

## TRANSPORTATION MEMORANDUM

For

**Deim Subdivision  
El Paso County, Colorado**

January 2025

Prepared for:

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## I. Introduction

### Project Overview

This transportation memorandum is provided as a planning document and addresses the capacity, geometric, and control requirements associated with the development entitled Deim Subdivision.

This proposed residential development consists of a single-family home subdivision. The development is located near the southwest corner of Hodgen Road and Black Forest Road in El Paso County, Colorado.

### Study Area Boundaries

The study area to be examined in this analysis encompasses the Hodgen Road intersections with Black Forest Road, Ridgeback Road, Thompson Road, and the existing private access drive west of the site.

Figure 1 illustrates location of the site and study intersections.

### Site Description

Land for the development is currently vacant and surrounded by open space and residential land uses.

The proposed development is understood to entail the new construction of a subdivision supporting four single-family home lots.

Existing access to the development is shared and provided via the private access drive located approximately 600 feet west of Thompson Road.

For purposes of this study, it is anticipated that development construction would be completed by end of Year 2027.

General site and access locations are shown on Figure 1.

A conceptual sight distance exhibit, illustrating approximate intersection sight distance, is included for reference in Appendix D. This two-dimensional exhibit does not include landscaping, utility, nor vertical curve obstructions, and was prepared in accordance with Table 2-21, of the County's Engineering Criteria Manual (ECM)<sup>1</sup>, Association of State Highway and Transportation Officials' (AASHTO) Policy on Geometric Design of Highways and Streets (Green Book)<sup>2</sup> and is provided for illustrative purposes only.

Per ECM B.2.4.D Sight distance evaluations and recommendations (intersection, stopping, passing) shall be provided.

Conceptual sight distance exhibit already provided as described. Please refer to site civil for additional sight distance information. Recommendations provided within Recommended Improvements in Section VI.

<sup>1</sup> El Paso County Engineering Criteria Manual, El Paso County, October 2020.

<sup>2</sup> A Policy on Geometric Design of Highways and Streets (7<sup>th</sup> Edition), American Association of State Highway and Transportation Officials, 2018.



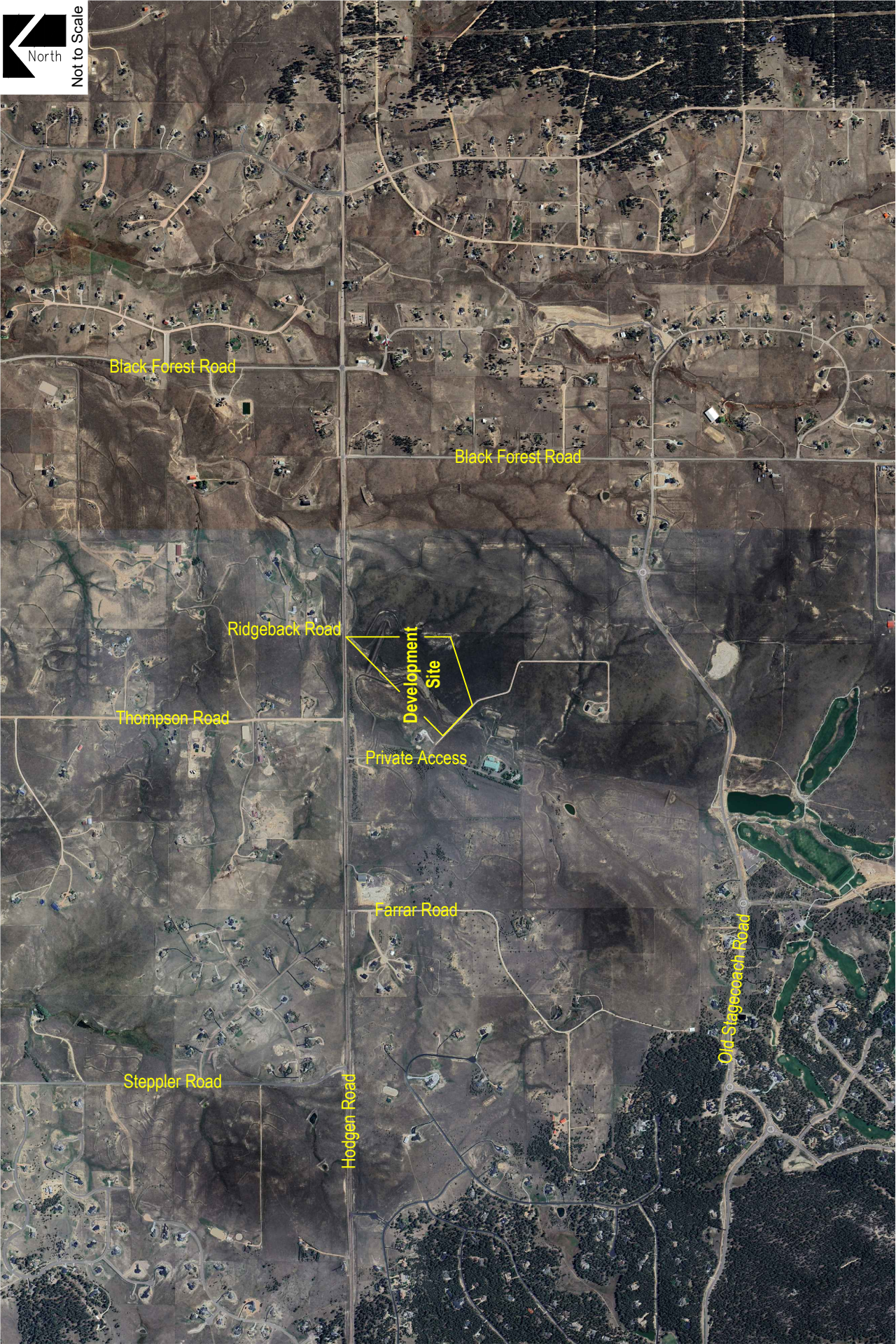


Figure 1  
SITE LOCATION





## Existing and Committed Surface Transportation Network

Within the study area, Hodgen Road is the primary roadway that will accommodate traffic to and from the proposed development. The secondary roadways include Black Forest Road, Ridgeback Road, Thompson Road, and Private Access Drive. A brief description of each roadway, based on the County's Major Transportation Corridors Plan (MTCP)<sup>3</sup> and ECM, is provided below:

Hodgen Road is an east-west rural principal arterial roadway having two through lanes (one lane in each direction) with a combination of shared and exclusive turn lanes at the intersections within the study area. Hodgen Road provides a posted speed limit of 55 MPH.

Black Forest Road is a north-south minor arterial roadway having two through lanes (one lane in each direction) with shared turn lanes at the intersection within the study area. Black Forest Road provides posted speed limits ranging from 40 to 45 MPH.

Thompson Road is a north-south rural local roadway having two through lanes (one lane in each direction) with shared turn lanes at the intersection within the study area. Thompson Road provides a posted speed limit of 30 MPH.

Ridgeback Road is a north-south rural local roadway having two through lanes (one lane in each direction) with shared turn lanes at the intersection within the study area. Ridgeback Road provides a posted speed limit of 25 MPH.

Private Access Drive is a north-south private, non-County maintained roadway having two through lanes (one lane in each direction) with shared turn lanes at the intersection within the study area. Private Access Drive has an assumed posted speed limit of 30 MPH.

All study intersections operate under a stop-controlled condition. A stop-controlled intersection is defined as a roadway intersection where vehicle rights-of-way are controlled by one or more "STOP" signs.

Pursuant to the County's MTCP, Hodgen Road is planned to be widened from two to four through lanes from State Highway 83 to Vollmer Road. The County's MTCP states this as an improvement to occur by Year 2065 but does not mention exactly when this will occur. As such, this improvement was not considered within this analysis.

Please include a statement to acknowledge the Hodgen Road Access Management Plan and the recommendation of the plan that the access point to Hodgen Road will eventually need to be relocated.

Hodgen Road Access Management Plan addressed.

<sup>3</sup> El Paso County Major Transportation Corridors Plan (MTCP), Felsburg Holt & Ullevig, July 2024.

## **II. Existing Traffic Conditions**

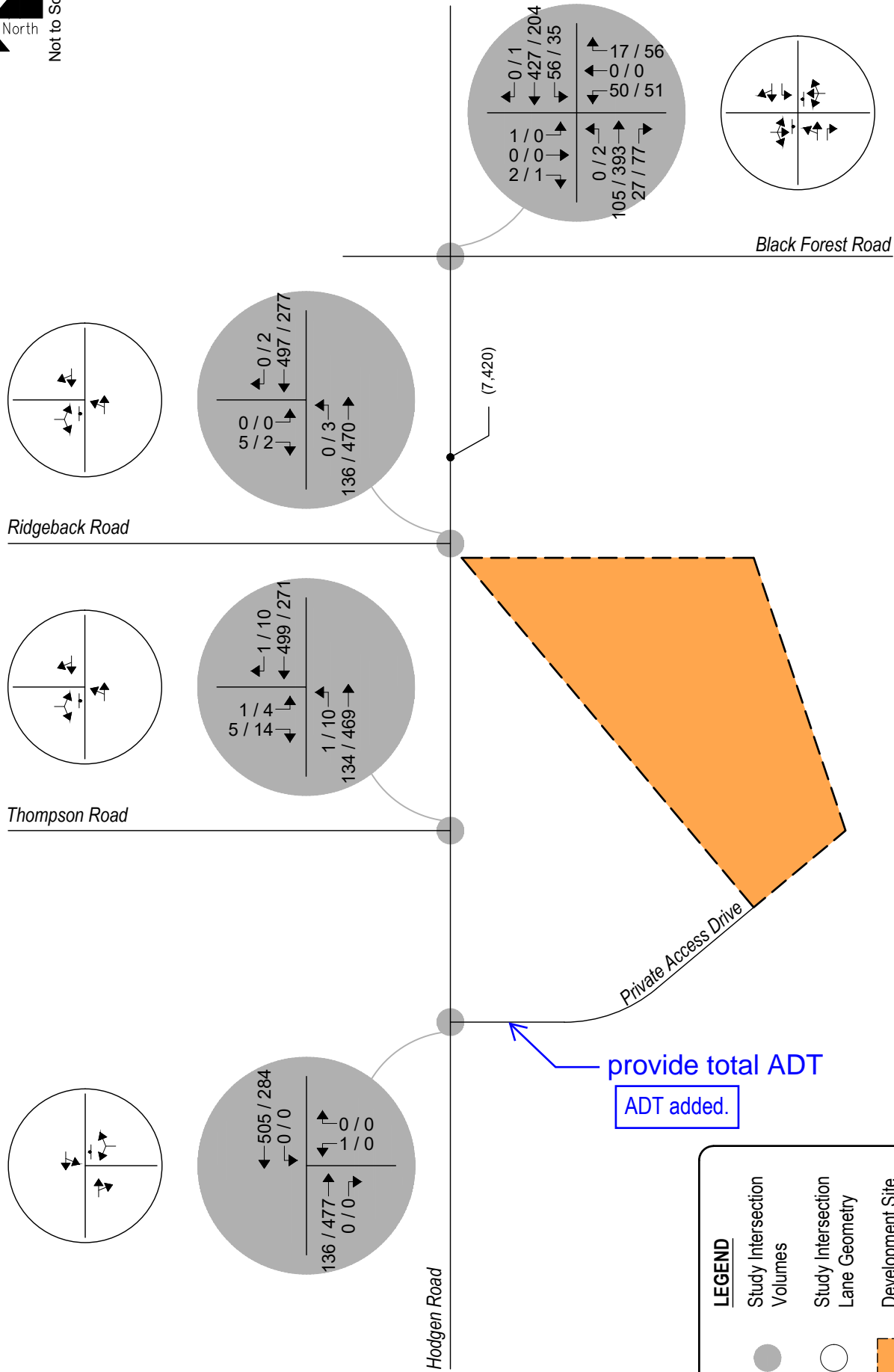
Morning (AM) and afternoon (PM) peak hour traffic counts were collected at the Hodgen Road intersections with Ridgeback Road, Thompson Road, and the Private Access Drive west of the site. Counts were collected on Thursday, December 5, 2024, with AM peak hour counts being collected during the period of 7:00 a.m. to 9:00 a.m. and PM peak hour counts being collected during the period of 4:00 p.m. to 6:00 p.m.

