Vol, veh/h	150	62	176	25	7	86
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	170	70	200	28	8	98
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	228	0	-	0	610	200
Stage 1	-	-	-	-	200	-
Stage 2	-	-	-	-	410	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1340	-	-	-	458	841
Stage 1	-	-	-	-	834	-
Stage 2	-	-	-	-	670	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1340	-	-	-	400	841
Mov Cap-2 Maneuver	-	-	-	-	400	-
Stage 1	-	-	-	-	728	-
Stage 2	-	-	-	-	670	-
Approach	EB	WB		SB		
HCM Control Delay, s	5.7	0		10.4		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1340	-	-	-	777	
HCM Lane V/C Ratio	0.127	-	-	-	0.136	
HCM Control Delay (s)	8.1	-	-	-	10.4	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0.4	-	-	-	0.5	







Intersection						
Int Delay, s/veh	4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	40	227	55	5	15	160
Future Vol, veh/h	40	227	55	5	15	160
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	258	63	6	17	182
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	69	0	-	0	411	63
Stage 1	-	-	-	-	63	-
Stage 2	-	-	-	-	348	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1532	-	-	-	597	1002
Stage 1	-	-	-	-	960	-
Stage 2	-	-	-	-	715	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1532	-	-	-	580	1002
Mov Cap-2 Maneuver	-	-	-	-	580	-
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	715	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.1	0		9.8		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1532	-	-	-	943	
HCM Lane V/C Ratio	0.03	-	-	-	0.211	
HCM Control Delay (s)	7.4	-	-	-	9.8	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.8	

Intersection						
Int Delay, s/veh	4.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	150	67	190	25	10	90
Future Vol, veh/h	150	67	190	25	10	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	170	76	216	28	11	102
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	244	0	-	0	632	216
Stage 1	-	-	-	-	216	-
Stage 2	-	-	-	-	416	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1322	-	-	-	444	824
Stage 1	-	-	-	-	820	-
Stage 2	-	-	-	-	666	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1322	-	-	-	387	824
Mov Cap-2 Maneuver	-	-	-	-	387	-
Stage 1	-	-	-	-	714	-
Stage 2	-	-	-	-	666	-
Approach	EB	WB		SB		
HCM Control Delay, s	5.6	0		10.7		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1322	-	-	-	740	
HCM Lane V/C Ratio	0.129	-	-	-	0.154	
HCM Control Delay (s)	8.1	-	-	-	10.7	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0.4	-	-	-	0.5	

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	77	0	0	215	0	0
Future Vol, veh/h	77	0	0	215	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	0	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	88	0	0	244	0	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	88	0	332	88
Stage 1	-	-	-	-	88	-
Stage 2	-	-	-	-	244	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1508	-	663	970
Stage 1	-	-	-	-	935	-
Stage 2	-	-	-	-	797	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1508	-	663	970
Mov Cap-2 Maneuver	-	-	-	-	663	-
Stage 1	-	-	-	-	935	-
Stage 2	-	-	-	-	797	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		0	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	-	1508	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	0	-	-	0	-
HCM Lane LOS	A	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-

HCM 6th TWSC
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Intersection						
Int Delay, s/veh	3.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	40	257	93	5	15	160
Future Vol, veh/h	40	257	93	5	15	160
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	292	106	6	17	182
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	112	0	-	0	488	106
Stage 1	-	-	-	-	106	-
Stage 2	-	-	-	-	382	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1478	-	-	-	539	948
Stage 1	-	-	-	-	918	-
Stage 2	-	-	-	-	690	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1478	-	-	-	523	948
Mov Cap-2 Maneuver	-	-	-	-	523	-
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	690	-
Approach	EB	WB		SB		
HCM Control Delay, s	1	0		10.2		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1478	-	-	-	886	
HCM Lane V/C Ratio	0.031	-	-	-	0.224	
HCM Control Delay (s)	7.5	-	-	-	10.2	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9	







HCM 6th TWSC
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Intersection						
Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Vol, veh/h	241	31	8	59	39	11
Future Vol, veh/h	241	31	8	59	39	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	0	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	274	35	9	67	44	13
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	309	0	359	274
Stage 1	-	-	-	-	274	-
Stage 2	-	-	-	-	85	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1252	-	640	765
Stage 1	-	-	-	-	772	-
Stage 2	-	-	-	-	938	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1252	-	636	765
Mov Cap-2 Maneuver	-	-	-	-	636	-
Stage 1	-	-	-	-	772	-
Stage 2	-	-	-	-	931	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.9		10.8	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	636	765	-	-	1252	-
HCM Lane V/C Ratio	0.07	0.016	-	-	0.007	-
HCM Control Delay (s)	11.1	9.8	-	-	7.9	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-