Peak hour traffic counts and 24-hour traffic volumes shown for the Hodgen Road intersection with Black Forest Road and along Hodgen Road were obtained from the Flying Horse North Major PUD Amendment traffic study<sup>4</sup>.

Newly collected and referenced counts representing existing traffic volumes and existing intersection geometry are shown on Figure 2. Traffic count data is included for reference in Appendix A.

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<sup>4</sup> Flying Horse North Major PUD Amendment: Master Traffic Impact Study, SM ROCHA, LLC, January 2025.



**Figure 2**  
**EXISTING TRAFFIC**  
Volumes & Intersection Geometry  
AM / PM Peak Hour  
(ADT) : Average Daily Traffic



## Peak Hour Intersection Levels of Service – Existing Traffic

The Unsignalized Intersection Analysis technique, as published in the Highway Capacity Manual (HCM), 7<sup>th</sup> Edition, by the Transportation Research Board and as incorporated into the SYNCHRO computer program, was used to analyze the study intersections for existing and future traffic conditions. This nationally accepted technique allows for the determination of intersection level of service (LOS) based on the congestion and delay of each traffic movement.

Pursuant to Section B.4.1.A of the County's ECM, the design objective for each scenario of this study shall be level of service "D". Level of service is a method of measurement used by transportation professionals to quantify a driver's perception of travel conditions that include travel time, number of stops, and total amount of stopped delay experienced on a roadway network. The HCM categorizes level of service into a range from "A" which indicates little, if any, vehicle delay, to "F" which indicates a level of operation considered unacceptable to most drivers. These levels of service grades with brief descriptions of the operating condition, for unsignalized and signalized intersections, are included for reference in Appendix B and have been used throughout this study.

The level of service analyses results for existing conditions are summarized in Table 1.

Intersection capacity worksheets developed for this study are provided in Appendix C.

**Table 1 – Intersection Capacity Analysis Summary – Existing Traffic**

INTERSECTION LANE GROUPS	LEVEL OF SERVICE	
	AM PEAK HOUR	PM PEAK HOUR
Hodgen Road / Black Forrest Road (Stop-Controlled)		
Eastbound Left and Through	A	A
Westbound Left	A	A
Northbound Left, Through, and Right	C	C
Southbound Left, Through, and Right	B	A
Hodgen Road / Ridgeback Road (Stop-Controlled)		
Eastbound Left and Through	A	A
Southbound Left and Right	B	A
Hodgen Road / Thompson Road (Stop-Controlled)		
Eastbound Left and Through	A	A
Southbound Left and Right	B	B
Hodgen Road / Private Access (Stop-Controlled)		
Westbound Left and Through	A	A
Northbound Left and Right	B	A

Key: Stop-Controlled Intersection: Level of Service

**Existing Traffic Analysis Results**

Under existing conditions, operational analysis shows that the stop-controlled intersection of Hodgen Road with Black Forest Road has turn movement operations at or better than LOS C during the morning and afternoon peak traffic hours.

The unsignalized intersection of Hodgen Road with Ridgeback Road has turn movement operations at or better than LOS B during the morning peak traffic hour and LOS A during the afternoon peak traffic hour.

The stop-controlled intersection of Hodgen Road with Thompson Road has turn movement operations at or better than LOS B during the morning and afternoon peak traffic hours.

The stop-controlled intersection of Hodgen Road with Private Access Drive has turn movement operations at or better than LOS B during the morning peak traffic hour and LOS A during the afternoon peak traffic hour.

### III. Future Traffic Conditions Without Proposed Development

Background traffic is the traffic projected to be on area roadways without consideration of the proposed development. Background traffic includes traffic generated by development of vacant parcels in the area.

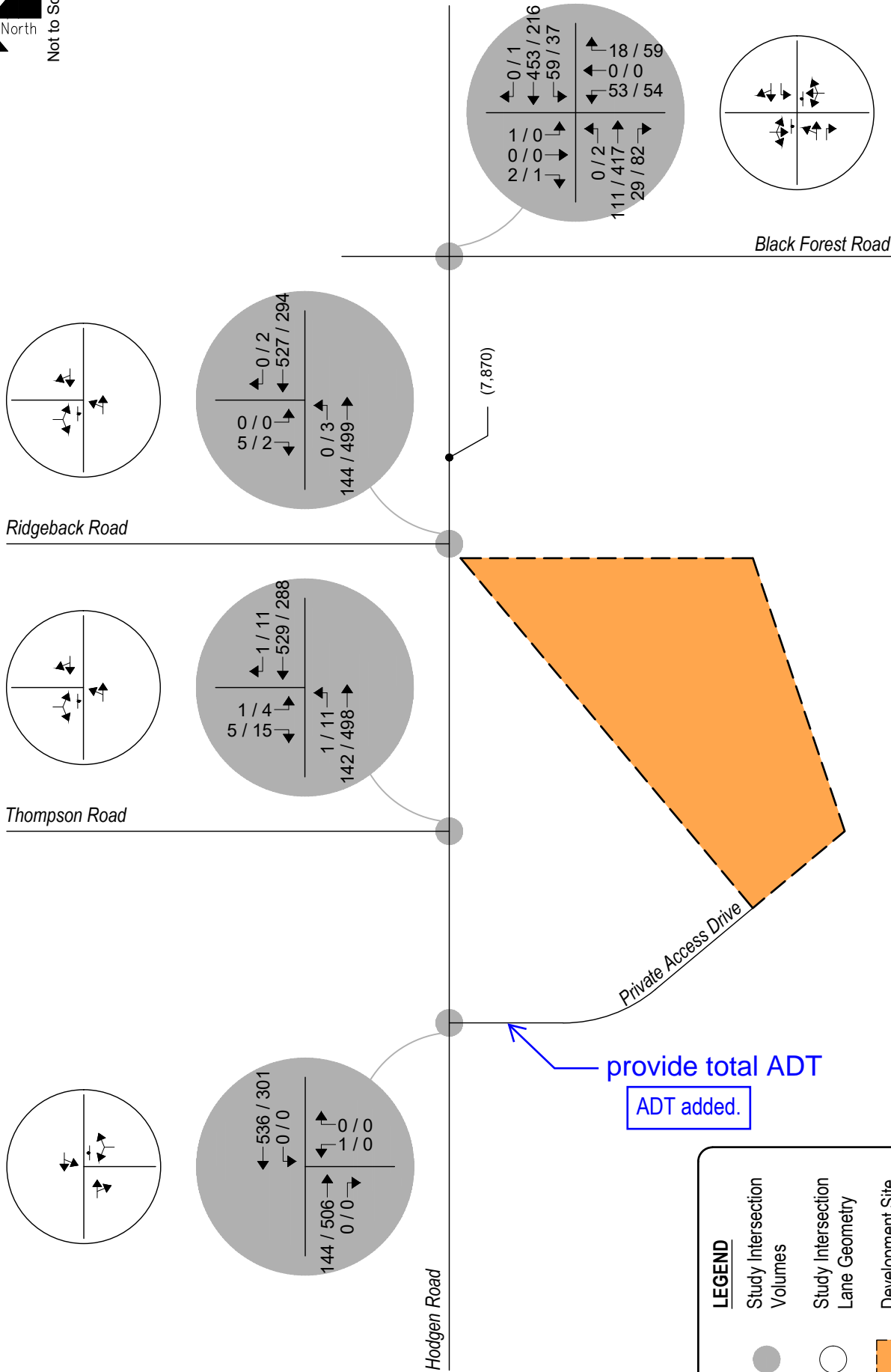
To account for projected increases in background traffic for Year 2027, a compounded annual growth rate was determined using population growth estimates provided by the Pike's Peak Area Council of Governments' (PPACG) 2045 Long Range Transportation Plan<sup>5</sup>, as well as traffic data provided by CDOT's Online Transportation Information System (OTIS) for the adjacent segment of State Highway 83. PPACG's 2045 Long Range Transportation Plan anticipates a 20-year growth rate between one and two percent, while CDOT's OTIS anticipates a 20-year growth rate between two and three percent. Therefore, in order to provide for a conservative analysis, a growth rate of three percent was applied to existing traffic volumes. This annual growth rate is also considered to be consistent with long-term regional growth projections and the level of in-fill development expected within the area.

Pursuant to the non-committed area roadway improvements discussed in Section I, Year 2027 background traffic conditions assume no roadway improvements to accommodate regional transportation demands. This assumption provides for a conservative analysis.

Projected background traffic volumes and intersection geometry for Year 2027 are shown on Figure 3.

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<sup>5</sup> Moving Forward 2045: Pikes Peak Area Regional Transportation Plan, Pikes Peak Area Council of Governments, January 2020.



**Figure 3**  
**BACKGROUND TRAFFIC - YEAR 2027**  
Volumes & Intersection Geometry  
AM / PM Peak Hour  
(ADT) : Average Daily Traffic





## Peak Hour Intersection Levels of Service – Background Traffic

As with existing traffic conditions, the operations of study intersections were analyzed under background conditions, without the proposed development, using the SYNCHRO computer program.

Background traffic level of service analysis results for Year 2027 are listed in Table 2.

Definitions of levels of service are given in Appendix B. Intersection capacity worksheets are provided in Appendix C.

**Table 2 – Intersection Capacity Analysis Summary – Background Traffic – Year 2027**

INTERSECTION LANE GROUPS	LEVEL OF SERVICE	
	AM PEAK HOUR	PM PEAK HOUR
Hodgen Road / Black Forrest Road (Stop-Controlled)		
Eastbound Left and Through	A	A
Westbound Left	A	A
Northbound Left, Through, and Right	C	C
Southbound Left, Through, and Right	B	A
Hodgen Road / Ridgeback Road (Stop-Controlled)		
Eastbound Left and Through	A	A
Southbound Left and Right	B	B
Hodgen Road / Thompson Road (Stop-Controlled)		
Eastbound Left and Through	A	A
Southbound Left and Right	B	B
Hodgen Road / Private Access (Stop-Controlled)		
Westbound Left and Through	A	A
Northbound Left and Right	B	A

Key: Stop-Controlled Intersection: Level of Service

## Background Traffic Analysis Results – Year 2027

Year 2027 background traffic analysis indicates that the stop-controlled intersection of Hodgen Road with Black Forest Road has turn movement operations at or better than LOS C during the morning and afternoon peak traffic hours.

The unsignalized intersection of Hodgen Road with Ridgeback Road projects turn movement operations at or better than LOS B during the morning peak traffic hour and LOS A during the afternoon peak traffic hour.

The stop-controlled intersection of Hodgen Road with Thompson Road expects turn movement operations at or better than LOS B during the morning and afternoon peak traffic hours.

The stop-controlled intersection of Hodgen Road with Private Access Drive predicts turn movement operations at or better than LOS B during the morning peak traffic hour and LOS A during the afternoon peak traffic hour.

## IV. Proposed Project Traffic

### Trip Generation

Standard traffic generation characteristics compiled by the Institute of Transportation Engineers (ITE) in their report entitled Trip Generation Manual, 11<sup>th</sup> Edition, were applied to the proposed land use in order to estimate average daily traffic (ADT), AM Peak Hour, and PM Peak Hour vehicle trips. A vehicle trip is defined as a one-way vehicle movement from a point of origin to a point of destination.

The ITE land use code 210 (Single-Family Detached Housing) was used for estimating trip generation because of its conservative rates and best fit to the proposed land use description.

Trip generation rates used in this study are presented in Table 3.

**Table 3 – Trip Generation Rates**

ITE CODELAND USEUNIT			TRIP GENERATION RATES						
			24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
210	Single-Family Detached Housing	DU	9.43	0.18	0.53	0.70	0.59	0.35	0.94

Key: DU = Dwelling Units.

Note: All data and calculations above are subject to being rounded to nearest value.

Table 4 illustrates projected ADT, AM Peak Hour, and PM Peak Hour traffic volumes likely generated by the proposed development upon build-out.

**Table 4 – Trip Generation Summary**

ITE CODELAND USESIZE			TOTAL TRIPS GENERATED						
			24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
210	Single-Family Detached Housing	4 DU	38	1	2	3	2	2	4
Total:			38	1	2	3	2	2	4

Key: DU = Dwelling Units.

Note: All data and calculations above are subject to being rounded to nearest value.

Upon build-out, Table 4 illustrates that the proposed development has the potential to generate approximately 38 daily vehicle trips with 3 of those occurring during the morning peak hour and 4 during the afternoon peak hour.

### **Adjustments to Trip Generation Rates**

A development of this type is not likely to attract trips from within area land uses nor pass-by or diverted link trips from the adjacent roadway system, therefore no trip reduction was taken in this analysis.

### **Trip Distribution**

The overall directional distribution of site-generated traffic was determined based on the location of development site within the County, proposed and existing area land uses, allowed turning movements, available roadway network, and in reference to historical traffic count data provided by CDOT's Traffic Count Database System (TCDS)<sup>6</sup>.

Overall trip distribution patterns for the development are shown on Figure 4.

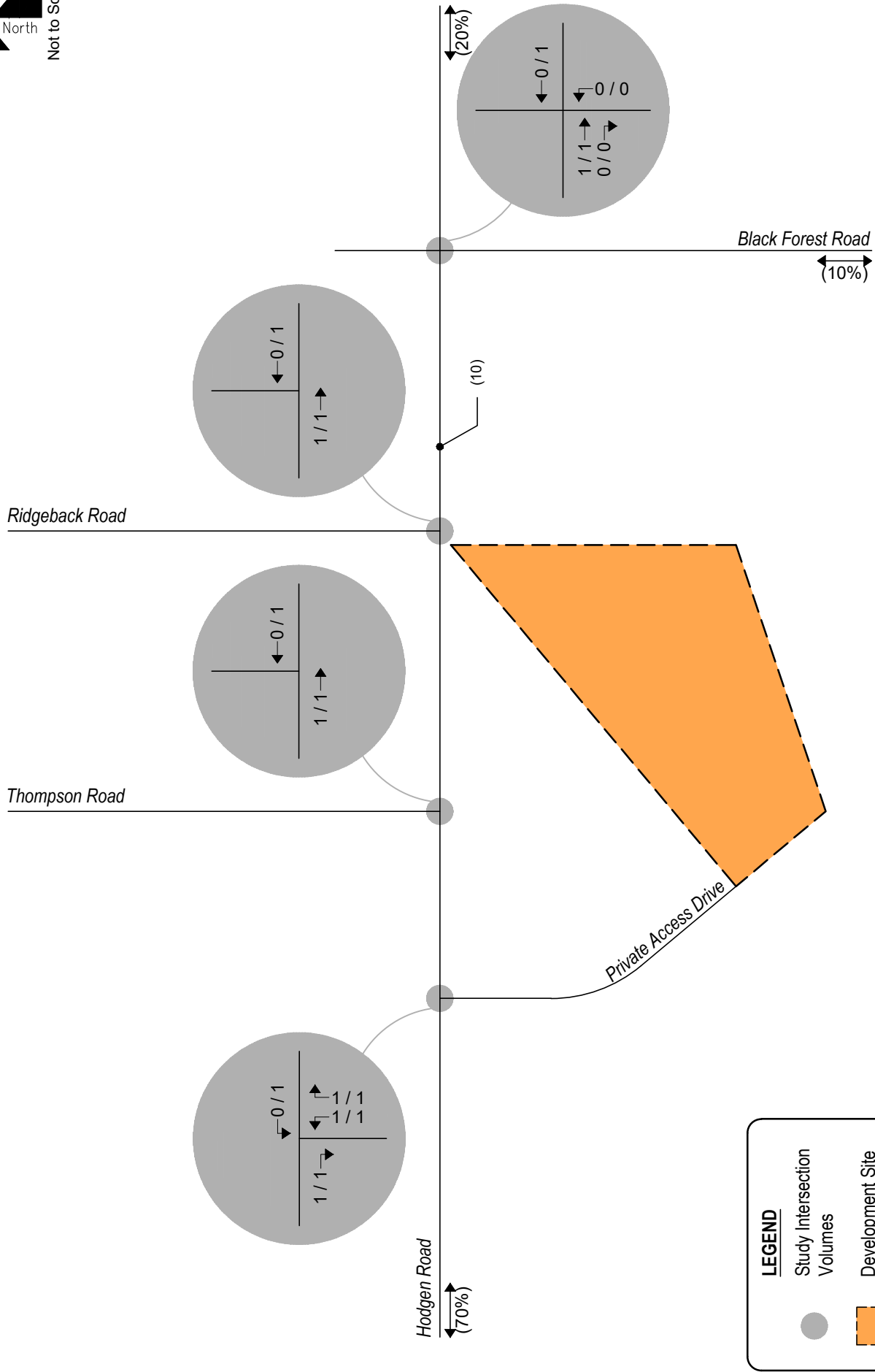
### **Trip Assignment**

Trip assignment is how generated and distributed vehicle trips are expected to be loaded onto the available roadway network.

Applying trip distribution patterns to site-generated traffic provides the overall site-generated trip assignments shown on Figure 4.

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<sup>6</sup> Transportation Data Management System, MS2, 2025.



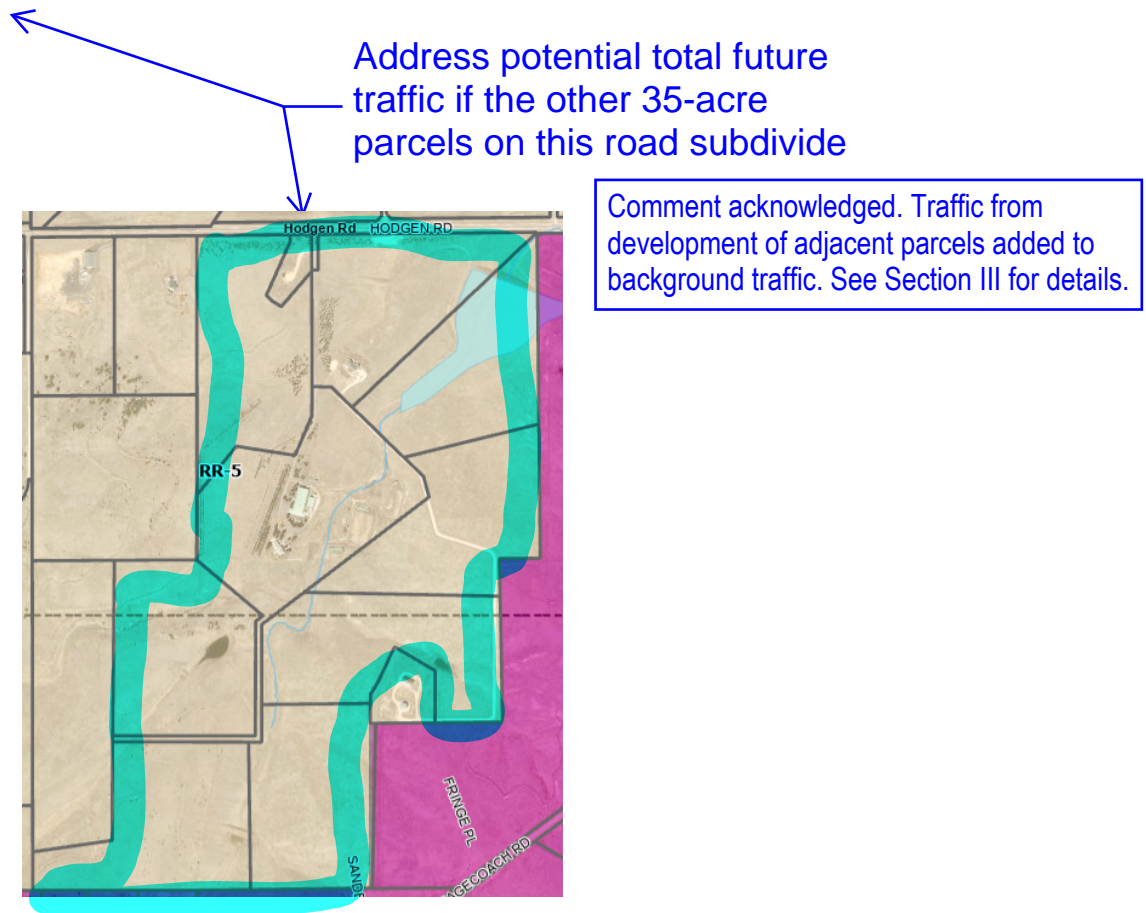
**Figure 4**  
**SITE DEVELOPMENT DISTRIBUTION**  
(%) : Overall  
**SITE-GENERATED TRIPS**  
AM / PM Peak Hour

## V. Future Traffic Conditions With Proposed Developments

Total traffic is the traffic projected to be on area roadways with consideration of the proposed development. Total traffic includes background traffic projections for Year 2027 with consideration of site-generated traffic. For analysis purposes, it was assumed that development construction would be completed by end of Year 2027.

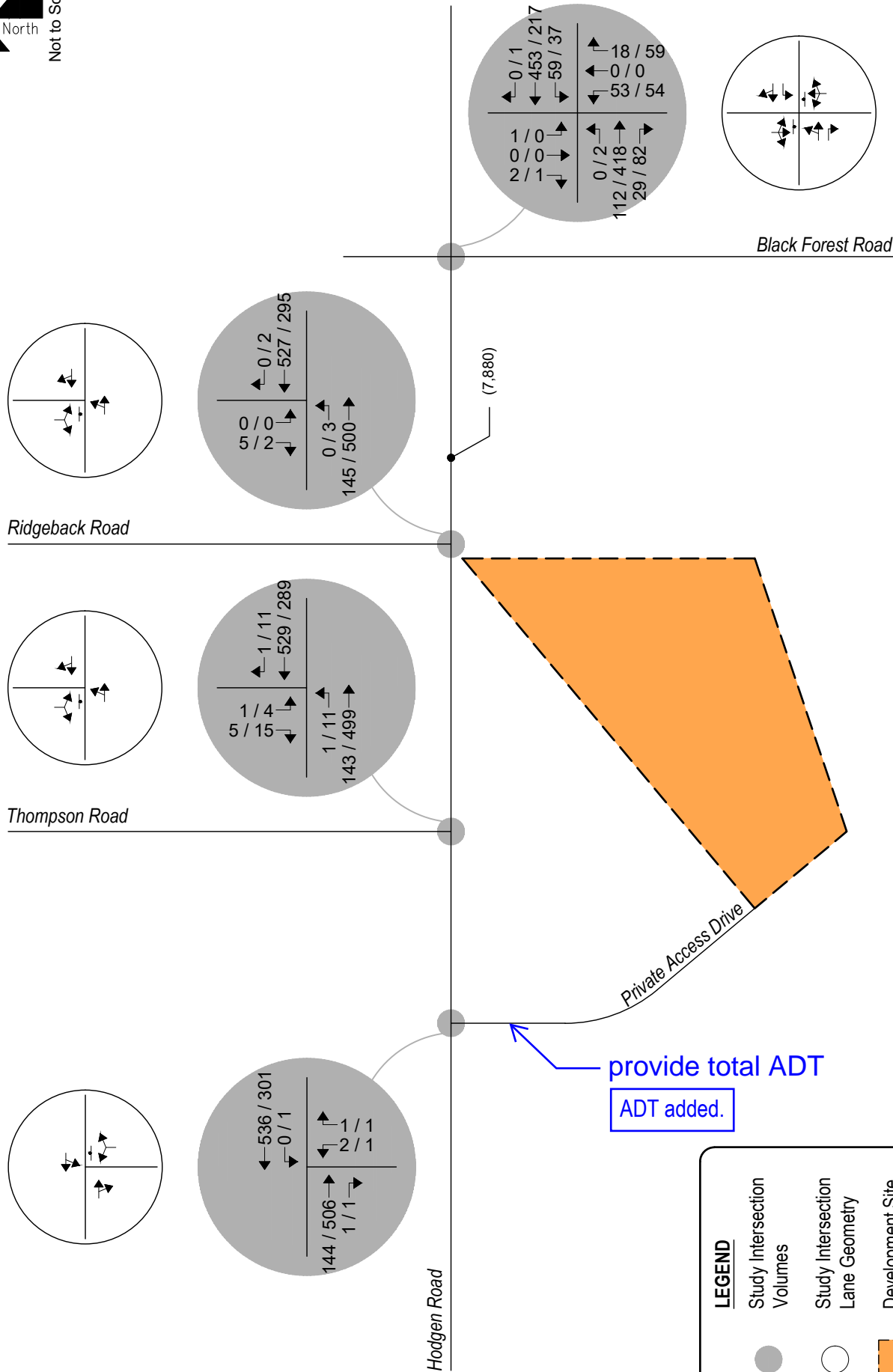
Pursuant to area roadway improvement discussions provided in Section III, Year 2027 total traffic conditions assume no roadway improvements to accommodate regional transportation demands. Roadway improvements associated with site development are expected to be limited to site access and frontage as required by the governing agency.