HCM 6th TWSC
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Intersection						
Int Delay, s/veh	3.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	150	112	224	25	11	90
Future Vol, veh/h	150	112	224	25	11	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	170	127	255	28	13	102
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	283	0	-	0	722	255
Stage 1	-	-	-	-	255	-
Stage 2	-	-	-	-	467	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1279	-	-	-	394	784
Stage 1	-	-	-	-	788	-
Stage 2	-	-	-	-	631	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1279	-	-	-	342	784
Mov Cap-2 Maneuver	-	-	-	-	342	-
Stage 1	-	-	-	-	683	-
Stage 2	-	-	-	-	631	-
Approach	EB		WB		SB	
HCM Control Delay, s	4.7		0		11.3	
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1279	-	-	-	687	
HCM Lane V/C Ratio	0.133	-	-	-	0.167	
HCM Control Delay (s)	8.2	-	-	-	11.3	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0.5	-	-	-	0.6	

HCM 6th TWSC
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Intersection								
Int Delay, s/veh	1.4							
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑	↗	↖	↑	↖	↗		
Traffic Vol, veh/h	76	47	13	214	35	10		
Future Vol, veh/h	76	47	13	214	35	10		
Conflicting Peds, #/hr	0	0	0	0	0	0		
Sign Control	Free	Free	Free	Free	Stop	Stop		
RT Channelized	-	None	-	None	-	None		
Storage Length	-	0	0	-	0	0		
Veh in Median Storage, #	0	-	-	0	0	-		
Grade, %	0	-	-	0	0	-		
Peak Hour Factor	88	88	88	88	88	88		
Heavy Vehicles, %	2	2	2	2	2	2		
Mvmt Flow	86	53	15	243	40	11		
Major/Minor	Major1		Major2		Minor1			
Conflicting Flow All	0	0	139	0	359	86		
Stage 1	-	-	-	-	86	-		
Stage 2	-	-	-	-	273	-		
Critical Hdwy	-	-	4.12	-	6.42	6.22		
Critical Hdwy Stg 1	-	-	-	-	5.42	-		
Critical Hdwy Stg 2	-	-	-	-	5.42	-		
Follow-up Hdwy	-	-	2.218	-	3.518	3.318		
Pot Cap-1 Maneuver	-	-	1445	-	640	973		
Stage 1	-	-	-	-	937	-		
Stage 2	-	-	-	-	773	-		
Platoon blocked, %	-	-		-				
Mov Cap-1 Maneuver	-	-	1445	-	634	973		
Mov Cap-2 Maneuver	-	-	-	-	634	-		
Stage 1	-	-	-	-	937	-		
Stage 2	-	-	-	-	765	-		
Approach	EB		WB		NB			
HCM Control Delay, s	0		0.4		10.6			
HCM LOS	B							
Minor Lane/Major Mvmt	NBLn1		NBLn2		EBT	EBR	WBL	WBT
Capacity (veh/h)	634		973		-	-	1445	-
HCM Lane V/C Ratio	0.063		0.012		-	-	0.01	-
HCM Control Delay (s)	11.1		8.7		-	-	7.5	-
HCM Lane LOS	B		A		-	-	A	-
HCM 95th %tile Q(veh)	0.2		0		-	-	0	-

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	40	355	85	5	15	160
Future Vol, veh/h	40	355	85	5	15	160
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	403	97	6	17	182
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	103	0	-	0	590	97
Stage 1	-	-	-	-	97	-
Stage 2	-	-	-	-	493	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1489	-	-	-	470	959
Stage 1	-	-	-	-	927	-
Stage 2	-	-	-	-	614	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1489	-	-	-	456	959
Mov Cap-2 Maneuver	-	-	-	-	456	-
Stage 1	-	-	-	-	899	-
Stage 2	-	-	-	-	614	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.8	0		10.3		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1489	-	-	-	876	
HCM Lane V/C Ratio	0.031	-	-	-	0.227	
HCM Control Delay (s)	7.5	-	-	-	10.3	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9	

Intersection						
Int Delay, s/veh	3.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	150	105	300	25	10	90
Future Vol, veh/h	150	105	300	25	10	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	170	119	341	28	11	102
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	369	0	-	0	800	341
Stage 1	-	-	-	-	341	-
Stage 2	-	-	-	-	459	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1190	-	-	-	354	701
Stage 1	-	-	-	-	720	-
Stage 2	-	-	-	-	636	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1190	-	-	-	303	701
Mov Cap-2 Maneuver	-	-	-	-	303	-
Stage 1	-	-	-	-	617	-
Stage 2	-	-	-	-	636	-
Approach	EB	WB		SB		
HCM Control Delay, s	5	0		12.1		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1190	-	-	-	620	
HCM Lane V/C Ratio	0.143	-	-	-	0.183	
HCM Control Delay (s)	8.5	-	-	-	12.1	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0.5	-	-	-	0.7	