Projected Year 2027 total traffic volumes and intersection geometry are shown in Figure 5.





Not to Scale



**LEGEND**

- Study Intersection Volumes
- Study Intersection Lane Geometry
- Development Site

**Figure 5**  
**TOTAL TRAFFIC - YEAR 2027**  
Volumes & Intersection Geometry  
AM / PM Peak Hour  
(ADT) : Average Daily Traffic

## VI. Project Impacts

The analyses and procedures described in this study were performed in accordance with the latest HCM and are based upon the worst-case conditions that occur during a typical weekday upon build-out of site development and analyzed land uses. Therefore, study intersections are likely to operate with traffic conditions better than those described within this study, which represent the peak hours of weekday operations only.

### Peak Hour Intersection Levels of Service – Total Traffic

As with background traffic, the operations of the study intersections were analyzed under projected total traffic conditions using the SYNCHRO computer program. Total traffic level of service analysis results for Year 2027 are summarized in Table 5.

Definitions of levels of service are given in Appendix B. Intersection capacity worksheets are provided in Appendix C.

**Table 5 – Intersection Capacity Analysis Summary – Total Traffic – Year 2027**

INTERSECTION LANE GROUPS	LEVEL OF SERVICE	
	AM PEAK HOUR	PM PEAK HOUR
Hodgen Road / Black Forrest Road (Stop-Controlled)		
Eastbound Left and Through	A	A
Westbound Left	A	A
Northbound Left, Through, and Right	C	C
Southbound Left, Through, and Right	B	A
Hodgen Road / Ridgeback Road (Stop-Controlled)		
Eastbound Left and Through	A	A
Southbound Left and Right	B	B
Hodgen Road / Thompson Road (Stop-Controlled)		
Eastbound Left and Through	A	A
Southbound Left and Right	B	B
Hodgen Road / Private Access (Stop-Controlled)		
Westbound Left and Through	A	A
Northbound Left and Right	B	B

Key: Stop-Controlled Intersection: Level of Service

**Total Traffic Analysis Results Upon Development Build-Out**

Table 5 illustrates how, by Year 2027 and upon development build-out, the stop-controlled intersection of Hodgen Road with Black Forest Road continues to expect turn movement operations at or better than LOS C during the morning and afternoon peak traffic hours.

The unsignalized intersection of Hodgen Road with Ridgeback Road projects turn movement operations at or better than LOS B during both peak traffic hours.

The stop-controlled intersection of Hodgen Road with Thompson Road predicts turn movement operations at or better than LOS B during both peak traffic hours.

The stop-controlled intersection of Hodgen Road with Private Access projects turn movement operations at or better than LOS B during both peak traffic hours.

Compared to the background traffic analysis, the traffic generated by the proposed development is not expected to significantly change the operations of the study intersections.

**Total Traffic Auxiliary Lane Analysis**

Auxiliary lanes for the existing site access are to be based on the County's ECM.

Considering development build-out, an evaluation of auxiliary lane requirements, pursuant Section 2.3.7 of the County's ECM, reveals that left and right turn deceleration lanes at the existing Private Access Drive along Hodgen Road are not required since the development's projected peak hour left and right turn ingress volumes do not exceed the County's threshold of 25 and 50 vehicles per hour, respectively.

**Queue Length Analysis**

Queue lengths for the study intersections were analyzed using Year 2027 total traffic conditions. The analysis yields estimate of 95<sup>th</sup> percentile queue lengths, which have only a five percent probability of being exceeded during the analysis time period. An average vehicle length of 25 feet was assumed. Queue lengths were modeled and are included with the Synchro worksheets in Appendix C.

Table 6 summarizes the 95<sup>th</sup> percentile queue results in comparison to the projected storage requirements for turn movements within study area for Year 2027.



**Table 6 – Turn Lane Queues and Storage Requirements – Total Traffic – Year 2027**

Intersection	Turn Movement		Existing Turn Lane Length (feet)	AM Peak Hour		PM Peak Hour		Recommended Turn Lane Length (feet)
				95th Percentile Queue Length (feet)	Vehicle Equivalent (vehicles)	95th Percentile Queue Length (feet)	Vehicle Equivalent (vehicles)	
Stop-Controlled Intersections								
Hodgen Road / Black Forest Road	EB	L,T	-	0'	0	0'	0	-
		R	260'	0'	0	0'	0	260'
	WB	L	290'	3'	1	3'	1	290'
		T,R	-	0'	0	0'	0	-
	NB	L,T,R	-	20'	1	35'	2	-
	SB	L,T,R	-	0'	0	0'	0	-
Hodgen Road / Ridgeback Road	EB	L,T	-	0'	0	0'	0	-
	WB	T,R	-	0'	0	0'	0	-
	SB	L,R	-	0'	0	0'	0	-
Hodgen Road / Thompson Road	EB	L,T	-	0'	0	0'	0	-
	WB	T,R	-	0'	0	0'	0	-
	SB	L,R	-	0'	0	3'	1	-
Hodgen Road / Private Access	EB	T,R	-	0'	0	0'	0	-
	WB	L,T	-	0'	0	0'	0	-
	NB	L,R	-	0'	0	0'	0	-

Note: Turn Lane Length does not include taper length.

As Table 6 shows, no significant queues at the study intersections were indicated and all turn lane lengths have sufficient storage to accommodate future traffic volumes.

### Recommended Improvements

Roadway and intersection improvement recommendations were assessed pursuant to roadway descriptions discussed in Section I, projected peak hour traffic volumes, level of service results, projected 95th percentile queue lengths, and per requirements defined within the County's ECM.

Upon development build-out, total traffic volumes indicate how projected queues are not expected to exceed existing turn lane lengths at the study intersections. Additionally, auxiliary lane analyses show how turn lanes are not warranted at the existing Private Access Drive.

As such, no intersection or roadway improvements to the existing roadway network are recommended at this time.

Address the conditions of the private road, including width, grades, surfacing, etc. and any recommended improvements. Address all proposed roadway deviations and fire district requirements/comments.

Recommended classification and improvements for private road added. Please refer to Site Civil for design specifics.

No roadway deviations are being proposed. Additionally, upon review of the County's EDARP, no fire comments were provided to the plat documents nor any other submittal documents. Please clarify review comment as addressing FD requirements does not appear to be a requirement for traffic reports.

## **VII. Conclusion**

This transportation memorandum addressed the capacity, geometric, and control requirements associated with the development entitled Deim Subdivision. This proposed residential development consists of a single-family home subdivision. The development is located near the southwest corner of Hodgen Road and Black Forest Road in El Paso County, Colorado.

The study area examined in this analysis encompassed the Hodgen Road intersections with Black Forest Road, Ridgeback Road, Thompson Road, and the existing private access drive west of the site.

Analysis was conducted for critical AM Peak Hour and PM Peak Hour traffic operations for existing traffic conditions, Year 2027 background traffic conditions, and Year 2027 total traffic conditions.

Analysis of existing traffic conditions indicates that the stop-controlled intersections along Hodgen Road have turn movement operations at or better than LOS C during the morning and afternoon peak traffic hours.

Without the proposed development, Year 2027 background operational analysis shows that the study intersections along Hodgen Road continue to project turn movement operations at or better than LOS C during the morning and afternoon peak traffic hours.

Analysis of future traffic conditions indicates that the addition of site-generated traffic is expected to create no negative impact to traffic operations for the existing and surrounding roadway system upon roadway and intersection control improvements assumed within this analysis. With all conservative assumptions defined in this analysis, the study intersections are projected to operate at future levels of service comparable to Year 2027 background traffic conditions. The existing site access has short-term operations at LOS B or better during peak traffic periods and upon build-out.

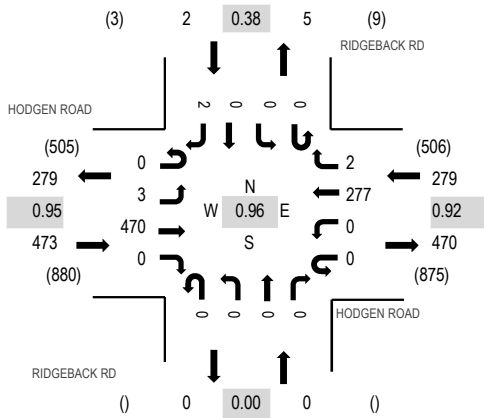
## **APPENDIX A**

### **Traffic Count Data**

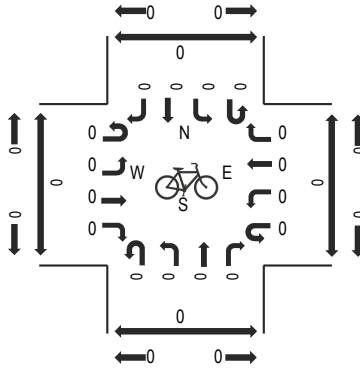


**Location:** 1 RIDGEBACK RD & HODGEN ROAD PM  
**Date:** Thursday, December 5, 2024  
**Peak Hour:** 04:00 PM - 05:00 PM  
**Peak 15-Minutes:** 04:15 PM - 04:30 PM

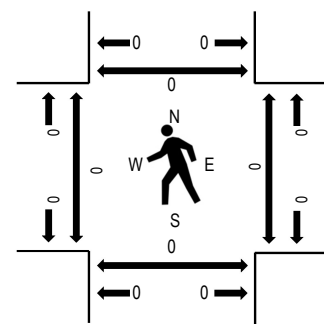
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

Interval Start Time	HODGEN ROAD				HODGEN ROAD				RIDGEBACK RD				RIDGEBACK RD				Total	Rolling Hour	Pedestrian Crossings			
	Eastbound				Westbound				Northbound				Southbound						West East South North			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	118	0	0	0	75	1	0	0	0	0	0	0	0	0	194	754	0	0	0	0
4:15 PM	0	1	124	0	0	0	71	0	0	0	0	0	0	0	0	0	196	729	0	0	0	0
4:30 PM	0	0	120	0	0	0	71	0	0	0	0	0	0	0	0	2	193	682	0	0	0	0
4:45 PM	0	2	108	0	0	0	60	1	0	0	0	0	0	0	0	0	171	657	0	0	0	0
5:00 PM	0	1	111	0	0	0	57	0	0	0	0	0	0	0	0	0	169	635	0	0	0	0
5:15 PM	0	2	84	0	0	0	61	1	0	0	0	0	0	1	0	0	149		0	0	0	0
5:30 PM	0	0	107	0	0	0	61	0	0	0	0	0	0	0	0	0	168		0	0	0	0
5:45 PM	0	0	102	0	0	0	47	0	0	0	0	0	0	0	0	0	149		0	0	0	0
Count Total	0	6	874	0	0	0	503	3	0	0	0	0	0	1	0	2	1,389		0	0	0	0
Peak Hour	0	3	470	0	0	0	277	2	0	0	0	0	0	0	0	2	754		0	0	0	0



ALL TRAFFIC DATA SERVICES

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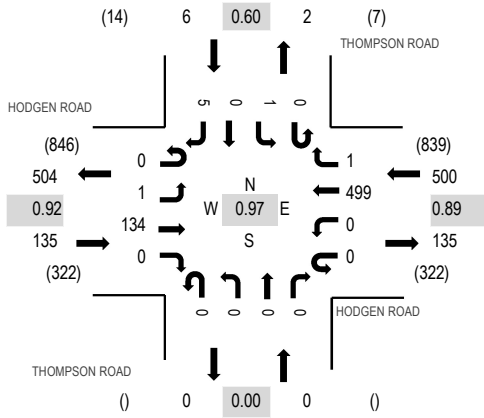
Location: 2 THOMPSON ROAD & HODGEN ROAD AM

Date: Thursday, December 5, 2024

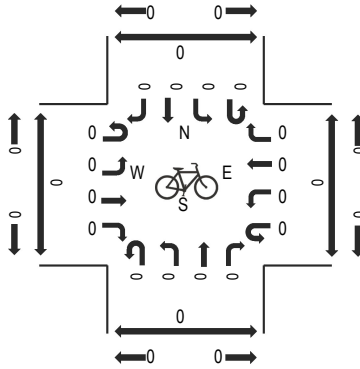
Peak Hour: 07:00 AM - 08:00 AM

Peak 15-Minutes: 07:15 AM - 07:30 AM

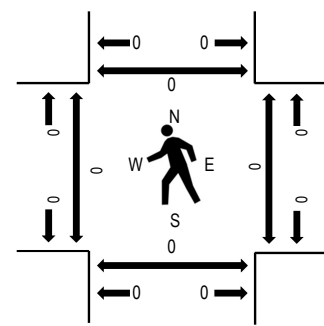
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

Interval Start Time	HODGEN ROAD Eastbound				HODGEN ROAD Westbound				THOMPSON ROAD Northbound				THOMPSON ROAD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	1	32	0	0	0	127	1	0	0	0	0	0	0	0	0	161	641	0	0	0	0
7:15 AM	0	0	23	0	0	0	141	0	0	0	0	0	0	0	0	1	165	610	0	0	0	0
7:30 AM	0	0	28	0	0	0	120	0	0	0	0	0	0	1	0	2	151	585	0	0	0	0
7:45 AM	0	0	51	0	0	0	111	0	0	0	0	0	0	0	0	2	164	573	0	0	0	0
8:00 AM	0	1	40	0	0	0	87	0	0	0	0	0	0	1	0	1	130	534	0	0	0	0
8:15 AM	0	2	45	0	0	0	88	0	0	0	0	0	0	3	0	2	140		0	0	0	0
8:30 AM	0	0	49	0	0	0	90	0	0	0	0	0	0	0	0	0	139		0	0	0	0
8:45 AM	0	1	49	0	0	0	73	1	0	0	0	0	0	0	0	1	125		0	0	0	0
Count Total	0	5	317	0	0	0	837	2	0	0	0	0	0	5	0	9	1,175		0	0	0	0
Peak Hour	0	1	134	0	0	0	499	1	0	0	0	0	0	1	0	5	641		0	0	0	0



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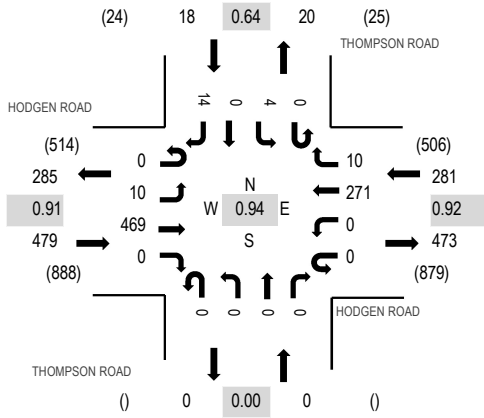
Location: 2 THOMPSON ROAD & HODGEN ROAD PM

Date: Thursday, December 5, 2024

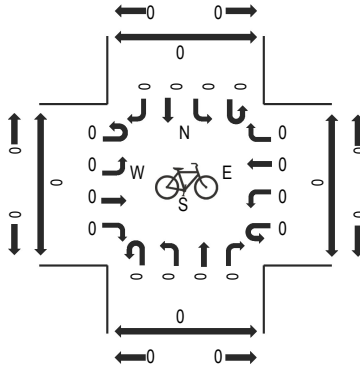
Peak Hour: 04:00 PM - 05:00 PM

Peak 15-Minutes: 04:00 PM - 04:15 PM

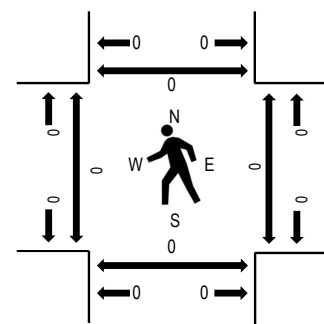
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

Interval Start Time	HODGEN ROAD Eastbound				HODGEN ROAD Westbound				THOMPSON ROAD Northbound				THOMPSON ROAD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	6	119	0	0	0	72	4	0	0	0	0	0	0	0	7	208	778	0	0	0	0
4:15 PM	0	3	128	0	0	0	72	0	0	0	0	0	0	3	0	2	208	743	0	0	0	0
4:30 PM	0	1	111	0	0	0	68	3	0	0	0	0	0	1	0	2	186	685	0	0	0	0
4:45 PM	0	0	111	0	0	0	59	3	0	0	0	0	0	0	0	3	176	667	0	0	0	0
5:00 PM	0	3	111	0	0	0	57	1	0	0	0	0	0	1	0	0	173	640	0	0	0	0
5:15 PM	0	0	86	0	0	0	61	0	0	0	0	0	0	0	0	3	150		0	0	0	0
5:30 PM	0	1	108	0	0	0	59	0	0	0	0	0	0	0	0	0	168		0	0	0	0
5:45 PM	0	0	100	0	0	0	47	0	0	0	0	0	0	0	0	2	149		0	0	0	0
Count Total	0	14	874	0	0	0	495	11	0	0	0	0	0	5	0	19	1,418		0	0	0	0
Peak Hour	0	10	469	0	0	0	271	10	0	0	0	0	0	4	0	14	778		0	0	0	0



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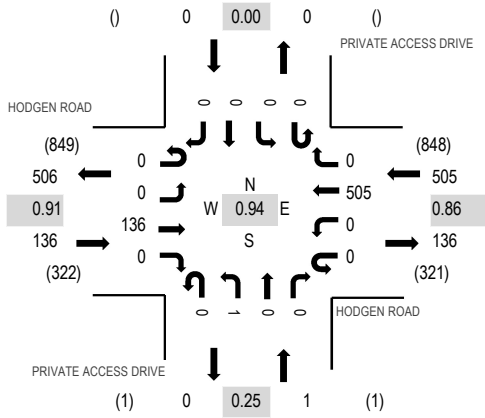
Location: 3 PRIVATE ACCESS DRIVE & HODGEN ROAD AM

Date: Thursday, December 5, 2024

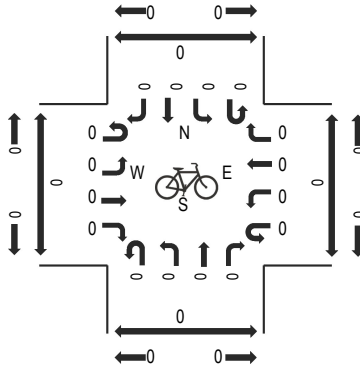
Peak Hour: 07:00 AM - 08:00 AM

Peak 15-Minutes: 07:15 AM - 07:30 AM

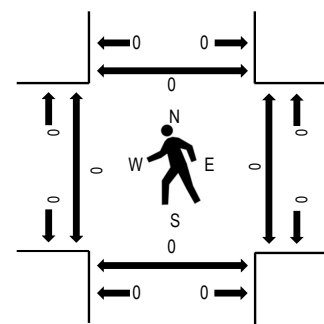
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

Interval Start Time	HODGEN ROAD Eastbound				HODGEN ROAD Westbound				PRIVATE ACCESS DRIVE Northbound				PRIVATE ACCESS DRIVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	33	0	0	0	0	125	0	0	0	0	0	0	0	0	158	642	0	0	0	0
7:15 AM	0	0	24	0	0	0	0	146	0	0	1	0	0	0	0	0	171	614	0	0	0	0
7:30 AM	0	0	29	0	0	0	0	121	0	0	0	0	0	0	0	0	150	578	0	0	0	0
7:45 AM	0	0	50	0	0	0	0	113	0	0	0	0	0	0	0	0	163	565	0	0	0	0
8:00 AM	0	0	41	0	0	0	0	89	0	0	0	0	0	0	0	0	130	529	0	0	0	0
8:15 AM	0	0	45	0	0	0	0	90	0	0	0	0	0	0	0	0	135		0	0	0	0
8:30 AM	0	0	49	0	0	0	0	88	0	0	0	0	0	0	0	0	137		0	0	0	0
8:45 AM	0	0	50	1	0	0	0	76	0	0	0	0	0	0	0	0	127		0	0	0	0
Count Total	0	0	321	1	0	0	0	848	0	0	1	0	0	0	0	0	1,171		0	0	0	0
Peak Hour	0	0	136	0	0	0	0	505	0	0	1	0	0	0	0	0	642		0	0	0	0





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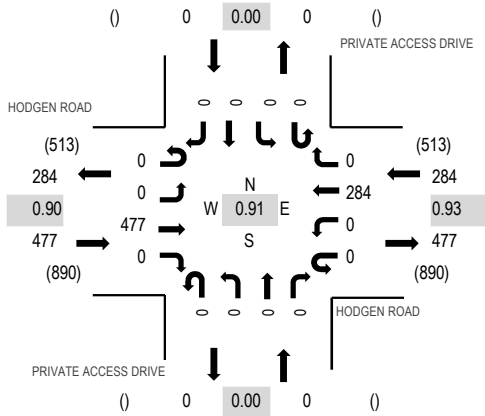
Location: 3 PRIVATE ACCESS DRIVE & HODGEN ROAD PM

Date: Thursday, December 5, 2024

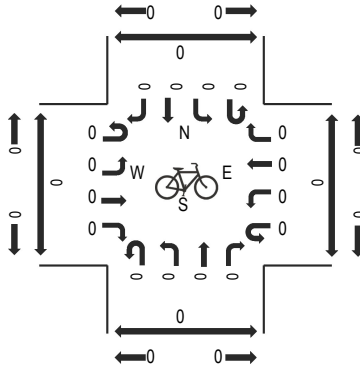
Peak Hour: 04:00 PM - 05:00 PM

Peak 15-Minutes: 04:15 PM - 04:30 PM

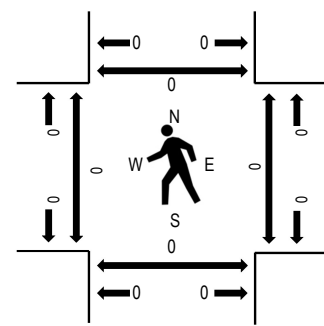
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

Interval Start Time	HODGEN ROAD Eastbound				HODGEN ROAD Westbound				PRIVATE ACCESS DRIVE Northbound				PRIVATE ACCESS DRIVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	125	0	0	0	76	0	0	0	0	0	0	0	0	0	201	761	0	0	0	0
4:15 PM	0	0	132	0	0	0	76	0	0	0	0	0	0	0	0	0	208	732	0	0	0	0
4:30 PM	0	0	110	0	0	0	69	0	0	0	0	0	0	0	0	0	179	674	0	0	0	0
4:45 PM	0	0	110	0	0	0	63	0	0	0	0	0	0	0	0	0	173	662	0	0	0	0
5:00 PM	0	0	115	0	0	0	57	0	0	0	0	0	0	0	0	0	172	642	0	0	0	0
5:15 PM	0	0	86	0	0	0	64	0	0	0	0	0	0	0	0	0	150		0	0	0	0
5:30 PM	0	0	108	0	0	0	59	0	0	0	0	0	0	0	0	0	167		0	0	0	0
5:45 PM	0	0	104	0	0	0	49	0	0	0	0	0	0	0	0	0	153		0	0	0	0
Count Total	0	0	890	0	0	0	513	0	0	0	0	0	0	0	0	0	1,403		0	0	0	0
Peak Hour	0	0	477	0	0	0	284	0	0	0	0	0	0	0	0	0	761		0	0	0	0