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Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	40	385	123	5	15	160
Future Vol, veh/h	40	385	123	5	15	160
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	438	140	6	17	182
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	146	0	-	0	668	140
Stage 1	-	-	-	-	140	-
Stage 2	-	-	-	-	528	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1436	-	-	-	423	908
Stage 1	-	-	-	-	887	-
Stage 2	-	-	-	-	592	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1436	-	-	-	410	908
Mov Cap-2 Maneuver	-	-	-	-	410	-
Stage 1	-	-	-	-	860	-
Stage 2	-	-	-	-	592	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.7	0		10.8		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1436	-	-	-	822	
HCM Lane V/C Ratio	0.032	-	-	-	0.242	
HCM Control Delay (s)	7.6	-	-	-	10.8	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9	







HCM 6th TWSC
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Intersection								
Int Delay, s/veh	1.3							
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations								
Traffic Vol, veh/h	369	31	8	89	39	11		
Future Vol, veh/h	369	31	8	89	39	11		
Conflicting Peds, #/hr	0	0	0	0	0	0		
Sign Control	Free	Free	Free	Free	Stop	Stop		
RT Channelized	-	None	-	None	-	None		
Storage Length	-	0	0	-	0	0		
Veh in Median Storage, #	0	-	-	0	0	-		
Grade, %	0	-	-	0	0	-		
Peak Hour Factor	88	88	88	88	88	88		
Heavy Vehicles, %	2	2	2	2	2	2		
Mvmt Flow	419	35	9	101	44	13		
Major/Minor	Major1		Major2		Minor1			
Conflicting Flow All	0	0	454	0	538	419		
Stage 1	-	-	-	-	419	-		
Stage 2	-	-	-	-	119	-		
Critical Hdwy	-	-	4.12	-	6.42	6.22		
Critical Hdwy Stg 1	-	-	-	-	5.42	-		
Critical Hdwy Stg 2	-	-	-	-	5.42	-		
Follow-up Hdwy	-	-	2.218	-	3.518	3.318		
Pot Cap-1 Maneuver	-	-	1107	-	504	634		
Stage 1	-	-	-	-	664	-		
Stage 2	-	-	-	-	906	-		
Platoon blocked, %	-	-		-				
Mov Cap-1 Maneuver	-	-	1107	-	500	634		
Mov Cap-2 Maneuver	-	-	-	-	500	-		
Stage 1	-	-	-	-	664	-		
Stage 2	-	-	-	-	899	-		
Approach	EB		WB		NB			
HCM Control Delay, s	0		0.7		12.4			
HCM LOS					B			
Minor Lane/Major Mvmt	NBLn1		NBLn2		EBT	EBR	WBL	WBT
Capacity (veh/h)	500		634		-	-	1107	-
HCM Lane V/C Ratio	0.089		0.02		-	-	0.008	-
HCM Control Delay (s)	12.9		10.8		-	-	8.3	-
HCM Lane LOS	B		B		-	-	A	-
HCM 95th %tile Q(veh)	0.3		0.1		-	-	0	-

HCM 6th TWSC
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Intersection						
Int Delay, s/veh	3.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	150	150	334	25	11	90
Future Vol, veh/h	150	150	334	25	11	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	170	170	380	28	13	102
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	408	0	-	0	890	380
Stage 1	-	-	-	-	380	-
Stage 2	-	-	-	-	510	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1151	-	-	-	313	667
Stage 1	-	-	-	-	691	-
Stage 2	-	-	-	-	603	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1151	-	-	-	267	667
Mov Cap-2 Maneuver	-	-	-	-	267	-
Stage 1	-	-	-	-	589	-
Stage 2	-	-	-	-	603	-
Approach	EB	WB		SB		
HCM Control Delay, s	4.3	0		12.9		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1151	-	-	-	573	
HCM Lane V/C Ratio	0.148	-	-	-	0.2	
HCM Control Delay (s)	8.7	-	-	-	12.9	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0.5	-	-	-	0.7	

HCM 6th TWSC
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Intersection						
Int Delay, s/veh	1.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Vol, veh/h	114	47	13	324	35	10
Future Vol, veh/h	114	47	13	324	35	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	0	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	130	53	15	368	40	11
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	183	0	528	130
Stage 1	-	-	-	-	130	-
Stage 2	-	-	-	-	398	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1392	-	511	920
Stage 1	-	-	-	-	896	-
Stage 2	-	-	-	-	678	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1392	-	505	920
Mov Cap-2 Maneuver	-	-	-	-	505	-
Stage 1	-	-	-	-	896	-
Stage 2	-	-	-	-	671	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		11.9	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	505	920	-	-	1392	-
HCM Lane V/C Ratio	0.079	0.012	-	-	0.011	-
HCM Control Delay (s)	12.7	9	-	-	7.6	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-