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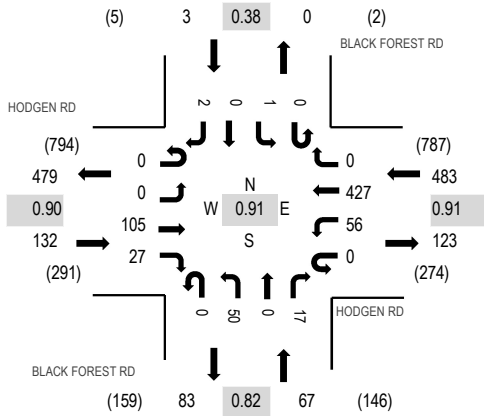
Location: 2 BLACK FOREST RD & HODGEN RD AM

Date: Thursday, December 12, 2024

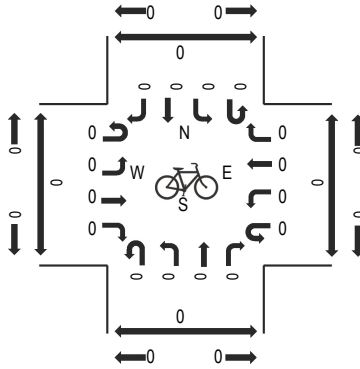
Peak Hour: 07:00 AM - 08:00 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM

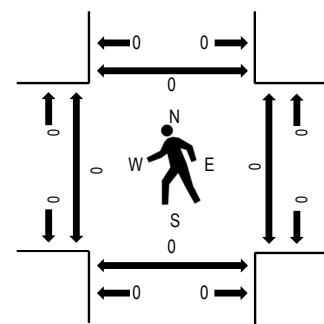
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

Interval Start Time	HODGEN RD Eastbound				HODGEN RD Westbound				BLACK FOREST RD Northbound				BLACK FOREST RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	29	3	0	11	113	0	0	7	0	6	0	0	0	0	169	685	0	0	0	0
7:15 AM	0	0	18	5	0	21	110	0	0	13	0	5	0	0	0	2	174	668	0	0	0	0
7:30 AM	0	0	27	6	0	14	119	0	0	18	0	3	0	1	0	0	188	632	0	0	0	0
7:45 AM	0	0	31	13	0	10	85	0	0	12	0	3	0	0	0	0	154	574	0	0	0	0
8:00 AM	0	0	34	12	0	18	64	0	0	17	0	7	0	0	0	0	152	544	0	0	0	0
8:15 AM	0	0	28	6	0	12	74	0	0	11	0	6	0	0	1	0	138		0	0	0	0
8:30 AM	0	0	33	8	0	7	65	1	0	11	0	5	0	0	0	0	130		0	0	0	0
8:45 AM	0	0	33	5	0	7	55	1	0	18	0	4	0	1	0	0	124		0	0	0	0
Count Total	0	0	233	58	0	100	685	2	0	107	0	39	0	2	1	2	1,229		0	0	0	0
Peak Hour	0	0	105	27	0	56	427	0	0	50	0	17	0	1	0	2	685		0	0	0	0



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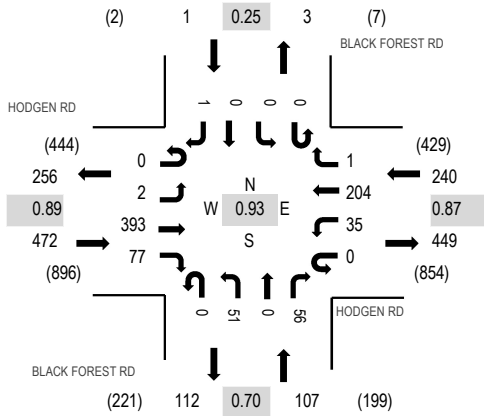
Location: 2 BLACK FOREST RD & HODGEN RD PM

Date: Thursday, December 12, 2024

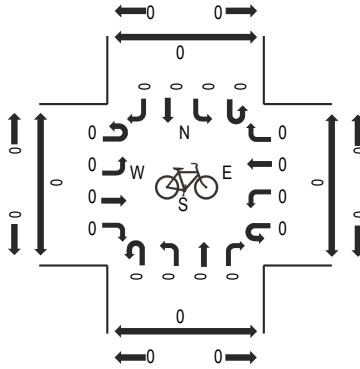
Peak Hour: 04:00 PM - 05:00 PM

Peak 15-Minutes: 04:00 PM - 04:15 PM

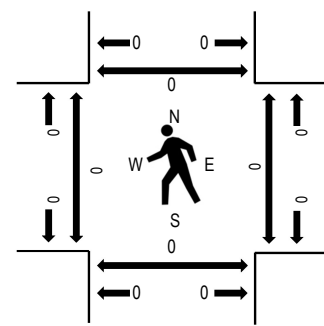
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

Interval Start Time	HODGEN RD Eastbound				HODGEN RD Westbound				BLACK FOREST RD Northbound				BLACK FOREST RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	113	20	0	5	45	0	0	15	0	23	0	0	0	0	221	820	0	0	0	0
4:15 PM	0	0	103	22	0	13	57	1	0	13	0	9	0	0	0	1	219	794	0	0	0	0
4:30 PM	0	0	76	14	0	9	43	0	0	11	0	12	0	0	0	0	165	769	0	0	0	0
4:45 PM	0	2	101	21	0	8	59	0	0	12	0	12	0	0	0	0	215	778	0	0	0	0
5:00 PM	0	0	90	22	0	10	46	0	0	12	0	15	0	0	0	0	195	706	0	0	0	0
5:15 PM	0	0	102	17	0	5	44	0	0	11	0	15	0	0	0	0	194		0	0	0	0
5:30 PM	0	0	87	16	0	10	39	0	0	7	2	13	0	0	0	0	174		0	0	0	0
5:45 PM	0	1	69	20	0	9	25	1	0	3	0	14	0	0	0	1	143		0	0	0	0
Count Total	0	3	741	152	0	69	358	2	0	84	2	113	0	0	0	2	1,526		0	0	0	0
Peak Hour	0	2	393	77	0	35	204	1	0	51	0	56	0	0	0	1	820		0	0	0	0

Start Time	12-Dec-24 Thu	EB	WB	Total
12:00 AM		12	5	17
01:00		9	3	12
02:00		3	3	6
03:00		2	19	21
04:00		9	57	66
05:00		15	159	174
06:00		57	277	334
07:00		132	479	611
08:00		159	315	474
09:00		159	258	417
10:00		168	252	420
11:00		217	210	427
12:00 PM		201	209	410
01:00		186	200	386
02:00		283	218	501
03:00		368	240	608
04:00		472	256	728
05:00		424	188	612
06:00		310	124	434
07:00		194	57	251
08:00		156	66	222
09:00		118	34	152
10:00		74	16	90
11:00		36	9	45
Total		3764	3654	7418
Percent		50.7%	49.3%	
AM Peak	-	11:00	07:00	-
Vol.	-	217	479	-
PM Peak	-	16:00	16:00	-
Vol.	-	472	256	-
Grand Total		3764	3654	7418
Percent		50.7%	49.3%	
ADT		ADT 7,418	AADT 7,418	

## **APPENDIX B**

### **Level of Service Definitions**

The following information is referenced from the Highway Capacity Manual: A Guide for Multimodal Mobility Analysis, 7<sup>th</sup> Edition, Transportation Research Board, 2022: Chapter 19 – Signalized Intersections.

### **Motorized Vehicle Level of Service (LOS) for Signalized Intersections**

Levels of service are defined to represent reasonable ranges in control delay.

**LOS A** Describes operations with a control delay of 10 s/veh or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

**LOS B** Describes operations with control delay between 10 and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

**LOS C** Describes operations with control delay between 20 and 35 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate. Individual *cycle failures* (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.

**LOS D** Describes operations with control delay between 35 and 55 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.

**LOS E** Describes operations with control delay between 55 and 80 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.

**LOS F** Describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio <sup>a</sup>	
	$v/c \leq 1.0$	$v/c > 1.0$
$\leq 10$	A	F
$> 10 - 20$	B	F
$> 20 - 35$	C	F
$> 35 - 55$	D	F
$> 55 - 80$	E	F
$> 80$	F	F

Note: <sup>a</sup> For approach-based and intersectionwide assessments, LOS is defined solely by control delay.

The following information is referenced from the Highway Capacity Manual: A Guide for Multimodal Mobility Analysis, 7<sup>th</sup> Edition, Transportation Research Board, 2022: Chapter 20 – Two-Way Stop-Controlled Intersections, Chapter 21 – All-Way Stop-Controlled Intersections, and Chapter 22 - Roundabouts.

### **Motorized Vehicle Level of Service (LOS) for Unsignalized & Roundabout Intersections**

LOS is a quantitative stratification of performance measure(s) representing quality of service. Quality of service describes how well a transportation facility or service operates from a traveler's perspective. LOS is measured on an A – F scale, with LOS A representing the best operating conditions from a traveler's perspective.

Control Delay (s/veh)	<u>LOS by Volume-to-Capacity Ratio<sup>a</sup></u>	
	$v/c \leq 1.0$	$v/c > 1.0$
0 – 10	A	F
> 10 – 15	B	F
> 15 – 25	C	F
> 25 – 35	D	F
> 35 – 50	E	F
> 50	F	F

Note: The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection as a whole.

<sup>a</sup> For approaches and intersectionwide assessment, LOS is defined solely by control delay.

## **APPENDIX C**

### **Capacity Worksheets**



HCM 7th TWSC  
1: Black Forest Road & Hodgen Road

Existing Traffic Conditions  
AM Peak Hour

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔	↔	↔			↔			↔	
Traffic Vol, veh/h	0	105	27	56	427	0	50	0	17	1	0	2
Future Vol, veh/h	0	105	27	56	427	0	50	0	17	1	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	260	290	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	95	95	95	90	90	90	75	75	75
Heavy Vehicles, %	100	9	4	2	5	100	8	0	10	0	0	0
Mvmt Flow	0	127	33	59	449	0	56	0	19	1	0	3




Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	449	0	0	159	0	0	694	694	127	694	726	449
Stage 1	-	-	-	-	-	-	127	127	-	567	567	-
Stage 2	-	-	-	-	-	-	567	567	-	127	159	-
Critical Hdwy	5.1	-	-	4.12	-	-	7.18	6.5	6.3	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.18	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.18	5.5	-	6.1	5.5	-
Follow-up Hdwy	3.1	-	-	2.218	-	-	3.572	4	3.39	3.5	4	3.3
Pot Cap-1 Maneuver	741	-	-	1420	-	-	349	369	903	360	353	614
Stage 1	-	-	-	-	-	-	863	795	-	512	510	-
Stage 2	-	-	-	-	-	-	498	510	-	882	770	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	741	-	-	1420	-	-	333	354	903	338	339	614
Mov Cap-2 Maneuver	-	-	-	-	-	-	333	354	-	338	339	-
Stage 1	-	-	-	-	-	-	863	795	-	490	489	-
Stage 2	-	-	-	-	-	-	475	489	-	864	770	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0.89	16.15	12.53
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	397	741	-	-	1420	-	-	482
HCM Lane V/C Ratio	0.188	-	-	-	0.042	-	-	0.008
HCM Control Delay (s/veh)	16.2	0	-	-	7.6	-	-	12.5
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.7	0	-	-	0.1	-	-	0

HCM 7th TWSC  
2: Hodgen Road & Ridgeback Road

Existing Traffic Conditions  
AM Peak Hour

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	136	497	0	0	5
Future Vol, veh/h	0	136	497	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	148	540	0	0	5
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	540	0	-	0	688	540
Stage 1	-	-	-	-	540	-
Stage 2	-	-	-	-	148	-
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	1028	-	-	-	412	542
Stage 1	-	-	-	-	584	-
Stage 2	-	-	-	-	880	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1028	-	-	-	412	542
Mov Cap-2 Maneuver	-	-	-	-	412	-
Stage 1	-	-	-	-	584	-
Stage 2	-	-	-	-	880	-
Approach	EB	WB		SB		
HCM Control Delay, s/v	0	0		11.71		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1028	-	-	-	-	542
HCM Lane V/C Ratio	-	-	-	-	-	0.01
HCM Control Delay (s/veh)	0	-	-	-	-	11.7
HCM Lane LOS	A	-	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	-	0

HCM 7th TWSC  
3: Hodgen Road & Thompson Road

Existing Traffic Conditions  
AM Peak Hour

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	1	134	499	1	1	5
Future Vol, veh/h	1	134	499	1	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	146	542	1	1	5

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	543	0	0 691 543
Stage 1	-	-	- 543 -
Stage 2	-	-	- 148 -
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	1025	-	- 411 540
Stage 1	-	-	- 582 -
Stage 2	-	-	- 880 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1025	-	- 410 540
Mov Cap-2 Maneuver	-	-	- 410 -
Stage 1	-	-	- 582 -
Stage 2	-	-	- 880 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0.06	0	12.11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	13	-	-	-	513
HCM Lane V/C Ratio	0.001	-	-	-	0.013
HCM Control Delay (s/veh)	8.5	0	-	-	12.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 7th TWSC  
4: Private Access & Hodgen Road

Existing Traffic Conditions  
AM Peak Hour

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Traffic Vol, veh/h	136	0	0	505	1	0
Future Vol, veh/h	136	0	0	505	1	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	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	148	0	0	549	1	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	148
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1434
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1434
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	13.86
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	407	-	-	1434	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s/veh)	13.9	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 7th TWSC  
1: Black Forest Road & Hodgen Road

Existing Traffic Conditions  
PM Peak Hour

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔	↔	↔			↔			↔	
Traffic Vol, veh/h	2	393	77	35	204	1	51	0	56	0	0	1
Future Vol, veh/h	2	393	77	35	204	1	51	0	56	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	260	290	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	95	95	95	90	90	90	75	75	75
Heavy Vehicles, %	100	9	4	2	5	100	8	0	10	0	0	0
Mvmt Flow	2	473	93	37	215	1	57	0	62	0	0	1





Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	216	0	0	566	0	0	767	768	473	767	860	215
Stage 1	-	-	-	-	-	-	478	478	-	289	289	-
Stage 2	-	-	-	-	-	-	288	289	-	478	571	-
Critical Hdwy	5.1	-	-	4.12	-	-	7.18	6.5	6.3	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.18	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.18	5.5	-	6.1	5.5	-
Follow-up Hdwy	3.1	-	-	2.218	-	-	3.572	4	3.39	3.5	4	3.3
Pot Cap-1 Maneuver	937	-	-	1006	-	-	312	334	575	321	296	830
Stage 1	-	-	-	-	-	-	557	559	-	723	677	-
Stage 2	-	-	-	-	-	-	706	676	-	572	508	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	937	-	-	1006	-	-	299	321	575	275	284	830
Mov Cap-2 Maneuver	-	-	-	-	-	-	299	321	-	275	284	-
Stage 1	-	-	-	-	-	-	555	557	-	697	652	-
Stage 2	-	-	-	-	-	-	679	652	-	508	506	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.04	1.27	17.8	9.35
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	399	9	-	-	1006	-	-	830
HCM Lane V/C Ratio	0.298	0.003	-	-	0.037	-	-	0.002
HCM Control Delay (s/veh)	17.8	8.9	0	-	8.7	-	-	9.3
HCM Lane LOS	C	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	1.2	0	-	-	0.1	-	-	0

HCM 7th TWSC  
2: Hodgen Road & Ridgeback Road

Existing Traffic Conditions  
PM Peak Hour

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	470	277	2	0	2
Future Vol, veh/h	3	470	277	2	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	511	301	2	0	2

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	303	0	0 820 302
Stage 1	-	-	- - 302 -
Stage 2	-	-	- - 517 -
Critical Hdwy	4.12	-	- - 6.42 6.22
Critical Hdwy Stg 1	-	-	- - 5.42 -
Critical Hdwy Stg 2	-	-	- - 5.42 -
Follow-up Hdwy	2.218	-	- - 3.518 3.318
Pot Cap-1 Maneuver	1258	-	- - 345 737
Stage 1	-	-	- - 750 -
Stage 2	-	-	- - 598 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1258	-	- - 344 737
Mov Cap-2 Maneuver	-	-	- - 344 -
Stage 1	-	-	- - 747 -
Stage 2	-	-	- - 598 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0.05	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	11	-	-	-	737
HCM Lane V/C Ratio	0.003	-	-	-	0.003
HCM Control Delay (s/veh)	7.9	0	-	-	9.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 7th TWSC  
3: Hodgen Road & Thompson Road

Existing Traffic Conditions  
PM Peak Hour

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	10	469	271	10	4	14
Future Vol, veh/h	10	469	271	10	4	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	510	295	11	4	15




Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	305	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1255	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1255	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.16	0	11.39
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	38	-	-	-	583
HCM Lane V/C Ratio	0.009	-	-	-	0.034
HCM Control Delay (s/veh)	7.9	0	-	-	11.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

HCM 7th TWSC  
4: Private Access & Hodgen Road

Existing Traffic Conditions  
PM Peak Hour

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	477	0	0	284	0	0
Future Vol, veh/h	477	0	0	284	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	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	518	0	0	309	0	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	518	0	827	518
Stage 1	-	-	-	-	518	-
Stage 2	-	-	-	-	309	-
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	-	-	1048	-	341	557
Stage 1	-	-	-	-	598	-
Stage 2	-	-	-	-	745	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1048	-	341	557
Mov Cap-2 Maneuver	-	-	-	-	341	-
Stage 1	-	-	-	-	598	-
Stage 2	-	-	-	-	745	-
Approach	EB		WB		NB	
HCM Control Delay, s/v	0		0		0	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	-	-	-	1048	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Control Delay (s/veh)	0	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	-	-	-	0	-	



HCM 7th TWSC  
1: Black Forest Road & Hodgen Road

Background Traffic Conditions  
AM Peak Hour - Year 2027

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕	↕	↕			↕			↕	
Traffic Vol, veh/h	0	111	29	59	453	0	53	0	18	1	0	2
Future Vol, veh/h	0	111	29	59	453	0	53	0	18	1	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	260	290	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	95	95	95	90	90	90	75	75	75
Heavy Vehicles, %	100	9	4	2	5	100	8	0	10	0	0	0
Mvmt Flow	0	134	35	62	477	0	59	0	20	1	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	477	0	0	169	0	0	735	735	134	735	770	477
Stage 1	-	-	-	-	-	-	134	134	-	601	601	-
Stage 2	-	-	-	-	-	-	601	601	-	134	169	-
Critical Hdwy	5.1	-	-	4.12	-	-	7.18	6.5	6.3	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.18	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.18	5.5	-	6.1	5.5	-
Follow-up Hdwy	3.1	-	-	2.218	-	-	3.572	4	3.39	3.5	4	3.3
Pot Cap-1 Maneuver	721	-	-	1409	-	-	328	349	894	338	334	592
Stage 1	-	-	-	-	-	-	855	790	-	491	493	-
Stage 2	-	-	-	-	-	-	477	493	-	874	763	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	721	-	-	1409	-	-	312	334	894	316	319	592
Mov Cap-2 Maneuver	-	-	-	-	-	-	312	334	-	316	319	-
Stage 1	-	-	-	-	-	-	855	790	-	469	471	-
Stage 2	-	-	-	-	-	-	454	471	-	855	763	-




Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0.88	17.19	12.92
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	374	721	-	-	1409	-	-	459
HCM Lane V/C Ratio	0.211	-	-	-	0.044	-	-	0.009
HCM Control Delay (s/veh)	17.2	0	-	-	7.7	-	-	12.9
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.8	0	-	-	0.1	-	-	0

# HCM 7th TWSC

## 2: Hodgen Road & Ridgeback Road





Background Traffic Conditions  
AM Peak Hour - Year 2027

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	144	527	0	0	5
Future Vol, veh/h	0	144	527	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	157	573	0	0	5
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	573	0	-	0	729	573
Stage 1	-	-	-	-	573	-
Stage 2	-	-	-	-	157	-
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	1000	-	-	-	390	519
Stage 1	-	-	-	-	564	-
Stage 2	-	-	-	-	872	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1000	-	-	-	390	519
Mov Cap-2 Maneuver	-	-	-	-	390	-
Stage 1	-	-	-	-	564	-
Stage 2	-	-	-	-	872	-
Approach	EB	WB		SB		
HCM Control Delay, s/v	0	0		12.01		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1000	-	-	-	519	
HCM Lane V/C Ratio	-	-	-	-	0.01	
HCM Control Delay (s/veh)	0	-	-	-	12	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0	

# HCM 7th TWSC

## 3: Hodgen Road & Thompson Road

Background Traffic Conditions  
AM Peak Hour - Year 2027

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	142	529	1	1	5
Future Vol, veh/h	1	142	529	1	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	154	575	1	1	5




Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	576	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	997	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	997	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.06	0	12.45
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	13	-	-	-	490
HCM Lane V/C Ratio	0.001	-	-	-	0.013
HCM Control Delay (s/veh)	8.6	0	-	-	12.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 7th TWSC  
4: Private Access & Hodgen Road

Background Traffic Conditions  
AM Peak Hour - Year 2027

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	144	0	0	536	1	0
Future Vol, veh/h	144	0	0	536	1	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	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	157	0	0	583	1	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	157	0	739
Stage 1	-	-	-	-	157
Stage 2	-	-	-	-	583
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1423	-	385
Stage 1	-	-	-	-	872
Stage 2	-	-	-	-	558
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1423	-	385
Mov Cap-2 Maneuver	-	-	-	-	385
Stage 1	-	-	-	-	872
Stage 2	-	-	-	-	558

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	14.39
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	385	-	-	1423	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s/veh)	14.4	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 7th TWSC  
1: Black Forest Road & Hodgen Road

Background Traffic Conditions  
PM Peak Hour - Year 2027

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔	↔	↔			↔			↔	
Traffic Vol, veh/h	2	417	82	37	216	1	54	0	59	0	0	1
Future Vol, veh/h	2	417	82	37	216	1	54	0	59	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	260	290	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	95	95	95	90	90	90	75	75	75
Heavy Vehicles, %	100	9	4	2	5	100	8	0	10	0	0	0
Mvmt Flow	2	502	99	39	227	1	60	0	66	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	228	0	0	601	0	0	812	814	502	813	912	228
Stage 1	-	-	-	-	-	-	507	507	-	306	306	-
Stage 2	-	-	-	-	-	-	305	306	-	507	606	-
Critical Hdwy	5.1	-	-	4.12	-	-	7.18	6.5	6.3	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.18	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.18	5.5	-	6.1	5.5	-
Follow-up Hdwy	3.1	-	-	2.218	-	-	3.572	4	3.39	3.5	4	3.3
Pot Cap-1 Maneuver	926	-	-	976	-	-	290	315	553	299	276	816
Stage 1	-	-	-	-	-	-	537	542	-	708	665	-
Stage 2	-	-	-	-	-	-	692	665	-	552	490	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	926	-	-	976	-	-	277	301	553	252	264	816
Mov Cap-2 Maneuver	-	-	-	-	-	-	277	301	-	252	264	-
Stage 1	-	-	-	-	-	-	535	540	-	680	639	-
Stage 2	-	-	-	-	-	-	663	638	-	484	488	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.04	1.29	19.36	9.42
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	375	9	-	-	976	-	-	816
HCM Lane V/C Ratio	0.335	0.003	-	-	0.04	-	-	0.002
HCM Control Delay (s/veh)	19.4	8.9	0	-	8.8	-	-	9.4
HCM Lane LOS	C	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	1.4	0	-	-	0.1	-	-	0

# HCM 7th TWSC

## 2: Hodgen Road & Ridgeback Road

Background Traffic Conditions  
PM Peak Hour - Year 2027

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	3	499	294	2	0	2
Future Vol, veh/h	3	499	294	2	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	542	320	2	0	2

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	322	0	0 870 321
Stage 1	-	-	- 321 -
Stage 2	-	-	- 549 -
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	1238	-	- 322 720
Stage 1	-	-	- 736 -
Stage 2	-	-	- 579 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1238	-	- 321 720
Mov Cap-2 Maneuver	-	-	- 321 -
Stage 1	-	-	- 733 -
Stage 2	-	-	- 579 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0.05	0	10.01
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	11	-	-	-	720
HCM Lane V/C Ratio	0.003	-	-	-	0.003
HCM Control Delay (s/veh)	7.9	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

# HCM 7th TWSC

## 3: Hodgen Road & Thompson Road

Background Traffic Conditions  
PM Peak Hour - Year 2027

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		↰	↱
Traffic Vol, veh/h	11	498	288	11	4	15
Future Vol, veh/h	11	498	288	11	4	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	541	313	12	4	16




Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	325	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1235	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1235	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.17	0	11.61
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	39	-	-	-	565
HCM Lane V/C Ratio	0.01	-	-	-	0.037
HCM Control Delay (s/veh)	7.9	0	-	-	11.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

HCM 7th TWSC  
4: Private Access & Hodgen Road

Background Traffic Conditions  
PM Peak Hour - Year 2027

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	506	0	0	301	0	0
Future Vol, veh/h	506	0	0	301	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	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	550	0	0	327	0	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	550	0	877	550
Stage 1	-	-	-	-	550	-
Stage 2	-	-	-	-	327	-
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	-	-	1020	-	319	535
Stage 1	-	-	-	-	578	-
Stage 2	-	-	-	-	731	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1020	-	319	535
Mov Cap-2 Maneuver	-	-	-	-	319	-
Stage 1	-	-	-	-	578	-
Stage 2	-	-	-	-	731	-
Approach	EB		WB		NB	
HCM Control Delay, s/v	0		0		0	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	-	-	-	1020	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Control Delay (s/veh)	0	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	-	-	-	0	-	



HCM 7th TWSC  
1: Black Forest Road & Hodgen Road

Total Traffic Conditions  
AM Peak Hour - Year 2027

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗	↖	↗			↕			↕	
Traffic Vol, veh/h	0	112	29	59	453	0	53	0	18	1	0	2
Future Vol, veh/h	0	112	29	59	453	0	53	0	18	1	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	260	290	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	95	95	95	90	90	90	75	75	75
Heavy Vehicles, %	100	9	4	2	5	100	8	0	10	0	0	0
Mvmt Flow	0	135	35	62	477	0	59	0	20	1	0	3




Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	477	0	0	170	0	0	736	736	135	736	771	477
Stage 1	-	-	-	-	-	-	135	135	-	601	601	-
Stage 2	-	-	-	-	-	-	601	601	-	135	170	-
Critical Hdwy	5.1	-	-	4.12	-	-	7.18	6.5	6.3	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.18	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.18	5.5	-	6.1	5.5	-
Follow-up Hdwy	3.1	-	-	2.218	-	-	3.572	4	3.39	3.5	4	3.3
Pot Cap-1 Maneuver	721	-	-	1407	-	-	327	349	893	337	333	592
Stage 1	-	-	-	-	-	-	854	789	-	491	493	-
Stage 2	-	-	-	-	-	-	477	493	-	873	762	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	721	-	-	1407	-	-	311	333	893	315	318	592
Mov Cap-2 Maneuver	-	-	-	-	-	-	311	333	-	315	318	-
Stage 1	-	-	-	-	-	-	854	789	-	469	471	-
Stage 2	-	-	-	-	-	-	454	471	-	854	762	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0			0.88			17.22			12.93		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	373	721	-	-	1407	-	-	458
HCM Lane V/C Ratio	0.212	-	-	-	0.044	-	-	0.009
HCM Control Delay (s/veh)	17.2	0	-	-	7.7	-	-	12.9
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.8	0	-	-	0.1	-	-	0

HCM 7th TWSC  
2: Hodgen Road & Ridgeback Road

Total Traffic Conditions  
AM Peak Hour - Year 2027

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	145	527	0	0	5
Future Vol, veh/h	0	145	527	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	158	573	0	0	5
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	573	0	-	0	730	573
Stage 1	-	-	-	-	573	-
Stage 2	-	-	-	-	158	-
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	1000	-	-	-	389	519
Stage 1	-	-	-	-	564	-
Stage 2	-	-	-	-	871	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1000	-	-	-	389	519
Mov Cap-2 Maneuver	-	-	-	-	389	-
Stage 1	-	-	-	-	564	-
Stage 2	-	-	-	-	871	-
Approach	EB	WB		SB		
HCM Control Delay, s/v	0	0		12.01		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1000	-	-	-	519	
HCM Lane V/C Ratio	-	-	-	-	0.01	
HCM Control Delay (s/veh)	0	-	-	-	12	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0	

HCM 7th TWSC  
3: Hodgen Road & Thompson Road

Total Traffic Conditions  
AM Peak Hour - Year 2027

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	1	143	529	1	1	5
Future Vol, veh/h	1	143	529	1	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	155	575	1	1	5

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	576	0	0 733 576
Stage 1	-	-	- 576 -
Stage 2	-	-	- 158 -
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	997	-	- 388 517
Stage 1	-	-	- 562 -
Stage 2	-	-	- 871 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	997	-	- 387 517
Mov Cap-2 Maneuver	-	-	- 387 -
Stage 1	-	-	- 562 -
Stage 2	-	-	- 871 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0.06	0	12.45
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	12	-	-	-	490
HCM Lane V/C Ratio	0.001	-	-	-	0.013
HCM Control Delay (s/veh)	8.6	0	-	-	12.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 7th TWSC  
4: Private Access & Hodgen Road

Total Traffic Conditions  
AM Peak Hour - Year 2027

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Traffic Vol, veh/h	144	1	0	536	2	1
Future Vol, veh/h	144	1	0	536	2	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	157	1	0	583	2	1

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	158	0	740	157
Stage 1	-	-	-	-	157	-
Stage 2	-	-	-	-	583	-
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	-	-	1422	-	384	888
Stage 1	-	-	-	-	871	-
Stage 2	-	-	-	-	558	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1422	-	384	888
Mov Cap-2 Maneuver	-	-	-	-	384	-
Stage 1	-	-	-	-	871	-
Stage 2	-	-	-	-	558	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	12.65
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	474	-	-	1422	-
HCM Lane V/C Ratio	0.007	-	-	-	-
HCM Control Delay (s/veh)	12.6	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 7th TWSC  
1: Black Forest Road & Hodgen Road

Total Traffic Conditions  
PM Peak Hour - Year 2027

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔	↔	↔			↔			↔	
Traffic Vol, veh/h	2	418	82	37	217	1	54	0	59	0	0	1
Future Vol, veh/h	2	418	82	37	217	1	54	0	59	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	260	290	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	95	95	95	90	90	90	75	75	75
Heavy Vehicles, %	100	9	4	2	5	100	8	0	10	0	0	0
Mvmt Flow	2	504	99	39	228	1	60	0	66	0	0	1




Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	229	0	0	602	0	0	815	816	504	815	914	229
Stage 1	-	-	-	-	-	-	508	508	-	307	307	-
Stage 2	-	-	-	-	-	-	306	307	-	508	607	-
Critical Hdwy	5.1	-	-	4.12	-	-	7.18	6.5	6.3	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.18	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.18	5.5	-	6.1	5.5	-
Follow-up Hdwy	3.1	-	-	2.218	-	-	3.572	4	3.39	3.5	4	3.3
Pot Cap-1 Maneuver	925	-	-	975	-	-	289	314	552	298	275	815
Stage 1	-	-	-	-	-	-	536	542	-	707	665	-
Stage 2	-	-	-	-	-	-	691	664	-	551	489	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	925	-	-	975	-	-	276	300	552	251	263	815
Mov Cap-2 Maneuver	-	-	-	-	-	-	276	300	-	251	263	-
Stage 1	-	-	-	-	-	-	534	540	-	679	638	-
Stage 2	-	-	-	-	-	-	662	638	-	484	487	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.04	1.28	19.42	9.42
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	374	9	-	-	975	-	-	815
HCM Lane V/C Ratio	0.336	0.003	-	-	0.04	-	-	0.002
HCM Control Delay (s/veh)	19.4	8.9	0	-	8.8	-	-	9.4
HCM Lane LOS	C	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	1.4	0	-	-	0.1	-	-	0

HCM 7th TWSC  
2: Hodgen Road & Ridgeback Road

Total Traffic Conditions  
PM Peak Hour - Year 2027

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	500	295	2	0	2
Future Vol, veh/h	3	500	295	2	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	543	321	2	0	2




Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	323	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1237	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1237	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.05	0	10.02
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	11	-	-	-	719
HCM Lane V/C Ratio	0.003	-	-	-	0.003
HCM Control Delay (s/veh)	7.9	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 7th TWSC  
3: Hodgen Road & Thompson Road

Total Traffic Conditions  
PM Peak Hour - Year 2027

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	499	289	11	4	15
Future Vol, veh/h	11	499	289	11	4	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	542	314	12	4	16




Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	326	0	886
Stage 1	-	-	320
Stage 2	-	-	566
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1234	-	315
Stage 1	-	-	736
Stage 2	-	-	568
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1234	-	310
Mov Cap-2 Maneuver	-	-	310
Stage 1	-	-	726
Stage 2	-	-	568

Approach	EB	WB	SB
HCM Control Delay, s/v	0.17	0	11.63
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	39	-	-	-	564
HCM Lane V/C Ratio	0.01	-	-	-	0.037
HCM Control Delay (s/veh)	7.9	0	-	-	11.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

HCM 7th TWSC  
4: Private Access & Hodgen Road

Total Traffic Conditions  
PM Peak Hour - Year 2027

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	506	1	1	301	1	1
Future Vol, veh/h	506	1	1	301	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	550	1	1	327	1	1

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	551
Stage 1	-	-	551
Stage 2	-	-	329
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	1019	318
Stage 1	-	-	578
Stage 2	-	-	729
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1019	317
Mov Cap-2 Maneuver	-	-	317
Stage 1	-	-	578
Stage 2	-	-	728

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.03	14.09
HCM LOS	B		

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	398	-	-	6	-
HCM Lane V/C Ratio	0.005	-	-	0.001	-
HCM Control Delay (s/veh)	14.1	-	-	8.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-



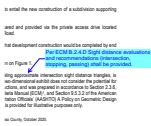
## **APPENDIX D**

### **Intersection Sight Distance Exhibit**



# ENG-SF25015-R1-Traffic Memo.pdf Markup Summary

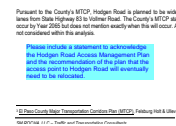
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**Page Index:** 4  
**Date:** 5/16/2025 10:22:52 AM  
**Author:** Bret  
**Color:** ■  
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Per ECM B.2.4.D Sight distance evaluations and recommendations (intersection, stopping, passing) shall be provided.

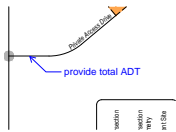
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**Date:** 5/16/2025 1:34:02 PM  
**Author:** Bret  
**Color:** ■  
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Please include a statement to acknowledge the Hodgen Road Access Management Plan and the recommendation of the plan that the access point to Hodgen Road will eventually need to be relocated.

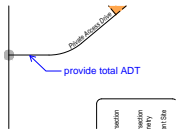
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provide total ADT

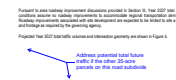
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provide total ADT

17 (3)




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**Page Index:** 17  
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Address potential total future traffic if the other 35-acre parcels on this road subdivide



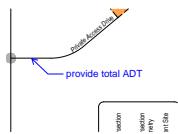



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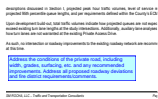
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provide total ADT

21 (1)



**Subject:** Text Box  
**Page Index:** 21  
**Date:** 5/7/2025 5:08:20 PM  
**Author:** Jeff Rice - EPC Engineering Review  
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Address the conditions of the private road, including width, grades, surfacing, etc. and any recommended improvements. Address all proposed roadway deviations and fire district requirements/comments.